All in it together? The experience of different labour market groups following the crisis

Please cite this chapter as:

http://dx.doi.org/10.1787/empl_outlook-2013-5-en
Chapter 1

All in it together?
The experience of different labour market groups following the crisis

This chapter assesses recent developments in the labour market situation in OECD countries and discusses the short-term outlook based on the latest OECD projections. A special focus is given to documenting how different socio-economic groups have fared since the start of the global financial crisis. The situation of older workers is analysed in more detail as, unlike for the other groups, they have fared better than in the aftermath of previous major economic downturns. An assessment is also made of whether this improvement for older workers has come at the expense of poorer employment outcomes for youth. This issue is of particular importance given that governments may come under pressure to resort to measures that encourage older workers to withdraw from the labour market in the hope that this frees up jobs for young workers.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.
Key findings

The global recovery in the past four years has been generally weak and uneven, with increasingly divergent developments across countries. Aggregate demand remains depressed in many countries and the labour market in most OECD countries still bears the scars of the financial and economic crisis. As a result, governments in many countries are confronting a range of labour market challenges:

● A large and persistent jobs gap. The jobs gap for the OECD area, a measure of the cyclical shortfall in employment based on the difference between actual and potential employment, has increased by 2.4 percentage points since the start of the crisis to the last quarter of 2012. According to the latest OECD projections, the jobs gap is expected to narrow to 1.9% at the end of 2014. However, in all euro area countries, except Estonia and Germany, the jobs gap is expected to widen further through to the end of 2014. In most other countries with relatively large jobs gaps, such as Denmark, New Zealand and the United States, it is expected to narrow.

● Unemployment remains persistently high. As of April 2013, the OECD-wide unemployment rate stood at 8.0%, only half a percentage point down from its peak level of 8.5% reached in 2009. Across the OECD, more than 48 million persons are unemployed, almost 16 million more than at the start of the crisis. According to the latest OECD projections, the unemployment rate is projected to stay broadly constant in the OECD area until the end of 2014.

❖ The cross-country variation in unemployment rates has risen markedly since the start of the crisis. The unemployment rate has remained at or below 5% in five countries (Austria, Japan, Korea, Norway and Switzerland) but exceeds 25% in two countries (Greece and Spain).

❖ The largest increases in the unemployment rates since the onset of the crisis occurred in Greece and Spain (more than 18 percentage points) followed by Ireland, Italy, Slovenia and Portugal (5 to 10 percentage points). By contrast, in Japan and Korea, unemployment rates are less than half of a percentage point above their pre-crisis levels, while in Chile, Germany, Israel and Turkey, unemployment rates are now lower than at the start of the crisis.

❖ The latest OECD projections point to further increases in unemployment of one percentage point or more through to the end of 2014 in six European countries (Greece, Italy, the Netherlands, Poland, Portugal and Spain), while reductions of at least half a percentage point are expected in five countries (Canada, Estonia, Iceland, New Zealand and the United States).

● Slowing real earnings growth. Slower growth in real earnings is helping to restore lost competitiveness in a number of countries where wage growth often exceeded labour productivity growth prior to the crisis, but it is putting additional financial pressures on households and holding back demand. It reflects a variety of factors including the
reduced bargaining power of workers in the context of high unemployment, the role of negotiated wage restraints between the social partners in collective bargaining agreements or jobs pacts to prevent (further) job losses (e.g. Austria, Germany and Sweden) and wage cuts/freezes in the public sector (e.g. Greece, Ireland and Portugal).

- Increasing income inequality. While the upwards pressure on earnings inequality has eased in the wake of the crisis (presumably due to the concentration of job losses among low-paid workers), broader measures of inequality based on household income from work and capital have tended to widen. However, these effects were mitigated by changes in public transfers and personal income taxes, which were quite effective in many countries in limiting rises in inequality in terms of disposable income (i.e. the effective incomes that households can spend).

Labour market outcomes have evolved very differently across socio-economic groups in the aftermath of the global financial crisis. Low-skilled young men have been the most affected in terms of declining employment and labour force participation, while low-skilled prime-age men have been the hardest hit in terms of rising unemployment. By contrast, the employment rate among older individuals increased, continuing a trend apparent before the crisis, although unemployment rates have tended to rise as well. The decline in youth employment was matched by increased enrolments rates in education and training, while the rate of youth not in employment, education and training has been broadly constant.

- The better employment performance of older workers is particularly notable. While older workers tended to withdraw in large numbers from the labour market following major recessions in the 1970s, 1980s and early 1990s, this time round they have stayed in the labour force and even increased their participation following the global financial crisis. This is similar to the pattern observed in the aftermath of the (shallower) recessions in the early 2000s, suggesting it may be part of a longer-term trend. For other demographic groups, the evolution of labour market outcomes following the global financial crisis has been similar to the typical pattern following previous major economic downturns.

- In many OECD countries older workers have increasingly postponed their retirement decisions, while in others gradual reductions in disability (e.g. Poland) and inactivity for other reasons (e.g. Ireland, the Netherlands, Sweden) are the main drivers behind rising labour force participation. The increase in the effective retirement age reflects a combination of changes in the characteristics of older workers in terms of improved education levels and health, as well as policy reforms and measures to increase incentives to continue working at an older age. These include pension reforms, the phasing out of early retirement schemes and the tightening of eligibility criteria for other social transfer programmes that operated as de facto early retirement schemes.

The analysis in this chapter has a number of implications for policy:

- Given the current and projected extent of labour market slack, the main policy priority must be to take action to underpin aggregate demand and boost consumer and investor confidence. Monetary policies have to remain accommodative. While fiscal consolidation is required in many OECD countries, its speed should be calibrated to country-specific circumstances so as to avoid excessive tightening.

- The bleak labour market situation of youth in many OECD countries may generate pressures on governments to resort to measures that actively encourage older workers to withdraw from the labour market in the hope that this frees up jobs for young workers.
New evidence in this chapter suggests that youth and older workers are not substitutes in employment. This means that the good performance of older workers did not come at the expense of youth and that encouraging older workers to leave the labour force would be a mistake. Not only would this be ineffective in alleviating the problem of high and persistent unemployment, but it would also be very expensive for the public purse. It is, therefore, reassuring that, so far, governments appear to have resisted pressures to do so.

- Rather than promoting early retirement, governments should pursue a strategy that will lead to better employment prospects for both younger and older people, including:
  i) growth-enhancing structural reforms that have the potential to benefit the labour market outcomes of both youth and older workers; ii) targeted active labour market policies to help youth and older workers with specific problems of finding or staying in employment; and iii) encouraging employers to adopt a more active stance in managing an age-diverse workforce.

**Introduction**

The global recovery in the past four years has been muted and uneven. Consequently, many OECD countries still face a situation where aggregate demand remains weak. However, the picture is far from uniform across countries. In some countries the labour market recovery has come to a halt or even gone into reverse, while in others the recovery is gathering pace or the unemployment impact of the crisis has been contained. This chapter provides an update on the labour market situation in OECD countries and discusses the short-term labour market outlook based on the latest OECD projections from May 2013.

A special focus is given to documenting how labour market outcomes have evolved since the start of the global financial crisis across different socio-economic groups. Previous editions of the *OECD Employment Outlook* have already shown that youth, men and low-skilled workers were hit the hardest, while the impact on older workers and women has been more muted (OECD, 2010a and 2011a). However, to date there has been little systematic analysis as to whether the patterns observed in the aftermath of the global financial crisis have been different from those following previous recessions and how any such differences could be explained. Since the employment performance of older workers in the aftermath of the global financial crisis stands apart most from other groups and the experience of previous deep economic downturns, their labour market outcomes are analysed in more detail. In particular, in light of the bleak employment situation for youth in many OECD countries, an assessment is made of whether improved labour-market outcomes for older workers have come at the expense of poorer outcomes for youth. This issue is of particular importance given that governments may come under pressure again to resort to measures that encourage older workers to withdraw from the labour market – as occurred in previous downturns – in the hope that this frees up jobs for young workers.

The chapter is organised as follows. Recent labour market developments and short-term prospects are discussed in Section 1. In Section 2, a systematic comparison is presented of the evolution of labour market outcomes of different socio-economic groups in the aftermath of the global financial crisis with the pattern observed during previous periods of recession and recovery. Possible explanations for the strong performance of older workers in the aftermath of the global financial crisis are also discussed. In Section 3
new evidence is provided on the relationship between the employment rates of older workers and youth in different phases of the business cycle. Finally, some implications for labour market policy are briefly discussed in the conclusions.

1. The labour market situation will remain difficult in the near term

In this section, an assessment is made of recent labour market developments and the short-term outlook based on the latest OECD projections from May 2013 (OECD, 2013e). For further statistical information on recent and projected developments, see Table 1.A1.1 of the annex to this chapter.

**Aggregate demand remains weak in the majority of OECD countries...**

Five years since the start of the global financial crisis, aggregate demand remains weak, resulting in a considerable slack in product and labour markets. The extent of the current economic slack can be gauged by the output gap, which measures the percentage difference between actual GDP and OECD estimates of potential GDP. Figure 1.1 shows the change in the output gap since the start of the global financial crisis. By 2012, the OECD output gap was still 3.7% higher than at the start of the global financial crisis (in absolute value) down from 5.2% at the depth of the crisis. The largest increases in the output gap occurred in euro area countries that were most affected by the sovereign debt crisis (e.g. Greece, Ireland, Portugal and Spain), as well as in the Czech Republic, Iceland, the Slovak Republic and Slovenia. According to the latest short-term OECD projections, the OECD output gap is expected to narrow in 2014. The relative stability of the OECD output gap over the next two years hides considerable diversity across countries, with a further and substantial weakening in aggregate demand projected for the Czech Republic, France,
Greece, Luxembourg, the Netherlands, Poland, Portugal, Slovenia and Turkey, while a significant narrowing of the output gap is projected to occur in Hungary, Iceland, Japan, Mexico, Norway, New Zealand and the United States.

... leading to little change in a large jobs gap...

The lack of aggregate demand has meant that in many countries there is still a large cyclical shortfall in employment as measured by the jobs gap. The jobs gap is defined as the percentage difference between actual employment and OECD estimates of potential employment. While the output and jobs gaps are closely related, the relationship between the two can differ importantly across countries due to differences in the responsiveness of overall labour input to output shocks and differences in the relative importance of employment, hours and wages as margins of adjustment to economic shocks (OECD, 2012a).

Figure 1.2 presents the percentage-points change in the jobs gap since the start of the global financial crisis at different points in time. As of Q4 2012, the jobs gap for the OECD area had increased by 2.4 percentage points. The largest increase occurred in Greece, of over 20 percentage points of employment. According to the latest OECD projections, the jobs gap for the OECD area is expected to narrow to 1.9 by the end of 2014. It is expected to deteriorate substantially further in Greece and Portugal. However, in all euro area countries except Estonia and Germany, the jobs gap is expected to widen further through the end of 2014. In most other countries with relatively large jobs gaps, such as Denmark, Estonia, New Zealand and the United States, it is expected to narrow.

The rise in labour market slack since the start of the global financial crisis may have either taken the form of increased layoffs leading to new inflows into unemployment or reduced hiring increasing the incidence of long-term unemployment and possibly inactivity, as the lack of available job opportunities discourages entry into the labour market or a growing part of the unemployed from searching actively for a job. As shown in

![Figure 1.2. The jobs gap has endured](http://dx.doi.org/10.1787/888932852371)

Note: Countries are shown by ascending order of the jobs gap in Q4 2012.

a) The jobs gap is defined as the difference between actual employment and OECD estimates of potential employment.

b) Country-specific trough is derived in terms of the output gap.

c) Aggregate of 15 OECD countries of the euro area.

Source: OECD calculations based on the OECD Economic Outlook Database (http://dx.doi.org/10.1787/eo-data-en).
Box 1.1, job losses since the global financial recession have mostly taken the form of rising unemployment, while labour force participation has remained broadly stable in the OECD area except in a few countries such as Ireland and the United States. During the early period of the crisis until 2009, rising unemployment largely reflected a surge in unemployment inflows, while the role of long-term unemployment became increasingly important in the period 2009 to 2011 as job opportunities for the unemployed remained severely depressed. The relative importance of short and long-term unemployment has been broadly stable since the beginning of 2011, with each accounting for about half of the existing labour market slack.

Box 1.1. Decomposing the increase in labour market slack in unemployment and labour force participation

In the figure below, changes in the non-employment rate since the start of the crisis are decomposed into changes in short-term and long-term unemployment and changes in the inactivity rate (all defined as a share of the working-age population). The increase in labour market slack from the onset of the crisis in the last quarter of 2007 to the fourth quarter of 2012 has largely taken the form of increased unemployment with short-term unemployment (persons unemployed for less than one year) and long-term unemployment (persons unemployed for one year or more) accounting each for about half of the increase. However, the relative importance of short and long-term unemployment has changed significantly since the start of the global financial crisis. One can distinguish three different phases. In the first phase from 2007 to 2009, employment losses overwhelmingly took the form of new inflows into unemployment increasing short-term unemployment, while in the second phase, from 2009 to 2011, long-term unemployment has become gradually more important. In the third phase from 2011, the relative importance of short and long-term unemployment has been broadly stable with each accounting for about half of the existing labour market slack. This reflects a combination of persistently high job-loss rates and depressed hiring rates. The rise in long-term unemployment since the start of the crisis has been most pronounced in Spain and the United States as well as other countries hard hit by the global financial crisis or the subsequent euro area sovereign debt crisis. As of Q4 2012, more than one in two unemployed had been unemployed for one year or more in Estonia, Greece, Ireland, Italy and Portugal, and two in three in the Slovak Republic.*

In the fourth quarter of 2012, the OECD-wide inactivity rate was only slightly lower by 0.3 percentage points than at the start of the global financial crisis. However, substantial increases of more than 1.5 percentage points occurred in some countries, including Denmark (1.5 percentage points), Iceland (2.0 percentage points), Ireland (3.5 percentage points) and the United States (2.1 percentage points). The situations of Estonia, Spain and, to a lesser extent, Greece stand out. In these countries, despite large employment losses, labour force participation increased. This may reflect secular long-term increases in the participation rates of women, but also the role of added-worker effects as previously inactive household members enter the labour market to compensate for any losses in household income.

* In Estonia and the Slovak Republic, the incidence of long-term unemployment was already very high before the global financial crisis.
Box 1.1. **Decomposing the increase in labour market slack in unemployment and labour force participation (cont.)**

**Labour market slack takes the form of higher unemployment**

A. Decomposition of the change in the non-employment rate across countries

Percentage-points change in the number of persons in a given labour market status as a share of the working-age population, Q4 2007-Q4 2012

B. Decomposition of the change in the OECD non-employment rate since the start of the global financial crisis

Percentage-points change in the number of persons in a given labour market status as a share of the working-age population, Q4 2007-Q4 2012

**Note:** Countries are shown by ascending order of the non-employment rate in Panel A.

a) Short-term and long-term unemployment refer, respectively, to unemployment durations of less than 12 months and one year or more.

b) Q4 2007-Q4 2011 for Israel.

c) Short-term and long-term unemployment refer to total unemployment for Korea.

d) Series adjusted to take account of breaks in series: 2010 for Mexico and the Netherlands; 2011 for Portugal; and 2012 for Israel.

e) OECD is the weighted average of 33 countries (excluding Chile).

Source: OECD calculations based on the OECD Short-Term Labour Market Statistics Database (http://dx.doi.org/10.1787/fs-lms-data-en) and national labour force surveys. See Figure 1.A2.1 of the online annex (www.oecd.org/employment/outlook) for country-specific decompositions of the non-employment rate over time.

http://dx.doi.org/10.1787/888932852561
... and persistently high unemployment

As the recovery has become more hesitant since the second half of 2011, the initial decline in unemployment from its crisis peak has stalled. As of April 2013, the OECD-wide unemployment rate stood at 8%. This is half a percentage point lower than its peak in October 2009 and 2.4 percentage points above its level in December 2007, at the start of the crisis. Across the OECD, more than 48 million persons are unemployed, almost 16 million more than at the start of the crisis. According to the latest OECD projections, the unemployment rate is projected to remain broadly stable through to the end of 2014.

But not all countries have fared the same and there are large differences in the level of unemployment rates across OECD countries as well as in their underlying trends (Figure 1.3). There are five countries where the unemployment rate has remained below 5% (Austria, Korea, Japan, Norway and Switzerland), while in two countries it exceeds 25% (Greece and Spain). The largest increases since the start of the global financial crisis occurred in Greece and Spain, where unemployment rates have increased by over 17 percentage points, and in Estonia, Ireland, Italy and Portugal, where they increased by between 5 to 10 percentage points. By contrast, in Austria, Japan and Korea, unemployment rates are less than half of a percentage point above their pre-crisis levels, while in Chile, Germany, Israel and Turkey, unemployment rates are now lower than at the start of the crisis despite some of these countries having been hit hard by the economic downturn. The latest OECD projections point to further increases in the unemployment rate of one percentage point or more between the fourth quarter of 2012 and the end of 2014 in six European countries (Greece, Italy, the Netherlands, Poland, Portugal and Spain), while a decline of at least half a percentage point is projected in five countries (Canada, Estonia, Iceland, New Zealand and the United States).

Figure 1.3. Persistently high levels of unemployment

Unemployment rates at the business-cycle trough (in terms of the output gap), in Q4 2012 and Q4 2014, as a percentage of the labour force

Note: Countries shown by ascending order of the current unemployment rate.
a) Country-specific trough is derived in terms of the output gap.
b) Aggregate of 15 OECD countries of the euro area.
Source: OECD calculations based on the OECD Economic Outlook Database (http://dx.doi.org/10.1787/888932852390)
As discussed in Chapter 1 of the OECD Employment Outlook 2012 (OECD, 2012a), persistently high levels of unemployment and, particularly, long-term unemployment could lead to a rise in structural unemployment. The estimates presented in Box 1.2 suggest that while structural unemployment may have started to increase in some OECD countries, particularly in countries such as Greece, Ireland, Portugal and Spain, the increase remains small relative to the total increase in unemployment.

Box 1.2. **The risk of rising structural unemployment is materialising in some countries**

Persistently high levels of unemployment and long-term unemployment, in particular, increase the risk of rising structural unemployment as a result of scarring effects, loss of human capital and re-employment difficulties for the unemployed. In order to analyse the risk of rising structural unemployment, OECD (2012a) provided a detailed analysis of the evolution of matching frictions by examining the joint evolution of job vacancies and unemployed jobseekers using so-called “Beveridge curves”, as well as aggregate matching functions. It provided suggestive evidence that, although the bulk of unemployment remains cyclical in nature, matching frictions have started to increase in a number of OECD countries. These included, amongst others, Sweden and the United States. An alternative way of documenting possible increases in structural unemployment is by means of estimates of the non-accelerating inflation rate of unemployment (NAIRU).* The OECD Economics Department provides estimates of the NAIRU for all countries up to 2014. These estimates are based on a reduced-form Phillips-curve equation smoothed by means of a Kalman filter (see Guichard and Rusticelli, 2011, for details). The main reason for focusing on the NAIRU instead of the relationship between job vacancies and unemployed jobseekers is that it provides a concise indicator of the level of structural unemployment for which OECD projections are available.

Using OECD estimates of the NAIRU, the figure below decomposes the total change in the unemployment rate since the start of the global financial crisis into a cyclical and a structural component (the unemployment gap and the NAIRU). It shows that structural unemployment as measured by the NAIRU has tended to increase since the start of the crisis in the majority of OECD countries, but also that its increase has been small relative to the overall increase in unemployment. Large rises in the NAIRU of two or more percentage points are confined to four countries – Greece (2 percentage points), Ireland (3 percentage points), Portugal (2 percentage points) and Spain (5 percentage points) – explaining between one-sixth and one-third of the overall rise in unemployment in these countries. OECD projections further suggest that the NAIRU is expected to remain broadly constant or decline between 2012 and 2014 in the majority countries where the increase in structural unemployment has been limited so far. However, it is expected to increase further in Greece, Portugal and Spain as well as in Italy which did not see much of an increase so far. While the NAIRU estimates presented here should be interpreted with due caution, the overall message that the bulk of the rise in unemployment so far has been cyclical is consistent with the absence of a vigorous recovery in aggregate demand (cf. Figure 1.1). Nevertheless, the longer cyclically elevated levels of unemployment are allowed to persist, the higher the risk that unemployment will become structural and the more difficult it will be to bring unemployment down to pre-crisis levels.
Unit labour costs have started to adjust…

The global financial crisis and the subsequent sovereign-debt crisis reflect, to an important extent, structural imbalances that had built up in the period preceding the crisis. Sizable external imbalances between certain advanced and emerging economies before the crisis are likely to have precipitated the global financial crisis by providing excess liquidity to the financial system in advanced economies. Moreover, widening imbalances within the euro area, related to diverging trends in competitiveness, have been a major culprit for the sovereign-debt crisis. Rebalancing external accounts is important for economic growth and stability and requires adjustments in relative cost-competitiveness. Competitiveness in this context is typically proxied by unit labour costs, which measure the average costs of labour per unit of output and, hence, relate productivity developments to developments in the cost of labour per employee. Figure 1.4 shows that unit labour costs have started to adjust in a way that is consistent with rebalancing. In the euro area periphery as well as Australia, Canada, New Zealand and the United States, unit labour costs have tended to decline over...
the period 2007 to 2012 relative to their pre-crisis trends, while unit labour costs have tended to increase relative to their pre-crisis trends in countries in the euro area core such as Austria, Finland, Germany and the Netherlands. OECD projections of unit labour costs up to 2014 suggest that the process of rebalancing is expected to continue in the near future, with unit labour costs expected to decline further in countries where they have already started to decline, while they are expected to remain stable or even increase in countries where unit labour costs have tended to increase the most.5

... and real earnings growth has slowed...

While the process of adjusting labour costs relative to productivity may be necessary to restore competitiveness and reducing external imbalances, there are potentially important implications for the living standards of workers, particularly in countries where this takes the form of declining real wages. In order to get some idea of the role of wage adjustment for workers, Panel A of Figure 1.5 shows median real wage growth since the start of the global financial crisis to 2010 relative to the change that would have prevailed had the historical trend continued into the crisis period.6 The figure shows that in the large majority of countries wage growth has tended to slow between 2007 and 2010. These developments are likely to reflect a variety of factors including the reduced bargaining power of workers in the context of high labour market slack, the role of negotiated wage restraints between the social partners in collective bargaining agreements or jobs pacts to prevent job losses (e.g. Austria, Germany and Sweden) and wage cuts/freezes in the public sector (e.g. Greece, Ireland and Portugal). There are important differences in the extent of the slowdown in wage growth across countries. Interestingly, the extent of the slowdown does not appear to be related to the economic impact of the crisis. The largest reductions in median wage growth are observed in Korea and Poland, both countries where the economic impact of the global financial crisis has been relatively limited. Median wage growth even accelerated in Ireland, Portugal and the United States, all characterised by
Figure 1.5. **The growth of inequality in earnings and income**

**A. Growth in median earnings since the start of the global financial crisis relative to the pre-crisis trend**

Gross earnings of full-time wage and salary workers, percentage-points change, 2007-10

**B. Growth in individual earnings dispersion since the start of the global financial crisis relative to the pre-crisis trend**

Gross earnings of full-time wage and salary workers, percentage-points change, 2007-10

**C. Change in household income inequality since the start of the global financial crisis relative to the pre-crisis trend**

Percentage-points change, 2007-10

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**Note:** Countries shown by ascending order of the median (D5) in Panel A, the ratio D9/D1 in Panel B and market income inequality in Panel C.

a) Pre-crisis trend is based on the annual average growth rate over the period 2004-07.
b) 2007-09 for the Czech Republic and France.
c) Household disposable income is the sum of the total market income received by the households (which is based on gross earnings, self-employment and capital income) plus transfers less taxes, adjusted for household size by dividing incomes by the square root of household size.
d) 2004 refers to 2003 for Japan and New Zealand; 2005 for Canada, Denmark, France, Hungary, Israel, the Netherlands, the United Kingdom and the United States; and 2006 for Austria, Belgium, Chile, the Czech Republic, Estonia, Finland, Greece, Iceland, Ireland, Italy, Korea, Luxembourg, Poland, Portugal, Spain, the Slovak Republic and Slovenia. 2007 refers to 2006 for Chile and Japan; 2008 for Australia, Finland, France, Germany, Israel, Italy, New Zealand, Norway, Sweden and the United States. 2010 refers to 2009 for Japan; 2011 for Chile. 2010 data based on EU-SILC are provisional for Austria, Belgium, the Czech Republic, Estonia, Finland, Greece, Iceland, Ireland, Italy, Luxembourg, Poland, Portugal, Spain, the Slovak Republic and Slovenia.

**Source:** OECD calculations based on the OECD Earnings Database (http://dx.doi.org/10.1787/lfs-ear-data-en) and the OECD Income Distribution Database (via www.oecd.org/social/income-distribution-database.htm).
large increases in labour market slack. Thus, aggregate wage developments are likely to reflect in part changes in the composition of the workforce and shifts in sectoral employment. This may also explain why there is no obvious pattern across countries relative to the pre-crisis trend.

In the large majority of OECD countries, individual earnings inequality has tended to grow less quickly during the period 2007 and 2010 than in the years immediately before the crisis (Figure 1.5, Panel B). In four-fifths of countries for which data are available, the trend increase in the earnings gap between the ninth and the first decile of the earnings distribution has slowed since the start of the global financial crisis. This pattern seems to be more or less evenly shared across the earnings distribution, with changes in inequality in the top and bottom halves of the distribution generally going in the same direction. This suggests that earnings slowed more quickly at the top of the distribution and less quickly at the bottom of the distribution. This may reflect the role of composition effects since job losses tended to be concentrated among the low-paid.7

... while income inequality has tended to grow more quickly

In contrast to the pattern observed for individual earnings inequality, household market income inequality, measured in terms of the Gini, has tended to increase more rapidly during the period 2007 and 2010 than during the years preceding the crisis in the majority of OECD countries (Figure 1.5, Panel C).8 Since household market income includes all working-age households and not just those with working members, this measure is not subject to the kind of composition affects that complicate the interpretation of changes in the distribution of individual earnings as documented in Panel B. The increase in income inequality was particularly pronounced in Estonia, Ireland, the Slovak Republic and Spain, whereas in Greece, Italy and Portugal it has declined. However, when measured in terms of disposable income, i.e. market income plus transfers less taxes, there was generally little change in household income inequality, except for notable increases in Ireland, the Slovak Republic and Spain. Thus, the tax and benefit system in most countries have been quite effective in limiting the impact of the rise in market income inequality on inequality in terms of disposable household income (OECD, 2013c).

2. The evolution of labour market outcomes across population groups since the start of the global financial crisis

Previous editions of the OECD Employment Outlook have shown that youth, men and the low-skilled have been hardest hit by the recent global financial crisis, while the impact on older workers and women has been relatively limited (OECD, 2010a and 2011a). However, there has been little systematic analysis as to whether the patterns observed in the aftermath of the global financial crisis have been different from those following previous recessions and how any such differences could be explained. Hence, this section seeks to provide: i) an update on the labour market situation of different socio-economic groups; ii) a systematic comparison of the evolution of labour market outcomes of different socio-economic groups in the aftermath of the global financial crisis with the patterns observed following previous recessions; and iii) possible explanations behind the main deviations from historical trends. Special emphasis is given to the analysis of the situation of older workers since their trajectory in the aftermath of the global financial crisis stands apart most from other groups as well as the pattern observed following previous deep economic downturns.
Employment rates for youth and the medium-skilled have only stabilised, but have improved for other groups

Figure 1.6 documents the evolution of the OECD non-employment rate for selected socio-economic groups from Q1 2007 to Q4 2012. During the initial period of the global financial crisis up to the peak in the overall non-employment rate (Q1 2010), the largest increases in non-employment rates occurred for youth, men and the medium-skilled, whose non-employment rates increase by 3.9, 3.3 and 2.7 percentage points respectively. By contrast, the non-employment rate of older people (aged 55-64) was more than half a percentage point lower than at the start of the global financial crisis, while the non-employment rate for women was only half a percentage point higher. Since reaching the peak, non-employment rates have stabilised for youth, medium and high-skilled workers, while they have started to recover for the other groups. The decline in the non-employment rate for older people of over 2 percentage points since the start of the crisis is particularly noteworthy.9

To gain more insight into the differential evolution of non-employment rates across socio-economic groups, Figure 1.6 also decomposes changes in the non-employment rate into the corresponding changes in labour force participation and short-term (less than a year) and long-term (a year or more) unemployment (expressed as shares of the working-age population). While changes in unemployment account for the bulk of changes in the overall non-employment rate, changes in labour force participation are a key factor for explaining differences in the evolution of non-employment across socio-economic groups, and particularly between youth, women and older workers. This holds true for the initial period of the crisis up to Q1 2010 as well as for the modest labour market recovery since then. For example, the better performance of the non-employment rate of older people and women relative to other groups reflects to an important extent the differences in the evolution of labour force participation across groups. While labour force participation declined significantly for youth, men and medium-skilled workers, it has increased significantly for older people and women.10 More recently, there also has been a noticeable uptick in labour force participation among the low-skilled. However, differences in the evolution of unemployment are important as well. Indeed, when considering the impact of the crisis in terms of unemployment rates, largely the same qualitative pattern emerges as in terms of non-employment rates. The main exception is with respect to skills. In terms of unemployment rates, the low-skilled have been affected considerably more than those with more skills and, unlike in the case of non-employment rates, there is no sign that the situation has started to improve.

Figure 1.A2.2 in the online annex to this chapter (OECD, 2013a) conducts a similar exercise by decomposing the total change in non-employment rates between Q4 2007 and Q4 2012 into unemployment changes and changes in labour force participation for each OECD country for which suitable data are available. In order to facilitate the interpretation, changes for each group are normalised by subtracting the population-wide change in each country. This shows, consistent with Figure 1.6, that deviations in labour market outcomes for specific groups from the country average are in large measure related to differential changes in labour force participation rates. In all countries – except Luxembourg and Korea, two countries where the impact of the global financial crisis has been negligible – the increase in the non-employment rate of women has been smaller than that of men. This is almost entirely driven by the secular increase in labour force participation rates among women. Ireland and Portugal stand out as exceptions in that the bulk of the relative change in non-employment rates between men and women reflects
Figure 1.6. **Decomposition of the change in labour market slack by groups**

Percentage-points change in the number of persons in a given labour market status as a share of population of the indicated group in OECD countries, Q4 2007-Q4 2012

- **Non-employment rate**
- **Inactive-to-population ratio**
- **Short-term unemployment-to-population ratio**
- **Long-term unemployment-to-population ratio**

---

**Both sexes** (aged 15-64)

**Men** (aged 15-64)

**Women** (aged 15-64)

**Youth** (aged 15-24)

**Prime-age** (aged 25-54)

**Older persons** (aged 55-64)

**Low-skilled** (aged 25-64)

**Medium-skilled** (aged 25-64)

**High-skilled** (aged 25-64)

---

a) Short-term and long-term unemployment refer to unemployment durations of less than 12 months and one year or more, respectively.

b) OECD is the weighted averages of 33 OECD countries (excluding Chile) for data by gender and age, and 29 countries (excluding Australia, Chile, Japan, Korea and New Zealand) for data by education.

Source: OECD calculations based on the OECD Short-term Labour Market Statistics Database (http://dx.doi.org/10.1787/lfs-lms-data-en) and national labour force surveys.

StatLink: http://dx.doi.org/10.1787/888932852447
lower unemployment increases among women. The above-average increase in non-employment rates among youth and the below-average increase among older people also reflect to a large extent differences in labour force participation rates. Greece and Spain represent two notable exceptions in the case of older persons. In those countries, the relatively strong employment performance of older people reflects smaller increases in unemployment rather than larger increases in labour force participation. Across skill groups, the relationship between relative changes in employment and participation is somewhat less tight, but still fairly strong.

Box 1.3 analyses the evolution of labour market outcomes across more detailed population groups since the start of the global financial crisis to Q4 2012. It shows that there are large differences in the employment impact of the crisis across detailed population groups. Young low-skilled men suffered the largest reduction in their employment rates (almost 8 percentage points), while those of medium-skilled older women increased by 1.7 percentage points. It also shows that, on average across the OECD, the increase in youth non-employment is almost entirely driven by increased enrolments rates in education and training, while the rate of youth not in employment, education and training has been broadly constant.

Box 1.3. The evolution of non-employment rates across detailed socio-economic groups since the start of the crisis

This box analyses the evolution of non-employment rates since the start of the global financial crisis in more detail. First, it decomposes the evolution of non-employment rates across detailed mutually exclusive population groups. This is of interest per se, but may also help interpreting the patterns presented in the main text since these are not defined in a mutually exclusive way. For example, women may be predominantly high-skilled or older workers may be predominantly men. As a result, it is not clear whether the changes observed for a particular population group reflect pure group effects or changes in its composition. Second, it analyses the situation for youth in more detail by decomposing the change in the OECD youth non-employment rate since the start of the global financial crisis into changes in labour market and education status.

In the figure below, the change in non-employment rates between Q4 2007 and Q4 2012 across 28 OECD countries is decomposed for 18 mutually exclusive groups (three age groups by two gender groups by three education groups):

- The average decline in youth employment since the start of the crisis hides considerable heterogeneity across education and gender groups. For young men, the adverse employment impact of the global financial crisis is considerably larger the lower the level of education, with employment rates among low-skilled men being 7 percentage points lower at the end of 2012 than at the start of the crisis. Slightly more than half of the increase in non-employment rates among youth reflects declining labour force participation. This is even more apparent for low-skilled men, whereas it is least important for skilled men. A similar pattern can be observed for young women although differences across skills groups tend be less pronounced. To a large extent, the decline in youth labour force participation reflects higher enrolment in education and training, as discussed at the end of this box.
Box 1.3. The evolution of non-employment rates across detailed socio-economic groups since the start of the crisis (cont.)

- The average decline in prime-age employment is heavily concentrated among low-skilled men for whom the non-employment rate increased by over 5 percentage points since the start of the global financial crisis. Higher levels of education appear to play an important role in protecting prime-age males against employment losses, with the increase in non-employment rates among the high-skilled being less than half that of the low-skilled. Among prime-age women, non-employment rates increased most strongly among the medium-skilled, while the unemployment rate increased most strongly among the low-skilled. This pattern largely reflects the relatively strong increase in labour force participation among low-skilled women since the start of the crisis. In contrast to youth and older persons, employment changes among prime-aged persons tend to take the form of changes in unemployment rather than changes in labour force participation. This reflects the importance of prime-age workers as bread winners in households.

Decomposition of labour market slack in unemployment and inactivity by detailed socio-demographic groups

Percentage-points change in the number of persons in a given labour market status as a share of population of the indicated group, OECD average, \(^4\) Q4 2007-Q4 2012

- The average increase in employment among older workers reflects rising labour force participation rates. Differences across education and gender groups tend to be relatively modest compared with youth and prime-age persons. The extent to which increased labour force participation is related to retirement, disability or other reasons for inactivity is discussed towards the end of Section 2. While older workers are more likely to be employed in Q4 2012 than at the start of the crisis, they are also more likely to be unemployed. This is particularly true for low-skilled men for whom the unemployment rate increased by almost 3 percentage points since the start of the global financial crisis.

OECD calculations based on national labour force surveys.

Source: OECD calculations based on national labour force surveys.

http://dx.doi.org/10.1787/888932852599

- OECD is the weighted average of 28 countries: Austria, Belgium, Canada, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Mexico, the Netherlands, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States.
Box 1.3. The evolution of non-employment rates across detailed socio-economic groups since the start of the crisis (cont.)

Given major policy concerns about the large declines in youth employment rates, it is worth exploring this in some more detail. The analysis above and in the main text already suggests that the decline in youth employment rates is largely driven by declining labour force participation and only to a lesser extent by increasing unemployment. An important policy question is to what extent the decline in labour force participation reflects increased enrolment in education and training or instead an increase in the proportion of inactive youth that are neither in employment, education or training (so-called inactive “NEETs”). While increasing enrolment rates in education and training may help to strengthen the labour market position of youth and may not be much of a policy concern, large increases in inactive NEETs may leave deep scars with long-lasting consequences for future careers.

In the figure below, changes in the youth non-employment rates since the start of the global financial crisis are decomposed into changes in labour market and education status by gender and skill groups:

- More than 75% of the 4 percentage-points increase in the youth non-employment rate across the OECD since the start of the crisis to end of 2012 is accounted for by an increase in the enrolment rate of inactive youth in education and training. The increase in the enrolment rate of unemployed youth in education and training accounted for most of the remainder. Thus, increased school enrolment accounts for effectively the entire increase in youth non-employment. The rate of youth not in employment, education or training (NEET) for the OECD has been broadly stable, with the increase in the NEET rate of unemployed youth approximately offsetting the decline in the NEET rate among inactive youth.

- The increase in youth enrolment in education and training across the OECD since the start of the global financial crisis up to the end of 2012 was particularly marked for women and low-skilled persons. For example, the school enrolment rate for low-skilled women increased by about 7.5 percentage points since the start of the crisis compared with an increase in the rate of non-employment of 4.5 percentage points. The rise in the school enrolment rate for young skilled men relative to the increase in non-employment is much less pronounced, but still accounts for well over half of the increase in non-employment. The rise in the NEET rate has been most important for relatively skilled workers. These average patterns across the OECD are largely reassuring. Low-skilled workers are most likely to benefit from additional years spent in education and training, while higher skilled workers are less likely to become marginalised during periods of joblessness early on in their careers than their less skilled counterparts.

- The average pattern for the OECD described above is representative of the situation in the majority of OECD countries, but there are a number of notable exceptions where the rise in youth non-employment has largely taken the form of an increase in the NEET rate. In Greece, the youth non-employment rate increased by almost 12 percentage points and this was entirely driven by an increase in the NEET rate of which one third is accounted for by inactive youth and two-thirds by unemployed youth. In Estonia, France and Italy, similar patterns are observed. While in other countries rises in enrolment in education and training account for the bulk of the rise in youth non-employment, there are nevertheless a number of countries where NEET rates have increased substantially since the start of the global financial crisis to end of 2012. These include Iceland (3 percentage points), Ireland (5 percentage points), New Zealand (4 percentage points), Slovenia (3 percentage points) and Spain (8 percentage points). In all these countries, the increase in NEET rates largely reflects increased unemployment rather than increased inactivity.
Differences across population groups reflect a combination of cyclical and structural factors

Differences in labour market performance across population groups in the wake of the global financial crisis are likely to reflect both cyclical and structural factors. First, the sensitivity of each group’s employment outcomes may vary as a result of differences in turnover costs, i.e. the cost of hiring and firing (OECD, 2009a). Since youth have typically lower job tenure than other groups of workers and are more likely to be employed on a temporary contract, it may be less costly – in terms of firm-specific human capital or employment protection – for employers to layoff youth when product demand is temporarily depressed. Similarly, employers may have stronger incentives to hoard permanent workers with high tenure and thus potentially higher levels of firm-specific human capital and severance pay in case of dismissal. Second, there may be differences in how labour force participation adjusts depending on the relative importance of income and substitution effects. Income effects could induce workers to supply more labour, particularly in the case of older workers, women and the low-skilled. In the case of older workers, large losses in retirement savings may be particularly important (Coile and Levine, 2013; Gustman et al., 2011), while for women and the low-skilled reductions in household income may be the main driving force. Substitution effects may
induce workers to withdraw from the labour market in the context of limited returns to job
search (in terms of the probability of finding a job and the expected wage that comes with it). The latter may be particularly important for youth and older workers.\footnote{11}

Apart from these cyclical effects, structural developments related to globalisation and
technological change can also give rise to different underlying trends across socio-economic
groups that persist during an economic downturn. For example, the demand for low-skilled
labour may have been declining already before the start of the global financial crisis (OECD, 2011b) and, thus, account for some of the observed decline in employment during the crisis. Cohort effects may also have an impact on labour market outcomes as in each period new
groups enter the labour market, while others leave. To the extent that younger cohorts that
enter have different characteristics from older cohorts that leave, this could result in
important changes in the composition of population groups. For example, successive cohorts
of older workers and women may be more skilled and, therefore, more likely to participate in
the labour force. Consequently, cohort effects may account for a sizeable part of the increase
in labour force participation for those groups since the start of the crisis.

Compared with historical experience, the good performance of older workers is
particularly notable

To what extent does the pattern observed in the aftermath of the global financial crisis
 correspond to the typical pattern following severe economic downturns or, indeed, deviate
from historical experience? In this subsection, this question is addressed using an
unbalanced panel of quarterly data for 19 OECD countries for the period Q2 1973 to Q4 2012.
The analysis covers 49 major economic downturns across countries, of which 19 are related
to the global financial crisis and 28 to previous recessionary periods. Major economic
downturns are defined as declines in GDP from peak to trough of at least 3%.\footnote{12} Due to data
limitations, the analysis considers only age and gender groups, but not skill groups.\footnote{13} The
analysis is carried out both descriptively and using econometric methods. The main purpose
of the econometric analysis is to compare the recent experience following the global
financial crisis with historical patterns while controlling, to the extent possible, for pre-crisis
trends, cohort effects and the extent of the downturn.

Figure 1.7 shows the evolution of labour market outcomes for youth, older workers
and women in the first sixteen quarters following a major economic downturn. To provide
a benchmark, it also represents the corresponding evolution for the working-age
population as a whole. Apart from the global financial crisis, it separately considers
economic downturns that took place during the 1970s/1980s, the early 1990s and the
early 2000s:\footnote{14}

- The youth employment rate declined by about 4 percentage points in the sixteen quarters
  since the onset of the global financial crisis consistent with Figure 1.6. This is somewhat
  larger than the average decline following a typical economic downturn in the early 1990s
  and early 2000s, but considerably smaller than the average decline following
  major economic downturns in the 1970s or 1980s. A similar picture emerges for the
  participation rate. The average rise in the youth unemployment rate as a result of the
  global financial crisis has been as large as the largest average increase in any previous
  period, namely, that of the 1970s and 1980s.
Figure 1.7. The evolution of labour market outcomes following major economic downturns by population group and period

Average percentage-points change since start of major economic downturns\(^a,b\)

\(\text{Employment rate} \quad \text{Participation rate} \quad \text{Unemployment rate}\)

\(\text{A. All persons (aged 15-64)}\)

\(\text{B. Youth (aged 15-24)}\)

\(\text{C. Older persons (aged 55-64)}\)

\(\text{D. Women (aged 15-64)}\)

\(\text{a) Downturns are defined by the peak in GDP; major economic downturns relate to peak-to-trough changes in GDP of at least 3%}.

\(\text{b) The sample includes the following OECD countries: Australia, Austria, Belgium, Canada, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, Poland, Portugal, Spain, Sweden, the United Kingdom and the United States.}

\(\text{Source: OECD estimates based on national labour force surveys and the OECD Economic Outlook Database (http://dx.doi.org/10.1787/888932852466).} \)
The small rise or stability in employment and labour force participation rates of older persons (aged 55-64) following the global financial crisis have been similar to what was observed following the recessions of the early 2000s, but contrast strongly with the declines that were recorded following recessions in the 1970s/1980s and early 1990s. However, the adverse impact of the global financial crisis on the unemployment rate of older workers appears to have been relatively pronounced in historical comparison.

While women were affected less than men as a result of the global financial crisis, they have been affected relatively strongly from a historical perspective. The decline in employment rates was larger than that following recessions in the early 1990s and early 2000s, but smaller than that following recessions in the 1970s and 1980s.

While the descriptive statistics presented above provide a useful first insight into the evolution of labour market outcomes for different demographic groups following major economic downturns, they do not control for the role of pre-crisis trends, cohort effects or the severity of economic downturns. In an attempt to address these concerns, a series of impulse-response functions are estimated that are specifically designed to assess the role of exogenous economic shocks on labour market outcomes. In practice, this involves regressing the change in the labour market outcome of interest since the start of a major economic downturn on a dummy that equals one at the start of a major economic downturn and a set of variables to control for persistence in the dependent variable. The baseline model is extended to include linear country-specific trends to account, at least to some extent, for the role of structural trends and cohort effects. To control for the size of the labour market shock, the model is also estimated relative to a benchmark group (prime-age men). The discussion below focuses on the baseline results which are summarised in Figure 1.8. This is followed by a brief discussion of the results when controlling for the size of the labour market shock and structural trends. See Box 1.4 for further details on the methodology and Table 1.A2.2 of the online annex to this chapter for further details on the regressions results (OECD, 2013a).

Figure 1.8 shows that, in general, the evolution of labour market outcomes following the global financial crisis has not been significantly different from the typical pattern observed in the aftermath of major economic downturns in the past. This is the case for the population as a whole, as well as for most population groups, including youth and women. However, older workers as a group represent a major exception. Consistent with the descriptive statistics discussed above, their employment and participation rates have evolved more positively than in the past. Differences with the historical pattern are statistically significant and economically large (over two percentage points after sixteen quarters). It is worth noting that a similar pattern was already present following major economic downturns in the early 2000s. As a result, excluding major recessions in the early 2000s from the historical benchmark group further reinforces the relatively strong employment and labour force performance of older workers following the global financial crisis. The unemployment impact of the global financial crisis on older workers may have been somewhat stronger than was typically the case during previous recessions but the difference is not statistically significant.

In order to assess the robustness of the results discussed above, several alternative specifications were estimated. First, the regressions attempt to account for the size of the labour market shock by focusing on differences in labour market outcomes relative to a benchmark group. The results are qualitatively similar to those discussed above. If anything, this further increases the difference in the evolution of employment and labour force participation rates of older people following the global financial crisis relative to
Figure 1.8. Comparing the evolution of labour market outcomes following the global financial crisis with that during previous major economic downturns by population group

Percentage-points change since the start of global financial crisis relative to previous major economic downturns

***, **, * statistically significant at 1%, 5% and 10% levels, respectively.

Source: OECD estimates based on national labour force surveys and the OECD Economic Outlook Database (http://dx.doi.org/10.1787/eo-data-en).

StatLink: http://dx.doi.org/10.1787/888932852485
Box 1.4. Assessing the dynamic response to the global financial crisis in historical perspective

The dynamic impact of major economic downturns on labour market outcomes is analysed by estimating impulse-response functions (IRFs) following the method proposed by Jorda (2005). This involves estimating the impulse response function directly by running a separate regression for each time difference of interest relative to the shock rather than by backing it out from the estimated coefficients of an autoregressive distributed lag model (ARDL) as in, for example, Cerra and Saxena (2008). This method has been shown to yield more robust results and has been widely used in recent OECD work, including by Duval et al. (2011) and Bouis et al. (2012).

The empirical model used in the baseline regressions involves estimating the following empirical model for each quarter $s$ following the onset of the downturn:

$$y_{it+s}^g - y_{it}^g = \alpha + \sum_{r=0}^{R} \beta_r \Delta y_{it-r}^g + \gamma D_{it}^{all} + \delta D_{it}^{recent} + \mu_t + \epsilon_{it}$$  

(1)

where the dependent variable is the difference in the labour market outcome of interest of group $g$ in country $i$ over $s$ quarters between $t$ and $t+s$. The dependent variable is regressed on a constant, the first difference of $y$ and up to 12 lags to control for autocorrelation in the error term, a recession dummy that equals one at the start of each major economic recession in country $i$ at time $t$ and is zero otherwise, an interaction term of the recession dummy with a dummy that equals one for recent downturns and zero otherwise, and a full set of time dummies to account for macroeconomic developments that are shared across countries. Since the regressions are estimated in differences, any country-specific differences in levels that are constant over time are eliminated.

Equation (1) is estimated using OLS on an unbalanced panel across 19 OECD countries for the period Q2 1973 to Q4 2012. Robust White standard errors are calculated for statistical inference to account for heteroskedasticity. The main interest is in coefficients $\gamma$ and $\delta$, which respectively capture the average response to previous economic downturns and the difference in the average response following the global financial crisis relative to earlier downturns. The coefficient $\delta$ is both estimated relative to all previous economic downturns as well as relative to previous downturns before the early 2000s. Recessions in the early 2000s were atypical in terms of their size and sectoral impact. Moreover, the average response following those downturns often corresponds quite closely to that observed following the global financial crisis. Excluding recessions during the early 2000s may be considered a way to emphasize long-term trends in the average response to economic downturns.

In order to assess the robustness of the results, a number of alternative specifications were also considered. First, labour market outcomes are measured relative to a benchmark group in order to control for the size of the labour market shock. In order to control for scale effects effectively, the difference-in-difference analysis focuses on proportional changes rather than percentage-point changes. Second, in order to control for linear country-specific trends, country dummies were added to the baseline model.

previous major economic downturns. Second, explicitly controlling for linear country-specific trends yields similarly signed coefficients in the employment and participation regressions for older workers. However, the estimated changes following the global financial crisis are no longer significantly different from those observed following major downturns in the past. This suggests that secular developments in the employment and participation rates of older persons as well as cohort effects account for a substantial part of the strong labour market performance of older persons during the crisis.
What explains the strong labour market performance of older workers following the global financial crisis?

This subsection discusses possible explanations behind the strong employment performance of older workers in the aftermath of the global financial crisis. In doing so, it builds on two important insights that come out of the analysis so far. First, the strong employment performance of older workers since the start of the global financial crisis is driven by rising labour force participation rates. While labour force participation could, in principle, reflect both demand and supply-side factors, the emphasis will be on supply-side factors, consistent with much of the existing literature on older workers. Second, the strong employment performance of older workers following the global financial crisis is part of a longer-term trend. Employment and participation rates of older workers were growing steadily before the global financial crisis and these trends may have continued during the global financial crisis.

Older workers have postponed retirement in some countries...

Figure 1.9 documents the change in inactivity rates for older workers over time for a number of selected European countries and decomposes the change in inactivity rates into changes in the self-reported rates of retirement and disability and the rate of inactivity for other reasons. It shows that inactivity rates for older workers have tended to decline and, hence, labour force participation to rise, during the financial crisis in most countries. By contrast, in the Czech Republic, Estonia and Greece, inactivity rates have tended to increase since the start of the global financial crisis. This appears to reflect an increase in the rate of retirement. In countries where inactivity rates for older workers declined during the global financial crisis, this generally reflected a continuation of the pre-crisis trend. The reasons for the rising trend in labour force participation differ greatly across countries. In countries such as Austria, Belgium, the Czech Republic, Estonia, Germany, Italy and the Slovak Republic, the rise in labour force participation among older workers reflects a reduction in the rate of retirement, suggesting that the effective retirement age has gradually increased over time. In other countries such as Ireland, the Netherlands Spain and Sweden, the trend rise in labour force participation is largely driven by a reduction in inactivity for other reasons. This may due to the growing importance of economically active women in the group of older workers. In Finland and Poland, the trend increase in labour force participation is largely driven by falling self-reported disability rates. In Poland, this reflects the reform of the disability and old-age pension system in 2006 which removed the possibility of disability benefits for people aged between 60 and 65 years. 

... partly reflecting strengthened incentives to work at an older age...

In countries where older workers have tended to postpone retirement, this may reflect changes in the composition of older workers related to the rise in female labour force participation and rising levels of education, but also the role of changes in administrative rules with respect to the retirement age, the generosity of pensions and the benefits from working longer. 

Old-age pensions and other social insurance programmes can give rise to important disincentives to work at an older age when the benefits for older workers of remaining longer in work fall short of the value of contributions and, as such, effectively impose an implicit tax on continued work. In order to analyse the role of old-age pensions, as well as the availability and generosity of disability and unemployment benefits for incentives to
Figure 1.9. Decomposition of the change in inactivity rate of older workers in selected OECD countries

Annual percentage-points change since 2000\(^9\) in the number of persons aged 55-64 in a given labour market status as a share of persons aged 55-64

Source: OECD calculations based on national labour force surveys. For figures for all countries for which appropriate data are available, see Figure 1.A2.4 of the online annex to this chapter (www.oecd.org/employment/outlook).

\(^{9}\) Not available.
\(^{a}\) 2001 for the Slovak Republic and 2005 for Spain.
\(^{b}\) Since the beginning of 2006 all disability pensions for persons who had reached the retirement age have been automatically converted into the old-age pensions.
continue working or withdraw from the labour force, Duval (2004) and OECD (2013b) have computed implicit marginal tax rates on continued work at older ages that allows assessing their evolution over time.18

During the 1970s and 1980s, many governments in OECD countries started to actively encourage older workers to withdraw from the labour force by introducing early retirement schemes, including the elimination of job-search requirements for unemployment benefits for older workers. This was also reflected by an increase in implicit tax rates. Driven by concerns over high and persistent unemployment rates, the hope was that by actively encouraging older workers to retire early this would open up job opportunities for other groups, and particularly youth. Similarly, some OECD countries eased access to disability benefits following previous recessions, in effect allowing labour market difficulties to become one of the criteria for entry, rather than exclusive medical criteria (OECD, 2010b).19 Both early retirement and easier access to disability may account to an important extent for the large reduction in labour force participation rates observed in the aftermath of major economic downturns in the 1970s and 1980s (see Figure 1.7). Indeed, econometric evidence by Duval et al. (2011) suggests that implicit taxes encourage withdrawals from the labour force in the aftermath of major economic downturns.20 However, the expectation that this would free up jobs for youth was not borne out in practice in terms of either higher employment rates or lower unemployment rates for youth (OECD, 2006b).21 Consequently, policies that have actively promoted the permanent withdrawal of older workers from the labour force have not delivered the desired results. Instead, they have yielded large and long-lasting adverse consequences for the public purse and potential economic growth.

Since the early 1990s, several European countries have reduced retirement incentives through pension reform, the phasing out of early retirement schemes and the tightening of eligibility criteria to other social transfer programmes that operated as de facto early retirement schemes. As a result, the trend towards increasing implicit tax rates has come to a halt and in some countries has been reversed. This is also shown in Figure 1.10 which documents the evolution of implicit tax rates between 1985 and 2009 in countries for which historical data are available. Strengthened initiatives to continued work at older ages have played a potentially important role in halting the gradual decline in labour force participation rates of older persons and the effective retirement age and their increase from the late 1990s (OECD, 2011b). It is not clear to what extent changes in the incentives for continued work among older persons related to the gradual reduction in early retirement options can explain the evolution of labour force participation of older workers in the aftermath of major economic downturns in the early and late 2000s. While this seems plausible in principle, one would also expect this to increase the unemployment impact of major economic downturns on older workers which does not seem to have been the case (see Figure 1.8). This suggests that reforms may have reduced older-worker transitions from employment to inactivity, but may have had little or no effect on older-worker transitions from employment to unemployment.22 This may reflect the countervailing role of demand-side factors related to the increased incidence of temporary contracts among younger age-cohorts that have reduced the need to make employment adjustments among older workers.

An important question during the early phase of the global financial crisis was the extent to which governments would continue on the path of reform and resist pressures to re-open pathways into early retirement or other quasi-permanent forms of social income
1. ALL IN IT TOGETHER? THE EXPERIENCE OF DIFFERENT LABOUR MARKET GROUPS FOLLOWING THE CRISIS

The evidence so far seems to suggest that, if anything, countries have continued on the path of reform and may even have strengthened reform efforts. Figure 1.11 provides an indication of the use of early retirement schemes in selected OECD countries in 2010, the most recent year for which data are available, and the change in benefit recipiency rates since the start of the global financial crisis. It shows that despite an overall tendency towards increased incentives for continued working at older ages, early retirement remains important in a number of countries. In 2010, over 15% of the old-age population is receiving benefits from early retirement schemes in Belgium, Denmark and Hungary. In Austria, Estonia and Portugal, early retirement schemes also remain important with recipiency rates over 10%. The evolution of the use of recipiency rates since the start of the crisis is somewhat mixed when taking account of both early retirement pensions and special unemployment benefit for older workers. However, when differentiating between the two types of early retirement schemes, one observes stable or declining recipiency rates in relation to the special unemployment benefit schemes for older workers, whereas the pattern with respect to early retirement pensions is mixed. What is clear, though, is that, so far, there has not been a general tendency across countries to actively promote early retirement. This may indicate that governments have learned from past mistakes, but also reflect the fact that the present situation is very different from that in the 1970s and 1980s, given the ongoing processes of population ageing and fiscal consolidation.

… but increasing levels of education and wealth effects also play a role

In addition to strengthened incentives for continued working related to the provision of retirement and other social benefits, several other factors may play a role in explaining
the increase in labour force participation following the global financial crisis, including composition effects, the health status of older workers and wealth effects. Each is discussed briefly below.

A key factor behind the trend increase in labour force participation is the gradual change in the composition of older workers by educational attainment. A shift-share analysis of the change in OECD labour force participation rates between 2000 and 2011 across gender and three education groups suggests that about a third of the change in labour force participation can be attributed to changes in the composition of older workers, and particularly older women.25 This mainly reflects the role of rising education levels across subsequent cohorts. Higher education levels tend to increase labour force participation not only because education increases the returns to work, but also because education might increase task complexity and work autonomy, and, thereby, increase the intrinsic value of work.26

Second, older workers may increasingly have managed to stay healthy for longer as a result of several important developments. First, changes in the composition of jobs have prevented older workers from becoming disabled or have induced older workers to postpone their retirement decisions. For example, as a result of structural changes, the composition of employment may have shifted away from physically demanding and dangerous jobs in mining, construction and manufacturing to services.27 Second, secular trends in preventive health systems could also play an important role in raising the physical age at which persons can remain productive at work. Apart from developments that allow older workers to stay in better health, general increases in health and safety
standards at work may also play a role. However, at the same time, there has been an increasing awareness that more needs to be done to tackle mental health problems that can lead to early exits from the labour force (OECD, 2012b).

Third, labour force participation may have increased since the start of the global financial crisis to compensate for losses in wealth or household income. In some countries such as Ireland, Spain and the United States, the global financial crisis has been associated with unusually large losses in pension and/or housing wealth, and these may have induced older workers to stay longer in the labour force. However, early evidence by Coile and Levine (2011), Gustman et al. (2011) and McFall (2011) for the United States does not suggest that changes in wealth as a result of the global financial crisis have given rise to major changes in retirement behaviour. In principle, large losses in household income as a result of the global financial crisis could induce some household members to supply more labour. This argument is likely to be particularly important for women who increased their labour force participation in countries such as Estonia and Spain, but probably less relevant for explaining changes in labour force participation among older people.

3. Do older workers crowd out youth?

This section analyses the relationship between youth and older worker employment. This is motivated by two factors. First, in the past early retirement has often been used in the hope that this would open up jobs for youth. Although the evidence so far suggests that such policies have been ineffective in creating jobs for youth, the persistently high levels of youth unemployment in many OECD countries in the aftermath of the global financial crisis may have increased the pressure on governments to resort to similar practices. Second, the analysis in the previous section clearly reveals the mixed fortunes of youth and older workers. While older workers have witnessed gradually improving labour market outcomes and have been able to withstand the fall out of the crisis reasonably well, the evolution of youth labour market outcomes is much less favourable. This raises the question whether older workers may have crowded out youth in employment during the global financial crisis. By analysing the relationship between older worker employment and youth employment, the analysis in this section seeks to assess both to what extent lower employment rates for older workers generate higher employment rates for youth and to what extent increased employment of older workers crowds out employment for youth.

The traditional argument for encouraging older workers to withdraw from the labour market by means of early retirement schemes is based on the belief that this opens up new opportunities for youth and reduces unemployment. This is often referred to as the lump-of-labour argument. It is based on two assumptions. First, the number of jobs is fixed. Many economists consider this a fallacy since employment is not a given quantity but an outcome. Whether or not a reduction in the supply of older workers will increase the demand for other labour force participants depends on many factors including how the labour force withdrawal of older workers will be financed and its implications for labour taxes. Second, it assumes that younger and older workers are substitutes in employment rather than complements. In general, younger and older workers are likely to be employed in very different jobs doing very different tasks. Older workers necessarily have more labour market experience and are likely to be over-represented in declining industries, whereas younger workers have little labour market experience and are more likely to be employed in expanding industries. The very different job profiles of younger and older workers reduces the probability that they are substitutes in production and may even imply they are complements.
The empirical literature that specifically analyses the relationship between youth employment and employment of older workers is relatively small. Gruber and Wise (2010) examine whether employment of older individuals crowds out employment of youth in 12 OECD countries. Neither evidence from country-case studies nor that from cross-country analysis suggest that increasing employment of older individuals harms youth’s employment prospects. If anything, the available evidence suggests that higher employment rates for older people are associated with higher employment rates for youth, implying that youth and older workers are complements in production. Gruber and Mulligan (2008) investigate the evidence for the United States using state-level data and also find little evidence of substitution between youth and the older workers. A more recent study by Munnell and Wu (2012) for the United States provides similar results. They also assess whether the relationship between youth and older worker employment changed as a result of the global financial crisis. This is potentially interesting because during a recession the number of jobs may be considered to be “rationed” and, consequently, the idea of representing the number of job opportunities as fixed may be more reasonable. Even so, their results do not show any significant changes in the relationship between youth employment and that of older workers. Kalwij et al. (2010) estimate a dynamic model using data for 22 OECD countries to analyse the short-term relationship between youth and older worker employment, but do not find a strong relationship between the two. Using variation across local labour markets in Norway, Vestad (2013) finds that for each five new early retirees one young person becomes employed. He thus provides evidence that older workers and youth are substitutes, although imperfectly since the relationship between youth and older worker employment is far from one-to-one.

Reducing employment for older workers does not improve youth employment

This section provides new evidence on the relationship between employment of youth and older workers using data across 25 OECD countries over the period 1997-2011. Importantly, the period under consideration includes part of the global financial crisis and, thus, allows assessing whether this relationship has changed since the start of the global financial crisis. The key challenge for identifying the causal impact of the employment of older workers on youth employment is to control for any factors that might affect both. Therefore, in a first exercise to estimate this relationship, controls are included for macroeconomic conditions and the role of policies and institutions. Failing to control for these factors will tend to induce an upward bias in the estimated impact of the employment of older workers on youth employment and thus increase the likelihood of finding that youth and older workers are complements in employment. Including proxy variables for these factors and country fixed effects is likely to go some way in addressing omitted variable bias, but unlikely to remove it completely. Therefore, as a second exercise, an instrumental approach is employed which uses life expectancy at age 65 as an instrument for the employment rate of older persons. Life expectancy is likely to be a valid instrument since it is unrelated to the youth employment rate but has significant explanatory power over the employment rate of older persons. A negative impact of the employment rate of older persons on the employment rate of youth is interpreted as evidence of crowding out, while a positive coefficient conveys the message that older workers and youth are complements. For further details on the methodology used, see Box 1.5.
The results suggest that on average across the OECD increases in the employment rate of older workers are either associated with increases in the youth employment rate or have no impact at all. The baseline regression, reported in Column 1 of Table 1.1, attempts to control for the role of confounding factors by including proxy variables for cross-country differences in macroeconomic conditions, policies and institutions and the educational composition of youth and older worker employment (the shares of medium and high-skilled employment by age group).\( u_t \) represents a country-fixed effect which controls for unobservable factors that affect both youth employment and employment of older workers but do not vary over time.\( u_t \) represents a full set of time dummies that captures the role of macroeconomic developments that are common across countries.

While the fixed-effects model discussed above already controls for a lot of observed and unobserved variation that affects employment for youth and older workers, it is still possible that the results are driven by unobserved factors related to the policy environment or business conditions that affect employment of both youth and older workers in the same way and, thus, induce an upward bias in the estimated impact of older worker employment on youth employment. In order to address this issue, Equation (1) is also estimated using a two-stage instrumental variables approach using life expectancy at age 65 as an instrument for the employment rate of older workers. This is likely to be a valid instrument as it has significant predictive power over older worker employment but is unlikely to be correlated with the youth employment rate.

To the extent that during recessions many jobseekers are competing for a limited number of jobs, one might expect the potential for crowding out to become more important during periods when labour demand is depressed. In order to analyse whether the relationship between older worker employment and youth employment changes over the course of the business cycle or has changed since the start of the global financial crisis, the empirical model is re-estimated while allowing for differences in the coefficient in normal times (before the crisis) and during recessions (since the start of the global financial crisis). More specially, Equation (1) is complemented using a dummy \( D \) that equals 1 during recessions (since the start of the global financial crisis) and zero otherwise and an interaction term between older worker employment and the recession (crisis) dummy. This is represented by Equation (2) as follows:

\[
e_{15-24}^{it} = \beta_1 e_{55-64}^{it} + \sum_{x=1}^{X} \gamma_x X_{it} + u_i + u_t + e_{it}
\]

The results suggest that on average across the OECD increases in the employment rate of older workers are either associated with increases in the youth employment rate or have no impact at all. The baseline regression, reported in Column 1 of Table 1.1, attempts to control for the role of confounding factors by including proxy variables for cross-country differences in macroeconomic conditions, policies and institutions and the educational composition of youth and older worker employment (the shares of medium and high-skilled employment by age group).
The results suggest that a 1 percentage point increase in the employment rate for older workers gives rise in the long-run to an increase in the youth employment rate by 0.3 percentage points. In order to account for the possibility that employment of older workers is correlated with any omitted factors that also affect youth employment, the employment rate of older workers is instrumented using life expectancy at age 65. The coefficient associated with the employment rate of older workers, reported in Column 4 of Table 1.1, is now negative but much smaller and no longer statistically significant: in other words, increases in the employment rate of older workers have no impact on the employment rate of youth.

There is no evidence that the relationship between employment of older workers and youth is significantly different during recession periods or has changed since the start of the global financial crisis. This can be seen from Columns 2, 3, 5 and 6 in Table 1.1. The estimated coefficients on the interaction terms between the employment rate of older workers and the financial crisis dummy or the recession dummy are very small and statistically insignificant. Moreover, the coefficients on the employment rate of older workers is unaffected.

Table 1.1. The impact of older workers employment on youth employment

| 25 OECD countries, 1997-2011, dependent variable: youth employment rate | Fixed effects regressions | Instrumental variable regressions
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment rate of persons 55-64</td>
<td>0.33***</td>
<td>-0.18</td>
</tr>
</tbody>
</table>
| (0.05) | (0.06) | (0.32)
| Crisis dummy | 1.08 | 1.99 |
| (1.77) | (2.04) |
| Recession dummy | -0.31 | -0.28 |
| (0.99) | (1.10) |
| Employment rate persons 55-64* crisis dummy | -0.01 | -0.04 |
| (0.03) | (0.03) |
| Employment rate of persons 55-64* recession dummy | 0.02 | 0.01 |
| (0.02) | (0.02) |
| Control variables | Yes | Yes | Yes | Yes | Yes |
| Country dummies | Yes | Yes | Yes | Yes | Yes | Yes |
| Time dummies | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 241 | 241 | 241 | 241 | 241 | 241 |
| R squared | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |

Robust standard errors in parentheses.
***, **, * statistically significant at 1%, 5% and 10% levels, respectively.

a) Life expectancy at age 65 is used as an instrument for the employment rate of older workers.
b) Control variables include: log of GDP per capita, GDP annual growth rate, unemployment rate, house-price index, index of employment protection of regular workers, the average unemployment-benefit net replacement rate and the collective bargaining coverage, shares of medium and high-skilled in youth and old-age employment, respectively.

Source: OECD estimates based on national labour force surveys.

StatLink: http://dx.doi.org/10.1787/888932853321
Investing in strategies that promote better employment outcomes at all ages

In short, in line with most previous findings in the literature, the present estimates show no evidence that higher employment of older workers reduces job opportunities for youth. Thus, youth employment outcomes do not appear to have suffered from rising employment of older workers since the early 2000s. These findings also suggest that policies that encourage older workers to withdraw permanently from the labour market would be both expensive for the public purse and ineffective in alleviating the problem of high and persistent youth unemployment. Moreover, in the context of rapid population ageing, resorting to early retirement schemes would undermine the sustainability of social security systems and increase the risk of having to reduce its generosity in the future.

Instead, governments should pursue mutually reinforcing strategies that will lead to better employment prospects for both younger and older people, in particular:

- **Growth-enhancing structural reforms** can potentially benefit the labour market outcomes of both youth and older workers. An important example in this regard are reforms that seek to make the system of employment protection more balanced across different types of contracts in countries with a dual labour markets characterised by strong job protection for regular workers and a high incidence of temporary work (see Chapter 2 of this publication for further details).

- **Targeted active labour market policies** can help youth and older workers with specific problems of finding or staying in employment. Both youth and older workers have sometimes received less attention from employment agencies either because they do not qualify for unemployment benefits (youth) or because they have been exempted from job search (older workers). Training and work-experience programmes can play an important role in helping disadvantaged youth getting a foothold in the labour market, whereas the effective provision of job-search assistance may be especially important for helping unemployed older workers back into work. Governments should make sure that no groups are excluded from accessing effective employment services (see Chapter 3 of this publication for an in-depth analysis of activation systems and active labour market policies in selected OECD countries).

- **An innovative approach may be to invest in building effective intergenerational partnerships** between young and older workers. Such measures typically seek to strengthen complementarities in employment between youth and older workers by promoting: i) the transfer of competences between older and younger workers; and ii) the creation of jobs for youth and the retention older workers in employment. A number of OECD countries have recently introduced initiatives that seek to foster intergenerational partnerships (see Box 1.6). While little is known about the effectiveness of these schemes to create jobs for youth and retain older workers in employment, they are unlikely to have played a major role so far (European Parliament, 2013). However, the main value of such schemes may be to foster a culture of greater co-operation across age groups.
Box 1.6. **Building effective intergenerational partnerships**

This box discusses a number of measures that have recently been introduced to promote intergenerational partnerships in four OECD countries. Intergenerational partnerships seek to strengthen complementarities in employment between youth and older workers by promoting, on the one hand, the transfer of competences between older and young workers (e.g. firm-specific knowledge of older workers, entrepreneurship of young workers) and, on the other, the creation of jobs for youth and the retention older workers in employment. In practice, measures to promote intergenerational partnerships tend to take the form of tailored hiring subsidies or work-sharing arrangements.

- In 2005, the federal authorities in Belgium enacted the Pact on solidarity between generations. The Pact was initially intended to contain only end-of-career measures, but youth employment measures were added at the request of the unions. The Pact consists of three components: active ageing, social security arrangements and jobs for youth. For example, it contains measures that aim at facilitating the recruitment of unskilled youth and promoting continued work of older workers beyond the pensionable age. The Belgian Higher Labour Council recently evaluated a large number of the measures included in the Pact. Its main findings are that their effects on active ageing have been minimal and that 16 of the measures have not or have not yet been fully implemented (Conseil Supérieur de l’Emploi, 2012).

- In France, the government introduced the “contrat de génération” (generation contract) in 2013. The key idea is that the employment of younger and older workers can be rendered more complementary by promoting knowledge transfers across generations within firms. The contrat de génération gives subsidies to small and medium-sized companies (with less than 300 employees) for signing permanent contracts with people under the age of 26, while maintaining a corresponding older employee aged 57 or over in work or hiring a worker older than 55. The subsidy amounts to EUR 4 000 a year for a period of three years. For medium-sized companies (50-300 employees) the subsidy is conditional on having a negotiated collective agreement with specific reference to the contrat de génération, while this is not required for small firms. While the subsidy does not specifically target the least qualified, the subsidy is relatively more important for low-paid workers since it is a lump-sum that does not depend on earnings. Large companies (300+ employees) are not entitled to any subsidies but have an obligation to negotiate a collective agreement in the context of the contrat de génération and elaborate an action plan (see for more details: http://travail-emploi.gouv.fr/contrat-de-generation,2232/).

- In Italy, a programme is in place since 2007 that promotes solidarity agreements between generations (L. 296 del 27/12/2006 – Legge finanziaria, 2007). The programme aims at promoting hires of unemployed youth aged 25 to 29, while maintaining older workers in employment. The solidarity agreement promotes work sharing by facilitating and encouraging the transformation of full-time contracts of workers over 55 into part-time jobs, while generating at the same time part-time jobs for unemployed young people under 25 or under 30 if they have a university degree.

- In Spain, the Strategy for Entrepreneurship and Youth Employment for 2013-16 includes among its measures a subsidy for inter-generational partnerships. More specifically, the strategy introduces a new hiring subsidy for young entrepreneurs who recruit a long-term unemployed worker aged 45 or above on an open-ended or fixed-term contract with a duration of at least 18 months. The subsidy takes the form of a 100% reduction in social-security contributions during the first year of the contract.
Conclusions

Given the current and projected extent of labour market slack in the OECD area, the main policy priority must be to take action to underpin aggregate demand. Monetary policies have to remain accommodative. Fiscal consolidation is required in many OECD countries. However, its speed should be calibrated to country-specific circumstances so as to avoid excessive tightening.

Given limited resources and the difficult labour market situation, it is also of key importance that labour market policy priorities are set appropriately by allocating the resources that are available to their most effective use. This means first of all that resources are safeguarded for effective active labour market policies and, to the extent possible, increased in line with labour market needs. As documented in last year’s OECD Employment Outlook (OECD, 2012, Chapter 1), the sharp decline in resources per unemployed job seeker since the start of the financial crisis raises important concerns. The decline in the intensity of job-search support for the unemployed may lead to discouragement and withdrawal from the labour market, thereby aggravating the difficult labour market situation but also hindering the long-term potential for economic growth. As highlighted in the chapter, youth and the low-skilled have been hit hardest by the crisis and should be the focus of reinforced measures to help them return to work or improve their employability (see also Chapter 3 in this volume).

Setting priorities appropriately also means resisting pressures to introduce measures that actively seek to encourage older workers to withdraw from the labour market. In light of the still very difficult labour market situation of youth in many OECD countries, governments may be under pressure to resort to early retirement measures in the hope that this frees up jobs for young workers. Such pressures may be reinforced by the flawed perception that the improved labour market performance of older workers may somehow have come at the cost of youth. However, this chapter provides new evidence that shows that the good employment performance of older workers during the past decade did not come at the expense of worse employment outcomes for youth and that policies which encourage older workers to withdraw from the labour market are ineffective in alleviating the problem of high and persistent unemployment (as well as very expensive for the public purse). It is, therefore, reassuring that governments appear to have so far resisted pressures to introduce measures encouraging early retirement. Rather than reinforcing the public perception that older and younger workers compete for a fixed number of jobs, governments should pursue a strategy of improving job prospects for both younger and older workers.

The difficult economic and labour market situation is also likely to increase the need for structural reforms in some OECD countries that can enhance long-term economic growth and labour market performance. Indeed, the crisis and the subsequent need for fiscal consolidation already appear to have acted as an important catalyst for structural reforms, particularly in countries where reforms were most needed (OECD, 2013b; and Chapter 2 of this edition on reforms to employment protection legislation). However, the benefits of structural reforms take time to materialise and there can be important transitional costs depending on the specific nature and timing of such reforms. In addition to the distributional implications of structural reforms, this provides one important explanation about why implementing such reforms tends to be so difficult in practice. It will therefore be important to take any potential transitional costs explicitly into account when designing structural reforms.
1. Output gaps are difficult to estimate and subject to substantial uncertainty since they are not directly observable. OECD work in this area generally follows an aggregate production function approach, taking into account the capital stock, changes in labour supply, factor productivities and underlying "non-accelerating inflation rates of unemployment" (NAIRU). For further details, see Beffy et al. (2006).

2. Unlike previous editions of the OECD Employment Outlook, the jobs gap is defined here relative to the historical trend of employment as measured by "potential employment" instead of the actual evolution in the working-age population. The reason for using a slightly different definition of the jobs gap is that the current definition takes account of structural trends in both employment and the population and is conceptually consistent with the definitions of the output gap, the NAIRU and the OECD short-term projections used in this chapter. The method used here and the one used in previous editions of the OECD Employment Outlook yield very similar results.

3. For absolute jobs-gap numbers, see Table 1.A2.1 of the online annex (OECD, 2013a).

4. Note that unit labour cost measures deal exclusively with the cost of labour and thus do not take account of the cost of capital which is also important for understanding cross-country differences in cost-competitiveness. Another important caveat when using unit labour costs as a measure of international competitiveness is that no account is taken of exchange-rate movements.

5. However, these trends should be interpreted with caution. Apart from reflecting trends in cost competitiveness (in terms of the cost of labour per unit of output), changes in unit labour costs may also reflect compositional effects related to changes in the composition of the workforce and economic structure. It may also reflect differences in the role of hours adjustments and labour hoarding for overall labour market adjustment.

6. The focus is on the wages of full-time workers in order to abstract from changes in working hours and to control, at least to some extent, for changes in the composition of the workforce that may have occurred during the period under consideration.

7. Greece, Ireland and Portugal stand out in this regard. In those countries, there has been a large reduction in the dispersion of earnings in the bottom half of the distribution, while earnings dispersion has been stable or increased in the top half of the distribution. This is consistent with a pattern of wage polarisation.

8. Household market income represents the sum of household capital and labour income before taking account of taxes and benefits but after adjusting income for household size.

9. Migrants have also been hit disproportionately hard by the global financial crisis. The unemployment rate of the foreign-born rose by 5 percentage points between 2008 and 2012, whereas that of the native-born increased by 3 percentage points over the same period (OECD, 2013d).

10. The importance of reduced labour force participation relative to increased unemployment for youth also suggests that increases in youth unemployment rates following the global financial crisis largely reflect falling labour force participation rather than rising unemployment.

11. As will be discussed in more detail below, in the past many governments provided incentives to withdraw from the labour market to older workers in the form of easy access to early retirement or disability schemes.

12. Downturns that relate to more than one decade are allocated to the decade where the bulk of the downturn took place. This implies that many of the downturns that started in the late 1980s tend to be allocated to the 1990s in practice.

13. The present analysis requires a long time series to allow making comparison across crisis episodes. Such information is not available by skill group for the majority of OECD countries.

14. It confirms that, for the working-age population as a whole, the impact of the global financial crisis on labour market outcomes has been among the strongest since the downturns in the 1970s.

15. For figures for all countries for which appropriate data are available, see Figure 1.A2.4 of the online annex to this chapter (OECD, 2013a).

16. The changes in self-reported disability rates in Finland seem to be too large to be driven by changes in health conditions alone. This may reflect the possibility that individuals respond with reference to their official health status in administrative systems rather than solely on the basis of their own perceived physical or mental capability of working. While in Finland and Poland disability benefit caseloads have fallen over the period 2001-11, only in Poland is the decline sufficiently large to account for the observed changes in self-reported disability rates (OECD, 2010b).

17. For a comprehensive discussion, see OECD (2006b).
18. Blondal and Scarpetta (1998) and Duval (2004) also analyse implicit tax rates on continued work across OECD countries. These studies show that implicit taxes on continued work tend to be high in Continental European countries compared with English-speaking countries, the Nordic countries, Japan and Korea. They also show that implicit taxes significantly reduce labour force participation among older workers. There is also some evidence that disability and unemployment insurance programmes have been used as de facto early retirement schemes.

19. Although the intention was to help a particularly vulnerable group, there is now considerable evidence that the health status of workers with partial disabilities actually tends to deteriorate when they are on disability benefits, as compared to when they remain in work or return to work (OECD, 2010b).

20. New estimates conducted in the context of the present chapter do not point to any significant effects of implicit tax rates on the employment and labour-force-participation responses of older workers to major economic downturns.

21. This issue will be discussed in more detail in Section 3 of this chapter.

22. Coile and Levine (2013) show for the United States that economic downturns promote retirement decisions, but only from age 62 when workers become eligible for social security (pensions). The generosity of Unemployment Insurance (UI) does not appear to have an impact on retirement decisions. This suggests that UI plays little or no role in assisting older workers who lose their jobs to delay retirement, but that the old-age pension plays an important role in helping older workers cope with recessions.

23. In addition, Spain has made a number of recent reforms in relation to early retirement. The system of early retirement pensions was reformed in early 2013 to increase the effective retirement age and incentives to continue working at older ages. Unemployment subsidies for older workers have been reformed in 2012. The special unemployment subsidy for workers over 45 was eliminated and the unemployment subsidy for workers over 52 was transformed and the initial entry age increased to 55 years. In Portugal early retirement schemes have been suspended, with some exceptions, since 2012 until at least until 2014.


25. The results from this decomposition for the OECD average, as well as by country, can be found in Figure 1.A2.5 of the online annex to this chapter (OECD, 2013a).

26. Since the analysis here is based on age bands, composition effects with respect to age may also play a role, particularly in the short-run. However, it is unlikely that such effects are very important in the medium to long-term.

27. Secular developments in the level of work intensity and job security, which both have been shown to be important determinants of stress at work and mental health, may also play a role. While there is limited systematic evidence on the evolution of work intensity and job security, most accounts seem to point towards increasing levels of work intensity and lower job security, which, if anything, would tend to reduce the effective retirement age.

28. It should be noted that potential changes in pension wealth mainly concern those countries where an important part of pension contributions are in managed funds. In countries where pension schemes are mostly defined-benefit schemes, this will not be an issue.

29. See European Parliament (2013) for a comprehensive overview.

30. Munnell and Wu (2012) use a similar instrument based on the mortality rate of older workers.

References


1. ALL IN IT TOGETHER? THE EXPERIENCE OF DIFFERENT LABOUR MARKET GROUPS FOLLOWING THE CRISIS


Database references


## ANNEX 1.A1

### Recent and projected labour market developments

#### Table 1.A1.1. Recent and projected developments in OECD countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Real GDP growth (percentage change from previous period)</th>
<th>Employment growth (percentage change from previous period)</th>
</tr>
</thead>
<tbody>
<tr>
<td>America</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>5.1</td>
<td>-0.9</td>
</tr>
<tr>
<td>Canada</td>
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<td>-2.8</td>
</tr>
<tr>
<td>Mexico</td>
<td>-6.0</td>
<td>-6.0</td>
</tr>
<tr>
<td>United States</td>
<td>1.8</td>
<td>-3.1</td>
</tr>
<tr>
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<td></td>
</tr>
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Table 1.A1.1. **Recent and projected developments in OECD countries**

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a) The OECD Secretariat’s projection methods and underlying statistical sources and concepts are described in detail in "Sources and Methods: OECD Economic Outlook" which can be downloaded from the OECD internet site (www.oecd.org/eco/sources/methodsoftheoececonomicoutlook.htm).
b) Aggregates are computed on the basis of 2008 GDP weights expressed in 2008 purchasing power parities for real GDP growth, employment weights for employment growth, and labour force weights for the unemployment rates.

### Table 1.A1.2. **National early retirement pension and unemployment benefit schemes for early retirement**

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<td>Préretraites ASFNE, CATS, CAATA, ARPE RETRAITES anticipées pour carrière longue (RA)</td>
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<td>Korkedvezményes öregségi nyugdíjak</td>
<td>Statistical Almanac (<a href="http://www.onyf.hu/en/?module=news&amp;action=getfile&amp;fid=11048&amp;rand=e68907aadbff79e99807da51c286cc">www.onyf.hu/en/?module=news&amp;action=getfile&amp;fid=11048&amp;rand=e68907aadbff79e99807da51c286cc</a>)</td>
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### Table 1.A1.2. National early retirement pension and unemployment benefit schemes for early retirement (cont.)

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[StatLink](http://dx.doi.org/10.1787/888932853359)