

**NEW SKILLS AT WORK**

JPMORGAN CHASE & CO.

IPPR



# EUROPEAN JOBS AND SKILLS

A COMPREHENSIVE  
REVIEW 2014

## REPORT

Tony Dolphin, Glenn Gottfried,  
Luke Raikes, Amna Silim  
and Spencer Thompson

April 2014  
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## ABOUT THE PROGRAMME

The JPMorgan Chase global New Skills at Work programme focuses attention on what can be done to overcome unemployment, ranging from macro strategies to boost job creation, expand labour market participation and develop the skilled workforce for the future, through to specific innovations that improve the skills of the workforce and meet local employers' needs.

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## ABOUT THE AUTHORS

**Tony Dolphin** is senior economist and associate director for economic policy at IPPR.

**Glenn Gottfried** is a quantitative research fellow at IPPR.

**Luke Raikes** is a researcher at IPPR North.

**Amna Silim** is a research fellow at IPPR.

**Spencer Thompson** is an economic analyst at IPPR.

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IPPR  
4th Floor  
14 Buckingham Street  
London WC2N 6DF  
T: +44 (0)20 7470 6100  
E: [info@ippr.org](mailto:info@ippr.org)  
[www.ippr.org](http://www.ippr.org)  
Registered charity no. 800065

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# FOREWORD

The world is changing rapidly due to globalisation and technological advances; traditional jobs have been lost forever. In normal circumstances private companies adapt, and new jobs are created to replace old ones – but the pace of change has become too fast for companies to keep up with. On top of that, the ‘Great Recession’ has altered the landscape, with cyclical unemployment at historically high levels.

Countries across the developed world are struggling to revive their economies and secure their public finances. Labour market performance has varied considerably, but higher unemployment has been one of the clearest manifestations of economic uncertainty. Too many citizens are without the work that they need to earn a decent living for themselves and their families, with profound consequences for wider societies.

There are also deeper, long-term challenges which pre-date the crisis. Certain groups were not lifted by the rising tide of growth, with persistently lower employment rates among young people, mothers, some ethnic minorities, those with a disability and those without good qualifications. At the same time, for too many in employment, the work they had was badly paid and poor quality, and many people did not possess the right skills needed in the workplace.

Done well, employment and skills policies can help to create the jobs necessary for productive economic growth, and to generate decent wages for workers and their families, by responding to labour market dynamics driven by social and demographic trends and developing workforce strategies to better match skills to jobs. This will facilitate economic and business growth during a time of significant change.

IPPR and JPMorgan Chase have formed a partnership to bring together and mobilise the best people and their research to identify the best policy solutions. The European Jobs and Skills programme, which forms part of the global New Skills at Work programme, will analyse what can be done to overcome unemployment, ranging from macro strategies for boosting job creation, expanding labour-market participation and developing a skilled workforce for the future, through to specific innovations that improve the skills of the workforce to meet local employers’ needs.

This report, which looks in detail at trends in labour markets across Europe, is the first publication from this research programme.

**Nick Pearce**, *director, IPPR*

# 1. OVERVIEW

## Abstract

*Over 24 million people are unemployed in Europe – more than one in 10 of the labour force. Our analysis suggests that roughly one-third of this total is a consequence of a cyclical problem that has arisen in recent years as a result of the financial and sovereign debt crises; the remaining two-thirds represent a structural problem that pre-dates 2007. Exploring the aggregate country and regional data shows that some groups – the young, those with low skills and those living in regions where low-value-added manufacturing used to predominate (but not, contrary to popular perceptions, older workers) – have been finding it particularly hard to find work, not just since the recent recession but for many years. Furthermore, we have found that another one in 10 people say they would like to work longer hours: these people can be classified as ‘underemployed’.*

*A protracted period of high cyclical unemployment can lead to increases in structural unemployment and inactivity. The good news is that we cannot find evidence that this is happening yet in most European countries, but the fact that it might do in the next few years is a genuine cause for concern. Europe, therefore, needs a significant increase in its employment rate in order to tackle its cyclical and structural unemployment problems. This will not be easy because, as we show, the continued pressures from globalisation and technological change are causing the European labour market to polarise, with ‘mid-skill’ jobs disappearing while the number of high-skill and low-skill jobs grow.*

*Europe should aim to create more high-productivity, well-paid jobs. To do so, it must do more to develop the skills of young people who do not go through university, and to help individuals to update their skills throughout their working lives. At the same time people need to be incentivised to acquire new skills, and firms have to be encouraged to utilise them. Moving towards full employment in Europe will also involve lifting the employment rates of groups that currently find it difficult to compete in the labour market. The analysis presented here suggests that these groups include women (particularly mothers), young people, those with few or no skills, and those previously employed in declining industries.*

## 1.1 Introduction

For almost 30 years after the second world war, unemployment in Europe was low, economies grew strongly and prosperity was widely shared. However, in the early-1970s unemployment and inflation both

increased sharply, and since then unemployment across Europe has been consistently higher than in the postwar period. This represents a huge waste of human potential and loss of output.

More recently, the financial crisis, recession and subsequent sovereign debt crisis have caused unemployment across Europe to increase to more than 10 per cent – and to more than 25 per cent in Greece and Spain (Eurostat 2014a). This has brought renewed urgency to the search for policies to get people back into work. For a number of reasons, a return to the postwar policy of attempting to manage the economic cycle through changes in public spending and tax regimes would not be appropriate – this approach was discredited in the 1970s. However, the policies that have been adopted over the last 40 years, which have included an emphasis on labour market deregulation, have also not worked. Something new is needed.

The challenge now is to find a way to simultaneously expand the supply of, and the demand for, labour. Not only that, if Europe is to be successful in the global economy then the new jobs that are created will need to be more highly skilled than the ones they replace. This will require major investments in the skills of the workforce, while firms will need to adapt their business models to utilise these newly-acquired skills. The potential reward from following this approach is a European economy in which people are able to get the jobs that they want and are capable of doing, and firms are able to find the workers they need.

## 1.2 Recent developments

At the end of 2013, over 24 million people were recorded as being unemployed in the 24 European countries that are members of the Organisation for Economic Co-operation and Development (OECD Eurostat 2014a).<sup>1</sup> This was an increase of almost 8 million compared to the end of 2007, and represented 10.6 per cent of the combined labour force of all of these countries. There are more people unemployed in Europe now than ever before, and the unemployment rate is close to the postwar record set in the early 1990s.

Unemployment increased sharply in 2009 and 2010 as a result of the 'Great Recession', and – after a brief respite – increased again in 2012, when Europe returned to recession after an all-too-brief and limited economic recovery. More recently, in 2013, there were signs of stabilisation in European unemployment as GDP growth again turned positive. A significant part of the unemployment problem in Europe can, therefore, be considered cyclical.

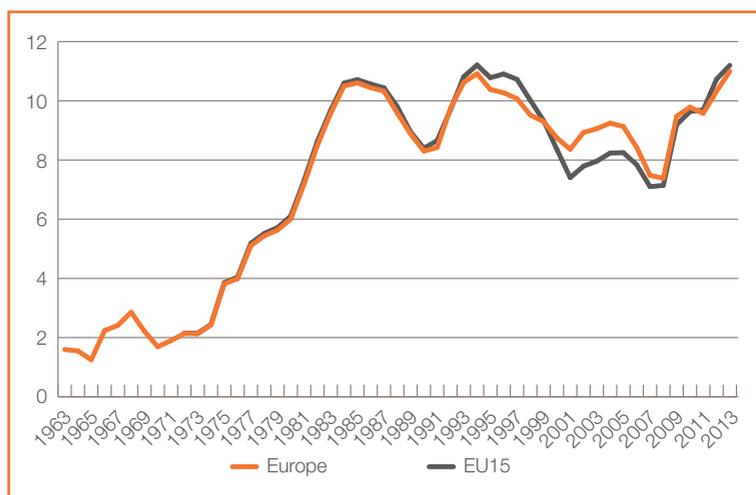
However, unemployment across Europe was above 7 per cent before the financial crisis started – and indeed has remained at or above this level throughout the last 30 years. It is important, therefore, that any

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<sup>1</sup> These countries, together with their populations, are listed in the appendix at the back of this publication.

drive to reduce unemployment in Europe does not seek to tackle only the *cyclical* unemployment that has arisen in recent years, but also the *structural* unemployment that has been around for much longer.

**Figure 1.1**  
Unemployment  
in Europe-24 and  
EU15 countries  
(% of labour force),  
1963–2013



Source: for 1963–2012, OECD.stat; for 2013, authors' estimate based on Eurostat data.

Some groups have fared worse than others throughout the recent period of rising unemployment. New analysis conducted for this report shows that, in particular, young people and those with the lowest levels of skills have seen their unemployment rates increase by more than the average (see chapter 2). This represents an intensification of trends that were apparent well before the financial crisis and recession. Men have also fared worse than women in terms of rising unemployment rates, because of the gendered nature of employment. The manufacturing and construction sectors, which are still male-dominated industries in comparison to the service sector, have seen the biggest falls in output. Even so, a large gender gap still exists in the workforce, with employment rates for men still well above those for women in most countries (the Nordic countries being the exception).

Higher unemployment among young people is widely seen as a problem worthy of special attention. Studies have shown that a difficult transition from education into full-time employment, characterised by long periods of unemployment or by periods of cycling in and out of work, has a lasting impact on a person's prospects in the labour market. People who face such difficulties are less likely to be in employment, and tend to have a lower earnings potential, throughout their lives. The lack of new job opportunities means that young people (those aged under 25) have fared badly in recent years, but our analysis shows that even before

the recent recession their unemployment rate was increasing relative to prime age (25–54) and older (55-plus) workers for much of the decade up to 2007 (see chapter 10). Similarly, workers of any age who had only the lowest-level qualifications were also already finding it harder to get jobs. This indicates that long-term structural forces are at work in the European labour market, leading to shifts in demand for different types of workers, with employers showing an increasing preference for those with experience and at least medium-level skills. Policymakers need to take steps to secure sustainable recoveries in their economies in order to bring down cyclical unemployment, and they also need to take action to address these longer-term, structural problems.

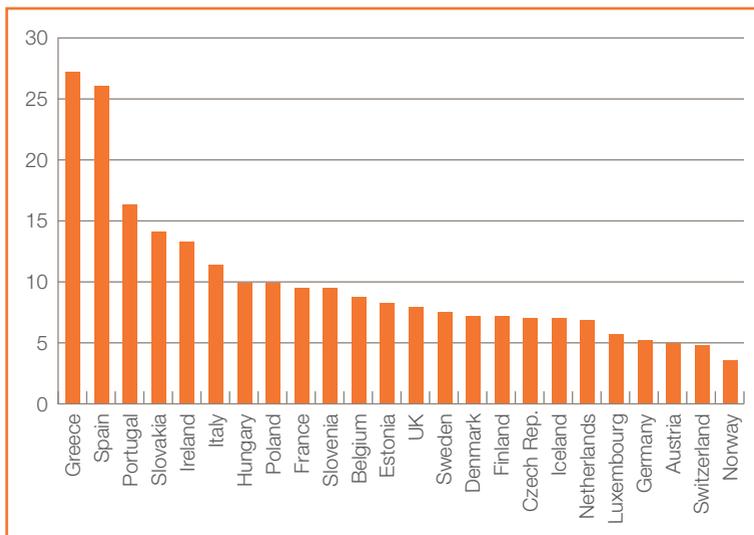
There are also huge disparities across Europe, with countries in the south and on the periphery faring far worse than those in the north and centre. Unemployment rates range from as low as 5 per cent in Germany, Austria, Switzerland and Norway to more than 25 per cent in Spain and Greece (Eurostat 2014a). This is largely a reflection of the varying effects that the financial crisis and the subsequent sovereign debt crisis have had on different parts of Europe, and it demonstrates that getting a country's macroeconomic policies right is an important element in any employment strategy. However, increases in unemployment have been larger than might have been expected, given the falls in GDP, in those countries that were most badly affected by the crisis, and there was significant variation in unemployment rates across Europe before 2007. Not all of the current differences evident in figure 1.2 can be explained by developments in economic activity in the last six years. Other factors that are likely to be important include labour market regulations, the prevalence of temporary contracts, and the use and effectiveness of active labour market policies.

Furthermore, the variation in unemployment rates between countries masks wider disparities that exist at a regional level. Some parts of Europe, including southern Italy for example, have long lagged behind national and European averages for employment and unemployment rates. Other regions – often those that once had a high concentration of jobs in low-value-added manufacturing industries, like parts of northern England – have been hit harder by the structural forces of globalisation and technological change. Yet another group of regions – including every region in Spain but also certain regions of other countries – have been hit disproportionately hard by developments over the last six years.

Our analysis shows that the skills of the workforce have been an important determinant of regions' economic performances – both structurally over the longer-term, and in the short-term as a result of the recession (see chapter 3). Some European sub-regions have, over many years, settled into a 'low-skills equilibrium', with both the supply of and demand for skills entrenched in a low value-added, low-wage status quo. There is a strong relationship between skill

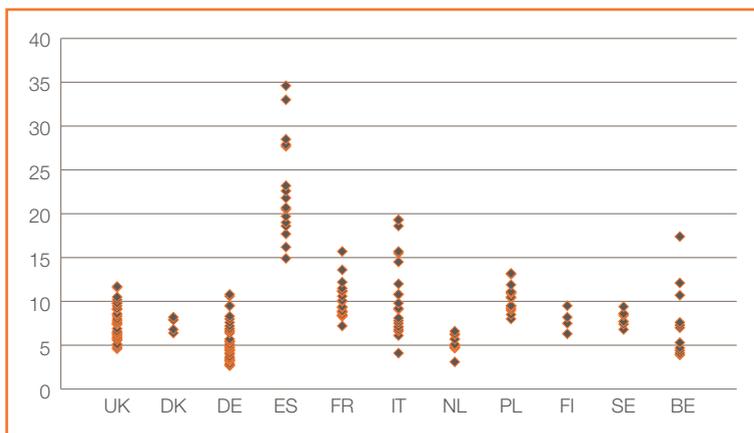
levels and recent changes in unemployment levels: areas with the least-skilled workforces have tended to experience the greatest increases in unemployment. Skills can, therefore, make a region more resilient to short-term down draughts in the economy, as well as being essential for its longer-term prosperity.

**Figure 1.2**  
Unemployment across Europe (% of national labour forces), Q3 2013



Source: Eurostat 2014a  
Note: Iceland figure is for Q2 2013

**Figure 1.3**  
Unemployment rates (as % of active population) in NUTS-2 areas (sub-regions) of selected Europe-24 economies, 2012

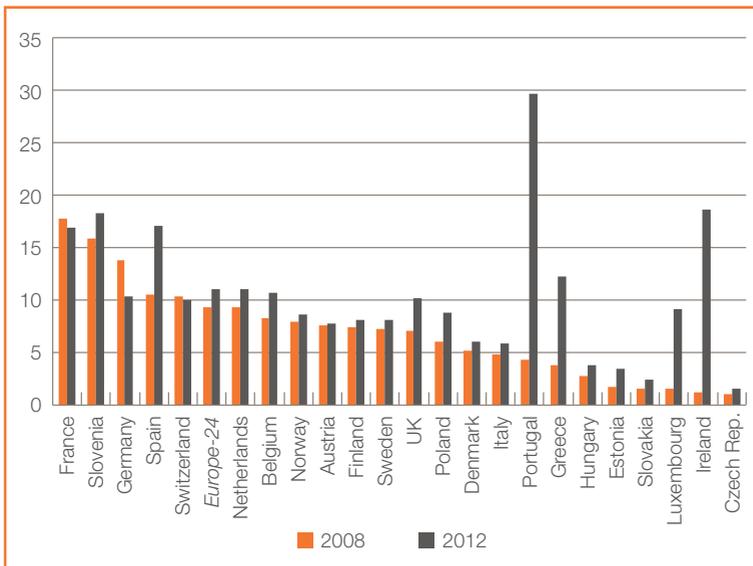


Source: Eurostat 2014b  
Note: UK = United Kingdom, DK = Denmark, DE = Germany, ES = Spain, FR = France, IT = Italy, NL = Netherlands, PL = Poland, FI = Finland, SE = Sweden and BE = Belgium.

### 1.3 Underemployment

Unemployment data does not tell the whole story about the weakness of the European labour market. It is common in periods of weak economic growth and recessions for some people not to be able to find the type of work that they want. Some people who would prefer a permanent job have to accept work on temporary contracts; some who would prefer to be employed but cannot find a suitable job try their hand at working for themselves, and so the prevalence of sole trading increases. Some people who would prefer to work full-time have to take part-time work; and some people can only find work that does not fully utilise their skills. In the third and fourth cases, and possibly in the second, these people are said to be underemployed.

It is not always possible from the headline data to say whether a person is underemployed: many choose to work part-time or for themselves. However, surveys can reveal whether people are dissatisfied with their current work arrangements. New analysis presented in this report shows that, across Europe as a whole, there has been a significant increase in underemployment since 2008, with 3 million more people now reporting that they would like to work longer hours. More than one in 10 of the total workforce now fall into this category (see chapter 4).



**Figure 1.4**  
Proportion (%) of total workforce underemployed in Europe-24 countries (excluding Iceland\*) and Europe-24 average, 2008 and 2012

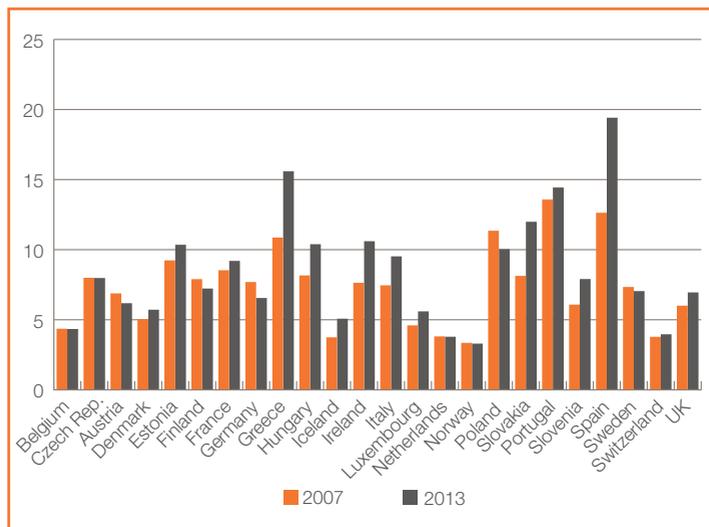
Source: IPPR calculations using EU Labour Force Survey  
\*Note: Data was unavailable for Iceland.

Unsurprisingly, the biggest increases have been in those countries that have been hardest hit by the financial crisis, recession and sovereign debt crisis. Underemployment represents a significant under-utilisation of the skills of Europe's workforce. Failing to tackle it will result in many workers being trapped in poor jobs that leave them disaffected with work.

### 1.4 Cyclical versus structural unemployment

Unsurprisingly, the protracted period of recession and sluggish economic recovery has meant that many people who lost their jobs in recent years have found it hard to get another one. As a result, long-term unemployment has increased substantially, and is now at an all-time high in Europe both in absolute terms and as a proportion of total unemployment (Eurostat 2014a). Two in five of the unemployed in Europe have now been out of work for more than a year. There is a risk that employers will find people who have been out of work for a long period of time less attractive as prospective employees. In the past, unemployment has remained high in some countries even after the economy has recovered from recession, because many of the long-term unemployed have been unable to find work. In effect, cyclical unemployment (caused by recession) became a more structural (long-term) unemployment problem. In these circumstances there is also a risk that some people will become disheartened with searching for a job and quit the labour force, leading to an increase in inactivity rates (the proportion of the working-age population that is neither in work nor looking for a job). This is particularly true of older workers, women, and those with low levels of skills.

**Figure 1.5**  
Non-accelerating  
inflation rate of  
unemployment  
(NAIRU) estimates  
(%) for Europe-24  
countries, 2007  
and 2013



Source: OECD 2013

Our analysis of the latest data, conducted for this report, suggests this is not happening so far in much of Europe (although, interestingly, the opposite is true in the US). One possible sign of an increase in structural unemployment would be a rise in the ratio of vacancies to unemployment, which would constitute evidence of a growing mismatch between the type of workers employers are looking for and the skills of those who are out of work. However, analysis of European countries (see chapter 5) finds that, with a few exceptions, this is not occurring. Consequently, estimates of the non-accelerating inflation rate of unemployment (NAIRU) have not increased for most countries,<sup>2</sup> as figure 1.5 below illustrates.

Similarly, while inactivity rates have increased in a few countries, across most of Europe they have fallen (see chapter 2). In part this reflects older people staying in the workforce for longer because of increases in state pension ages, but there is no evidence as yet that young and prime-age adults have become less willing to work. For now this is a positive sign.

## 1.5 Long-term threats...

Europe's unemployment problem is not just about the effects of the recent recession. Jobs and careers in Europe have been changing rapidly for at least 20 years, and this has been associated with relatively high levels of unemployment. Long-term forces – particularly globalisation and technological change – are destroying some jobs forever, and the private sector has struggled to create enough new ones to replace them.

Stories have begun to emerge, mainly from the US, about 'reshoring' – that is, jobs that were once sent abroad returning to their original country. Normally this happens because a multinational firm discovers that conducting some production in another part of the world is no longer the most profitable option. This might be because labour costs have risen in that part of the world, because transport costs have increased, or because technological advances have meant that skilled workers in the 'home country' have become more productive. Nevertheless, as yet this development is not a major new trend in global labour markets. The first major surge in globalisation, which resulted from the collapse of the Soviet empire, the opening up of China, and related events in other parts of the emerging world, has perhaps passed. However, it is likely that globalisation will continue to be a dominant force in the European economy for the foreseeable future, changing the nature of the labour market. More jobs, and even whole industries, will migrate to emerging economies, even if some start to flow in the opposite direction.

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<sup>2</sup> The NAIRU is a measure of structural unemployment. Actual unemployment can be brought down to the NAIRU level but attempts to push it below the NAIRU are likely to be successful only in the short-term and to result in higher inflation.

Globalisation has been a significant influence on Europe's jobs market in the last two decades, but technological change has had an even bigger impact, and its effects seem sure to continue. Rapid technological change eliminates the need for some jobs while creating new opportunities in other areas. Overall, it boosts the productive capacity and wealth of the economy – but in recent years it has been destroying jobs faster than it creates them. This has affected the jobs market in a number of ways. In particular, it tends to push up unemployment by causing more 'churn' in the jobs market; it also creates a tendency towards polarisation. 'Mid-skill' jobs are most likely to be replaced by technology, while it creates more skilled jobs and leaves many unskilled jobs unaffected. Analysis in this report shows that the labour force in Europe has indeed been polarising in recent years (see chapter 7). Forecasters expect these trends to continue into the next decade.<sup>3</sup>

Technology is advancing so fast that firms and skills cannot keep up. Private companies – and individuals – are adapting to change and seizing some of the new opportunities created by advances in technology, yet they struggle to match its pace. They cannot create new jobs fast enough to utilise the skills of those people whose jobs are eliminated. At the same time, skills systems across Europe have also not changed rapidly enough. Too many young people are entering the labour market with the wrong skills, and too many older workers who lose their jobs cannot get the retraining they need to compete for the new types of jobs that are being created. Employers often report that they cannot find workers with the right skills.<sup>4</sup> This leads to an increasing pay premium for those with the skills that are in demand, and with it greater wage polarisation and income inequality. Adaptation is required on both sides. For example, forecasts of the demand for skills overwhelmingly find that demand for graduates is increasing much faster than supply. University education will, therefore, have to be expanded to increase supply. Business demand might also be met through other means, however – through retraining, for example, and by developing non-graduate routes (such as apprenticeships) into emerging high-skill occupations.

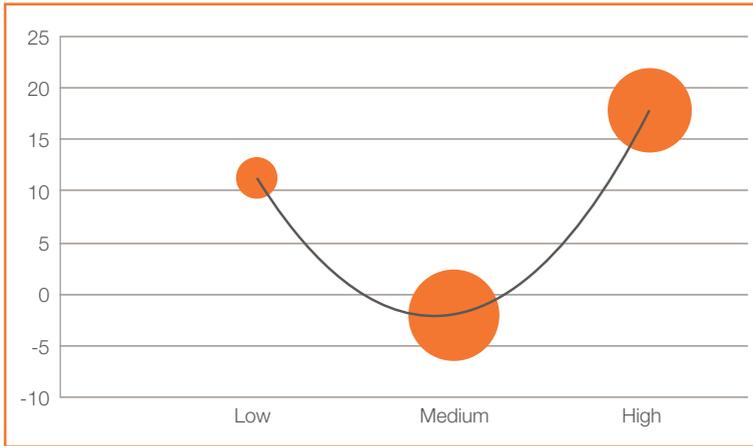
If people do not have sufficient education and training to take high-skilled jobs, they will end up filling low-skilled jobs for which they are overqualified (and in doing so push lower-skilled workers out of the labour market altogether). This represents a personal loss for them, in terms of income and wellbeing. In aggregate, it means that European economies risk having a large proportion of their workforces either without jobs or in low-productivity work, earning

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3 See for example projections from the European Centre for the Development of Vocational Training (Cedefop), at <http://www.cedefop.europa.eu/en/about-edefop/projects/forecasting-skill-demand-and-supply/skills-forecasts.aspx>

4 A study published in November 2013 by the European Foundation for the Improvement of Living and Working Conditions, an EU research body, suggested that 40 per cent of employers had problems finding workers with the right skills (Eurofound 2013). However, the comparable figure for 2008 was 37 per cent, which suggests that this skills mismatch is a longstanding structural problem that has been made only marginally worse by the recession.

low wages. This will make tackling some of the big problems facing European governments, including reducing public debt and coping with ageing populations and increasing dependency ratios, harder. In a worst-case scenario, more high-skilled, high productivity jobs would disappear, and Europe would stagnate.



**Figure 1.6**  
Percentage change in the number of low-, mid- and high-skilled jobs in Europe between 2000 and 2010 (size of circles is proportionate to the number of jobs in each category in 2010)

Source: Cedefop 2013

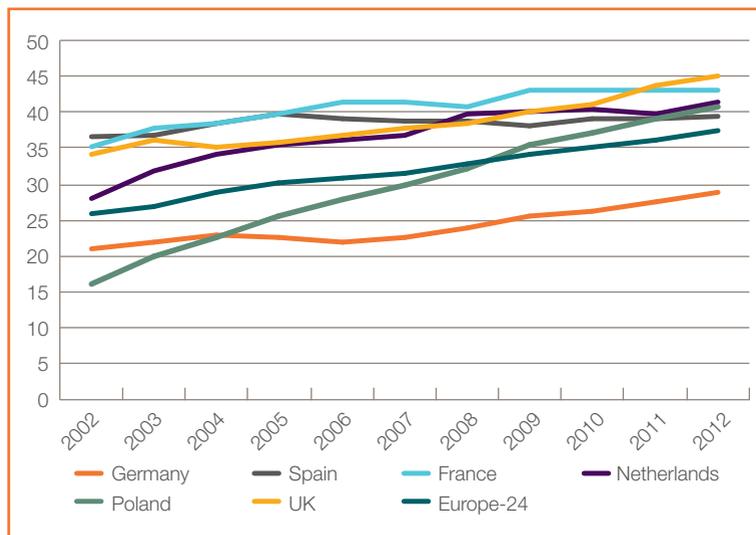
## 1.6 ...and opportunities

A far more desirable outcome would be for European economies to create more high-productivity, well-paid jobs, because countries with diverse and skilled workers are better placed to compete in international markets. In recent years, Europe's workforce has become increasingly qualified. In particular, our analysis shows that, relative to a decade ago, there are more young people in the workforce with a degree, and fewer without a full secondary education qualification (see chapter 8).

Even so, Europe needs to do more to develop the skills of young people who do not go through university, and to help individuals maintain and develop their skills throughout their working lives. In many countries this will necessitate major reforms to education systems, to the provision of skills, and to the provision of opportunities for retraining in later life. At the same time, people need to be incentivised to acquire new skills and to take up jobs, but it is not enough just to supply skills to the labour market: firms also have to be encouraged to utilise them. Business models and management practices will have to change too. They must turn away from relying on cheap labour to make low-productivity, low-value-added products, and towards developing higher productivity, higher value-added jobs that can make proper use of a more highly skilled workforce. Policy support will be required in the form of backing for innovation and measures to ensure the provision of adequate finance and infrastructure.

Finally, to minimise the risk of mismatches between supply and demand, there needs to be better exchange of information between firms and the education and training system.

**Figure 1.7**  
Proportion (%) of the 25-to-34-year-old population of selected Europe-24 countries, and Europe-24 average, with a higher education qualification, 2002–2012



Source: Eurostat 2014c

The opportunities that would be created by a shift to a higher productivity economy should be shared by all. This has not occurred in many European countries over the last two decades. Higher employment rates will help in this regard, because they will require improvements in the employability of previously disadvantaged groups within the workforce. This will bring benefits to employers and to the economy, because many skills have been lost from the labour market as a result of health-related retirement and inactivity, lack of public support for carers, and lack of flexible work opportunities. Furthermore, while for most people any job is better than no job, the jobs that are created should be good quality ones, with fair terms and conditions. New analysis demonstrates how wages and productivity had decoupled long before the recent crises (see chapter 6). Higher employment rates will help to ensure that a fair share of future growth goes to wages, and that the vast majority of workers benefit – rather than a small minority at the top of the income distribution.

Once cyclical unemployment has been largely eliminated, moving to full employment will require a reduction in structural unemployment and bringing people who are currently inactive into the workforce. The composition of this group means that moving to full employment will necessarily require particular efforts to increase the employment rates of three groups of potential workers not just by making them

more employable, but also by increasing demand for their labour (see chapter 9). These three groups are:

- women – particularly mothers and older women
- traditionally disadvantaged groups in the labour market: young people, those with few or no skills, and people with work-limiting disabilities
- victims of rapid technological change and globalisation – those previously employed in declining industries.

The benefits of full employment are potentially enormous. People who are in work are better off not just financially but also in terms of their general wellbeing: there is evidence that strongly suggests a positive link between employment and self-esteem. What's more, an economy at full employment generates more tax revenue and spends less on welfare, enabling taxes to be lower, or for more resources to be spent on public services such as health and education.

Europe faces enormous challenges in the years ahead if it is to deliver such an outcome. The new analysis presented in the following chapters of this report assesses the scale of some of these challenges, and further research by IPPR in the next few years will seek solutions to many of them. In particular, over the next year we will be focusing on the following issues.

- How to increase the employment rates of groups that have traditionally found it hard to compete in the labour market, including mothers and those with disabilities.
- What European countries can learn from best practice when it comes to the transition from education to work for those who do not follow the route through university.
- How policy should respond to the changing nature of work.
- How to improve progression in the workplace so that people do not become trapped in low-skilled, low-paid work.

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## 2. RECENT TRENDS IN EUROPEAN LABOUR MARKETS

### Abstract

*The financial and sovereign debt crises that began in 2007 have caused an unprecedented economic downturn in Europe. Even as European economies begin to emerge from their latest recession, unemployment rates remain stubbornly high. Between 2008 and 2012 nearly 8 million workers lost their jobs across the European OECD countries (the 'Europe-24'). By 2012 almost half of Europe's unemployed – 10.4 million people – had been out of work for a year or more.*

*In the past few years the employment rates of older workers (those aged between 50 and 64) have actually increased in most countries. In the Europe-24 as a whole, the employment rate of 50-to-64-year-olds went up by 1.5 percentage points between 2007 and 2012. Younger and middle-aged people have borne the brunt of the fall in employment since 2007: the employment rate of the under-25s declined by 5.9 per cent, while 25-to-49-year-olds experienced a drop of 2.8 per cent. However, the downturn has not led to widespread withdrawal from Europe's labour markets. The proportion of the working-age population who are neither in work nor actively seeking employment was, at 26.6 per cent, lower by 2012 than it was throughout the decade of economic growth that led up to the crisis (1997 to 2007).*

### 2.1 Introduction and aggregate data

The financial and sovereign debt crises that began in 2007 have had an enormous impact on labour markets throughout Europe. The scale of job losses has been drastic, with a substantial increase in unemployment in virtually all European countries. The depth of the economic downturn has varied significantly, however, both between nations and between different groups within their populations. This chapter explores how job prospects across Europe have varied over recent years, and points to some of the deeper underlying differences in labour markets and how these have changed over time, both before and through the latest economic crisis.

The current economic difficulties that Europe faces are the most extraordinary in the postwar era. Even though the crisis was sparked by the global financial crisis, the subsequent recessions that hit many European countries have exposed structural issues concerning productivity, fiscal imbalances and weak economic competitiveness which existed well before 2007. Although most severe in the southern European economies and Ireland, few countries have emerged

unscathed. Across the Europe-24 group of OECD economies, overall GDP peaked in 2008, before falling sharply by nearly 4 per cent the following year. By 2012, GDP was only around 0.5 per cent above the 2008 level, while current estimates for 2013 predict it still to be only 1 per cent higher than in 2008.<sup>5</sup>

This decline in economic activity has had a serious impact on the jobs market. After a decade of job expansion many businesses closed down, and others stopped hiring or let workers go. Across the Europe-24, the working-age (16–64) employment rate steadily increased from 1998, when it stood at 64.6 per cent, to a pre-recession peak of 68.7 per cent in 2008. The employment rate then fell over two years to 66.2 per cent in 2010, and showed little sign of recovery, holding at 66.3 per cent in 2011 and 2012. The most recently available figures, for the second quarter of 2013, show the average employment rate across the Europe-24 group to be 66.5 per cent (Eurostat 2014). Although the employment rate in Europe did not fall as sharply as it did in the US, it has taken much longer for any recovery in employment to kick in (European Commission 2013).

Unemployment, on the other hand, continues to rise even as a fragile economic recovery begins to take hold. Eurostat (2014) figures show that in 2008 nearly 15.8 million people across the Europe-24 were unemployed – a rate of roughly 6 per cent. Within a year, the unemployment rate had increased to 9 per cent, before peaking at just under 10 per cent in 2012. Almost 23.8 million people were out of work and looking for a job – an increase of 8 million people from 2008. Just under a quarter of the unemployed – 5.2 million – were under the age of 25. Just as concerning is that almost half of all unemployed individuals in 2012 – 10.4 million people – had been out of work for a year or more. The figures reveal that even though Europe has emerged from the depths of the crisis, and GDP is growing again, finding a job remains difficult for many.

One positive sign, however, is the manner in which economic activity rates in Europe have responded to the recession. Rather than leading to a widespread withdrawal of individuals from the job market, the proportion of the working-age population who are neither in work nor actively seeking employment is lower in the latest data (26.6 per cent in 2012) than it was throughout the economically stable decade leading up to the crisis. By comparison, in the same year, inactivity in the US stood at 36.4 per cent (ILO 2013). A high economically active population can be seen as a good sign for Europe – it means that people are willing to work if the demand for labour increases. In essence, the rise in unemployment implies that more people are looking for work, but there has not been an equivalent increase in job creation.

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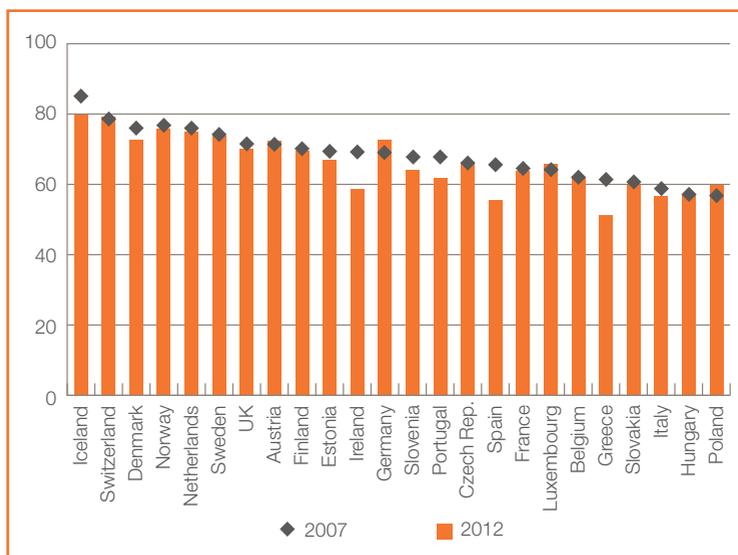
5 Data from IMF World Economic Outlook Database.

## 2.2 How have individual countries performed over the downturn?

Employment rates are a strong indicator of national economic health. While unemployment rates provide a sense of job availability versus the number of people looking for a job, they do not include those who have been discouraged from looking for work and have left the labour market. Employment rates provide a sense of the overall employment possibilities for the working-age population. In terms of employment, very few European countries have recovered the ground lost since 2007: only Germany, Austria, Luxembourg, Poland and Switzerland had a higher employment rate in 2012 than in 2007 (see figure 2.1). With a few exceptions, such as Iceland and Denmark, most of the biggest shocks to employment have been in countries with lower starting employment rates, with Spain, Greece and Ireland seeing substantial declines of around 10 percentage points. Elsewhere, declines have been smaller, although still pronounced.

What is also notable from figure 2.1 is the wide variety of employment rates in 2007. Generally speaking, among the northern European countries, working-age employment rates before the financial crisis were over 70 per cent. The employment rates in most other European countries were between 60 and 70 per cent, with those of Poland, Italy and Hungary at just under 60 per cent.

**Figure 2.1**  
Comparison of employment rates of 15-to-64-year-olds in Europe-24 countries, 2007 and 2012



Source: Eurostat 2014

Note: Countries are ordered by their 2007 employment rate.

Data within all charts in this chapter is based on annual figures which were only available up to 2012 at the time of publication. In some instances we mention the most the recent 2013 quarterly figures in the text for comparison with the 2012 annual figures

Men have been more affected by the employment downturn – as is demonstrated in figure 2.2, which shows the changes in male and female employment rates in Europe-24 countries between 2007 and 2012. Data from the second quarter of 2013 suggests there has been little change since 2012 (Eurostat 2014). For those countries experiencing the biggest labour market downturns (Ireland, Greece and Spain), the decline in male employment is almost one and a half times the size of the decline in overall employment, and much more prominent than the change in female employment rates. In these countries, however, female employment was generally low before the recession. Furthermore, industries such as manufacturing and construction, which tend to be substantially made up of male workers, are more cyclical than service industries. Unemployed individuals within these industries will find very few job openings so long as economic growth is still stagnant.

Other countries show a more mixed pattern of employment over this period when looking at gender. In several, such as the Netherlands, Belgium and France, the decline in overall employment was entirely driven by falling employment rates among men, with female employment rates actually increasing.

Young people have generally fared worst since 2007 when compared to other age groups (see figure 2.3).

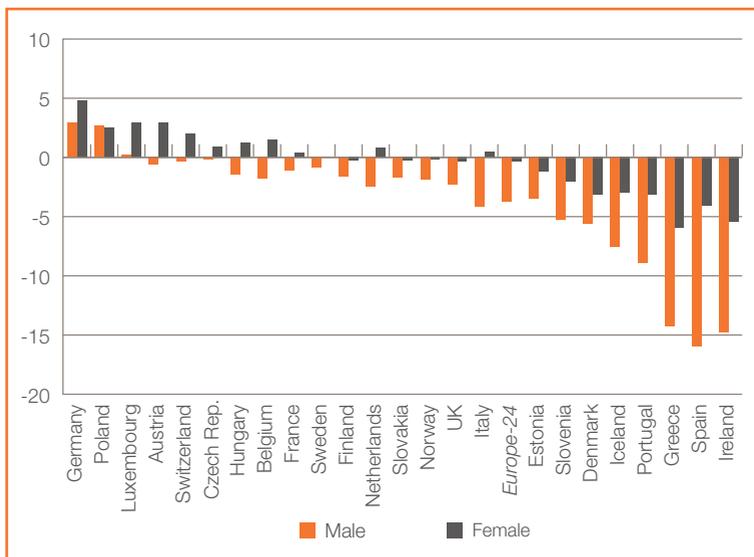
Their employment rates declined between 2007 and 2012 in all countries except Germany. The depth of these declines varied substantially, from as high as 20 percentage points in Ireland and Spain, to only marginal changes in Poland, Austria, Luxembourg and Switzerland. However, in the latter four countries, young people were the only age group to experience a net fall in employment.

Most European countries experienced a similar employment rate decline among 25-to-49-year-olds, albeit one much less pronounced than those of the young, as employment generally fell by less than 5 percentage points. For older workers (those aged between 50 and 64), employment rates have mostly risen since 2007, with the exception of a few countries. Among the countries that have performed best over this period – such as Germany, Austria and the Netherlands – the employment rates of older workers have been very strong, increasing by 5 per cent or more. In other countries – including the UK, Sweden and France – the older age group of workers was the only one of the three groups to see their employment outcomes improve.

The most striking feature in employment-rate changes over the course of the financial crisis is that older workers have fared much better than both young and middle-aged cohorts. A number of factors could help explain this shift. First, the financial crisis is largely viewed as asset-based, and its detrimental effect on the value of wealth, in conjunction with declining interest rates, has hit long-term

savers particularly hard. Pension pots are squeezed, making fewer people able to retire as early as they might otherwise have chosen to. Other country-specific policies, such as raising the retirement age, may have also helped to foster an older workforce. Another reason may be the changing nature of work: with manual jobs being overtaken by less physically demanding jobs in the service industries, we can expect people to be more able to continue working as they age.

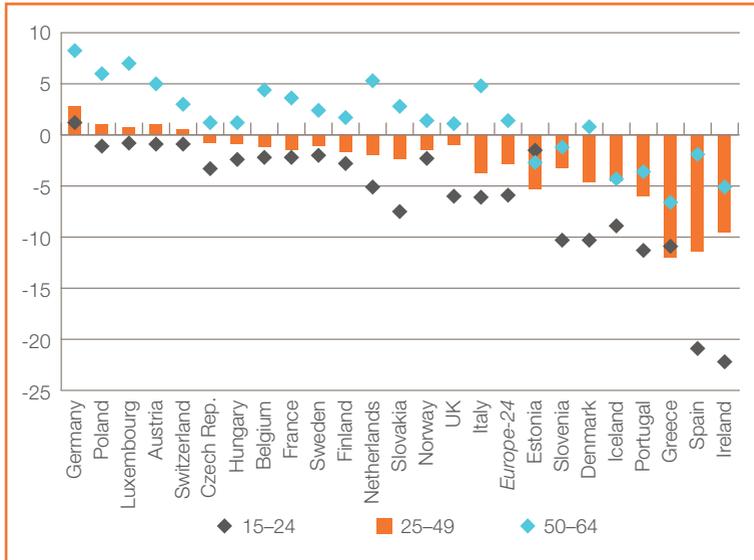
**Figure 2.2**  
Percentage point change in employment rates, 2007–2012, in Europe-24 countries, and Europe-24 average, by gender



Source: Eurostat 2014

Note: Countries are ordered by the change in their overall employment rates of 15-to-64-year-olds.

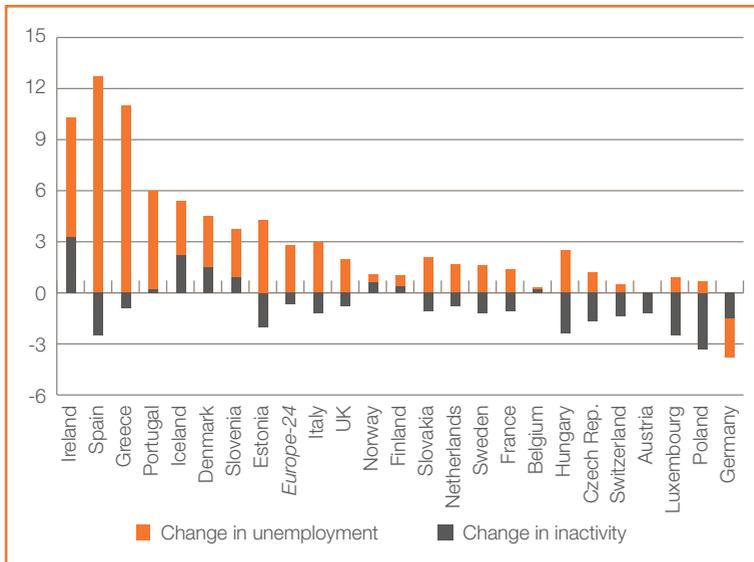
Falls in the employment rate, as experienced in the majority of Europe-24 countries since 2007, influence changes in the number of unemployed individuals, those who are out of work but actively seeking employment, and the number that are inactive (that is, those who are out of work yet not looking for work). While there is a great deal of fluctuation between all three labour force conditions (employment, unemployment and inactivity), it is more concerning if a rise in worklessness is characterised by greater inactivity rather than unemployment. This is an indication that individuals are removing themselves from the labour market.



**Figure 2.3**  
Percentage point change in employment rates, 2007–2012, in Europe-24 countries, and Europe-24 average, by age range

Source: Eurostat 2014

Note: Countries are ordered by the percentage point change in their overall 15–64 employment rates between 2007 and 2012.



**Figure 2.4**  
Percentage point change in inactivity and unemployment rates (expressed as a percentage of the working-age population), 2007–2012, in Europe-24 countries and Europe-24 average

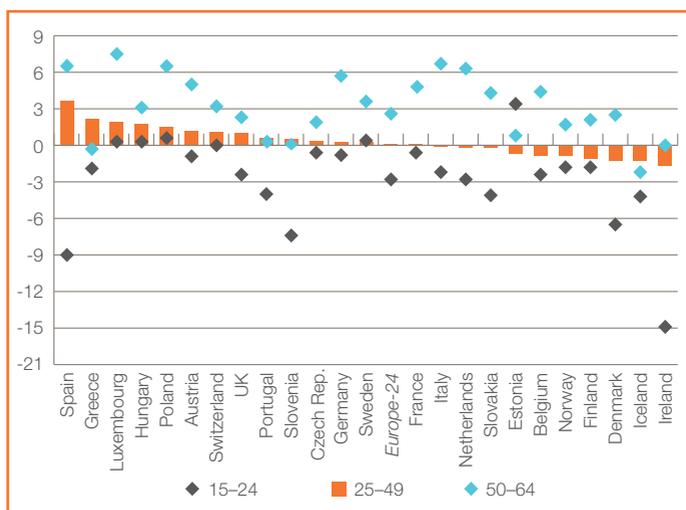
Source: Eurostat 2014

Note: Countries are ordered by the overall change in worklessness (the percentage change in the unemployment rate expressed as a percentage of the population, plus the percentage change in inactivity).

Figure 2.4 shows the ratio of overall worklessness that is accounted for by changes in both unemployment and inactivity. Generally, increases in unemployment, rather than rises in inactivity, have explained rises in overall worklessness. Indeed, inactivity rates *decreased* in the majority of countries between 2007 and 2012. However, in other countries – most notably Ireland, Iceland and Denmark – inactivity rates increased, although the majority of the rise in worklessness in each country was driven by unemployment.<sup>6</sup>

Looking at how these patterns vary by age group reveals important differences (see figure 2.5). The largest changes in activity rates are seen among 15-to-24-year-olds – who have on the whole experienced a fall in economic activity between 2007 and 2012 – and among 50-to-64-year-olds, whose rates of economic activity have generally increased. For young people, the largest falls in economic activity are found in countries that are also experiencing a large decline in youth employment – those in Spain, Ireland, Denmark and Slovenia being particularly noticeable. Greece, on the other hand, has experienced an enormous increase in youth unemployment of more than 10 percentage points, but only a 2 per cent drop in economic activity. We would expect some of the decline in the economic activity of young people across Europe to be accompanied by an increase in educational participation as young people withdraw from the labour market in order to up-skill and increase their job prospects. These patterns are explored further in chapter 10, which looks at issues of youth employment in more detail.

**Figure 2.5**  
Percentage point change in activity rates, 2007–2012, by age group, in Europe-24 countries and Europe-24 average



Source: Eurostat 2014

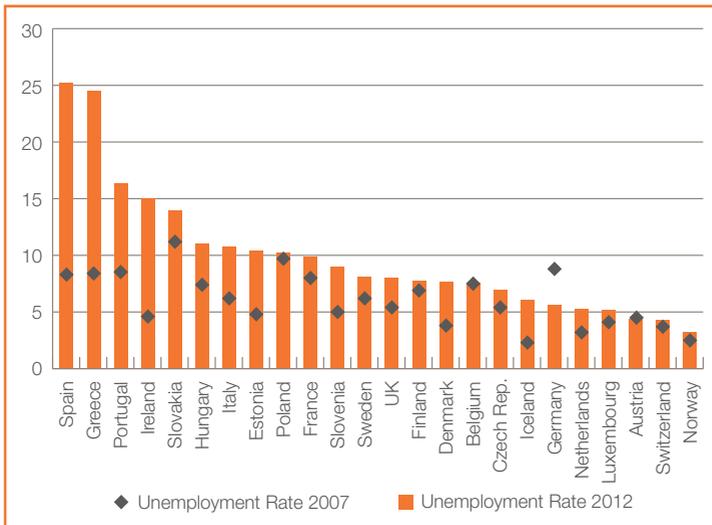
Note: Countries are ordered by the change in activity rates for the 25–49 age group

6 The 2012 annual figures for unemployment are similar to the those for the second quarter of 2013 (the average across the Europe-24 is just 0.01 per cent higher), which indicate little change.

Among workers aged between 50 and 64, the majority of countries have experienced a rise in economic activity, fitting the evolving employment rates presented in figure 2.3. In countries where overall employment fell considerably, including Spain and Italy, older individuals have moved back into the workforce. Only in Iceland and Greece have inactivity rates for older people fallen.

As noted above, the majority of the employment rate decline and the rise in worklessness are accounted for by increased levels of unemployment. Figure 2.6 shows the rate of working-age unemployment (the proportion of the economically active population who are not in work) in 2007 and 2012.

In all countries, with the exception of Germany, Austria and Belgium, unemployment rates have risen since 2007. This rise is most marked in Spain and Greece, where unemployment increased by more than 15 percentage points. Ireland and Portugal also experienced sharp increases in unemployment of between 5 and 10 percentage points, while other countries, including the UK and Italy, experienced an increase of between 2 and 5 percentage points.



**Figure 2.6**  
Unemployment rates (as % of total population) of Europe-24 countries, 2007 and 2012

Source: Eurostat 2014

What is particularly noteworthy is how the disparity between countries has considerably widened. In 2007 Slovakia had the highest unemployment rate (11.2 per cent) among Europe-24 countries, and Norway the lowest (2.5 per cent) – a difference of nearly 9 percentage points. Since then, Spain, Greece, Portugal, Ireland and Slovakia have experienced enormous rises in their unemployment rate, whereas Germany, Austria and the Benelux countries have remained at or below the 5 per cent mark. In 2012 the gap between the best performer

(Norway) and worst (Spain) widened to more than 20 percentage points (Eurostat 2014).

Alongside vacancy rates, unemployment rates are one of the best available indicators for measuring business demand for labour. While everyone in the economically active population is either in work or actively looking for work, a rise in unemployment rates tells us that there is either a distinct shortage of jobs, or that there is a discrepancy between the requirements of open vacancies and the skills and capabilities of those who are unemployed. The interaction between business demand and unemployment is explored in more detail in chapter 7 of this report.

### 2.3 How have some of the most populous countries performed over a longer time period?

Figure 2.1 above illustrates the wide disparities in employment rates that existed just prior to the recession, which reflect longstanding structural differences between countries in their levels of employment. Figure 2.7 shows how employment rates have evolved over a longer period of time for six European countries: Germany, Spain, France, the Netherlands, Poland and the UK.

The data shows that employment rates were rising in the two decades preceding the crisis, despite slight falls during previous economic downturns which, in some countries, were more pronounced than the post-2007 recession. In the UK, for instance, the labour market has proven more resilient in terms of employment post-2007 than it was during the recession of the early 1990s. Similarly, while France has experienced a drop in employment, its rate is still higher than it was for most of the 1980s and 1990s. The rate in France has remained significantly more stable than those of other countries over the same time period.

For Spain, the loss of jobs since the financial crisis has been critical. In the years immediately prior to the crisis, the employment rate shot up by 10 percentage points in just seven years. This means that even in the latest figures, Spain has a higher employment rate than it did in the 1980s and 1990s. Despite this, however, since 2007 the decline in Spain's employment rate has been severe, and shows little sign of levelling off. Subsequently, the impressive gains in employment that Spain made since the mid-1980s – when the rate was close to 45 per cent – have deteriorated, pushing it back towards becoming the worst in Europe.

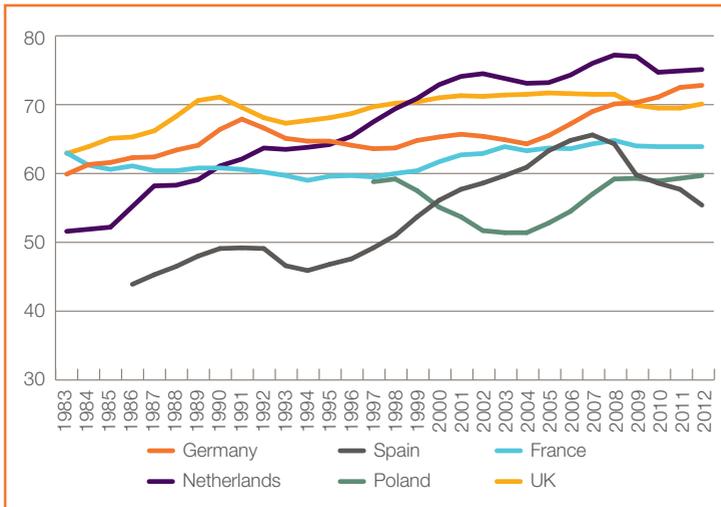
The Netherlands, on the other hand, experienced a shift towards higher employment rates comparable to that in Spain, although it started from a higher base of nearly 60 per cent in the 1980s. Even with the recent fall in employment, figure 2.1 shows that the Netherlands still has one

of the highest employment rates in Europe. Germany has had fairly standard employment rates for much of the last 30 years, although its strong performance since 2003, and throughout the recent downturn, has seen it starting to catch up with the best performers.

From 1997 onwards Poland's performance has been markedly different from those of the other countries, with a sharp decline in employment between 1998 and 2002, followed by an increase to its 1997 level, where it levelled off throughout the downturn.<sup>7</sup>

Figures 2.1 and 2.7 both show that there have been substantial differences in levels of employment across Europe and over time. One key driver of structural cross-country disparities in employment is the level of female employment. In particular, southern European economies tend to have low female employment rates, while northern European economies typically achieve higher levels of female employment.

A great deal of research has been carried out in recent years investigating why female employment rates are so different across Europe and elsewhere. Despite wide variation in growth and employment rates between countries, common structural features of labour markets have been identified as significant factors influencing the female employment rate. These include differing preferences for work among women – particularly mothers – and the nature of social and family policies including childcare and parental leave (Thompson and Ben-Galim 2014). This means that tackling the barriers to greater employment among women is key to minimising the disparity between countries in terms of overall employment rates.



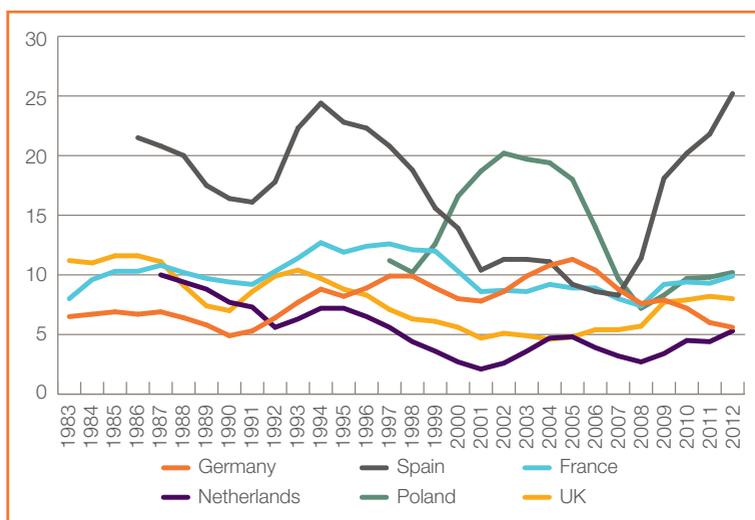
**Figure 2.7**  
Employment rates  
(as % of working-  
age population)  
of six European  
countries,  
1983–2012

Source: Eurostat 2014

<sup>7</sup> Data is not available for Poland prior to 1997.

A closer examination of unemployment rates shows that in four of the six selected countries (Germany, France, the Netherlands and the UK) unemployment in the recent recession peaked at levels near or below those experienced in the recession of the early 1990s (see figure 2.8). Only in Germany did unemployment rise through the 1990s and early 2000s – a likely consequence of the reunification process. In Spain, unemployment rates were less steady over this two-decade time period, with a long decline from 1994 followed by a sharp increase starting in 2008. More recent quarterly data shows that Spain's continuous rise in unemployment may have peaked at 27.3 per cent by the first quarter of 2013, and levelled out at around this level into the third quarter of the same year. In Poland, unemployment levels rose sharply in the years leading up to the country's accession to the EU, but declined sharply after 2004 (Eurostat 2014).

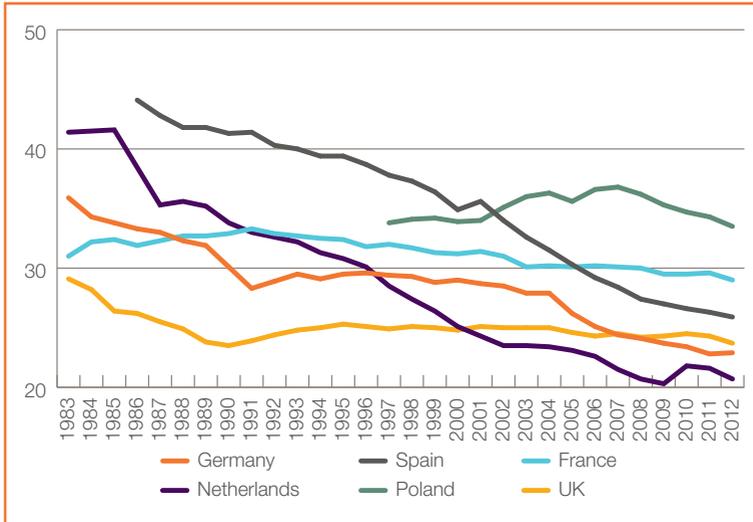
**Figure 2.8**  
Unemployment rates (as % of active population) for six European countries, 1983–2012



Source: Eurostat 2014

Inactivity rates have also varied considerably among the selected countries. Between 1983 and 2012, inactivity levels remained relatively consistent, and only slightly declined in France, Poland and the UK. However, they declined at a much steeper rate in Spain and the Netherlands, where by 2012 inactivity rates were similar to those of the other four selected countries. Some of this decline may be attributable to changes in labour regulations, benefits systems and family policy. Spain, for example, considerably expanded the provision of childcare support throughout the 1990s and early 2000s, which may have helped more women to enter the labour force. Although full-year data for 2013 is not yet available, data for the second quarter

of 2013 suggests that little changed across these six countries, with increases of roughly half a per cent in Poland and the UK, and decreases of half a per cent in Germany, France and the Netherlands relative to 2012 levels. Spain maintained its 29.5 per cent inactivity rate (Eurostat 2014).



**Figure 2.9**  
Inactivity rates  
(as % of working-  
age population)  
for six European  
countries,  
1983–2012

Source: Eurostat 2014

## 2.4 Conclusion

European labour markets are going through an unprecedented period of upheaval in the wake of one of the deepest economic downturns in postwar Europe. After a wave of substantial job losses and rising unemployment, by 2012 very few countries had achieved a full labour market recovery. Several points are worth highlighting when looking back over the past seven years. First, finding a job has become substantially more difficult in nearly all of the Europe-24 countries, as the significant increase in the unemployment rate between 2007 and 2012 demonstrates. However, the experiences of various groups within the labour force have been somewhat different. Job losses have been less severe for women than for men, which perhaps emphasises the different skills that male workers retain – for example, more men than women work in construction industries, which are more cyclical by nature. Furthermore, more older workers appear to be delaying their retirement, as their employment levels have actually increased over the past few years. As a consequence, aggregate rises in economic activity are largely driven by older workers, while younger workers are, on average, more likely to move into inactivity.

The increase in unemployment has been widely represented as the most significant impact of the recent economic downturn. This has meant that variation in economic activity has often been overlooked by economic commentators. The downturn has also accentuated longer-standing structural disparities in the labour market performance of European nations. There had been some signs of convergence in the years leading up to 2007, but since then the gaps between countries have widened. The following chapters will provide a more detailed exploration of how these variations in the European labour market have come about.

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# 3. THE REGIONAL DIMENSION

## Abstract

*Labour market performance is very uneven within European countries as well as between them. This means that even in some of the strongest economies in Europe, many people are too distant from areas of economic growth to benefit from and contribute to it. The result is higher unemployment and lower aggregate productivity than would otherwise be the case. Even before the recession, many sub-regions within Europe were struggling with declining employment in manufacturing, while others were stuck in a low-wage, low-skills and low-productivity equilibrium. The recession and the sovereign debt crisis then hit many of these sub-regions hard, especially but not exclusively in those countries that have struggled to return to growth in the last few years. Areas with relatively highly skilled populations have tended to be more resilient in terms of experiencing smaller increases in unemployment in the years since the recession: it is likely that this is because higher skilled individuals both contribute to and tend to move towards areas of high economic growth. The risk is that disparities that existed before the recent crises have now widened and become embedded, locking parts of Europe onto a path of long-term economic decline.*

## 3.1 Introduction

Chapter 2 showed how labour market performance is uneven across the nations of Europe, and consequently so are the opportunities to contribute to and benefit from economic growth. The analysis presented in this chapter will demonstrate that, long before the recession, there was far more variation *within* countries than between them. Consequently, even in some of the strongest economies in Europe, many people are too distant from economic growth to benefit from it, which results in higher unemployment and lower productivity than would otherwise be the case. It also shows that the recession and the sovereign debt crisis have had very different effects on the internal economic geography of different groups of countries.

Recent crises have made it all the more important to understand the underlying factors that, over the long-term, drive down unemployment and have enabled some areas to weather the recession better than others. In order to do this, we will also analyse the relationship between local economic growth, manufacturing employment and skills in the period preceding the recession and immediately after it.

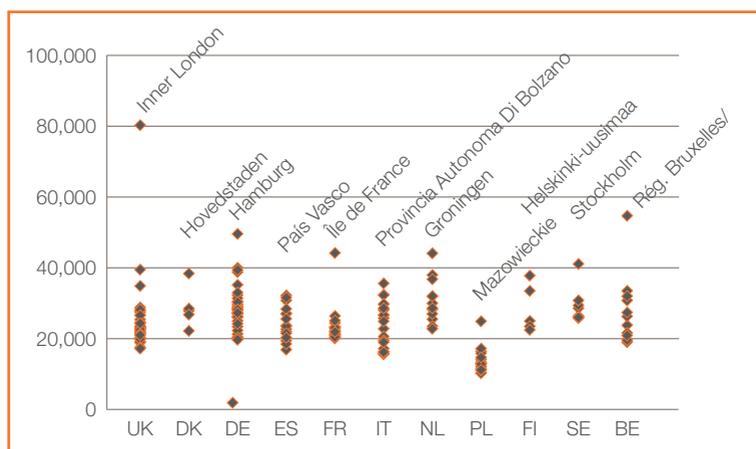
## 3.2 The sub-regional economies of Europe

This section first presents the situation as it stands in European sub-regions, highlighting the very different patterns of productivity, unemployment, employment and skills that are evident across the continent. These snapshots are then placed in a wider context in terms of their paths towards convergence or divergence, before an analysis of the differential impact of the recession on countries' sub-regions.

### 3.2.1 Current labour-market performance

To illustrate variations in the underlying economic performances of Europe's regions, figure 3.1 shows how each sub-region<sup>8</sup> fares in terms of productivity.<sup>9</sup> The variation in performance is stark across Europe:<sup>10</sup> productivity in Inner London is 7.8 times that of Lubelskie in Poland. The degree of imbalance within each country is also clear: many have a single sub-region which far outperforms the rest of the country, but there is significant variation in the degree to which they do so – in the UK the ratio between the most and least productive local economies is 4.7, while in Sweden it is only 1.6.<sup>11</sup>

**Figure 3.1**  
Productivity, measured as GDP (in purchasing power standard [PPS]) per inhabitant in NUTS-2 areas of selected Europe-24 countries, 2010

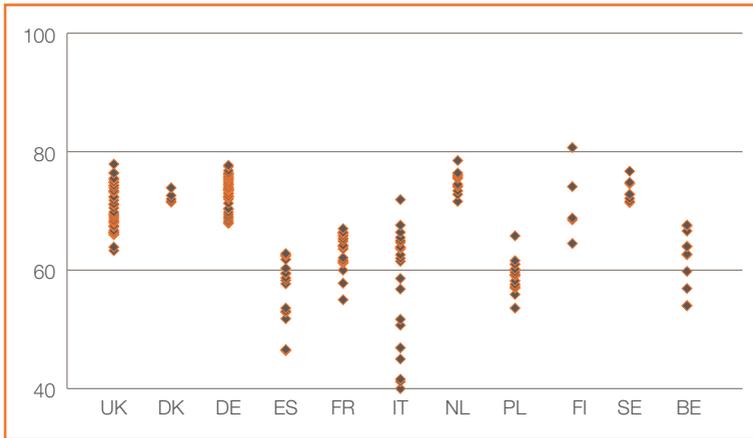


Source: Eurostat 2014a

Note: UK = UK; DK = Denmark; DE = Germany; ES = Spain; FR = France; IT = Italy; NL = Netherlands; PL = Poland; FI = Finland; SE = Sweden; BE = Belgium. Eurostat defines purchasing power standard as, 'An artificial unit of currency, which can buy the same amount of goods and services in each country'.

- 8 Throughout this chapter the geographies used are those at level 2 of the 'nomenclature of territorial units for statistics' system ('NUTS 2') unless stated otherwise. For details on these definitions, see [http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts\\_nomenclature/introduction](http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts_nomenclature/introduction)
- 9 Measured as GDP in purchasing power standards (PPS) per inhabitant, as opposed to per worker or per hour worked (due to data availability).
- 10 Due to a combination of relevance, data availability, clarity and comparability, only a selection of the Europe-24 countries are considered in this chapter.
- 11 There are limitations to the validity of output-per-head data at a sub-national level, but it is included here for illustrative purposes only. For a detailed discussion of this issue see <http://www.ons.gov.uk/ons/re/elmr/economic-and-labour-market-review/no--1--january-2009/measuring-regional-economic-performance.pdf>

Different patterns of economic performance are also evident in labour market figures: employment rates across European countries in 2012 ranged from 59.3 per cent in Spain to 79.9 per cent in Norway but – as figure 3.2 shows – these rates vary more widely at the sub-regional level, from 80.7 per cent in Åland (Finland) to 39.4 per cent in Campania (Italy). While each country has a different degree of imbalance, Italy has the largest variance in rates, while Denmark is the most uniform.<sup>12</sup> Crucially, this data highlights significant variances which are obscured when narrowly focusing on national performance: for example, despite being part of the country which has the lowest sub-regional employment rate (Italy), Bolzano's employment rate (at 71.9 per cent) is higher than that of Bremen in Germany (67.9 per cent) (Eurostat 2014b).



**Figure 3.2**  
Employment rates  
(as % of population  
aged 15–64) in  
selected Europe-24  
countries, 2012

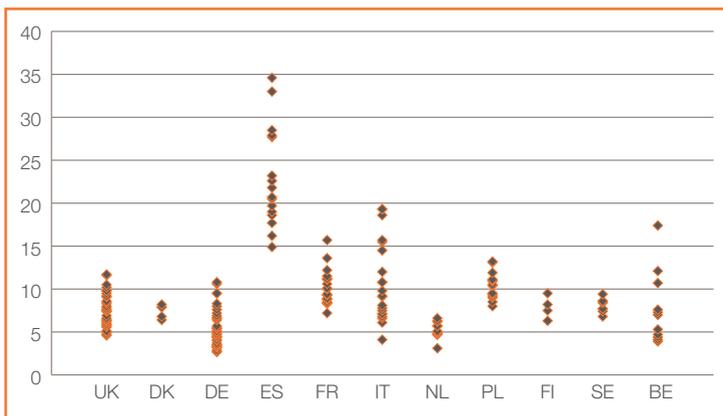
Source: Eurostat 2014b

Note: UK = UK; DK = Denmark; DE = Germany; ES = Spain; FR = France; IT = Italy; NL = Netherlands; PL = Poland; FI = Finland; SE = Sweden; BE = Belgium.

While there is also substantial variation in unemployment at the national level (between 5.3 per cent in the Netherlands and 25.0 per cent in Spain), this too varies far more widely at a sub-national level, from a low of 2.7 per cent in Tübingen (Germany) to a high of 30.4 per cent in Andalucía (Spain). It is also in Spain where we can find the highest degree of variance – between 14.9 and 34.6 per cent – and where even the best performing sub-region (País Vasco) has among the highest unemployment rates of all sub-regions within this group of 11 EU countries. The smaller Nordic countries (Denmark, Finland and Sweden) and the Netherlands have low unemployment rates and comparatively little variation – as do some of the larger nations (the UK, Germany, France and Poland), despite the fact that they had far greater numbers of areas to factor in. However, this was not true of Spain, Italy and Belgium, which had more diversity in the performance of their sub-regions.

<sup>12</sup> In part, this reflects the size of the country and how many regions it is divided into.

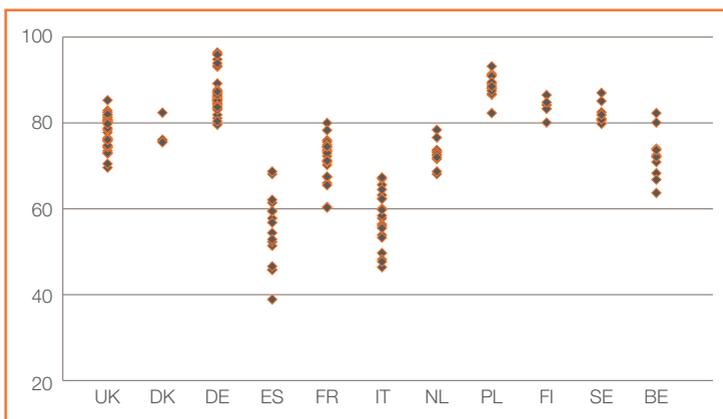
**Figure 3.3**  
Unemployment rates (as % of active population) in the NUTS-2 areas of selected Europe-24 economies, 2012



Source: Eurostat 2014b  
Note: UK = UK; DK = Denmark; DE = Germany; ES = Spain; FR = France; IT = Italy; NL = Netherlands; PL = Poland; FI = Finland; SE = Sweden; BE = Belgium.

Figure 3.4 shows how skill levels also vary to a large extent across the sub-regions of Europe: 96.4 per cent of the population in Chemnitz (Germany) was, in 2012, qualified to at least upper secondary level, while in Extremadura (Spain) only 38.9 per cent held this level of qualification. It was also in Spain that the highest degrees of variation were observed, ranging from the 38.9 per cent proportion in Extremadura to 68.7 per cent in Madrid, while Poland stands out as one of the larger countries (that is, one with more regions to factor in) that had little variance in skill levels.

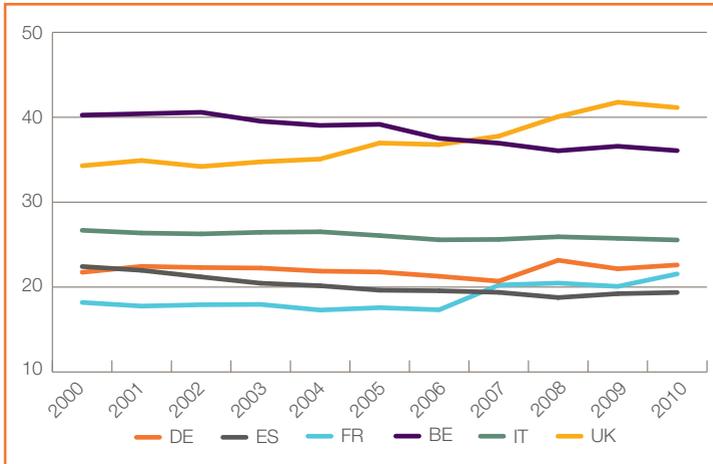
**Figure 3.4**  
Per cent of persons aged 20–64 with upper-secondary or tertiary education attainment in NUTS-2 areas of selected Europe-24 countries, 2012



Source: Eurostat 2014b  
Note: UK = UK; DK = Denmark; DE = Germany; ES = Spain; FR = France; IT = Italy; NL = Netherlands; PL = Poland; FI = Finland; SE = Sweden; BE = Belgium.

### 3.2.2 Long-term trends and the impact of the recession

In chapter 2 a divergence was noted between the performances of many countries both over the longer term and due to the recession. Figure 3.5 below shows how productivity also varies *within* these selected countries, and how this has changed since 2000. For example, productivity is far more polarised in the UK than elsewhere – this is, of course, the result of the huge divergence between London and the South East and the rest of the country. Worryingly, this trend appears to be increasing in the UK, and is something that policy tends to exacerbate rather than counter (Cox et al 2014). Other nations are experiencing far lower levels of variation in productivity, and although Belgium was at one point more imbalanced than the UK, its variation is now lower and in decline. Countries such as Germany and France have experienced increases in recent years, but are still relatively uniform compared to the UK.



**Figure 3.5**  
Variation of productivity between the sub-regions of selected Europe-24 countries (as measured by the coefficient of variation),\* 2000–2010

Source: IPPR North analysis of Eurostat 2013a

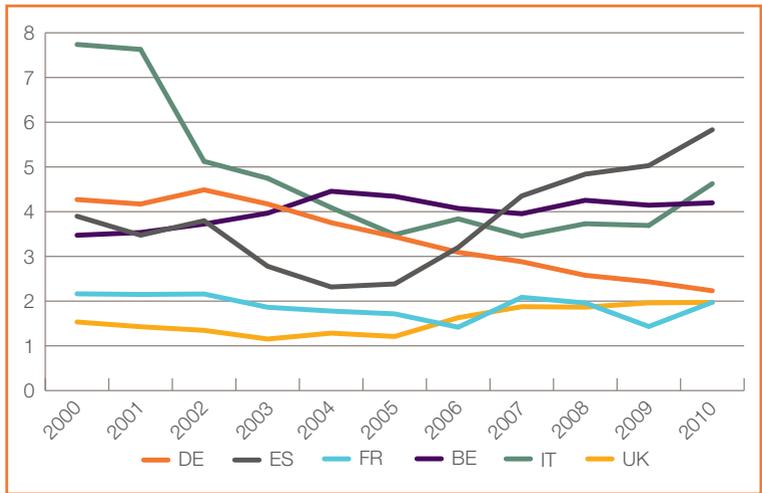
Note: UK = UK; DK = Denmark; DE = Germany; ES = Spain; FR = France; IT = Italy; NL = Netherlands; PL = Poland; FI = Finland; SE = Sweden; BE = Belgium.

\*The measure of variation used here takes the standard deviation (a measure of variation) and divides it by the average (this is known as ‘Sigma’ convergence.)

Unemployment rates, however, present a very different picture to the one above. Figure 3.6 shows that the UK has one of the lowest degrees of variability in unemployment<sup>13</sup> (albeit on a slightly upward trend), while many other countries have been showing clear signs of convergence, certainly before the recession. The differential impact of the recession is particularly stark in Spain, where the severe labour market difficulties noted in chapter 2 have also caused a divergence in unemployment rates, while in comparison it has had no notable impact on Germany’s steady trend towards convergence.

<sup>13</sup> This is in part because, for all its prosperity, London has a higher than average unemployment rate.

**Figure 3.6**  
Variation (standard deviation) in the sub-regional unemployment rates of selected Europe-24 countries, 2002–2012



Source: IPPR North analysis of Eurostat 2013b

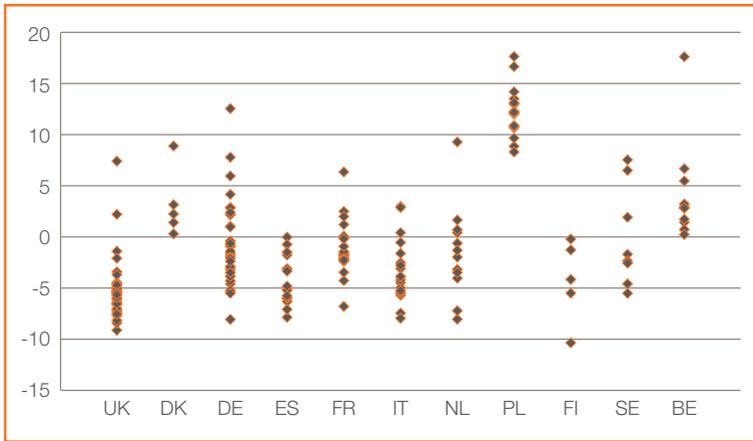
Note: UK = UK; DK = Denmark; DE = Germany; ES = Spain; FR = France; IT = Italy; NL = Netherlands; PL = Poland; FI = Finland; SE = Sweden; BE = Belgium.

The recession has had a very different impact on the various sub-regions of different countries. Looking first at the recession's impact on economic growth, figure 3.7 illustrates variation both between and within European nations: some areas fared relatively well (and indeed grew substantially), whereas others have been hit quite hard in the years since 2007. For example, GDP in Mazowieckie (Poland) grew by 16.7 per cent between 2007 and 2010,<sup>14</sup> whereas in Cataluña (Spain) the economy shrank by 5.2 per cent. The starkest internal variation was in Germany, where growth of 12.5 per cent in Berlin contrasted with an 8.1 per cent decline in Thüringen while, by contrast, the experiences of Spain and Denmark were relatively uniform (negative in the former but positive in the latter) (Eurostat 2014a).

Chapter 2 showed how the recession has in many cases accentuated longer-standing structural disparities and, as might be expected given the growth figures above, the recession has impacted differently on the sub-regional labour markets of European countries as well. As figure 3.7 illustrates, between 2007 and 2012 areas such as Mecklenburg-Vorpommern (Germany) experienced falls in unemployment (by 6.6 percentage points in this case), whereas Andalucía (Spain) was hit by a sharp rise of 21.8 percentage points (see figure 3.8 below). On this measure, all of Spain's sub-regions have been harder hit than any of the sub-regions in all of the other 10 countries analysed. Most countries' sub-regions have seen a rise in unemployment of between 1 and 9 percentage points, although all of Germany's sub-regions experienced

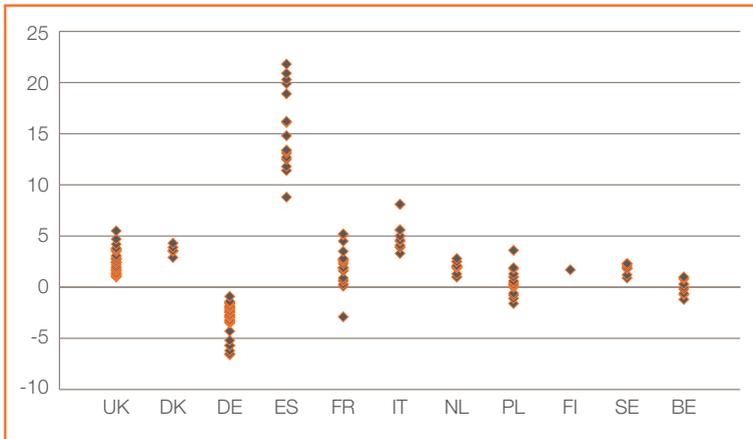
<sup>14</sup> Data for 2010 is the most recent available at this geography.

a fall in unemployment during this period, while only 10 areas outside of Germany saw any such fall (Eurostat 2014b).



**Figure 3.7**  
Change (%) in GDP (in PPS) in NUTS-2 areas of selected Europe-24 countries, 2007–2010

Source: Eurostat 2014a  
Note: UK = UK; DK = Denmark; DE = Germany; ES = Spain; FR = France; IT = Italy; NL = Netherlands; PL = Poland; FI = Finland; SE = Sweden; BE = Belgium.



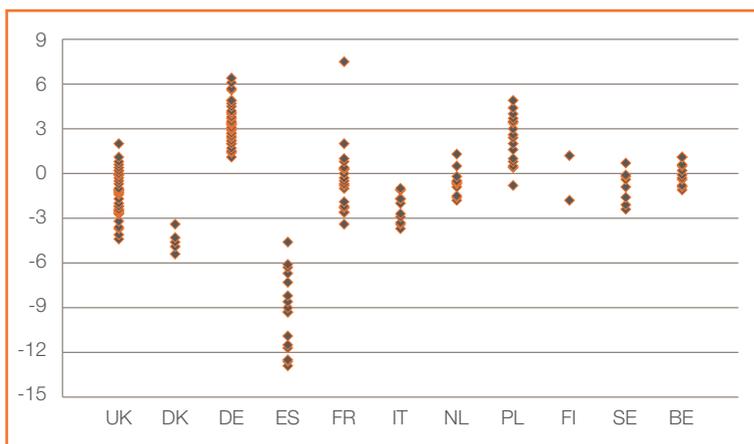
**Figure 3.8**  
Percentage point change in unemployment rate in NUTS-2 areas of selected Europe-24 countries, 2007–2012

Source: Eurostat 2014b  
Note: UK = UK; DK = Denmark; DE = Germany; ES = Spain; FR = France; IT = Italy; NL = Netherlands; PL = Poland; FI = Finland; SE = Sweden; BE = Belgium.

These sub-national disparities are also evident in the changes in employment rates across Europe, which reveal a stark disparity between the experiences of German and Polish sub-regions (almost all of which saw an increase in their employment rates) and those of Spain, Denmark and Italy, which experienced falls across all areas. However, as figure 3.9 illustrates, the biggest improvement

was in Corse (France) – a rise of 7.5 percentage points, exceptional within France – while Comunidad Valenciana (Spain) experienced a fall of 12.9 percentage points. In Spain, almost all sub-regions underperformed compared to regions in other countries, with only País Vasco performing better than any regions outside of Spain.

**Figure 3.9**  
Percentage point change in employment rate in NUTS-2 areas of selected Europe-24 countries, 2007–2012



Source: Eurostat 2014b  
Note: UK = UK; DK = Denmark; DE = Germany; ES = Spain; FR = France; IT = Italy; NL = Netherlands; PL = Poland; FI = Finland; SE = Sweden; BE = Belgium.

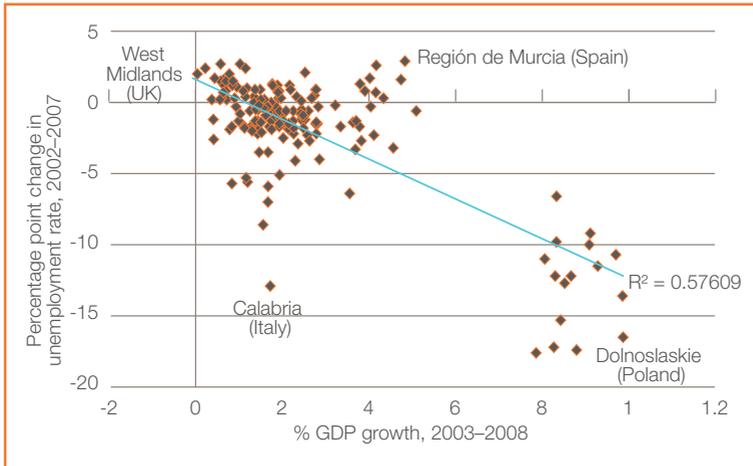
### 3.3 Explaining the variation: before and after the recession

This section explores the possible reasons why these substantial variations in labour market performance across Europe exist, in the periods both before and after the recession. It considers the impacts that economic growth, industrial composition and skills have had on unemployment rates in European sub-regions; innovation and the business environment. Transport infrastructure and enhanced institutional capacity are also known to have a positive impact on economic growth.

#### 3.3.1 Economic growth

Economic growth and unemployment are often closely related, although falls in unemployment tend to lag rises in growth. In the pre-recession period (see figure 3.10 below) many of the areas that experienced the strongest economic growth also enjoyed the largest falls in unemployment. Areas such as Dolnoslaskie (Poland) – where the economy almost doubled in size – saw a 16.5 percentage point fall in their unemployment rate, while areas such as the West Midlands (UK), whose GDP shrank by 0.8 per cent even during this period of national growth, experienced a 2 percentage point rise in unemployment. During the period before the recession it is clear

that there was a relationship between strong economic growth and large falls in unemployment. However, there were still some areas which, despite growing strongly, did not see a concomitant fall in unemployment – areas such as Región de Murcia and Castilla-la Mancha in Spain. Not only this, but the pan-European picture is distorted substantially by the performance of Poland (which enjoyed strong growth and large falls in the unemployment rate across all of its regions), without which there is a far weaker relationship. There is also a great deal of variation between countries in terms of the degree to which the two are associated: in France the relationship was quite strong and negative, whereas in Spain it was slightly positive (IPPR North analysis of Eurostat 2013a and 2013b data).



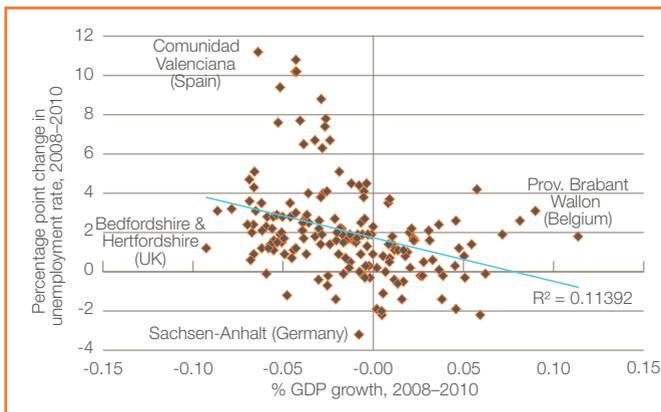
**Figure 3.10**  
Percentage change in GDP and percentage point change in unemployment in NUTS-2 areas of selected Europe-24 countries, 2003–2008

Source: IPPR North analysis of Eurostat 2013a and 2013b data  
Note: N=167 (all NUTS 2 regions of selected countries<sup>15</sup> with both unemployment rates and GDP figures available).

No clear pattern emerges from the situation since 2008, however. Figure 3.11 shows that sharp reductions in sub-regional economic growth have not been accompanied by rises in unemployment that stand out when compared with other regions. However, many of the areas which saw the large rises in unemployment were those that initially had relatively low unemployment rates, while some whose rates had improved before the recession saw some of the sharpest rises – this is apparent in many OECD countries (OECD 2011). There is therefore reason to believe that the success of some regions before the crisis was in achieving growth but not *resilience*, and a risk that the recession has and will undo much of the progress that was made in these areas during the period leading up to it.

<sup>15</sup> The countries included in figures 3.10–3.16 are the same as those presented in the charts included earlier in this chapter: the UK, Denmark, Germany, Spain, France, Italy, the Netherlands, Poland, Finland, Sweden and Belgium.

**Figure 3.11**  
 Percentage change in GVA and percentage point change in unemployment in NUTS-2 areas of selected Europe-24 countries, 2008–2010



Source: IPPR North analysis of Eurostat 2013a 2013b data  
 Note: N=173 (all NUTS-2 regions of selected countries with both unemployment rates and GDP figures available).

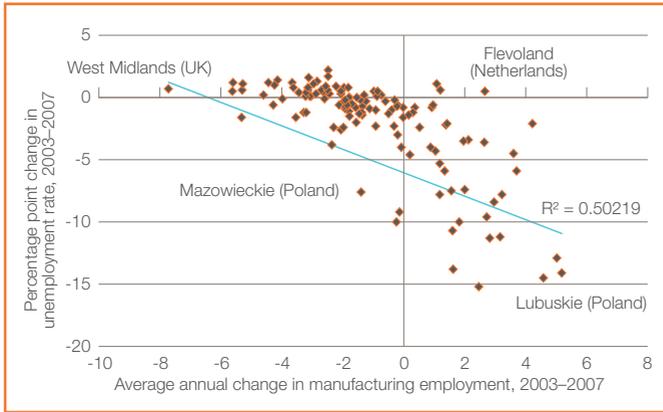
### 3.3.2 Decline of manufacturing

The economic sectors that make up an area’s employment base can often dictate both its long-term and short-term economic fortunes – sub-national economies are clearly quite vulnerable to any changes in industrial composition, and the decline of manufacturing poses a particular problem. Across Europe, the highest concentrations of manufacturing employment are in Tübingen, Germany (where 43.1 per cent of the workforce is engaged in the non-financial business economy), and many Polish sub-regions such as Slaskie (42.6 per cent), Lubuskie (42.2 per cent) and Podkarpackie (41.5 per cent), while the lowest concentrations were in Inner and Outer London (7.9 per cent and 8.7 per cent respectively) (Eurostat 2013c).<sup>16</sup>

As figure 3.12 below illustrates, many of those areas that saw a fall in manufacturing employment during the period before the recession also saw increases in their unemployment rate during this period (many of these areas are in the UK). Conversely, the areas that saw strong growth in manufacturing experienced significant falls in unemployment (many of these were in Poland). However, the concentration of manufacturing in particular sub-regions appears to have had little impact (positive or negative) on that sub-region’s resilience to the effects of recession, as figure 3.13 shows. Areas that had large manufacturing bases fared poorly in some cases – such as that of La Rioja (Spain) – and well in others – such as Sachsen-Anhalt (Germany). It appears that the national context is pivotal in determining whether a manufacturing-rich sub-region will succeed or not: for example, the recession hit the sub-regions of Spain hard almost irrespective of the strength of manufacturing in those regions.

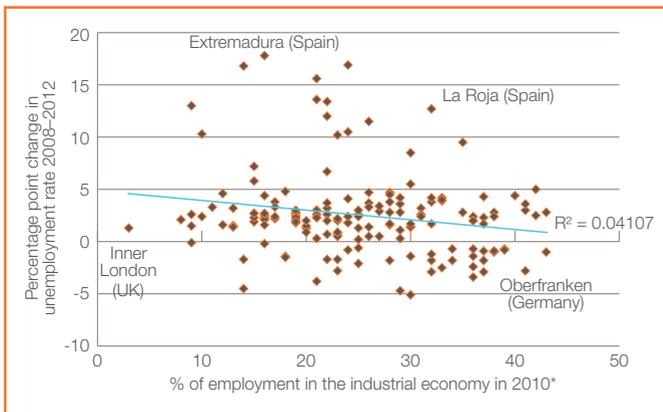
<sup>16</sup> The aggregate for the non-financial business economy as measured by Eurostat excludes agricultural, forestry and fishing activities, and public administration and other services (such as defence, education and health), and financial services, which are not covered by Structural Business Statistics (SBS). Financial services are kept separate because of both their specific nature and the limited availability of most types of standard business statistics in this area. For further details information, see [Eurostat 2013e](#).

The nature of the global economy is forever changing, and local economies will react differently to these shifts. Chapter 1 referred to the impact of globalisation and rapid technological change, which have caused the demand for mid-skilled labour in many industries, especially manufacturing, to decrease. The impact that this has on an area depends on how concentrated these industries are. It is clear that, over the longer term, rising unemployment has an association with the decline of manufacturing, but the vulnerability of areas' labour markets to recessions depends less on the size of their manufacturing base than on other factors.



**Figure 3.12**  
Average annual change in manufacturing employment (%) and percentage-point change in unemployment in NUTS-2 areas of selected Europe-24 countries, 2003–2007

Source: IPPR North analysis of Eurostat 2013b and Eurostat 2013c  
Note: N=100 (all NUTS-2 regions of selected countries with both unemployment rates and manufacturing employment figures available).



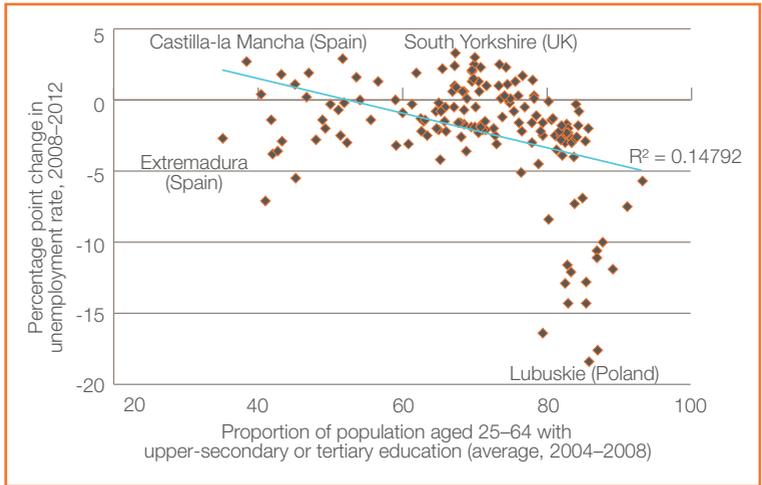
**Figure 3.13**  
Proportion (%) of local employment in the industrial economy\* in 2010 vs. change in unemployment in NUTS-2 areas of selected Europe-24 countries 2008–2012

Source: IPPR North analysis of Eurostat 2013b and Eurostat 2013d  
Note: N=167 (all NUTS-2 regions of selected countries with both unemployment rates and industrial economy employment figures available).  
\*Manufacturing employment taken as a proportion of the non-financial business economy, which includes the sectors of industry, construction and distributive trades and services.

### 3.3.3 Skills base

A higher-skilled sub-regional population is often a good indicator of an area's economic strength, both because highly skilled people are attracted to a strong economy, and because skilled people are more productive; most importantly, they are far less likely to be workless (see chapters 7 and 8 for a detailed analysis of these labour market dynamics). Figure 3.14 below demonstrates that there was no strong relationship between skills levels and falls in unemployment before the recession. However, while many areas with relatively high skill levels didn't experience large falls in their unemployment rates, those areas with the very highest skill levels did enjoy the largest falls.

**Figure 3.14**  
Proportion of population (%) aged 25–64 with upper secondary or tertiary education (average, 2004–2008) and percentage point change in unemployment between 2004 and 2008 in selected Europe-24 countries.



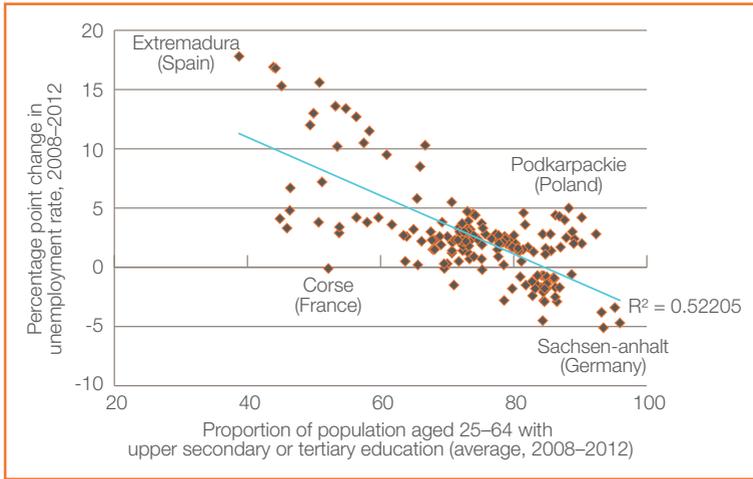
Source: IPPR North analysis of Eurostat 2013b

Note: N=159 (all NUTS-2 regions of selected countries with both unemployment rates and education figures available).

Figure 3.15, however, demonstrates a far stronger association between skills levels and resilience to the recession: in all of those areas that saw a rise in unemployment of more than 5 percentage points between 2008 and 2012, less than 70 per cent of the population held an upper-secondary-level qualification. Conversely, the only areas that saw a substantive fall in unemployment during the period were those where at least 70 per cent of their population were qualified to this level (IPPR North analysis of Eurostat 2013b).

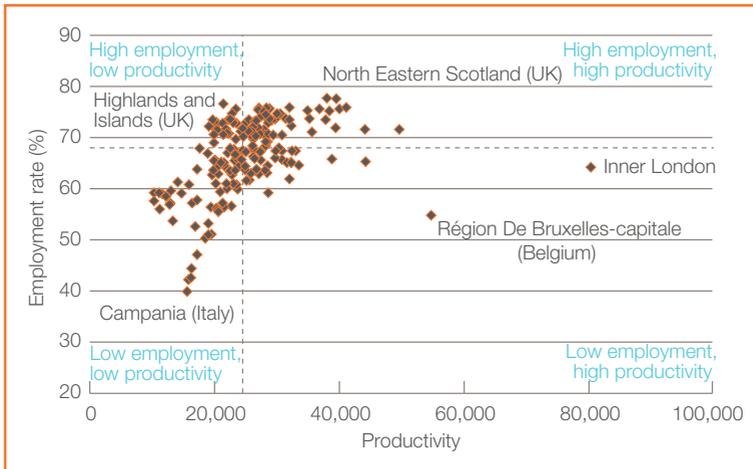
The contribution that skills make to higher wages, employment, productivity and growth is well-documented, and increasing the supply and demand for skills is a high priority across Europe, particularly for those regions that are currently lagging (OECD 2012). The way in which these factors interact is, however, far from uniform across countries, let alone continents. Areas of low employment

and productivity are clearly in economic difficulty. However, high employment can conceal a situation in which supply and demand for skills entrench a low-wage, low-productivity status quo known as a 'low-skills-equilibrium' (OECD 2008).



**Figure 3.15**  
Proportion of population (%) aged 25–64 with upper-secondary or tertiary education (average, 2008–2012) and percentage point change in unemployment between 2008 and 2012 in selected Europe-24 countries

Source: IPPR North analysis of Eurostat 2013b  
Note: N=173 (all NUTS-2 regions of selected countries with both unemployment rates and education figures available).



**Figure 3.16**  
Productivity (GDP per capita at PPS) and employment rates in 2010\*

Source: IPPR North analysis of Eurostat 2013b  
Note: N=190 (all NUTS-2 regions of selected countries with both employment rates and productivity figures available).  
Axes cross at EU-27 averages for productivity (24,500) and employment (68.4 per cent).  
\*Measures of GDP per capita at the sub-regional level are not the preferred measure, but are included here for illustrative purposes due to data availability.

Figure 3.16 indicates some areas that are clearly stuck in such situations, as well as in other scenarios. Low-productivity areas can be split into those that have low employment (such as Campania and Calabria in Italy) and high employment (such as Devon in the UK and Brandenburg in Germany). A distinction within the high-productivity areas can also be drawn between those that also have high employment, such as Oberbayern (Germany) and Utrecht (the Netherlands), and those which, despite high productivity, have lower employment rates than might be expected, such as Région de Bruxelles-Capitale (Belgium) and Lazio (Italy). This is not a mere analytical point – far from it. Rather, it means that policies which simply increase the supply of skills within an area will not necessarily lead to higher wages and economic growth: if the demand isn't there, higher-skilled people will simply move to other parts of the country, or even to other countries, to find appropriate work, leaving a weak local economy behind for those who are less mobile. There is a risk that the recession has knocked many areas into a worse situation in this regard, and that long-term structural damage has been done to their labour markets (OECD 2011).

### 3.4 Conclusion

This chapter has revealed the substantial variation in sub-regional economic performance across Europe, demonstrating that there are different degrees of concentration and imbalance in economic performance within countries, and that some countries are becoming more varied while others converge. The vulnerabilities of many sub-regions have been exposed by the financial crash, recession and public sector austerity programmes, while the strength and resilience of others have been remarkable by comparison. These areas are sometimes concentrated in single countries, but that is not universally true – many strong sub-regions clearly exist within weak countries, and vice versa.

For the many areas that are still experiencing high unemployment, a better understanding of the factors that can improve the strength and resilience of local labour markets is essential. These sub-regions fall into two groups. Many areas are struggling to deal with declines in their manufacturing industries, and face long-term structural problems, whereas others enjoyed strong economic growth and experienced big falls in unemployment before the recession, which subsequently turned out to be highly cyclical. The solution for both groups is likely to lie, in part, in better skills policy. The recession has shown that areas with stronger skills bases are the most resilient to crises.

A situation in which a large proportion of the population is isolated geographically from economic growth will entrench unemployment, low wages and the associated deprivation. However, the urgency of this problem coincides with great potential. A growing body of evidence suggests that the regions that are currently lagging could – with the

right investment – see the strongest growth (OECD 2012, IPPR North and NEFC 2012). Other research has shown that underinvestment outside of capital cities holds back growth elsewhere, and that cities outside the capital in particular have the potential to drive national growth (Parkinson et al 2012, Centre for Cities 2014). If they are to recover from this recession – and become more resilient to future recessions – the lagging sub-regions of Europe will need a wide range of investments, but aligning the supply and demand for higher skills appears to be essential.

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## 4. UNDEREMPLOYMENT

### Abstract

*The number of underemployed workers in the Europe-24 has increased by over 3 million since 2008, with more than one in 10 workers reporting that they would like to work more hours. Since the economic crisis the biggest increases in underemployment have been seen in those countries that experienced the largest downturns, but before then the largest rates of underemployment were found in countries such as France and Germany. Many factors have contributed to both the increasing levels of underemployment and the disparities between countries in terms of the proportion of their workforces that are underemployed. These factors include the ways in which businesses have responded to the recession, in terms of cutting or maintaining working hours; how families have changed their work preferences in a period of slow wage growth; and the different policies and labour market institutions across countries that can create barriers to full-time work for particular groups. Underemployment represents a significant under-utilisation of skills in the workforce, and continued failure to tackle its causes will mean that many workers will be consigned to the peripheries of the labour market, trapped in low-paid, low-skilled work with little opportunity for advancement.*

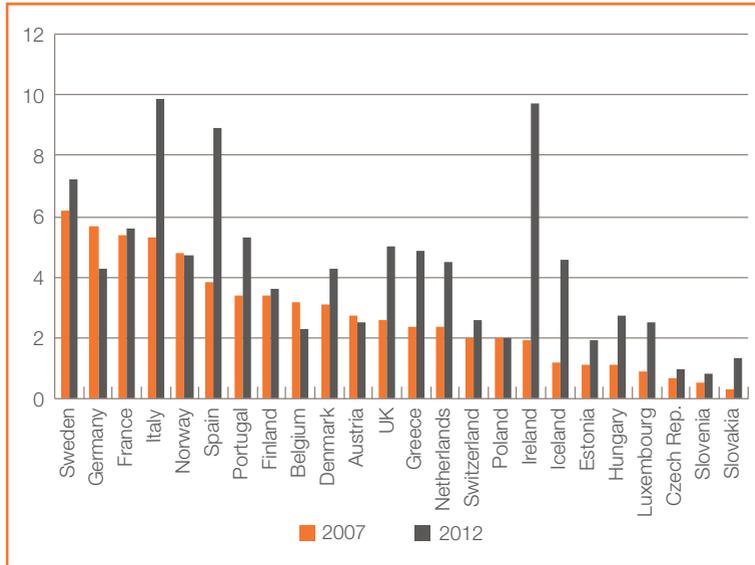
### 4.1 Underemployment in Europe

The economic crisis in Europe has been accompanied by growing economic insecurity within labour markets. Aside from its most obvious expression in higher unemployment rates, this insecurity has also impacted on the quality of the jobs that are available, and on the ability of individuals to secure their preferred work patterns.

A lack of employment opportunities has led many people to accept whatever jobs are available, including those that do not match their preferences. Across the 24 European OECD countries (the 'Europe-24'), the proportion of all workers who are working part-time because they could not find full-time employment increased from 4.1 per cent in 2007 to 5.1 per cent in 2012 (IPPR calculations based on EU-Labour Force Survey<sup>17</sup> data; see figure 4.1). The highest levels are seen in Spain, Ireland and Italy – those countries that experienced more severe economic downturns. This suggests that a change in the ability of individuals to work their preferred number of hours is related to national economic performance and the state of the labour market.

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17 All data in this chapter is taken from IPPR calculations based on EU Labour Force Survey data unless otherwise stated. Source: <http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/lfs>



**Figure 4.1**  
 Proportion of all employed people working part-time because they could not find a full-time job, in Europe-24 countries, 2007 and 2012

Source: Eurostat 2014

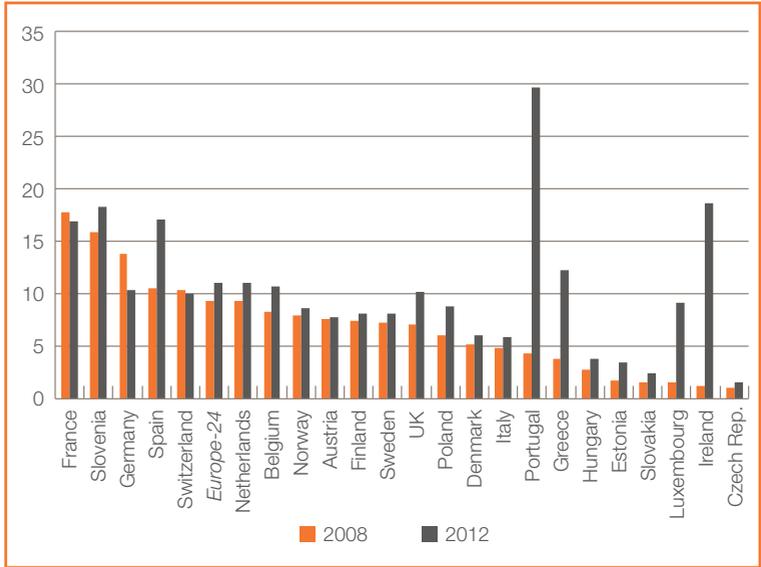
However, a better measure of the scale of underemployment is to look at the extent to which individuals' preferences about their working hours fit with their current work patterns. In the Europe-24 group of countries, the proportion of employed people that want to work more hours increased from 9 per cent in 2008 to 11 per cent in 2012 – a rise of over 3 million workers.

By this measure, the largest increases in underemployment have been in Portugal, Ireland, Greece and Spain – all of them countries that have experienced particularly severe recessions and large falls in overall employment. By contrast, many of the countries that experienced shallower downturns, including Germany, Switzerland and Austria, have seen much smaller rises, or even falls, in their rates of underemployment.

Before the economic crisis the pattern was very different, with the highest rates of underemployment seen in France, Slovenia and Germany. In France and Germany this is likely to be related to the structure of labour market regulation and their social security systems, which are discussed below. The lowest levels of underemployment during this period were seen in the 'transition economies', with the exception of Slovenia, and in southern Europe, with the exception of Spain. The majority of these countries had underemployment rates of less than 10 per cent.

**Figure 4.2**

Proportion (%) of total workforce underemployed in Europe-24 countries (excluding Iceland\*), and Europe-24 average, 2008 and 2012



Source: IPPR calculations using the EU Labour Force Survey

\*Note: Data was unavailable for Iceland.

In the Europe-24, the risk of underemployment is proportionately much higher among part-time workers – a quarter of whom would like to work more hours – than among full-time workers, of whom less than 10 per cent expressed this unmet preference. Nevertheless, half of all underemployed workers are in full-time work.<sup>18</sup> In 2012, the southern European economies had very high rates of underemployment among part-time workers, with over half of Spanish and Greek part-timers reporting that they would like to work more hours.

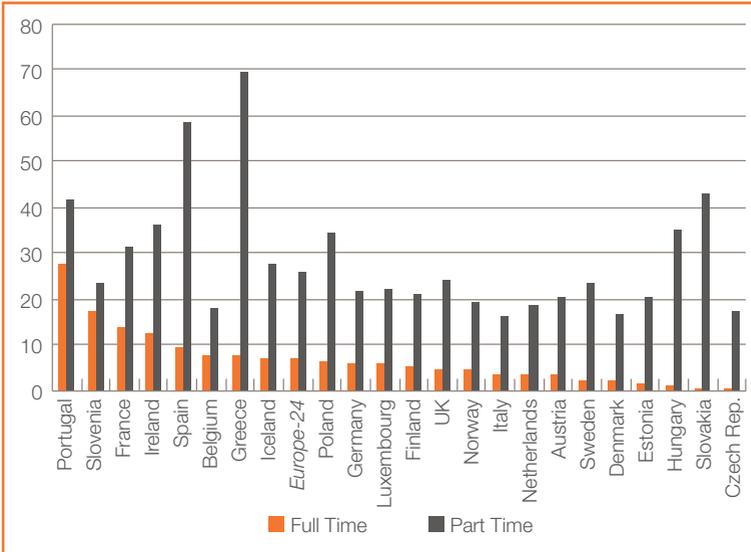
The majority of underemployed workers – 60 per cent – would prefer to adjust to their desired level of hours within their current job. By comparison, only 8 per cent would like an additional job to make up the hours gap, 10 per cent would prefer to work longer hours in a different job, and 21 per cent would find any of these methods acceptable.

Other than differences in the number of underemployed workers, countries also vary in terms of the severity of underemployment. Figure 4.4 below illustrates this by plotting the percentage shortfall in hours worked – that is, how much lower actual hours worked were than they would have been if every worker was employed for their preferred level of hours – in 2008 and 2012.

<sup>18</sup> That is, people looking for overtime opportunities.

**Figure 4.3**

Proportion of workers underemployed by part/full-time status in Europe-24 countries (excluding Switzerland\*), and Europe-24 average, 2012

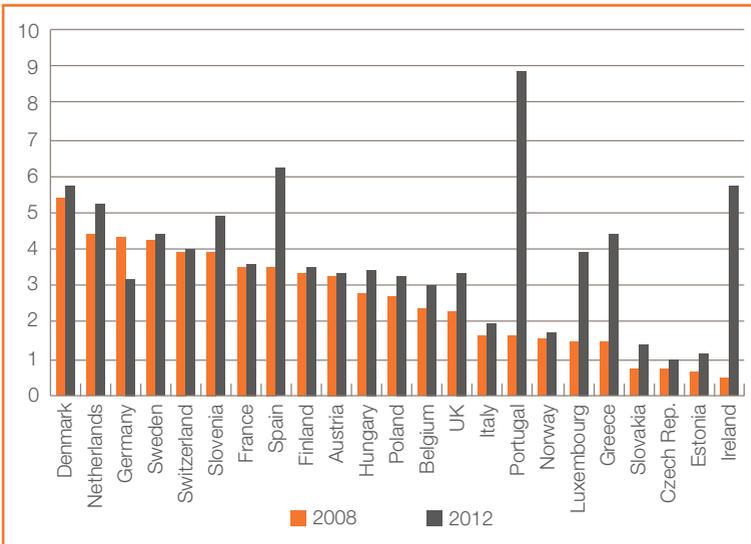


Source: IPPR calculations using the EU Labour Force Survey

\*Note: Data was unavailable for Switzerland.

**Figure 4.4**

Percentage shortfall in hours worked in Europe-24 countries (excluding Iceland\*), 2008 and 2012



Source: IPPR calculations using the EU Labour Force Survey

\*Note: Data was unavailable for Iceland.

Looking at the 2008 data, it is clear that some of the countries with the greatest shortfall in hours worked were those that had much lower levels of underemployment, such as Denmark and Sweden. This suggests that while underemployment is not widespread in those countries, those that do face a shortfall in hours have a much larger gap between their actual and their desired working hours. Since 2008, however, those countries that have experienced the largest rises in underemployment overall have seen the largest increases in the gap between actual and desired working hours. Nevertheless, the problem remains acute in Denmark, which has the third-highest hours shortfall in the Europe-24, greater than that of Greece.

## 4.2 What drives underemployment?

There are several reasons why underemployment has increased since the start of the downturn, and why levels of underemployment are so different across countries.

### **Labour hoarding**

Businesses have used a variety of methods to adjust their labour costs to falling demand during the economic crisis. While some have had to let employees go, and others have closed entirely, many used adjustments to hours rather than, or alongside, cuts to their overall headcount. One of the benefits of using this strategy is that it has allowed employers to retain the talent and skills of their workforce, so that when economic recovery returns they are better able to readjust back to a pre-crisis level of output. This has been shown to be the pattern in most European countries (Arpaia and Curci 2010). This strategy has, however, resulted in many employees having to reduce their hours as an alternative to losing their job.

### **Falls in real wages**

During the economic crisis, businesses have also used pay restraint to reduce their labour costs. This has led to a slowdown in wage growth in most European countries, although the rate of change has varied between them (see chapter 6). It is likely that many individuals and households who have experienced a fall in their hourly pay have responded by increasing the number of hours they say they would prefer to work, as a way of maintaining their overall income and living standards.

### **Self-employment**

For the self-employed, a fall in demand for the goods and services they produce often translates directly into a reduction in working hours. Indeed, while the self-employed have a lower rate of underemployment than employees (7 per cent, versus 11 per cent of employees in 2012), this rate is three percentage points higher than it was in 2007.

### **The changing structure of work**

The number of lower-skilled jobs has increased markedly in most countries in the Europe-24 (see chapter 8). While a diverse group of occupations fall

into this category, they tend to be characterised by shift-work outside of regular nine-to-five working hours, and to have variable hours from week to week. While many are employed full-time in these roles, part-time working is more common in these occupations than in others. Forty per cent of those working in elementary occupations work part-time. By contrast, mid-skilled occupations are more characterised by full-time employment, with only 24 per cent working part-time, but these occupations are in decline in most Europe-24 countries.

### **Individual-level barriers**

In many European countries, particular groups of workers face substantial barriers to achieving their desired level of working hours. For instance, parents of young children have to combine work with caring responsibilities, and if they cannot access or afford childcare may have to accept fewer working hours. This is particularly the case for mothers, who tend to provide a disproportionate share of parental care: the underemployment rate for mothers across the Europe-24 was 13 per cent in 2012 – 2 percentage points higher than the overall rate. Similarly, many older workers and people with disabilities may want to work longer hours, but face physical and mental-health-related barriers to doing so.

### **Labour market regulation**

Labour market regulation can act to limit individuals' working hours. For example, employment laws in France, which in 2007 had the highest rate of underemployment in the Europe-24, prohibit employees from working more than 35 hours per week. Across the EU as a whole, employees have a right to work no more than 48 hours a week (with the exception of the UK, where individuals can opt out).

### **Incentives for short-hours working**

Many countries incentivise employers to offer a greater number of short-hours jobs. In Germany, many employees work in 'mini-jobs', a specific category of low-hours employment that is encouraged through the tax and social security system which exempts workers on few hours from paying social security contributions (TUC 2012). A similar incentive is at work in the UK, where employers are exempted from paying national insurance contributions on the first £148 of employees' weekly earnings. In addition, in response to the recession, many governments (25 out of the 33 OECD countries) enacted 'short-time working' schemes. This entails the state compensating employees whose hours have been reduced with a portion of their lost earnings. While the exact nature of these schemes varies between countries, in general they saw rapid take-up among employers and their workers – the OECD has estimated that, up to 7 per cent of Belgian, and between 4 and 5 per cent of German employees, were in a short-time working scheme in 2007–09 (Silim 2013). The efficacy of short-time working as a means of protecting employment has been hotly debated, however, and such schemes are likely to have contributed in part to the rise in European underemployment in recent years.

## Overtime incentives

Other countries have tried to incentivise businesses to provide longer hours of work. In France, the TEPA laws introduced in 2007 offered tax breaks for overtime work, targeted in particular at firms with less than 20 employees. Their introduction was followed by a 10 per cent increase in overtime hours. However, a study into the effect of the reform found that, rather than increasing hours worked, it actually led to an increase in the number of hours *declared*, primarily among those on high incomes (Cahuc and Carcillo 2011). This may be part of the reason why France experienced a fall in recorded underemployment rates between 2008 and 2012. Similar schemes have also been introduced in Belgium, Italy and Luxembourg (ibid).

## The welfare system

Similarly, eligibility rules in benefit systems which specify a maximum number of hours that can be worked before losing entitlements can act as incentives for individuals to remain on low hours even if they would prefer to work full-time. In the UK, claimants of jobseeker's allowance, the primary unemployment benefit, are able to work up to 16 hours a week. Similar eligibility criteria apply in many other countries, including in Germany, where those receiving unemployment insurance can work less than 15 hours a week. Furthermore, the rate at which in-work benefits are withdrawn as hours and earnings rise may incentivise part-time work. The OECD refers to this situation as a 'low-wage trap', whereby the combination of having in-work benefits withdrawn, and increases in the marginal rates of income tax and employee social security contributions, may mean that people securing more hours and a higher income do not see any financial gain. This is particularly the case for families with children, who are likely to see means-tested family benefits removed: for a single-earner married couple with two children, the OECD estimates that a 10-per-cent wage increase can result in an effective tax rate of over 80 per cent in most European countries (OECD 2005).

## 4.3 The impact of underemployment

In the first instance, underemployment has an impact on individual and family earnings, with the underemployed unable to attain their desired level of income. This leads to a higher risk of in-work and child poverty, which in turn has an impact on their wellbeing and social inclusion. However, underemployment and part-time working also have other impacts on those workers concerned, on the wider economy and on society.

## Hourly earnings

Aside from the loss of overall earnings caused by working fewer hours, underemployment and part-time working are associated with lower rates of hourly pay. In European countries, this has been shown to be primarily driven by a combination of two factors. First, there is substantial discrimination in pay by gender, with women much more likely to be in part-time roles and to earn less per hour than both men

in comparable positions and women in full-time jobs. Related to this is the low-skilled nature of much part-time employment, which leads to lower hourly pay rates (Matteazzi et al 2012).

### **Anxiety and mental health**

Just as unemployment does, underemployment leads to psychological stress for those stuck on lower hours. A US study found that increased levels of stress and depression are found among part-time workers relative to full-time workers, as well as higher levels of risky health behaviours such as smoking, poor diets and excessive alcohol consumption used as coping mechanisms (Rosenthal et al 2012).

### **Lack of progression**

Opportunities to progress in work, moving into higher-skilled roles with greater earnings, tend to be more limited for the underemployed. Gash and Inanc (2013) found that, in 2004, female employees in Europe who worked part-time were around 25 per cent more likely than male full-time employees to report that they had no opportunity for advancement in their current job. This has long-term implications for the ability of underemployed workers to advance in their careers and attain a higher standard of living.

### **Lack of training opportunities**

Related to this lack of progression are the relatively low levels of training opportunities offered to and taken up by underemployed workers. Dieckhoff (2013) has found that, even after controlling for occupational status and educational attainment, the likelihood of being in training increases with the number of hours worked.

## **4.4 Conclusion**

The rising levels of underemployment in Europe suggest that, beyond the spare capacity of the unemployed, there is substantial scope for making more use of the skills and capabilities that are present in the workforce.

Some countries face particularly severe issues that prevent them from fully utilising their workforces. In the southern European economies this is most likely related to the impact of the economic downturn, but even before the financial crisis, several countries – including France, Denmark and Germany – all had notable underemployment problems.

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# 5. HAS STRUCTURAL UNEMPLOYMENT RISEN SINCE THE GREAT RECESSION?

## Abstract

*Structural unemployment tends to rise during recessions, and in periods of weak economic growth. This is because during these periods, firms are reluctant to hire. This leads to more people being out of work for longer periods of time, which reduces their future employment prospects. Workers who are unable to find work for a long period of time can become discouraged and drop out of the labour market. Recessions can also destroy certain jobs for good, making it difficult for affected workers to find work even once a recovery has taken hold.*

*A rise in structural unemployment is more serious than cyclical unemployment, because it signals deeper problems within the labour market. To explore whether structural unemployment has risen since the 'Great Recession', in this chapter we examine the relationship between unemployment and vacancy rates (a proxy for labour demand by firms). Looking across a number of European economies suggests that, for the most part, the majority of countries have not yet experienced a definitive increase in structural unemployment.*

*However, there are a few countries – Spain, Portugal and Sweden – which appear to have experienced an increase in structural unemployment. The recession and sovereign debt crisis had a substantial impact on labour markets in Spain and Portugal, leading to severe job losses. Countries that have experienced severe unemployment losses during recessions tend to be associated with increased structural unemployment.*

*An indicator commonly used to determine whether unemployment is structural or cyclical is the non-accelerating inflation rate of unemployment (NAIRU). Although there has been an increase in the NAIRU across a number of countries, it has been minimal compared to overall job losses.*

*The evidence thus far is good news for policymakers as the policy responses to bring down structural unemployment are often more complex than those needed to tackle cyclical unemployment.*

## 5.1 Introduction

Six years on from the start of the recession, there are roughly 8 million more workers out of work across the Europe-24. Given the depth of the recession, and the sluggish nature of the subsequent recovery, concern has been growing among policymakers that cyclical unemployment (defined as unemployment brought on by economic downturns) is in danger of becoming structural unemployment. Structural unemployment is a more permanent type of unemployment that persists despite fluctuations in the economy. Both types of unemployment tend to rise during recessions. However, a rise in structural unemployment is more serious, because it implies that there are deeper problems within the labour market. Structural unemployment is often evidence of a large-scale mismatch between the skills of people looking for work and the types of jobs available.

During recessions and periods of weak economic growth, structural unemployment can rise for a number of reasons. Many people who have lost jobs during a recession find themselves without work for a significant period of time. Some employers might take these periods of worklessness as a negative sign and so be reluctant to hire these people, which makes it increasingly difficult for them to re-enter the labour market. Potentially, some workers will become discouraged and drop out of the labour market. Therefore, an increase in long-term unemployment (defined as people without work for 12 months or more) or a rise in inactivity rates during or following recessions can be signs of greater structural unemployment. Furthermore, the most recent global recession may have destroyed many jobs across Europe that have little hope of ever returning, even once strong economic recoveries have taken hold – which again increases the likelihood of structural unemployment. This type of ‘skills-based job loss’ often occurs during downturns. In the US, 92 per cent of job losses in routine manual jobs over the past three decades took place during recessions, which contributed to the demise of these types of jobs across different sectors.<sup>19</sup> Other factors can also cause structural unemployment – for example, when employers’ demand for labour does not match the skills or attributes (location, qualifications, experience) of jobseekers, this can give rise to a more permanent type of unemployment that is more difficult to lower than cyclical unemployment.

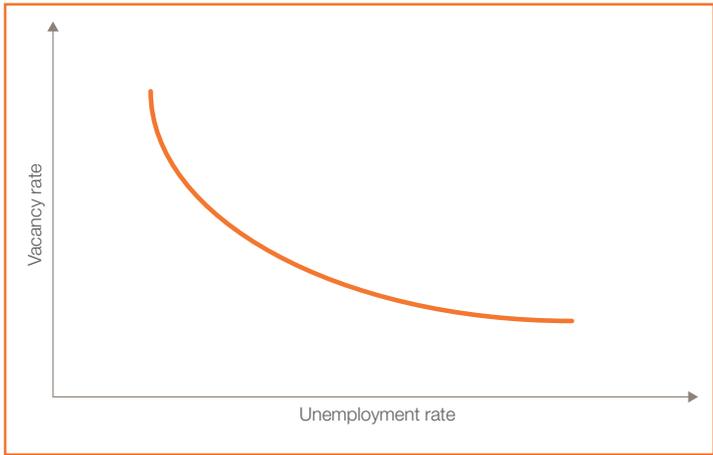
Distinguishing between structural and cyclical unemployment is also important because tackling each type of unemployment requires very different policy responses. For example, macroeconomic policies aimed at boosting the economy may bring down cyclical unemployment, but it is unlikely that it will significantly reduce structural unemployment. Structural unemployment tends to be more responsive to longer-term strategies such as focusing on people’s skills.

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19 <http://www.economist.com/blogs/freeexchange/2012/05/structural-unemployment>

To better understand the nature of unemployment in Europe at the moment, this chapter considers the extent to which structural unemployment has risen. We do this by exploring the relationship between unemployment and vacancy rates (a proxy for labour demand from firms<sup>20</sup>), which can be represented graphically using the Beveridge curve (see figure 5.1).

The theoretical Beveridge curve is a downward sloping curve. When labour demand is high, vacancies are high and the unemployment rate is low; conversely, low labour demand and few vacancies will be associated with a high unemployment rate. This is because greater demand for employees makes it easier for jobseekers to find work and vice versa (OECD 2012, Hobijn and Sahin 2012).



**Figure 5.1**  
A Beveridge curve

During a recession, the number of vacancies falls and unemployment tends to increase. If this is merely a rise in cyclical unemployment, then the movement (when plotted on a graph) would fall at some point along the economy's existing Beveridge curve. However, if structural unemployment were to increase then the curve would move to the right. This means that any given level of vacancies would be associated with a higher unemployment rate: when the economy returned to growth and vacancies returned to their pre-recession levels, unemployment would still be higher than it was prior to the recession because of the additional structural unemployment. In this scenario, jobseekers would find getting a job harder than it was previously, and it would be more difficult for firms to find workers with the skills or attributes they are looking for (OECD 2012).

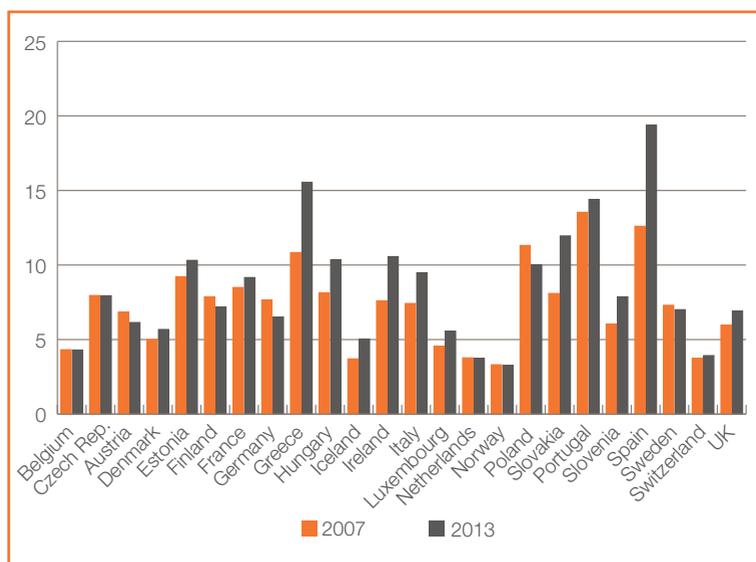
In practice it is often hard to judge whether a shift in the Beveridge curve is a permanent one, indicative of a rise in structural unemployment,

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<sup>20</sup> Vacancy rates in this paper are calculated using different data sources, therefore levels are not comparable across countries.

or a temporary one which is perhaps the result of lags between the resumption of growth in the economy, an increase in vacancies and a fall in unemployment (OECD 2012). Examining past recessions, it is possible to identify cases in which the Beveridge curves of different countries have moved permanently, and some in which it has moved only temporarily. This means that, from our current vantage point, it may be too early to determine whether any shift outwards in a country's Beveridge curve is a true reflection of an increase in structural unemployment since the onset of the recent economic crisis.

**Figure 5.2**  
NAIRU estimates (%) for Europe-24 countries, 2007 and 2013



Source: OECD 2013

Another indicator that is commonly used to determine whether unemployment is structural or cyclical is the non-accelerating inflation rate of unemployment (NAIRU). The NAIRU represents the level of unemployment that exists when an economy 'is operating at full capacity, but not overheating' (Cooke 2013). An increase in the NAIRU suggests there has been an increase in structural unemployment (whereas a growing gap between the actual unemployment rate and the NAIRU is a sign of higher cyclical unemployment). It is clear from figure 5.2, which shows the OECD's estimates, that most European countries have experienced an increase in the NAIRU over the last six years. Most of these increases have been very minor – for example, the eurozone NAIRU average increased by 0.5 percentage points, while overall unemployment increased by roughly 4 percentage points. There are some notable exceptions: Greece, Hungary, Ireland, Portugal and Spain have all experienced increases of over 2 percentage points, with Spain seeing the greatest increase at just under 4 percentage points. These

countries are, of course, among those that have been hit the hardest by the Great Recession and the subsequent sovereign debt crisis.

The rest of this chapter explores Beveridge curves for several European economies for which data is available, in an attempt to gauge whether these countries have experienced an increase in structural employment. Our analysis appears to confirm the OECD's results: for the most part, most countries have not yet seen a definitive increase in their structural unemployment. However, based on our analysis there are a few countries – Spain, Portugal and Sweden – that appear to have experienced a clear departure from their pre-recession Beveridge curves. This could suggest an increase in structural unemployment. There are also economies for which evidence appears to be emerging of a possible outwards shift. Germany and Poland are notable exceptions in this story, as they have managed to shift their Beveridge curves inwards since the Great Recession, and they now enjoy unemployment rates that are much lower in relation to vacancy rates than they did prior to the recession. This suggests that, since the recession, structural unemployment has fallen in these two economies.

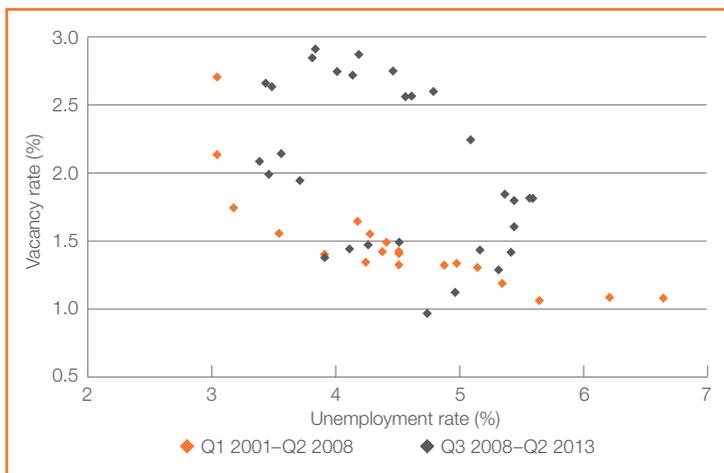
## 5.2 Movements along the Beveridge curve

Although most countries have experienced job losses as a result of the recession, the degree to which the recession impacted on labour market outcomes varies greatly across Europe. Labour markets in Spain and Greece were deeply affected by the recession, experiencing significant unemployment increases, while other countries such as the Netherlands only saw a mild rise in unemployment. Countries that have experienced severe job losses during recessions tend to be associated with increased structural unemployment (EC 2013).

Figures 5.3 through 5.6 below show Beveridge curves for countries that had relatively mild-to-moderate unemployment responses to the economic downturn. These figures illustrate patterns that are typically associated with cyclical unemployment – movements along the Beveridge curve instead of shifts either outwards or inwards. Between 2005 and 2008 the Netherlands saw upward movements along the Beveridge curve that are consistent with a growing economy – firms were demanding more workers, and unemployment subsequently declined. This pattern was also evident in Finland. However, once the financial crisis took hold, vacancy rates and unemployment rates began to move in the opposite direction across Europe. In response to the drop in output, the Netherlands, and Finland experienced an increase in their unemployment rates, alongside falling vacancy rates. These movements suggest that the Great Recession was causing greater cyclical unemployment. Similar movements were also observed in Italy and Austria. Following the recession, the Netherlands saw a continued downwards movement

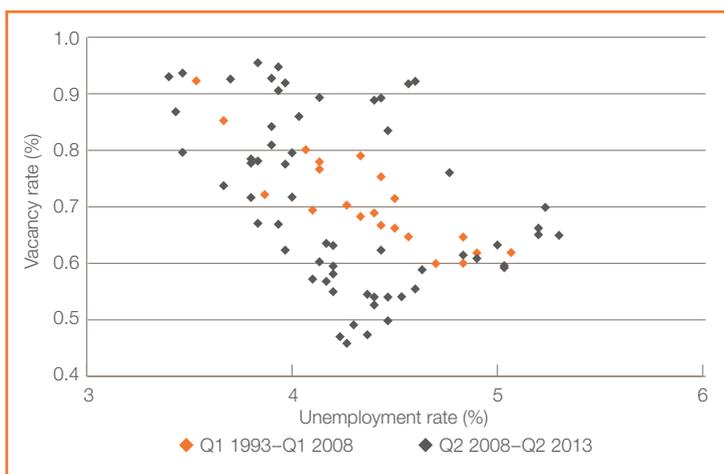
– which is not unusual, particularly when a recovery is slow. However, the latest few observations are more worrying, as unemployment has increased without any accompanying fall in vacancies. This might be the first sign of a shift in the Beveridge curve and therefore an increase in structural unemployment in the Netherlands. By contrast, Finland experienced a temporary improvement, with the movement of indicators back up the Beveridge curve between 2010 and 2012, before they moved down once again by late 2012 (see figure 5.5).

**Figure 5.3**  
Beveridge curve of  
the Netherlands,  
Q1 2001–Q2 2008  
and Q3 2008–Q2  
2013



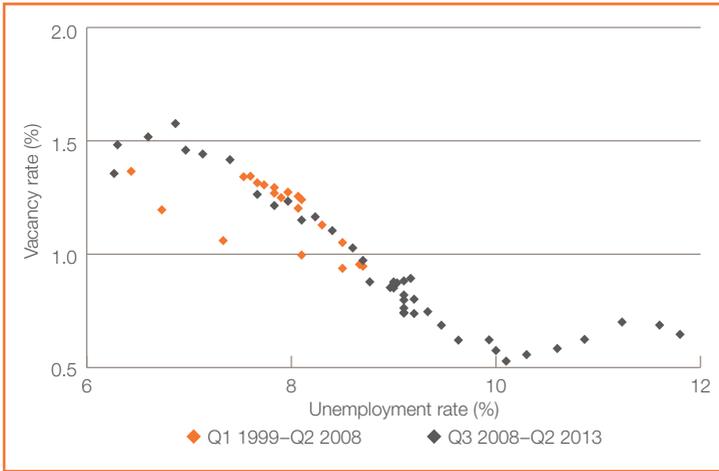
Source: OECD.stat, Eurostat 2014 and authors' calculations

**Figure 5.4**  
Beveridge curve of  
Austria, Q1 1993–  
Q1 2008 and Q2  
2008–Q2 2013



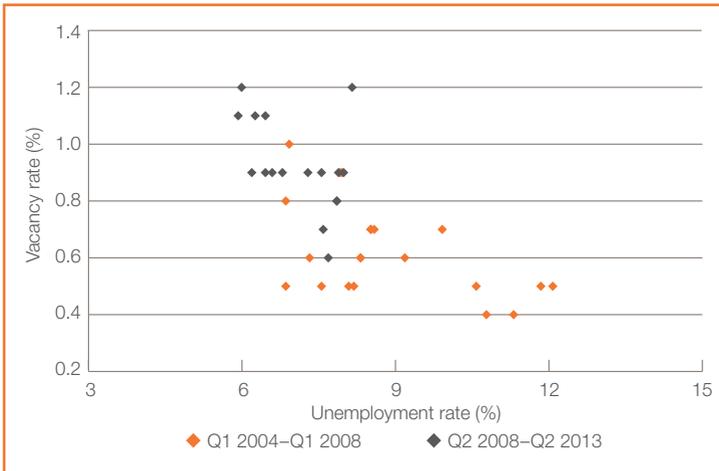
Source: OECD.stat and authors' calculations

**Figure 5.5**  
Beveridge curve of  
Finland, Q1 1999–  
Q2 2008 and Q3  
2008–Q2 2013



Source: OECD.stat, authors' calculations

**Figure 5.6**  
Beveridge curve  
of Italy, Q1 2004–  
Q1 2008 and Q2  
2008–Q2 2013



Source: OECD.stat, the National Institute for Statistics, authors' calculations

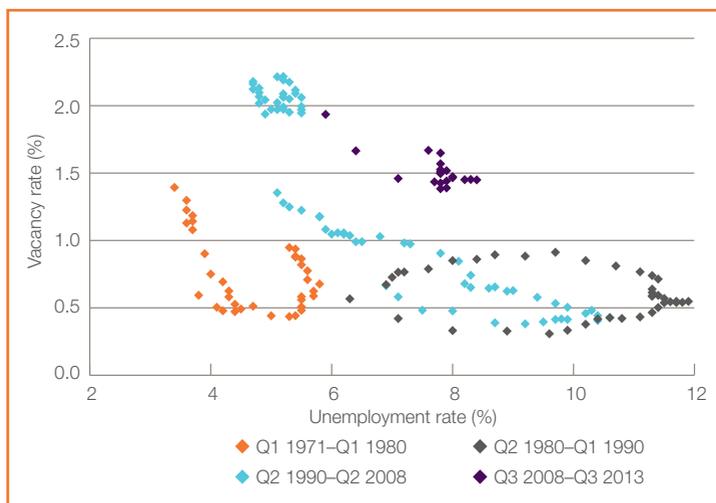
Note: Each point represents one quarter, and vacancy rate is calculated as job vacancy rate = job vacancies/active labour market force.

In contrast to the four countries above, Beveridge curves in other major European economies have given some indications of shifts outwards, albeit not very well defined ones. It may be too early to determine whether any permanent shifts have occurred in these countries, or whether any shifts are simply due to differences in response rates. Vacancy rates tend to be far more responsive to fluctuations in the economy than unemployment rates, so more time needs to pass before we can accurately determine the scale of any increase in structural unemployment in response to the recent recession.

Although an outright shift in the Beveridge curve of the UK is not yet evident, there appears to be the beginnings of a slight movement outwards (see figures 5.7A and 5.7B). The 2008–2009 recession moved the UK away from high vacancy rates and low unemployment rates towards high unemployment rates and lower vacancy rates – consistent with the fall in aggregate demand (Smith 2012).

However, there are some indications that the UK may be experiencing increasing levels of structural unemployment. The unemployment rate remained at around 8 per cent between 2009 and 2012, while the vacancy rate edged upwards, which suggests the possibility of mismatch between workers skills or attributes and labour demand.<sup>21</sup> Since late 2012, unemployment rates have begun to decline and vacancy rates have begun to increase. However, as in many countries across Europe, long term unemployment – which makes up around one-third of total unemployment – remains a problem in the UK.

**Figure 5.7A**  
Beveridge curve of  
the UK, Q1 1971–  
Q3 2013

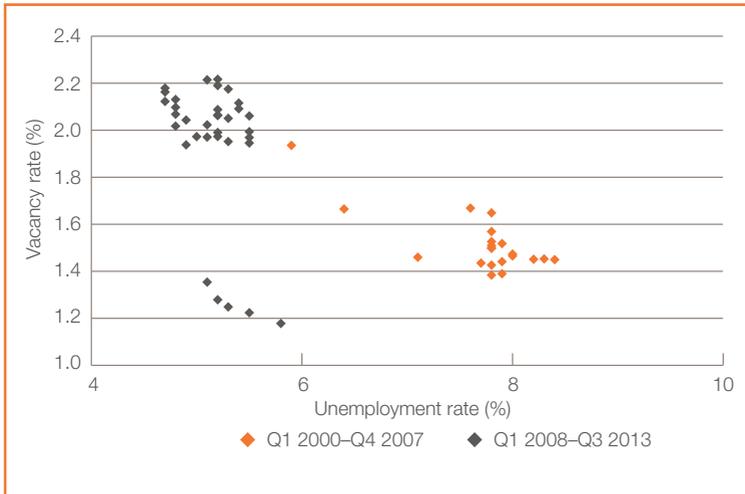


Source: OECD.stat, ONS Labour market statistics dataset, authors' calculations

Other studies have also concluded that the UK has seen an outwards shift in its Beveridge curve, driven by a skills mismatch in the construction sector that is the result of the burst in the housing bubble, which caused a decline in construction (Hobijn and Sahin 2012). However, while its activity remains lower than before the crash, construction is generally a late-cycle part of the economy, so it would not be unusual for it to only pick up in a few years' time – which would indicate that there may not actually be a permanent skills mismatch in this sector. Overall, based on

<sup>21</sup> [http://www.europe-economics.com/blog\\_post/24/the-uk-and-us-labour-markets%3A-still-ill-different-diseases.htm](http://www.europe-economics.com/blog_post/24/the-uk-and-us-labour-markets%3A-still-ill-different-diseases.htm)

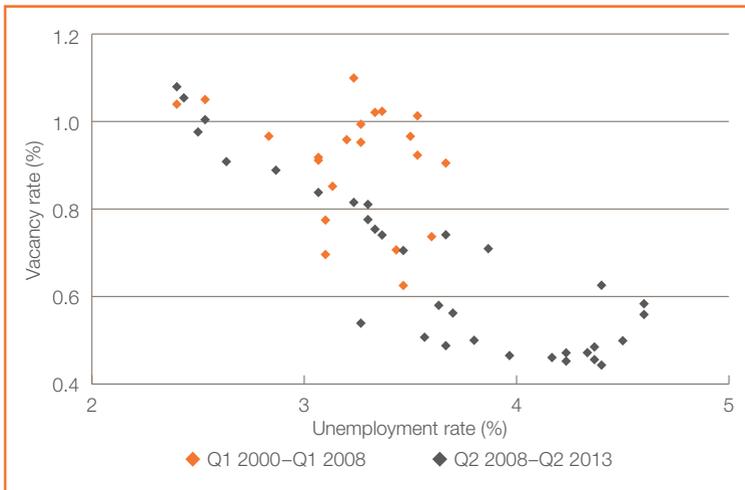
figure 5.7B and mixed empirical evidence, there is not yet enough data and analysis to determine whether there has been a breakdown in the relationship between the vacancy and unemployment rates in the UK.



**Figure 5.7B**  
Beveridge curve of the UK, Q1 2000–Q4 2007 and Q1 2008–Q3 2013

Source: OECD.stat, ONS Labour market statistics dataset, authors' calculations

In Norway there appears to be evidence of a temporary shift outwards between 2010 and 2011; however, the indicators had moved back to the original Beveridge curve by early 2012. Overall, movements in Norway's labour market appear too erratic to draw any sound conclusions (see figure 5.8).



**Figure 5.8**  
Beveridge curve of Norway, Q1 2000–Q1 2008 and Q2 2008–Q2 2013

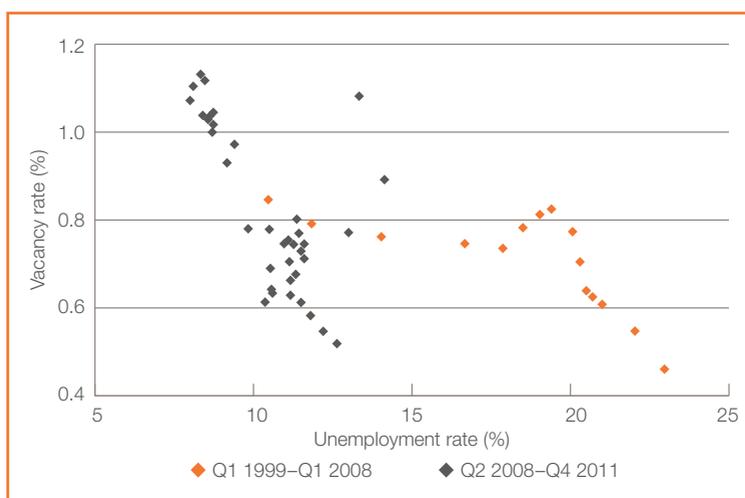
Source: OECD.stat, authors' calculations

### 5.3 Outward shift: an increase in structural unemployment?

It can be difficult to determine whether there is evidence of a clear shift in the Beveridge curve since 2008–2009 that definitely indicates an increase in structural unemployment. However, there are a few countries whose Beveridge curves, following the Great Recession, do appear to indicate higher structural unemployment. In Spain, Portugal and Sweden the unemployment rate has increased by far more than might have been expected given the decrease in vacancies – this has pushed the Beveridge curves of these countries outwards. This suggests an increase in structural mismatches – that is, gaps between the skills of those looking for work and the types of jobs available – which have serious implications for the labour market and the economy, creating a number of challenges for policymakers.

Structural unemployment is likely to be acute in countries where long-term unemployment has risen substantially. The recession had a particularly severe impact on the Spanish labour market: in 2012, unemployment reached 25 per cent, the highest rate across the EU, up from 8 per cent in 2007. This has been associated with a build-up of long-term unemployment over the same period, which rose from 17.8 per cent of total unemployment to 44.4 per cent (Eurostat 2014). Spain had a problem with long-term unemployment even before the recession hit, but the downturn has exacerbated this problem. Sharp job losses and the build-up of long-term unemployment may have pushed Spain's Beveridge curve outwards (OECD 2012).

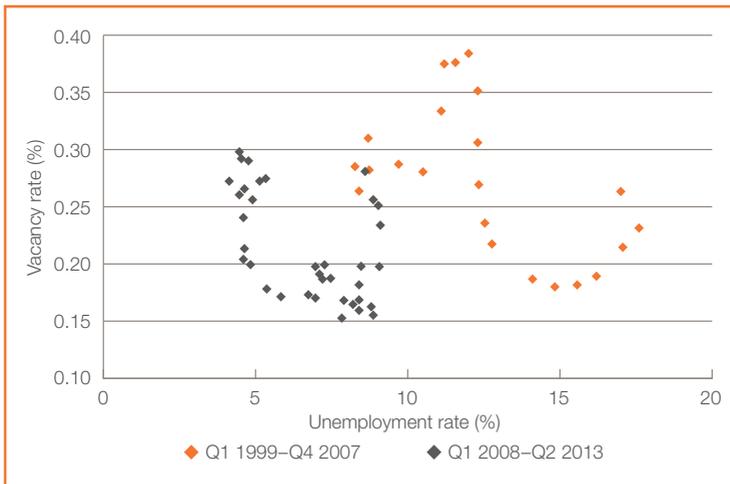
**Figure 5.9**  
Beveridge curve of Spain, Q1 1999–Q1 2008 and Q2 2008–Q4 2011



Source: OECD.stat, authors' calculations

One factor behind the drastic increase in unemployment in Spain was the bursting of its housing bubble. The consequent slump in the construction sector has driven a large share of the increase in unemployment – over a third of unskilled jobs in the sector were lost. Given that so many of the job losses in Spain occurred in a single sector – construction – it is likely that the current labour market mismatch in Spain is a skills mismatch. There are now many former construction workers whose skills are both not needed and not transferable to other sectors (OECD 2012, Hobijn and Sahin 2012). However, it has also been suggested that Spain’s lax conditions around unemployment benefit have contributed to the increase in structural unemployment (ibid).

The construction sector was also badly hit in Portugal, and there is evidence that the Beveridge curve shifted outwards in Portugal towards the end of 2009 (see figure 5.10), which could indicate a possible increase in structural unemployment. However, after the second quarter of 2011 there was downwards movement along the curve that is typical of an increase in cyclical unemployment.



**Figure 5.10**  
Beveridge curve of Portugal, Q1 1999–Q4 2007 and Q1 2008–Q2 2013

Source: OECD.stat, authors’ calculations

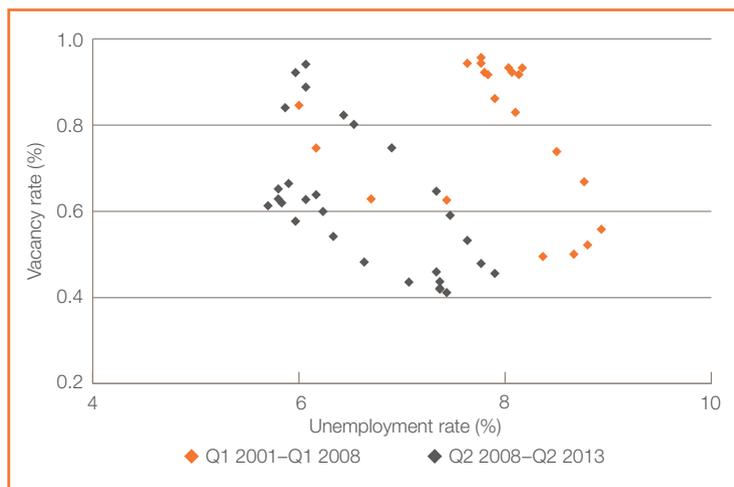
The OECD estimates that the NAIRU, another common measure of structural unemployment, has increased by more than 2 percentage points in both Spain and Portugal. This is a much greater increase than the EU average, which is a further indication of an increase in structural unemployment in the two countries.

Figure 5.11 suggests that Sweden has also experienced an outward shift in the Beveridge curve. Since late 2009 there has been a decrease in the vacancy rate, followed by an increase, accompanied by an increase in the

unemployment rate. However, unlike other European countries, in Sweden the relationship between the vacancy rate and unemployment rate did not resume its previous position, which indicates an increase in mismatches between labour demand and supply.

Some have argued that the labour market reforms that were passed in Sweden immediately before the Great Recession may have contributed towards this outward shift in its Beveridge curve, and towards the increase in structural unemployment (Hobijn and Sahin 2012). These reforms increased the duration of unemployment insurance benefits (OECD 2012), and relaxing these conditions could have weakened incentives to return back to work, thereby increasing the likelihood that those out of work would fall into permanent unemployment.

**Figure 5.11**  
Beveridge curve of Sweden, Q1 2001–Q1 2008 and Q2 2008–Q2 2013



Source: OECD.stat, authors' calculations

## 5.4 Inward shift: an increase in employment?

In stark contrast to many countries across Europe, Germany's unemployment rate has decreased since the start of the recession, and its vacancy rates have increased. Although Germany was less affected by the sovereign debt crisis than other countries, this is nevertheless very surprising. For reasons that are not fully understood, Germany appears to have experienced a fall in structural unemployment (EC 2013).

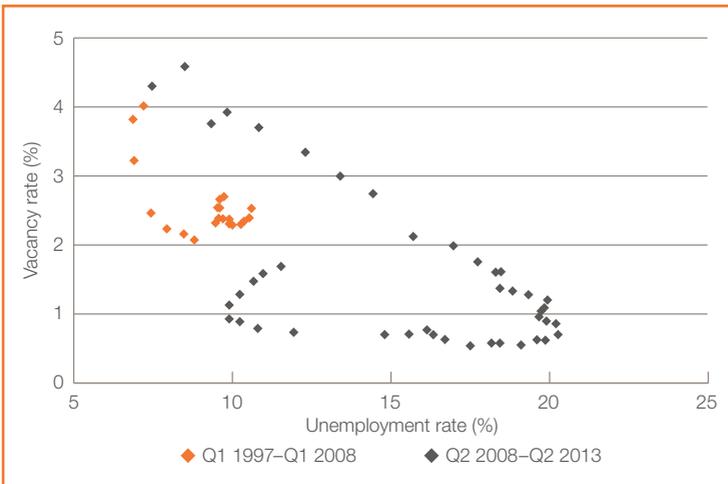
Some argue this inward shift of Germany's Beveridge curve was the result of the 'Hartz reforms', implemented ahead of the 2008–2009 recession (EC 2011 and 2013). These reforms reduced the duration of unemployment benefits, and provided greater support to help the unemployed back to work, all of which strengthened work incentives. It has been argued that these reforms have been important in increasing employment over the past 10 years (ibid). Also, it is likely that the widespread use of short-time

working schemes (see section 4.2) and working time accounts during the recession contributed to its resilient labour market performance. Working time accounts are schemes that enable workers to build up surplus hours in ‘accounts’ when the economy is expanding, instead of being paid overtime. During downturns, workers can then draw on these surplus hours to supplement their pay if their hours have been cut. Both these programmes were designed to help retain workers during downturns, and helped to contain the negative labour market impacts of the recession (Silim 2013).



**Figure 5.12**  
Beveridge curve  
of Germany, Q1  
1991–Q1 2008 and  
Q2 2008–Q1 2012

Source: OECD.stat, authors' calculations



**Figure 5.13**  
Beveridge curve  
of Poland, Q1 1997–  
Q1 2008 and Q2  
2008–Q2 2013

Source: OECD.stat, authors' calculations

Poland is another country that may have experienced an inward shift in its Beveridge curve during the same period (OECD 2012; see figure 5.13). This is probably because Poland is one of the few countries in the Europe-24 that was able to avoid the recession altogether in 2008–2009. Here too there may have been a decline in structural unemployment, although the picture is less clear than it is for Germany.

## 5.5 Conclusion

Based on the analysis set out in this chapter, there have been a variety of labour market responses to the Great Recession. It is clear that no single pattern has emerged in structural unemployment (as indicated by the Beveridge curves) across Europe. Some countries experienced sharp increases in unemployment, whereas others saw much smaller increases; Germany and Poland actually saw unemployment fall.

It is too early to be entirely sure whether there have been any definitive shifts in Beveridge curves across Europe, which would indicate increases in structural unemployment. Our analysis of the data suggests it is likely that some countries saw a movement along their Beveridge curves, which reflects an increase in cyclical unemployment. More worrying, however, is the fact that the Beveridge curves of a few countries – including Spain, Sweden, and Portugal – appear to have shifted outwards from their pre-recession positions, which indicates potential structural problems in their labour markets. This could mean that a mismatch has developed between labour demand and supply across particular geographic regions, sectors, occupations and skillsets. Policymakers within the affected countries will need to prioritise tackling rising structural unemployment.

This conclusion – that structural unemployment has only *definitely* increased in the countries most affected by the crises of the last six years – is supported by OECD estimates of the NAIRU, and by data on inactivity rates that does not support the view that jobseekers have been so discouraged that they are leaving the labour market altogether (see chapter 2 for a discussion of inactivity rates since the recession).

The link between structural unemployment and economic growth is weak, so if there has been an increase in structural employment in some European countries then an increase in aggregate demand alone will not be enough to reduce it. Action needs to be taken to rectify the labour market mismatch that has emerged. At root, this is a skills challenge. In countries such as Spain and Portugal, where it is likely that a skills mismatch is the reason for shifts away from their pre-recession Beveridge curves, workers will have to be retrained to ensure that they have the right skills for a changing economy.

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# 6. THE WEAKENING LINK BETWEEN WAGES AND PRODUCTIVITY

## Abstract

*Wage growth has failed to keep up with productivity growth in many European economies. These include Finland, Sweden, the Netherlands and Italy, where wages have failed to keep up with productivity for some time, and Germany, Denmark, the UK, Spain, and Austria, where the wage–productivity gap is either smaller or has only developed since the onset of the Great Recession. This may indicate that productivity gains are being used to expand profit margins instead of raising the living standards of workers.*

*A number of factors have weakened the link between productivity and wages: the decline of labour income as a proportion of national income, the decline of trade unions, wage moderation, globalisation, technological change, widening inequality and the degree of labour-market tightness.*

## 6.1 Introduction

Any full employment strategy should be concerned with workers' pay packets. Pay has a strong influence on the material wellbeing of most workers, and a rise in pay can help to improve living standards (ILO 2011); it can also help to tackle inequality. However, a worrying trend has emerged in recent decades: wage growth has slowed in many countries across Europe, and become disconnected from productivity growth. If governments want to create a more inclusive economy and labour market, in which the proceeds of growth are not only distributed to those at the very top, then priority must be given to addressing the weakening link between wage growth and productivity.

Neoclassical economic theory suggests that the main driver behind rising real wages (that is, after taking account of price inflation) is productivity gains. The theory stipulates that a worker's hourly wage should be equal to the value added by that worker. If an individual becomes more productive, generating more output per hour, then his or her wages should increase correspondingly – this is how the proceeds of growth are distributed to workers (Sharpe et al 2008).

Generally, the relationship between wages and productivity has been close – evidence bears this out across most European economies. However, among a number of European countries (and in the US) a trend is emerging of growing divergence between pay and labour

productivity (ILO 2013). The most well-documented example has been the ‘decoupling’ of wages and productivity in the US – where wages have remained stagnant since the 1990s, while productivity has continued to increase over the same period (Plunkett 2011). This apparent broken link between wages and productivity suggests that the economic growth brought about by productivity gains is not being fully reflected in workers’ pay packets. This trend may indicate that productivity gains are being used to expand profit margins instead of raising the living standards of workers.

Although a great deal of attention is paid to cases in which productivity has been outstripping wages, there are some countries where the opposite is happening – where wages are rising faster than productivity. While having wages rising at a faster pace than productivity is good news for living standards in the short-term, there are negative consequences associated with such a trend. When wages grow faster than productivity growth, firms will typically have to reduce output or employment, as workers become more costly to the firm than the gains they produce. Not only that, but this trend tends to erode a country’s competitiveness, and investment and exports can fall as a result – all of which can harm economic growth. The ideal relationship between wages and productivity is, therefore, for wages to stay broadly in line with productivity, allowing for both rising living standards and sustainable economic growth.

This chapter explores the relationship between productivity and wage growth across Europe to determine which countries are showing signs of ‘decoupling’, the potential causes of this, and what might be done to ensure that real wages rise in line with productivity.

## 6.2 Evidence of decoupling

The following analysis shows that productivity has been growing faster than wages in most major European economies. Wages have substantially failed to keep up with productivity for a number of years in Finland, Sweden, the Netherlands and Italy. There is also evidence of wage–productivity gaps in other countries such as Germany, Denmark, the UK, Spain, and Austria, but to lesser degrees, or only since the onset of the Great Recession.

### 6.2.1 Countries with large wage and productivity gaps

The divergence between wages and productivity has, in a number of countries, not simply been a response to the recent cyclical downturn but rather a trend that has been emerging for some time. For Finland, Sweden, the Netherlands and Italy these trends reflect long-running, evolving shifts in the labour market that have resulted in widening gaps between wages and productivity over a significant period of time.

Over the last two decades productivity has clearly outstripped wage growth in Finland, Sweden, the Netherlands and Italy (see figures 6.1 to 6.4). Productivity in Sweden and Finland has increased dramatically, more than in most European countries, while wages have risen at a more moderate pace (the UK is another European economy that has also seen substantial increases in productivity).<sup>22</sup>

Following the global 1990–91 recession, wages in Finland, Sweden, the Netherlands and Italy declined at various points over the subsequent five years, creating gaps between productivity and wages. This gave rise to a relationship that is contrary to the close relationship between the two measures that is generally expected – which implies that productivity growth during this period was not translating into higher hourly wages. Unlike in Sweden and Finland, during the early 1990s wages in the Netherlands and Italy, after initially tracking productivity growth quite closely, began to decline, while productivity continued to increase, creating the beginnings of a wage–productivity gap. By the late 1990s, wage growth had resumed in all four countries, leading to a positive relationship between wages and productivity growth.

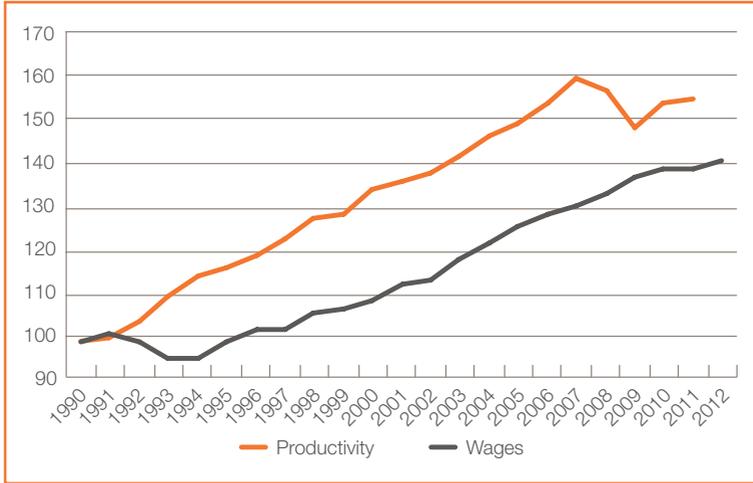
For much of the late-1990s and 2000s the size of the gap between wages and productivity in these four countries remained relatively constant. The gap slightly widened in the mid-2000s in the Netherlands and Sweden as productivity rose faster than wages, and in Italy the difference between wages and productivity narrowed during this period.

Once the recession hit Europe in 2008–09, the relationship between productivity and real average wages changed. Following negative output shocks, labour productivity tends to slow down because firms are slow to adjust their workforces; in some cases they hoard workers in expectation of an upturn. Between 2007 and 2009 labour productivity declined by more than 5 per cent in Finland and Sweden. Productivity also took a hit in Italy and the Netherlands, but to a far lesser degree. Wage developments were slightly different to productivity trends during the recession. In spite of the downturn, wages continued to rise between 2008 and 2009 across all four countries, after which most countries experienced a decline in wages. The wage response to downturns tends to lag the productivity response – and as a result most countries saw wages slow down or decline a year after productivity declined. Sweden, Italy and the Netherlands all experienced a dip in real hourly wages; however, wages only fell in Sweden between 2009 and 2010, before resuming their upwards trajectory. By contrast, Finland did not experience a fall in wages, although it did see a slow-down in wage growth rates. Since the recession, productivity and wages have

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22 All data in this chapter is taken from IPPR calculations based on statistics from OECD.stat, <http://stats.oecd.org/>. The specific data tables used are: 'Short-Term Labour Market Statistics', <http://stats.oecd.org/index.aspx?queryid=35253>; 'Labour productivity growth in the total economy', <http://stats.oecd.org/Index.aspx?DataSetCode=PDYGTI>; and 'Average annual wages', [https://stats.oecd.org/Index.aspx?DataSetCode=AV\\_AN\\_WAGE](https://stats.oecd.org/Index.aspx?DataSetCode=AV_AN_WAGE)

resumed an upward trajectory in both Finland and Sweden, while both productivity and wages have continued to decline in the Netherlands and Italy.



**Figure 6.1**  
Growth in wages and productivity in Finland, 1990–2012 (1990=100)

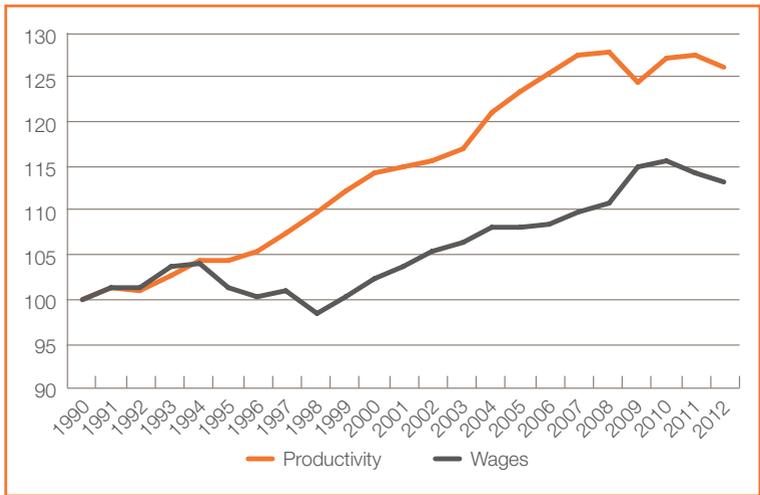
Source: OECD.stat, authors' calculations



**Figure 6.2**  
Growth in wages and productivity in Sweden, 1990–2012 (1990=100)

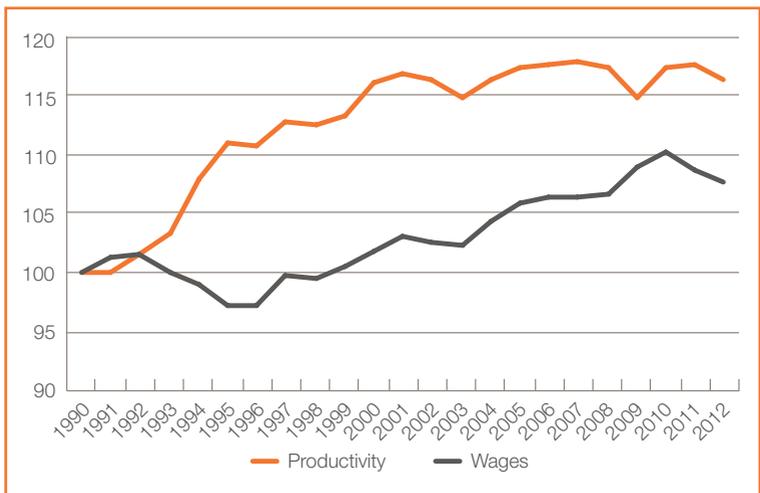
Source: OECD.stat, authors' calculations

**Figure 6.3**  
Growth in wages  
and productivity in  
the Netherlands,  
1990–2012  
(1990=100)



Source: OECD.stat, authors' calculations

**Figure 6.4**  
Growth in wages  
and productivity in  
Italy, 1990–2012  
(1990=100)



Source: OECD.stat, authors' calculations

### 6.2.2 Countries with small wage–productivity gaps

Other countries have seen splits between their wage and productivity growth, though not as pronounced as those of the countries above. Austria, the UK, Germany, Denmark, and Spain have all experienced some degree of decoupling since the 1990s, but each country has experienced a different evolution of productivity and wage trends over the last two decades.

In Austria, between 1995 and the early 2000s, although wages continued to lag behind productivity growth, wages did track productivity growth rates relatively closely. This changed after 2002, when real hourly average wages in Austria appear to have stagnated while productivity continued to grow. This created a widening gap between productivity and wages which only narrowed in the late-2000s (see figure 6.5).

There is also evidence of the UK having experienced a weakening of the link between productivity and wage growth at various times over the last two decades (see figure 6.6). Productivity in the UK has drastically increased over the past 20 years, maintaining a steady climb upwards, whereas wage growth has changed pace a number of times over the same period. During the mid-1990s, a significant gap between productivity gains and wages began to emerge and continued to widen until the late-1990s, after which wages began to catch up to productivity growth. The gap between the two had narrowed by the mid-2000s.

Between the late 1990s and early 2000s there was a steady increase in average hourly pay in the UK, but this growth tapered off between 2001 and 2009. The UK's GDP grew by 11 per cent between 2003 and 2008, while median earnings for men fell over this period by around 0.2 per cent per annum, suggesting that ordinary workers were not reaping the gains from growth (Plunkett 2011, Pessoa and Van Reenen 2012).

In Spain, wages kept up with productivity growth until the late 1990s. After this period wages began to slowly decline up until the mid-2000s, while productivity continued to increase, albeit at a slower pace, before picking up again in the late 2000s. This created a wage-productivity gap that only began to close in the late 2000s – however, this trend was swiftly reversed by the onset of the recession. Germany also experienced wage growth broadly equivalent to productivity growth in the first five years of the 1990s. However, in the decade preceding the recession productivity growth increased at a rapid rate, while wages remained relatively stagnant, again creating a gap. This could be partly explained by the wage moderation policy that Germany implemented between mid-1990s and mid-2000s, which put downward pressures on wages (OECD 2012c).

The global recession has impacted these countries in different ways. Despite collective agreements in Austria that help to keep wages and productivity aligned, the recession has nevertheless managed to have a substantial impact on the wage-productivity gap in the country, pushing it to its widest since the mid-1990s. Initially the downturn did not have an impact on wages as a result of those collective bargaining negotiations.<sup>23</sup> However, this position changed dramatically following the recession. In 2010 wage growth declined sharply, whereas labour productivity growth continued to increase, albeit at a slower rate than in the pre-recession period. Wages have declined for four consecutive

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23 <http://www.eurofound.europa.eu/working/studies/tn1203015s/at1203011q.htm>

years, dropping by 5 per cent. In contrast, productivity has *increased* by a similar amount.

A similar divergence between productivity and wage growth has occurred in Spain in the last five years. The recession had the biggest impact on Spain in terms of unemployment, the rate of which increased by 17 percentage points since 2008 (Eurostat 2014). In 2012 an agreement was reached between unions and firms to allow greater internal flexibility and wage moderation. In addition, labour market reforms were introduced that put downwards pressure on wages.<sup>24</sup> As a result, by 2012 real wages had fallen by over 5 percentage points relative to their level in 2010. Surprisingly, productivity did not decline, despite the recession. This is because Spain's output was not affected to the same degree as its employment levels. As a result productivity continued to increase during its recession (ILO 2013), and a clear widening of the gap between wages and productivity emerged.

**Figure 6.5**  
Growth in wages  
and productivity in  
Austria, 1995–2012  
(1995=100)

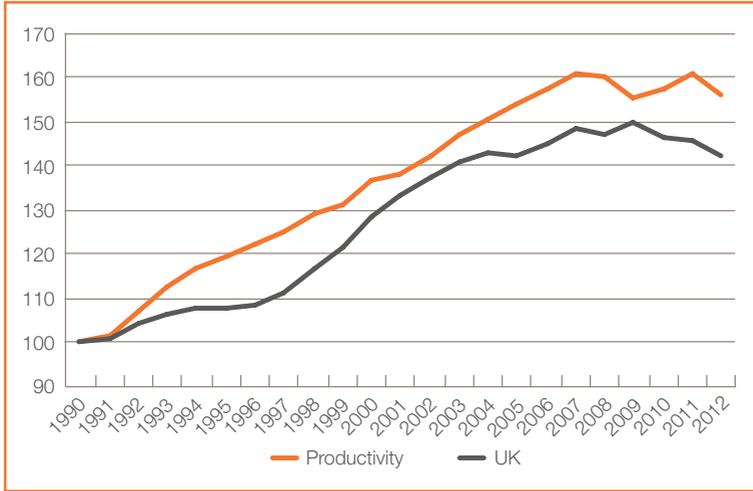


Source: OECD.stat, authors' calculations

In stark contrast to almost all European countries, Germany managed to improve its labour market performance. Short-time working schemes – a programme that incentivised firms to maintain the same number of workers despite a drop in output – have been said to partly explain this improvement in the labour market. Furthermore, reforms that were introduced ahead of the recession, known as the ‘Hartz reforms’, shortened the duration of unemployment benefits, and offered greater support to help the unemployed back into work (Silim 2013). These measures strengthened work incentives, and are said to have contributed to containing the labour market response to the drop in

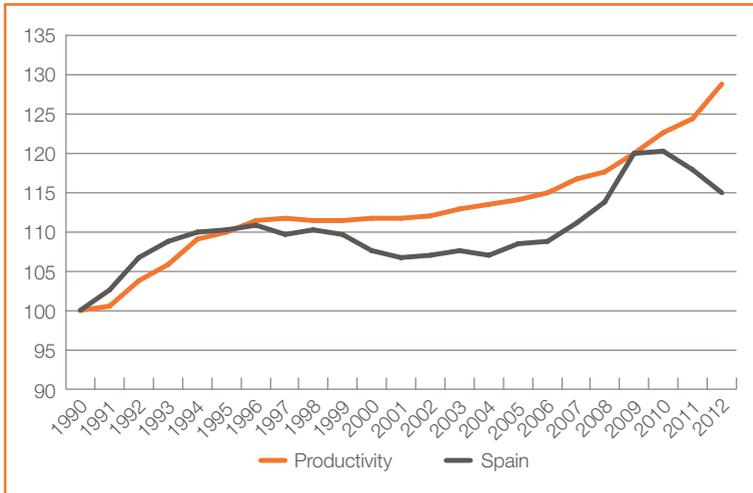
24 <http://www.voxeu.org/article/wage-moderation-spain>

output. However, the recession did lead to a drop in productivity in Germany between 2007 and 2009, and wages adjusted downwards in the following year. Since the recession, though, Germany has seen positive growth in both productivity and wages.



**Figure 6.6**  
Growth in wages and productivity in the UK, 1990–2012 (1990=100)

Source: OECD.stat, authors' calculations



**Figure 6.7**  
Growth in wages and productivity in Spain, 1990–2012 (1990=100)

Source: OECD.stat, authors' calculations

**Figure 6.8**  
Growth in wages  
and productivity in  
Germany, 1995–  
2012 (1995=100)



Source: OECD.stat, authors' calculations

### 6.3 Reasons behind the divergence

A number of factors are driving a wedge between productivity and wages: labour income accounting for a shrinking share of national income, the decline of unions, wage moderation, globalisation, technological change, widening inequality, and the degree of labour market tightness (Lansley 2011, ILO 2011 and 2013, Plunkett 2011).

The proceeds of national income go towards both labour (wage-share) and capital income. Therefore, looking at wage-share developments can help to further demonstrate broken links between productivity and wages. Towards the end of the 20th century the share of national income that went towards labour compensation shrank in many countries across Europe, while the share going towards capital incomes or profits increased (ILO 2011, OECD 2012a). This could imply that the fruits of productivity gains are increasingly being transferred towards profits rather than wages.

There has been a clear drop in labour's share of national income in Germany, Italy, the Netherlands, and Sweden – partly a result of declining unionisation (Sharpe et al 2008). Italy in particular has seen a large drop in the wage share over the past four decades: in 1970 labour's share accounted for 80 per cent of national income, but by 2006 this had dropped to 67 per cent (Plunkett 2011). Italy also experienced very little wage growth compared to other countries during the 1990s and 2000s. The wage share has also declined in the UK: by 2008, wages as a proportion of GDP had fallen by 10 percentage points, from a high of 64.5 per cent (ibid). Labour's income accounting for a smaller share of national income could mean that the

distribution of the proceeds of growth has had a negative impact on earnings, and may therefore help to explain the wage–productivity gap (Plunkett 2011, Pessoa and Van Reenen 2012).

Unions, through collective bargaining, can play an important role in ensuring greater alignment between wages and productivity. In Austria, social partnership agreements have been responsible for driving real wage growth, and for ensuring that this growth has stayed in line with productivity (OECD 2013). However, over the last few decades the objectives of unions have changed, as has their presence and influence within European economies. Historically, the union’s primary role was to ensure that productivity gains were translated into increases in pay (Western and Healy 1999). As a result, most of the productivity gains following the second world war were successfully fed into wage growth.

Unions are in theory able to influence wage developments in a number of ways. If wage growth is the main priority, then collective bargaining can help negotiate wage increases. Another priority, particularly after recessions, is wage moderation in order to retain workers. Increasingly, unions have shifted away from wage–productivity alignment towards maintaining employment – in other words, trading increases in wages for keeping jobs (Meager and Speckesser 2011, Western and Healy 1999). This can put downward pressure on wages at the national level, and can explain some of the wage moderation that occurred following the recessions in the 1980s and 1990s. After the 2008–09 recession, wages rose at a much slower pace – perhaps a lagged response to the drop in productivity, but perhaps also the result of policies of wage moderation agreed by unions and employers.<sup>25</sup> Centralised unions involve wage-bargaining at the national level, and tend to be associated with wage moderation. However, more countries are moving towards more decentralised unions. Some have argued that this can allow for better alignment between productivity and wages (Meager and Speckesser 2011).

Although unions are important to wage-setting frameworks, the level at which negotiations take place can be equally important in determining wage outcomes. For example, in Finland, despite increases in the number of workers covered by collective bargaining since 1990, wages have grown more slowly than productivity (OECD 2012a). This could partly be the result of rigid wage-setting frameworks. Before 2008, wage-setting in Finland was highly centralised. It has been argued that a centralised wage-setting framework can reduce the responsiveness of wage levels to changes in productivity, leading to poor alignment between productivity growth and wage increases (OECD 2008). Since 2008, Finland has moved to a less centralised system, but it is too early to assess its impact. Sweden and the Netherlands also have highly centralised wage-setting systems. In Sweden

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<sup>25</sup> <http://www.eurofound.europa.eu/ewco/studies/tn1203015s/fi1203011q.htm>

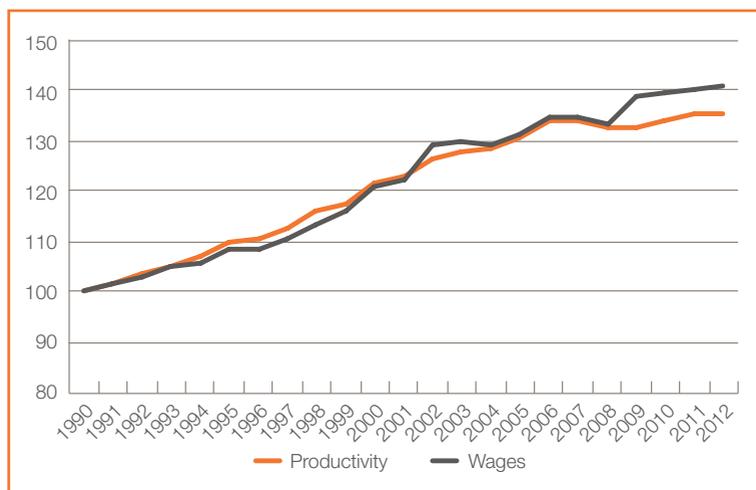
wages are set centrally, and unions are involved in improving company-level productivity (OECD 2007, OECD 2012b). There has been some discussion among policymakers in the Netherlands, where sector-level wage agreements still dominate (OECD 2012b), about moving towards a more decentralised wage-setting system, which could help to strengthen the link between wages and productivity (Western and Healy 1999).

It has also been argued that technological improvements and globalisation have played a role in eroding the bargaining power of workers, which has dampened wage growth (ILO 2011, Lansley 2011). Globalisation has increased competition between workers around the world, and wage moderation can be a tool to maintain international competitiveness. The degree of labour market tightness can also influence bargaining power: high unemployment increases competition among workers, which puts downward pressure on wages.

### 6.3.1 Wages outstripping productivity

Although many countries have experienced a growing disconnect between wages and productivity, there is a group of countries that, over the past two decades, have experienced a different trend. In Luxembourg, Belgium, Hungary, Ireland, Norway, and France wages have outstripped productivity growth.

**Figure 6.9**  
Growth in wages and productivity in France, 1990–2012 (1990=100)



Source: OECD.stat, authors' calculations

France saw very close alignment between wage and productivity gains throughout most of the 1990s and 2000s. It was only when the recession hit that a gap began to emerge between the two. Consequently, prior to the recession, increases in domestic demand in France were largely driven by wages instead of debt (in contrast to some other countries such as the UK) (ILO 2013).

Norway is one country in Europe that has experienced significant wage growth: there, wages have maintained a steady rise over the past two decades. While productivity growth initially outpaced that of wages, productivity growth fell between 2005 and 2007 and then remained relatively stable between 2008 and 2012. Wages were not affected or slowed by the recession – instead, wages continued to grow along their original upwards trajectory.



**Figure 6.10**  
Growth in wages and productivity in Norway, 1990–2012 (1990=100)

Source: OECD.stat, authors' calculations

## 6.4 Conclusion

Wage growth has not kept pace with productivity growth in many countries across Europe. In some countries this has led to a significant wage–productivity gap opening up, while in others these gaps only began to emerge after the recession. The breaking of the link between productivity and wages could have negative consequences for economies in terms of falling living standards and weaker demand for goods and services (or demand that is only maintained by increased household debt). Policymakers seeking to tackle Europe’s labour market problems should focus not just on the number of jobs, but also on their quality, including their pay and conditions. In the long-run, restoring the link between productivity and wage growth is essential to increasing prosperity across Europe.

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# 7. THE CHANGING NATURE OF EUROPE'S LABOUR MARKET

## Abstract

*The labour market in the Europe-24 group of countries has polarised over the last decade, with a rise in the number of low-skilled and highly skilled jobs, but a fall in the number of mid-skilled jobs. This development, driven by technological change and the shifting industrial structure of the economy, is expected to continue over the next decade. However, there are substantial variations in patterns of occupational change between countries. While highly skilled occupations have increased in number in every country, only 14 of the Europe-24 countries have polarised, with the other 10 experiencing either falls in mid- and low-skilled employment, or a rise in the number of mid-level jobs.*

*Rises in educational attainment have more than kept pace with the changing occupational structure of the labour market, and the main concern is whether European economies are fully utilising this growth in human capital, with substantial numbers of workers over-qualified for their current roles. To limit the effects of polarisation on inequality, action will also be needed to improve the quality of the growing number of low-skilled jobs.*

## 7.1 Polarisation<sup>26</sup>

The economies of Europe have undergone enormous changes in recent decades. The twin processes of globalisation and technological change have altered both the demand for goods and services produced in Europe, as well as the types of jobs created in order to meet that demand.

A growing body of literature on labour markets in advanced economies has identified a trend towards polarisation in the type of jobs generated in advanced economies in terms of both their skill requirements and their remuneration (see McIntosh 2013 for a review of the evidence). This has been characterised by increases in the share of jobs at both the top and the bottom of the skills and earnings distribution, with declines in the middle.

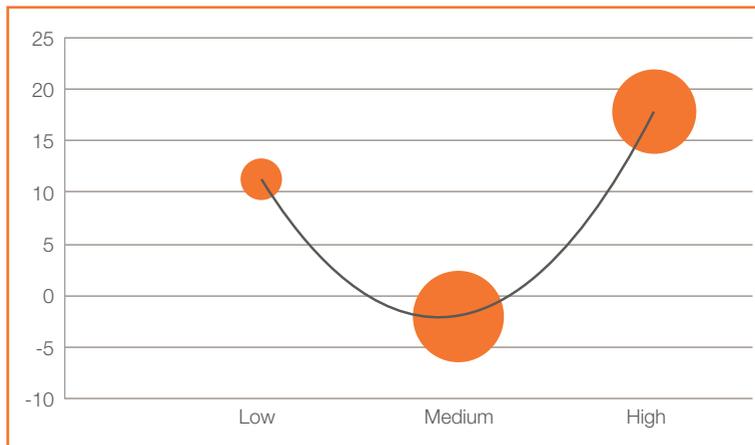
Our analysis shows that within the Europe-24 group of economies as a whole, there has been a noticeable polarising trend in terms of the types of jobs available in recent years. Figure 7.1 illustrates the percentage change between 2000 and 2010 in the Europe-24 in the

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<sup>26</sup> This chapter makes extensive use of the Cedefop (2013) online database of trends and forecasts in occupations and qualifications for EU countries; all data is taken from this source unless stated otherwise.

number of jobs at three levels of skill, as well as the relative size of each skill group in 2010. While mid-skilled jobs still formed the largest group in the jobs market in 2010, their number had fallen by 2 per cent since 2000. Then number of low-skilled jobs, on the other hand, rose by over 11 per cent, and the number of highly skilled jobs increased almost 18 per cent.

**Figure 7.1**  
Percentage change in the number of low-, mid- and high-skilled jobs in Europe between 2000 and 2010 (size of circles is proportionate to the number of jobs in each category in 2010)



Source: Cedefop 2013

### Defining occupations by skill level

The literature on labour market polarisation uses a wide variety of methods for classifying occupations into different skills categories. In this chapter we have followed the methodology used by Cedefop (2012), which divides occupations as recorded by the International Standard Classification of Occupations (ISCO) into low-, medium-, and high-skilled categories according to the following criteria.

- **Low-skilled:** elementary occupations (ISCO group 9), which includes cleaners and caretakers, domestic helpers, elementary sales occupations, and manufacturing and construction labourers.
- **Mid-skilled:** includes machine operators and assemblers, craft and trade occupations such as electrical fitters, plumbers and miners, emergency service workers and secretarial and clerical occupations.
- **Highly skilled:** includes professionals and associate professionals in professions such as law, engineering, information technology, medicine and teaching, as well as senior, general and departmental manager roles.

As noted above, this is just one of many methods for classifying occupations by skill level. Others have analysed occupational change and polarisation according to the rates of hourly pay in different occupations (Goos et al 2009), or by hourly pay in different industrial sectors (Plunkett and Pessoa 2013).

There are several competing theories as to why labour markets in advanced economies are polarising.

### **Globalisation and offshoring**

The decline in mid-skilled jobs may be linked to the relative ease with which the type of work done in these occupations, such as routine manual work in manufacturing, can be outsourced to other countries with lower labour costs. Low-skilled work, on the other hand, tends to be found in labour-intensive and customer-facing service industries, such as hairdressing and personal care, which are more difficult to offshore. The strong growth of highly skilled work in advanced economies has been linked to the advantage they have in these types of jobs over other countries, due to their larger supply of highly skilled workers (Goos et al 2011).

### **Technological change**

The decline in mid-skilled jobs has been linked to processes of skill- and ‘task’-biased technological change. Mid-skilled jobs tend to involve repetitive tasks, such as those that take place on a production line or in a clerical or secretarial role. These are more easily replicated by machines and digital processes than low-skilled service work, which relies on more complex motor skills and customer interaction. Highly skilled work is not only hard to replicate by machines, but is also complementary to technological change – those in highly skilled roles tend to utilise automated processes at work to increase their own productivity (McIntosh 2013).

### **Income inequality**

Growing levels of income inequality have left those at the top of the income distribution with a greater level of income. It has been suggested that this has led those in this group to increase their spending on personal services as opposed to performing those tasks themselves, which has led to an increased demand for low-skilled service employment (Goos et al 2009). Moreno-Galbis and Sopraseuth (2014) argue that the fall in the price of goods relative to services, combined with increases in income for the highly skilled, may have also contributed to an increased demand from those with high incomes for labour-intensive services.

The experience of individual countries has varied, however. While all countries in the Europe-24 have seen a rise in the number of highly skilled jobs, their patterns of growth in mid and low-skilled work have varied considerably. Between 2000 and 2010, countries have followed one of four trajectories, which are set out in table 7.1. The labour markets of 14 countries in the Europe-24 have polarised, with increases at the top and bottom and either a decline or a relatively small increase in the number of mid-skilled jobs. Of these, six have experienced faster growth in low-skilled occupations than in highly skilled ones, with the other eight growing faster at the top-end of the labour market than the bottom. The remaining 10 Europe-24 countries experienced a skills upgrade, in the form of either a fall in both middle and low-skilled jobs, or a rise in mid-skilled jobs.

**Table 7.1**  
Europe-24  
countries grouped  
by the nature  
of occupational  
change 2000–2010

| <b>Polarisation: high-led</b> | <b>Non-polarisation: fall in middle and bottom</b> |
|-------------------------------|--|
| Belgium                       | Iceland  |
| Finland                       | Hungary  |
| Germany                       | Estonia  |
| Netherlands                   | Denmark  |
| Poland                        | Portugal   |
| Sweden                        | Czech Republic                                     |
| Switzerland                   |  |
| UK                            |  |
| <b>Polarisation: low-led</b>  | <b>Non-polarisation: rising middle</b>             |
| Austria                       | Slovakia   |
| France                        | Ireland  |
| Greece                        | Norway   |
| Italy                         | Luxembourg   |
| Slovenia                      |  |
| Spain                         |  |

Source: Cedefop (2013)

The reasons for the difference in patterns of polarisation between countries are likely to be complex and related to individual countries' stages of economic development, their labour market institutions and their very different industrial structures. The four non-polarising eastern European economies (Slovakia, Hungary, Estonia and the Czech Republic), for instance, have lower levels of overall economic development than most other Europe-24 countries, and therefore are at an earlier point in the process of shifting away from an agricultural and manufacturing economy towards one based on services. This shift would be expected to be accompanied by a shift up the skills ladder for the economy as a whole.

In those countries where polarisation has been led by growth in low-skilled as opposed to high-skilled work, this process could be related to a lack of supply of workers with high-level skills, or other barriers faced by employers in high-skill, high-productivity industries that are located in those countries. Furthermore, Greece, Italy and Spain have experienced particularly severe economic downturns over the last seven years, which may have changed the composition of the labour market. In the run-up to the financial crisis they also saw a large expansion in lower-skilled employment, particularly informal employment in the construction industry – this is likely to be driving increases in the number of jobs at the bottom of the labour market.

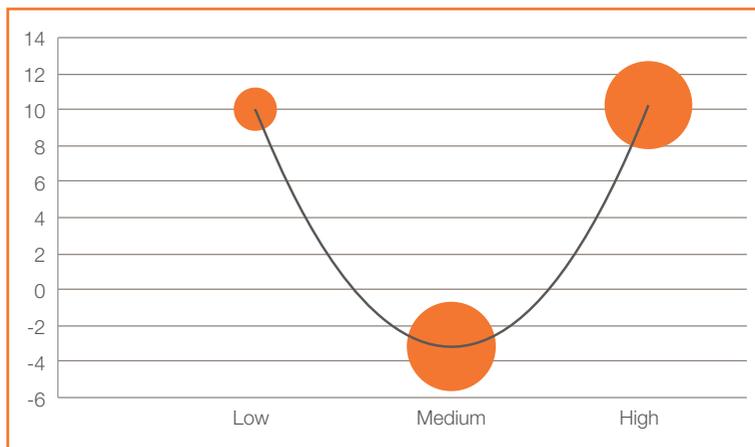
It has also been shown that labour market polarisation is mediated by differences in labour market institutions between countries. Oesch and Rodriguez Menes (2011) point out that where collective wage-bargaining is widespread, this leads to a relatively more compressed earnings distribution across skill levels. In turn, this means lower inequality in earnings, but it may also cause many low-skilled, low-paying jobs to be priced out of the market and not created in the first place. In addition, it creates an incentive for firms to invest in the skills of their workers in order to raise their productivity to a level commensurate with their wages. Oesch and Rodriguez argue that this should lead to growth in the middle and top of the earnings and skill distributions in countries with greater levels of collective wage-bargaining. They found that between 1990 and 2008, Germany and Switzerland – both of which are characterised by a relatively flat earnings distribution – experienced smaller increases in low-skilled employment than Spain and the UK. Our analysis of Cedefop data found that mid-skilled employment rose slightly in Switzerland between 2000 and 2010, and fell less sharply in Germany than it did in the UK or Spain. Nellas and Oliveri (2011) go further by suggesting that while stronger wage-setting and other labour market institutions may limit rises in low-skilled employment, there is a trade-off in terms of the number of jobs created. They found that countries with lower levels of polarisation and a greater role for unions in wage bargaining also experienced an increase in unemployment between 1993 and 2008.

Polarisation is forecast to continue in the Europe-24 (see figure 7.2). Growth in highly skilled work is expected to continue, but at a slower rate of change, falling to growth of around 10 per cent between 2010 and 2020. The number of low-skilled jobs is also expected to increase by around 10 per cent, while the decline in mid-skilled jobs is expected to be just over 3 per cent (Cedefop).

Polarisation presents economies with enormous challenges. Firstly, growing demand for high-level skills needs to be met through a combination of up-skilling the existing workforce and increasing the skill level of those entering the labour market. Not only that, but the

highly specialised nature of many skilled roles means that it is crucial to get the composition of labour supply right. Failing to meet the growing demand for highly skilled employment is likely to damage economic growth, with employers unable to source the skills and expertise they need, and may lead to some firms relocating to other global regions with a more readily available supply of high-level skills.

**Figure 7.2**  
Forecast of the percentage changes in labour demand in Europe-24 countries, 2010–2020



Source: Cedefop 2013

Secondly, low-skilled work is often characterised by low pay, underemployment and economic insecurity. Therefore, rises in the number and proportion of low-skilled workers has important social implications, leading to low living standards and high risks of in-work poverty for many workers. Those in low-skilled work are also more likely to cycle into unemployment and economic inactivity, resulting in increased public spending on out-of-work benefits, and their low levels of pay when in work also put pressure on the public finances through rising spending on in-work benefits. Low-skilled workers also have a lower likelihood of being offered training opportunities, and in many cases the tasks they carry out at work do not foster or maintain skills. Over the medium-to-long-term a rise in low-skilled employment can therefore reduce the productive capacity of the labour force. Responding to this challenge by making low-skilled work better paid and better quality is therefore important.

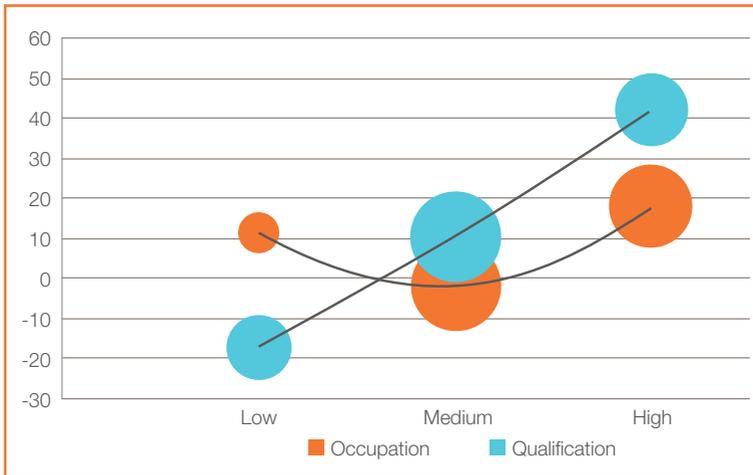
The fall in the number of jobs in the middle of the skills distribution, mainly in manual and clerical occupations, has also had an impact. In the past, studies have shown that many low-skilled workers were able to progress into mid-skilled jobs, experiencing a rise in earnings and increased job quality as a result. Reduced numbers of mid-skilled jobs closes off these progression routes for many workers. Overall, polarisation also results in greater levels of income inequality, which

has been linked to lower levels of social cohesion, and higher rates of poor health and crime (Wilkinson and Pickett 2009).

## 7.2 Skills supply and demand, and over-qualification

Large changes in the composition of skills demand, as measured by the shifting occupational structure of the Europe-24 economy, have been accompanied by similarly large changes to the educational attainment of the workforce, which are outlined in chapter 8.

Dividing qualifications into low (below upper-secondary education), medium (upper-secondary education) and high (higher education), we see that, in the decade up to 2010, the qualifications profile of the labour force was upgraded at a faster rate than occupations. The rise in the number of people with high-level qualifications far outpaced the rise in the number of highly skilled jobs, the size of the population with mid-skilled qualifications rose even as the number of mid-skilled jobs fell, and the numbers of low-skilled people fell even as there was increasing demand for low-skilled work (see figure 7.3).



**Figure 7.3**  
Percentage change in the number of low-, mid- and high-skilled jobs and qualifications in Europe between 2000 and 2010

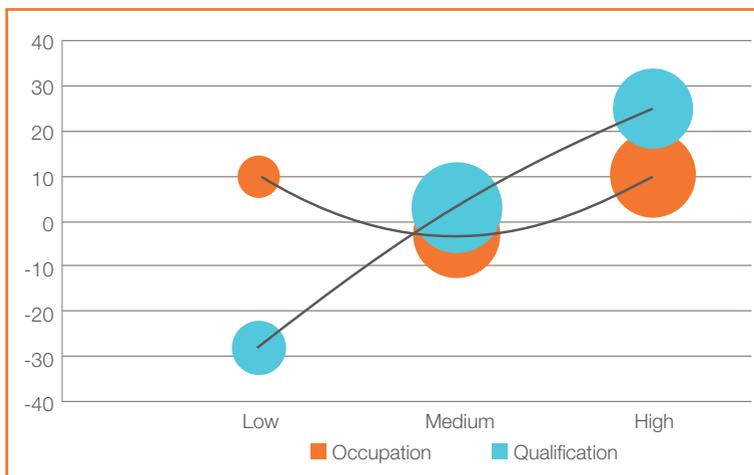
Source: Cedefop 2013

Note: Size of each circle is proportionate to the number of jobs and qualifications in each category in 2010.

Over the coming decade, the qualifications profile of the labour force in the Europe-24 is expected to develop differently from the number of jobs available at different skill levels, with continued falls in the number of individuals with low-level qualifications, and a smaller rise in the number with mid- and high-level qualifications (see figure 7.4). While the number of high-level qualifications will grow faster than the number of highly skilled jobs, comparing the projected relative sizes of each group in 2020 indicates that there will still be around 13 million fewer graduates than highly skilled positions. Similarly, there

will be a greater number of people with low-level qualifications than there are low-skilled jobs (15 million), and a smaller over-supply of mid-level qualifications (9 million) (Cedefop 2013).

**Figure 7.4**  
Percentage change  
in the number of  
low-, mid- and  
high-skilled jobs  
and qualifications  
in Europe between  
2010 and 2020  
(projected)



Source: Cedefop 2013

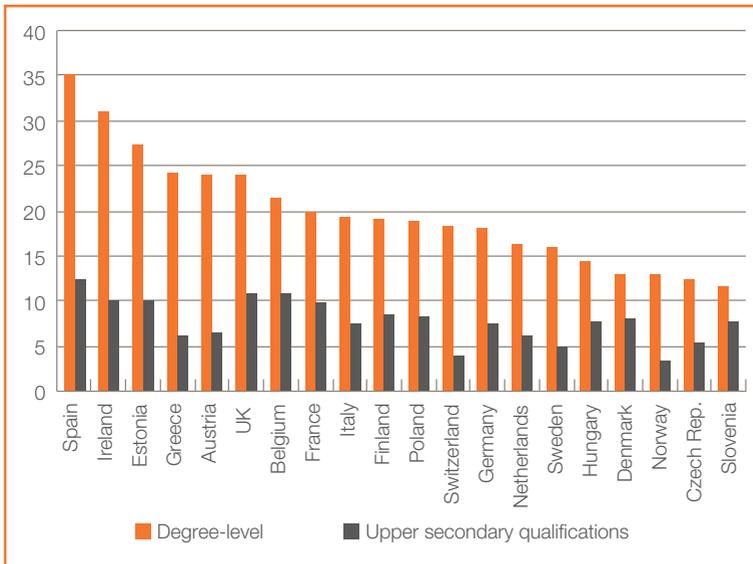
Note: Size of each circle is proportionate to the number of jobs and qualifications in each category in 2010).

The shortfall in graduate numbers in 2020 is likely to be even more acute, given the nature of employer demand. In many instances, employers are looking for highly specialised sets of skills, and surveys of businesses frequently indicate skill shortages in specific occupations and sectors. For instance, a recent report by the European Commission found that the number of vacancies in the European digital sector in 2012 was over three times the number of ICT students graduating in that year (Eurofund 2013). An international survey by ManpowerGroup found that, while skill shortages were most acute in East Asian and emerging economies, employers in Europe nevertheless found it hard to find the right people: over one-third of German, a quarter of Swedish, and over 10 per cent of British employers had difficulty filling vacant positions in 2013, with a lack of technical competencies cited as the most frequent reason. While employers could undoubtedly do more themselves (almost a third – 29 per cent – of those surveyed who said that they faced skills shortages had no strategy for tackling the issue), it is also incumbent on other actors in the skills system – such as public funders, skills providers and individual learners themselves – to adapt skills supply to meet demand (ManpowerGroup 2013).

Furthermore, several studies have observed an increasing trend towards over-qualification. For example, Cedefop (2010) have found that the number of individuals with mid-level qualifications working in low-skilled positions rose by 7.5 per cent between 2000 and 2008.

Over-qualification occurs where individuals are either educated to a level above that necessary for their current job, or where they have the capacity to work in employment that is more highly skilled than their current work. Because the rise in low-skilled employment in Europe has coincided with rising educational attainment, it is likely that many individuals have had to accept work that doesn't match their capacities. This has been shown to lead to lower earnings and greater economic insecurity (Quintini 2011), with the OECD finding that over-qualification leads to a 10–20 per cent reduction in wages (compared to others with the same qualification) in most of its member countries (OECD 2013). For those transitioning into the labour market, accepting a job for which one is over-educated has been shown to reduce transition rates into well-matched employment by over 50 per cent (Baert et al 2013).

The related concept of 'skills mismatch' refers to instances in which individuals have skills that are highly specific to individual occupations or industries, but can only find work in a role outside their area of expertise. Skills mismatch has also been linked to lower wages. Roost (2008) found that overeducated men whose field of study is related to their current work earn 2.4 per cent less than well-matched men, but that this differential increases to 7.1 per cent where work and education are 'somewhat related', and to 21.6 per cent where they are unrelated.



**Figure 7.5**  
Proportion (%) of workers with degree- and upper-secondary-level qualifications that are over-qualified, in selected Europe-24 countries, 2012

Source: Eurostat 2014

Figure 7.5 illustrates the proportion of all workers in selected Europe-24 countries who have an upper-secondary educational qualification but work in elementary occupations (that is, the lowest-skilled jobs) and the

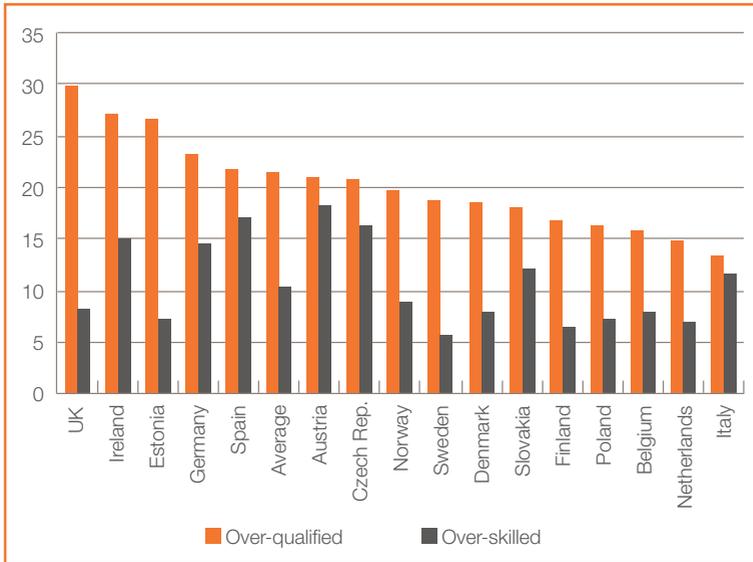
proportion of those with degrees who work in either mid- or low-skilled jobs. In the majority of these countries, over 15 per cent of graduates are not working in a highly skilled role. The highest levels of skills under-utilisation are observed in the southern European economies of Spain and Greece, and in the UK, Ireland, Estonia and Austria. In each of these countries over one in five graduates are underemployed, and the figure is up to one-third in Spain. Given the currently acute imbalance between the supply of high-level skills and the rising demand for highly skilled roles, this suggests that many graduates do not in fact have the required specific or generic skills, or the desire, to pursue highly skilled employment. Over-qualification rates are much lower among those with mid-level qualifications, of whom between 5 and 10 per cent are over-qualified (Eurostat 2014).

The OECD's survey of adult skills (OECD 2013) used two other methods to explore these mismatches between skills and work. Firstly, they observed how individuals' perceptions of over-qualification vary between countries, by asking individuals whether they think their highest qualification is higher than the qualification they would need in order to get their current job should they apply for it today. Secondly, they asked individuals if they felt they needed training to do their current job well, and if they perceived their skills to be sufficient to cope with more demanding duties. They then used the results of cognitive literary testing to determine what proportion of workers in particular occupations were 'over-skilled'. Individuals were defined as over-skilled if they scored higher than the maximum score for 'well-matched' workers, who had answered 'no' to both of the above questions.

Figure 7.6 presents the results of these two methods used in the OECD survey. They demonstrate that, in all surveyed Europe-24 countries and in the OECD as a whole, over-qualification is more widely perceived among workers than is actually found by the more objective measure of over-skilling. In some countries there is a particularly wide disparity: in the UK, for instance, almost one-third of workers believe they are over-qualified, but less than 10 per cent actually scored higher on cognitive testing than well-matched individuals in the same occupation. In some countries, such as Italy, there is less disparity between the two measures, and in others – including Spain, Austria and the Czech Republic – rates of over-skilling are 15 per cent or more, which suggests significant levels of skills under-utilisation.

Given the strong historical and projected growth in highly skilled employment, it is essential that jobseekers and those entering the labour market are better equipped with the capabilities to find employment in the jobs that are available. While in purely quantitative terms the number of highly qualified workers is increasing, which is narrowing the gap between the supply and demand of high-level skills, there are still longstanding and acute skills shortages throughout Europe. Aside from its impact on

economic growth, this mismatch between demand and supply has led to growing numbers of over-qualified workers, which suggests a need to better link the requirements of vacancies with both the capabilities of jobseekers and the workings of national skills systems.



**Figure 7.6**  
Proportion (%) of workers found to be over-skilled and who self-reported over-qualification, 2011 and 2012\*

Source: OECD (2013)

\*Note: Exact time period covered by data varies between countries.

'UK' refers to England and Northern Ireland only; 'Belgium' refers to the Flanders region only.

### 7.3 Conclusion

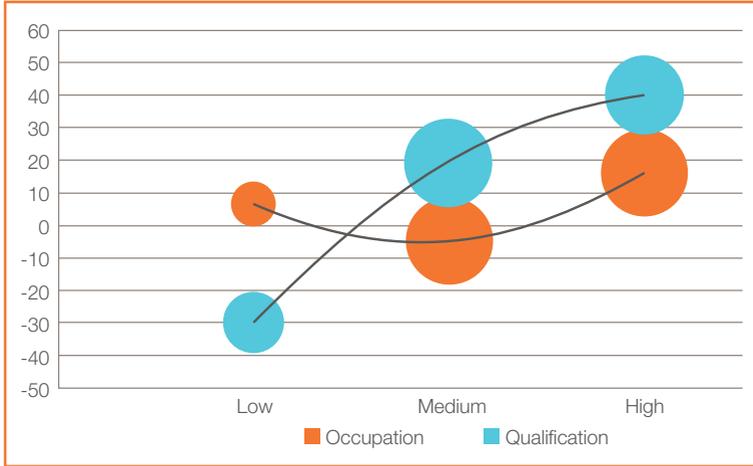
European economies need to respond to the challenge of labour market polarisation if they are to achieve sustainable and equitable economic growth. This will involve a combination of better targeting of high-level skills provision to the specific sectors and occupations that are in high demand, as well as action to improve the quality of work in the growing number of low-skilled jobs. In addition, offering opportunities for up- and re-skilling to those workers displaced from declining areas of the economy will be needed to prevent the loss of many workers, and their skills, from the labour force.

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# Annex 7.1

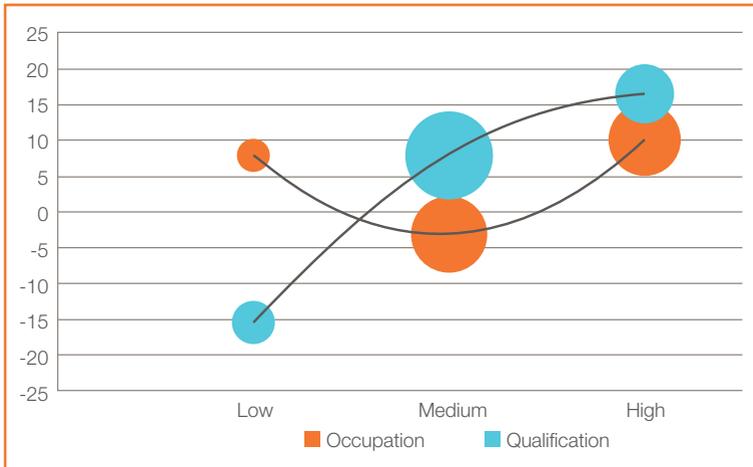
## Skill supply and demand in selected countries, 2000–2010



**Figure 7.7**  
 Percentage change in the number of low-, mid- and high-skilled jobs and qualifications in the UK between 2000 and 2010 (size of circles is proportionate to the number of jobs and qualifications in each category in 2010)

Source: Cedefop 2013

Note: Size of each circle is proportionate to the number of jobs and qualifications in each category in 2010.

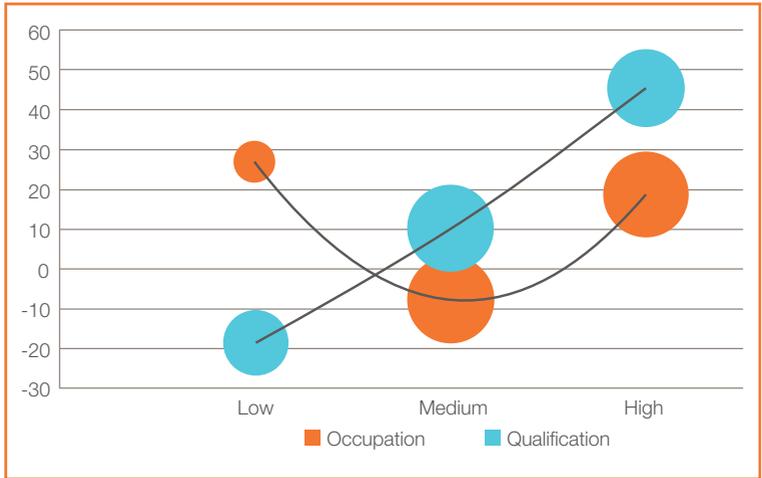


**Figure 7.8**  
 Percentage change in the number of low-, mid- and high-skilled jobs and qualifications in Germany between 2000 and 2010

Source: Cedefop 2013

Note: Size of each circle is proportionate to the number of jobs and qualifications in each category in 2010.

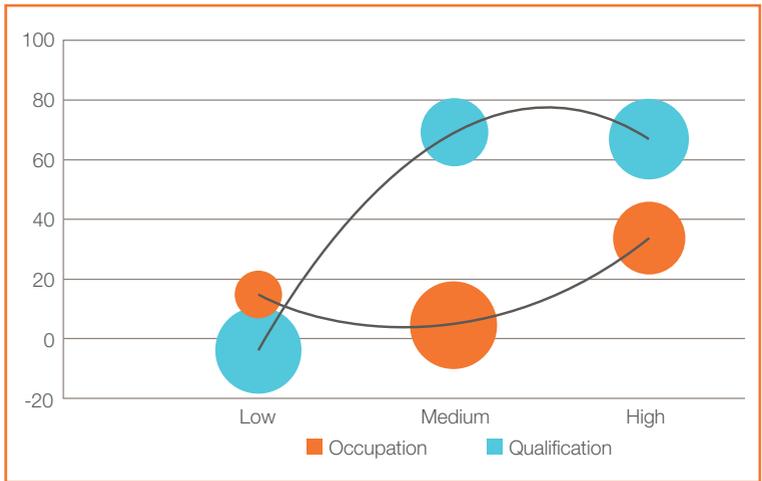
**Figure 7.9**  
 Percentage change  
 in the number of  
 low-, mid- and  
 high-skilled jobs  
 and qualifications  
 in France between  
 2000 and 2010



Source: Cedefop 2013

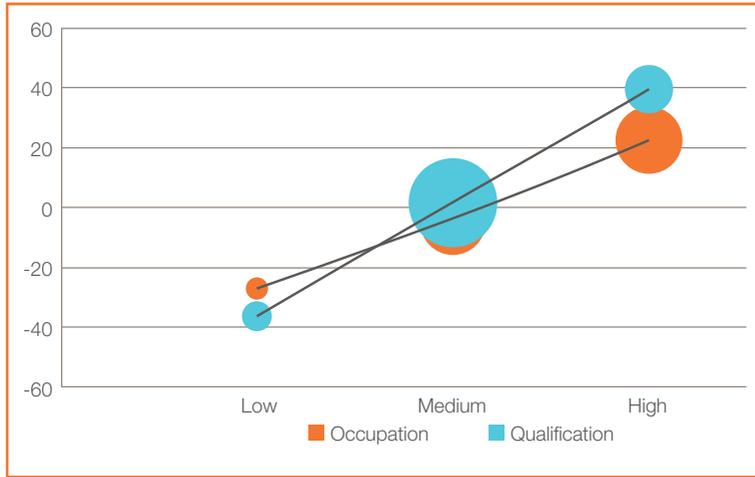
Note: Size of each circle is proportionate to the number of jobs and qualifications in each category in 2010.

**Figure 7.10**  
 Percentage change  
 in the number of  
 low-, mid- and  
 high-skilled jobs  
 and qualifications  
 in Spain between  
 2000 and 2010



Source: Cedefop 2013

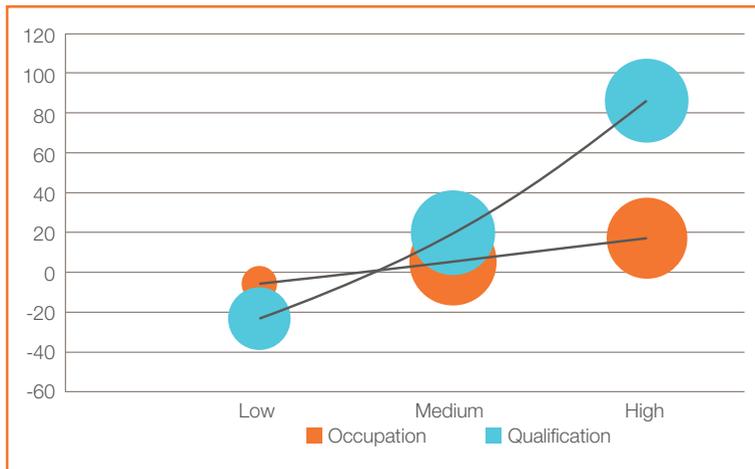
Note: Size of each circle is proportionate to the number of jobs and qualifications in each category in 2010.



**Figure 7.11**  
Percentage change in the number of low-, mid- and high-skilled jobs and qualifications in the Czech Republic between 2000 and 2010

Source: Cedefop 2013

Note: Size of each circle is proportionate to the number of jobs and qualifications in each category in 2010.



**Figure 7.12**  
Percentage change in the number of low-, mid- and high-skilled jobs and qualifications in Ireland between 2000 and 2010

Source: Cedefop 2013

Note: Size of each circle is proportionate to the number of jobs and qualifications in each category in 2010.

## 8. SKILLS SUPPLY IN EUROPE

### Abstract

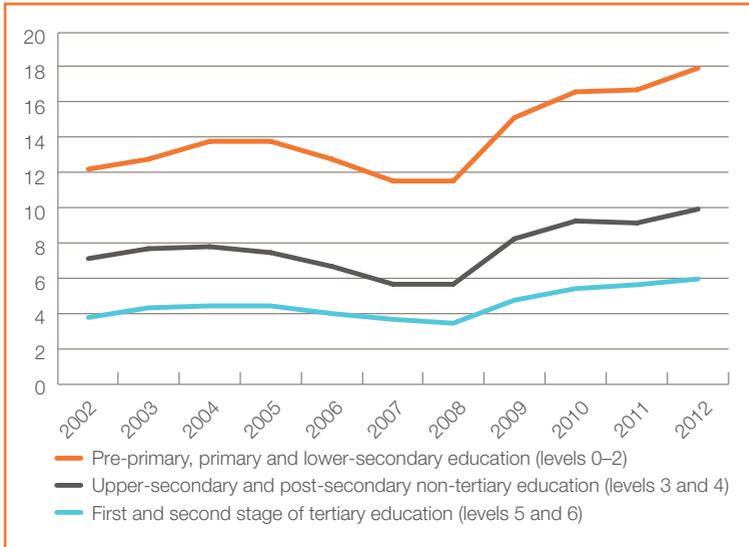
*The skill level of individuals is a key determinant of their labour market success: individuals with lower levels of educational attainment face a much higher risk of worklessness. In recent years, average skill levels across the Europe-24 have increased, with the share of the working-age population that has low levels of educational attainment falling and the share with a higher education qualification increasing. These trends are expected to continue throughout the next decade. However, broader measures of skills show room for improvement. Europe as a whole is lagging behind other global regions in terms of the quality of skills delivered through the education system, as are most of its constituent countries. European economies also fail to maintain the skills of individuals throughout their working lives, with the skills people have when they enter the labour market eroded through a lack of lifelong learning opportunities and skills under-utilisation in the workplace. Moving out of the economic crisis will require Europe's policymakers and business communities to capitalise on the population's rising levels of educational attainment, help individuals to maintain and adapt their skills, and provide retraining opportunities to those who have fallen out of employment.*

### 8.1 Education

Skills – the combination of education, training and experience obtained throughout working lives – are one of the key factors that determine individuals' labour market chances. By acquiring human capital through learning and work, it becomes easier to find employment, attain a higher level of earnings, and to work in patterns that fit with individuals' own preferences.

This chapter assesses the performance of economies in the Europe-24 in terms of their supply of skills. It first explores how patterns of educational attainment vary between countries and over time in the context of the Europe 2020 education targets. It then looks at another measure of education systems, the OECD Programme for International Student Assessment (PISA) survey, and the measures of adult skills provided by the OECD's Programme for the International Assessment of Adult Competencies (PIAAC) survey. Finally, it looks at how lifelong learning participation and provision varies between countries, and how it has changed throughout Europe's economic downturn.

**Figure 8.1**  
Average Europe-24  
unemployment rate by educational  
attainment level,  
2002–2012



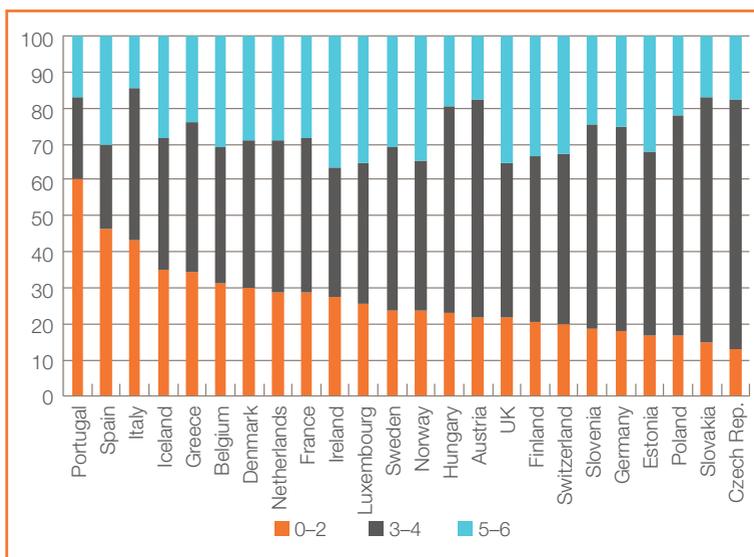
Source: Eurostat (2014a)

Note: Iceland not included in average for first and second stage education level in 2002–2005 and 2006–2007. ‘Levels’ refer to ISCED categories – see annex 10.1.

As shown in figure 8.1, individuals with a higher level of educational attainment tend to face a much lower risk of unemployment and worklessness. Differences in the qualifications make-up of the working-age population are important in determining aggregate measures of labour market performance. Figure 8.2 shows the qualification distribution in the working-age population of countries in the Europe-24 between higher education (HE), upper-secondary and lower-secondary qualifications.

The southern European economies, including Portugal, Spain, Italy and Greece, all have substantial numbers (a third or more of their working-age populations) with less than upper-secondary education qualifications. Since these countries also tend to have low employment rates, it could be argued that low levels of educational attainment may be a key driver of their poor labour market performance. However, as shown in chapter 2, individuals at all levels of educational attainment tend to perform worse in terms of employment rates in this group of countries than their counterparts elsewhere in Europe, which suggests that other factors are also important. In other economies in the Europe-24, those with lower secondary qualifications tend to account for between 10 and 30 per cent of the working-age population: the smallest proportions are seen in eastern European countries, the German-speaking economies (including Switzerland), and the UK. At the other end of the qualifications distribution, the highest rates of HE attainment are in the UK and Ireland – in both countries, 36 per cent of the working-age population have degree-level qualifications (Eurostat 2014a).

**Figure 8.2**  
Qualification distribution (%) of the working-age population in selected Europe-24 countries, by ISCED educational attainment levels,\* 2012



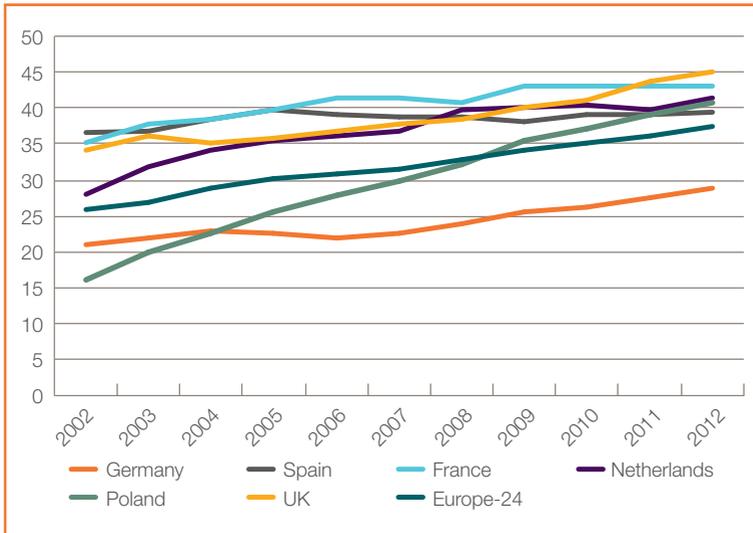
Source: Eurostat 2014a

\*Note: See annex 10.1. Countries selected according to data availability.

Given the premium associated with higher education, it is encouraging that in all Europe-24 countries the number of individuals staying in education beyond compulsory school-age and into HE appears to be rising. In the Europe-24, the proportion of 25-to-34-year-olds with an HE qualification rose by over 10 percentage points between 2002 and 2012 (Eurostat 2014a) (see figure 8.3). A similar pattern is discernable in most individual countries, with some experiencing very large rises – almost 25 per cent in the case of Poland. Others, including Spain, Norway and Finland, have seen much smaller rises of between 1 and 3 per cent. Two of the three German-speaking countries (Germany and Austria) tend to have fewer HE graduates, with only 29 per cent of German and fewer than 20 per cent of Austrian 25-to-34-year-olds having a degree (ibid). Although HE attainment has increased in these countries, it does not appear to be catching up with the countries that are, by this metric, the top performers. However, in large part this reflects the high-quality ‘dual’ apprenticeship system in these countries. This system is held in such high esteem by employers and young people that it represents an alternative route into the labour force for young people with qualifications that, in other countries, would take them into university.

Also encouraging is the decline in the numbers of individuals leaving education without an upper-secondary qualification. Employment rates for this group are extremely poor on the whole, and therefore a decrease in the proportion of the working-age population not completing a full secondary qualification is to be welcomed. Figure 8.4 shows that rates of early school-leaving are falling in the Europe-24 as a whole, falling

from just under 15 per cent in 2007 to almost 10 per cent by 2012, the latest year for which data is available. Spain in particular has seen a large fall – 6 percentage points since 2007 – and the majority of countries in the region have experienced at least a small decrease. In more recent years, this change is likely to be related to the increasingly difficult conditions for young people in the labour market (see chapter 10), which have made it more worthwhile for them to stay in or return to education in order to improve their skills and increase their labour market opportunities. Nevertheless, as figure 8.2 illustrates, many economies – particularly those in southern Europe – still have substantial proportions of their working-age population with very few qualifications.



**Figure 8.3**  
Proportion of the 25-to-34-year-old population of selected Europe-24 countries, and Europe-24 average, with a higher education qualification, 2002–2012

Source: Eurostat 2014a

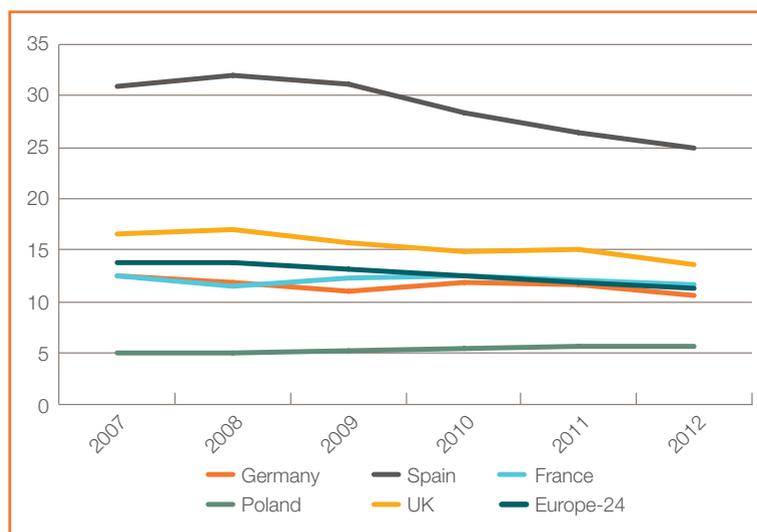
The EU 2020 agenda, a 10-year economic growth strategy proposed by the European Commission in 2010, prioritised two areas of educational attainment:

- reducing to less than 10 per cent the proportion of early school-leavers (those who leave education having completed a lower-secondary education qualification or less)
- increasing from 31 to 40 per cent the proportion of the population aged 30–34 that has completed an HE qualification (EC 2010).

Forecasting skills supply to 2020, Cedefop expects a continuation of the existing trends towards higher levels of educational attainment in European economies. Their findings suggest that in the wider EU-28 group of countries, the proportion of graduates in the labour force will increase from 29 per cent in 2010 to 36 per cent in 2020. The proportion of mid-level qualifications will, they expect, rise by only 1 per cent on

2010 levels, to 48 per cent in 2020. The proportion of the labour force with only low-level qualifications is forecast to fall from 24 per cent to 17 per cent (Cedefop 2010).

**Figure 8.4**  
Early leavers from education and training as a percentage of the working-age populations of selected Europe-24 countries, and Europe-24 average, 2007–2012



Source: Eurostat 2014a

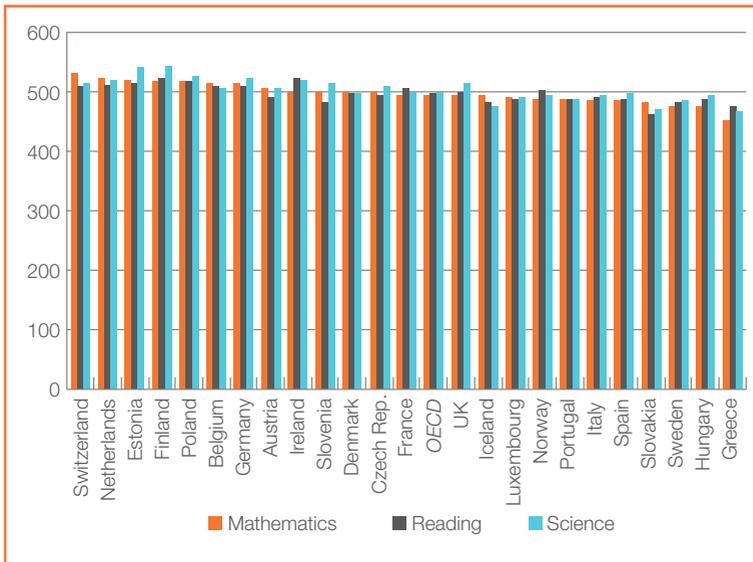
Others have expressed scepticism about the ability of many European countries to meet the Europe 2020 targets. Roth and Thum (2010) have pointed out that, while many eastern European economies have already reached the target for reducing early school-leaving rates, countries in southern Europe – where rates of early school-leaving are up to 15 percentage points higher than the 10 per cent target – face a hugely difficult task in meeting this target. Looking at the picture for HE, Roth and Thum again found that reaching 40 per cent attainment is an ambitious target for many countries, including Germany, Austria and Greece (ibid).

Furthermore, the focus on purely quantitative measures of how many young people reach a given level of educational attainment has been criticised as not telling the whole story (see chapter 10 for more details). Educational systems vary considerably in content, curricula, how students are assessed, and the institutions through which education is delivered. In Germany, for instance, apprenticeships are a mainstream part of the secondary education system, providing on-the-job training alongside vocational learning in schools and colleges, leading, in most cases, to an upper-secondary qualification. This makes it difficult to make a direct comparison to qualifications in other countries, which are at a similar level but may be delivered entirely in schools and colleges. While Germany appears to perform poorly

on measures of HE attainment, the fact is that its upper-secondary educational routes provide a successful transition into work for the majority of students.

For this reason, several international studies – the most noteworthy of which is the OECD PISA survey – have attempted to directly assess the cognitive abilities of secondary school students across economies. The aim of these surveys is to provide a more objective assessment of the ‘output’ of education systems that can be better compared internationally.

The PISA surveys assess 15-to-16-year-olds in the three areas of mathematics, reading and science, assigning them a score for each subject area. Figure 8.5 presents the mean PISA scores for countries in the Europe-24, and the OECD average, in 2012 (the latest available round of the survey). There is considerable variation in how countries score, with the best performers in the Europe-24 being Finland, Estonia and Poland. The results appear to show little relationship to the rates of early-school leaving and HE attainment presented in figures 8.3 and 8.4 above. Sweden, for instance, has a very low rate of early school-leaving (7.5 per cent), yet ranks the bottom within Europe in terms of PISA scores (OECD 2013).



**Figure 8.5**  
 Mean Programme for International Student Assessment (PISA) scores in Europe-24 countries, and OECD averages, by category of assessment, 2012

Source: OECD 2013

However, PISA scores are not perfect measures, for a number of reasons. For example, there are some methodological concerns, which mainly revolve around the question of what constitutes accurate sample sizes of data from which wider generalisations can be made, as well as

country-specific factors concerning whether the nature of the curriculum and teaching better prepares pupils for international assessments (Clifton 2011). Nonetheless, PISA scores, and in particular their country rankings, have high currency in policymaking circles. Europe as a whole has tended to lag behind other regions in recent PISA surveys, with the Asian nations in particular scoring very highly. Of European countries, only Finland is in the top-five performing nations internationally in any of the three categories (science). The EU commission has expressed particular concern about the performance of Europe's students in mathematics.

## 8.2 Wider measures of adult skills

Both indicators of educational attainment and the PISA survey compare the outputs of the education system. Using this as a proxy for skills is useful, but ignores how skills gained through education change throughout working lives. Many continue to train informally on the job, or by combining work with continued professional development. In addition, the nature and level of complexity inherent in work tasks vary greatly between different job roles, and can either help to maintain individuals' cognitive skills, or erode them by not fully utilising those skills.

This is an issue in Europe. In a survey of four European countries, Cedefop found that a quarter of workers believed that their current skill levels were either equal to or below those required when they started out in their current occupation, with 16 per cent believing that their skills had become out of date in the last two years due to technological changes or structural reorganisation (Cedefop 2012).

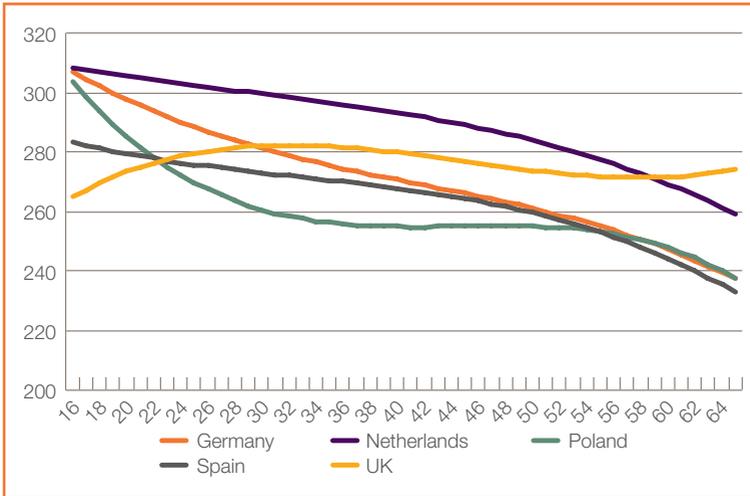
In order to assess the level of skills within the adult population, the OECD recently conducted the Survey of Adult Skills (SAS) as part of the Programme for the International Assessment of Adult Competencies (PIAAC). They surveyed 166,000 adults across 24 OECD member nations, including many of the Europe-24 countries, carrying out cognitive assessments to test the ability of individuals to answer literacy, numeracy, and problem-solving questions.

Figure 8.6 shows how scores in one of the measures tested in the SAS – literacy proficiency – varied by age in five Europe-24 countries.<sup>27</sup> Other than the UK, each of the countries shown records a steady decline in proficiency scores throughout adults' working lives, although in Poland scores do halt their decline among those between their early thirties and mid-fifties. In the UK, average literacy proficiency scores actually increase until people reach their mid-thirties, before entering a steady decline. Of the other countries included in the survey, only Norway shows a similar pattern to that of the UK (OECD 2013).

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27 Unfortunately, comparable data for numeracy and problem-solving skills are not published by the OECD.

**Figure 8.6**  
Literacy proficiency scores by age (adjusted), in five Europe-24 countries



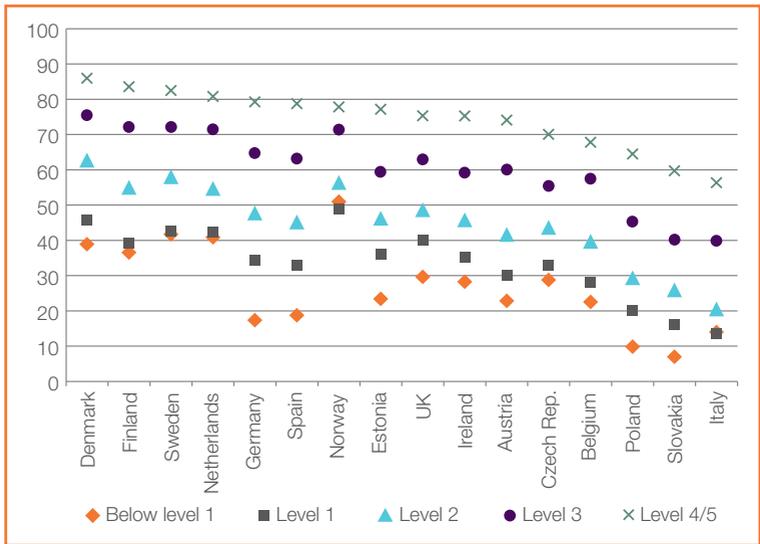
Source: OECD 2013

Note: Scores are adjusted to take account of differences in educational attainment and individuals' first language. 'UK' results refer to England and Northern Ireland only. The survey excluded those born in another country.

The skills erosion that takes place throughout people's working lives can be mitigated by training opportunities, and by working in a job that requires the use of cognitive abilities. Other results from the survey indicate the importance of job characteristics to adult competencies: it found that the use of numeracy skills at work is positively correlated with higher numeracy proficiency, and that both reading and ICT use at work are linked to higher levels of literacy proficiency. This effect was found in all the surveyed countries, even after accounting for differences in educational attainment between individuals (OECD 2013).

Furthermore, skills proficiency is linked to participation in adult education. Across the countries that participated in the SAS, almost 80 per cent of those adults in the highest two levels of literacy proficiency (levels 4 and 5) participated in adult education or training in the year preceding their survey interview, compared to a quarter of those in the bottom level of literacy proficiency (see figure 8.7). We would expect the two to be linked and mutually reinforcing, with those with a higher pre-existing level of skill to also be more likely to pursue training, and be in a job where training is offered. However, there is also considerable variation between countries in the disparity of participation between different proficiency levels. Some countries, such as Norway, have broader access to adult learning across the skills distribution. Others, such as Germany and Spain, show a much greater spread in adult education participation between those of higher and lower proficiency levels.

**Figure 8.7**  
Participation rate in adult education and training, by literacy proficiency score, in selected Europe-24 countries



Source: OECD 2013

Note: Countries selected according to data availability.

'UK' refers to England and Northern Ireland only; 'Belgium' refers to the Flanders region only.

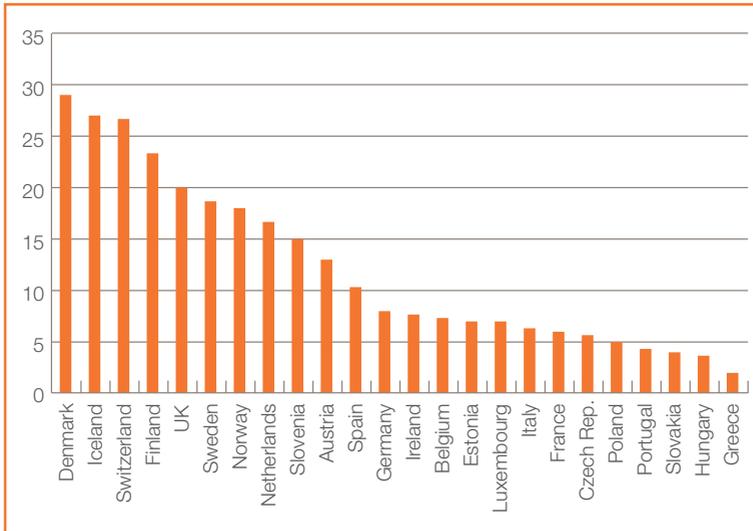
### 8.3 Lifelong learning

Given the importance of maintaining and updating skills throughout working lives, having a high proportion of adults engaged in lifelong learning, alongside a strong commitment from both employers and the state to fund and provide training, is a key component of national skill systems. In Europe, the provision of education and training for the working-age population is exceptionally diverse between countries. This variation is something that pre-dates the financial crisis, as is illustrated by the figures for 2007 shown in figure 8.8.

Northern European economies – particularly the Nordic countries – had the largest proportions of their working-age populations in education or training in 2007, and Denmark was in the lead with just under 30 per cent. Most southern and transitional economies generally had lower levels of participation: Slovenia had the highest rate of all transitional countries (with 14.8 per cent) and Spain had the highest rate among the southern European countries (albeit with just 10.4 per cent). Even before the country's austerity crisis, just 2.1 per cent of the working-age population in Greece was in education or training – the lowest rate in the Europe-24 (Eurostat 2014a).

The crisis has changed the participation rate in education and training significantly. Figure 8.9 below shows the percentage-point change in participation rates for 25-to-64-year olds between 2007 and 2012. Most countries in the Europe-24 experienced an increase in the number of individuals in adult education – the largest boosts occurred in Sweden,

Luxembourg and Portugal, where the rate increased by 6–8 per cent. Those countries that did experience a decline saw only modest decreases of between 0.5 and 1 per cent, with the exception of the UK, where education participation declined by more than 4 per cent.



**Figure 8.8**  
2007 (pre-crisis)  
proportion (%)  
of working-age  
population in  
education or  
training in  
Europe-24  
countries

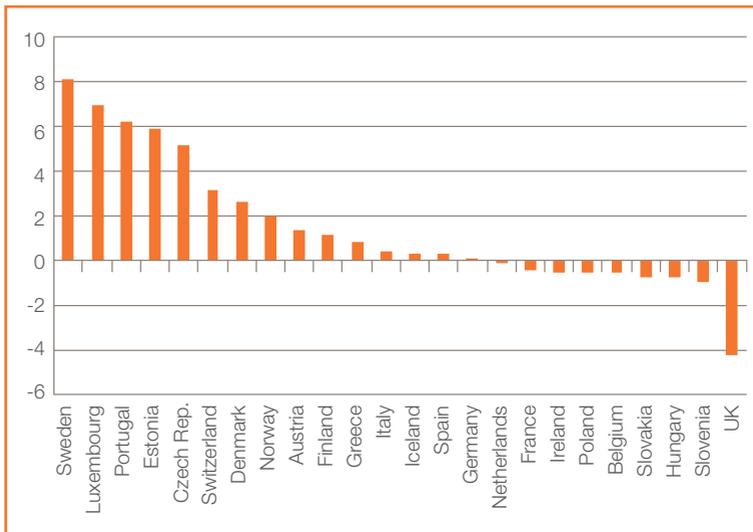
Source: Eurostat 2014a

Figure 8.10 divides work-related training into two categories: initial vocational training (IVT) and continuing vocational training (CVT). IVT is generally provided for young people after their compulsory education and prior to their entry into the labour market. This training can be school-based, and might include work-based apprenticeship-type learning. CVT training describes all work-based learning for individuals within the labour-market which is designed to develop vocational competencies and skills (West 1999).

In nearly all countries, CVT training is offered by a much higher proportion of employers than IVT training, with the exception of Germany. This indicates that enterprises are generally more engaged with improving the skills of their adult work force rather than with training new entrants to the labour market. While companies in the Nordic economies do well at providing their employees with ongoing training (60 per cent of employers in Denmark and Sweden offered CVT training) they are not alone: despite its stalling economy, more than 70 per cent of Spain’s employers offered CVT training in 2010. However, workers in other southern European economies do not have as much access to CVT training, which is offered by less than half of all employers in Italy, Portugal and Spain (Eurostat 2014a).

**Figure 8.9**

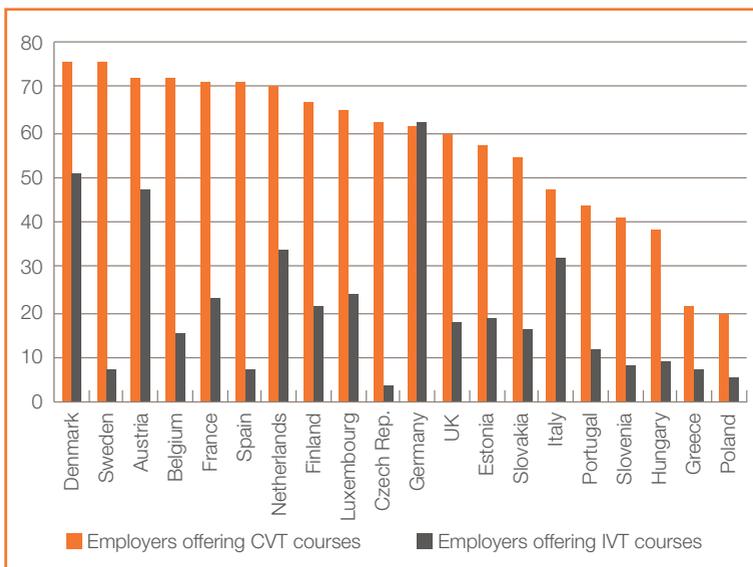
Percentage point change in the proportion of the working age population in education or training in Europe-24 countries between 2007 and 2012



Source: Eurostat 2014a

**Figure 8.10**

Proportion (%) of employers offering initial or continuing vocational training courses, in Europe-24 countries,\* 2010

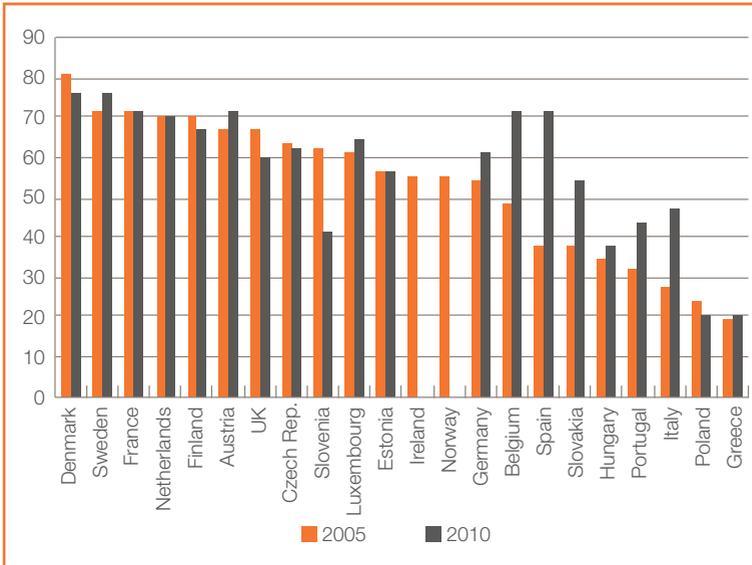


Source: Eurostat 2014a

\*Note: Data not available for Switzerland, Iceland, Ireland and Norway.

By comparison, IVT training is much more varied across the Europe-24, even among similar economies. For example, almost half of all employers in Denmark offer IVT training, compared to just 7 per cent in Sweden (ibid).

**Figure 8.11**  
Proportion (%)  
of employers  
offering continuing  
vocational  
training courses,  
in Europe-24  
countries,\* 2005  
and 2010



Source: Eurostat 2014a

Note: 2010 data not available for Ireland and Switzerland.

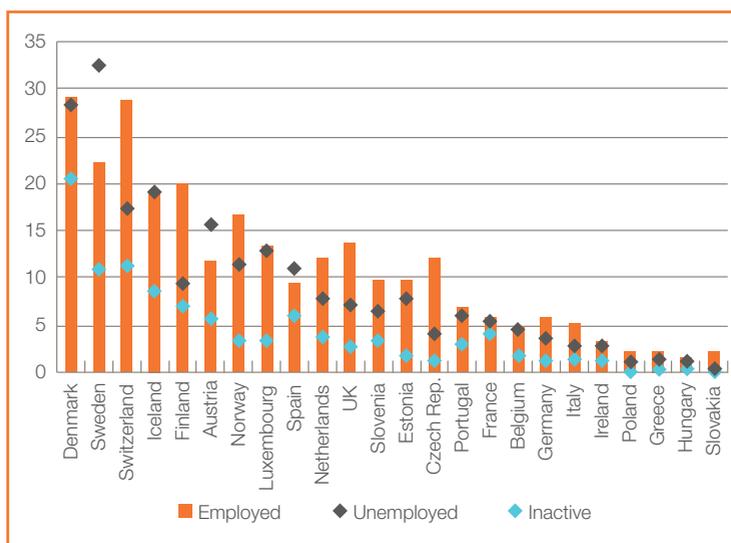
Figure 8.11 compares the proportion of enterprises that offered CVT training in each country (for which data is available) in 2005 and 2010. In 2005 most enterprises in northern European countries were likely to offer CVT training, while a number of southern European and transitional countries provided fewer training opportunities. By 2010, in the midst of the recession, the number of enterprises offering training changed quite considerably in those countries that previously offered relatively few training opportunities. Spain, Portugal and Belgium, among others, began to catch up with those countries where training was already widely available. Poland and Greece, however, continued to lag behind.

The increase in training provided by enterprises may come as surprise: it might be expected that the willingness to retrain employees is highly dependent on the availability of financial resources and strength of the overall economy. However, in times of slow economic growth, firms may actually attempt to hoard their labour force, as it may be more expensive to sack employees and then rehire when demand returns.

Re-skilling employees while training costs are generally lower may lead to higher productivity when the overall economy returns to full swing. If 'labour hoarding' during recessionary times does occur, then we would expect there to be a possible imbalance in the distribution of employees who receive access to training (Dieckhoff 2013). In other words, employers would tend only to train those with higher skill levels, thus penalising those with lower skill-levels.

The following graphics demonstrate the level of inequality in access to training within the Europe-24. Figure 8.12 shows the proportion of individuals in training among those employed, unemployed and economically inactive<sup>28</sup> in 2012. The countries that had the most individuals in training overall tended to be in northern Europe, with particular emphasis in the Nordic countries. Within these countries, similar proportions of employed and unemployed people received training, but those who were inactive were generally the least likely to be in training – Denmark was the only county with broadly equal participation rates in all three categories. In countries with lower overall training participation rates, people in employment tended to be more likely to benefit from training than those who were unemployed.

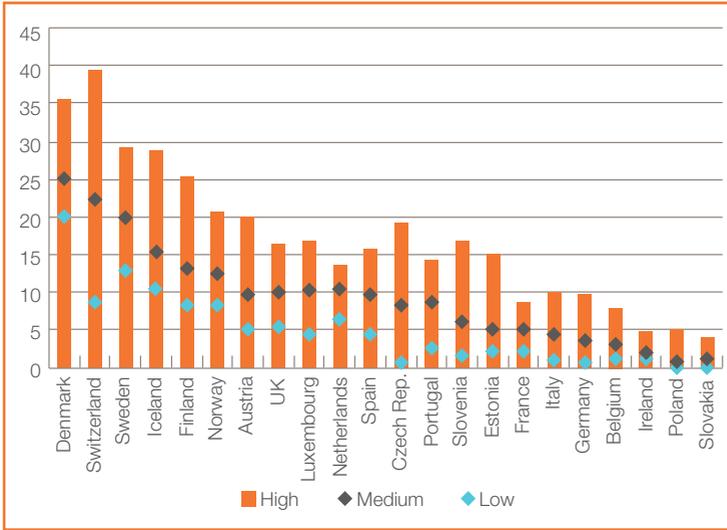
**Figure 8.12**  
Individuals in training by employment category in Europe-24 countries, 2012



Source: Eurostat 2014b, IPPR calculations

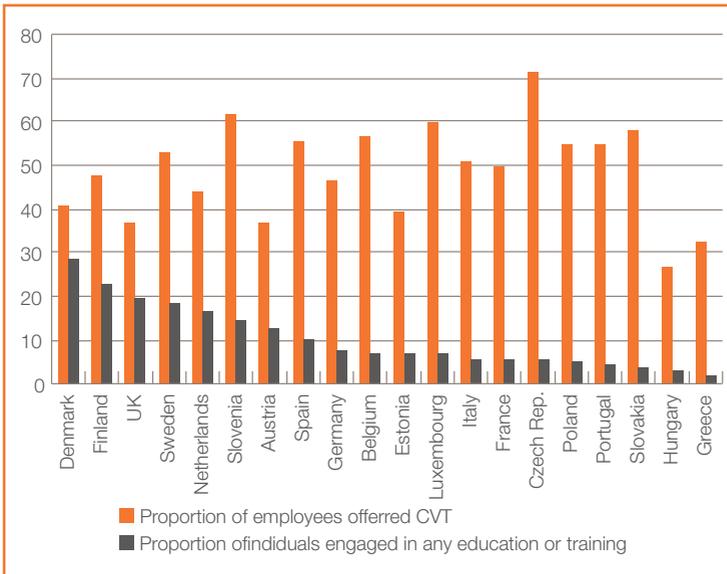
There also appears to be a polarisation in training when it comes to skill levels – discernable in figure 8.13, which measures training rates by education level. Again, the countries that have higher overall training participation rates also do better at training employees of all skill-levels – Denmark once again being an outstanding case. In most countries, however, the proportion of low-skilled employees in training is lower than those of medium- or high-skilled workers. The variation between countries in training participation rates by both employment status and skill level is linked to the provision of intensive skills support by the welfare system: more inclusive, co-ordinated welfare regimes are more likely to have a stronger influence on their country’s employers, and therefore to create a more even stratification of training access.

28 The latter category does not include students in regular education.



**Figure 8.13**  
Individuals  
in training by  
education level  
in Europe-24  
countries, 2012

Source: Eurostat 2014b, IPPR calculations



**Figure 8.14**  
Proportion of  
employees  
offered continuing  
vocational training  
(CVT) compared  
with the proportion  
engaged in CVT  
in Europe-24  
countries,\* 2012

Source: Eurostat 2014b, IPPR calculations

\*Note: Data not available for Switzerland, Iceland, Ireland and Norway.

Lastly, we investigate the proportion of employed individuals who actually take advantage of training when offered it. Figure 8.14 compares the proportion of employees offered CVT training compared to the number

of individuals taking up CVT training. In most countries there is a large disparity between the two figures. Employees in Denmark, Finland and the UK are most likely to take advantage of CVT training opportunities, whereas the greatest imbalances between the proportion of employees offered CVT and those actually engaged in training can be found in the Czech Republic, Slovakia and Portugal. This data presents an interesting conundrum regarding the supply of and demand for training: even if training is made available to employees, how can it be assured that workers will take advantage of it?

## 8.4 Conclusion

The average skill level of the European labour force has increased substantially in recent years. While it is unlikely that the continent will meet the Europe 2020 targets for educational attainment – principally due to shortfalls in southern European countries – the continuing growth in the share of the workforce with an HE qualification, and the continuing fall in the share that has low levels of educational attainment, are encouraging nonetheless. However, there are difficult questions concerning the quality of the education on offer, as Europe lags behind other global regions in terms of the cognitive abilities of its school-leavers.

Europe also needs to do much more to maintain people's skills throughout their working lives. There are enormous differences between countries in terms of the proportion of the population that is offered and which takes up opportunities for adult learning, and substantial inequalities in participation. The most advantaged – that is, those that are already highly skilled and in work – are the most likely to be engaged in adult learning.

The future strength of Europe's economy depends on a broad-based commitment to education and training, with everyone given the opportunity to achieve their potential in terms of educational attainment, and to maintain and update their skills as Europe's economies and jobs change.

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## 9. WHO IS MISSING FROM WORK?

### Abstract

*Employment rates across Europe are too low, with only two-thirds of the working age population in work. To raise employment rates, much more needs to be done to make European labour markets more inclusive. Mothers, older workers, recent immigrants and ethnic minorities, young people, people with disabilities and low-skilled workers all tend to be under-represented in European labour markets. Of these groups, the biggest employment gap exists between people with disabilities and people without disabilities – close to 30 percentage points across the Europe-24.*

*The factors behind the low employment rates of these groups vary. Women's labour-market choices are strongly shaped by their family's circumstances: most of the gender employment gap across European countries is the result of low maternal employment rates. Older workers have seen their employment rates increase since 1995, yet they are still roughly 18 percentage points below the employment rates of workers aged 25–54 years of age. Young people also have relatively low employment rates, but this might not be a bad thing, as some of the difference is explained by higher participation in education and training. Having a disability tends to be associated with poor labour-market outcomes in every European country, while for migrants low employment rates persist partly for legal reasons and also because of discrimination and language barriers.*

*For most groups, improving employment rates requires improving their skill levels. Governments and businesses also need to address discrimination and negative attitudes towards particular groups such as older workers, immigrants and people with disabilities. Full-time work is not feasible for some people, but this should not mean that those who cannot work full-time should be locked out of the labour market. Quality flexible work is therefore also key to boosting employment rates.*

### 9.1 Who is missing from work? Making European labour markets more inclusive

A central aim of economic policy in Europe should be to increase the employment rate. On average across the Europe-24, only two-thirds of the working-age population are in employment. Having such a large proportion of the working-age population economically inactive

or unemployed is a significant waste. Studies show that employment is one of the biggest determinants of personal wellbeing. A higher employment rate also creates a more inclusive labour market, and improves employment opportunities for those further away from the labour market. By contrast, being out of work can have damaging effects on the economy and society. For the individual, it can lead to lower income, and reduced future employment prospects, but in aggregate, weak labour market performance also dampens consumer demand, lowers tax revenues and pushes up welfare spending (Dolphin and Lawton 2013).

If countries want to achieve higher employment, policymakers and firms need to maximise people's chances of finding a job, while addressing barriers to gaining work. Some of the people that will have to make the transition from unemployment or inactivity to employment in order to raise the employment rate will be the ones that face the biggest hurdles when seeking work.

There is also a particular need for the state to maintain high employment rates across the economic cycle because recessions tend to worsen the labour market prospects of disadvantaged groups (Berthoud 2009).

In the decade up to the 'Great Recession', employment rates steadily increased across the Europe-24, peaking at 68 per cent. The financial crisis and subsequent sovereign debt crisis had a profound negative impact on labour markets throughout Europe, as firms scaled back hiring and let go of workers. Averaging across the Europe-24 countries, employment rates fell by roughly 2.5 percentage points between 2008 and 2012 (Eurostat 2014). This makes the challenge of achieving full employment in the coming years all the more difficult.

This chapter explores the recent employment trends of groups that have been historically 'missing' from, or under-represented in, European labour markets, with a focus on women (particularly mothers), immigrants, older workers, people with disabilities, and workers with low or no skills.<sup>29</sup> Although the average employment rate across the Europe-24 is 66 per cent, there is wide variation at the country level. Variance is caused in part by the fact that some European economies are better at integrating more diverse groups of people into the labour market than others. Scandinavian countries, for example tend to have relatively high employment rates across most groups within their populations, regardless of their different characteristics and attributes (such as gender, migration status, age). This chapter also describes the drivers behind the low employment rates of each under-represented group, and sets out some potential policy directions that could address the issue.

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<sup>29</sup> [http://www.oecdobserver.org/news/archivestory.php/aid/1022/A\\_more\\_inclusive\\_labour\\_market.html](http://www.oecdobserver.org/news/archivestory.php/aid/1022/A_more_inclusive_labour_market.html)

## 9.2 Maternal employment

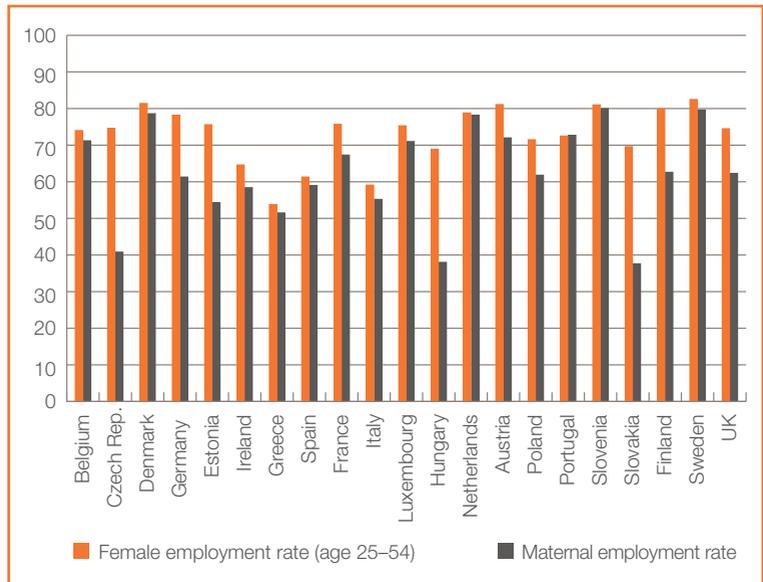
Although more women are now in paid work than ever before, a substantial gender employment gap still persists in most European countries. Averaging across the Europe-24, the gap between male and female employment rates stood at 10 percentage points in 2012, with female employment rates at 61.5 per cent (Eurostat 2014).

Female employment rates tend to be lower in southern and eastern European countries. Greece, Italy, Hungary, Spain, Poland, Slovakia and Ireland all have female employment rates that are lower than 60 per cent. By contrast, Norway, Sweden, Denmark and Finland have comparatively high female employment rates, ranging between 68.2 per cent in Finland to a high of 80.8 per cent in Iceland, and consequently these countries have lower gender employment gaps (Eurostat 2014).

Much of the gender disparity in employment outcomes is explained by the low employment rates of mothers. In the UK, this accounts for 90 per cent of the gap between the employment rates of men and women (Thompson and Ben-Galim 2014).

Women with dependent children face a number of challenges in balancing home and care responsibilities, and this can lead to different patterns of work among mothers and other women. Figure 9.1 shows that in most countries, maternal employment rates tend to be lower than overall female employment rates among women aged between 25 and 54.

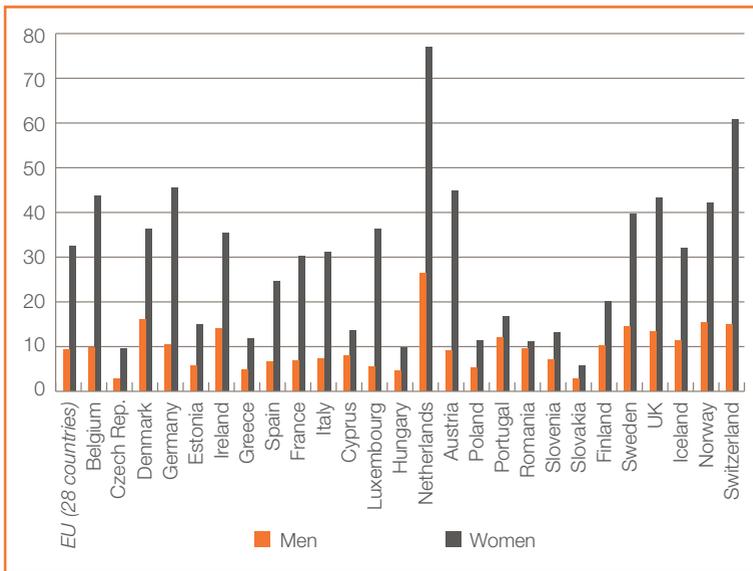
**Figure 9.1**  
Employment rates (%) of women and of mothers with at least one child under the age of 6 in selected Europe-24 countries, 2012



Source: Eurostat 2014

Generally, there is a strong correlation between maternal and overall female employment rates. The lowest maternal employment rates are found in Slovakia (37.6 per cent) Hungary (38.0 per cent) and the Czech Republic (37.6 per cent), which also have low female employment rates. Conversely, countries with high maternal employment rates, including Sweden, Slovenia and Denmark, also have high female employment rates.

The Czech Republic, Estonia, Finland, Germany, Slovakia and Hungary all have large gaps between their female and maternal employment rates (of women with children below 6 years of age), ranging between 17 and 34 percentage points in size. The large employment gaps in Germany, Finland and Estonia are peculiar in the sense that their female employment rates (of women aged between 25 and 54) are higher than the Europe-24 average of 74 per cent. Countries with female employment rates similar to those of these three countries have been able to achieve higher maternal employment rates, which indicates that there is scope for policy to change maternal employment outcomes in these countries. By contrast in Slovenia, Netherlands, and Portugal, maternal employment rates are very close to overall female employment rates.<sup>30</sup>



**Figure 9.2**  
Incidence of part-time work among men and women as a percentage of total employment in selected European countries and EU average, 2012

Source: Eurostat 2014

Maternal employment rates also vary quite dramatically depending on the age of children. Mothers with younger children (below the age of three) tend to have much lower employment rates than mothers

30 <http://www.oecd.org/social/soc/oecdfamilydatabase.htm>

with older children. Employment outcomes can also vary according to family type. While in some countries – Luxembourg, Austria, Portugal and Spain – lone mothers have higher employment rates than partnered mothers, in the UK and Belgium lone mothers have a much lower employment rate compared to coupled mothers – a difference of over 15 percentage points.<sup>31</sup>

The employment rates of mothers are relatively low because women with children are far more likely than men to take career breaks in order to meet responsibilities outside of work. When some of these women later return to work, they tend to return to lower-paid, lower skilled or part-time work in order to allow for greater flexibility regarding childcare. This partly explains why the incidence of part-time work is also higher for women than it is for men (see figure 9.2). However, it is impossible for some women to reconcile their conflicting responsibilities, and they drop out of the labour market permanently. In sharp contrast to the experience of women, men with children tend to have higher employment rates than those without children (EU 2013).

Encouraging more women who want to find quality work to (re) enter the labour market, and to raise the overall employment rate, requires policymakers and business to relieve the pressures that some women face in combining work and care. Structural constraints such as the lack of affordable childcare, flexible work, and quality part-time work underpin women's disadvantage in the labour market. International evidence suggests that the provision of affordable childcare services could improve maternal employment rates (Thompson and Ben-Galim 2014). Furthermore, quality flexible and part-time work can allow women to access better employment opportunities that work alongside other responsibilities.

### 9.3 Older workers

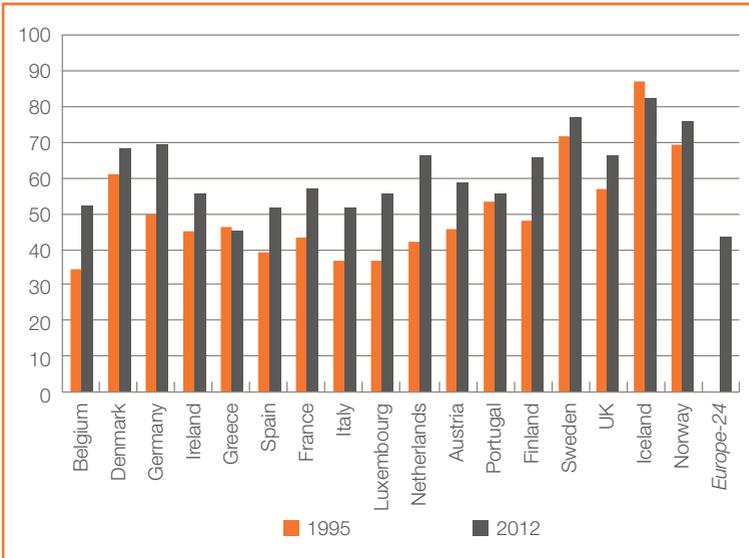
Over the past few decades there has been a steady increase in the proportion of older people in work. Since 1995, the employment rates of workers between the ages of 55 and 64 have increased by around 20 percentage points in Belgium, Luxembourg, the Netherlands and Germany (see figure 9.3). Reforms to state pension ages and the lowering of incentives to retire early have contributed to this increase (OECD 2006, Eurofound 2012).

Although the employment rates of older workers have improved over the last two decades, they remain significantly lower than the overall employment rates of the total workforce. The employment rate of older workers across the Europe-24 was 51.5 per cent in 2012 – 15 percentage points lower than the employment rate for all workers, and 18 percentage points lower than the employment rate for workers aged between 25 and 54 (Eurostat 2014).

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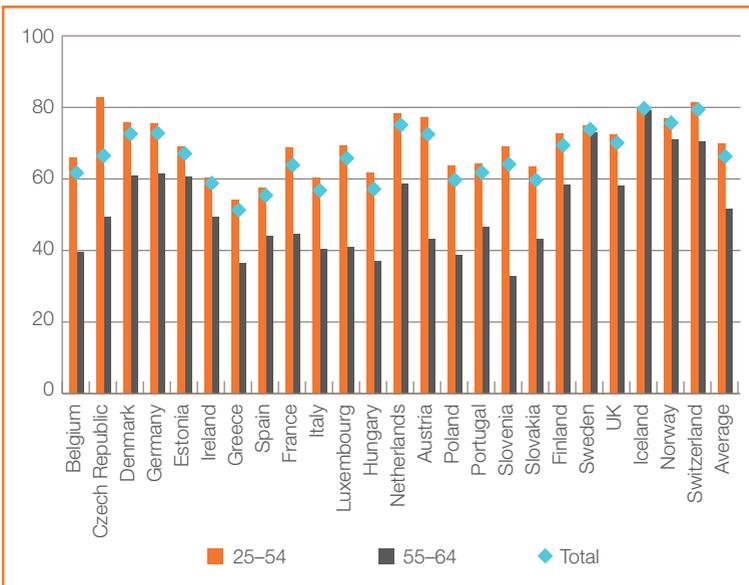
31 <http://www.oecd.org/social/soc/oecdfamilydatabase.htm>

**Figure 9.3**  
Employment rates (%) of older people (those aged 55–64) in selected European countries and Europe-24 average, 1995 and 2012



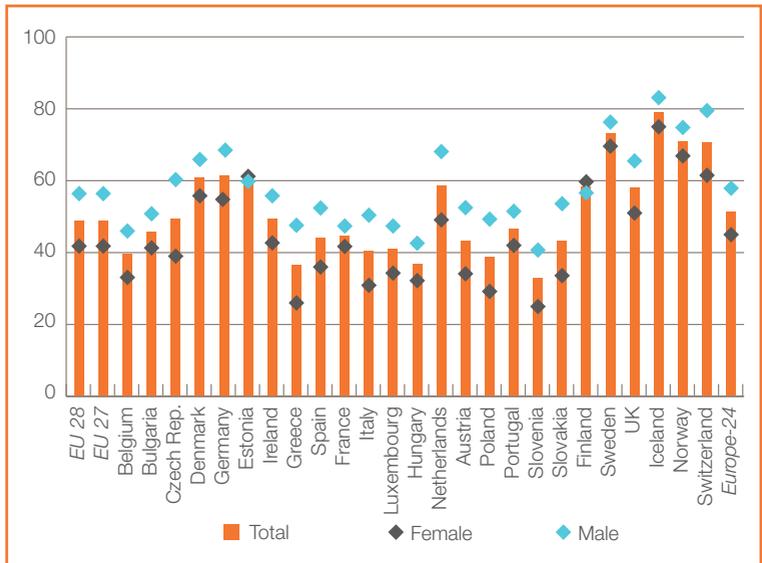
Source: Eurostat 2014

**Figure 9.4**  
Employment rates across different age cohorts in selected European countries, 2012



Source: Eurostat 2014

**Figure 9.5**  
Employment rates  
of older workers  
(those aged 55–64),  
by gender and in  
total, of Europe-24  
countries and  
average, 2012



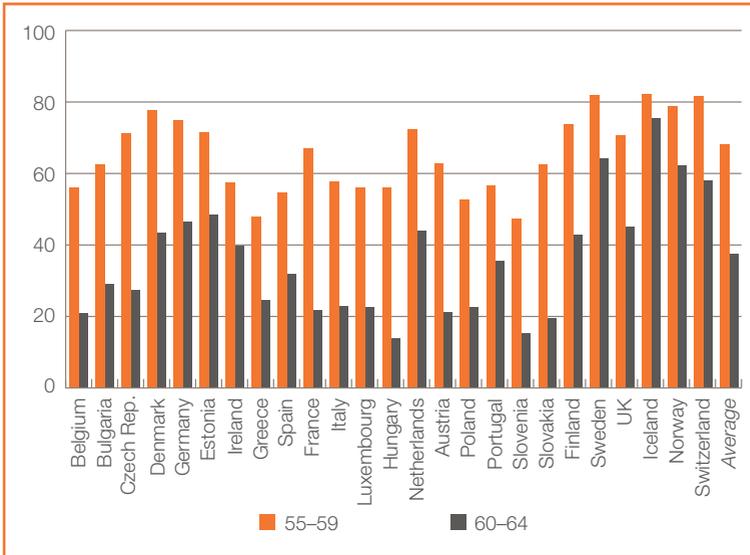
Source: Eurostat 2012

The lowest employment rates for workers of between 55 and 64 years of age are found in Greece, Slovenia and Hungary, where they are below 37 per cent. Scandinavia tends to have higher than average employment rates for older workers: in fact in Sweden and Iceland the employment rates of older workers are very close to those of the rest of the population, at 73.0 per cent and 79.1 per cent respectively (see figure 9.4). Iceland and Sweden also have relatively high employment rates for their workforces as a whole (Eurostat 2014).

A significant employment gap between older men and older women exists in almost all European economies. On average across the Europe-24, the employment rate for older women is 45 per cent, while for men it is 57.9 per cent (see figure 9.5); however, this is likely to narrow in the coming decades, as increases in female labour force participation rates will likely translate into more older women in work in the future. There are already a few countries where employment rates are similar for older men and older women, including France, Sweden, Iceland, and Norway. This is likely to be a reflection of historically low gender employment gaps across the total workforce. Contrary to most gender employment trends, Estonia and Finland both have female employment rates that are higher than the male employment rates for workers aged 55–64 years (Eurostat 2012).

Employment rates are not uniform within the 55–64 cohort: they fall sharply after the age of 59 (see figure 9.6). Increasing the employment rates of older workers will, therefore, require policymakers and businesses to focus on increasing the employment rates of workers aged 60 and over.

**Figure 9.6**  
Employment rates  
of older people  
disaggregated by  
age category, for  
selected European  
countries (and  
average rates of  
those countries),  
2012



Source: Eurostat 2014

Unemployment rates tend to be lower for older workers because they tend to move from paid work into inactivity rather than into unemployment, voluntarily or involuntarily choosing to take early retirement if they cannot find suitable employment opportunities. Those who are looking for work often find it more difficult to re-enter the market, so rates of long-term unemployment are higher among older workers.

An effective full employment strategy would need to lower incentives for older workers to exit the labour market prematurely, and promote re-employment and retention. Older workers leave the labour market in one of three ways: retirement, unemployment or moving on to disability benefits (OECD 2011). To extend working lives and prevent early retirement, most European governments have an ongoing commitment to extending the official retirement age (Eurofound 2012). Table 9.1 below shows both the effective retirement age and official retirement age by gender. The 'effective retirement age' is defined as the average age of exit from the labour force over a five-year period, while the official retirement age is the age at which an older worker can claim the state pension (OECD 2012). The table shows that in most countries (17 of the 24 countries listed) the average worker retires before the state pensionable age.

Furthermore, most countries with low employment rates among older workers also have effective retirement ages that are far below the official retirement ages, particularly for men. In Belgium, only 40 per cent of its older population (those aged between 55 and 64) is in work, and this is partly because workers are retiring well before the state pension age. The official retirement age in Belgium is 65 for

men, but – at 59.6 years – the effective retirement age is more than five years earlier. A similar situation can be found in Greece, Hungary, Italy, Luxembourg and Poland. This indicates that more needs to be done to retain older workers than simply extending state pensionable ages. Research by Eurofound has indicated that the entire framework concerning retirement is important in determining when people leave work (Eurofound 2012).

Other routes out of the labour market are unemployment and moving on to disability benefits. Over half of the older workers who leave the labour market in Finland, Slovakia, Sweden and the UK do so via disability or unemployment benefits (OECD 2011). However, when disaggregated by gender, the routes out of the labour market are quite distinct. For men, retirement tends to be a more common reason for leaving the labour market than it is for women. Women are more likely than men to move out of work into the ‘other inactive’ category. This is because most women tend to leave work in order to care for family and loved ones (ibid).

**Table 9.1**  
Effective ages of retirement compared with official retirement ages of selected European countries, 2012

| Country        | Men               |                  | Women             |                  |
|----------------|-------------------|------------------|-------------------|------------------|
|                | Effective (years) | Official (years) | Effective (years) | Official (years) |
| Austria        | 61.9              | 65.0             | 60.2              | 60.0             |
| Belgium        | 59.6              | 65.0             | 58.7              | 59.8             |
| Czech Republic | 63.1              | 62.5             | 62.3              | 65.0             |
| Denmark        | 63.4              | 65.0             | 62.5              | 65.0             |
| Estonia        | 63.6              | 63.0             | 62.6              | 61.0             |
| Finland        | 61.8              | 65.0             | 60.0              | 65.0             |
| France         | 59.7              | 65.0             | 59.4              | 60.0             |
| Germany        | 62.1              | 65.1             | 60.5              | 62.0             |
| Greece         | 61.9              | 65.0             | 60.3              | 63.5             |
| Hungary        | 60.9              | 63.5             | 59.6              | 65.0             |
| Iceland        | 68.2              | 67.0             | 66.4              | 65.0             |
| Ireland        | 64.6              | 66.0             | 63.2              | 61.2             |
| Italy          | 61.1              | 66.0             | 59.8              | 61.3             |
| Luxembourg     | 57.6              | 65.0             | 58.7              | 65.0             |
| Netherlands    | 63.6              | 65.0             | 62.6              | 66.0             |
| Norway         | 64.8              | 67.0             | 63.6              | 58.0             |
| Poland         | 62.3              | 65.0             | 60.6              | 61.0             |
| Portugal       | 68.4              | 65.0             | 66.7              | 65.0             |
| Slovakia       | 60.9              | 62.0             | 59.6              | 63.5             |
| Slovenia       | 62.9              | 63.0             | 61.9              | 65.0             |
| Spain          | 62.3              | 65.0             | 61.6              | 65.1             |
| Sweden         | 66.1              | 65.0             | 64.3              | 67.0             |
| Switzerland    | 66.1              | 65.0             | 65.0              | 66.0             |
| UK             | 63.7              | 65.0             | 62.9              | 64.5             |

Source: OECD 2012

A number of factors have contributed to the labour market disadvantage facing older workers, including lack of relevant skills and lack of work flexibility. Discrimination in recruitment processes also tends to negatively affect the employment prospects of older workers (OECD 2006, Eurofound 2012).

Enabling people to work longer requires that businesses change their attitudes towards older workers. Better policies are also needed to improve older workers' labour market prospects. Complementary policies that allow older workers to accommodate other responsibilities, such as caring for relatives or taking time off for health-related concerns, are crucial. Access to flexible work also plays an important role. To tackle retention and re-employment among older workers, greater emphasis must be placed on improving lifelong learning to ensure that older workers have the necessary skills to continue working in a changing labour market (Sinclair et al 2013).<sup>32</sup>

## 9.4 Disability

To create a more inclusive labour market – and achieve higher aggregate employment rates – requires a reduction in the challenges that people with a disability face when they seek work. In most countries, policy approaches thus far have not done nearly enough to maximise people's chances of finding good jobs. As a result, the employment patterns of people with disabilities across the OECD have changed very little over the past 10 years (OECD 2010). On average across the EU, only half of people with a disability are active in the labour market (Grammenos 2010). The scale of the discrepancy between the activity rates of those with and without disabilities suggests that much more can be done. This is even more of a priority because, as the population continues to age, the proportion of individuals that consider themselves to have a disability is likely to increase.

Figure 9.7 shows that, in 2009, Denmark, Finland, and Luxembourg, had the highest employment rates for people with a disability. It also illustrates the labour market disadvantage that faces those with disabilities in the EU compared with the rest of the population: employment rates for people with a disability are close to 30 percentage points lower than those of people without a disability. Greece, the Czech Republic, Hungary, Ireland and the UK all had disability employment gaps of over 35 percentage points. With the exception of young people, this is a much bigger employment gap than those of any other group among those analysed in this chapter.

There is not one particular set of employment policies that are absent from countries with low employment rates among disabled people and present among those with higher employment rates (OECD 2010). For example, some countries that have implemented employment quotas or other employer incentives have higher

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32 See also <http://www.oecd.org/els/emp/ageingandemploymentpolicies.htm>

employment rates among disabled people, while other countries have managed to achieve relatively high employment rates without implementing similar programmes (ibid).

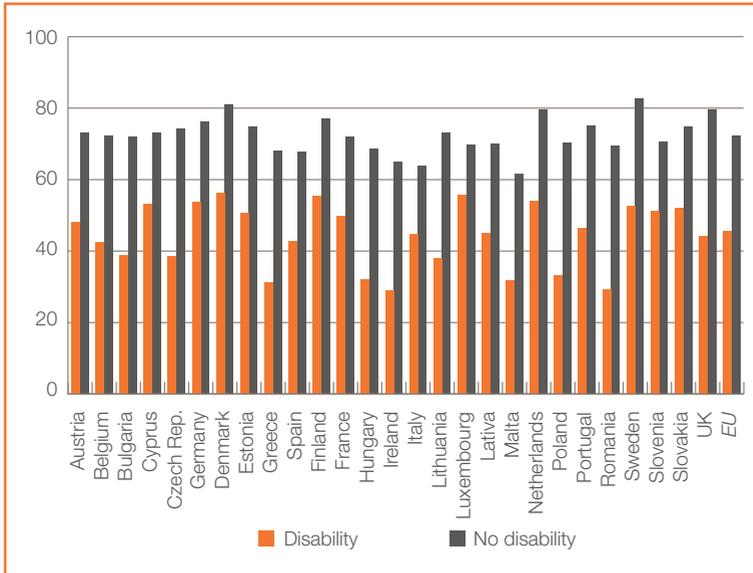
Some of the difference may be explained by the composition of spending on health and disability-related benefits. Most benefit spending in Europe continues to go towards passive cash benefits that may not effectively encourage people into work. Although a number of countries are increasingly moving towards spending more on active measures such as employment support or vocational training, only Germany, Norway, the Netherlands and Denmark spend more than 10 per cent of disability-related social security expenditure on active labour market programmes (OECD 2010). Clearly more can be done, therefore, to integrate disabled people into the labour market. Denmark, for instance, has a wage subsidy scheme in place that covers the difference between pre- and post-disability earnings – making work a more attractive option. Another factor that might help explain this cross-country variation in employment rates is the gap in education levels between people with disabilities and the rest of the population. Poland, Greece and Ireland have significant education gaps among younger cohorts of disabled people relative to the rest of the population, and these countries also have particularly low employment rates among people with disabilities.

Fluctuations in the economic cycle have a disproportionate impact on the employment of people with a disability: for men, the probability of finding a job is 20 per cent lower during an economic downturn, and for women it is 12 per cent lower (OECD 2010). The impact of recessions on the labour market prospects of disabled people was particularly severe during the 1980s and 1990s recessions. This was partly because the incentives to return to work were not as strong as they are today. Relatively lax conditions for receiving disability benefit made staying on disability benefits a far more attractive option than entering the labour market, even as economies begin to recover (OECD 2010).

This group tends to be at greater risk of entering poverty. Across Europe, nearly a quarter of people living with a disability live in a household in which no one works – a substantially higher figure than the 6.5 per cent of people with no disability who live in a household where no one works (Grammenos 2010).

On average, people with disabilities have low skills compared to the rest of the population. This can impact on their employment and earnings opportunities. This group also faces discrimination, or is at risk of facing discrimination, in the labour market, which reduces their chances of entering paid work and limits their progression within the workplace. These barriers must be addressed if work is to be a viable option for many people with disabilities. Furthermore, in order to

increase employment rates among this group, policymakers in some countries should explore the routes in and out of the benefit system. Reducing incentives to remain on disability benefits and out of work in a fair and sensible way can make work more attractive. Full-time work may not be suitable for everyone's needs, particularly for people with disabilities, so access to quality part-time work, or flexible work, should be made more available without compromising the financial security of those who enter into it.



**Figure 9.7**  
Employment rates (%) by disability in selected European countries and EU average, 2009

Source: Grammenos 2010

### 9.5 Ethnic minority and migrant groups

Across Europe, different definitions of ‘migrants’ and ‘ethnic minorities’ are used for policy purposes and data collection. As such, there is no robust comparative data on ethnicity across Europe. The UK is an exception in Europe – it separates ethnicity and country of birth, creating a clear division between race and migration, whereas in most European countries migrants and their ethnicity are not clearly separated. The EU collects data on nationality and country of birth; given the data limitations, we use this data to describe the position of ethnic minorities and migrants, while recognising the methodological issues related to this approach (van Balen et al 2010).

Migrants and people from different ethnic backgrounds are often under-represented in paid work (Kahanec et al 2010). Research has also shown that, when in work, this group tends to be disproportionately represented in specific types of occupation and in particular industries or sectors.

These are traditionally ‘blue-collar’ jobs – construction for men and services and care for women (van Balen et al 2010).

Figure 9.8 shows that the employment rates for migrants or ethnic minorities (based on nationality or country of birth data) is lower compared to national employment rates (figures 9.8 and 9.9). Northern and western European economies tend to have higher employment gaps between extra-EU-27 citizens and nationals, compared to southern and eastern European economies (both by nationality and country of birth).

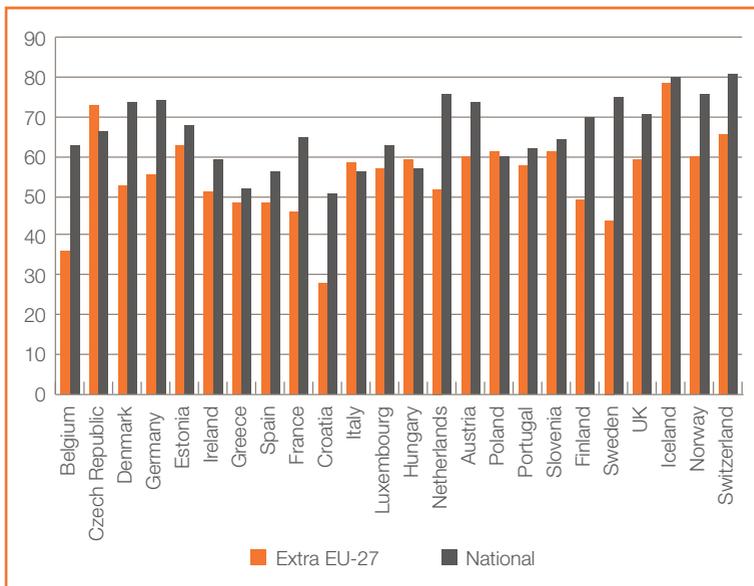
The lowest employment rates for extra-EU-27 citizens both by country of birth and nationality were observed in Belgium, at 45.4 per cent and 36.2 per cent respectively. The highest employment rate for extra-EU-27 citizens by nationality was Iceland at 78.3 per cent, followed by the Czech Republic (73.0 per cent) and Switzerland (65.6 per cent). The percentage-point gap by nationality between extra-EU-27 and nationals was greatest in Sweden and Belgium, and lowest in the Czech Republic, Italy and Poland (Eurostat 2014).

Previous research suggests that the labour market status of foreign-born citizens tends to improve with time (Kahanec et al 2010). This could explain why employment gaps between extra-EU-27 citizens and nationals are bigger when comparing nationality than country of birth.

It is interesting to note that there are countries in which the employment rates of extra-EU-27 citizens, by country of birth or nationality, are higher than those of nationals. The employment rate of extra-EU-27-nationals is higher than that of nationals in the Czech Republic, Italy and Poland. By country of birth, the extra-EU-27 employment rate is higher than that of nationals in a number of southern and eastern European economies, including the Czech Republic, Italy, Hungary, Poland, Portugal and Slovakia. Luxembourg has also seen higher employment rates for extra-EU-27 citizens by country of birth than for its nationals.

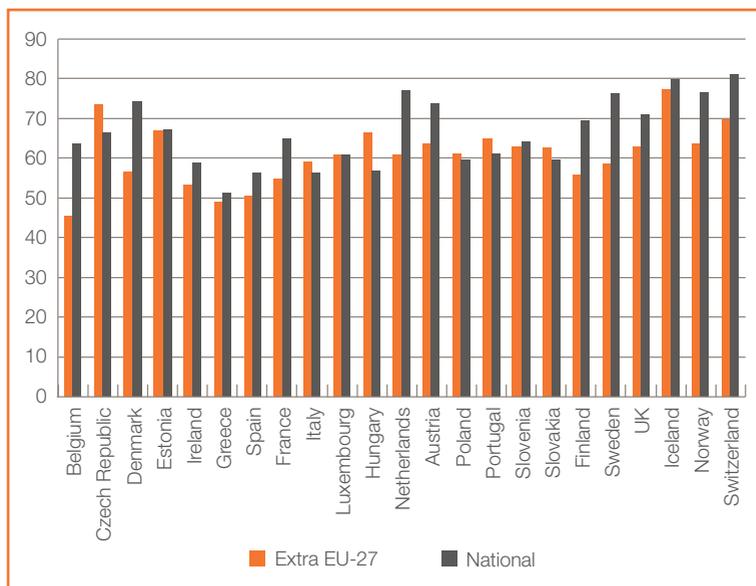
Discrimination against migrants and ethnic minorities partly explains the lower rates of employment where they exist. However, there are other factors driving low employment rates among these groups, including a lack of relevant work experience and skills, low levels of education, little awareness about rights and responsibilities, language barriers, and, importantly, legal status while residing in the host country (van Balen et al 2010).

Legal barriers determine the degree to which migrants can participate in the labour market. In Denmark and Sweden, refugees and asylum-seekers account for a large share of migration. If rights to work are restricted on the basis of legal status then it is understandable that there would be a large gap between the employment rates of extra-EU-27 citizens and nationals. Countries with a longstanding history of using low-skilled migrants are also likely to subsequently see greater migration of family members with similar level of skills (FRA 2010).



**Figure 9.8**  
Employment rates by nationality (of extra-EU-27 citizens and nationals) in selected European countries, 2012

Source: Eurostat 2014



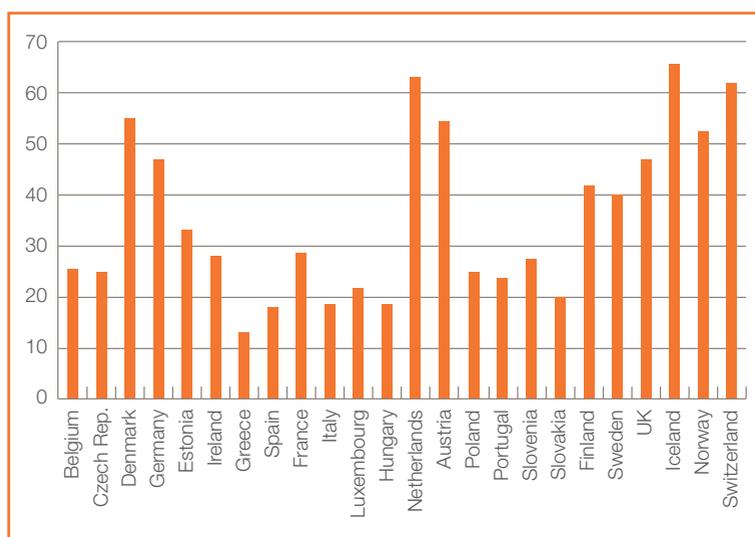
**Figure 9.9**  
Employment rate by country of birth (of those born in extra-EU-27 countries and nationals) in selected European countries, 2012

Source: Eurostat 2014

## 9.6 Youth employment

Averaging across the Europe-24, the employment rate for young people (aged 15–24) is 36 per cent. The Netherlands, Iceland and Switzerland have the highest employment rates among people in this age group, with rates above 60 per cent. On average, less than half of young people are in work, but this low rate is partly explained by higher participation in education or training within this cohort. However, youth unemployment is a particular problem across most European labour markets. Of particular concern is the fact that once young people are unemployed, their chances of finding a job become low – only 29.7 per cent of those aged 15–24 who became unemployed in 2010 found a job in 2011.<sup>33</sup> Chapter 10 looks at issues of youth employment in greater detail.

**Figure 9.10**  
Youth employment rates of selected European countries, 2012



Source: Eurostat 2014

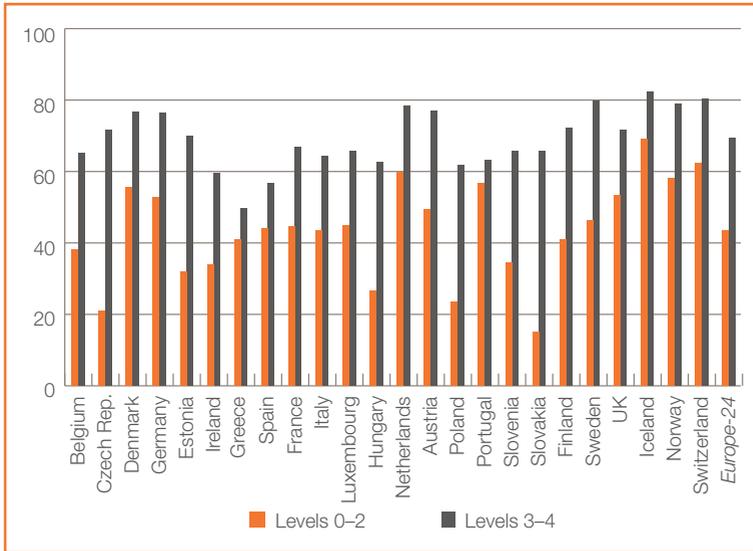
## 9.7 Skills

Skills are key factor in determining employment opportunities. As shown in figure 9.11, the employment rates of people with low skills (defined as possessing qualifications below upper-secondary education level), tend to be associated with lower employment rates. People with skills at upper-secondary and post-secondary, non-tertiary education level have significantly higher employment rates than those with low skills. On average, the gap in employment rates between those with skills at or below lower secondary (ISCED levels 0–2) and skills at upper-secondary and post-secondary, non-tertiary education level (levels 3–4) is 25.6

33 <http://ec.europa.eu/social/main.jsp?catId=1036>

percentage points (Eurostat 2014). A number of eastern European economies, including the Czech Republic, Slovakia, Poland, and Hungary, have the highest employment gaps between these two skills categories.

Countries with the highest employment rates for those with low levels of skills include Switzerland, Iceland and the Netherlands. In most countries, less than half of people with low skills are in work. As a result, and as figure 9.11 illustrates, there is a lot of scope for many countries to either develop people’s skills further, or to make better use of their existing skills.



**Figure 9.11**  
Comparison of employment rates of people with skills at ISCED levels 0-2 and 3-4\* in selected European countries and Europe-24 average, 2012

Source: Eurostat 2014

Skills composition within an economy can also determine labour market outcomes. Over a third of the population in southern economies, such as Portugal, Spain, Italy and Greece, have skills below the upper-secondary education level. These economies are also associated with low employment rates, which indicates the negative impact that low skills can have on overall labour market performance. Chapter 8 looks at the issue of skills in greater detail.

The lack of relevant skills in most economies underpins a lot of labour market disadvantage. Any initiatives that aim to move economies towards a high-employment rate must address this skills challenge. Not only do people with low skills face greater risk of unemployment or worklessness, they are more likely to face multiple disadvantage. This chapter has shown that most groups that tend to be under-represented in the labour market, such as people with disabilities, older workers, and ethnic minorities, are also more likely to have

a lower level of skills. Therefore, to tackling the problem of people who are ‘missing from the labour market’ requires that these groups maintain and update their skills to keep pace with changes in Europe’s economy and jobs. Different economies and groups will require different skills strategies. For example, to extend working lives and boost the employment rates of older workers, lifelong learning will be important, while for mothers updating skills may be key.

## 9.8 Conclusion

A number of groups are under-represented in European labour markets, and more needs to be done to address labour-market disadvantage. This is particularly relevant if our goal is to create more inclusive labour markets and to raise employment rates. The skills of most groups need to be improved in order to increase their re-employment and retention prospects. For other groups, part of the challenge is addressing discrimination within the labour market. People with disabilities, older workers and ethnic minorities tend to face discrimination which harms their prospects of employment and progression. For mothers, older workers and people with disabilities, full-time work with little flexibility may not be suitable. Therefore, providing access to work that fits better with the needs and responsibilities of these different groups will make work more attractive to them. This requires creating more quality part-time jobs, introducing greater flexibility, and providing quality public services, such as childcare, in order to lower barriers to work.

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# 10. YOUTH UNEMPLOYMENT IN EUROPE

## Abstract

*Even before the financial crisis and recession, young people in Europe were finding it increasingly difficult to compete with older workers for jobs. In many countries, and particularly for those young people who do not follow the route through university, the transition from education to work has become much more difficult. The evidence suggests that this is largely the result of structural shifts in European labour markets, which are forcing increasing numbers of young people to compete for lower-skilled work – and the failure of education systems to adapt to these changes. Cross-country analysis shows that employment regulation and youth minimum wages have little impact on youth unemployment, and that a high degree of company involvement in the vocational education system and good work experience are the best ways of improving young people's prospects in the labour market.*

## 10.1 Introduction<sup>34</sup>

Youth unemployment is one of the biggest problems facing Europe. It has increased substantially in most countries since the 2008–2009 financial crisis, but it has been rising relative to the unemployment rate of older adults for far longer. This chapter presents a statistical analysis of the problem, and uses the results to assess the different roles that education and training, business behaviour and labour market institutions play in young people's transition from compulsory schooling to a job suitable to their level of skills and qualifications. It concludes that policymakers need to focus on this transition in its entirety – rather than on narrow labour-market measures – if they are to reduce youth unemployment and improve the prospects of young people across Europe.

There were 5.5 million unemployed young people (15-to-24 year-olds looking for, but unable to find, work) in the EU in the first quarter of 2013. Even more worryingly, there were more than 7.5 million young people not engaged in employment, education or training (NEET) – over 13 per cent of the youth population. While Europe, and in particular the group of countries that comprise the eurozone, has begun to recover from recession in economic terms, the outlook for youth unemployment is more uncertain. There is also little sign that the rate of long-term

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34 The analysis in this chapter is presented in more detail in Thompson S (2013) *States of uncertainty: youth unemployment in Europe*, London: IPPR. <http://www.ippr.org/publication/55/11453/states-of-uncertainty-youth-unemployment-in-europe>

unemployment among the young – the group most at risk of long-term ‘scarring’ from unemployment – has begun to decline: in the UK, the proportion of unemployed young people who have been looking for work for more than a year stood at 30 per cent in the first quarter of 2013, and in Spain this number was almost 40 per cent.

Just as the recent brightening of countries’ economic fortunes has not yet driven an improvement in young people’s labour market prospects, the surge in youth unemployment since 2008–2009 masks longer-term issues in the youth labour market.

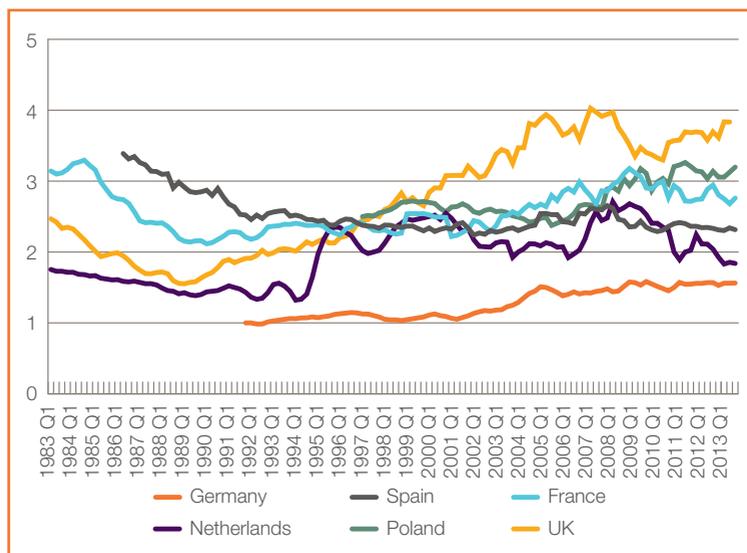
While the youth unemployment rate is a useful measure of young people’s performance in the labour market, it is difficult to analyse in isolation from changes in the wider economy. The employment prospects of young workers, and all workers, are to a large extent determined by the economy’s impact on businesses, particularly their short-term hiring decisions. One way to try to isolate the particular issues that young people face is to look at changes in the youth-to-adult unemployment ratio. Figure 10.1 compares the performance of workers aged 15–24 to those aged 25–64. A value of 1 indicates that the unemployment rate is the same for both groups; the higher the ratio is above 1, the worse the unemployment rate of young workers is compared to older workers. So, for example, in Germany young people are only slightly more likely to be unemployed than workers over the age 25, whereas in the UK they are 3.5 times more likely. As such, there will be less change in the ratio when unemployment is rising consistently across all age groups in the labour market than there is when unemployment is rising for younger workers to a greater or lesser extent than for older workers.

The evolution of the unemployment ratio shows that youth unemployment has been rising in most of the sampled countries at a much faster rate than adult unemployment. What this suggests is that, even at a time of positive economic growth and little change in overall unemployment levels, the situation for young workers began to worsen well before the financial crisis. Something appears to have happened around the turn of the century that has made it relatively hard for young people to compete in the labour market. Interestingly, in Spain, the recent large rise in youth unemployment is not reflected in the youth unemployment ratio, which implies that the youth and adult unemployment rates have moved in similar directions throughout the crisis.

It is clear, therefore, that a return to economic growth will not itself be enough to fix the problems of European youth labour markets. At a meeting of EU leaders in June 2013, €6 billion was pledged towards tackling the youth unemployment problem with a ‘youth guarantee’, intended to ensure that every young person has access to a job, training or apprenticeship within four months of leaving education

(European Council 2013). While action at this highest level of the EU is welcome, the problems that young people face, and the root causes of them, vary substantially between different countries. The necessary solutions will be found at the country, or even local, level.

**Figure 10.1**  
Youth-to-adult  
unemployment  
ratio in selected  
EU countries



Source: Eurostat 2013a

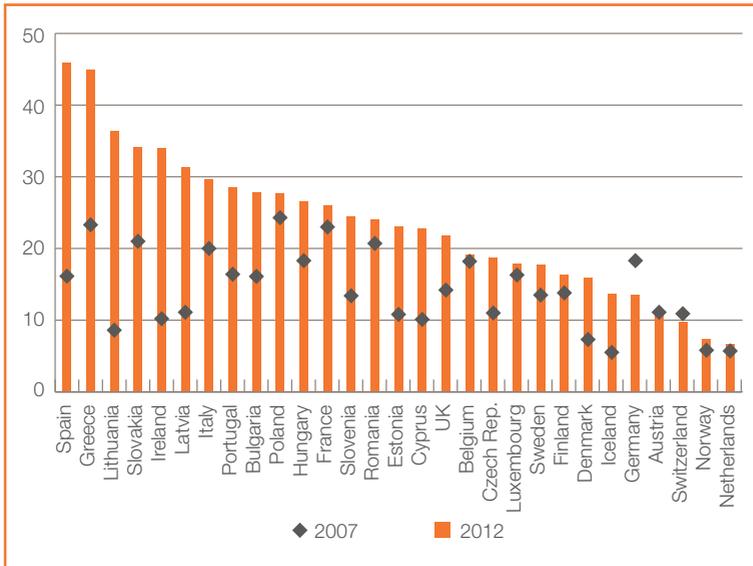
## 10.2 Youth transitions in Europe: the nature of the problem

There are several distinct groups that make up the young unemployed. In particular, we can usefully distinguish between those young people who are still in education but are looking for a job to fit around their studies, and those who have left education (either permanently or temporarily) and are looking to make the transition from learning to earning.

Here, we focus on the second group. With that in mind, looking at the unemployment rate for young people who have left education is useful as a means of analysing young people's successful 'transitions' into the labour market.

Figure 10.2 illustrates this by plotting the unemployment rate of young people not enrolled in education or training for European countries in both 2007 and 2011. There is wide variation between countries. In the Mediterranean economies of Spain and Greece the unemployment rate for this group was around 45 per cent in 2011, having increased enormously since 2007. The lowest unemployment rates are seen in the Netherlands, Norway, Austria, Switzerland and Germany, each of which have unemployment rates for this group of below 15 per

cent. The relationship between Sweden and France, two countries whose overall youth unemployment rates are very similar, appears quite different when focusing solely on the post-education group. At 18 per cent, Sweden's unemployment rate is relatively low for this demographic, but in France the same figure is 26 per cent. This disparity is due to different experiences among students: in France the unemployment rate of young people in education is 11 per cent, whereas in Sweden it is 29 per cent. This suggests that there may be a lack of part-time jobs that fit around education in Sweden, but that in France the number of entry-level vacancies for those beginning their careers may pose the greater problem.



**Figure 10.2**  
Unemployment rates (%) of young people who have left education in selected European countries, 2007 and 2011

Source: IPPR analysis using Eurostat 2013b

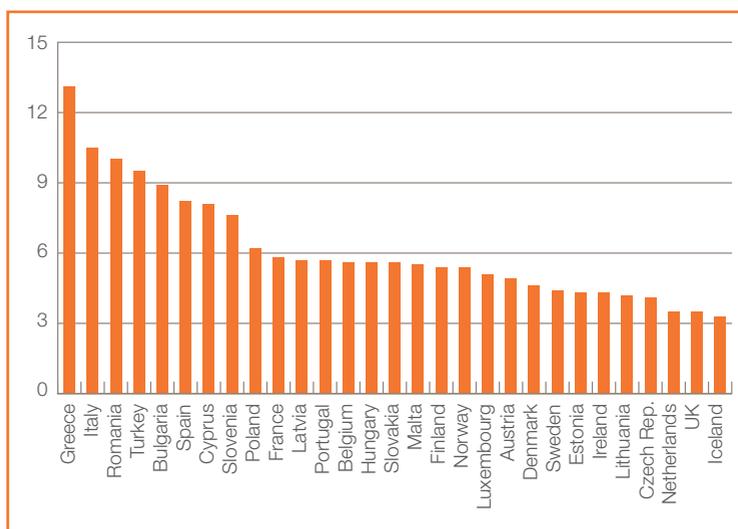
Another way of thinking about the outcomes of youth transition systems is by tracking how quickly young people move into work after completing their education. While data in this area is limited, the EU carried out a one-off survey on youth transitions in 2009 which recorded the length of time it took a young person leaving regular education to secure their first job (which lasted for more than three months). Figure 10.3 presents the headline results from this question, for all the countries included in the survey, for all 18-to-34-year-olds who left education in the five years to 2009.<sup>35</sup>

Some of the best performers on this measure are not those that one might expect. While the UK does not have particularly low unemployment

35 Data for Germany was not collected for this variable.

rates for young people who have left education relative to other countries, the average length of time it takes for a young people to move into work is less than four months – the second shortest average timescale after Iceland. It has been found that, while transitions tend to be short in the UK, the average duration of first jobs is also short. Young people in the UK and other countries such as Ireland face a patchy start to their careers, whereas in other countries such as Spain and Greece initial transitions take longer (as is shown in figure 10.3), but first jobs also tend to be more secure and longer-lasting.

**Figure 10.3**  
Average length of time (months) between leaving education and finding first job (of more than three months' duration) among 18–34 year-olds in selected European countries, 2009



Source: Eurostat 2013c

## 10.3 The youth transition system in Europe

Young people's ability to successfully transition into work is determined by a wide range of interrelated factors. However, at its core the decline in the proportion of young people who are able to make this transition smoothly reflects a deterioration in the joint ability of the education systems and labour markets to successfully match young people to jobs.

### 10.3.1 The education system

Young people with low-level or no qualifications face a particularly difficult transition from education to work – but their numbers are declining. In 2004, around 20 per cent of young people in the UK who were not in education had not completed upper-secondary schooling; by 2012 this was down to 15 per cent. While a similar pattern holds in most other EU countries, in southern Europe a relatively large proportion of young people still leave school without completing basic education – over a quarter of them in Spain in 2012, for instance.

For those young people who do complete secondary education, unemployment rates and transition lengths still vary substantially. Table 10.1 below shows our analysis of the unemployment rates of those who are no longer in regular education, split by their highest level of qualification, across six selected countries in both 2007 and 2011.

|             | ISCED 0–2 |      | ISCED 3–4 |      | ISCED 5–6 |      |
|-------------|-----------|------|-----------|------|-----------|------|
|             | 2007      | 2011 | 2007      | 2011 | 2007      | 2011 |
| Germany     | 42.1      | 32.3 | 9.9       | 8.3  | 4.4       | 4.4  |
| Spain       | 18.4      | 51.8 | 14.2      | 40.1 | 11.9      | 34.8 |
| France      | 40.0      | 44.3 | 18.8      | 22.5 | 13.0      | 15.4 |
| Netherlands | 10.3      | 10.5 | 3.7       | 4.9  | 1.9       | 4.2  |
| Sweden      | 22.0      | 33.3 | 10.2      | 15.8 | 9.0       | 9.9  |
| UK          | 25.7      | 37.3 | 11.1      | 18.1 | 6.5       | 13.4 |

**Table 10.1**  
Unemployment rates (%) of youths who have left education by level of highest qualification,\* in selected EU countries, 2007 and 2011

Source: IPPR analysis using Eurostat 2013b

\*Note: ISCED – ‘International Standard Classification of Education’ – see Annex 10.1.

In France, Sweden and the UK, unemployment rates increased across the board between 2007 and 2011 for those who had left education, particularly for those with low or no qualifications. This is even true of graduates – notably so in the UK, where the unemployment rates of those with degrees increased by around 6 percentage points.

In Germany, those with low- or mid-level qualifications actually saw their situation improve between 2007 and 2011, and in the Netherlands there were only small rises from very low initial unemployment rates. It is also worth noting that German young people who had left education with low or no qualifications fared very poorly – Germany had the highest unemployment rate among low-skilled youth of the six selected countries in 2007. Although the situation for this group has improved markedly in recent years compared to their peers in other countries, their unemployment rate remains high.

While the international disparity between the employment outcomes of higher education graduates is less stark, it is worth noting that graduates make up a relatively small proportion of the youth population in most countries, and they therefore have a less significant effect on aggregate unemployment and NEET rates. Only 10 per cent of Europe’s unemployed youth, and 7 per cent of its NEETs, are graduates (Eurostat 2013a and 2013b respectively). This is not to say that the rising rate of graduate youth unemployment in some countries, Spain in particular, is not an issue: it has important implications for the economy in terms of the demand for and supply of skilled workers. However, graduate youth unemployment is not a significant component of the high levels of youth unemployment.

Much of the variation between countries can be accounted for by differences in educational institutions, and in particular the size and nature of vocational pathways available to young people in secondary

education. Broadly speaking, vocational training systems vary between different countries along two dimensions: the extent to which they foster skills specific to particular occupations and sectors (as opposed to general vocational skills), and the extent to which the vocational system is standardised – the degree of uniformity in curricula and testing across schools, colleges and training institutions. More specific skills and highly standardised vocational qualifications are thought to make the vocational system more ‘transparent’ to employers, giving them greater certainty about the skill levels of young applicants and improving the process of labour-market matching between individuals and jobs.

One way to assess the success of each country’s vocational mix is to compare the post-education unemployment rates of those completing general qualifications at an upper-secondary level with those of people completing vocational qualifications, and of people who have low or no qualifications (see table 10.2). Since the idea behind general academic qualifications at this level is that they are primarily a progression route into higher education, they should therefore be less effective at facilitating immediate labour-market entry than vocational qualifications.

In this selection of countries, only Germany and the Netherlands have a lower unemployment rate for graduates of vocational rather than general education at the secondary level. Vocational study by itself does not guarantee any improvement in the employment prospects of youth in Spain, France, Sweden and the UK. On the other hand, vocational education does appear to improve youths’ job prospects compared to those with low or no qualifications in each of the countries.

**Table 10.2**  
Unemployment rates of young people in selected EU countries who have left education, by orientation of qualification and level of education, 2009

|             | General education at ISCED level 3–4 | Vocational Education at ISCED level 3–4 | Education at ISCED level 0–2 |
|-------------|--------------------------------------|---|------------------------------|
| Germany     | 21.2                                 | 9.6                                     | 43.1                         |
| Spain       | 27.8                                 | 30.0                                    | 44.7                         |
| France      | 21.7                                 | 25.5                                    | 44.2                         |
| Netherlands | 7.5                                  | 4.7                                     | 13.1                         |
| Sweden      | 17.6                                 | 18.1                                    | 38.0                         |
| UK          | 15.3                                 | 16.4                                    | 30.0                         |

Source: IPPR analysis using the EU Labour Force Survey

\*Note: Data refers to all youth with qualifications below the level of higher education (defined as ISCED levels 5–6).

The system of joint vocational education and work, commonly known as the ‘dual apprenticeship’ model, is relatively widespread in Germany because many employers and unions are strong supporters of the system. Aside from ensuring the continued provision of apprenticeship places, it has been argued that this high buy-in also helps to ensure that the skills that young people learn from vocational qualifications are aligned with business needs, and that young people learning on the job develop direct links with employers. While the Dutch vocational system is more focussed on schools and off-the-job training, it is believed to

achieve similar outcomes largely because of significant private sector input into the funding and organisation of training (Casey 2013).

The intermediate system of school-based vocational education, typified by France and Sweden, is less highly regarded than either the dual apprenticeship or Dutch models. It is commonly criticised for not making students sufficiently 'job-ready', for operating at a distance from business, and for not updating its content in line with the changing needs of the economy. Where systems of this type operate, apprenticeships are either not widespread – as is the case in Sweden – or are a popular but small part of the system, as in France (Steedman 2010).

In the case of the UK, where the majority of young people go into general education, only some of those on a vocational education track pursue a workplace-based route. Many of these are apprenticeships, but they are very different from those of the German 'dual model'. In the UK the apprentice tends to spend less time engaged in off-the-job learning, the length of the apprenticeship tends to be shorter, and most final qualifications are ranked at a lower level (ISCED level 2) than in Germany (ISCED level 3) (Steedman 2010). Furthermore, prospective students and employers view the school-based vocational track as a lower-status pathway than the general academic route. This weakens the labour-market signals of vocational qualifications, many of which do not generate a significant employment return (Wolf 2011).

While the data appears to back up the widely recognised strong performance of German-style dual apprenticeships in terms of their employment effects, it should nevertheless be noted that the system may bring longer-term challenges with it. Hanushek et al (2011) looked at how the orientation of an individual's qualifications affects how their employment chances evolve over their life-course. They found that those who have completed vocational education do initially perform better in the labour market, but as a cohort ages, general education appears to provide better insulation against unemployment – particularly in countries with a large proportion of vocational students in apprenticeships. They suggest that rapid technological change may expose the low adaptability of specific vocational skills. Indeed, one of the advantages of a school- or college-based system of vocational education is that it can teach general skills which are not tied to firms' immediate interests. This gives young people an increased capacity to switch careers, and learn new job tasks (ibid).

Similarly, Korpi et al (2003) looked at the impact of vocational education over the longer-term in the UK, Sweden and the Netherlands, three countries with very different education systems. They found that at the beginning of a career, vocational qualifications tend to be more useful than general qualifications of a similar educational level, but that over time this difference disappears. Once young people have started out on

a stable career path, they suggest, general qualifications allow for more retraining. Interestingly, they found little difference between the three countries in this regard.

The evidence presented above seems to suggest that, while broad qualification levels do matter, the orientation of qualifications – particularly among the large number of youth who gained their highest qualifications during secondary education – is just as important. This means that differences in vocational systems between countries are strongly linked to the varying performances of their youth labour markets.

In many countries, fewer young people are developing direct links with the workplace through their education. This presents less of a problem for the increasing share of young people who transition into work through the higher educational route, unemployment rates for whom tend to be much lower everywhere. However, the outlook is much bleaker for those moving directly from school to work.

Aside from those young people who formally combine work with education as part of a work-based vocational route, holding a paid job while studying may increase young people's chances of finding work post-education. By helping to provide the 'soft' employability skills demanded by employers, it is thought that employment makes young people better able to look for and secure some form of employment after completing their education, even if the work they undertake is not related either to their course of study or subsequent career.

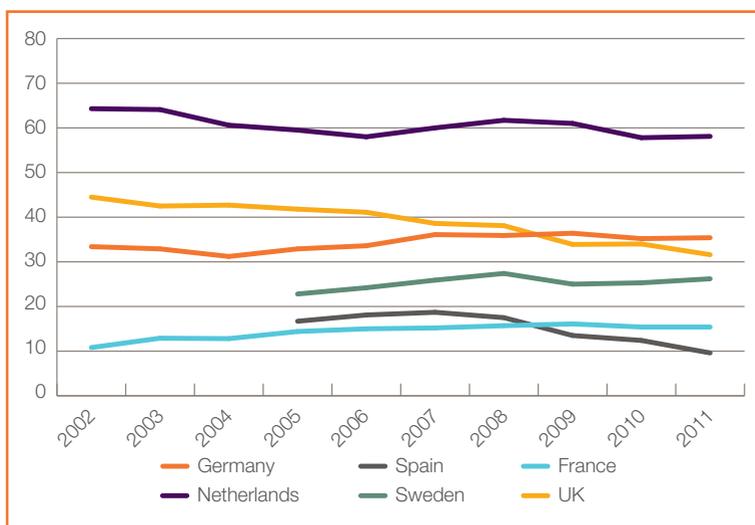
Table 10.3 illustrates this point using data from 2009. Work experience appears to be associated with a lower risk of unemployment: there is a clear disparity between the youth unemployment rates of those with and without work experience in each of the countries shown. While there are substantive differences in the scale of this disparity between countries, the general relationship holds well.

Since work experience has such a clear relationship with employment prospects, one partial explanation of growing youth unemployment over the last decade or so might be the decline in the proportion of young people who combine education with work. The data (see figure 10.3) presents mixed evidence on this front. In the UK, there appears to be a distinct downward trend in working while studying – it fell by around 10 percentage points between 2002 and 2011. There is actually little sign that students in other countries are withdrawing from the labour market, although the level of student employment differs substantially between countries, with the Netherlands having by far the highest employment rate for this group.

|             | No employment during education | Employment during education |
|-------------|--------------------------------|-----------------------------|
| Spain       | 39.9                           | 28.3                        |
| France      | 37.0                           | 18.8                        |
| Netherlands | 11.3                           | 6.3                         |
| Sweden      | 29.3                           | 15.1                        |
| UK          | 22.7                           | 14.0                        |

Source: IPPR analysis using the EU Labour Force Survey  
 \*Note: Data not available for Germany.

In some countries the proportion of young people in education who are both learning and earning is very low: less than 10 per cent of Spanish and 15 per cent of French students are also in work. Given the large impact that experience of work during study appears to have on post-education employment prospects, the low rates of student employment in these countries is a concern.



Source: IPPR analysis using the EU Labour Force Survey

Less than one in 10 young Spaniards, and less than a third of Swedish, British and French youth, are both earning and learning. In the UK, the employment rate of students declined steadily from 45 per cent in 2002 to just over 30 per cent in 2011. In the Netherlands, on the other hand, while student employment has decreased slightly in recent years, it remains much higher at around 60 per cent. This is an important factor, particularly in countries where the vocational system is less directed towards providing formal on-the-job training – it means that many young people are not gaining vital employability skills during their education.

**Table 10.3**  
 Unemployment rates for youth who have left education by whether they worked alongside study, in selected EU countries,\* 2009

**Figure 10.4**  
 Employment rates (%) of young people in education or training in selected EU countries, 2002-2011

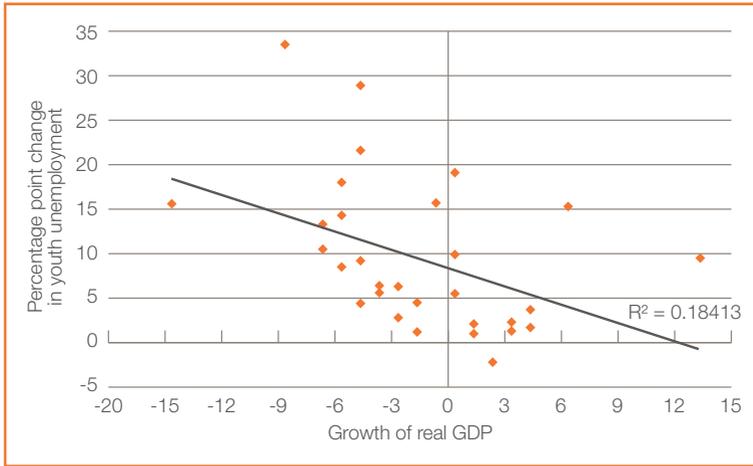
### 10.3.2 The changing structure of the economy

In addition to education, young people's ability to move into work is also determined by the nature of the wider labour market and the job opportunities available in it. In the short-term, the poor performance of recessionary economies in Europe has undoubtedly had a negative impact on youth employment, by reducing business demand for workers in general and, therefore, the number of vacancies. This has had a disproportionately negative impact on the young, who are more likely than older workers to be looking for work, and are therefore more affected by any fall in the number of vacancies. However, when comparing across countries it becomes clear that similar falls in GDP during the recession have resulted in very different changes to youth unemployment rates. Figure 10.5 plots the change in real GDP between Q1 2008 and Q1 2012 versus the change in the youth unemployment rate over the same period, for all European countries for which there is data. It shows that while, broadly speaking, larger falls in real GDP led to greater increases in youth unemployment, there are countries with a similar fall in real GDP that had very divergent youth unemployment experiences. This complicates the picture and suggests that something deeper is at work. Furthermore, the evidence suggests that the relationship between GDP growth and youth unemployment may in fact have been stronger before the recession (Thompson 2013).

Over the longer term, the economy has undergone fundamental structural changes. The types of industries and occupations open to young people now are very different than they were in the past. In most labour markets there has been a distinct shift away from manufacturing and towards services, and away from jobs in the middle of the skill distribution and towards both low-skilled and highly skilled roles (see chapter 8). Young people have led this shift towards the bottom of the labour market, with much larger swings in the distribution of work among youths than among adults as a whole. This is most apparent in the UK, where the share of young people working in manufacturing halved between 1995 and 2007, and the share of young people working in low-skilled jobs – primarily in service industries – rose from 37 to 50 per cent (Eurostat 2013a).

While this may have helped young people by increasing the share of low-skilled entry-level positions in the economy, this shift has also affected older adult workers, albeit to a lesser extent. It may have brought the young into direct competition with more experienced workers for low-level positions, with the job prospects of the young adversely affected. Furthermore, the rising qualifications profile of the young has been accompanied by 'over-qualification' in some youth labour markets, particularly those of Sweden and the UK. This has led many with degree-level qualifications to take on lower-skilled service work, and those with upper-secondary educations to move into elementary occupations (see chapters 7 and 8 for a more

detailed discussion of this issue). Aside from highlighting a problem with education–work linkages, this phenomenon may have harmed the very lowest-skilled by sparking greater competition for jobs within the youth populations of those countries.



**Figure 10.5**  
GDP growth and change in the youth unemployment rate of selected European countries, Q1 2008–Q1 2012

Source: Eurostat 2013a and 2013c

Note: GDP growth measures the percentage change in real GDP between Q1 2008 and Q1 2012. Change in the youth unemployment rate measures the percentage-point change in the youth unemployment rate over the period. GDP growth for Greece records growth between Q1 2008 and Q1 2011 due to data availability.

The shifting structure of the economy has also had a direct impact on vocational education. In particular, the decline of those sectors that traditionally offered vocational training to young people before they fully entered the labour market, most notably manufacturing, is likely to have reduced business involvement in training. This has been shown to be the case in Germany (Thelen and Bussemeyer 2008).

Other aspects of youth work have changed considerably as well. Part-time work is increasingly prevalent among the young unemployed. This is partly related to increased participation in education, with young people looking for work that they can fit around studying. However, in some countries, such as Sweden, France and Spain, around half of young people who are working part-time would rather be in a full-time post. While in Spain this is largely a recessionary phenomenon, in Sweden and France it is a more longstanding feature of the youth labour market, suggesting that there is a substantial shortage of full-time opportunities for the young (Thompson 2013).

In many countries, the widespread use of temporary contracts has arisen as a way for employers to bypass the more stringent employment regulations that govern permanent roles. This change has been much more noticeable in countries such as France and Germany, which

have relatively strict employment regulation regimes, than in the UK, which has relatively lax regulation across the board. Again, the young have borne the brunt of this change in employer behaviour. While the evidence on the long-term career impact of temporary employment is mixed, in the short term the recession had a large impact on temporary workers. Businesses needing to adjust their workforce in reaction to the drastic fall in economic demand during the recession did so largely through their temporary workforce. Young people were disproportionately affected by this, finding their fixed-term contracts ending but few job openings available.

## 10.4 Differences in transition systems are driven by longstanding policy and institutional differences between countries

On the surface, the substantial variations in labour market policy, and in institutions such as labour market regulation, minimum wages and benefit systems, do not appear to be related to youth unemployment. While it is often argued, for instance, that high levels of employment protection legislation harm youth employment, a cursory analysis of the data reveals that in some countries with relatively ‘inflexible’ labour markets, and Germany in particular, youth unemployment is actually lower than in more ‘flexible’ labour markets such as the UK. However, digging a little deeper it becomes clear that there are important linkages between labour market institutions, business behaviour and the vocational education system that do have an effect on youth labour markets.

Employment protection legislation can have a negative impact on the job prospects of the young by protecting labour market ‘insiders’ – those who are already securely in employment – at the expense of those without jobs, especially young jobseekers. But high-quality apprenticeships overcome this by fostering direct links between individual employers and young people, smoothing the transition between education and work. This is confirmed by the higher levels of youth unemployment in Germany among those who fail to secure an apprenticeship.

Out-of-work benefits also vary substantially in their generosity and the degree to which they direct out-of-work young people into employment support programmes, but across countries overall youth unemployment rates bear little relation to the level of spending on such programmes. However, they also complement different vocational systems: countries with vocational education that leads to occupational and sector-specific qualifications tend to have more generous out-of-work benefits. They also tend to have fewer sanctions for those who turn down jobs that do not match their skills, which allows people with specific skills to ‘shop around’ for an appropriate job opportunity should they find themselves out of work.

Minimum wages for young people is another policy which is often linked to high levels of youth unemployment – but again, this simple story does not fit the facts. The benefits of minimum wages specific to youth, set below the adult rate, have been shown to offset any negative effects. In countries without national minimum wages, other aspects of wage-setting are equally important to youth unemployment.

## 10.5 Conclusion

The diverse nature of youth transitions across countries is affected not just by short-term changes in the economy such as those experienced in the last five years, but by much deeper structural differences in how the education system prepares people for employment, the institutional underpinnings of the labour market, and the impact of the changing structure of the economy on both the types of job available and the workings of the education system.

In most European countries, youth unemployment rates have a long way to fall before they return to pre-crisis levels – and even then the problem of Europe's malfunctioning transition systems will be far from solved. Fixing Europe's youth unemployment problem therefore requires deeper reforms, not just short-term labour market programmes, or changes to individual aspects of policy such as the dismantling of employment protection legislation (as is taking place in southern Europe). Specifically, Germany's very low levels of youth unemployment, which are driven by the performance of their 'dual apprenticeship' system, offer lessons for other countries.

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## Annex 10.1: Classifying qualification levels

It is notoriously difficult to compare qualifications across different national contexts. Education systems and the content and length of study programmes vary considerably, and therefore have different impacts on young people's education-to-work transitions. In this paper we use the 1997 version of the International Standard Classification of Education (ISCED), an internationally-agreed system used to standardise and compare levels of education between countries.

While they are broken down into many levels, ISCED statistics fall into three broad categories:

- **0–2: Up to lower-secondary education (early school-leavers).** Pre-primary to lower-secondary education. In England, Wales and Northern Ireland this is equivalent to achieving less than five GCSEs at A\*–C, or an NVQ level 1 or lower.
- **3–4: Upper-secondary and post-secondary non-tertiary education.** Equivalent to five GCSEs at A\*–C, A-levels and HE access courses.
- **5–6: Higher education.** The first and second stages of tertiary education. Equivalent to qualifications at NVQ level 4 and above, including degrees.

# APPENDIX

EUROPEAN COUNTRIES THAT ARE MEMBERS OF THE OECD,  
LISTED BY POPULATION IN 2010 (000'S, HIGH TO LOW)

| Country        | Population in 2010 (000's) |
|----------------|----------------------------|
| Germany        | 81,777                     |
| France         | 62,959                     |
| UK             | 61,344                     |
| Italy          | 60,483                     |
| Spain          | 46,071                     |
| Poland         | 38,187                     |
| Netherlands    | 16,615                     |
| Greece         | 11,308                     |
| Belgium        | 10,896                     |
| Portugal       | 10,637                     |
| Czech Republic | 10,520                     |
| Hungary        | 10,000                     |
| Sweden         | 9,378                      |
| Austria        | 8,390                      |
| Switzerland    | 7,822                      |
| Denmark        | 5,548                      |
| Slovakia       | 5,430                      |
| Finland        | 5,363                      |
| Norway         | 4,889                      |
| Ireland        | 4,474                      |
| Slovenia       | 2,049                      |
| Estonia        | 1,340                      |
| Luxembourg     | 507                        |
| Iceland        | 318                        |

Source: Organisation for Economic Co-operation and Development [OECD] (2013) 'Total Population' in *OECD Factbook 2013: Economic, Environmental and Social Statistics*, OECD Publishing. <http://dx.doi.org/10.1787/factbook-2013-1-en>