



# Structural Economic Change and the European Union:

## Winners, losers and public policy options

By Howard Reed, Olga Mrinska and Miguel Castro Coelho

December 2008

## Contents

About ippr and ippr north .....	3
About the authors .....	3
Acknowledgements .....	3
<b>Executive summary</b> .....	<b>4</b>
<b>1. Introduction</b> .....	<b>8</b>
<b>2. Measuring structural economic change in the EU</b> .....	<b>10</b>
Industrial structure and productivity in the EU.....	10
The EU's aggregate productivity.....	13
Trade and Foreign Direct Investment.....	15
Offshoring and offshore outsourcing in the EU .....	22
Migration .....	30
Innovation.....	32
Inequality.....	34
Economic growth.....	38
Summary: The impact of globalisation on the EU economies .....	40
<b>3. Policy responses to structural economic change</b> .....	<b>43</b>
The Lisbon Agenda.....	43
Industrial policy .....	45
Entrepreneurship .....	50
Skills policy .....	53
Cohesion policy (structural funds) .....	54
European employment and active labour market policies .....	56
Assessment of EU policy responses to structural economic change.....	58
<b>4. Conclusions and recommendations</b> .....	<b>60</b>
Conclusions.....	60
Directions for future research.....	62
Recommendations .....	63
References .....	66
Appendix: Trends in employment structure in the EU .....	72

## About ippr and ippr north

The Institute for Public Policy Research (ippr) is the UK's leading progressive think tank, producing cutting-edge research and innovative policy ideas for a just, democratic and sustainable world.

With offices in both London and Newcastle, we ensure our outlook is as broad-based as possible, while our international and migration teams and climate change programme extend our partnerships and influence beyond the UK, giving us a truly world-class reputation for high quality research.

ippr north, the Newcastle-based office of the Institute for Public Policy Research, produces far-reaching policy ideas, stimulating solutions that work nationally as well as locally. These are shaped from our research, which spans the northern economic agenda, public services, devolution, food policy and rural issues, as well as a strong democratic engagement strand which involves a wide range of audiences in political debates.

**ippr**, 30-32 Southampton Street, London WC2E 7RA. Tel: +44 (0)20 7470 6100 E: [info@ippr.org](mailto:info@ippr.org)  
[www.ippr.org](http://www.ippr.org). Registered Charity No. 800065

**ippr north**, Bioscience Centre, Centre for Life, Newcastle upon Tyne NE1 4EP Tel: +44 (0)191 211 2645 [www.ippr.org/ipprnorth](http://www.ippr.org/ipprnorth). Registered Charity No. 800065

This paper was first published in December 2008. © ippr/ippr north 2008

## About the authors

**Howard Reed** is director of Landman Economics, an economic research consultancy. While working on this report he was chief economist at ippr.

**Miguel Castro Coelho** was an economist at ippr and now works at the Prime Minister's Strategy Unit.

**Olga Mrinska** is research director at ippr north.

## Acknowledgements

ippr would like to thank its project partner, Lord Sainsbury, without whom this project would not have been possible.

The authors would like to thank Juraj Draxler, Susan Hitch, Alison Hunter, Michael Johnson, Carey Oppenheim and Danny Sriskandarajah for useful comments on previous drafts of this paper, and seminar participants in Brussels in June 2008 who discussed an early version. Thanks also to the North East England Office in Brussels for hosting the seminar.

Thanks to Georgina Kyriacou at ippr for copy editing the report.

## Executive summary

This report is about the economic effects of ‘globalisation’ in the European Union, and how the European Commission and countries in the EU should respond to it.

Our aims are threefold.

- First, we examine what the extent and nature of recent structural economic changes to the EU’s economies have been, and attempt to identify who the main ‘winners’ and ‘losers’ from global economic integration are in the EU.
- Second, we assess the effectiveness of recent initiatives at the European Community level aimed at improving Europe’s economic performance and responding to the challenges posed by increased global economic integration.
- Finally, we offer recommendations for how EU policymakers can maximise the benefits from globalisation while minimising its side-effects.

### **The extent of structural economic change**

This report uses data from several sources, in particular the Organisation for Economic Cooperation and Development (OECD) and Eurostat (the European Union’s statistical agency), to analyse the extent of structural economic change in the EU over recent decades. The evidence shows that globalisation is a real phenomenon, not a product of media hype nor an outgrowth of politicians’ imaginations. The data fully support the notion that nation states and regional blocs of nations have become more fully integrated with each other through trade, investment, multinational corporate activity, knowledge transfer, and labour force migration. Since 1945 the trends have all moved in one direction – towards greater global economic integration, driven by technological progress, the expanded role of multinational corporations in the global economy and lower tariff barriers.

### **Key trends since 1995**

Several key trends are evident for EU member states over the period since 1995. First, there has been a pronounced shift from manufacturing to service industries in each EU country.

Trade has expanded markedly as a proportion of each EU country’s ‘value-added’ over recent decades. Imports of both goods and services have increased as a share of GDP. Trade in intermediate goods and services (that is, services required for later stages of production, before final products are sold to consumers) has increased at a faster rate than trade in final goods and services. Foreign direct investment (FDI) in the EU has also grown quickly over the last decade, at a faster rate than GDP growth.

Improvements in information and communications technology have vastly expanded the scope for relocation of production via offshoring and outsourcing, particularly in the service sectors. However, our analysis of production relocation using the European Restructuring Monitor data (the best data currently available) show that only a small proportion of total job losses in the EU27 countries – 195,000 jobs or 8 per cent – were the result of offshoring and offshore outsourcing over the period 2003 to 2006. Offshoring is not a major factor in recent EU job losses.

Migration has been on the increase globally over the past 20 years, with an increase in the number of foreign workers and foreign-born population more generally in most (but not all) EU countries. However, increased immigration has had minimal, if any, effects, on overall wages and employment prospects for workers already in the EU (as in the United States).

The EU’s aggregate productivity growth (measured as real GDP per hour worked) since the mid-1990s has been roughly equal to Japan’s but has been slower than in the US, meaning that the gap between the two has grown. Europe’s innovation performance, measured as the percentage of national income spent on R&D (research and development) has also underperformed the OECD average.

Finally, simulations by the European Commission of the macroeconomic impacts of globalisation since 1945 suggest that the period from 1990 to 2003 was something of an anomaly in that the overall

gains to the EU from global economic integration in this time period were small, whereas between 1945 and 1990 they were much larger. Nonetheless, the poor payoff to the EU from globalisation since 1990 can be mostly explained by one-off transition costs related to major industrial restructuring processes.

The main winners from globalisation in the EU over the last 10 to 15 years in particular have been the owners of capital (given that capital's share of economic rewards has increased relative to labour across the world), and workers in the top half of the earnings distribution – and especially those at the very top of the income distribution (the top 0.1 per cent). The biggest losers, at least in the short run, are people who have lost their jobs in industries that have been the most badly affected by increased global economic integration and competition from abroad – particularly where those jobs have very specific skills which cannot be used in the new jobs to which workers have relocated. Net gains from globalisation are closely related to how smoothly resources can be reallocated from declining to expanding sectors.

In turn, the EU's adjustment capacity depends to a large extent on policies affecting the labour market, as well as on the general skill level of the population. There are other aspects of globalisation, too, that have wider benefits to EU consumers – in particular, reductions in prices for goods and services which are relocated to countries where production costs are lower.

### **The EU's policy response to globalisation**

The European Union's response to the economic challenges posed by global economic integration have been centred on the Lisbon Agenda – an overarching framework reflecting the EU's intention to move towards a more competitive economy with more and better quality jobs. The 2005 revision of the Agenda focuses on areas of economic policy that should improve economic performance if the right reforms are made – increased support for innovation and R&D spending, combining improved worker adaptability and labour market flexibility with effective social protection systems, increased human capital investment, improved infrastructure and the completion of the European single market in goods and services.

However, there are several problems with the implementation of the Lisbon Agenda, and reforms to the various policy areas that are crucial to its success – innovation, entrepreneurship, industrial and skills policies. Recent Commission publications on individual policy areas still suffer from an excess of initiatives, with a lack of prioritisation and a misguided attempt to be 'all things to all people'. This makes progress on economic reform harder than it should be.

The Commission also needs to secure 'buy-in' from Europe's citizens, businesses and governments for the Lisbon reforms. National governments are primarily responsible for most of the policy areas crucial to Europe's economic success, and unless they are convinced that the Lisbon reforms are in their interests, they are unlikely to deliver on the Commission's vision. Also, there is an urgent need for better coordination between different branches of the EC and national governments, and for better dissemination of best practice, drawing on the recently established Open Method of Coordination (OMC) process whereby member states learn from each other's best practice.

The revamped Lisbon strategy also pays insufficient attention to other objectives that are no less important than improving the EU's economic performance. In particular, identifying and assisting the most severe losers from 'globalisation', and reducing Europe's greenhouse gas emissions to mitigate the threat of dangerous climate change during the 21st century, are two objectives that are just as important as securing economic prosperity.

The 'proof of the Lisbon pudding' is in the economic data on the EU's performance on productivity, employment, skills acquisition, entrepreneurial activity and innovation performance – and in many areas, the EU is still a long way from top of the economic leader board. Productivity growth remains sluggish in many EU countries. The EU27's combined R&D spending as a percentage of its GDP is still a long way below the OECD average – let alone the US's or Japan's levels of spending. The EU's target of 70 per cent employment among working-age people by 2010 looks wildly optimistic, and the proportion of children with poor reading capability is increasing rather than falling. Clearly, despite

recent progress, the EU has a very long way to go to realise the Lisbon vision of the ‘most dynamic knowledge-based economy in the world’.

## Conclusions

The EU faces an ongoing economic performance deficit relative to competitor nations, both ‘old’ (for example, the US, Japan) and ‘new’ (for example, China, India). In particular, a gap between the EU and the global best performers exists in productivity and innovation (especially R&D). The latest economic evidence (as of August 2008) suggests that recent turbulence in financial markets – the so-called ‘credit crunch’ – has hit Europe much harder than was initially expected. To the extent that the EU suffers a worse slowdown than the US or Japan as a result of the crisis in financial markets, it will fall further behind them on the main economic indicators.

In the medium term, the emergence of the BRIC countries – Brazil, Russia, India and China – as new economic superpowers (especially in China’s case) poses new issues for EU economic policy. The incidence of offshoring of both manufacturing and services jobs to these low-cost locations is likely to increase, which will probably result in increased adjustment costs for the EU’s economies. Future decades are likely to see tougher competition for European manufacturing as Chinese manufacturers move up the ‘value chain’ to higher quality products.

Thus the EU will have to ‘run to stand still’ in terms of preserving its economic competitiveness. The priorities identified by the Lisbon Agenda are essentially correct, but policy in many crucial areas remains far from integrated. There is a fundamental challenge to secure buy-in from the EU’s member state governments and national populations for reforms without sparking resentment of the European Union’s core institutions and a political backlash against further economic integration.

## Recommendations

We make the following recommendations for EU policy:

### 1. Foster better links between different EU policy streams

Different EU policy streams are affected by globalisation. There needs to be better communication between the different directorates of the EC to minimise the extent to which they work at cross-purposes to one other, and to exploit the potential for synergies between different policy areas.

### 2. Obtain stronger commitments from national governments to achieve the Lisbon strategy

Given that the weight of available economic evidence supports the view that following the Lisbon Agenda properly will improve the EU’s economic performance, the Commission needs to encourage member state governments to point out the synergies between their national economic policies and the Lisbon goals in their own publications. This should improve the cohesion of community-level and national economic policies and might help to rehabilitate the EU in the eyes of many of its citizens.

### 3. Create an effective ‘European information (media) space’ to reach the EU’s citizens

We propose that the EC, in association with member states, creates an accessible information space (through all media means, including virtual) to discuss the Commission’s priorities for economic policy, to obtain feedback, and to disseminate the evidence from the Commission and expert community on the challenges and opportunities posed by global economic integration.

### 4. Facilitate practical exchange of ideas and experiences across the EU in the area of economic policies

There is substantial variation across the EU in the economic policies which member states pursue in different areas and a good deal of evaluation that shows the comparative effectiveness of different national policies in those areas. There is ample scope for exchange of ideas and dissemination of ‘best practice’ approaches between countries, building on the current OMC (Open Method of Coordination) framework.

### 5. Expand the use of targeted policy instruments (subject to positive evaluation)

The European Globalisation Adjustment Fund (EGAF) should be able to play an important role in compensating the losers from globalisation. However, the data on worker displacement need to be

much improved, and the EU needs to undertake an extensive evaluation of EGAF's performance (in how it selects workers for help, and in what happens to them after receiving funding) after three or four years of its activities. If the results show that the programme is performing well then the budget for the programme should be extended, perhaps by reallocating money from other EU budgets (such as structural funds).

#### **6. Improve standardisation of regulatory frameworks to reduce transactions costs**

One of the EU's success stories is the reduction in the costs of doing business across national borders which has resulted from the harmonisation of regulations governing certain areas of economic activity. This should now be extended into harmonisation and standardisation into new areas of policy, for example an intellectual property (IP) regime with a single European patenting process, and a single corporate legal framework, which would be particularly useful for SMEs.

#### **7. Invest more in quality data (particularly at the firm level) through Eurostat**

The current data on the effects of globalisation on the EU are scant, particularly firm-level data on production, investment and innovation. We recommend that Eurostat invests considerably in better data, working with member states' statistical offices as appropriate. Better data on what happens to workers displaced by offshoring is also essential to assess how well the European Globalisation Adjustment Fund is working.

# 1. Introduction

This report is about the economic effects of ‘globalisation’ in the European Union, and how the European Commission and countries in the EU should respond to it.

The question of how policymakers in the EU should address the economic changes wrought by globalisation has been high on the policy agenda in recent years. Recent opinion surveys of EU citizens show that large proportions of the populations in many member countries are worried about globalisation. For example, according to a study by Eurobarometer (a European Commission agency which conducts regular surveys of public opinion) in 2003, 60 per cent of employees in France and Greece were very concerned about globalisation, while less than a third of employees in Denmark and Sweden were concerned about it. More recent polls suggest that the citizens of new member states are more optimistic about the consequences of globalisation than the citizens of the ‘EU15’ (the countries that were already members of the EU before 2004) (Eurobarometer 2007).

There are continuing fears among economic commentators about the EU’s ability to compete effectively with the leading economic ‘powerhouses’ of the world such as the United States. Added to this over the last decade have been concerns over the rise to economic prominence of several large newly industrialising countries – in particular India and China, whose combined potential labour forces outnumber the existing industrialised countries by more than two to one (Maddison 2007).

At the same time, there is concern in many quarters of the EU over new economic and social trends that are linked in popular discussion to ‘globalisation’. Increased immigration has figured widely across the EU on the list of trends that citizens are most concerned about, with worries that wages and employment prospects are being threatened by an influx of arrivals from lower-cost countries<sup>1</sup>. The accession to the EU of 12 new and less wealthy member states between 2004 and 2007 has led to growing concerns among the populations of the pre-existing member states (known as the ‘EU15’). It is possible that these concerns may have contributed to the negative results of referendums on the proposed EU Constitution (in France and the Netherlands) and on the subsequent Lisbon Treaty (in Ireland), although there is little hard empirical evidence on this issue.

Additionally, there is concern that increased imports of low-cost manufactured goods and tradable services, and the associated ‘offshoring’ of jobs in the manufacturing and service sectors to lower-cost locations outside the EU, threaten the viability of full employment in the EU in the future. Given the concern that exists among many sections of the European public about the EU’s ability to respond effectively to structural changes in the global economic and political spheres, this project is very timely.

## Questions addressed by the report

Chapter 2 looks at how extensive the recent structural changes in the economies of the EU have been. Which countries and groups of the population have been most affected, and who have been the ‘winners’ and ‘losers’? To what extent are the trends we have observed over recent decades likely to continue? Our analysis draws on a selection of data drawn mainly from Eurostat (the European Union’s statistical office) and the Organisation for Economic Cooperation and Development (OECD).

We start with basic statistical evidence on industrial restructuring, employment, trade, foreign direct investment (FDI) and relocation (offshoring and outsourcing). We then go beyond simple descriptive evidence and cross-tabulation – trying to establish what the net impact of ‘globalisation’ has been. We focus here on the tie-up (or lack of it) between economic theory and empirical evidence, and

---

1. Of course, in the case of the EU15 countries, some of this increase in inward migration is a result of the recent expansion of the EU. However, migrant inflows from outside the EU have also increased in most countries (see Pollard *et al* 2008).



econometric studies designed to establish what the particular impact of deeper global economic integration is, and to what extent this can be disentangled from contemporaneous trends such as technological progress.

In Chapter 3 we assess the EU's policy responses to globalisation across a number of different areas including labour market, industrial, innovation, enterprise and cohesion policies. Our focus is on new developments in EU policies at the community level, and how they interface with what national governments are doing. In particular we focus on the EU's progress towards meeting the goals established by the Lisbon Agenda established in 2000, which aimed to make the EU the most dynamic and competitive knowledge-based economy in the world by 2010 (EC 2004).

Chapter 4 presents our conclusions and recommendations.

### **What do we mean by 'globalisation'?**

Before we move on, we strike a note of caution on the use of the word 'globalisation', which is used extensively in the media and in popular debate without any attempt being made to define it. This invariably results in sloppy and ill-formed analysis. In the box we provide a range of definitions. To minimise confusion we have chosen to use the term 'structural economic change' in this report, as this is a more precise definition of what we are really interested in here. We explain further in the box below.

#### **Structural economic change and 'globalisation'**

In this report we use the term 'structural economic change' to refer to global economic trends that change the structure of a national economy in terms of industrial mix, wage and skill levels, investment trends, spatial location, technology, and demographics (for example, through migration).

'Structural economic change' is a more precise and useful term than 'globalisation' for the purposes of this report, for two reasons. First, there are also non-economic aspects to globalisation (for example, cultural, social and political aspects), whereas our focus in this report is largely on economic phenomena. Second, 'globalisation' has become an imprecise and overused term (particularly by politicians and the media) which has reduced its value as a sharp and precise term for researchers.

The following definition by Fischer (2003) is close to the essence of what we are looking at in this report:

*'Economic globalisation, the ongoing process of greater economic interdependence among countries, is reflected in the increasing amount of cross-border trade in goods and services, the increasing volume of international financial flows, and increasing flows of labour.'*

Thus, whenever the term 'globalisation' is used in this report the reader should assume that it is these types of economic trends to which we are referring.

See also the recent report by Begg *et al* (2008), which gives an excellent summary of the wider social aspects of globalisation in the EU and their implications for future EU social policies.

## 2. Measuring structural economic change in the EU

As explained in the introduction, it is essential to have clear evidence on the magnitude of economic change in order to derive sensible policy prescriptions for how EU countries might respond to economic globalisation. This chapter provides that evidence across a number of different dimensions of economic activity. It looks at the following issues:

- Changes that have taken place over the past decade or so in industrial structure and employment patterns, by industrial sector in each EU country, and the EU's aggregate productivity performance versus its main competitors in the global economy.
- The dynamics of trade and foreign direct investment (FDI)<sup>2</sup> into and out of the EU over the last few decades.
- Trends in the relocation of production inside and outside EU states (outsourcing and offshoring), the extent of migration into EU member states and patterns of innovation in the EU.
- The impact of these economic changes on key economic outcomes – particularly inequality in EU member states, and economic growth and productivity in the EU as a whole. We attempt to separate out the effects of increased economic integration of the EU from other trends that are occurring at the same time – in particular, technological progress. This is difficult as technical innovations are unlikely to be completely separate from economic integration, but we distinguish between these different factors as much as the data allow.
- The final section provides a summary of the main empirical evidence on structural economic change.

### Industrial structure and productivity in the EU

This section uses data from Eurostat to look at the changes in industrial structure and employment patterns in most of the 27 current EU member states. This analysis is useful as it gives us the 'raw numbers' of structural economic change – showing, for example, which countries have had the largest changes in industrial structure over the last decade.

The data from Eurostat are the most comprehensive source for looking at the full set of EU member states, including the recent accession countries. However, they do suffer from a number of limitations:

- The Eurostat data series currently available only runs from 1995 to 2005 (and for many countries the time period is shorter than this).
- Only industries corresponding to the UK Standard Industrial classifications 'C' through 'I', plus 'K', are included. This corresponds to mining plus private sector manufacturing and services industries, meaning that health, education and other public services are excluded, as is agriculture. Financial services are also excluded, which makes a big difference for the UK in particular, where the financial services sector is a particularly large part of the economy (see Johnson *et al* 2007 for details). However, real estate, renting and business services are included.
- Data for some countries are incomplete even in recent years (for example, Malta).

---

2. Foreign direct investment is the category of international investment in which an entity resident in one economy (the direct investor) acquires a lasting interest in an enterprise operating in another country (the direct investment enterprise). The lasting interest implies the existence of a long-term relationship between the direct investor, who acquires at least 10 per cent of the equity capital of the direct investment enterprise, and this enterprise. The former also has a significant degree of influence on the management of the latter. Thereafter all transactions between affiliated enterprises are classified as direct investment transactions (OECD 1999). Investment may take place through creation of an entirely new company ('greenfield' investment) or through complete or partial purchase of the existing firm through a merger or an acquisition. Through outward FDI flows, an investor country builds up FDI assets abroad (outward FDI stocks). Correspondingly, inward FDI flows cumulate into liabilities towards foreign investors (inward FDI stocks).

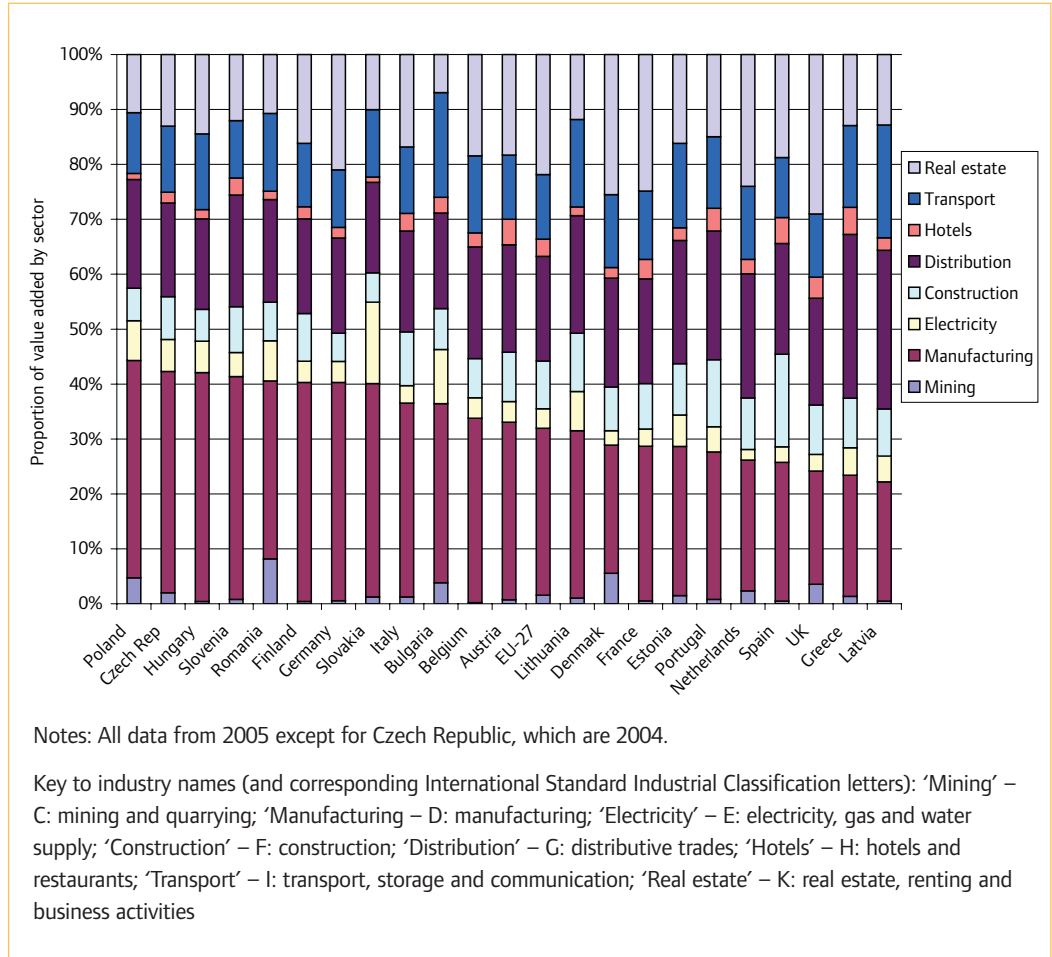
Nonetheless it is worth including an analysis of Eurostat data here as it reveals important differences in the nature and extent of structural changes between EU countries.

**‘Value-added’, by industry**

First we look at value-added. Figure 2.1 compares the industrial structure of 22 EU countries in 2005. (Note that five of the 27 current EU members were excluded because their data on industrial production in the Eurostat database was not of sufficient quality.)

**Figure 2.1.**  
**Comparison of industrial structure of 22 EU countries, 2005**

Source: Eurostat 2008



In Figure 2.1 the countries are arranged from left to right in order of the size of their manufacturing and mining industries as a proportion of total value-added across all the sectors featured. The left-hand side of the graph is dominated by new member states in Central and Eastern Europe (CEE), many of which tend to have larger manufacturing and/or mining sectors: Poland, the Czech Republic, Hungary, Slovenia and Romania. However, not all of these countries have large manufacturing sectors; in Estonia, Latvia and Lithuania, manufacturing accounts for a lower proportion of value-added than the EU average.

For the EU15 ‘old’ member states, Finland and Germany have the largest manufacturing sectors, and the UK and Greece the smallest. The EU10 countries (the ten that joined in 2004)<sup>3</sup> tend to have smaller real estate and business services sectors than most of the EU15 countries. The largest construction sectors are found in the Southern European countries of Spain, Portugal and Italy.

3. Poland, the Czech Republic, Estonia, Slovakia, Latvia, Lithuania, Cyprus, Malta, Hungary and Slovenia.

Figure 2.1 is a useful summary of how value-added breaks down across this selection of industries for 2005, but it does not tell us anything about changes over the years beforehand. Figures 2.2 and 2.3 below show us the changes in value-added as a share of GDP for two particular industrial sectors – manufacturing, and real estate, business and financial services, respectively. (We have picked these because there is not room to present graphs for all the eight categories from Figure 2.1.) Additionally, we have reduced the number of different countries shown in Figures 2.2 and 2.3 to twelve, to keep the graphs readable.

**Figure 2.2.**  
Proportion of value-added across private sector industrial categories (excluding financial services) made up by manufacturing, 1995-2005, selected EU countries

Source:  
Eurostat 2008

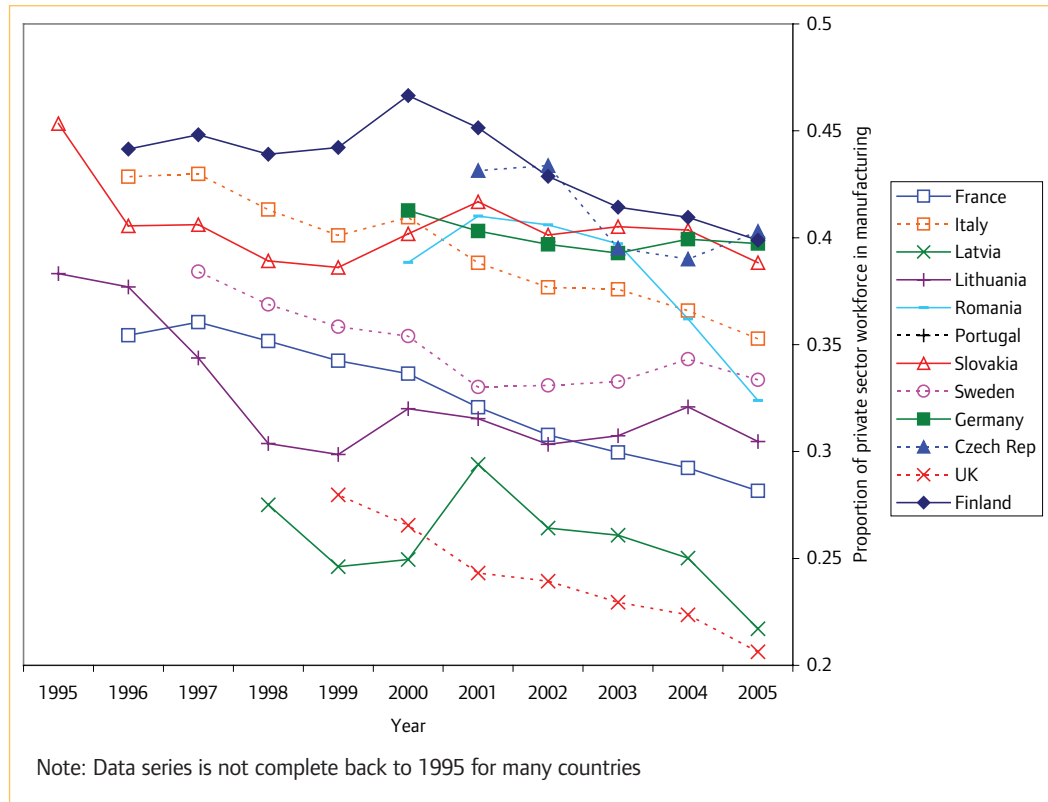


Figure 2.2 shows that the overall trend in the size of the manufacturing sector relative to the rest of the economy, for the 12 EU countries considered here, has been downward. For some countries there is a straightforward decline over the time period shown (for example France, Italy and the UK). In others, there is a rise over the period up to 2000-01 followed by a fall thereafter (for example, Latvia, Slovakia and Finland). For Germany, Sweden and Lithuania the pattern since 2000 is relatively flat. So overall, there has been a downward trend in manufacturing as a share of output in all the countries shown here, but the specific pattern of that trend varies from country to country.

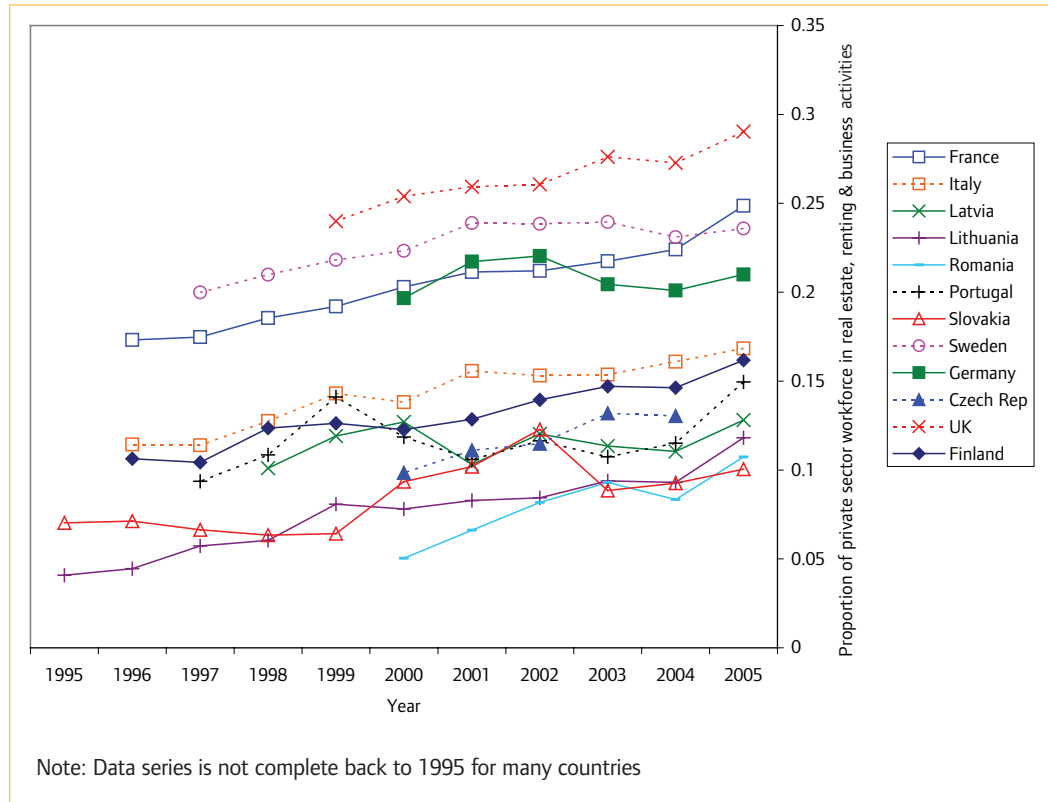
Figure 2.3 (next page) is almost the mirror image of Figure 2.2, with an increase in real estate and business activities as a proportion of value-added in all the countries shown over the period for which data are available (although in Germany the increase is only marginal). In general, accession countries have smaller real estate sectors as a proportion of value-added than EU15 countries.

Overall, the shifts in sectoral composition show a movement from manufacturing to services across all EU countries over the last decade. This is consistent with increases in imports of manufactured goods into the EU from countries where production costs are lower, such as China (examined in more detail in the next subsection), and the relocation of productive capacity in manufacturing via 'offshoring' (also examined below). Appendix 1 gives an analysis of employment patterns along the same lines, which reaches similar conclusions.

Obviously, this is a highly aggregated level of analysis, and a more detailed breakdown of trends in value-added across the EU would examine subcategories of industrial production and also go below the national level to look at regions (for example at the level of NUTS2 or NUTS3). Time and resource

**Figure 2.3.**  
Proportion of value-added across private sector industrial categories (excluding financial service) made up by real estate, renting and business activities, 1995–2005, selected EU countries

Source:  
Eurostat 2008



constraints preclude our undertaking such an analysis here, but the reader interested in the regional patterns is referred to the analyses made by the European Commission's fourth and fifth Cohesion Reports (EC 2007a, 2008a) and Bachtler and McMaster (2007). In addition, previous ippr work by Johnson *et al* (2007) gives a detailed analysis for the UK which shows that the North East of England is the region that has experienced the greatest degree of shift in industrial structure since the early 1980s.

### The EU's aggregate productivity

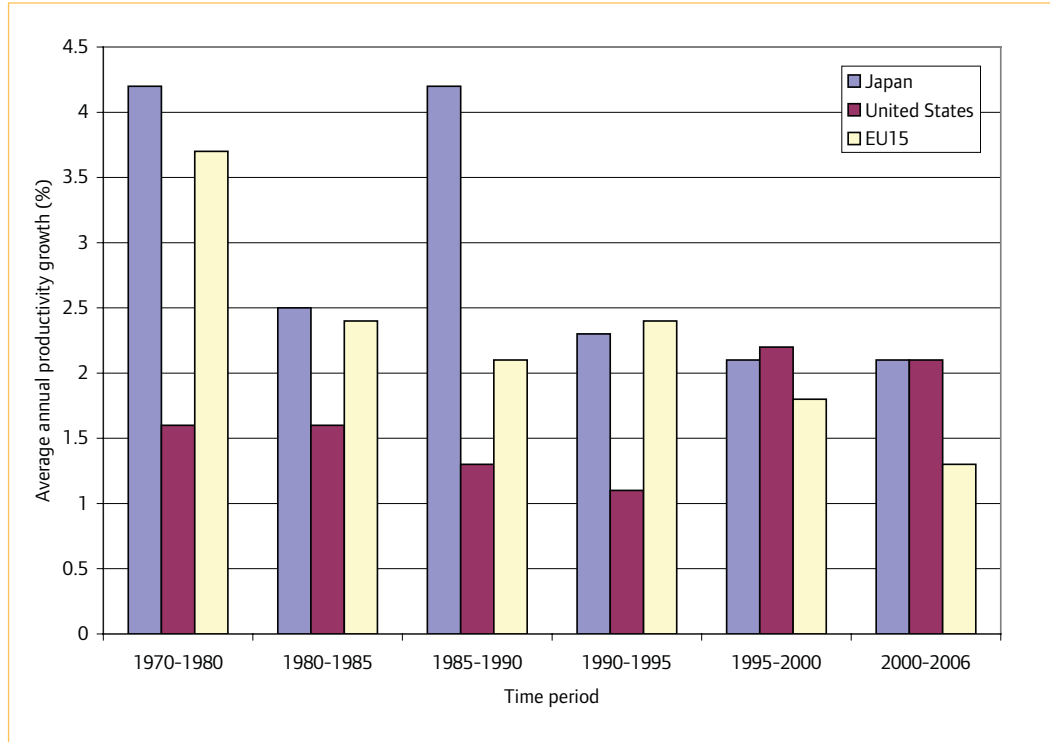
The previous subsection looked at the composition of industrial output in the EU; here we look at trends in the efficiency of productive output in the EU compared with other countries in the global economy. Figure 2.4 presents some basic empirical evidence on the growth rates of GDP (gross domestic product) per hour worked – one of the standard measures of productivity used by the OECD for international comparisons – over the years 1970 to 2006 for the EU15, the United States and Japan. The figure breaks down this period into six shorter time periods to show trends in productivity growth rates for each area over recent decades. The figures are in real terms – that is, they allow for each country's price inflation over the period.

The EU15 suffered a marked deceleration in growth in GDP per hour worked in the 1980s compared with the 1970s. While the early 1990s saw a slight pickup in growth, the latter part of that decade and the first years of the 21st century saw a further slowdown in productivity growth, to the extent that annual growth in GDP per hour worked was less than 1.5 per cent between 2000 and 2006. Trends in productivity growth for Japan look similar to the EU's except that Japan's performance during the late 1980s was much better and its productivity slowdown since 1995 has not been so marked.

The US's productivity growth trends are completely different – productivity growth was poor relative to the EU and Japan before 1995, but performance since 1995 has roughly equalled Japan's and outstripped the EU's. It is important to point out here that the US has the highest *level* of GDP per hour worked of the three areas shown here. In 1995 the US's productivity per employee was 3 per cent higher than the EU's and the gap increased to 12 per cent by 2005 due to the superior productivity performance of the US after 1995 (as shown in Figure 2.4) (OECD 2008a). Clearly, over

**Figure 2.4. Annual growth in real GDP per hour worked: EU15, Japan and United States, 1970-2006**

Source: OECD 2008a

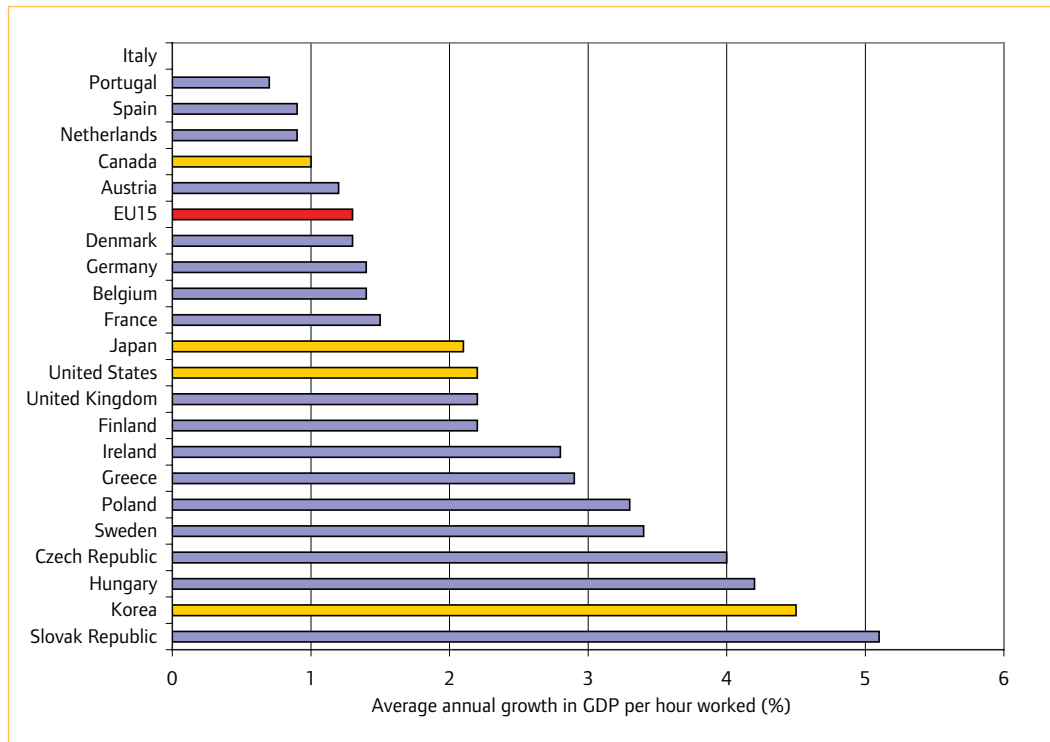


the last decade or so the EU15 does not seem to have gained as much from the ongoing process of economic integration (in terms of productivity) as its two main competitors.

Figure 2.5 shows more detailed trends in productivity growth for a selection of EU countries and competitor countries between 2000 and 2006. Overall, as was shown in the previous figure, the EU15’s productivity growth over this period was relatively poor. However, some EU15 members performed a lot better than average: in particular Sweden, Greece, Ireland, Finland and the UK. All of the EU10 member states in the OECD’s database – the Czech and Slovak Republics, Hungary and Poland – performed much better than average. Canada’s relatively poor productivity growth shows that it was not just developed EU countries that suffered from low growth over this period. In short,

**Figure 2.5. Average annual productivity growth, 2000-06, selected EU countries and competitors**

Source: OECD 2008a



the EU15 has had relatively low productivity growth over the last decade, but there is a lot of variation in productivity growth across EU15 members.

As far as we can tell from the data, the countries that have joined the EU since 2004 have a much better productivity growth record in recent years – a lot of this is likely to be ‘catch-up’ to the EU average, as they are starting from a much lower average *level* of productivity than the EU15 countries.

More evidence on the impact of recent structural economic changes on the growth rate of the EU is presented in the subsection ‘Economic growth’ below.

### **Trade and Foreign Direct Investment**

The integration of trade and capital markets, as well as extensive product relocation (through outsourcing, offshoring and offshore outsourcing) provide clear evidence of the gathering pace of globalisation over the last decade. More intensive trade and capital flows have been stimulated by structural changes in national economies across the globe, prompted by deepening specialisation and evolving comparative advantages, and the simplification and harmonisation of the regulatory environment. Multi-national corporations have driven this process even further by intensively exploiting vertically- and horizontally-integrated production chains and global production networks, either through their internal structures (subsidiaries and affiliated firms) or through external partners. There are fewer barriers to prevent – and more incentives for – companies to trade internationally and to invest in other countries, where cost savings or market conditions might make their business more profitable.

Cross-boundary economic activities such as trade, investment, and mergers and acquisitions have also been spurred by the unification of rules and principles through international organisations such as the World Trade Organisation (WTO), a substantial decrease in trade barriers, and stricter corporate regulations which have reduced transaction costs. In addition to traditional trade in primary and final products, there is an increasing amount of trade in intermediate goods (those used for industrial production, that is, semi-finished goods, parts and components) and increasingly services, which until recently were mostly untradeable.

Global product locations have also been driven by a huge increase in the international labour force as the once-closed economies of the former USSR and China have joined the free market, by the intensification of innovation processes thanks to increased investment in R&D and the development of ICT, and increased demand for products. New international relocation mechanisms allow companies to use their resources more effectively, thus maximising profits and reducing the costs of goods and services (see next subsection). Crucially, as well as the production of new goods and services, more innovative trade and investment flows are also stimulating more innovative management processes, as companies need to adjust to new more sophisticated and geographically dispersed operations.

Trade has played an increasing role in the world economy over the past decades as illustrated by the fact that the growth of real trade exceeded that of world output. The ratio of world exports of goods and services to GDP rose from 13.5 per cent in 1970 to 32 per cent in 2005. The growth of trade in goods and services has been substantially higher than global GDP growth (around 6 per cent a year on average) since the 1990s (ILO/WTO 2007).

The driving forces in this trade expansion over recent decades include the deepening of regional integration in Europe (the EU) and North America (NAFTA – the North American Free Trade Association) and the shift to more outward orientated trade policies in several large emerging markets such as China and Mexico, combined with unilateral liberalisation measures in many other developing countries and the multilateral liberalisation in the WTO Uruguay Round. Other motors of the global trade expansion include the dynamic growth of the information and telecommunication sector and the rise in foreign direct investment flows since 1980.

#### **Global trends**

In 2006, total world trade in goods reached US\$11,783 billion, of which almost US\$5,000 billion originated in Europe (WTO 2008). In the same year, world trade in commercial services reached

US\$1,027 billion. Contrary to popular perception, growth in services trade has not been faster than growth in goods trade. Indeed, the services share of total trade has remained fairly stable at about 20 per cent since the 1970s, even as the share of services in output and employment has steadily expanded.

However, over the last decade trade in information, financial, insurance and communications services, taken together, has increased in size by a third. Trade in these services now constitutes around 10 per cent of total services trade, growing at a faster rate than traditional services such as transport and tourism. In 2003 the EU was responsible for 18.9 per cent of world imports and 18.7 per cent of world exports (excluding trade within EU member states). (To compare, the US share of imports and exports in the same year was 17.7 and 10.2 per cent respectively and the Chinese share was 5.6 and 6.2 per cent respectively.)

Trade in goods continues to be dominated by manufactured products (two thirds of total goods trade). However, there has been a dramatic increase of trade in intermediate goods (54.1 per cent of total world imports in 2003) and capital goods (those used mainly for capital formation) (16.6 per cent) at the expense of consumption goods (those for final consumption purposes) and unclassified goods. This is strong evidence of growing intra-industry and intra-firm trade, as well as increased flows of and demand for FDI from the emerging economies of Asia, Europe and Latin America. The ICT (information and communications technology) and automotive industries have been particularly affected by these tendencies.

There have also been increases in intermediate trade in the service sector, particularly in 'other services' such as business, financial and insurance services. Trade in intermediate services was catalysed by a boom in Internet development and rapid changes in the ICT sector during the 1990s. India has seen the greatest increase of any major economy in exports of intermediate services, while China and the new member states of the EU export the most intermediate goods (Denis *et al* 2006).

Over the last few years there have been dramatic changes in the structure of world trade, largely due to the active expansion of Chinese trade, particularly in low-quality and mid-quality products (Table 2.1). Japan and the USA saw substantial falls in their shares of world trade over this period. Meanwhile, the EU lost only a relatively small share of its global trade position and its total trade balance position remains almost unchanged since the early 1990s. The EU saw an increase in its market share of high- and medium-quality products, and a slight fall in its market share of low-quality products, over this period.

**Table 2.1: World market shares in low-, medium- and high-quality products in 2003 and change over the 1995-2003 period – selected countries and regions**

Country/group of countries	Down-market		Mid-market		Up-market	
	2003	Change 1995-2003	2003	Change 1995-2003	2003	Change 1995-2003
EU	12.9	-1.8	20.0	2.0	32.3	3.1
Japan	6.7	-2.2	11.7	-4.4	15.2	-6.9
Korea	5.1	-0.1	4.4	0.8	3.1	-0.6
USA	12.0	-3.7	13.6	-4.1	17.9	0.2
China	20.4	8.1	8.2	4.6	3.7	1.5
Mercosur*	3.0	0.1	4.2	0.6	0.9	-0.1
ASEAN**	7.4	-2.8	7.7	-1.5	5.3	-0.3

\*Argentina, Brazil and Uruguay. \*\*Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

Source: EC 2006a, based on UN Comtrade database

As for foreign direct investments (see note 2, p10 for definition) over the three years from 2003 to 2006, there was a steady growth in FDI across the globe, benefiting not only developed, but also developing and transition economies (those that are changing from centrally planned to free market)



(UNCTAD 2007). In 2006, global FDI flows reached US\$1,306 billion, a 38 per cent increase on the previous year and almost matching the peak flows achieved in 2000 (US\$1,411 billion). Developed countries enjoyed 45 per cent FDI growth in 2006 compared to the previous year, developing countries experienced 21 per cent growth, and the transition economies of South Eastern Europe and the Commonwealth of Independent States (CIS) saw a record 68 per cent increase in FDI.

All this is happening in the context of general trends towards more investment originating from developing countries in Asia and Latin America and a substantial increase in 'South-South' FDI (between developing countries). The USA, the UK and France are still the three biggest recipients of FDI in the developed world, while China, Hong Kong and Singapore are the leading recipients of FDI among developing countries and Russia the number one among transition economies. The strongest bilateral investment links currently exist between the USA (recipient) and the UK (investor) and between China (recipient) and Hong Kong (investor).

The role of services in global capital flows continues to grow. In 2006, almost two thirds of world FDI was concentrated in services, and this sector was responsible for 58 per cent of cross-border mergers and acquisitions. This growth is happening largely due to the expansion of business and financial services, in contrast to previous years when transport and tourism tended to dominate global trade in services.

### Trade trends in the EU

The EU plays a crucial role in global trade flows as a single economic entity which enjoys single market regulations and a (partially) unitary monetary system in the Euro, currently used by 15 out of its 27 members.

In recent years, the EU has managed to strengthen its position in trade in high-technology manufactured goods. In 2003, the Union possessed a third of the entire world market and had increased its share by 3.1 per cent since 1995 (EC 2006a), while the US and Japan taken together were responsible for another third. The EU also has a large share of medium-technology product markets – 20 per cent in 2003. China, on the other hand, has the strongest position in low-technology products, with 20 per cent of world market share.

The EU has more or less maintained its market share of world exports over the past 15 years (Table 2.2). Market shares for the EU15 have been fairly stable, while the EU10 (which together with Bulgaria and Romania, make up the EU12) have increased their share of world trade in goods but have not made significant progress in services.

Considerable changes in the geographical distribution of trade have affected the EU15's export markets. Since 1992, the EU10 and China have become increasingly important export markets, with the US remaining a big consumer of EU goods (Table 2.3). However, it is only with the US and the EU10 that the EU15 has a positive trade balance. The trade deficit with Asian economies, especially China and Japan, remains very high (Denis *et al* 2006) and in the case of China reached 0.5 per cent of the EU15's GDP by 2003. This geographic shift might be explained by the shift in world trade flows, which are increasingly dominated by intermediate goods. These goods constitute almost 72 per cent of total Chinese exports, compared with 54 per cent of average world level in 2003.

**Table 2.2. Share of world exports of goods and services (%)**

Country/area	Share of world exports (% of total)					
	Goods			Services		
	1995	2000	2005	1995	2000	2005
EU15	15	14	15	21	19	21
EU12	2	3	4	2	2	2
Japan	10	7	5	6	5	5
China	2	4	7	1	2	3
Rest of Asia	14	14	13	7	9	9
United States	13	12	9	19	20	16

Source: Rae and Sollie (2007) based on calculations from UN Comtrade database, IMF and OECD

**Table 2.3. Destination of EU27 exports (%)**

Country/area	1995	2000	2005
United States	20	30	26
Japan	6	5	5
Other OECD non-EU countries	25	24	25
Non-EU countries in Europe	6	5	10
China	3	4	5
India	2	2	2
Other 'dynamic' Asia	12	10	8
Rest of Asia	4	4	3
Africa and Middle East	11	10	11

Source: Rae and Sollie (2007) based on calculations from UN Comtrade database, IMF and OECD

The main reason for the changed pattern of trade with China having an adverse impact on the trade balances of the US and Japan, but not on the EU, is that the structure of EU production is more complementary to the structure of Chinese trade than the American or Japanese. Currently the EU specialises in producing goods which China still has relatively little expertise in: medium and high technology goods, difficult-to-imitate research goods and capital goods (classification from Havik and McMorro 2006). China's strength is the production of low technological and labour-intensive goods, which is not so important to the EU economy.

However, these trends could change in future if, as is likely, the Chinese economy moves higher up the 'value chain' of goods and services. There is less complementarity between the structure of production in China and the US and Japan. Moreover, it is estimated that 60 per cent of the United States' trade deficit with China is due to imports from subsidiaries of US firms; penetration of the Chinese market by EU-based multinational companies is on a much smaller scale.

It may be argued that the EU enjoys a unique situation in this rapidly changing world, largely thanks to its recent expansion. The accession of 12 new countries between 2004 and 2007 has opened up the Single Market to young market economies with quite different patterns of production, productivity, labour costs and specialisation. In fact, the new member states have quite similar production and export structures to China, which is dominated by intermediate goods (Table 2.4). However, their trade balance is largely negative and the gap is growing.

**Table 2.4. EU 10 trade patterns and comparative advantage by stage of production**

	% breakdown of imports		% breakdown of exports balance		Actual trade (% of GDP)	
	1992	2003	1992	2003	1992	2003
Intermediate goods, comprising:	56.4	59.0	52.7	54.3	-2.2	-5.7
<i>Primary goods</i>	(13.6)	(8.2)	(10.1)	(3.2)	(-0.1)	(-2.5)
<i>Parts and components</i>	(10.4)	(19.5)	(11.3)	(22.9)	(-0.2)	(0.0)
<i>Semi-finished goods</i>	(32.3)	(31.3)	(31.3)	(28.2)	(-1.1)	(-3.3)
Final goods, comprising:	35.9	34.5	40.0	36.5	-0.3	-1.4
<i>Consumption</i>	(18.4)	(15.9)	(31.5)	(21.0)	(1.7)	(1.0)
<i>Capital</i>	(17.5)	(18.6)	(8.5)	(15.5)	(-2.0)	(-2.4)
TOTAL	100	100	100	100	-2.8	-6.6

Note: EU 10 here includes the new member countries since 2004 but excluding Romania and Bulgaria

Source: Havik and McMorro 2006, based on UN Comtrade database

Despite this, the level of intra-EU trade over the last five years has remained unchanged. At the end of the 1990s, intra-EU25 manufacturing trade increased significantly relative to GDP (from 30 to 38 per cent), which was associated with the accession countries gradually implementing the necessary regulations in order to gain access to the EU15's markets. However, from 2000 this growth stabilised; there was a slight decrease in 2003-2004, before the ratio reached 39 per cent in 2005.

Trade in services remains low, partly reflecting the EU's fragmented national markets for services (Rae and Sollie 2007). Many experts link this negative trend in intra-EU trade with the introduction of the single currency in 15 member states, which they believe did not have the desired impact of boosting trade. However, recent research suggests that most of the effect is due to relatively low economic growth in the Euro currency zone compared to other developed economies (Ilzkovitz *et al* 2007).

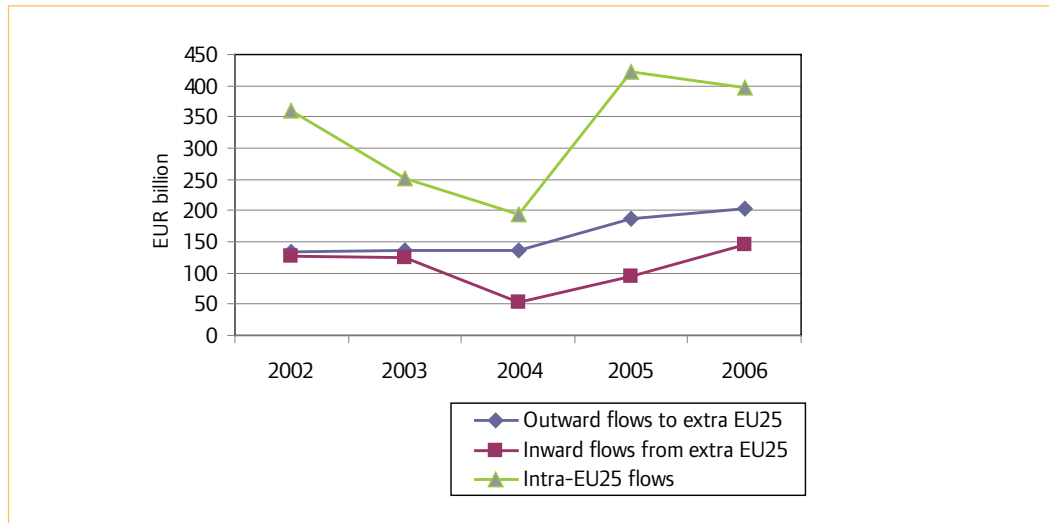
**FDI flows in the EU**

The European Union remains one of the largest global investors: in the years 2002 to 2004, its share in world FDI inflows was equal to 27 per cent, compared to 17 per cent for the US. At the same time, the EU25's<sup>4</sup> share of FDI outflows was 33 per cent, which was still less than the US's share of 38 per cent. It is important to distinguish the EU's external investments (outward and inward FDI flows) from its internal investments (intra-EU investment flows), especially as the latter represents a much greater share of the capital invested abroad by member countries.

After relative stability in FDI outward flows from the EU25 between 2002 and 2004, there was a dramatic increase of 36 per cent in 2005 and lesser growth of 9 per cent in 2006, reaching a total amount of EUR 202 billion (Figure 2.6). The biggest EU investors outside the EU25 were Germany, France and Italy, while the UK lost its position as one of the biggest capital exporters (a decrease of EUR 20 billion between 2005 and 2006).

**Figure 2.6. EU25 FDI flows, in billion EUR**

Source: Eurostat 2007b



FDI flows into the EU25 from abroad increased less dramatically, but after stagnation between 2002 and 2004, when the amount dropped by almost two thirds (from EUR 127 billion to EUR 53 billion), the year 2005 saw an almost two-fold increase in inflow investments up to EUR 94 billion. There was a further increase by 54 per cent in 2006, with total EU FDI inflows reaching EUR 145 billion. The biggest beneficiaries of this growth were the economies of the UK, Germany and Ireland, which are the most open (and are among the biggest) EU economies in terms of attracting foreign capital.

4. In this chapter we mainly refer to 25 rather than 27 EU member states as the data covers period before 2007 when Romania and Bulgaria joined the Union

Table 2.5: EU Net FDI outflows with the rest of the world in 2006, billion EUR

Country	Outflows	Inflows	Net
Belgium	49.9	57.0	-7.1
Czech Republic	1.1	4.8	-3.7
Denmark	6.5	5.6	0.9
Germany	63.3	34.2	29.1
Estonia	0.8	1.3	-0.5
Ireland	17.6	10.2	7.4
Greece	<i>missing or confidential data</i>		
Spain	71.5	16.0	55.5
France	86.7	58.0	28.7
Italy	33.0	29.9	3.1
Cyprus	0.6	1.2	-0.6
Latvia	0.1	1.3	-1.2
Lithuania	0.2	1.4	-1.2
Luxembourg	65.0	77.3	-12.3
Hungary	5.9	8.4	-2.5
Malta	0.0	1.3	-1.3
Netherlands	18.1	3.5	14.6
Austria	3.3	0.2	3.1
Poland	3.3	11.1	-7.8
Portugal	2.8	5.9	-3.1
Slovenia	0.6	0.3	0.3
Slovakia	0.3	3.3	-3.0
Finland	0.0	3.0	-3.0
Sweden	19.2	22.1	-2.9
United Kingdom	63.6	110.9	-47.3
Bulgaria	0.1	4.1	-4.0
Romania	0.0	9.2	-9.1

Source: Eurostat 2007b

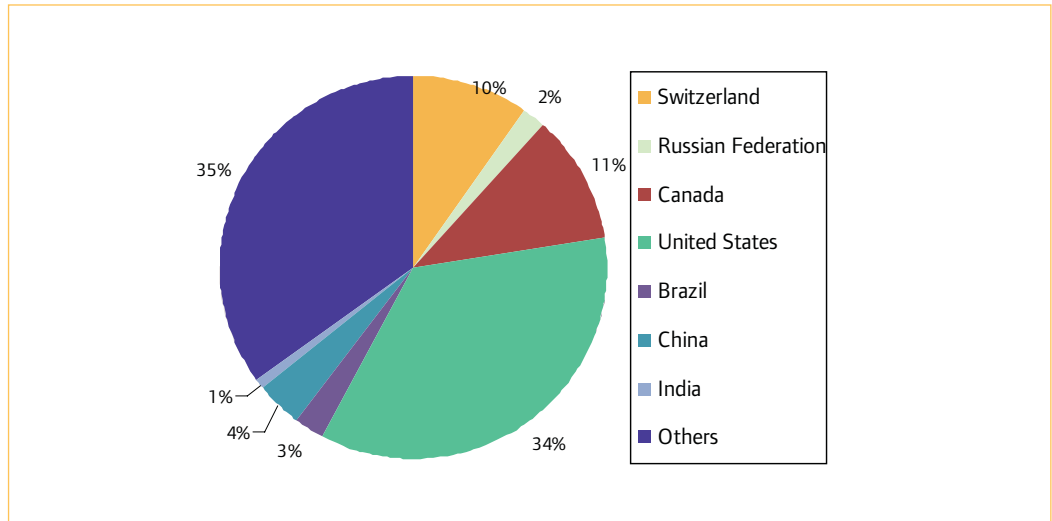
In 2006, Spain achieved a record net investment level by investing EUR 55.5 billion more than its inward FDI flows outside the EU25 (Table 2.5). It was followed by Germany, France and the Netherlands, who also had a substantial positive investment balance. At the other end of the scale, the UK is the most dependent on foreign investments from outside the EU25, with a total negative balance of EUR 47.3 billion. Luxembourg is another member country with quite substantial negative net investment flows (EUR 12.3 billion). For most new member states, investments outside the EU25 play a marginal role and most of their stocks and flows originate from other (old) EU member states.

Among key destinations for EU25 outward investment are the US, Canada and Switzerland (Figure 2.7). Traditionally, the US and Switzerland have been substantial recipients of EU25 FDI; Canada joined this club in 2006 with an almost two-fold increase of capital investment compared with the previous year.

Among core investors in the economy of the EU25, the US is way ahead of any other state, with one third of all inward FDI in 2006 originating from the US (Figure 2.8). Japan, Switzerland and Canada are also important investors for the EU, but their share of investment is considerably less.

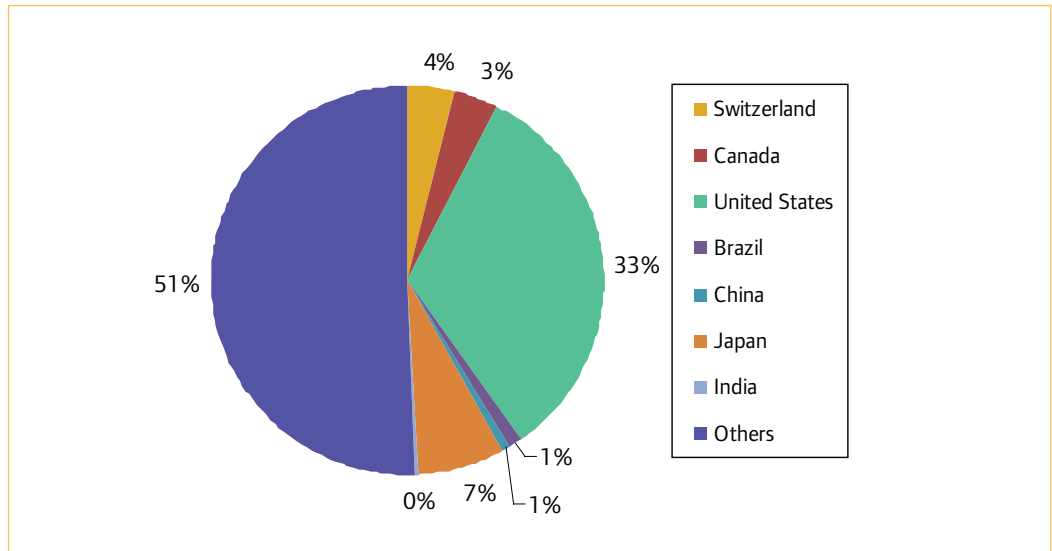
**Figure 2.7:**  
Outward flows of FDI from EU25, 2006, by destination country (%)

Source: Eurostat 2007b



**Figure 2.8:**  
Inward flows of FDI into EU25, 2006, by country of origin (%)

Source: Eurostat 2007b



Over the last few years, flows of intra-EU25 FDI (calculated as an average between outward and inward data as supplied by the member states) have also seen substantial changes. They remain higher than outward flows, and in 2006 reached EUR 396 billion, which is still 6 per cent less than its peak in 2005. Though the majority (89 per cent) of all intra-EU investment flows occur between the EU15 countries, investment in new member states is growing steadily, reaching 11 per cent in 2006 from just 6 per cent in 2005; in absolute numbers this meant an increase from EUR 21 billion to EUR 46 billion.

Spain, France, Belgium and Germany are the biggest investors in other EU countries, while the new member states (with the exception of Poland) have relatively modest investment outflows inside the Union. France and Belgium, along with the UK and Italy, are also the biggest recipients of intra-EU FDI inflows. Among new member states, Poland and Romania are the hot destinations for intra-EU investments.

As with the sectoral structure of FDI flows, there were dramatic changes over the last few years, with services starting to dominate both global and European FDI flows. Vertically-integrated production and global production chains are now common not only in manufacturing but also in services, which has made formerly untradeable services tradeable and has spurred investment, especially in business and other services.

Services dominated extra-EU25 FDI outflows in 2004 (the latest year for which sectoral data is available), with EUR 52.5 billion out of a total of EUR 136.4 billion. This, however, was a dramatic decline of 35 per cent compared with the previous year, mostly because of disinvestments in sectors

such as business services, trade and repairs, hotels and restaurants. Manufacturing and mining/quarrying were together responsible for around EUR 36 billion in outward investments in 2004.

FDI inflows from other countries to the EU25 were equal to EUR 53 billion, which was a dramatic decline compared with EUR 123 billion in 2003. Services constituted 65 per cent of total flows, and it was due to them that the amount declined so significantly (from EUR 103 billion in 2003 to EUR 33 billion in 2004). Manufacturing benefited from EUR 10.5 billion in 2004, which was 70 per cent less than the previous year. Financial intermediation, trade and repairs, petroleum, chemical, rubber and plastic products and other sectors dominated FDI to the EU25 from other countries (Eurostat 2007a).

### **Offshoring and offshore outsourcing in the EU**

The impacts of globalisation are multi-faceted and complex. Deeper global economic integration is not only driving more dynamic movement of capital, people, goods and information around the globe: it has also brought changes to production cycles, through global supply chains, vertically integrated production and International Production Networks (IPNs). In IPNs, the sequential stages in the production of a final good or service are distributed across production sites in different countries, a process which is facilitated by low transaction and transportation costs. These vertical trading chains can take many forms, involving both the foreign affiliates of multinational corporations and arms-length relationships with foreign suppliers (Antràs 2003). Due to innovations driven by ICT, companies have more opportunities to maximise their income and increase productivity through the relocation of production, namely outsourcing (the purchasing of intermediate inputs by companies or governments at arm's length, except raw material inputs) and offshoring some stages of production (acquisition of intermediate inputs by companies or governments from locations outside the consuming country<sup>5</sup>; Figure 2.9 explains the different types of relocation).

Revolutionary developments in ICT over recent decades have opened new avenues for relocations, and today anything that can be transported in digital form might be a candidate for relocation. In the 1980s it was mainly intermediate goods that were offshored or outsourced by companies, but today it is possible to outsource a very wide selection of services: from IT support and back office functions through to call centres, software production and R&D functions. In general, the evidence suggests that current trade between developed countries is characterised by a large share of vertical inter-industry trade (see Fontagne *et al* 2006). Strong international trade integration is thus stimulating further inter-industry relocation and the shifting of jobs from one country to another.

In practice, it is often difficult to distinguish offshoring from FDI. More companies are moving their entire production facilities to other countries and then importing the final products (services) back to the country of origin. An activity is usually classified as FDI if the company invests in the production facility or assets in a foreign country with the aim of getting the product/service on the market of this country. The result of FDI is usually final products/services which are produced in the new country without causing disturbances to production in the home country.

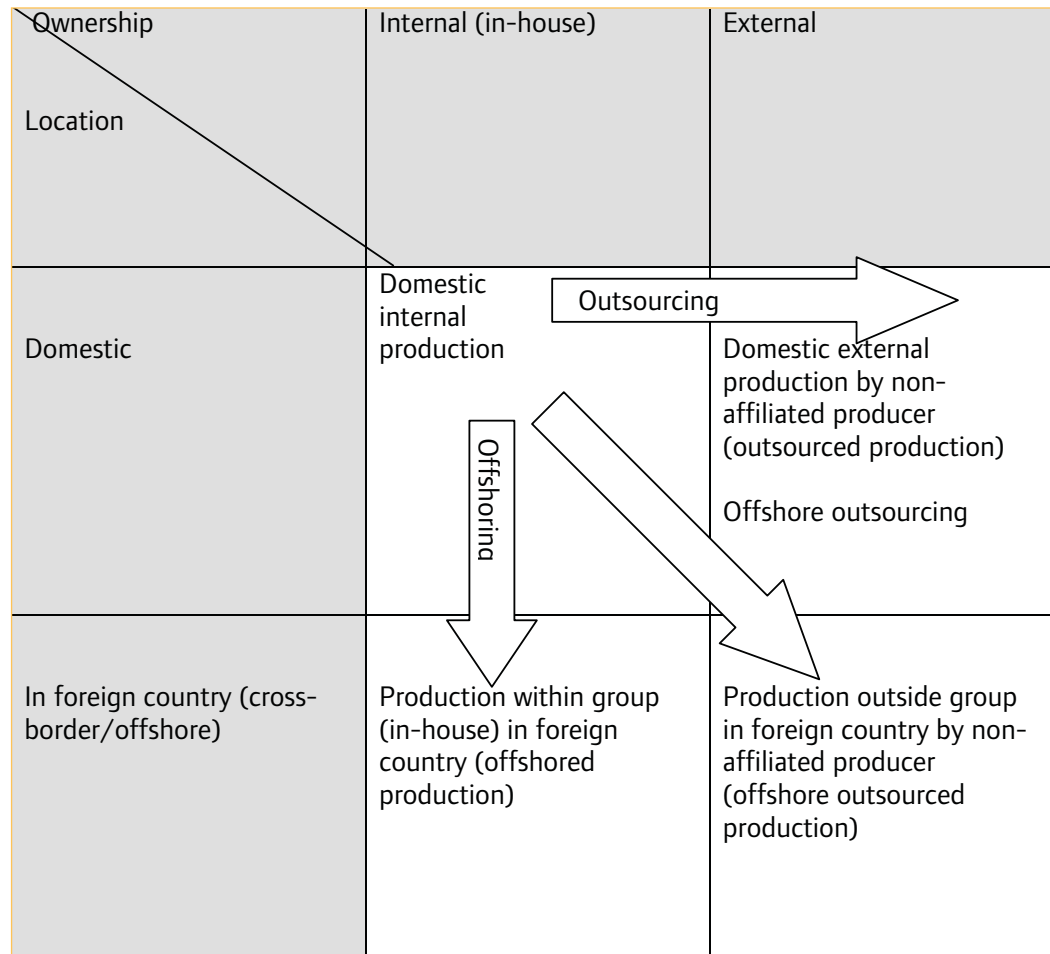
However, new technologies and the blurred borders between intermediate and final products/services often complicate the task of defining what is offshored production and what is FDI. Some authors (for example, Kirkegaard 2005) point out that the sensitivity of relocation to the domestic fiscal and macroeconomic conditions in the recipient country are crucial for distinguishing between offshoring and FDI: decisions to invest are quite dependent on issues such as corporate tax, accounting standards, and so on, but these determinants are only marginal factors in the decisions to offshore production.

---

5. Offshoring can also happen when companies (or governments) purchase intermediate inputs at arm's length from foreign suppliers – this is *offshore outsourcing*.

**Figure 2.9:**  
Standard  
offshoring and  
outsourcing matrix  
for production  
relocation

Source: Kirkegaard  
2007, adapted from  
UNCTAD 2004, table  
IV.1



In the EU, the distinction between offshoring and outsourcing becomes even more complicated due to the Single Market, where (with a few exceptions) there are no borders for the movements of goods, capital and people. This additional level of sophistication means that in the EU there are both consumers and suppliers of offshored and offshore outsourced goods. This is especially true after the accession of 12 new member states, which are usually suppliers of goods and services to the old member states. Dramatic differences in labour costs and the availability of a relatively highly qualified labour force allows companies from the EU15 and elsewhere (such as the US and Japan) to increase their productivity.

However, there are a growing number of exceptions: some new member states are now experiencing the relocation of their production facilities to other countries with even lower production costs, in particular to the countries of the Former Soviet Union, Balkan countries, China, and East Asia. This is likely to add to pressure on the local economies and necessitate a greater support for growing local businesses.

Japan was one of the first countries to use the four 'Asian Tigers' (Taiwan, South Korea, Hong Kong and Singapore) with their relatively cheap but highly-qualified labour, and growth-orientated fiscal, industrial, education, competition, and R&D policies, to maximise its production gains by building 'vertical differentiation and integration' (EMCC 2007). A so-called 'triangle trade' emerged, where Japan produced high-tech parts domestically, offshored the production of labour-intensive parts, and then exported production to the West. These IPNs guaranteed the competitiveness of Japanese manufacturing. Soon after, other countries – especially the US and the EU – started to follow this model.

Initially, relocation was undertaken primarily as an effective form of cost-cutting. But since the 1980s its role has expanded to encompass new dimensions: by relocating production activities and services to other regions and countries, companies and organisations have increased their productivity and profitability. Most experts agree that offshoring and offshore outsourcing is not a one-off event but a

process that allows companies to improve their operations and management techniques and establish truly collaborative relations with their partners and customers (EMCC 2007).

Companies that rely only on the short-term gains of relocation are not the big winners over the longer term. One of the reasons is that companies often have difficulties in calculating the future gains or losses from relocation, as it involves complicated processes, such as settling labour disputes and other regulatory difficulties (which depends on the regulatory framework of the particular national economy). Also, nowadays it is not only blue collar jobs that are under attack from relocation, but also white collar jobs in sectors such as banking, insurance, telecommunications and computing, as demonstrated by the cases of UK and Ireland in particular. This requires systemic changes in the way companies operate, and thus relocation of production and service facilities definitely needs to be considered as a continuous process, not as a one-off event.

The strong growth in offshoring and offshore outsourcing activities in the past couple of decades can be explained by a dramatic reduction of non-market transaction costs, such as the standardisation of contracts and international legal enforcement procedures, which have dramatically reduced the risks of international relocations and thus encouraged more companies to try this path. Transport costs have also reduced to an extent, but due to high dependency on fuel prices, transport will remain a substantial proportion of production costs, which might limit the extent of future manufacturing relocations.

Further changes to the international economy in recent years, such as the rise of the Central and Eastern European and former Soviet economies, the growing strength of China and India, and the second wave of 'Tiger' economies (in Asia and Latin America), have brought new dynamics to relocation. The main drive behind the current wave of relocations is the availability of human resources, often highly-skilled and educated, in the countries into which production is being relocated, providing multi-national companies with new opportunities to increase productivity and raise profits, and also to gain new markets.

#### **Data issues**

Despite the fact that offshoring and outsourcing are popular topics in the media, there is very little solid statistical data on which to base information about the overall dimensions of these processes and the drivers behind the relocations. There are often stories about job losses and total losses to the local or national economy due to the relocation of production or services to another region or country. But these losses are normally measured solely in terms of immediate effects on the labour market, as laid-off workers are the biggest losers from the relocation and restructuring processes. Little attempt is made to analyse the net labour market effects, which depend on how quickly the workers who are laid off can be re-employed, and how their wages in new jobs compare with the jobs lost through production relocation.

Also, there are likely to be product market effects that are largely beneficial to the EU economy – for example, if relocation of production results in lower cost goods or services for EU consumers, this is a welfare gain which should be taken into account when assessing the overall costs and benefits of relocation of production. Lack of comprehensive reliable information also complicates analytical work, and quite often policy recommendations are based on the experience of a few specific cases which are difficult to generalise.

There is very little reliable administrative data on relocation, including offshoring and outsourcing, from national statistics agencies or Eurostat. Data is instead collected through interviews with senior executives (regular surveys are produced by firms such as PricewaterhouseCoopers and KPMG) or through media screening and content analysis in individual member countries. Many analysts underline the weakness of collecting data through interviews, as this process does not always reflect the full picture and might distort the facts regarding relocation. Surveys of media reporting on offshoring and offshore outsourcing are considered to be more reliable as they are based on public sources which are easy to verify. Currently this method is considered the most reliable source of information on restructuring processes in the EU (Kirkegaard 2007).



The most comprehensive data analysis currently available is performed by the European Monitor Centre on Change (EMCC 2007), which in 2002 launched the European Restructuring Monitor (ERM) – a wide-ranging media surveillance system across EU member states. Data is gathered through a network of experts in each member country who scan through key national and business media sources to find information about different types of restructuring (including internal restructuring, bankruptcies and closures, mergers and acquisitions, and so on).

It is important to note that the Monitor does not give a full picture of restructuring processes in the EU, as the threshold for an event to be registered in the database is quite high: at least 100 jobs lost as the result of restructuring, or 10 per cent of jobs lost in a company with a total of 250 jobs or more. This means that smaller scale cases of restructuring are not included in their analysis, and thus the real number of jobs lost might be somewhat higher. This high threshold might also result in either underestimates or overestimates of the scale of offshoring and outsourcing in overall job losses due to restructuring, depending on the proportion of restructuring job losses in episodes of job loss which qualify for inclusion in the ERM, relative to those instances of job loss which are not included.

Furthermore, the Monitor does not have fully consistent data over time. When launched in 2002, it only observed the markets of the EU15, but after a major expansion in the 2004 12 more states were added to the database. Hence information on these 12 countries does not include pre-2004 facts and figures and thus does not give a full picture throughout the life of the Monitor.

In spite of these flaws, the ERM is still believed to be the most accurate source of information and is widely used by the EU institutions and in member countries. The analysis in this section is based on the ERM data.

Despite heated debates in the press about offshoring, which have often appeared to stoke prejudice against it, according to the ERM data only 8 per cent of total job losses in EU countries are the result of offshoring and offshore outsourcing, and there is no evidence of major growth in this trend. Manufacturing is responsible for most offshoring losses, with services playing a much more marginal role (though there are some exceptions, such as banking and insurance, which are experiencing significant offshoring activity). Most manufacturing jobs that are lost due to offshoring from the EU15 go to the ten new EU member states (except Malta and Cyprus where the scale of offshoring is too insignificant for thorough analysis). In contrast, banking and insurance jobs subject to offshoring have largely moved to Asia.

We are especially interested in the role of new member countries in offshoring processes in the EU. Initially, they were competing on the EU market with highly qualified but cheaper labour. However their productivity was much lower than in the EU15. Recent empirical studies (see Landesmann *et al* 2007) provide evidence that although the skills content of imports of intermediate inputs from developed EU countries is higher than the skills content of inputs from new member states, the latter are gradually closing the gap. The skills content in the EU10's exports of intermediary inputs increased steadily over the period from 1995 to 2005. New member states also have better chances to win many outsourcing contracts because distance does still matter. For example, statistics show that while China's exports to the EU27 are dominated by final goods, Central and Eastern European countries export an equal share of intermediate and final products to the EU15.

However, there are some signs that not all new member states enjoy the fruits of relocation. For example, Slovenia is now mostly a customer, not a supply country for offshore production (relocations from Slovenia are mainly going to the Balkan countries and China). Slovakia and the Czech Republic are also gradually losing their appeal as their economies develop, and companies which relocated production there in the 1990s are now moving to other countries with even lower production costs.

Table 2.6 shows a reasonably steady trend in the amount of restructuring and offshoring taking place across the EU between 2003 and 2006, with no measurable increase occurring as a result of EU expansion in 2004. According to the data from ERM, the sum of jobs lost from offshoring or offshore outsourcing in the EU27 between 2003 and 2006, at just under 200,000, constitutes less than a tenth of all job losses from relocation. Moreover, figures for the EU15 states (not shown in Table 2.6) suggest

that despite lots of attention from the media, relocation (including offshoring) is responsible for only a tiny fraction of the job losses in the 15 old member states. Between 2003 and 2006 the absolute number of job losses in the EU15 due to relocation was only 47,500, of which only 12,000 were lost due to relocation to other countries. Other restructuring processes such as closures and bankruptcy and mergers and acquisitions are responsible for a much greater share of job losses (EMCC 2007).

**Table 2.6: Cases of restructuring and offshoring in the EU27 states involving job losses, 2003-06**

	Total cases involving job losses		Cases involving offshoring		Offshoring as % of total	
	No. of cases	Jobs lost	No. of cases	Jobs lost	No. of cases	Jobs lost
2003	745	525,389	55	47,011	7	9
2004	745	662,986	89	45,241	12	7
2005	1,049	657,072	112	63,894	11	10
2006	936	600,346	100	38,144	11	6
2003-2006	3,475	2,445,793	356	194,290	10	8

Notes: Restructuring includes: plant closures, internal reorganisation, mergers and acquisitions, bankruptcies, outsourcing, offshoring. Figures include EU12 states both before and after their accession to the EU. Source: EMCC 2007

The share of job losses from restructuring as a share of total employment is insignificant in most EU countries (Table 2.5). It is highest in the UK (-2 per cent), Finland (-1.5), Sweden (-1.3), Belgium (-1.2), Ireland (-1.2) and Slovenia (-1.2), with an average figure across the EU of 1.2 per cent of job losses. Portugal and Ireland are the most seriously affected EU countries – in both countries, around a quarter of all jobs lost were due to offshoring and offshore outsourcing (Table 2.7). Other countries seriously affected by delocalisation in terms of job losses in 2003 to 2006 were Denmark, Estonia and Slovenia.

**Table 2.7: Job losses from restructuring and from offshoring in member states, 2003-2006**

Country	Total job losses from restructuring (% total employed)	Job losses from delocalisation (% total losses from restructuring)
Belgium	-1.2	4.4
Czech Republic	-0.6	3.6
Denmark	-0.8	16.5
Germany	-1.0	6.9
Estonia	-0.4	14.0
Ireland	-1.2	24.6
Spain	-0.4	6.7
France	-0.9	6.6
Italy	-0.2	6.4
Hungary	-1.4	1.8
Netherlands	-1.0	4.7
Austria	-0.6	6.7
Poland	-1.1	0.7
Portugal	-0.8	25.6
Slovenia	-1.2	14.1
Slovakia	-0.5	9.0
Finland	-1.5	9.7
Sweden	-1.3	7.3
UK	-2.0	8.9
EU	-1.2	7.9

Source: EMCC 2007

Table 2.8 illustrates job losses from relocation by sectors, relative to the total employment reduction in selected EU countries. Different countries suffer from losses in different sectors. For example, in Finland more than half of jobs lost due to offshoring were in telecoms equipment while in both Portugal and Germany around half of jobs lost were in motor vehicle production. Italy, Sweden and Finland lost jobs in the machinery sector, while the UK experienced greatest losses in banking and insurance. The UK is also the only country from the 'big' group which lost only a marginal share of jobs from offshoring manufacturing.

**Table 2.8: Reductions in employment from offshoring by sector, 2003-2006 (% total employment reduction)**

Sector	DE	IE	FR	IT	PT	FI	SE	UK	Multi-country	EU
Food, drink, tobacco	2.6	2.3	0.0	0.0	0.0	0.0	0.0	3.5	4.2	3.4
Textiles, clothes, footwear	0.4	11.8	7.6	19.2	6.7	0.0	5.0	3.7	0.0	4.2
Chemicals, refining	3.2	14.5	0.2	0.0	0.0	0.0	0.0	1.4	18.8	7.9
Machinery & equipment	6.3	2.8	12.5	24.0	1.3	13.2	20.3	2.6	0.0	4.1
Electrical machinery	1.6	17.7	19.0	19.4	18.4	31.4	8.7	1.8	16.2	11.4
TV, radio, telecoms	10.5	9.0	16.8	0.0	19.3	53.3	15.0	0.0	2.1	6.3
Motor vehicles	47.1	11.1	15.2	15.5	53.2	0.0	24.2	2.1	2.5	12.6
Banking & insurance	2.7	0.0	11.4	0.0	0.0	0.0	0.0	59.2	27.1	24.8
Computing	13.6	15.9	0.0	0.0	0.0	0.0	0.0	0.0	17.0	7.7
Business services	0.0	0.0	4.3	0.0	0.0	0.0	0.0	4.0	0.0	1.4

*DE – Germany, IE – Ireland, FR – France, IT – Italy, PT – Portugal, FI – Finland, SE – Sweden, UK – United Kingdom*

Source: EMCC 2007

Table 2.9 gives more insight into job losses from offshoring in different service sectors. It is interesting to note that countries as different as Italy, Portugal, Finland and Sweden all lost 100 per cent of their jobs due to offshoring in manufacturing, without any trace of service offshoring. Germany lost 90 per cent of jobs due to offshoring in manufacturing, while in the UK this figure is only around 30 per cent – well below the EU average of 51.5 per cent.

One possible explanation for this phenomenon might be language barriers. It is simpler to overcome language problems in manufacturing, where much of the work revolves around machinery, technical skills and knowledge. In service industries, language barriers are much more noticeable. It is easy for the UK to offshore services to English-speaking countries such as India, Hong Kong or Singapore, which may explain why two-thirds of jobs lost due to offshoring were in the services sector. However, English-speaking Ireland is less affected by this trend, which might be due to the different structure of its economy (at the same time it has experienced some offshoring job losses in operational activities). In the near future growing language skills among the labour force in some new member states, as well as in Latin America and South Africa, might challenge the balance in countries such as Germany, France, Italy and Spain. IT services is another sector where the language problem is easy to overcome due to the specific technical language used in the sector.

**Table 2.9: Job losses from offshoring, by type of service activity, 2003-2006 (% of total jobs offshored)**

Sector	DE	IE	FR	IT	PT	FI	SE	UK	Multi- EU country	
Administration & finance	2.1	4.4	2.3	0.0	0.0	0.0	0.0	15.7	10.5	8.3
Customer service & sales	2.1	4.4	2.3	0.0	0.0	0.0	0.0	15.7	10.5	8.3
Call centres	0.0	0.0	2.9	0.0	0.0	0.0	0.0	41.4	0.0	11.7
IT support	2.8	0.0	0.0	0.0	0.0	0.0	0.0	5.4	15.6	7.0
R&D	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5
Manufacturing	90.3	70.9	69.4	100.0	100.0	100.0	100.0	31.4	24.3	51.5
Operational activities	0.0	24.8	4.9	0.0	0.0	0.0	0.0	0.0	49.6	16.4

Source: EMCC 2007

Table 2.10 provides data relevant to the discussion of whether new member states benefit most from offshoring and offshore outsourcing from the EU15. It is evident that those countries that lost most of the jobs due to offshoring in manufacturing (for example Germany, Sweden, Portugal and Italy) are largely relocating production facilities to the new member states. However, in the UK, where the service sector is dominating in offshoring processes, 85 per cent of all jobs were shifted to Asia (compared with an EU average of only 36.3 per cent). Other countries that shifted a considerable share of jobs to Asia include Finland, France and Italy. Bearing in mind that these countries mainly shift manufacturing jobs, it is possible to assume that most of these jobs go to China and other countries of South East Asia that have low labour costs.

**Table 2.10: Regions of origin and destination of offshored activities, 2003-2006 (% of total jobs shifted)**

Sector	DE	IE	FR	IT	PT	FI	SE	UK	Multi- EU country	
New member states	86.8	46.9	61.7	59.1	74.7	48.4	77.8	10.6	58.0	51.2
Asia, excl. new member states	13.4	13.4	21.7	24.9	6.4	45.6	14.9	85.3	24.5	36.3
Other	0.0	39.7	16.6	16.0	18.8	6.1	7.3	4.1	17.5	12.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: EMCC 2007

Table 2.11 provides more details about the contributions of jobs relocated from old to new member states by sectors. It is worth stressing again here that relocation is responsible for a very small fraction of job losses in the EU15 – around 8 per cent of total job losses in 2003-2006 (the same proportion as for the EU27). Production of motor vehicles and computing are among the most affected sectors – an average of 30 per cent and 16 per cent respectively of jobs in these sectors were relocated to new member states.

It is not only European companies that are changing their production and service chains to tap into the benefits of offshoring and offshore outsourcing. If we take companies by country of origin, American companies dominate in offshoring cases across a range of countries (Germany, Ireland and Portugal), with Japanese companies dominating in some countries (France and Portugal). However, the share of national companies in offshoring is less prominent – an average of 4.8 per cent across the EU. Portugal suffered the most from the loss of jobs relocated by

foreign companies. At the same time in the UK it was mainly national companies that were responsible for job losses due to offshoring, which might be explained by the high share of the banking and insurance sectors in the national economy, which were the most affected by relocations.

**Table 2.11: Jobs offshored to new member states, by sector, 2003-2006 (% of total jobs offshored to new member states)**

Sector	DE	IE	FR	IT	PT	FI	SE	UK	Multi-country	EU
Food, drink, tobacco	3.6	0.0	0.0	0.0	0.0	0.0	0.0	19.1	5.3	5.8
Textiles, clothing, footwear	0.6	0.0	5.9	26.9	6.2	0.0	8.0	0.0	0.0	1.8
Chemicals, refining	0.0	0.0	0.6	0.0	0.0	0.0	0.0	10.5	0.0	1.7
Machinery & equipment	7.6	0.0	21.1	22.1	0.0	41.9	26.5	13.8	0.0	6.1
Electrical machinery	0.8	34.3	10.5	0.0	6.9	0.0	0.0	22.9	0.0	7.4
TV, radio, telecoms equipment	14.7	12.5	10.4	0.0	22.2	58.1	19.7	0.0	0.0	9.0
Motor vehicles	63.3	5.2	26.0	29.3	63.2	0.0	35.3	20.9	3.7	30.0
Banking & insurance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.9	9.9
Computing	4.1	18.5	0.0	0.0	0.0	0.0	0.0	0.0	49.6	16.1

Source: EMCC 2007

**Table 2.12: Jobs offshored relative to all jobs lost from restructuring by enterprise nationality, 2003-2006 (% of total jobs lost from restructuring)**

Nationality	DE	IE	FR	IT	PT	FI	SE	UK	Multi-country	EU
National	2.6	6.5	4.3	5.3	5.8	6.3	6.7	9.1	0.0	4.8
Other EU	4.3	30.0	12.2	20.3	49.3	7.9	14.3	7.1	13.0	11.4
US	54.1	50.3	11.7	2.1	56.7	29.9	8.8	14.2	5.3	14.6
Japan	8.2	0.0	59.8	0.0	100.0	0.0	0.0	0.0	28.2	25.8
Other	0.9	29.2	16.7	8.2	0.0	57.1	0.0	8.1	3.9	8.1
Total	6.9	24.6	6.6	6.4	25.6	9.7	7.3	8.9	10.7	7.9

Source: EMCC 2007

So who are the winners and losers from offshoring in the EU? Well thought-out offshoring and offshore outsourcing in reality should spur trade flows and improve the trade balance of the developed European economies. For example, Germany is one of the biggest winners from offshoring, despite the fact that it is mostly concentrated in manufacturing, particularly car building and machinery, which are core commodity export sectors (see Table 2.11). Yet despite the fact that many jobs have relocated elsewhere (two-thirds to new member states), recent export statistics show that not only did Germany not suffer from the reduction of the value of its exports, but that the share of German export value-added in total German value-added is actually growing. This shows that the country is using vertically integrated production and IPNs effectively to outsource the production of intermediary products, but then produces the final high-value goods itself, which then go to export (see Kirkegaard 2005).

On the other hand, Portugal, which belongs to the group of EU member states who are recipients of Cohesion Fund money (together with Spain and Greece), also lost a considerable number of jobs in manufacturing due to the relocation of production. However, Portugal has not managed to deal with offshoring so well. It lost its final products facilities, which reduced the value-added of export goods, to the detriment of the country's trade balance and the national economy.

Not all EU countries are equally successful at using offshoring to their advantage. The EU countries often lack sufficient evidence base to develop relevant policy responses. These instruments should be targeted at either capitalising more on the gains from relocation or reducing the negative impact relocation has on the national economy in the short- and long-term perspective. This divergence has prompted the EC to start policy consultations and activities aimed at making the most of relocation at the community level – we return to these in Chapter 3. Though again, as the statistics in this section show, relocation is responsible for only a small fraction of job losses in the EU. Other restructuring processes, such as mergers and acquisitions and bankruptcy, are responsible for a much greater share of losses.

### Migration

Foreign workers have become a more important component of the workforce in most EU countries since the mid 1990s, in line with trends across other developed economies. Table 2.13 shows trends for each EU member state in the number of people who were not nationals of that state. In 2004, around 5.5 per cent of the total EU population were non-nationals. The highest proportions of non-nationals were found in Luxembourg, Latvia, Estonia, Germany, Austria, Greece, Cyprus and Belgium. The lowest proportions of non-nationals were in the Czech Republic, Lithuania, Hungary, Poland, Slovakia and Finland. The UK, at 4.7 per cent in 2004, was below the EU average on this measure.

Since 2004 the picture has altered somewhat as workers from the EU10 accession countries were allowed to move freely into several of the EU15 countries – namely the UK, Sweden and Ireland. This has led to a large increase in the number of EU10 nationals resident in each of these countries. For example, ippr estimates that by the end of 2007 the population of A8 and A2 nationals resident in the UK was 665,000, an increase of around 550,000 since early 2004 (Pollard *et al* 2008). Over the next few years, EU10 nationals will be granted free movement across the whole of the EU, and this will also apply to Romanian and Bulgarian nationals (who joined the EU in 2007) in due course.

Looking at net immigration between 1990 and 2004 (or the nearest available year of data), the largest increases in non-nationals as a share of population have occurred in Greece (+6.7 per cent), Spain (+5.6), Ireland (+6.8), Cyprus (+5.2) and Luxembourg (+9.9). Belgium, France and Slovenia actually saw falls in the proportion of non-nationals in the population over this time period. In general the rise in the extent of migration across the EU is matched by increases elsewhere in developed countries. An important aspect of 'globalisation' is that labour has become more mobile, despite more stringent immigration policies in many countries (including the UK).

What has been and will be the economic impact of the increases in migration into many EU countries? Economic theory does not deliver strong and unambiguous predictions; depending on the model, increased immigration into a country can reduce wage and employment levels for existing workers, increase them, or indeed have no measurable effect (see Dustmann *et al* 2008 for more details).

Most existing econometric evidence has not assessed the overall welfare effect of immigration on natives, but has instead focused specifically on the issue of whether or not immigrants' 'take jobs away' from native workers or depress their wages (see Riley and Weale 2006 and Barrell *et al* 2006 for empirical evidence on the UK).

Many articles have focused on the impact of immigration on wages, in particular in the United States. The consequences for natives' employment and/or unemployment have also been dealt

Table 2.13. Total immigrants in EU member state countries, 2004 or most recent available year, compared with 1990

	Year	Nationals (1000)	Non- nationals (1000)	Non- nationals (%)	Largest group of non-nationals (country of citizenship)	Year	Nationals (1000)	Non- nationals (1000)	Non- nationals (%)
Belgium	2004	9,536	860	8.3	Italy	1990	9,067	881	8.9
Czech Rep.	2004	10,016	195	1.9	Ukraine	1990	10,327	36	0.3
Denmark	2004	5,126	271	5.0	Turkey	1990	4,985	151	2.9
Germany	2004	75,190	7,342	8.9	Turkey	1990	74,267	4,846	6.1
Estonia	2000c	1,096	274	20.0	Russia	1990	No data	No data	
Greece	2004e	10,149	891	8.1	Albania	1990	9,979	142	1.4
Spain	2004	39,426	2,772	6.6	Ecuador	1990	38,428	398	1.0
France	1999c	55,258	3,263	5.6	Portugal	1990	53,055	3597	6.3
Ireland	2002c	3,585	274	7.1	UK	1990	3,426	81	2.3
Italy	2004	55,898	1,990	3.4	Albania	1990	56,338	356	0.6
Cyprus	2002c	625	65	9.4	Greece	1992	577	26	4.2
Latvia	2004	1,804	515	22.2	Russia	1998	1788	671	27.3
Lithuania	2001c	3,450	34	1.0	Russia	1990			
Luxembourg	2004	277	174	38.6	Portugal	1990	270	109	28.7
Hungary	2004	9,987	130	1.3	Romania	1995	10,199	138	1.3
Malta	2004	389	11	2.8	UK	1990	352	6	1.6
Netherlands	2004	15,556	702	4.3	Turkey	1990	14,251	642	4.3
Austria	2004	7,375	765	9.4	Serbia & Mon'gro	1990	7,211	434	5.7
Poland	2002c	37,530	700	1.8	Germany	1990			
Portugal	2003p	10,169	239	2.3	Cape Verde	1990	9,819	101	1.0
Slovenia	2004	1,951	45	2.3	Bosnia & Herz'a	1995	1,942	48	2.4
Slovakia	2004	5,350	30	0.6	Czech Republic	1990			
Finland	2004	5,113	107	2.0	Russia	1990	4,953	21	0.4
Sweden	2004	8,500	476	5.3	Finland	1990	8,071	456	5.3
UK	2003	55,636	2,760	4.7	Ireland	1990	55,043	2,416	4.2

c = Census data; e = established figures; p = provisional data. Source: Eurostat 2006a

with in numerous studies. Recent surveys of the literature can be found in Dustman and Glitz (2006), Hijzen and Nelson (2006), Jean and Jiminez (2007), Latorre and Reed (2008) and Okkerse (2008). In general, the evidence from EU countries is in line with that from the US in that it finds very small effects of immigration on wages, if at all. The balance of evidence suggests a small negative impact: a 1 per cent increase in labour supply in a given labour market segment reduces wages by around 0.2%. (This is in line with most evidence from North America, although Borjas 2003 finds a somewhat higher effect for the US – around -0.4 per cent.)

The evidence base on the employment effects of migration is thinner. An empirical 'meta-analysis' of 18 OECD countries (including several EU countries) by Jean and Jiménez (2007) does not find any permanent effect of immigration, measured as the share of immigrants in the labour force, upon natives' unemployment. However, they do find significant evidence of a transitory and delayed impact on unemployment of changes in the share of immigrants. These findings are consistent with previous results on the dynamic employment impact of immigration by Hercowitz and Yashiv (2002).

### Innovation

Innovation is a key driver of economic growth. In theory there are several channels through which an increase in a country’s integration into the global economy could affect innovation. Global economic integration increases the pool of innovative resources which a country’s innovators – primarily firms and higher education (HE) institutions – can draw on; for example, increased labour mobility may make it easier to attract workers with useful innovation skills, and increased FDI can help provide resources for innovation. However, this cuts both ways: increased integration also makes it easier for innovative workers and firms within a country to relocate abroad if the conditions to encourage innovation, such as the tax and regulatory systems under which businesses and HE institutions operate, are not attractive compared with those in other countries.

Globalisation is also likely to increase the degree of product market competition in which firms operate, although there is dispute in the economic theory literature over whether increased competition is good or bad for innovation (see Johnson and Reed 2007 for a detailed discussion of the theoretical relationship between innovation and competition).

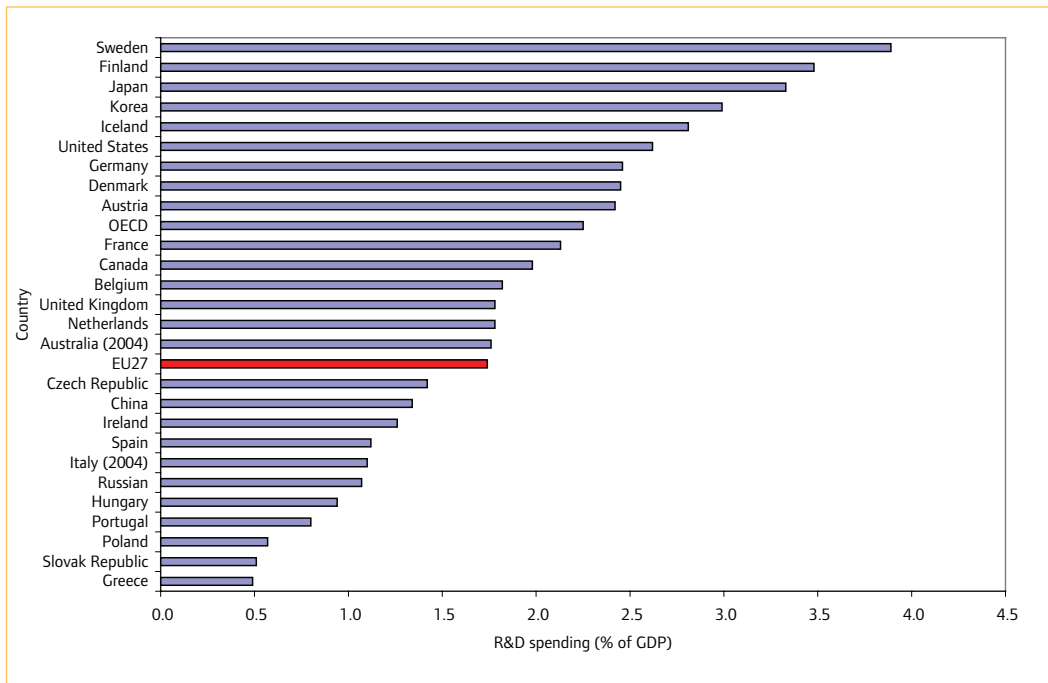
Turning to the empirical evidence, first we examine trends in research and development (R&D) spending as a measure of innovation. R&D is only one aspect of innovation and does not tell the whole story by any means<sup>6</sup>, but it does have the advantage of being quantitatively measurable, and consistently defined across countries.

Figure 2.10 gives statistics on R&D intensity – the amount of R&D spending undertaken as a share of national GDP – for most of the EU member states and a selection of competitor countries. Average R&D intensity in the EU27 was around 1.7 per cent in 2005, significantly lower than Canada and the United States, and much lower than Japan, South Korea and Iceland. However, certain EU member states had much higher than average R&D intensity: especially Sweden and Finland, and also Germany, Denmark and Austria. All the EU10 states featured in Figure 2.10 have R&D intensity below the EU27 average, and Greece and Portugal were also particularly low.

**Figure 2.10.**  
R&D intensity in EU27 member states and other countries, 2005

Source: OECD 2007a

*Note: R&D spending includes business, higher education institutions and government R&D*



6. Alternative measures of innovation include statistics on the number of patents registered by each firm (and by country), and survey-based evidence on innovative activities such as the Community Innovation Survey (BERR 2008). Recent research by NESTA (2007) on the measurement of ‘hidden’ innovation in sectors of the economy generally thought to be ‘low innovation’ sectors is also instructive in this regard.

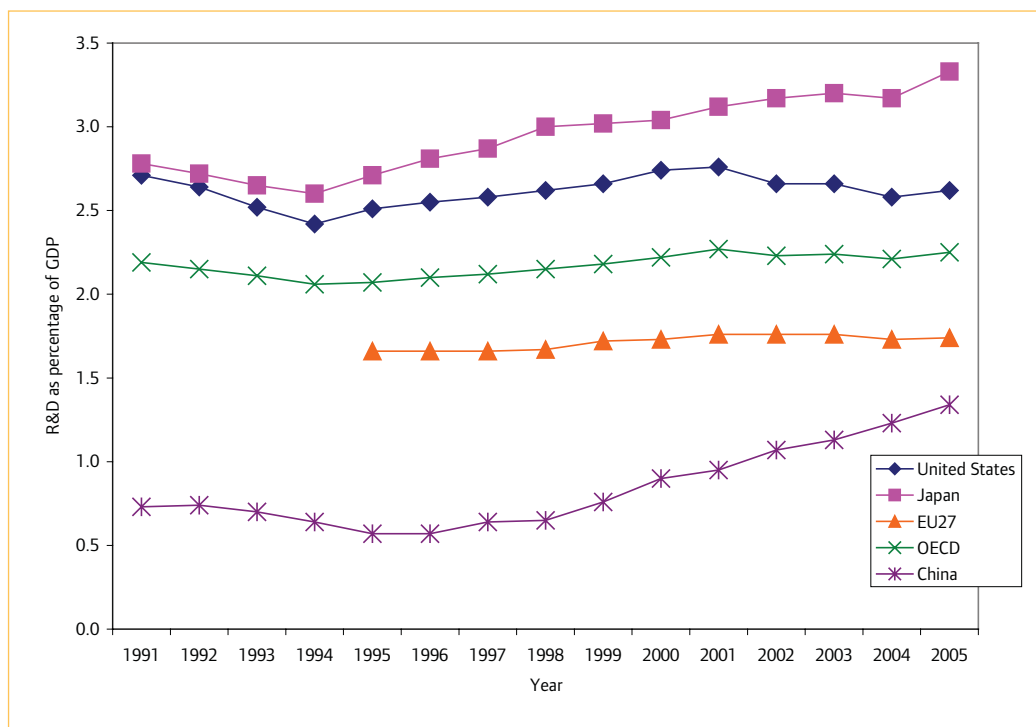


Figure 2.11 shows trends in R&D expenditure over time for the EU27 compared with the OECD average, the United States, Japan and China. Over the whole period for which EU27 data exists, the EU27's R&D intensity lagged behind the OECD average, as well as the averages for the US and Japan. The gap in R&D expenditure between the EU27 and Japan has grown over the last decade, although the gaps with the US and with the OECD average have remained relatively stable. If current trends are maintained, China's R&D intensity will overtake the EU27 in a few years' time.

**Figure 2.11. Trends in R&D intensity in EU27 and other countries, 1991–2005**

Source: OECD 2007a

Note: EU27 data series only begins in the mid-1990s due to difficulties of obtaining data for EU12 countries



At the same time, R&D has been becoming more internationalised (for detailed evidence of this see OECD 2008 and Abramovsky *et al* 2008). Table 2.14 shows figures on the amount of R&D spending funded by countries in Western Europe, Japan and North America that takes place outside each home country – that is, the funding of overseas R&D. The table shows a clear increase over the 1990s and early 2000s in every case. (The figures are somewhat out of date but the survey published in OECD 2008 suggests that they were the most recent available on an internationally consistent basis.)

**Table 2.14. Trends in overseas R&D spending in Western Europe, Japan and North America**

	1995	1998	2001	2004 (estimated)
Western Europe	25.7	30.3	33.4	43.7
Japan	4.7	7.0	10.5	14.6
North America	23.2	28.4	31.7	35.1

Note: Based on a survey of 209 multinational enterprises. The geographic zones refer to the origin of the multinational enterprises.

Source: Reger 2002

R&D is only one aspect of innovation (albeit an important aspect). The European Commission's regular European Innovation Scoreboard publication (European Commission 2008b) analyses a range of 25 indicators (mainly from Eurostat data) on several aspects of innovation performance, including the 'structural conditions required for innovation potential' (for example, the proportion of the workforce with tertiary education), value-added in particularly innovative sectors (for example, ICT), and the production of new 'intellectual property' (for example, patents and trademarks) as well as R&D measures. These are then collapsed into five indices of innovation performance, and the results compared with a selection of countries outside the EU.

The results from the latest scoreboard survey show that the world's 'innovation leaders' across the widest range of innovation indicators are Denmark, Finland, Germany, Israel, Japan, Sweden, Switzerland, the UK and the US. Interestingly, while the UK's R&D performance is poor, its performance on the other indicators of innovation is sufficiently strong to push it up into this elite group of innovators. The group contains several EU countries but none of the EU10 countries are classified as innovation leaders at this time. However, in some of EU10 countries, such as the Czech Republic, Estonia and Lithuania, innovation performance has improved particularly strongly over the past decade. The gap between the US and the EU and between Japan and the EU on R&D spending is echoed in most of the other indicators of innovation analysed by the scoreboard report, although the gaps between the EU and these two leading countries are decreasing on most indicators.

### **Inequality**

Most (but not all) of the literature from economic theory looking at the effects of increased global economic integration on inequality predicts that increased trade between developing countries and developed countries will decrease inequality in developing countries, but increase inequality in developed countries<sup>7</sup>. Empirical evidence initially appeared to confirm these predictions (see ILO/WTO 2007 for an overview). Increases in the wage differential between high-skilled and low-skilled labour – the so-called skill premium – were observed in a number of developed countries.

Wage differentials have widened in a large majority of OECD countries over the last 30 years or so (Forster and Ercole 2005). In 17 of the 20 countries for which data are available, the earnings of workers at the 90th percentile of the earnings distribution have risen relative to those of workers at the 10th percentile since the early 1990s, although often by only a modest amount (OECD 2006b). Essentially all of the cumulative increase in earnings dispersion since 1990 has occurred in the top half of the earnings distribution (Figure 2.12, next page).

For developed countries that are relatively well endowed with medium- and high-skill workers, traditional theory predicts that trade with developing countries would drive down the wages of low-skill production workers in OECD countries. This suggests that 10th percentile earnings should fall relative to the median, rather than that 90th percentile earnings should pull away from median earnings. It is possible, however, to identify offshoring scenarios where unconventional distributional effects could result, since the results depend in part on locational complementarities across different production tasks, about which little is known (Antràs 2003, Markusen 2007). Similarly, some analyses of ICT-enabled offshoring – as well as the impact of computerisation more generally – suggest that the demand for medium-skill workers is most affected by these developments, because their job tasks are most easily assimilated to the algorithmic logic used by computers (see Autor *et al* 2006, Goos and Manning 2007).

Using newly available data from tax records, Piketty and Saez (2006) provide an overview of the evolution of the income share accruing to the top 0.1 per cent of the income distribution over most of the past century in five large OECD countries (Figure 2.13). Most of the 20th century was characterised by a sharp drop in this share, representing a significant reduction in income inequality at the very top. During the past several decades, however, the income share of the top 0.1 per cent has begun to grow again in Canada, the UK and, especially, the US. The reasons for this reversal are only beginning to be studied, but this pattern is at least suggestive that globalisation is creating opportunities for a small elite of workers and investors to pull away from everyone else. (The fact that no such trend is evident for France and Japan suggests that differences in national policies and institutions also play an important role in determining the income share going to the top 0.1 per cent and how it is affected by international economic integration.)

---

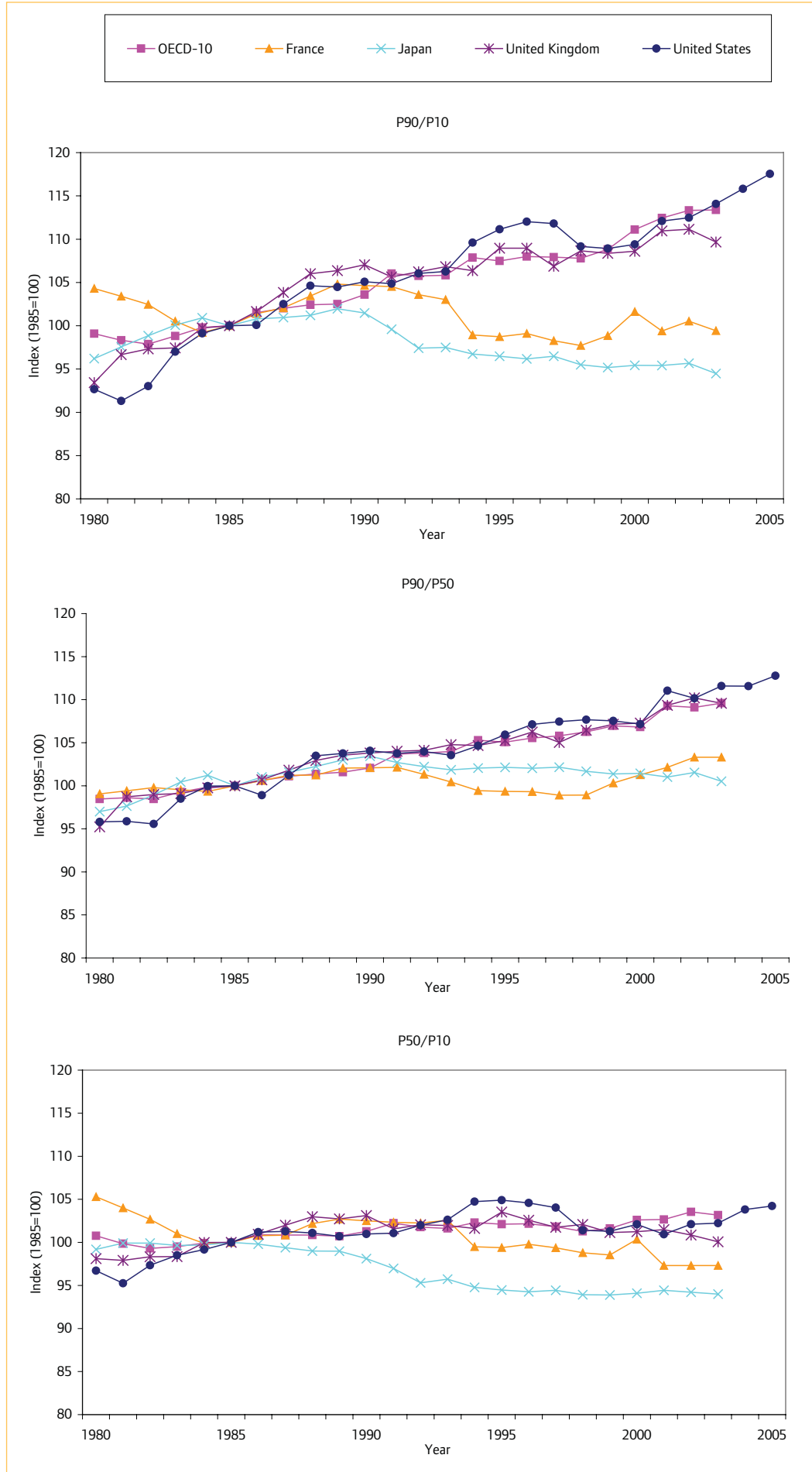
7. This prediction is based on the 'Stolper-Samuelson theorem': see Stolper and Samuelson (1994), Neary (2004).

**Figure 2.12:**  
**Earnings inequality in 10 OECD countries since 1980 (Index, 1985=100)**

a) Unweighted average of the following countries: Australia, Denmark, Finland, France, Japan, Netherlands, Poland, Sweden, United Kingdom and United States

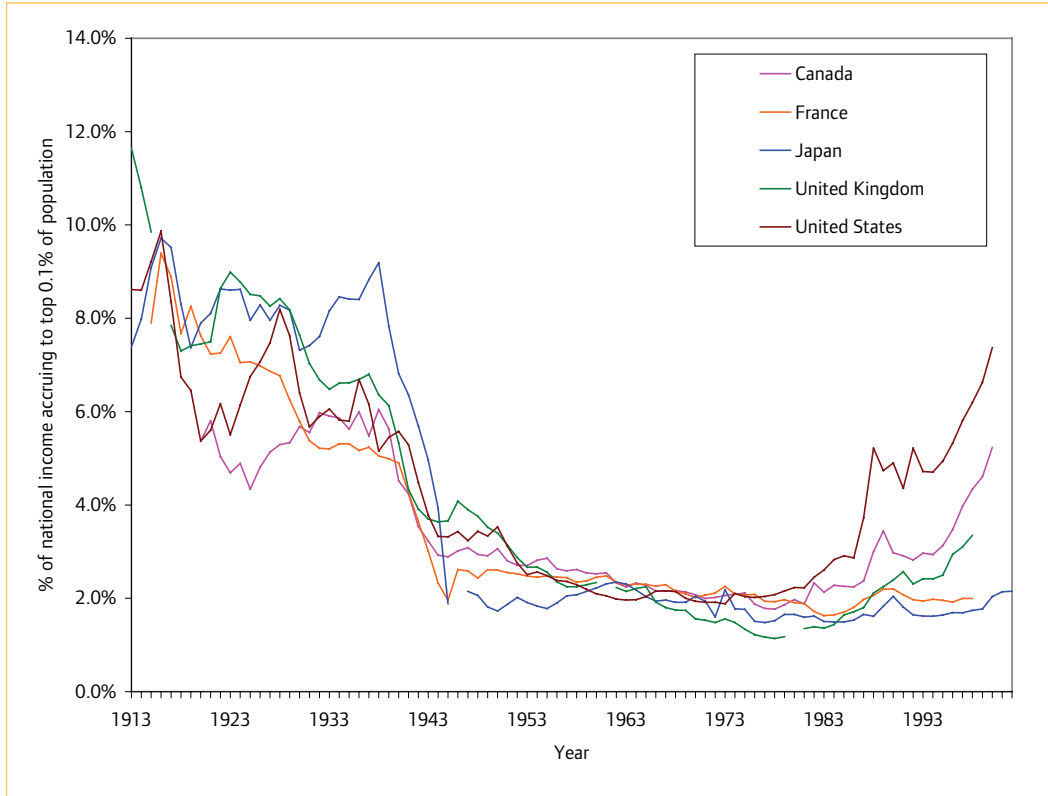
b) P90, P50 and P10 denote the 90th, 50th and 10th percentiles of the distribution of earnings for full-time employees

Source: OECD Earnings Distribution database



**Figure 2.13: Top 0.1% income share in five OECD countries, 1913–2005**

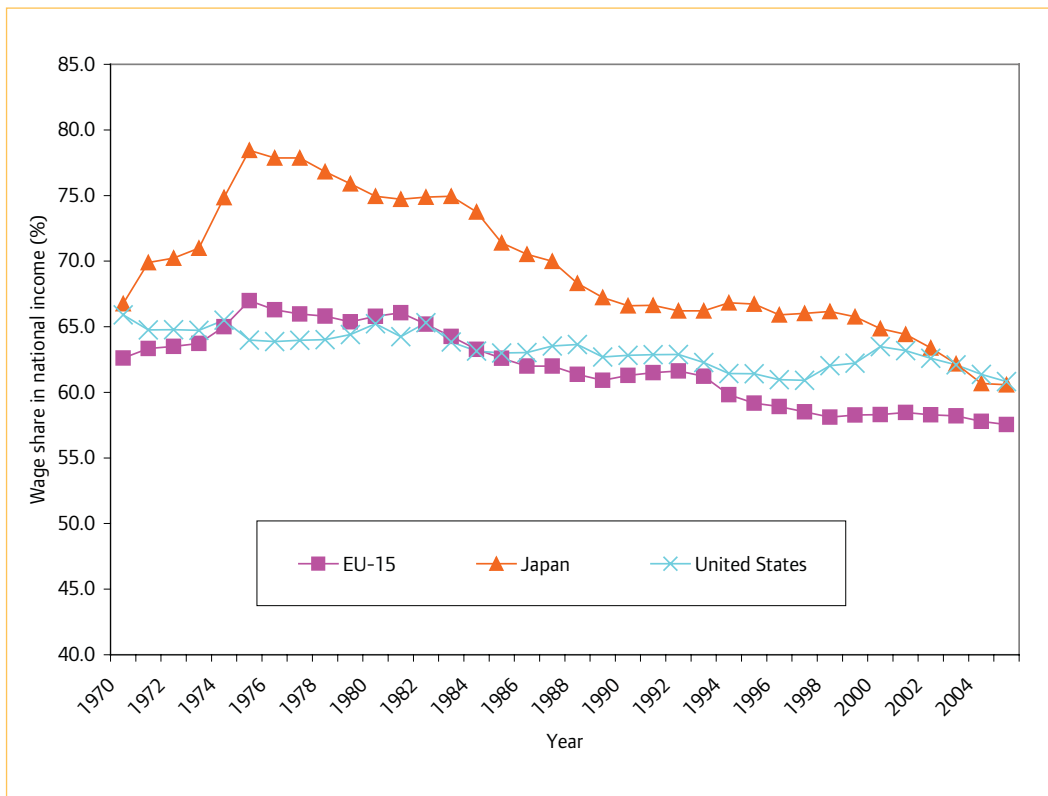
Source: Piketty and Saez 2006



The wage share of national income – an informative indicator of how fully workers are sharing in the gains from globalisation – has also been declining quite sharply since 1980 in the EU15 and Japan, and more gently in the United States (see Figure 2.14), implying that average wages have failed to keep pace with labour productivity. All of the 16 OECD countries for which this statistic can be calculated for the entire post-1990 period show some decline in the wage share, with the decline ranging from being small to rather steep.

**Figure 2.14: Wage share of national income in EU15, Japan and the United States, 1970–2005**

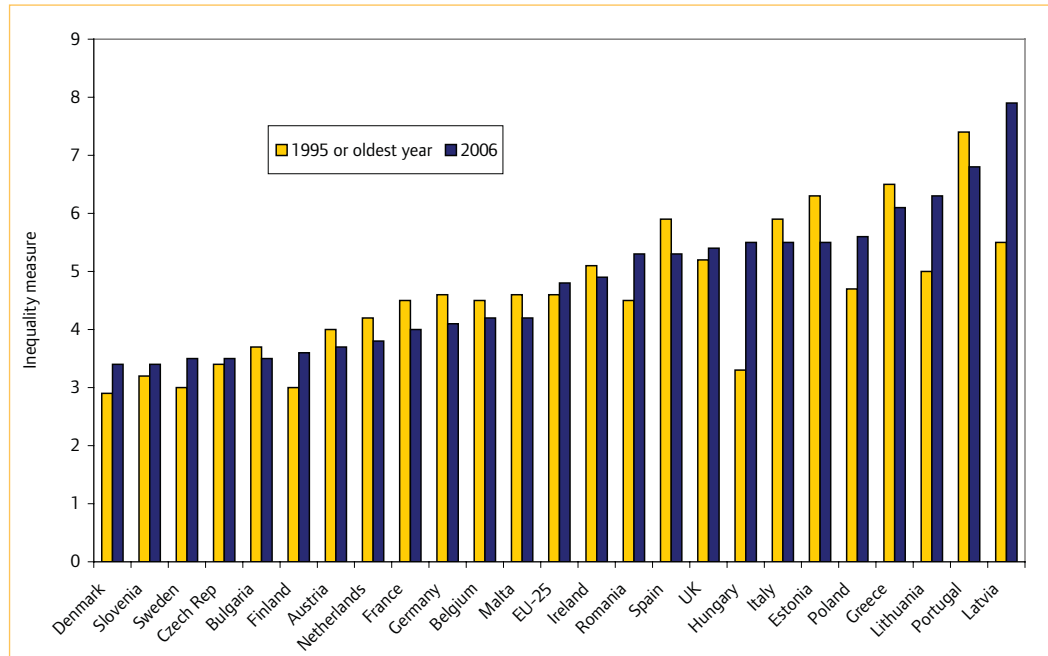
Source: OECD estimates using the OECD Economic Outlook database



The OECD evidence is a useful summary of overall trends but it does not tell us much about what is happening for individual EU countries. Figure 2.15 shows more detail on this using data from Eurostat on the ratio of average household incomes between the top quintile (i.e. 20 per cent) and the bottom quintile of each country's income distribution. The data are shown for 2006 (in blue) and 1995 (or the oldest available year in the Eurostat database) in yellow. The countries are ranked from most equal to least equal in 2006, from left to right.

**Figure 2.15.**  
**Inequality in EU countries: Trends in the top quintile/bottom quintile ratio of average disposable incomes for 24 EU countries, 1995 (or next oldest available year of data) and 2005**

Source: 'Inequality of income distribution – Income quintile share ratio', Eurostat database, accessed July 2008 at <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tsisc010>



Note that in some countries the income definitions in the household survey used to compile the income distribution data changed between 1995 and 2006, meaning that the results are not strictly comparable. This was particularly the case in the accession countries as they had to make changes to their survey methods in accordance with Eurostat guidelines. This means that for countries such as Latvia and Hungary where large increases in inequality are shown between the 1990s and 2006, it is likely that this is at least partially due to the change in survey methods rather than reflecting underlying changes in the income distribution. However, we can be reasonably confident that the data for 2006 are consistent between countries.

Figure 2.15 shows that the Nordic EU countries – Denmark, Finland and Sweden – had particularly low levels of inequality in 2006. There is no overall pattern in the accession countries. Slovenia, the Czech Republic and Bulgaria have relatively low inequality, while the Baltic States and Hungary are more unequal than the EU average. The EU15 countries with the highest levels of inequality are Portugal, Greece and Italy. To the extent that the comparison between 1995 (or the next oldest available year) and 2006 is reliable, it shows no overall pattern. Inequality has been rising in some countries and falling in others. Of course, a lot of the increase in inequality that occurred in the UK, as shown in Figures 2.13 and 2.14, did so before 1995, so it is quite possible that the Eurostat data do not tell the full story. However, they do provide a useful summary of current trends in inequality across the EU.

One very important point to make is that 'globalisation' is not the only explanation for increased inequality. International economic integration can be among the drivers of the strong rise in the income share going to the very top earners in some countries. But other factors besides globalisation may be driving such increases in skill premium (such as technical progress, changes in unionisation, trends in the skill profiles of the labour force, and developments in minimum wages)<sup>8</sup>. Much of the

8. Also note that some aspects of globalisation may actually tend to uphold the wages of low-skilled workers relative to those with intermediate skills. Many low-skilled workers are providing services that cannot be imported, while tasks that can now be sourced internationally involve many jobs with intermediate skill levels (Levy and Murnane 2004, van Welsum and Reif 2006, Baldwin 2006).

empirical work on trade and wage inequality for industrialised countries focuses on the relative importance of trade liberalisation and technological change for changes in skill inequality. The estimated impact of trade on the rise in skill differentials differs widely across the various studies<sup>9</sup>.

### Economic growth

A fundamental question regarding the desirability or otherwise of globalisation is the extent to which the structural economic changes detailed in this chapter have affected economic growth and measures of standards of living (such as the commonly-used Gross Value Added per head) in the EU economies. While Gross Value Added is a crude and incomplete measure of welfare and we would not wish to rely on it exclusively, it is nonetheless useful for comparative purposes. (For a more detailed discussion of the advantages and disadvantages of GVA as a measure of welfare see Johnson *et al* 2007.)

On balance, economic theory suggests that increasing economic integration between the EU and the rest of the world should lead to higher income per head, due to the following effects:

- Free trade enables **greater specialisation** between different countries in tradable goods and services, with countries specialising in their ‘comparative advantages’ – that is, producing those goods and services in which their relative productivity is highest.
- Economic integration should enhance **competitive pressure** in the product and labour markets in the participating countries and reduce any inefficiencies resulting from lack of competition or monopolistic tendencies, as well as possibly increasing incentives to innovate.<sup>10</sup>
- To the extent that **economies of scale** exist in production of goods or services, opening up markets increases potential profitability and returns to investments for firms in the enlarged markets (at least in the short run).
- **Creativity and innovativeness** are likely to be strengthened by international interaction and the access to new ideas that comes from integration into a larger marketplace.

However, it is important to recognise that although there is general agreement that overall increased integration should lead to more growth, it is far from clear that this will benefit *everyone* in the EU or other developed countries. There are likely to be losers – particularly people in industries that shrink as a result of globalisation. To the extent that increased openness to trade and competition reduces ‘economic rents’ and improves economic efficiency, the creation of some types of ‘losers’ in the short run may be no bad thing. But it is likely that there will also be losers who are particularly vulnerable (for example, low-skilled workers displaced from jobs due to the shifts in industrial structure).

The balance of evidence suggests that when trade-displaced workers are re-employed they typically in the short run receive lower pay, sometimes significantly so, and the returns to job-specific skills accumulated in the previous job are lost (OECD 2005a). The fact that *overall* output has increased is of little comfort to those who lose out from globalisation unless policies are put in place to enhance the prospects of the losers<sup>11</sup>.

---

9. For example: Lawrence and Slaughter (1993), Berman *et al* (1994), Wood (1994), Cline (1997), Bhagwati (2000), Haskel and Slaughter (2001), Berman *et al* (2003), Feenstra (2007). According to a recent study (OECD 2007a) the empirical evidence for OECD countries suggests that narrow offshoring (intra-industry offshoring) shifts relative labour demand away from low-skill workers, whereas services offshoring has a tendency to shift relative labour demand away from medium and high-skill workers and towards low-skill workers.

10. There is some dispute in the economics literature as to whether increased competition is associated with increased innovation. See Johnson and Reed (2007) and Aghion *et al* (2005).

11. Note that although our focus here is on the effects of globalisation on the EU economies, there are also increasing concerns among many influential economists that there is a danger that large numbers of vulnerable people in developing countries will lose out from globalisation – at least in the short term – unless appropriate policies are put in place to compensate the losers. See, for example, Stiglitz (2002, 2006).

Does the empirical evidence bear out the prediction from economic theory that, overall, there will be gains from increased economic integration? A large number of multi-country case studies and econometric studies using cross-country datasets have tested the empirical validity of this trade-growth relationship but so far there is no full agreement among economists concerning the precise nature of this relationship<sup>12</sup>. Cross-sectional regression studies from the 1980s and 1990s showing that greater openness is associated either with higher levels of income or more rapid growth have been comprehensively re-examined and criticised by Rodriguez and Rodrik (2000), who argue that the results are not robust, the measures of openness used in the studies are neither clearly exogenous nor consistent across studies, and the econometrics are flawed. Nonetheless, the balance of evidence from case studies and econometric analysis, and the fact that the most spectacular growth stories all involve rapid increases in both exports and imports – frequently after specific policy decisions have been made to open up – should persuade us that openness to the global economy is a necessary, though not sufficient, condition for sustained growth. To quote Dani Rodrik (2000): ‘No country has developed successfully by turning its back on international trade and long-term capital flows.’

As shown above, the recent productivity performance of the EU has been poor compared with the US and Japan. However, in the longer run – since the Second World War – most economists agree that the EU has benefited greatly from increased global economic integration. A recent study of the impacts of deeper economic integration at the world level on EU living standards, by economists at the European Commission (Denis *et al* 2006), tries to quantify the benefits of economic integration more exactly. This study uses the European Commission Directorate-General for Economic and Financial Affairs (ECFIN)’s QUEST macro-economic model to simulate the effects of the ‘globalisation-induced relocation of production processes’ at a macroeconomic level. Thus it is an attempt to quantify the gains (or losses) to the EU from globalisation using empirical data on a range of economic indicators between 1945 and the present day. The main results from the study suggest that:

- Around 20 per cent of the improvement in the EU’s living standards over the period from 1945 to 1990 was due to global economic integration.
- However, the aggregate gains to the EU between 1990 and 2003 were very small. The authors suggest that this is because there were substantial adjustment costs arising from the intensification of economic integration after 1990, with the integration of the former Eastern bloc countries into the global economy, and much faster economic growth in newly industrialising countries such as China and India.
- Despite the limited aggregate gains between 1990 and 2003, there are very large potential gains over the first half of the 21st century from further economic integration. The authors suggest that if the EU can reform its economic policies to adjust successfully to globalisation, output per head in the EU is likely to be around 8 per cent higher by 2050 than in the absence of further economic integration.

Obviously the results from studies like these are only a rough guide to the size of the benefits from globalisation as any macroeconomic model estimated at the EU level (or even the level of an individual member state) is necessarily a simplification of reality. Nonetheless the general pattern of the results from this study seems to tally with popular perceptions of the benefits of economic integration to the EU. The period since 1990 has certainly seen an increase in opposition to further economic integration within several of the 15 member states that were members back then. In the next chapter we discuss the ‘successful reform of economic policies’ which the authors of the European Commission study allude to above.

12. Examples include Dollar (1992), Sachs and Warner (1995), Rodriguez and Rodrik (2000), Wacziarg and Welch (2003), Dollar and Kraay (2004).



### Summary: The impact of globalisation on the EU economies

This section provides a summary of the main findings from our extensive survey of the extent and effects of the EU's increased integration into the global economy in recent years. Certainly, the evidence collected here shows that globalisation is a real phenomenon and not a product of media hype nor an outgrowth of politicians' imaginations. The data fully support the notion that nation states and regional blocs of nations have become more fully integrated with each other through trade, investment, multinational corporate activity, knowledge transfer, and labour force migration. Since 1945 the trends have all moved in one direction – towards greater global economic integration<sup>13</sup>.

The main drivers of globalisation are threefold.

- Technological progress has reduced the costs of trade and communication, which has encouraged the internationalisation of production location decisions by firms.
- Firms themselves are becoming more internationally integrated due to the expansion of the activities of multinational corporations. Falling transportation costs have also stimulated greater trade flows and production relocation.
- International agreements to lower tariff barriers (most recently through the World Trade Organisation) and increased harmonisation of corporate law and regulatory environments across the world have made it easier and cheaper to do business across international boundaries.

Analysis of trends in the sectoral structure of production and employment across the EU over the last decade shows a pronounced shift from manufacturing to services in every member state. However, some countries have experienced larger shifts than others. For example, the UK, Portugal, Latvia and Lithuania have had particularly large declines in the proportion of their workforce employed in the manufacturing sector since the mid-1990s. The EU's aggregate productivity growth (measured as GDP per hour worked) since the mid-1990s has been roughly equal to Japan's but has been slower than the US's, meaning that the gap between the two has grown. However, there are widespread differences between individual EU member states in terms of productivity growth performance since 2000. Most of the new EU member states have higher than average productivity growth (from a lower baseline than the EU15 average), and the Nordic countries and Ireland have also grown particularly quickly.

Trade has expanded markedly as a proportion of each EU country's value-added over recent decades. Imports of both goods and services have increased as a share of GDP. There have been particularly large increases in the amount of trade in the financial and computing services, largely enabled by technological progress which made their delivery cheaper and more effective at longer distances. Trade in intermediate goods and services (that is, services required for later stages of production, before final products are sold to consumers) has increased at a faster rate than trade in final goods and services.

The EU has increased its share of the world market for high-quality and high-tech manufactured goods but its performance in most service industries has been a lot weaker. EU manufacturing has not been as badly affected by the growth of Chinese manufacturing exports as have the manufacturing sectors of the US and Japan. This is due to the fact that the EU manufacturing has a stronger complementarity to Chinese manufacturing rather than being in direct competition with it (though with the Chinese manufacturing sector becoming more sophisticated this situation could change in the future).

---

13. Some analysts have taken a longer historical perspective, pointing out that the world is less integrated than it was at the end of the 19th century on some indices (for example, the extent of population movements between countries). This is true, but does not change the fact that trends since 1945 on most indicators have moved in the direction of greater economic integration. Moreover, on some of the most important indicators of economic integration (for example the extent of trade in intermediate goods and services) the global economy is the most integrated it has ever been.



Foreign direct investment in the EU has also grown quickly over the last decade, at a faster rate than GDP growth. Flows of FDI within the EU are larger than flows to countries outside the EU. The majority of intra-EU investment flows (around 90 per cent) is concentrated in the EU15, though the share of new member states doubled between 2005 and 2006. The key destinations for outward investment from the EU25 are the US, Canada and Switzerland while the biggest investors into the EU are the US and Japan. Service sectors dominate both inward and outward investments of the EU25.

Improvements in ICT have vastly expanded the scope for relocation of production via offshoring and outsourcing, particularly in the service sectors. Increases in production relocation are one of the drivers behind increases in trade in intermediate goods. Our analysis of production relocation using the European Restructuring Monitor data (which are flawed, but nonetheless the best data available) show that only a small proportion of total job losses in the EU27 countries – 195,000 jobs or 8 per cent – were the result of offshoring and offshore outsourcing over the period 2003 to 2006.

Offshoring has mainly taken place in manufacturing industries except in the UK, where the services sector (particularly banking and insurance) has been most affected. A lot of manufacturing offshoring in the 1990s and 2000s was to Central and Eastern European countries, many of which joined the EU in 2004 and 2007. However, most recently there has been a second wave of manufacturing relocations from the new EU member states to Balkan states, CIS or China, as their production costs have risen. In contrast, most services offshoring from the EU has been to India and the other newly industrialising Asian economies.

Migration has been on the increase globally over the past 20 years, with an increase in the number of foreign workers and foreign-born in the population more generally in most (but not all) EU countries. This was occurring even before 2004; the process has since been accelerated by the entry of the accession countries in 2004 and 2007 and the eventual movement towards a single market in labour (although with transitional restrictions in some of the EU15 countries). However, increased immigration has had minimal, if any, effects, on overall wages and employment prospects for workers already in the EU (as in the US).

Research and development (R&D) spending is a key measure of innovation. The EU27's R&D expenditure averages around 1.7 per cent of GDP – around 0.5 per cent below the OECD average. The gap in expenditure as a percentage of GDP between the EU27 and Japan (the world leader in terms of amount spent on R&D) has grown over the last decade. Like production, R&D has been becoming more internationalised in recent years, as the share of R&D funded abroad has increased for the EU countries, North America and Japan. Looking at a wider range of innovation indicators, the leaders 'across the board' in innovation include several EU countries (Denmark, Sweden, Finland and Germany) – all of which also spend more on R&D as a percentage of GDP than the OECD average. Japan and the US lead the EU on most wider measures of innovation, although the gap has closed somewhat in recent years.

Turning to the consequences of globalisation for inequality, over the past 25 to 30 years wage differentials have widened in the majority of OECD countries and the UK has been one of the countries most badly affected by this phenomenon. Since 1990 increased inequality has mostly manifested itself in the top of the earnings distribution (and especially the top 0.1 per cent) pulling away from the middle of the distribution, rather than an increasing gap between the middle and the bottom. At the same time the wage share of national income has been falling across the OECD, with profits taking an ever-larger share of income. Analysis of inequality of income (rather than earnings) in each EU country shows that the Nordic countries have the lowest level of inequality in the EU, whereas Portugal, Greece, Italy and the Baltic states have the highest. Since 1995 (the furthest back that Eurostat data records go), income inequality has not changed that much in most EU countries.

What about the effects of structural economic changes on economic growth? The balance of evidence from across the world suggests that increased integration into the global economy is a necessary (though not a sufficient) condition for a country to experience high and sustainable levels of growth. Simulations by the European Commission of the macroeconomic impacts of globalisation since 1945 suggest the period from 1990 to 2003 was something of an anomaly in that the overall gains to the

EU from global economic integration in this time period were small, whereas between 1945 and 1990 they were much larger. Nonetheless, the poor payoff from globalisation since 1990 can be mostly explained by one-off transition costs related to major industrial restructuring processes.

The main winners from globalisation in the EU over the last ten to 15 years in particular seem to have been the owners of capital (given the increase in capital's share of economic rewards) and workers in the top half of the earnings distribution – and especially those at the very top. The biggest losers, at least in the short run, are people who have lost their jobs in industries that have been the most badly affected by increased global economic integration and competition from abroad – particularly where those jobs have very specific skills that cannot be used in the new jobs to which workers have relocated. Net gains from globalisation are closely related to how smoothly resources can be reallocated from declining to expanding sectors, while the extent to which the country competes with the emerging markets influences the overall pressures for adjustment. In turn, the adjustment capacity depends to a large extent on policies affecting the labour market, as well as on the general skill level of the population. At the same time, there are other aspects of globalisation that have wider benefits to EU consumers – in particular, reductions in prices for goods and services that are relocated to countries where production costs are lower.

The European Commission argues that further globalisation should markedly increase the EU's prosperity, benefiting most of its citizens. Given that potential gains outweigh potential losses several times over, provided that suitable mechanisms can be found to assist the losers from further economic integration, *all* of the EU's citizens should benefit from the process. Crucially, this is dependent on the Commission and member states successfully implementing economic policies that work 'in tune with' globalisation, maximising its benefits while minimising its negative side effects. The next chapter goes on to assess these policies in detail.

### 3. Policy responses to structural economic change

In this chapter we analyse some key EU community-level policies that are crucial elements of the EU's response to the structural economic changes detailed in the previous chapter. We focus on two particular aspects of managing the economic consequences of 'globalisation': first, improving the economic performance of the member states, and second, assisting the losers from structural economic change. Because of space constraints we do not examine every member state policy in detail, but we do look at the interface between community strategy and national government priorities where appropriate.

We begin with an assessment of the Lisbon Agenda, which the EU launched in 2000 with the aim of becoming 'the most dynamic and knowledge-based economy in the world by 2010' (European Commission 2005). As the analysis of the EU's productivity and innovation performance in Chapter 2 indicated, this has not been achieved so far.

We look at what progress has been made on the Lisbon goals across four policy areas that are crucial for improving the EU's competitive position at the global level: industrial, innovation, entrepreneurship and skills policies. Later in the chapter, we look at two branches of EU policy that are particularly important for assisting the losers from increased economic integration: cohesion policy and active labour market policy. The chapter concludes with an assessment of how successful recent EU-level policy initiatives have been in responding to recent changes in the global economy.

#### **The Lisbon Agenda**

The Lisbon Agenda is an overarching policy framework that defines the European Union's intention to move towards a more competitive economy with more and better quality jobs. The Lisbon Agenda was launched by member countries in 2000 with the aim of improving the productivity of the European economy and closing the gap in economic growth between the EU and its core competitors – the US and Japan. It was Europe's response to the growing challenges of globalisation and the sweeping changes brought by rapid technological progress, the expansion of ICT and the increased speed of global flows of labour, goods and capital. There was an acknowledgement that the EU was not well enough prepared to compete in the new global environment, where success is determined largely by the extent of innovation – the so-called 'knowledge economy'. This was reflected in its poor performance on productivity and innovation as regards its main competitors (as shown in Chapter 2 above). Radical changes were required to adjust national and community policy frameworks to the needs of the modern economy, which led to the formulation of the Lisbon Agenda.

The EU set itself a very ambitious target – to become the most dynamic and competitive knowledge-based economy in the world by 2010. However, this target overstated the Union's ability to meet this ambition in a relatively short period of time. As a major review confirmed at the end of 2004 (the Wim Kok Report), Europe is still far from being the most competitive economy in the world, and actually risks falling further behind due to increased competition from the growing economic powers of China and India.

The key challenge for the EU stems from the protracted internal negotiation and coordination procedures that must be followed to formulate, approve and implement policies that take on board the positions of all 27 member states. The Single Market is not yet as effective as anticipated in generating adequate responses to the challenges of globalisation, especially with regard to services, single research, energy, and transport policies.

Recognising that the EU was unlikely to meet its Lisbon targets in the near future, the Commission relaunched the Lisbon Agenda for Growth and Jobs in 2005 (European Commission 2005), concentrating on a smaller number of priorities and highlighting the need to streamline governance structures and regulatory procedures. The revised Lisbon Agenda concentrates on two key tasks:

- delivering stronger, lasting growth; and
- creating more and better jobs.

To improve the delivery of policy, the EC created and is leading on the Partnership for Growth and Jobs, which represents a combination of Community and National Lisbon Action Programmes, the progress of which is being monitored annually. Jointly with the member states, the Commission has also prepared new financial perspectives for 2007-2013 which should contribute greatly to the achievement of growth and jobs objectives across a range of policies (structural funds, industrial policy, science and research policy, and so on).

The new policy actions were designed across three key streams:

### 1. Europe as a more attractive place to invest and work

- Extend and deepen the internal market
- Improve European and national regulation
- Ensure open and competitive markets inside and outside Europe
- Expand and improve European infrastructure

### 2. Creating knowledge and innovation for growth

- Increase and improve investment in R&D (up to an EU average of 3 per cent of GDP in 2010, compared with 1.9 per cent in 2005)
- Facilitate innovation, the uptake of ICT and the sustainable use of resources
- Contribute to a strong European industrial base

### 3. Creating more and better jobs

- Attract more people into employment and modernise social protection systems
- Improve the adaptability of workers and enterprises and the flexibility of labour markets
- Invest more in human capital through better education and skills.  
(European Commission 2005)

The challenge that remains even in the revamped Lisbon process regards *ownership of the reforms*. Most of the policy changes that are necessary to achieve progress should be made by national governments, but they have often seemed passive towards or have entirely neglected the Lisbon commitments. Furthermore, the situation differs widely from member state to member state. Most of the new members are very enthusiastic about the Lisbon Agenda, although they face tougher objectives and a longer catch-up period as they lag behind the EU average on most core indicators of success. Some of the older members, for example France and Germany, are less eager to integrate the Lisbon Agenda into their domestic regulatory framework and have taken a somewhat formalistic approach to the delivery of policy recommendations. There is also a group of relatively well-off countries which have already reached or surpassed the 2010 target indicators (in particular the Nordic countries) and thus require less 'nagging' from the Commission. The Commission has only limited scope to influence the implementation of the Lisbon Agenda, as most of the policy areas underlying it are almost entirely in the hands of national governments.

Despite its many drawbacks, the Lisbon process has nonetheless become more transparent over the last few years and currently provides a much better framework for comparative analysis, also thanks to the Open Method of Coordination (OMC)<sup>14</sup>. After the re-launch of the Lisbon Agenda in 2005, all

---

14. The OMC is a mechanism for policy comparison and benchmarking in the EU which relies on using guidelines, indicators, sharing and dissemination of best practice and peer pressure and 'naming and shaming' of poorly performing member states to drive improvements in policy across the EU. Thus it relies on voluntary cooperation (and friendly competition) between member states rather than centrally driven directives or sanctions.

member states were required to prepare National Reform Programmes (NRP) for the next three years. An annual monitoring mechanism was also set up to follow progress at the community level. A few publications are available that analyse the progress in achieving the Lisbon targets in 2006 (see for example the evaluations by the European Commission 2007b and Barysch *et al* 2007). In general, however, progress remains slow and patchy, which leads again to the question of how realistic the objectives formulated by the Lisbon Agenda are.

The Agenda aims to tackle some of the hardest challenges facing the European economy: the unsatisfactory level of liberalisation of the Single Market, especially in services; persistent under-investment in R&D; poorly performing labour markets in many member states; and weak policies to address emerging demographic concerns (that is, the ageing population). To become more competitive, the Union needs to encourage its member states to be more proactive in delivering tough policies, enshrined in national legal frameworks. However, such policies require difficult political decisions that often depend on public opinion. To achieve an economy with high and sustainable levels of economic growth and productivity, it is also necessary to secure wider buy-in for the Lisbon commitments and objectives of the reform among the mass of European citizens. We argue in the conclusions to this paper that these processes will require a distinctive European 'media space' where community targets and progress could be discussed along with the national challenges and achievements.

### **Industrial policy**

The European Union's Industrial Policy was first launched in 1990 (European Commission 1990) with the aim of increasing the competitiveness of the Union's enterprises and industrial sectors, compensating when necessary for market failures. It did not have its own instruments, instead drawing upon a combination of instruments available through other Community policies (regional aid, social fund). The Commission also provided a comprehensive analysis of sectors' development in order to design the most appropriate combination of policy measures to address the competitiveness problems of particular industries.

However, it is important to stress that industrial policy has traditionally been the prerogative of national governments, who have predominantly been responsible for spending resources from national budgets to support industries in crisis or to invest in the advancement of specific sectors and enterprises in their countries. But national policies are limited by the standards and requirements of EU competitiveness policy, which stipulates that state support should not undermine fair competition between firms within and across member states. The Commission also usually provides overarching guidelines, mainly to secure the stability and advancement of the Single Market and to improve competitiveness of the overall EU economy.

Despite a continuous fall in the share of manufacturing industry in the structure of the EU's output (from 30 per cent in 1970 to 18 per cent in 2001), it remains a crucial component of the EU's competitiveness, accounting for the majority of EU export and R&D investments. De-industrialisation in the majority of EU member countries in the 1970s and 1980s occurred due to large job losses in the manufacturing sector, especially in the period of 1979-1995, though this trend is still continuing (European Commission 2003). However, the same period was characterised by a considerable increase in value-added in manufacturing, with some industries showing especially large increases (machinery, telecommunications and chemicals). In the period 1995 to 2001 growth in value-added continued, in particular in sectors such as electronics and telecommunications equipment. There were, of course, examples of industries where both employment and output were falling (for example, textiles, clothing, mining). In general, however, the EU's manufacturing sector experienced dramatic growth in productivity until 1995, when it slowed down; in absolute terms, the EU's industrial productivity has lagged behind the productivity of manufacturing in the US and Japan since the mid-1990s.

Despite its decline, the industrial sector also became an important stimulus for the growing service sector. As enterprises are eager to outsource more non-core functions in order to increase their profitability, productivity and improve organisational processes, specialised companies have clustered around producers providing very specific services (for example, design), which has spurred

considerable growth in business services and stimulated the growth of the communications industry. It would thus be incorrect to ignore the intrinsic link between manufacturing and services, especially as the EU managed to keep its strong positions in mid-high-level manufacturing with the significant growth of productivity (see Chapter 2).

On the other hand, the service industry in Europe has traditionally had lower average productivity than in other leading industrialised countries, and this could explain why the EU generally has lagged behind its main competitors, the US and Japan, in terms of productivity over the last decade. As more and more people are now working in the services sector after losing work in manufacturing jobs, the overall productivity of Europe's economy relative to the US and Japan has fallen. It is thus crucial, if possible, to provide jobs substitutions with the simultaneous upgrade of skills and advancement of knowledge so that productivity measured against the number of jobs does not decrease but increase (see Cooke and Lawton 2008). This will require changes to both active labour market policies and education policies (both discussed below).

The EU's industrial policy was substantially transformed in 2002 as a result of the adoption of the Lisbon Strategy in 2000 and the Gothenburg Sustainability Strategy in 2001. These two documents put new challenges in front of European manufacturing related to the growing competitiveness of the global economy and increasing concern over climate change and the need to adjust industrial production to ensure environmental sustainability.

Another fundamental driver behind the change in the policy landscape was the anticipated enlargement of the European Union in 2004. The performance and productivity of the manufacturing sector were bound to change: since 2004 European manufacturing has become more diverse, enjoying much larger labour and consumer markets, and free access to considerable sources of relatively cheap but highly skilled labour (see Chapter 2 above). In general, however, the overall productivity of EU manufacturing fell, since the post-Communist countries that joined the Single Market were largely dependent on low-end industrial facilities which required a serious overhaul. In this way, the expansion of the European Economic Area to ten new countries and the launch of EMU have marked a new stage in the development of industrial policy. The core objective of the policy remains unchanged: 'ensuring higher growth rates, generating high living standards and numerous and lasting jobs' (EC 2002).

The main task for the EU's industrial policy was to build on the existing strengths of the European economy (a stable political and macroeconomic environment; the single market; strong social cohesion; a well-educated labour force; good dialogue between social partners, in particular employers and employees; guaranteed universal services at competitive prices; and highly developed energy, transport and telecommunication networks) and create a favourable environment for investment and highly competitive production that could generate higher growth rates. The EC took a horizontal approach to create adequate policy frameworks with clearly defined priorities, which benefited industries with strong potential.

At the same time, there have been calls for industrial policy to be even more strongly coordinated with other EU policies that have an impact on the development and sustainability of the Union's industrial base. Driven by the Gothenburg Strategy, enterprises have been expected to contribute to the sustainability agenda, and the role of corporate social responsibility – as well as investments in R&D and introducing innovative products – has been recognised as crucial for achieving real sustainable growth. Among the most recent trends that impacts on the formulation of EU industrial policy is energy security, which has become a hot topic as 27 member states struggle to build consensus for future actions.

Industrial policy has also become more concentrated on upgrading skills and enabling the enhancement of the knowledge base, which as mentioned in earlier chapters has played a crucial role in maintaining the competitiveness of European industries throughout a period of intensive industrial relocation (outsourcing and offshoring) and has contributed to rising productivity and profitability for many companies, especially in Germany, France and the Scandinavian countries. Innovation and entrepreneurship were recognised as core direct drivers of economic growth and productivity, and

alongside the enabling power of ICT they became key industrial policy priorities. It is especially important to concentrate policy instruments on these drivers, as Europe is lagging behind the US and Japan in terms of investment in research and innovation capacity, which negatively affects the level of productivity growth.

In the process of planning new financial perspectives for the programming period 2006-2013, the European Commission placed a high priority on improving European competitiveness to respond to the challenges of the Lisbon Strategy. This was then reflected in various policies, and the Communication of 2004 on fostering industrial policy in an enlarged Europe highlighted three priority areas of activity for industrial policy (EC 2005b):

1. **Improvement of the regulatory framework for industrial policy**, which should ensure a decline in the regulatory burden and improved coherence in legal and regulatory standards across member states.
2. **Better exploitation of synergies between industrial policy and other EU policies** that contribute to the competitiveness of industry.
3. **Achieving the best combination of policies at sectoral level**, ensuring that the specific needs of different industrial sectors are addressed in a complex and coherent way.

Apart from sectoral initiatives, it has been proposed that the EU's industrial policy should be built around five horizontal programmes aimed at increasing the effect of different community policies across five areas that have the potential to increase the competitiveness of EU industry: knowledge; the internal market; cohesion; sustainable development; and the international dimension.

In October 2005, the Commission launched a new, more integrated, industrial policy to create better framework conditions for manufacturing industries (EC 2005b). It recognised the crucial role of national governments in achieving increased competitiveness in European industry; however, it also highlighted that challenges such as creating an open and competitive Single Market, as well as the ability of industry to respond to the energy and climate change agendas, are better achieved at Community level. This requires a more straightforward and well articulated EU industrial policy.

Thus the Commission proposed a range of new initiatives in this area, in particular:

**Seven new, major cross-sectoral policy initiatives:**

1. An intellectual property rights and counterfeiting initiative
2. A High Level Group on competitiveness, energy and the environment
3. External aspects of competitiveness and market access
4. New legislative simplification programme
5. Improving sectoral skills
6. Managing structural change in manufacturing
7. An integrated European approach to industrial research and innovation.

**Seven new, sector-specific initiatives or actions:**

1. Setting up of a new pharmaceuticals forum
2. Mid-term review of life sciences and biotechnology strategy
3. New High-Level Groups on the chemicals industry and the defence industry
4. European Space Programme
5. Task force on the competitiveness of ICT
6. Mechanical engineering policy dialogue
7. A series of competitiveness studies, including for the ICT, food, and fashion and design industries.



The Commission also proposed to group 27 separate industrial sectors into four broad categories, based on an analysis of their systemic challenges and opportunities (some basic data on these categories is presented in Table 3.1). These four groups would serve as a basis for the design and implementation of sector-specific policies. They are:

1. **Food and life sciences industries** (for example, food and drink, pharmaceuticals, biotech)
2. **Machine and systems industries** (for example, ICT, mechanical engineering)
3. **Fashion and design industries** (for example, textiles and footwear)
4. **Basic and intermediate industries** (for example, chemicals, steel, pulp and paper)

**Table 3.1: Basic characteristics of four industrial groups**

	Share of value-added in manufacturing in 2004 (% points)	Average annual growth rate 1993–2004 (%)
Food and life science	18.1	2.4
Machine and systems	33.1	3.5
Fashion and design	7.5	-2.0
Basic and intermediate	41.3	2.1
Total manufacturing	100.0	2.3

Source: Eurostat

A mid-term evaluation of industrial policy in 2007 (EC 2007c) demonstrated ‘steady progress’ in achieving core policy objectives (steady growth in productivity and competitiveness, stability and sustainability of industrial jobs). However, it also drew attention to the fact that externalities that have major impact on the competitiveness of EU industry are intensifying and this process has resulted in new challenges for European manufacturers. In particular, the role of states such as China and India in global commodity markets is becoming stronger, especially due to the enhanced capacity and potential of ICT, which facilitates more vertically integrated production chains. Meanwhile, the US and Japan are still outperforming the EU on overall productivity. The EU thus faces a two-pronged competition challenge.

The growing intensity of knowledge and innovation in global production also requires new, more flexible policies to address the problems of skills gaps and the lack of infrastructure necessary for generating and diffusing knowledge. The EU has also committed itself to ambitious targets aimed at reducing greenhouse gas emissions (by 20 per cent by 2020), which impose new obligations and challenges primarily on European manufacturers. These targets are essential if the EU is to contribute effectively to mitigation of the risk of dangerous levels of climate change in the 21st century. The EU has been much more effective than its global competitors in developing and implementing these policies, although there is still more to be done to make EU policy instruments more effective. We return to the topic of the EU’s climate change obligations in the conclusion to this report.

### **Innovation policy**

‘Knowledge and innovation for growth’ was one of the three main areas for action prioritised by the European Commission in the 2005 relaunch of the Lisbon Agenda. Earlier, the 2002 Barcelona Council set a target of raising overall R&D spending in the EU from 1.9 per cent of GDP<sup>15</sup> to 3 per cent of GDP by 2010. However, as shown in Chapter 2, R&D investment as a share of GDP has been more or less static since 2002, and recent trends in the new member states are similar.

15. The innovation statistics presented in Chapter 2 suggested that R&D spending in the EU was around 1.7 per cent of GDP in the early 2000s. The discrepancy is explained by the fact that those figures refer to the EU27, whereas the 2002 Barcelona Council referred to the EU15, which has higher average R&D than the EU27.



A 2006 briefing document from the Commission entitled 'A broad-based innovation strategy for the EU' sets out a 10-point action plan for encouraging greater innovation in the EU. The action plan points are as follows:

1. **Education spending** – member states are recommended to increase significantly the share of public expenditure devoted to education and to prioritise investment in key areas of education that are particularly important for innovation, such as increasing the number of science and engineering graduates.
2. A **European Institute of Technology (EIT)** is to be established. This new organisation is described as 'an integrated partnership of science, business and education... a key driver and a new model for innovation in strategic interdisciplinary areas' (European Commission 2006b). It will combine European students and researchers with businesses working on the development and exploitation of innovative products and services.
3. **Improving the single labour market for researchers** – removing any remaining obstacles to the free movement of university staff and other researchers across EU member states (such as portability of pension arrangements).
4. Promoting **knowledge transfer** between universities, other public research organisations, and industry. The aim is to generate world-class research 'clusters' by encouraging cooperation between innovators in related areas and by improving business support and information networks.
5. Mobilising **cohesion policy** in the 2007-13 funding round in support of regional innovation (below for more details).
6. A new framework for **state aid** to research, development and innovation focusing on targeting state aid better on market failures which lead to suboptimal levels of innovation in the EU. This includes guidance for the design and evaluation of tax incentives for R&D (such as the UK's R&D tax credit system).
7. A new strategy for a unified **European patent system** to replace the current system where patents are registered separately in each member state, and a more comprehensive and consistent **intellectual property rights (IPR)** system to help innovators (in particular small and medium sized enterprises) secure the intellectual rights arising from their R&D.
8. Revisions to the **legal framework for copyright** to take account of new digital products, services and business models.
9. A new strategy to facilitate the emergence of '**lead markets**' in innovative products and services. The aim of the lead markets initiative is to bring together several aspects of innovation policy, including university research funding, procurement rules and the setting of regulatory standards to promote innovation in certain key industrial sectors where the market failures and barriers to innovation seem to be particularly acute. However, the initiative is not meant to be an exercise in 'picking winners' – it is hoped that the specific types of innovation that take place would be market-driven. This initiative is still quite vague at the moment and the details have not yet been worked out.
10. New **public sector procurement** guidelines aimed at stimulating innovation by the providers of procured goods and services – essentially, encouraging procurers to take innovation into account as one of the criteria against which procurement tenders should be evaluated.

An earlier Commission briefing (European Commission 2005c) also identified several other priorities for Community policy not focused on in the 2006 briefing:

- Using the **7th Framework Research Programme**, which is the EU's delivery mechanism for research funding to stimulate innovation via a new focus on public-private partnerships ('Joint Technology Initiatives'), which will combine funding from the EU, national public sources and the

private sector to facilitate collaborations between private sector industry, universities and public sector agencies and departments.

- Improving the **access of small and medium sized enterprises (SMEs) to finance** through initiatives such as JEREMIE (Joint European Resources for Micro-to-Medium Enterprises) and JESSICA (Joint European Support for Sustainable Investment in City Areas), which provide new opportunities for small businesses to access structural funds directly.
- Support for **eco-innovation** – innovative research activities that enhance the EU's ability to meet its environmental goals (in particular, long-term targets for reductions in emissions of CO<sub>2</sub> and other greenhouse gases), although again, the exact details of this have still to be worked out.

It is most unlikely that these initiatives will be implemented in time to enable the EU to reach its ambitious target for an average R&D spend of 3 per cent by 2010. But are they the right set of priorities for the years following 2010? Our view is that in general, the EU has identified the right general priorities. Given the increasing internationalisation of R&D spending as the EU economy becomes more integrated with the rest of the world, it is certainly essential to provide an attractive environment for innovative businesses to innovate in – whether they are homegrown or multinational. Hence the emphases on fiscal incentives for R&D, providing a highly-skilled workforce, and rationalisation of the EU's intellectual property regime are very sensible. Likewise, higher education institutions need to focus on attracting world-class research talent collaborating with industry in bringing innovative products to market, and building global networks to facilitate research that will lead the world in particular areas.

The main weakness in the Commission's proposals is that, as with industrial policy, there is an attempt to be 'all things to all people'. The 2005 communication on innovation listed 19 separate priority areas, and although the 2006 briefing narrowed this down to 10, the strategy still lacks prioritisation and strong, simple messages that can be filtered down to member state governments, businesses and the higher education sector. An excess of initiatives (and, moreover, an excess of announcements of initiatives) is likely to lead to confusion and exacerbate the problems of the early period of the Lisbon strategy where policy pulled in several directions at once.

A simpler message from the Commission, concentrating on a few key areas, would stand a better chance of being effective. It is prudent to focus on the areas where progress is most badly needed – in particular, fiscal incentives for R&D support for particular industries where market failures are likely to be most acute (for example eco-innovation; see Lockwood *et al* 2007) and harmonisation of the intellectual property regime. We return to the general theme of clearer, simpler messages from the commission in our overall conclusions in Chapter 4.

## **Entrepreneurship**

One aspect of the EU's business environment that is often criticised by media commentators and politicians (among others) is that the EU is insufficiently entrepreneurial. The EU is often contrasted unfavourably with the US, where, the conventional wisdom says, attitudes towards entrepreneurship and starting businesses are much more positive than in the EU.

How accurate is this stylised portrayal of the EU as an 'entrepreneurship laggard'? Table 3.2 below shows results from Eurobarometer surveys of attitudes towards entrepreneurship in the EU15 states and the US (for comparison) that took place in 2002 and 2003. This is the most recent available data that is defined consistently for the US and Europe. Survey respondents were asked whether they had started their own business or were taking steps to start one.

The results show that one in five respondents from the US was either running, or had taken steps to start, their own business. The comparable average figure for the EU was less than one in six (14 per cent). However, looking solely at people who were *already running* their own business, the figures were much closer together – 12 per cent for the US, 11 per cent for the EU. And the

**Table 3.2. Responses to the question: ‘Have you ever started a business recently or are you taking steps to start one?’**

Country	Percentage of respondents in each category							Observations	
	Response*	Never	Gave up	Thinking considered	Taking steps	Business	Business <3 yrs		No longer >3yrs
Belgium		68	9	8	2	2	5	6	853
Denmark		44	13	18	3	3	9	10	819
Germany		50	13	16	3	4	7	7	1297
Greece		46	11	17	2	4	8	12	875
Spain		60	8	15	2	2	6	7	1129
France		61	14	11	1	1	4	7	1337
Ireland		52	7	21	5	4	7	5	856
Italy		62	7	9	3	2	7	10	1362
Luxembourg		60	16	8	2	2	6	6	814
Netherlands		56	11	10	1	3	9	9	847
Austria		54	8	20	2	4	7	5	808
Portugal		61	8	11	3	3	6	7	815
Finland		54	12	11	2	3	10	9	839
Sweden		66	5	9	3	4	7	6	712
UK		53	8	15	2	5	7	10	1149
EU15 average		55	10	13	3	3	8	8	921
US		49	3	23	8	7	5	5	1050

Source: Thurik and Grilo (2008); Data taken from 2002 and 2003 Entrepreneurship Flash Eurobarometer surveys.

\*Respondents were given seven options of response to choose from:

1. ‘It never came to your mind’
2. ‘No, you thought of it or had already taken steps to start a business but gave up’
3. ‘No, but you are thinking about it’
4. ‘Yes, you are currently taking steps to start a new business’
5. ‘Yes, you have started or taken over a business in the last 3 years and it is still active’
6. ‘Yes, you started or took over a business more than 3 years ago and it is still active’
7. ‘No, you once started a business, but currently you are no longer an entrepreneur’

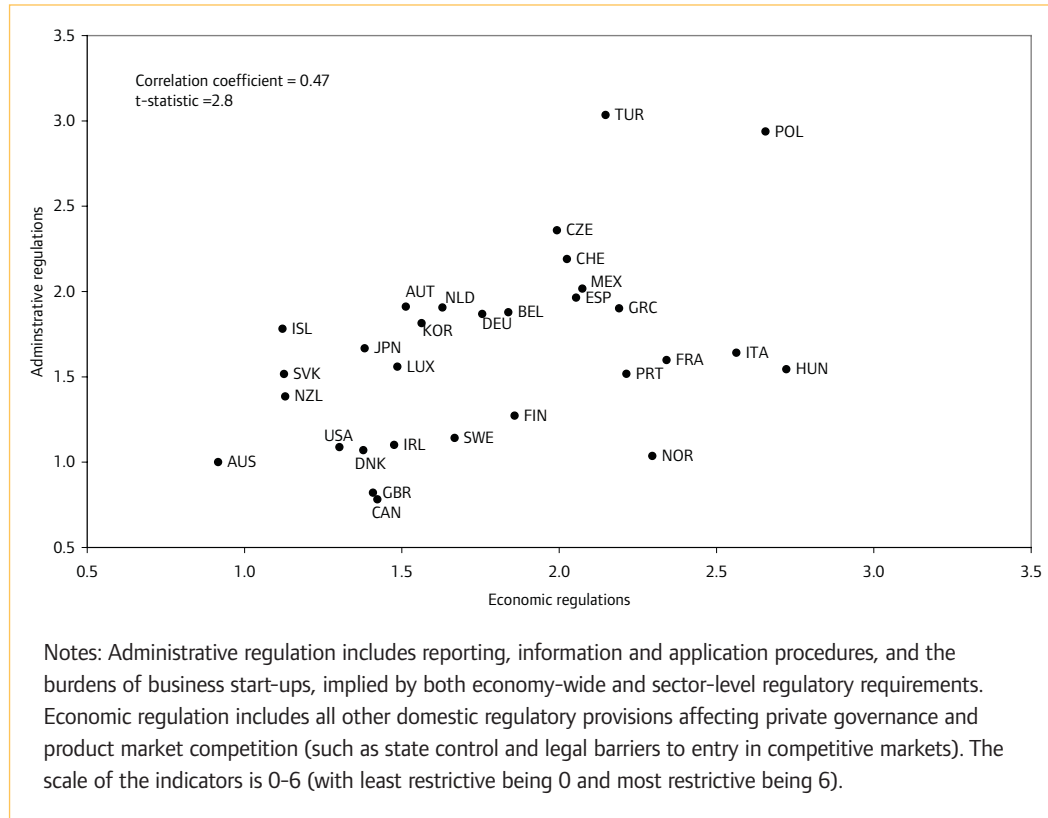
proportion of people who had been in business for more than three years was *higher* in the EU than in the US. Clearly, the existence of an ‘enterprise gap’ depends on which measure of enterprise we use<sup>16</sup>.

Nonetheless, in a recent international survey of entrepreneurship and SMEs, the OECD does point out one important difference between Europe and the US: job creation and employment expansion by American SMEs is much higher than for European SMEs. This means that successful entrant firms in the US reach a higher average size than in the EU. Additionally, the OECD’s index of the administrative and economic regulations facing start-up businesses in different countries suggests that for most EU countries small businesses face more ‘red tape’ than in the US or Australia, as shown in Figure 3.1 below.

16. In an analysis of various measures of entrepreneurship in the UK, Johnson and Reed (2007) show that using data on (for example) the number of business start-ups in each UK region gives different results from using data on attitudes to starting a business. Additionally, the quality of entrepreneur is an important determinant of the contribution of entrepreneurship to economic growth. See Blanchflower (2004) and Greene *et al* (2004).

**Figure 3.1. OECD indices of administrative and economic regulations, 2003**

Source: OECD 2007c



While these kinds of indices should be treated as indicative only, and we would certainly not want to suggest that regulation is a bad thing *per se* (many progressive labour market measures such as health and safety standards, maternity leave, minimum wages and trade union recognition may depend on it), it is likely that the burden of compliance with regulations falls more heavily on SMEs than on other businesses as a proportion of their turnover, and thus high levels of regulation may have an adverse affect on small business formation. Certainly, in responses to an open consultation by the European Commission in preparation for its ‘Small Business Act for Europe’ (proposals for which were announced in June 2008), the most commonly cited problem that European businesses were facing was ‘administrative burden, overregulation and bureaucracy’ (European Commission 2008b).

The European Commission’s June 2008 proposals for a ‘Small Business Act’ for Europe outline ‘a set of ten principles to guide the conception and implementation of policies both at EU and member state level’ (EC 2008b):

1. Create an environment in which entrepreneurs and family businesses can thrive and entrepreneurship is rewarded
2. Ensure that honest entrepreneurs who have faced bankruptcy quickly get a second chance
3. Design rules according to the ‘Think Small First’ principle
4. Make public administrations responsive to SMEs’ needs
5. Adapt public policy tools to SME needs: facilitate SMEs’ participation in public procurement and better use state aid possibilities for SMEs
6. Facilitate SMEs’ access to finance and develop a legal and business environment supportive to timely payments in commercial transactions
7. Help SMEs to benefit more from the opportunities offered by the Single Market
8. Promote the upgrading of skills in SMEs and all forms of innovation
9. Enable SMEs to turn environmental challenges into opportunities
10. Encourage and support SMEs to benefit from the growth of markets.

With these principles in mind, the Commission has also made a number of proposals for changes to EU legislation to make life easier for small businesses, some of the most important being:

- Relaxation of state aid rules for SMEs
- A new company form for a European Private Company (SPE) that can be created and operates according to the same uniform principles in all member states (as opposed to the current variation in company law across states)
- New options for member states to apply reduced rates of VAT for locally supplied services that are provided by SMEs.

Most of the guiding principles of the ‘Small Business Act’ (mostly an advisory paper rather than a legislative act in the UK sense of the term) seem sensible. We have two reservations, however. One is that ‘Think Small First’ may not be sensible advice across the EU’s economy as a whole – in the single market there are likely to be areas of industry where the minimum efficient scale for firms to operate is very large, due to economies of scale. It is better to focus policy on eliminating barriers to market entry and regulating oligopolistic markets (that is, markets where there are only a few firms competing) to ensure that competition works to the benefit of consumers, rather than trying to encourage provision of services by SMEs in markets to which they are obviously not suited.

The other reservation we have is that efforts to promote an ‘entrepreneurship culture’ by the Commission in a top-down fashion may come across as an unwarranted interference in national affairs unless the Commission agrees to work with national governments on these issues rather than cutting across national priorities. It is unlikely that any of the EU’s current member state national governments are consciously anti-entrepreneurial in their approach, and it may well be that moves to encourage an ‘entrepreneurship culture’ will be more credible if they originate from the national governments (or indeed from sub-national sources such as regional or local bodies) rather than the Commission. In the final chapter we return at greater length to this important theme of what the appropriate sphere of policy influence is for the Commission with regard to national governments.

### **Skills policy**

Even in the absence of increased global economic integration, the education and skill levels of the workforce in each EU member state would be a key determinant of that state’s economic performance, because skills are a key determinant of productivity (and therefore wage levels). Therefore, countries with higher average levels of workforce skill are likely to enjoy higher standards of living, all other things being equal. Global economic integration increases the likelihood that unskilled workers in the traded sector of the economy will be undercut by countries with lower labour costs, as examined in the discussions of trends in trade and offshore outsourcing in Chapter 2. This makes increasing the level of skill of the workforces in EU countries even more imperative. Globalisation has also raised the requirements for effective communication in terms of linguistic skills, technological skills and skills to deal with different institutions and cultures.

As with labour market policy, education and skills policy is largely the preserve of EU member states, with the European Commission playing a mostly advisory role so far. The Lisbon Agenda did lay down key targets for 2010 on literacy, reduction of early school-leaving, upper secondary level attainment, maths, science and technology graduates and participation in adult learning. The European Commission’s latest report on progress towards the targets (EC 2008c) shows that only the benchmark on mathematics, science and technology graduates is likely to be met. The worst performance on any of the indicators was on reading literacy, where the target was for a reduction of 20 per cent in the proportion of children with poor reading literacy, but the outcome (by 2007) was that the proportion had *risen* by 10 per cent.

Across the EU there is large variation in the education performance of member states. For example, Finland, Denmark, Sweden, the UK, Ireland, Poland and Slovenia have exceeded the ‘composite

objective' of the five benchmarks set for 2010, while France, the Netherlands and Belgium have average performance below the composite objective.

The European Commission report on progress towards the Lisbon objectives shows that there is widespread good practice and expertise in the EU. Countries with particularly strong performance across a number of areas include Poland, Ireland, Slovakia, Finland, Denmark and the UK. Looking in an international context using the UN's education index, which measures a country's relative achievement in both adult literacy and combined primary, secondary and tertiary gross enrolment, the EU (taken as a whole) is lagging behind Australia, New Zealand, South Korea and the US, but is ahead of Japan, China and India.

Overall, performance on skills policy in the EU is reasonably good, but not world-leading. The main challenges for the EU are:

- Dissemination of best practice across EU member states, given that there is a wide range of 'good performers' in different areas of education policy. The Open Method of Coordination (OMC) has a key role to play here.
- Increasing investment in education. EU public investment into education averages 5 per cent of GDP, which is higher than the US (4.8 per cent) or Japan (3.5 per cent). However, EU private investment in education is much lower than the US or Japan, which means that overall levels of investment in education are lower in the EU than in its major competitors. The EU's biggest deficit is in higher education, where funding levels are much lower than in the US, which is the world leader. Given the link between education and productivity there needs to be additional investment into education from either public or private sources to enable the EU to compete effectively. Increased use either of loan financing or taxation levied on graduates is likely to be the most effective mechanism for targeting additional funding for HE.
- Improving basic skills – particularly increasing levels of reading literacy among school-leavers.
- Improving equity in education and training. Less favoured family backgrounds, migrant origins and gender differences continue to affect educational achievement.
- Better linkages between the higher education sector and the business community: this is a priority for European Community innovation policy, as indicated above.

### **Cohesion policy (structural funds)**

Structural funds are the core instruments of community policy for achieving and sustaining the solidarity of the Union's economy and the well-being of its population by narrowing the gap in economic performance between member states and their regions. As regions, just like countries, adjust differently to the ever changing environment of a global economy driven by knowledge and innovation, there is a need for specific instruments to address the challenges of individual regions with specific structural problems and different prospects for growth. Cohesion policy provides such a framework and also complements national aid programmes aimed at individual territories and companies (which are outside the scope of this paper).

First designed in the 1980s in the face of growing disparities between European states and their regions, structural funds (currently comprising the European Regional Development Fund, the European Social Fund, and the European Cohesion Fund) became one of the biggest distribution mechanisms in the community budget, accounting for about 35 per cent of the EU budget over the last two programming periods (1999-2006 and 2007-2013). This funding, matched with national and regional grants, is provided to the least developed regions and to regions with the most severe structural problems in order to improve the productivity of the regional economy and to increase economic growth and employment, which in turn contributes to overall EU economic growth. Originally, this was largely done through different grant schemes for enterprises (mainly big companies, though this is currently being changed) and programmes aimed at increasing employment in these regions and improving the skills of the labour force. Since the early 2000s, structural funds have become the basis for the implementation of community cohesion policy – policy aimed at the economic, social and territorial convergence of EU regions and nations.

Some argue that cohesion policy is unsuccessful as it targets territories, not people (Kirkegaard 2005), thus creating the wrong stimuli and encouraging low-productive businesses to survive rather than opening the road to more competitive companies. Commentators who take this view argue that targeting the population regardless of their place of residence would allow cohesion policy to achieve more, especially as the renewed policy framework concentrates increasingly on advancing human capital. However, there is a solid argument for spatial policies and instruments concentrating on specific territories, as only then is it possible to consolidate the productivity potential of the larger area and to improve employment/skills levels and the structure of the given labour market.

The achievements of these structural funds are mixed for the period up to 2004 (prior to EU large-scale enlargement, which caused big shifts in their operations). On the one hand, there has been substantial progress in some of the least developed regions and countries of the EU15 such as parts of Ireland and Spain, and the gap in prosperity (measured as GDP per head) between the poorest regions and countries and the EU average has narrowed. On the other hand, there have been other, less optimistic cases where states such as Greece and Portugal failed to catch up despite receiving big sums from structural funds, and there is evidence of growing intra-national disparities in different EU countries in the period of 1995-2004 – for example, Netherlands, Sweden and the UK – which many link to the expansion and growth of capital cities (European Commission 2007a).

On the eve of the 2004 enlargement, the EC provided substantial funds to support the candidate accession countries in their reform programmes, as their level of economic development and social cohesion was lagging dramatically behind the EU average. The 10 new countries that joined the EU in 2004 became the biggest recipients of structural funds, and in the period 2007 to 2013 they will receive 52 per cent of total structural funds (for comparison, their share in total EU population is 21 per cent). When in 2007 Romania and Bulgaria joined the EU, average prosperity (GDP per head) across the 27 countries dropped even further, reflecting the fact that the level of GDP per head in these two countries is only 35 per cent and 38 per cent of the EU average respectively (European Commission 2007a).

The expansion of the EU, combined with the new policy challenges outlined in the Lisbon Agenda, means that cohesion policy has faced substantial changes in the current funding round (2007-2013). Not only has the use of funds needed to become more concentrated (with the number of eligible areas being slashed), but the nature of assistance has needed to change in order to meet the needs of the modern economy and the EU's ambition to become the most competitive economy by 2010. Cohesion policy concentrates on the least developed regions: 82 per cent of resources are allocated to regions with the lowest level of GDP per head – the so-called Convergence Objective, while a further 16 per cent will be spent in regions with structural problems, the so-called Regional Competitiveness and Employment Objective. It aims to improve the competitiveness of these regions by concentrating on structural adjustments, investments in research and innovation activities, the advancement of human capital and entrepreneurship. Regional assistance has now moved from providing grants towards a new strategy of providing loan-based assistance through schemes jointly designed with the European Investment Bank.

Cohesion policy is an important contribution to improving the EU's competitiveness and developing policy that can be more effectively coordinated at the community level, jointly with member states. In line with the Community Strategic Guidelines for Cohesion 2007-13, member states will have to concentrate the investments they receive from the European Regional Development Fund, the European Social Fund and the European Cohesion Fund on areas closely linked to the Lisbon growth and jobs agenda, in particular on upgrading human capital, on research, innovation, entrepreneurship, and support to SMEs. In fact, the greater share of structural funds for the current programming period is earmarked for interventions aimed at supporting research and innovation, information society and sustainable development (60 per cent for cohesion objective regions and 75 per cent for competitiveness and employment objective regions respectively).



## European employment and active labour market policies

Employment policy is traditionally the responsibility of the member states, and the European Commission has had very limited influence over initiatives in this area. One exception is labour law, where the EC sets standards that are then incorporated into national legislation. This was initially designed to soften the possible negative consequences of launching the Single Market, to guarantee minimum standards of working conditions (that is, working time, part-time and fixed-term work, posting of workers), and to ensure information provision and consultation with workers. It is rightly regarded as a core component of the Union's social cohesion agenda.

The **European Employment Strategy** (EES), initiated in 1997, is the key European instrument for coordinating member states' employment policy priorities. The EES has gone through major changes over the last 10 years, especially since the Lisbon Growth and Jobs Strategy was launched in 2000 and then re-launched in 2005. The Lisbon Strategy, which aims to spur growth and enhance the competitiveness of the European economy, has catalysed a shift from passive towards active labour market instruments, such as:

- Training programmes and general human capital enhancement initiatives
- Private sector incentive schemes (for example, wage subsidies and start-up grants)
- Direct employment programmes in the public sector
- Services and sanctions (job search assistance, counselling and monitoring, sanctions in case of non-compliance). (Kluve 2006)

The Lisbon Strategy's employment targets are indeed ambitious. The target for overall EU working age employment is 70 per cent by 2010, with a 60 per cent target for women. While some countries have already surpassed these targets, others remain a long way from doing so. In 2006, the overall employment rate in the EU stood at 64.3 per cent. In individual countries the rate varied from 54.5 per cent in Poland to 77.4 per cent in Denmark (Eurostat 2006).

There is now a change in emphasis in Community employment policy. Where previously the main focus was simply on reducing unemployment, the EC is now looking to achieve the Lisbon targets (up to and beyond 2010) in a different way, and has started to design and implement more community-level initiatives aimed at strengthening the *flexicurity* of the EU labour market and increasing employment rates. (*Flexicurity* is a policy strategy aimed at the simultaneous enhancement of the flexibility of labour markets, work organisations and labour relations on the one hand, and employment and income security on the other [EC 2007e].)

The EES framework has thus been changed to reflect these new commitments to increase growth and raise the number and quality of jobs in the EU. This currently consists of the following components (EC 2007d):

1. Integrated Guidelines for Growth and Jobs, approved annually and identifying key common priorities for the Union.
2. National Reform Programmes, which stipulate the implementation of Guidelines for each member state.
3. A Joint Employment Report, which assesses the progress made during the year at the national and community levels, which is an integral part of the EC's Annual Progress Report on the Lisbon Strategy.
4. Country Specific Recommendations made by the Council to individual countries for inclusion into National Reform Programmes.

It is important to emphasise that not all member states are keen on increasing the role of the EC in this area, in particular those which have relatively liberal labour markets (for example, the UK). In order for EU initiatives to truly complement national policy initiatives and add value where needed in terms of raising the competitiveness of the single labour market, there is a wide agreement that the



EC should not produce additional regulations in this area. Instead, it should stimulate member states to bring their labour and social security legislation into conformity with modern requirements in the four areas identified as major components of flexicurity (EC 2007e):

- Flexible and reliable contractual arrangements (to overcome over-segmentation of labour markets)
- Comprehensive lifelong learning (with special emphasis on the role of enterprises)
- Effective active labour market policies (especially support to the unemployed)
- A modern social security system.

There is also consensus among member states that the EC (mainly using the Open Method of Coordination) should direct its efforts towards ensuring better flows of information and exchange of best practices across the Union, as there is huge potential for member states to learn from each other.

The Commission has several traditional financial instruments at hand to implement community initiatives or to co-fund national labour market and social protection policies: the European Social Fund (ESF), the European Regional Development Fund and the Cohesion Fund. These fund employment-related activities across the EU, such as training, lifelong learning, support to the unemployed, and promotion of self-employment and entrepreneurship. For example, in the 2000-2006 programming period, the ESF spent 60 billion Euros on different employment initiatives, and has a budget of a further 70 billion Euros for the 2007-2013 period.

In 2006, these funds were supplemented by a new instrument, the **European Globalisation Adjustment Fund (EGAF)**. This was established by the European Commission as a result of a major revamp of the Lisbon Agenda. It is an instrument of active labour market policy aimed at tackling problems related to discontent among European employees with the impact of globalisation. The EGF complements national active labour market policies, which usually deal with unemployment through instruments such as job-matching services, retraining and temporary employment, subsidies and other co-finances. However, these instruments are aimed at combating total unemployment and make no distinction for workers who lost their jobs due to the adverse effects of globalisation. It is for this reason that the European Commission decided to step into this area.

The Fund provides community-level support only to workers who were displaced due to the negative consequences of globalisation (including offshoring and offshore outsourcing). Unlike the long-term activities of the structural funds, the EGF provides one-off and time-limited support to individuals who are 'severely and personally affected by trade-adjustment redundancies' (European Commission 2006b). Both SMEs and big companies will be able to benefit from the Fund, which will be disbursed through applications by national governments. The annual budget of EGF is set at a maximum level of 500 million Euros.

Since January 2007, the EGF can fund active labour market policies through:

- Job-search assistance, occupational guidance, tailor-made training and re-training including IT skills and certification of acquired experience, outplacement assistance and entrepreneurship promotion or aid for self-employment
- Special time-limited measures, such as job-search allowances, mobility allowances or allowances to individuals participating in lifelong learning and training activities
- Measures to stimulate in particular disadvantaged or older workers, to remain in or return to the labour market.

The EGF is intended to complement the support provided by employers and national authorities, and will not fund passive social protection measures (for example, retirement pensions or unemployment benefits), which lie in the competence of the member states.

### **Assessment of EU policy responses to structural economic change**

As we have seen in this chapter, the period since 2000 has seen major revisions to several areas of policy in the EU in response to widespread concerns that the EU's economy was performing poorly on average compared with Europe's main competitor nations. 2005 saw another revamp of policy, with the Lisbon Agenda framework substantially revised.

How successful has the EU's response to the economic challenges posed by global economic integration been? At first glance, the European Commission appears to be on the right track. In terms of a strategy to improve the EU's economic performance, the threefold emphasis of the revamped (2005) Lisbon Agenda is sensible. The Agenda focuses on areas of economic policy which should improve economic performance if the right reforms are made – increased support for innovation and R&D spending, combining improved worker adaptability and labour market flexibility with effective social protection systems, increased human capital investment, improved infrastructure and the completion of the European single market in goods and services.

However, there are several problems with the implementation of the Lisbon Agenda, and reforms to the various policy areas, innovation, entrepreneurship, industrial and skills policies, that are crucial to its success. Despite the fact that the Lisbon framework has been simplified from its initial unwieldy 2000 formulation, recent Commission publications on individual policy areas still suffer from an excess of initiatives, with a lack of prioritisation and a misguided attempt to be 'all things to all people'. In other words the simplification of the Lisbon priorities has not yet permeated individual areas of European Community policy. This makes progress on the main economic reforms harder than it should be.

Another crucial problem the European Community faces is to secure 'buy-in' from Europe's economic actors – its citizens, businesses, worker representatives and national and regional governments – for the Lisbon reforms. The European Commission is not directly responsible for most of the areas of policy for which reform is necessary to secure economic success – labour market, industrial, entrepreneurship and skills policies remain largely the preserve of national governments. This means that unless national governments, businesses and citizens are convinced that the Lisbon reforms are in their interest, they are unlikely to deliver on the Commission's vision.

Along with the difficulties in securing buy-in for economic reforms, there is an equally pressing difficulty in coordinating reforms. The policies that have a bearing on the EU's economic performance are wide-ranging and involve a number of different directorates in the European Commission and a number of different governmental departments in the national and regional administrations of EU member states. There is an urgent need for better coordination between different branches of the EC, between the EC and national governments and between national governments – especially as different EU member states demonstrate 'best practice' or are 'best performers' in different aspects of each policy area (skills policy is a good example of this). Certainly, the Open Method of Coordination, which has been established over the last decade or so as a mechanism for sharing best practice and benchmarking performance in different policy areas, is a very useful improvement on what went before. But we argue in the Conclusion to this paper that even more needs to be done to make coordination of policy fully effective.

Another flaw in the revamped Lisbon strategy is that it pays insufficient attention to other objectives that are no less important than improving the EU's economic performance. In particular, identifying and assisting the most severe losers from 'globalisation', and reducing Europe's greenhouse gas emissions to mitigate the threat of dangerous climate change during the 21st century, are two objectives that are just as important as securing economic prosperity. It is only in the last two years that the EU has begun to address explicitly the question of how to assist the losers from global economic integration, with the establishment of the European Globalisation Adjustment Fund (EGAF). The EGAF is a good first start but needs to be properly evaluated and expanded if effective: we offer detailed recommendations on this in the concluding chapter. Action to reduce the risks of climate change does figure in some areas of EU policy – for example support for 'eco-innovation' in the EC's innovation strategy – but it still seems like something of an add-on at the moment rather than being

integral to the EU's whole economic strategy, as it should be. Again, we return to this point in the Conclusion.

Finally, we would argue that the 'proof of the Lisbon pudding' is in the economic data on the EU's performance on productivity, employment, skills acquisition, entrepreneurial activity and innovation performance – and in many areas, the EU is still a long way from top of the economic leader board. Productivity growth remains sluggish in many EU countries, the EU27's combined R&D spending as a percentage of its GDP is still a long way from the OECD average – let alone the US's or Japan's levels of spending, the EU's target of 70 per cent employment among working age people by 2010 looks wildly optimistic, and the proportion of children with poor reading literacy is increasing rather than falling. Clearly, the EU has a very long way to go to realise the Lisbon vision of the 'most dynamic knowledge-based economy in the world'.

The final chapter of this report suggests realistic policy measures that can help make the EU's vision a reality.

## 4. Conclusions and recommendations

### Conclusions

Overall, the evidence examined in this report clearly shows that ‘globalisation’ has been a positive benefit to the EU, despite the transitional costs of structural economic change that have occurred over the last 15 years and with the entry of the new member states in the last five. However, recent EU economic performance has been poor and there is no real chance of the EU reaching the target set in 2000 of becoming the world’s most competitive economy by 2010, if ‘competitiveness’ is measured in terms of productivity growth.

The recommendations in the final section of this report outline specific reforms that would improve the EU’s chances of maximising the benefits from global economic integration. First, we arrive at some more general conclusions regarding the public policy options available to the EU, and point out areas in which more research is needed before firm conclusions can be reached.

### Addressing the economic performance deficit

It is clear that the EU faces an ongoing deficit as regards its economic performance relative to competitor nations, both ‘old’ (for example, the US, Japan) and ‘new’ (for example, China, India). In particular, a gap between the EU and the global best performers exists in productivity and innovation (especially R&D). This is despite the fact that both the US and Japan have been much more adversely affected by the industrial and trade expansion of the new Asian economies, while the EU has managed to maintain a much more complementary structure of manufacturing and trade. However, both the US and Japan have much greater achievements in the services sectors, which are crucial contributors to their raising overall productivity. Moreover, after many years the EU Single Market is still not fully integrated, especially in services (despite the European Commission’s intention to move quickly towards full integration). This shortcoming imposes additional transaction costs on the EU economy which are absent from those of its competitors.

Two additional factors are likely to make the EU’s task harder rather than easier in the years ahead. First, in the short run, the very latest economic evidence (as of August 2008) suggests that recent turbulence in financial markets – the so-called ‘credit crunch’ sparked by the sub-prime mortgage crisis in the United States – has hit Europe much harder than was initially expected, and indeed EU27 growth over the second half of 2008 may end up being negative (Atkins and Polti 2008). To the extent that the EU suffers a worse slowdown than the US or Japan as a result of the crisis in financial markets, it will fall further behind them on the main economic indicators.

Second, in the medium term, the emergence of the BRIC countries – Brazil, Russia, India and China – as new economic superpowers (especially in China’s case) poses new issues for EU economic policy. The incidence of offshoring of both manufacturing and services jobs to these low-cost locations is likely to increase, which may result in increased adjustment costs for the EU’s economies. European manufacturing has not come into direct competition with Chinese manufacturing to the extent that the US and Japan’s manufacturing sectors have, largely because the EU specialises in manufactures at the top end of the value chain. It is highly likely that Chinese manufacturers will move up the value chain as China’s economy develops, and so future decades may see a much tougher competitive climate for European manufacturing than was the case in the 1990s and 2000s.

Thus to a certain extent the EU has to ‘run to stand still’ in terms of preserving its economic competitiveness. Certainly the road ahead is hard; but on the positive side, the priorities identified by the Lisbon agenda are basically correct. Where the European Union continues to fail is in the combination of different policies and in ensuring synergies between different strands of reforms being implemented at national and community levels. For example, structural reforms are not always performed in a way that takes into account the innovation policy agenda, and the latter might be taken forward without full account of competition policy instruments. State aid policies covered mainly by structural funds do not always meet the demands of the modern economy.

Furthermore, calls for greater coordination and the development of joint principles and actions are not always matched by concrete activities: member states remain highly protective of what they see as their national interests and their domestic policy areas, which span from employment and welfare policies to intellectual property rights (IPR) protection and liberalisation of service industries. Additionally, policy announcements in several areas (for example, entrepreneurship and innovation) suffer from trying too hard to be ‘all things to all people’ and fail to identify a handful of high-priority messages rather than a large (and frequently confusing) mass of recommendations.

With many crucial policy areas remaining far from integrated, and an overall lack in prioritisation, there is little hope of the EU becoming the most competitive and innovative economy in the world in the foreseeable future. The fundamental challenge for the EU is the need to secure buy-in from the EU’s member state governments and national populations for the reforms without sparking resentment of the European Union’s core institutions and a political backlash against further economic integration. This is a difficult balancing act to pull off and we do not pretend to be able to offer a ‘magic bullet’ solution to the tension between the EU’s core institutions, national institutions and the public. However, some of our recommendations below aim to promote a more harmonious relationship between the EU and its constituent nation states through better dialogue, policy consultation, and mutual understanding.

#### **Assisting the losers: more evidence is required**

A crucial component of a successful EU – measured in any sensible manner – is its capacity to assist the most vulnerable groups in society. Many of these will be people who are not in work – for example, children and pensioners, and people unable to work because of long-term disability or illness. But given the magnitude of the changes to Europe’s industrial structure which we have detailed in Chapter 2, it is likely that certain groups of working people – for example, many workers in the manufacturing sectors, which have shrunk in every EU state since the mid-1990s – are vulnerable to economic displacement, and may face difficulties in returning to work without labour market policy interventions to assist them – particularly if the skills from their old jobs do not adequately equip them for jobs in the expanding services sectors of the EU economies.

To a large extent, existing member states’ active labour market and adult skills policy measures should be able to assist the losers from ‘globalisation’. However, it is certainly possible that additional targeted intervention would be useful to help workers who are victims of large-scale restructuring and offshoring episodes triggered by global economic integration. The problem for policymakers is that the current data available on who the precise losers are from global economic integration, how much they lose out, and for how long, is extremely poor.

In Chapter 2 of this report we were able to identify the kinds of industries and sectors in which structural economic change might have a particularly harsh impact, and the European Restructuring Monitor showed that only a small proportion of total job losses in the EU were directly due to offshoring. However, there is a distinct lack of high quality evidence on how long workers displaced by offshoring are likely to be unemployed for, and whether they suffer particular long-term disadvantages compared to other workers who suffer redundancy for reasons not related to offshoring.

Until this lacuna in the evidence base is filled, it is not possible to make a conclusive recommendation in favour of additional support for the losers from globalisation – or even to say with any conviction who the losers are. Nonetheless, one of our recommendations in this report (detailed later in the chapter) is that the EU uses the establishment of the European Globalisation Adjustment Fund as an opportunity to conduct some rigorous research on who loses out from globalisation, and by how much.

#### **Climate change – a crucial additional challenge**

The threat of significant climate change in the 21st century is a new and absolutely fundamental challenge to future global prosperity, which the EU has attempted to address through its long-range targets for reductions in carbon dioxide emissions, at the same time as creating a market for carbon

emissions through the EU Emissions Trading Scheme. While neither the emissions target nor the EU-ETS is perfect, they nonetheless represent the most ambitious approach to reducing carbon emissions of any major world economic power so far – a long way in advance of what the US is currently doing, for example.

In being relatively ambitious on climate change targets, the EU obviously imposes greater short-run costs on industries – particularly high-emissions industries – than it would do if more lax targets were set. However, relaxing the current targets would be reckless in the face of the challenge posed by climate change, as well as the need for the EU to set a ‘best practice’ example to other industrialised countries. If anything, the current target needs to be strengthened, not diluted. In the long run, EU industrial policy can work with the grain of climate change targets by promoting ‘low carbon’ industrial sectors through regulatory frameworks as well as fiscal incentives. The gains from global economic integration must be pursued at the same time as making sure that carbon emissions targets are met. This is a balancing act to be sure, but there is no palatable alternative. Meeting the climate change challenge needs to be placed at the heart of the EU’s industrial and economic policy, both now and in the future.

### **Directions for future research**

There were two particular avenues of enquiry which we would have liked to explore had we had the resources and time. We offer them here as important directions for future research.

#### **Quantifying the impacts of structural change on EU economies**

Our analysis in this report of the size and extent of structural changes to the EU economies was necessarily aggregate in nature, and relied on published data from Eurostat at the level of industrial sectors. It would be very useful for future work to examine the extent of changes to the sectoral structure of production and employment in more detail. Breaking down the analysis into industrial sub-categories would provide a much greater level of understanding than we have been able to arrive at using 1-digit Standard Industrial Classifications. Regional and sub-regional analyses (NUTS2 and NUTS3 levels) would provide more detailed information on the spatial patterns of industrial restructuring.

Most importantly, there is a need for individual-level analysis of panel data to estimate the short-run and long-run losses to individual workers from plant closure and job relocation. Dynamic analysis of this type is not possible using aggregate data alone, which severely limits our ability to assess in detail who are the losers from globalisation, how much they lose, and over what time period.

#### **Links between different policy areas**

It is clear from a survey of the evidence in Chapters 2 and 3 that in assessing the extent of globalisation and policy responses to it, different policy areas are intrinsically linked. For example, innovation, entrepreneurship and human capital policies overlap. Skill levels are a key determinant of the decision to become an entrepreneur, and entrepreneurship is a key determinant of the extent of innovative activities. Policy formulation and evaluation need to take account of these synergies between different policy areas, despite the fact that they are often dealt with by different departments, at both European Community and member state level. However, most evaluations of Community and member state policies (to the extent that they occur at all) are highly specific and do not consider the tie-ups between different policy areas. There is a danger that policy will be disjointed unless responses to structural economic change are viewed and analysed in a more holistic fashion.

#### **A pressing need for better data**

It is one thing to outline a programme of useful future research on globalisation and the EU as we have done above, but quite another to carry out that research programme in the face of the current deficiencies of the available data. The Eurostat databases do not extend far enough back in time to look at long-run trends, and the data series are frequently incomplete. While generic panel data sets with information on workers’ earnings and employment exist across the EU, panel data on workers displaced by offshoring is hard to come by, which makes evaluating the size of individual losses from globalisation very difficult.

Data on firm production and investment across the EU (and investments into and out of the EU) is particularly poor, making comparative analysis of the performance of the business sector in different EU countries particularly difficult. Eurostat needs to prioritise the development of consistent firm-level data across all 27 EU member states, as well as correcting the current deficiencies in production and employment data. For example, it is absurd that data on value-added and employment is not available across the full range of industrial categories – including financial services, health, education and agriculture – in the Eurostat database. Eurostat needs to work with the national statistical offices of each EU member state to ensure that a wider range of consistent data are available to researchers. Good data availability is not a sufficient condition for high quality analysis of the effects of globalisation on the EU, but it is certainly a necessary condition.

## Recommendations

In this final section we present our recommendations for specific policy measures that can be taken at the European Community level to improve the EU's response to structural economic change, and capitalise on the gains from globalisation while minimising the number of losers it generates.

### 1. Better links between different EU policy streams

As explained in the last section, globalisation is a pervasive phenomenon and several different EC policy streams – innovation, enterprise, skills, labour market, cohesion, research funding and regulatory frameworks – are affected by it. There needs to be better communication between the different policy directorates of the EC to minimise the policy of different directorates working at cross-purposes to each other, and to exploit the potential for synergies between different policy areas (for example between innovation, skills and entrepreneurship policies).

### 2. Stronger commitments from national governments to achieve the Lisbon strategy

For the Lisbon Agenda – even in its relaunched 2005 form – to be credible as a means of securing a world-leading position for the EU economy in the future, there has to be 'buy-in' from national governments to the Lisbon goals – and, crucially, national governments have to acknowledge that they are on board, rather than ignoring the whole process, as often seems to happen at the moment. Of course, one of the reasons that many national governments are currently reluctant to mention the Lisbon Agenda is because of the unpopularity of the EU in many member states. Also, the fact that many of the Lisbon targets are not going to be achieved means that national governments are wary of associating themselves with something that looks like a failure on a grand scale.

However, it seems rather pointless having an EU strategy such as Lisbon in the first place if national governments are not going to support it. Given that the weight of available economic evidence supports the view that following the Lisbon agenda properly will improve the EU's economic performance, the Commission needs to encourage member state governments to point out the synergies between their national economic policies and the Lisbon goals in their own publications. For example, the UK government's annual Budget report should contain far more references to Lisbon than it does at the moment. If Lisbon – and whatever strategy succeeds Lisbon in 2010 – can be integrated much better into the central thrust of member states' economic policies, it should create the impression that national governments and the European Commission are 'singing from the same hymn sheet'. This should improve the cohesion of community-level and national economic policies and might help to rehabilitate the EU in the eyes of many of its citizens.

### 3. Reaching the EU's citizens – creating an effective 'European information (media) space'

One of the key problems the EU currently faces in coordinating an adequate response to the challenges of globalisation is that the public profile of the Commission and the EU's other core institutions with respect to these issues is very limited. There is a tendency for the EC to be seen as a distant and out-of-touch bureaucracy that does not contribute anything useful for the policy debate. Yet in reality, as we have seen in this report, the EC's overall policy priorities are a sensible and effective response to globalisation – if they can be implemented effectively.

We propose that the EC, in association with member states, creates an accessible information space (through all media means, including virtual) to discuss the Commission's priorities for economic policy,



to get people's feedback, and to disseminate the evidence from the Commission and expert community on the challenges and opportunities posed by global economic integration. This information space should be built around continuous dialogue instruments such as discussion forums, for a two-way dialogue between European citizens and the representatives of the EU institutions (Commission, the European Parliament, Committee of the Regions and so on), as well as the 27 national governments.

Realistically, only a small minority of EU citizens would participate in a 'European information space' of this nature. But if it proves successful in reaching an active group of citizens and there is clear evidence of feedback being integrated into the EU policy processes, there are prospects for the emergence of a fully-fledged European media space, in which EU-wide problems and achievements will attract as much interest as national ones. Establishing an information space would make it clear that the Commission is not formalistic, but really serious about engaging citizens and national governments on the key issues regarding the EU economy in the future. It would also go some way towards mitigating the criticism that the EC is too 'top down' and does not listen to the 'person in the street'.

#### **4. Facilitate practical exchange of ideas and experiences across the EU in the area of economic policies**

Although this project has focused on economic policy at the EU level, there is a great deal of variation across the EU in the economic policies pursued by member states in several areas: for example, active labour market policy, skills provision, incentives for innovation, and the promotion of entrepreneurship. There is a good deal of evaluation evidence available from the OECD, academic researchers and other sources that shows the comparative effectiveness of different national policies in these areas. Given that there are wide variations in effectiveness in many cases, there is ample scope for exchange of ideas and dissemination of 'best practice' approaches between countries. The more this can be done, the more likely the EU is to rise to the future challenges posed by continuing global economic integration.

The European Commission should help facilitate this process by encouraging a virtual space for the exchange of ideas, building on the current Open Method of Coordination framework. This ties into the previous recommendation of a virtual space for public interaction with the EU's core institutions. The two spaces could be linked, or even two aspects of the same space.

#### **5. Expand the use of targeted policy instruments (subject to positive evaluation)**

The European Globalisation Adjustment Fund (EGAF) represents a step forward in the EU's approach to compensating the losers from globalisation. The idea behind the EGAF is to provide financial assistance to displaced workers who are 'severely and personally affected by trade-related redundancies'. In theory this fund should be able to play an important role in compensating the losers from globalisation. However, there are two main questions that need to be addressed.

First, can the biggest losers be correctly identified? What data do the administrators of the EGAF take into account when deciding where to allocate funds? Second, is the performance of EGAF going to be properly evaluated? It will be important to survey recipients of EGAF funds (compared with control groups of people who are made redundant in similar circumstances but do not receive EGF funding) to ascertain what the long-run effects of the fund are. Additionally, the initial annual budget of 500 million Euros for EGAF is relatively small, and will only allow assistance in a handful of redundancy cases (partly because this is a brand new initiative). However, as we highlight in Chapter 2, job losses due to relocation are quite small compared with losses from other restructuring processes, such as bankruptcies, or mergers and acquisitions.

We recommend that an extensive evaluation of the EGAF's performance (both in terms of selecting which workers are helped, and what happens to them after receiving funding) is undertaken after three or four years of its activities. If the results show that the programme is performing well (in terms of allocating resources to the losers from globalisation) then the budget for the programme should be extended – perhaps by reallocating money from other EU budgets (such as structural funds).



**6. Improve standardisation of regulatory frameworks to reduce transactions costs**

One of the success stories of the European Union is the reduction in the costs of doing business across national borders, which has resulted from the harmonisation of regulations governing certain areas of economic activity (most obviously, the moves towards single markets across the EU in goods, services and labour, although these reforms are still incomplete). It is now time to extend this harmonisation and standardisation into new areas of policy. Two prime candidates are intellectual property (IP) regulation and the laws governing company incorporation. A single IP regime, with a single European patenting process, would make it much easier for firms and the higher education sector to pursue innovation across the EU with a reduction in the administrative costs and complexities associated with innovation. A single European corporate legal framework would reduce the costs of operation across the EU by trans-national businesses. This would be particularly useful for SMEs, for whom administrative costs are a particularly high proportion of turnover.

**7. Invest more in quality data (particularly at the firm level) through Eurostat**

We recommend that Eurostat devotes considerable resources to investing in better data at the firm level and in other areas in which the data are poor (such as entrepreneurship statistics), working with member states' statistical offices as appropriate. This would be a relatively small upfront investment in terms of the EU's overall operating budget, in exchange for a very large payoff in terms of enabling policymakers to understand what the key forces driving global economic integration are, and enabling researchers to evaluate what mix of policies works best in equipping the EU to meet the challenges of structural economic change.

## References

- Abramovsky L, Griffith R and Miller H (2008) 'Globalisation of Innovation', Paper presented at ESRC Festival of Science, 7 March 2008. London: Institute for Fiscal Studies
- Aghion P, Bloom N, Blundell R, Griffith R and Howitt P (2005) 'Competition and Innovation: An Inverted U Relationship' *Quarterly Journal of Economics* 120(2): 701-728
- Antràs P (2003) 'Firms, Contracts, and Trade Structure', *Quarterly Journal of Economics*, Vol. 118, No. 4, pp. 1375-1418
- Atkins R and Polti R (2008) 'Eurozone edges closer to recession'. London: *Financial Times*, 15 August. Available at [www.ft.com/cms/s/0/dfc20c0c-6a60-11dd-83e8-0000779fd18c.html?ncklick\\_check=1](http://www.ft.com/cms/s/0/dfc20c0c-6a60-11dd-83e8-0000779fd18c.html?ncklick_check=1)
- Autor D, Katz L and Kearney M (2006) 'The Polarization of the US Labour Market', *American Economic Review*, Vol. 96, No. 2, pp. 189-194
- Bachtler J and McMaster I (2007) 'Sustainable Growth, Competitiveness and Employment: Will EU Policy Deliver on the Lisbon Strategy?' *Raumforschung und Raumordnung*, Special Edition on EU Structural Policy 4/007
- Baldwin R (2006) 'Globalisation: the Great Unbundling(s)', Paper for the Finnish Prime Minister's Office, Economic Council of Finland as part of EU Presidency
- Barrell R and Guillemineau C (2006) 'Migration in Europe', *National Institute Economic Review*, 198(36), p.36-39
- Barysch K, Tilford S and Wanlin A (2007) *The Lisbon Scorecard VII: Will globalisation leave Europe stranded?* London: Centre for European Reform. Available at [www.cer.org.uk/pdf/p714\\_lisbons\\_vii\\_2007.pdf](http://www.cer.org.uk/pdf/p714_lisbons_vii_2007.pdf)
- Begg I, Draxler J and Mortensen J (2008) *Is Social Europe Fit for Globalisation? A study of the social impact of globalisation in the European Union* Brussels: Centre for European Policy Studies. Available at [http://ec.europa.eu/employment\\_social/spsi/docs/social\\_situation/simglobe\\_fin\\_rep\\_en.pdf](http://ec.europa.eu/employment_social/spsi/docs/social_situation/simglobe_fin_rep_en.pdf)
- Berman E, Bound J and Griliches Z (1994) 'Changes in the Demand for Skilled Labor within US Manufacturing: Evidence from the Annual Survey of Manufacturers', *Quarterly Journal of Economics* 109(2): 367-397
- Berman E, Bound J and Machin S (2003) 'Implications of Skill-Biased Technological Change: International Evidence', *Quarterly Journal of Economics*, Vol. 113, No. 4
- Bhagwati J (2000) *The Wind of the Hundred Days: How Washington Mismanaged Globalization* Cambridge, MA: MIT Press
- Blanchflower D (2004) 'Self-Employment: More May Not Be Better', *Swedish Economic Policy Review* 11(2), 15-74
- Borjas GJ (2003) 'The Labor Demand Curve Is Downward Sloping: Reexamining The Impact of Immigration On The Labor Market', *The Quarterly Journal of Economics*, Vol. 118, No. 4, p. 1335-1374
- Cline WR (1997) *Trade and Income Distribution* Washington, DC: Institute for International Economics
- Cooke G and Lawton K (2008) *For Love or Money: Pay, progression and professionalisation in the 'early years' workforce* London: Institute for Public Policy Research. Available at: [www.ippr.org.uk/publicationsandreports/publication.asp?id=598](http://www.ippr.org.uk/publicationsandreports/publication.asp?id=598)
- Denis C, McMorrow K, Roger W (2006) *Globalisation: Trends, Issues and Macro Implications for the EU* Economic paper No 254. Series 'European Economy', European Commission

- Denis C, McMorro K and Röger W (2006) 'Globalisation: Trends, Issues and Macro Implications for the EU', European Commission Directorate-General for Economic and Financial Affairs, Economic Paper No 254. Brussels: European Economy. Available at: [http://ec.europa.eu/economy\\_finance/publications/publication668\\_en.pdf](http://ec.europa.eu/economy_finance/publications/publication668_en.pdf)
- Dollar D (1992) 'Outward-oriented Developing Economies Really Do Grow More Rapidly: Evidence from 95 LDCs, 1976-85', *Economic Development and Cultural Change* 40(3): 523-44
- Dollar D and Kraay A (2004) 'Trade, Growth and Poverty', *Economic Journal* 114(493): 22-49
- Dustman C and Glitz A (2006) *Immigration, Jobs And Wages: Theory, Evidence And Opinion* London: Center for Economic Policy Research
- Dustmann C, Frattini T and Preston I (2008) 'The Effect of Immigration Along the Distribution of Wages', Working Paper CDP 03/08, London: Centre for Research and Analysis of Migration (CREAM), University College London
- European Commission (2008a) *Growing Regions, Growing Europe: Fifth Report on Economic and Social Cohesion*. Available at: [http://ec.europa.eu/regional\\_policy/sources/docoffic/official/reports/interim5/com\\_2008\\_371\\_en.pdf](http://ec.europa.eu/regional_policy/sources/docoffic/official/reports/interim5/com_2008_371_en.pdf)
- Edwards S (1997) 'Trade Policy, Growth and Income Inequality', *American Economic Review, Papers and Proceedings* 87(2): 205-210.
- Eurobarometer (2007) 'Public Opinion Analysis – Standard Eurobarometer', April-May. Brussels: European Commission. Available at [http://ec.europa.eu/public\\_opinion/archives/eb/eb67/eb67\\_en.htm](http://ec.europa.eu/public_opinion/archives/eb/eb67/eb67_en.htm)
- European Commission (1990) COM(90) 556 'Industrial Policy in a competitive and open environment: guidelines for a Community approach' Communication – Brussels
- European Commission (2002) COM(2002) 714 'Industrial Policy in an Enlarged Europe' Communication – Brussels
- European Commission (2003) COM(2003) 704 'Some Key Issues in Europe's Competitiveness – Towards an Integrated Approach' Communication – Brussels
- European Commission (2004) *Facing the Challenge: The Lisbon Strategy for Growth and Employment*. Report from the High Level Group chaired by Wim Kok. Brussels: European Commission. Online at [http://ec.europa.eu/growthandjobs/pdf/kok\\_report\\_en.pdf](http://ec.europa.eu/growthandjobs/pdf/kok_report_en.pdf)
- European Commission (2005a) COM(2005) 24 'Working together for growth and jobs A new start for the Lisbon Strategy' Communication – Brussels
- European Commission (2005b) COM(2005) 474 'Implementing the Community Lisbon Programme: A policy framework to strengthen EU manufacturing – towards amore integrated approach for industrial policy' Communication – Brussels
- European Commission (2006a) *Global Europe Competing in the World. A Contribution to the EU's Growth and Jobs Strategy* Luxembourg: Office for Official Publications of the European Communities
- European Commission (2006b) 'More Research and Innovation – Investing for Growth and Employment: A Common Approach'. Communication COM (2005) 488. Brussels: European Commission
- European Commission (2006b) 'Putting knowledge into practice: A broad-based innovation strategy for the EU' Communication COM (2006) 502. Brussels: European Commission
- European Commission (2006b) Regulation (EC) No 1927/2006 of the European Parliament and of the Council on establishing the European Globalisation Adjustment Fund – OJEC L406, 20 December 2006

- European Commission (2007a) *Growing Regions, Growing Europe* Fourth report on economic and social cohesion – Luxembourg
- European Commission (2007b) 'Implementing the Renewed Lisbon Strategy for Growth and Jobs. A Year of Delivery' Communication – Luxembourg
- European Commission (2007c) COM(2007) '374 Mid-term review of industrial policy. A contribution to the EU's Growth and Jobs Strategy' – Communication – Brussels
- European Commission (2007d) *10 years of the European Employment Strategy* – available at [http://ec.europa.eu/employment\\_social/publications/2007/ke7807329\\_en.pdf](http://ec.europa.eu/employment_social/publications/2007/ke7807329_en.pdf)
- European Commission (2007e) *Towards Common Principles of Flexicurity: More and Better Jobs Through Flexibility and Security* – available at [http://ec.europa.eu/employment\\_social/employment\\_strategy/flexicurity%20media/flexicuritypublication\\_2007\\_en.pdf](http://ec.europa.eu/employment_social/employment_strategy/flexicurity%20media/flexicuritypublication_2007_en.pdf)
- European Commission (2008a) *European Innovation Scoreboard 2007*
- European Commission (2008b) 'Think Small First' – A 'Small Business Act' for Europe', Communication COM (2008) 394. Brussels: European Commission
- European Commission (2008c) *Commission Staff Working Document – Progress towards the Lisbon Objectives in Education and Training*
- European Monitoring Centre on Change (2007) *ERM Report 2007 – Restructuring and Employment in the EU: the Impact of Globalisation* Dublin: European Foundation for the Improvement of Living and Working Conditions. Available at [www.eurofound.europa.eu/publications/htmlfiles/ef0768.htm](http://www.eurofound.europa.eu/publications/htmlfiles/ef0768.htm)
- Eurostat (2006) *European Labour Force Survey*. Available at <http://ec.europa.eu/eurostat>
- Eurostat (2006a) *Statistics in Focus: Non-national populations in the EU member states*. Available at [http://epp.eurostat.ec.europa.eu/cache/ITY\\_OFFPUB/KS-NK-06-008/EN/KS-NK-06-008-EN.PDF](http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-NK-06-008/EN/KS-NK-06-008-EN.PDF)
- Eurostat (2007a) *European Union Foreign Direct Investment Yearbook 2007. Data 2001–2005*, Luxembourg: Office for Official Publications of the European Communities
- Eurostat (2007b) *Statistics in Focus. Economy and Finance*. 115/2007, Luxembourg: Office for Official Publications of the European Communities
- Eurostat (2008) *Europe in Figures – Eurostat statistical yearbook 2008*. Available at [http://epp.eurostat.ec.europa.eu/portal/page?\\_pageid=1073,46587259&\\_dad=portal&\\_schema=PORTAL&p\\_product\\_code=KS-CD-07-001](http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1073,46587259&_dad=portal&_schema=PORTAL&p_product_code=KS-CD-07-001)
- Feenstra RC (2007) 'Globalisation and Its Impact on Labor', Global Economy Lecture, Vienna: Vienna Institute for International Economic Studies
- Fischer S (2003) 'Globalisation and its challenges', *American Economic Review Papers and Proceedings*, 93(2), p. 1–30
- Fontagne L, Freudenberg M, Gaulier G (2006) *A Systematic Decomposition of World Trade Into Horizontal and Vertical IIT* *Review of World Economics*, 142, pp. 459–75
- Goos M and Manning A (2007) 'Lousy and Lovely Jobs: The Rising Polarization of Work in Britain', *Review of Economics and Statistics* 89:1, 118–133
- Greene F, Mole K and Storey D (2004) 'Does more mean worse? Three decades of enterprise policy in the Tees Valley' *Urban Studies* 41(7): 1207–1228
- Haskel J and Slaughter M (2001) 'Trade, Technology and UK Wage Inequality', *Economic Journal*, vol 111, 163–187
- Havik K, McMorrow K (2006) *Global Trade Integration and Outsourcing: How Well is the EU Coping with the New Challenges?* Economic paper No 259. Series 'European Economy', European Commission

- Hercowitz Z and E Yashiv (2002) *A Macroeconomic Experiment in Mass Immigration*, IZA Discussion Papers, No. 475
- Hijzen A and Nelson D (2006) *Immigration and Labour Market Adjustment: A Survey*, mimeo, University of Nottingham
- ILO [International Labour Organisation]/ WTO [World Trade Organisation] (2007) *Trade and Employment: Challenges for Policy Research* Geneva, Switzerland: International Labour Office and the Secretariat of the World Trade Organisation
- Ilzkovitz F, Dierx A, Kovacs V, Sousa N (2007) *Steps Towards Economic Integration: The Internal market in the 21st Century. A contribution to the Single market Review*. Economic paper. European Commission
- Jean and Jimenez M (2007) *The Unemployment impact of Immigration in OECD Countries*, Economics Department Working Paper No. 563. Paris: Organisation for Economic Cooperation and Development
- Johnson GE (1997) *Estimation of the impact of immigration on the distribution of income among minorities and others*, unpublished paper, University of Michigan, February
- Johnson M, Mrinska O and Reed H (2007) *The North In Numbers: A Strategic Audit of the Economies of Northern England*, Newcastle-upon-Tyne: Institute for Public Policy Research North. Available at: [www.ippr.org.uk/publicationsandreports/publication.asp?id=574](http://www.ippr.org.uk/publicationsandreports/publication.asp?id=574)
- Johnson M and Reed H (2008) *Entrepreneurship and Innovation in the North* Newcastle-upon-Tyne: Institute for Public Policy Research North. Available at: [www.ippr.org.uk/publicationsandreports/publication.asp?id=584](http://www.ippr.org.uk/publicationsandreports/publication.asp?id=584)
- Kirkegaard J F (2005) *Outsourcing and Offshoring: Pushing the European Model Over the Hill, Rather Than Off the Cliff!* Working Paper WP 05-1, Peterson Institute for International Economics: Washington DC
- Kirkegaard J (2007) *Offshoring, Outsourcing and Production Relocation – Labor Market Effects in the OECD Countries and Developing Asia* Working Paper 07/2, Washington DC: Peterson Institute for International Economics
- Kluge J (2006) *The Effectiveness of European Active Labour Market Policy* RWI Essen and IZA Bonn
- Latorre M and Reed H (2008) *The Economic Impacts of Migration on the UK Labour Market* London: Institute for Public Policy Research (forthcoming)
- Lawrence R and Slaughter M (1993) *Trade and US Wages in the 1980s: Giant Sucking Sound or Small Hiccup?* Brookings Papers on Economic Activity: Microeconomics 2. Washington DC: Brookings Institute
- Levy F and Murnane R (2004) *The New Division of Labor: How Computers Are Creating the Next Job Market*, Russell Sage Foundation, New York
- Lockwood M and Bird J with Alvarez R (2007) *2050 Vision: How can the UK play its part in avoiding dangerous climate change?* London: Institute for Public Policy Research
- Maddison A (2007) *Contours of the World Economy, 1-2030 AD: Essays in Macroeconomic History*. Oxford: Oxford University Press
- Markusen J (2007) *Trade in Business Services in General Equilibrium*, NBER Working Paper No. 12816, Cambridge, MA: NBER
- National Endowment for Science, Technology and the Arts (NESTA) (2007) *Hidden Innovation: How innovation happens in six 'low innovation' sectors*. London: NESTA. Available at: [www.nesta.org.uk/assets/Uploads/pdf/Research-Report/hidden\\_innovation\\_report\\_NESTA.pdf](http://www.nesta.org.uk/assets/Uploads/pdf/Research-Report/hidden_innovation_report_NESTA.pdf)
- Neary JP (2004) 'The Stolper-Samuelson Theorem', in McCusker J (ed) *Encyclopedia of World Trade since 1450*, New York: Macmillan Reference

- Okkerse L (2008), 'How to Measure Labour Market Effects of Immigration: A Review', *Journal of Economic Surveys*, p. 1-30
- Organisation for Economic Cooperation and Development (OECD) (1999) *OECD Benchmark Definition of Foreign Direct Investment*. Paris: OECD. Available at: [www.oecd.org/dataoecd/10/16/2090148.pdf](http://www.oecd.org/dataoecd/10/16/2090148.pdf)
- Organisation for Economic Cooperation and Development (OECD) (2005a) *OECD Employment Outlook*, Paris: OECD
- Organisation for Economic Cooperation and Development (OECD) (2005b) *Trade and Structural Adjustment: Embracing Globalisation*, Paris: OECD
- Organisation for Economic Cooperation and Development (OECD) (2007a) 'OECD Workers in the Global Economy: Increasingly Vulnerable?', chapter 3 in *OECD Employment Outlook 2007* Edition, p.105-155
- Organisation for Economic Cooperation and Development (OECD) (2007b) 'Making the Most of Globalisation', special chapter in *OECD Economic Outlook*, no. 81, June
- Organisation for Economic Cooperation and Development (OECD) (2007c) *Science and Technology Scoreboard 2007*, Paris: OECD. Available at: [www.oecd.org/document/10/0,3343,en\\_2649\\_33703\\_39493962\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/10/0,3343,en_2649_33703_39493962_1_1_1_1,00.html)
- Organisation for Economic Cooperation and Development (OECD) (2007c) *SME and Entrepreneurship Outlook*, Paris: Organisation for Economic Cooperation and Development
- Organisation for Economic Cooperation and Development (OECD) (2008) *The Internationalisation of Business R&D: Evidence, Impacts and Implications*. Paris: Organisation for Economic Cooperation and Development
- Organisation for Economic Cooperation and Development (OECD) (2008a) Online productivity database at <http://stats.oecd.org/WBOS/Index.aspx?DatasetCode=PDYGTH>. Accessed August 2008
- Piketty T and Saez E (2006) 'The Evolution of Top Incomes: A Historical and International Perspective', *American Economic Review*, Vol. 96, No. 2, pp. 200-205
- Pollard N, Sriskandarajah D and Latorre M (2008) *Floodgates or Turnstiles? Post-EU enlargement flows to (and from) the EU*. London: Institute for Public Policy Research. Available at [www.ipp.r.org.uk/publicationsandreports/publication.asp?id=603](http://www.ipp.r.org.uk/publicationsandreports/publication.asp?id=603)
- Rae D and Sollie M (2007) *Globalisation and the European Union: Which Countries are Best Placed to Cope?* OECD Economics Department Working Paper No 586
- Reger G (2002) 'Internationalisation of Research and Development in Western European, Japanese and North American Multinationals' *International Journal of Entrepreneurship and Innovation Management: Special Issue on Entrepreneurship, Innovation and Globalisation*, Vol 2 No 2/3, pp164-185
- Riley R and Weale M (2006) 'Commentary: Immigration and its Effects', *National Institute Economic Review*, 198(4) p. 4-9
- Rodriguez F and Rodrik D (2000) *Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence* NBER Working Paper No. W7081. Cambridge, MA: National Bureau of Economic Research
- Sachs J and Warner A (1995) 'Economic Reform and the Progress of Global Integration', *Harvard Institute of Economic Research Working Papers* 1733, Cambridge, MA: Harvard Institute of Economic Research
- Stiglitz J (2002) *Globalisation and Its Discontents*. New York: W.W. Norton Company

- Stiglitz J (2006) *Making Globalisation Work*. New York: W.W. Norton Company
- Stolper W and Samuelson P (1941) 'Protection and Real Wages'. *Review of Economic Studies* 9: 58-73
- Thurik R and Grilo I (2008) 'Determinants of entrepreneurial engagement levels in Europe and the US', *Industrial and Corporate Change*, forthcoming
- UNCTAD (UN Conference on Trade and Development) (2007) *World Investment Report 2007*. Geneva: UNCTAD
- UNCTAD (UN Conference on Trade and Development) (2004) *World Investment Report 2004*. Geneva: UNCTAD
- Van Welsum D and Reif X (2006) *We Can Work It Out – the Globalisation of ICT-Enabled Services*. NBER Working Paper no. 12799. Cambridge, MA: National Bureau of Economic Research
- Wacziarg R and Welch K (2003) *Trade Liberalization and Growth: New Evidence*. NBER Working Paper No 10152. Cambridge, MA: National Bureau of Economic Research
- Wood A (1994) *North-South Trade, Employment, and Inequality: Changing Fortunes in a Skill-Driven World* Oxford: Oxford University Press
- World Trade Organisation (WTO) (2008) *International Trade Statistics 2007. World Trade Developments in 2006*, available at [www.wto.org/english/res\\_e/statis\\_e/its2007\\_e/its07\\_world\\_trade\\_dev\\_e.htm](http://www.wto.org/english/res_e/statis_e/its2007_e/its07_world_trade_dev_e.htm)



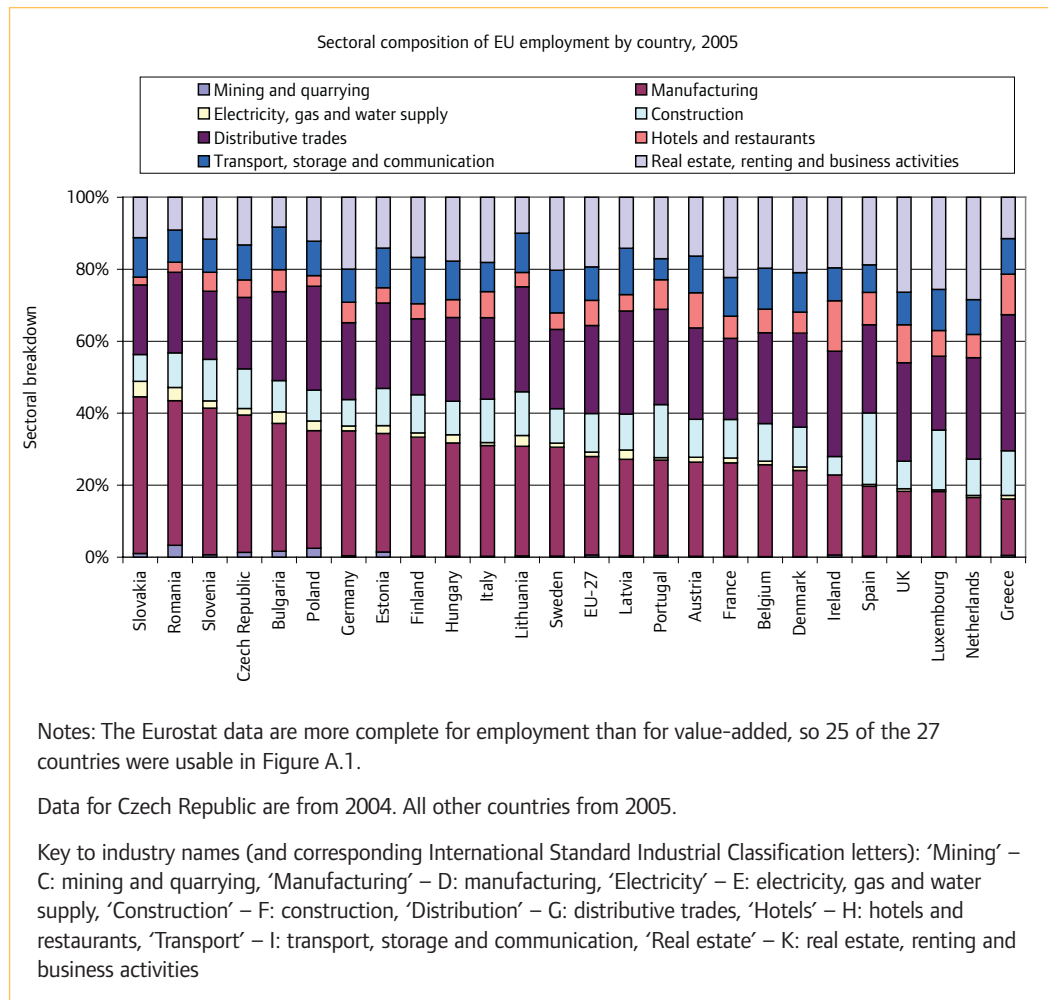
## Appendix: Trends in employment structure in the EU

This appendix follows the same format as the first sub-section of Chapter 2 above – the only difference is that the data analysed here are for the share of employment in each industry across the EU member states, rather than the share of value-added.

Figure A.1 shows the sectoral breakdown of employment for 25 EU countries. Again the analysis is limited to private sector industries (excluding agriculture and financial services) because the Eurostat data only covers these categories.

**Figure A.1.**  
Comparison of employment shares in industrial sectors 'C' through 'J' in 25 EU countries, 2005

Source: Eurostat data, accessed June 2008



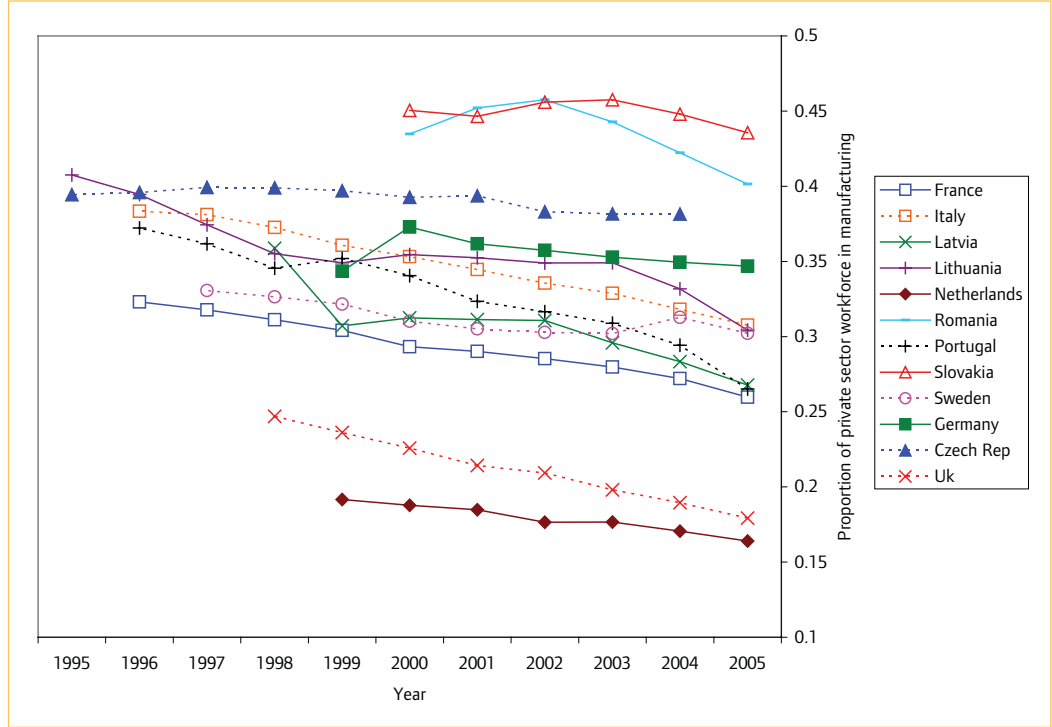
As with Figure 2.1 in the main text, the countries are arranged from left to right in order of the size of their manufacturing and mining industries as a proportion of total employment. As with Figure 2.1 the left-hand side of the graph is dominated by 2004 accession countries plus Bulgaria, Romania, Germany and Finland. Of the accession countries, only Latvia has a share of manufacturing/mining employment that is less than the EU27 average. The UK, Netherlands, Luxembourg and Greece have the smallest manufacturing sectors relative to total private sector employment. The UK, Luxembourg and the Netherlands have the largest share of employment in real estate and business services. Greece, Poland and Lithuania have the largest share of employment in distributive trades.

Looking at trends in employment in selected sectors over time, Figure A.2 shows changes in the proportion of the workforce employed in manufacturing between 1995 or 2005 (or the longest time series that the Eurostat data allow) for 12 selected EU countries. As with the patterns in manufacturing's share in value-added, there is a general downward trend in the share of private sector employment accounted for by manufacturing in almost all the EU countries shown here. Certain countries have experienced a particularly large fall in the share of manufacturing employment over this time period – the UK, Portugal, Latvia and Lithuania.



Meanwhile, an equivalent analysis of the share of real estate, renting and business activities in total employment (Figure A.3) shows a significant increase across all the included states. This shows that, not surprisingly, the changes in sectoral patterns of employment for different EU member states reflect the changes in sectoral patterns of value-added shown in the main text.

**Figure A.2.** Changes in proportion of workforce in industrial sectors 'C' through 'J' employed in manufacturing, 1995-2005, selected EU countries



**Figure A.3.** Changes in proportion of workforce in industrial sectors 'C' through 'J' employed in real estate, renting and business services, 1995-2005, selected EU countries

