

Long-term global economic challenges and opportunities for the UK

December 2004



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For further information on the Treasury and its work, contact:

Correspondence and Enquiry Unit
HM Treasury
1 Horse Guards Road
London
SW1A 2HQ

Tel: 020 7270 4558
Fax: 020 7270 4861

E-mail: ceu.enquiries@hm-treasury.gov.uk

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INTRODUCTION AND SUMMARY

I.1 This paper assesses the long-term global economic challenges and opportunities facing the United Kingdom over the next ten years.¹

Far-reaching changes in technology and trade **I.2** The global economy is in the midst of a radical transformation, with far-reaching and fundamental changes in technology, production, and trading patterns. Faster information flows and falling transport costs are breaking down geographical barriers to economic activity.² The boundary between what can and cannot be traded is being steadily eroded, and the global market is encompassing ever-greater numbers of goods and services.

with rapid growth of large emerging markets **I.3** Economic activities are increasingly dispersed across continents and subject to finer degrees of specialisation. More countries are opening up their economies and seizing the opportunities that come from closer integration into the global economy. The rapid growth of large emerging economies, in particular China and India, is shifting the balance of global economic activity. Emerging and developing economies have increased their share of world trade by around a third since 1990. China is now the sixth largest economy in the world, and is projected to be the third largest within a decade. This expansion has the potential to improve living standards and reduce poverty significantly, with the proportion of people in China living on less than a dollar per day projected to decline from 16 per cent in 2000 to 3 per cent by 2015.

will have significant implications for world economy **I.4** These changes have significant long-term implications for the world's advanced economies. Rapid technological change and the increasing integration of the global economy are important drivers of growth, employment and productivity. Rapid growth in emerging economies in Asia and elsewhere has the potential to increase global output and provide new sources of wealth. But these developments bring new challenges too and entail significant adjustments.

I.5 Government has a critical role to play: it needs to help shape global trends through multilateral action in areas such as trade, investment and regulation; it must establish stable and sustainable macroeconomic foundations that are robust to shocks; it needs to promote flexibility in labour, product and capital markets; and it must invest in public infrastructure and public services. It also needs to ensure that firms and individuals have the flexibility to adapt and innovate, and so take advantage of new opportunities. But it is important that flexibility is accompanied by fairness, through policies that support individuals through periods of change, provide the skills they need to adapt, protect the vulnerable and enable individuals to make the transition into new areas of economic activity.

¹ This work benefits from a number of discussions on the global economy with academics and external experts, including a seminar on *the Economics of Globalisation* and its implications in July 2004, a Keynes seminar on Globalisation in October 2004 and a seminar on *Globalisation and its Implications for Productivity Growth, Innovation and the Creation of Jobs* in November 2004. This paper focuses specifically on the global economic challenges for the UK and other advanced economies.

² For a broader discussion of globalisation see Wolf, M. (2004) *Why Globalisation Works*, Yale; Bhagwati, J. N. (2004) *In defense of Globalization. Its Evolution and Contemporary Consequences*, New York; Stiglitz, J. (2002) *Globalisation and its Discontents*, London; Dicken, P. (2003) *Global Shift, Reshaping the Global Economic Map in the 21st Century*, London; Held, D., McGrew, A. G., Goldblatt, D., and Perraton, J. (1999) *Global Transformations: Politics, Economics and Culture*, Stanford.

Long-term decisions **I.6** It is clear that government, firms and individuals will need to take difficult long-term decisions to meet the challenges ahead. The Government's economic objective is to build a strong economy and a fair society, where there is opportunity for all, and it has introduced a comprehensive set of reforms to achieve this aim. The Government has introduced new monetary and fiscal frameworks, increased investment in education, health and housing, reformed the welfare state to be more active and responsive, and committed itself to openness and poverty reduction abroad.³ However, rising to the challenge of the new global economy will require further steps to entrench monetary and fiscal stability for the long term; provide the incentives to support and reward enterprise; promote scientific research and business innovation; enhance skills; modernise welfare provision; and ensure a sustainable environment.

The development of the global economy

Global trade & investment **I.7** Chapter 2 puts recent developments in the world economy in historical context, starting with the significant changes of the 19th century and continuing through to the current period of far-reaching global economic change. It begins by discussing how technological and industrial changes promoted the expansion and integration of international capital, product and labour markets in the 19th century.

reversed by protectionism **I.8** These developments had a profound impact on the global distribution of wealth, with the economic expansion of the United States and other new world economies, and an unprecedented level of international trade, investment and migration. This initial phase of rapid globalisation was halted by the economic protectionism of the first half of the 20th century.

But renewed commitment to co-operation since 1945 **I.9** Global integration was given renewed impetus by the commitment to economic co-operation that underpinned the Bretton Woods institutions; the gradual liberalisation of trade under the General Agreement on Tariffs and Trade (GATT), continuing with the foundation of the World Trade Organisation (WTO); the creation of the European Union (EU); and the liberalisation of capital flows over the last two decades. By the end of the 20th century, the market for high-skilled labour had also become increasingly globalised, though cross-border migration remained far below the levels that prevailed in the late 19th and early 20th centuries.

The global economy 2004

A profound period of change **I.10** The second half of Chapter 2 focuses on the current phase of global economic development. It describes how the global economy is in the midst of a major transition comparable to the changes to the world economy in the late 19th century. This change is being driven by rapid technological advance and falling costs of communication; by the increasing ease with which goods and services can be traded between countries and continents; by the internationalisation and specialisation of economic activities, which now stretch across frontiers; and by the expansion of leading emerging economies, including China, India and Brazil.

Long-term economic trends and challenges

I.11 Chapter 3 examines the implications of these developments for the global economy over the next ten years. It identifies six key trends and challenges that will shape global economic development, and that governments need to address in order to achieve the objective of building a strong economy and fair society, where there is opportunity for all.

³ See Balls, E. and O'Donnell, G. (eds) (2002) 'Reforming Britain's Economic and Financial Policy', London.

- Changing balance of economic activity** **I.12** First, the balance of global economic activity is likely to shift significantly, with an increasing proportion of global output produced in China and India and other major emerging economies such as Russia, Brazil and Mexico. By 2015, China and India will account for around 25 per cent of world output in real terms. Demographic changes will also have a significant impact on growth. The rise of these economies presents advanced countries with new opportunities to trade and invest, but it also poses a challenge to industries and sectors that have historically been the preserve of advanced economies. This process of structural change requires economic flexibility, dynamism and entrepreneurship supported by a flexible and responsive welfare state, to harness the benefits that can arise from external openness and to address new challenges.
- Greater competition for investment flows** **I.13** Second, while the rapid and sustained growth in foreign direct investment (FDI) seems likely to continue, the sources and destinations of FDI will become increasingly diverse. Major emerging economies are attracting increasing inflows of global FDI. China is now the world's number one destination for FDI, attracting \$57 billion in 2003. Emerging economies are also becoming more important suppliers of FDI. Countries' ability to attract these increasingly complex and diverse investment flows will depend on macroeconomic policies and institutional arrangements that enhance confidence, promote stability and create a strong investment climate.
- Increasing international specialisation** **I.14** Third, as communication and technology continue to improve, so production chains are becoming increasingly flexible, specialised and dispersed across continents. No economy can rely on its past strengths or traditional expertise, at a time when resources, technology and ideas can be moved rapidly to the most productive location. So there is a premium on promoting enterprise and productivity to ensure businesses can compete effectively in the global market place.
- Greater rewards from innovation** **I.15** Fourth, as both global competition and the speed of technological change increase, there will be increasing rewards from innovation. Countries at the forefront of research and innovation will be best placed to move into high value-added, technology-driven areas, which can provide new sources of growth. And they will be best placed to apply new technologies to existing processes, so expanding production possibilities, improving efficiency, and enhancing their attractiveness as centres of economic activity.
- Skills increasingly needed by all** **I.16** Fifth, improving skill levels will become increasingly critical to harnessing the opportunities that come from accelerating global integration, and demand for skilled workers is likely to increase. For firms deciding where to locate different parts of the production process, the relative skills of the labour force are likely to become an increasingly important factor. Moreover, skills that were once regarded as high level are now increasingly viewed as basic skills. So countries will need to invest in the skills of their workforce, and ensure that they equip individuals to continually update their skills.
- Increasing pressure on energy resources and environment** **I.17** Sixth, there will be increasing pressure on energy and other resources, generating higher environmental costs. By 2015 emerging economies are expected to account for half of world energy demand. Action by governments to promote greater energy and resource efficiency, foster new, low-carbon sources of energy supply and reduce environmental damage will become increasingly important. However, in light of the scale of future global demand and the fact that the environmental and energy costs of one country have implications for all countries, it will not be sufficient for countries to act alone. As the Prime Minister has made clear, multilateral action, notably on climate change, is essential.

Global scale of markets **I.18** These trends point to the increasingly global scale of markets and to an accelerating pace of change in all sectors in the global economy. Responding to and benefiting from this process of change will demand flexibility from every participant: governments, communities, businesses and individuals.

The economic policy challenges

Long-term economic reform **I.19** Governments have a vital role to play in equipping their economies for the challenges and opportunities of the decade ahead. They need to adopt a global, outward-looking approach in making long-term economic decisions, while ensuring that businesses and people have the capacity and opportunity to respond effectively. Investment in education and training enables individuals and firms to respond and adapt positively to change. Economic reforms that reduce the regulatory burden on business, encourage competition, and promote enterprise and innovation, allow firms to compete more effectively and benefit from the new opportunities that more global markets offer.

I.20 Chapter 4 focuses on the implications of the trends identified in Chapter 3 for economic policy in the UK. It discusses in more detail the role for the Government in addressing and meeting the challenges and opportunities of the global economy. And it identifies the long-term economic policy challenges over the next decade. These are set out below.

Entrenching stability **I.21** First, increasing cross-border trade, more integrated capital markets, greater global competition and the pressures of an ageing society reinforce the need for a stable and sustainable macroeconomic framework. This framework provides a platform from which business can plan for the long term and can react to change, and is key to ensuring the UK continues to be an attractive destination for investment. The Government has established a robust monetary and fiscal framework built on the principles of transparency, responsibility and accountability, which has delivered sustained stability. The challenge for Government in the coming decade is *to entrench macroeconomic stability in the face of the more integrated global economy where shocks in one part of the world can be rapidly transmitted to other regions, and fiscal sustainability in the face of the long-term demographic changes facing all developed economies.*

Promoting enterprise **I.22** Second, as the global economy becomes more open and competitive, the UK must continue to develop an enterprising and flexible business sector that is able to react to change and seize opportunities in the global economy. The Government has developed a robust competition framework and taken a number of steps to encourage small and growing businesses. There are now 300,000 more businesses since 1997, but the rate of business creation is still half that of the US. The challenge for the Government, working in partnership with business, is *to promote an enterprise culture, maintain a robust competition framework, and create a business environment which is the best in the world, from which firms are able to succeed in the global economy.*

Harnessing science and innovation **I.23** Third, the increasing rewards to innovation and the growing importance of knowledge-driven sectors, combined with strong growth in emerging markets, means that advanced economies must find new technology-driven and high value-added areas. The UK has a strong scientific research base but needs to improve its ability to turn academic research into commercial innovation. Over the next ten years, the challenge for Government is *to establish the UK as a world leader for turning scientific research into business innovation, tackling the barriers to the diffusion and adoption of new ideas.* The Government has established a ten-year science and investment framework that aims to increase the level of R&D in the economy, and is taking steps to strengthen the partnership between industry and academic researchers.

Opening up skills for all **I.24** Fourth, as the UK seeks to move into high value-added, technology-driven areas, the skills of the labour force will play a critical role in promoting flexibility in the economy. High skill levels will increase the UK's ability to harness technological improvements and become more productive. It will also increase the ability of the UK to adapt to change, enabling individuals to move into new areas of work. The UK skills mix compares less favourably with many other developed countries. Although it has comparable levels of highly-skilled workers it has lower proportions of intermediate skills. The need for a highly-skilled workforce is reinforced by the rapidly rising skill levels in emerging economies. Each year India and China educate more than 4 million graduates, compared with just over 250,000 in the UK. The challenge over the next ten years is *to ensure the UK has the right skills mix by opening up the acquisition of skills to all, through addressing its existing skills inequalities, and continuing to invest in the education and training of those entering the workforce, to achieve the investment in education that individuals and the country require to prosper.*

Combining flexibility with fairness **I.25** Fifth, in the more competitive and integrated global economy, the future pace of change will be ever quicker and more intense. This has great potential benefits in terms of growth and prosperity but also entails difficult adjustments for individuals and firms as labour and capital are redeployed from traditional sectors to expanding ones. It is critical to ensure fairness through policies that expand opportunity and choice, provide security for the vulnerable, while maintaining incentives to work and save. The New Deal and reforms to the tax and benefit system have succeeded in moving people from welfare to work. Going forward, the challenge is *to equip people with the skills they need to adapt to change, to give them greater flexibility and choice in balancing work and family commitments, to enable women to participate fully and equally in the labour market, and to focus support on those sections of society who face the greatest barriers to work.*

Tackling global environmental issues **I.26** Sixth, increasing global economic activity and the rise of large emerging markets, especially China and India, are placing increasing pressure on the world's resources and environment. The challenge for the UK is *to increase the energy and resource efficiency of the economy, particularly by stimulating technological innovation in firms and by promoting low-carbon energy sources. Tackling global environmental issues, notably climate change, will require intensive engagement with international partners to secure effective multilateral action.*

Building a long-term consensus

To take the right long-term decisions **I.27** This paper, in looking to identify the key underlying trends and the economic policy challenges and opportunities, aims to build a consensus to take the right long-term decisions. It aims to ensure that Britain can succeed in meeting and addressing the challenges of the new global economy, delivering sustainable growth and opportunity for all in this period of far-reaching economic change.

2

THE DEVELOPMENT OF THE GLOBAL ECONOMY

Overview 2.1 This chapter puts recent developments in the world economy in historical context. It begins by discussing the expansion and integration of international product, capital and labour markets in the nineteenth century, driven by technological and industrial innovation. These developments had a major impact on the global balance of economic activity, with the expansion of the United States and the rise of other centres of economic activity. It then considers how this initial phase of rapid globalisation was reversed by the economic protectionism of the first half of the 20th century. It describes how global integration was given a renewed impetus by the commitment to economic co-operation that helped shape the Bretton Woods institutions; by the gradual liberalisation of trade; and latterly the liberalisation of capital flows from the 1970s onwards.

2.2 Following this, the second half of the chapter focuses on the current phase of global economic change. It suggests that the world economy is experiencing a far-reaching period of change, comparable to the fundamental changes and rebalancing of the world economy in the late 19th century. This change is being driven by rapid technological advance and falling communication costs; by the increasing ease with which goods and services can be traded between countries and across continents; by the subdivision and internationalisation of an increasing range of economic activities; and by market reforms in China, India, and other rapidly growing emerging markets, that have seen them participating in global economic activities and becoming increasingly important centres for the production of goods and services.

THE MAKING OF GLOBAL MARKETS

From the industrial revolution to global markets 2.3 The economic relationship between countries and balance of global economic activity was transformed in the 19th century. Britain played a significant role through the Industrial Revolution. It became the world's leading industrial nation, benefiting not only from its access to natural resources, but also from its stability and openness to new ideas.¹ As the techniques of industrialisation were applied to international transport and communications, international trade increased and new global product, capital, and labour markets were forged.

- *Product Markets:* Trading patterns were transformed by the use of steam-power for ocean-going ships, enabling the export of agricultural products from the United States, Australia, and New Zealand to Europe. The level of world trade (defined by the ratio of world exports to GDP) increased significantly – from 2 per cent of GDP in 1800 to 10 per cent in 1870, 17 per cent in 1900 and 21 per cent in 1913.² A network of bilateral trade treaties supported this expansion, beginning with the Cobden-Chevalier Treaty between Britain and France in 1860; and the gold standard provided a stable international payments system.

¹ The following discussion draws in particular on Landes, D. (1998) *The Wealth and Poverty of Nations*, London; Maddison, A. (1982) *Phases of Capitalist Development*, Oxford; Maddison, A. (2001) 'The World Economy: a Millennial Perspective', OECD, Paris; and DeLong, B. *Slouching Towards Utopia: The Economic History of the Twentieth Century*, <http://www.j-bradford-delong.net/>. For a discussion of some of these themes see also "The 2004 British Council Annual Lecture" by the Chancellor of the Exchequer on 7 July 2004.

² Figures taken from Estevadeordal, A., Taylor, A. M. and Frantz, B. (2002) *The Rise and Fall of World Trade, 1870-1939*, NBER, Cambridge, Mass., 2002.

- This period of increasing trade witnessed an increasing international division of labour, with production increasingly specialised in different regions. The United States and Australia exported agricultural products, and Europe increasingly specialised in manufactured goods. As a result, the employment structure in countries changed significantly: in 1820 agriculture accounted for 40 per cent of employment in the UK and industry 30 per cent; by 1890 agriculture accounted for just 16 per cent and industry 44 per cent. As innovations spread across borders as the century moved on, industry in the UK also faced competition from manufacturers in Germany and increasingly also parts of the US.
- *Capital Markets:* The first transatlantic telegraph cable, laid in 1866, dramatically reduced communication times and made possible the integration of transatlantic financial markets. There was a boom in international capital flows between 1870 and 1914. British capital exports averaged 5 per cent of GDP during this period, and at their peak reached 9 per cent, much of this financing the building of infrastructure in developing countries, particularly railways, and so further narrowing barriers to transport and communication. Capital inflows financed a third of domestic investment in Canada and New Zealand, and a quarter in Australia.³
- *Labour Markets:* The late 19th and early 20th centuries were also characterised by mass migration, primarily from Europe to North America. As with trade, the development of steam ships played a crucial role, cutting the average journey time significantly. In the 1850s and 1860s, the numbers emigrating from Europe to other continents averaged around 300,000 per annum, and exceeded a million per annum by the turn of the century. Looking at global migration, it has been estimated that in total around 100 million people migrated from one continent to another between 1870 and 1925, making up 10 per cent of the world population.⁴

2.4 The development of these global markets, and the emphasis they placed on the adaptability of countries to new technologies, had an important impact on the global distribution of wealth. The rise of the United States was particularly significant, with US productivity rates catching up with those in the UK by 1890 and continuing to grow considerably faster. Living standards in the US, which had been 30 per cent lower than those in the UK in the early 19th century, were 20 per cent higher by the outbreak of the First World War. Indeed, by 1913, US output was two and half times that of the United Kingdom or Germany. In explaining the changing position of the UK and emergence of the US as the world's leading technical economy, historians have noted among other factors that participation rates in education were relatively low in the UK, there was pressure for more skilled workers, and that the US and other European countries were more effective in fostering innovation. Overall, this period of open markets saw significant economic growth and expansion of the world economy.

³ See "Private Capital Flows in Historical Perspective", chapter 6, *Global Development Finance Report 2000*, World Bank, <http://www.worldbank.org/>

⁴ Chiswick, B. and Hatton, T. (2003) 'International Migration and the Integration of Labour Markets' in Bordo, M., Taylor, A. and Williamson, J. *Globalisation in Historical Perspective*, Chicago, 2003; DeLong, op. cit.

The world economy 1914-1945

The costs of protectionism

2.5 The period after the outbreak of the First World War saw a significant reversal in this expansion of international trade and the integration of the world economy. Following the war, a number of additional factors contributed to the decline in trade. Transport costs failed to sustain their rapid decline; the collapse of the gold standard meant there was no international payments system, and perhaps most importantly policy makers increasingly turned to protectionist policies including tariffs (Table 2.1), import quotas, and foreign exchange restrictions. As a result, the ratio of world trade to output declined from 21 per cent in 1913 to 14 per cent in 1929 and 9 per cent in 1938. The severe contraction of international trade, together with domestic policy failures, contributed to the Great Depression, during which output fell across the world.⁵

Table 2.1: Average tariff levels in selected countries (per cent)

| | 1925 | 1931 |
|----------------|------|------|
| France | 9 | 38 |
| Germany | 15 | 40 |
| Italy | 16 | 48 |
| United Kingdom | 4 | 17 |
| United States | 26 | 35 |

Source: Irwin, D (2002)

Bretton Woods and economic co-operation

Multilateral Co-operation

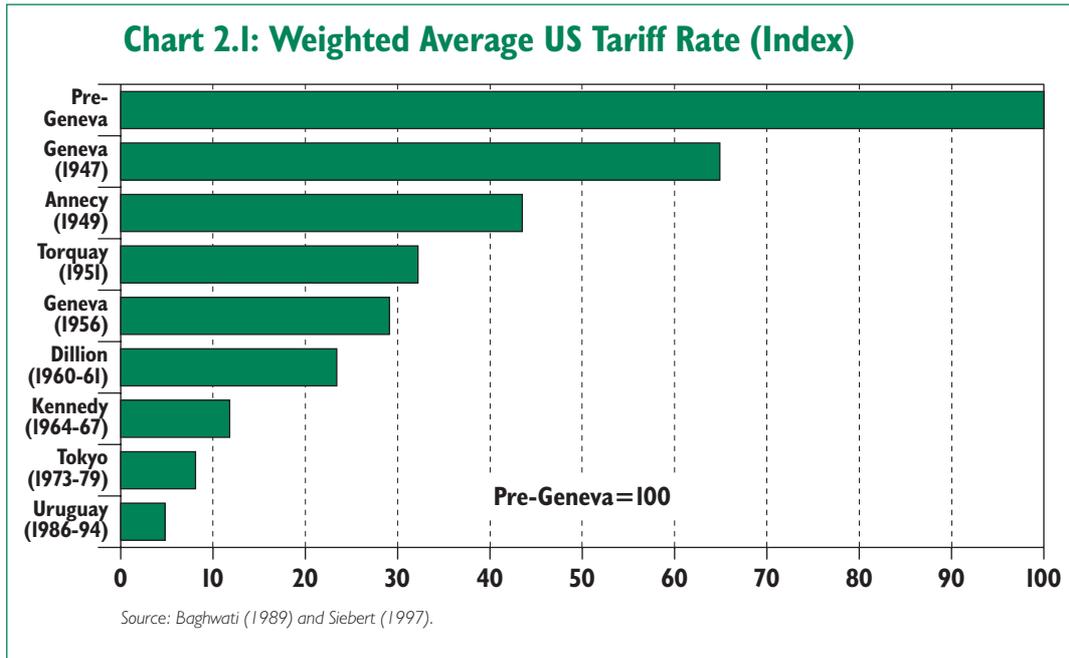
2.6 When representatives from 44 countries met at Bretton Woods in New Hampshire in 1944, they were determined to avoid the mistakes of the inter-war period, and in particular to prevent a return to the disastrous protectionist barriers, competitive devaluations and “beggar thy neighbour” policies of the 1930s. They put in place new institutions to promote stability and prosperity after the war: the International Monetary Fund (IMF) to promote a stable monetary system and so provide a sound basis for multilateral trade, and the World Bank (founded as the International Bank for Reconstruction and Development) to help restore economic activity in the devastated countries of Europe and Asia. Their aim was to promote lasting multilateral economic co-operation between nations.⁶

and greater openness

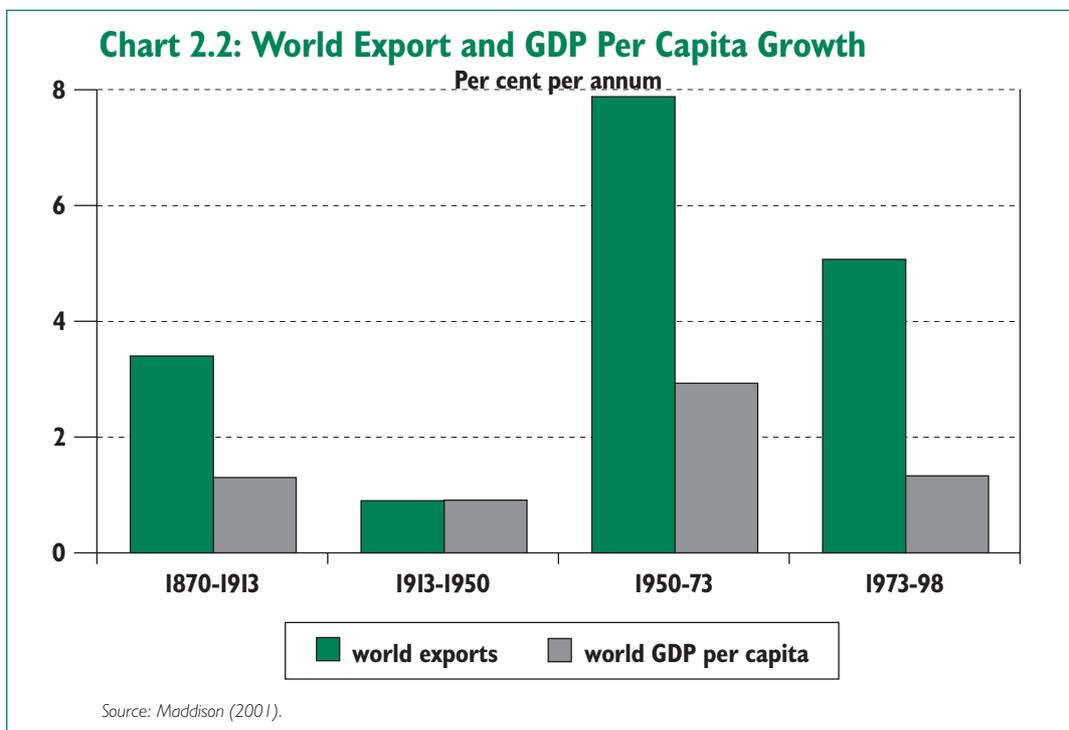
2.7 This impetus to promote economic co-operation and outward looking policies also led to the establishment of the General Agreement on Tariffs and Trade (GATT) in 1947, which provided a framework for progressive mutual reduction in tariffs. Despite tensions and difficult negotiations, the first GATT negotiations succeeded in reducing tariffs by around 20 per cent and a post-war framework for multilateral trade negotiations was established. Successive GATT rounds in subsequent decades supported a gradual, but steady and sustained, reduction in trade barriers (Chart 2.1).

⁵ For a description of the evolution of trade policy during the depression see among others Douglas A. Irwin, “Long-run trends in world trade and income”, *World Trade Review* (2002); W. Arthur Lewis, *Economic Survey: 1919-1939* (London, 1949); Charles P. Kindleberger, *The World in Depression 1929-1939* (Berkeley, 1986). For a discussion of evidence on the negative impact of protectionist policies on output growth see, for example, Greenaway and Milner (1993) and Edwards (1998).

⁶ See James M. Boughton, “The IMF and the Force of History: Ten Events and Ten Ideas That Have Shaped the Institution”, *IMF Working Paper* (May, 2004).



2.8 These reductions applied primarily to manufactured goods: substantial barriers to trade remained in agriculture, textiles and services. And the benefits flowed mainly to developed economies with developing countries remaining largely outside the GATT process. Nevertheless, as trade barriers declined sharply both global trade and income per capita increased dramatically.⁷ In particular, the strong growth of both exports and output between 1950 and 1973 stands in marked contrast to the weak performance of both in the first half of the century that was characterised by economic protectionism (Chart 2.2).



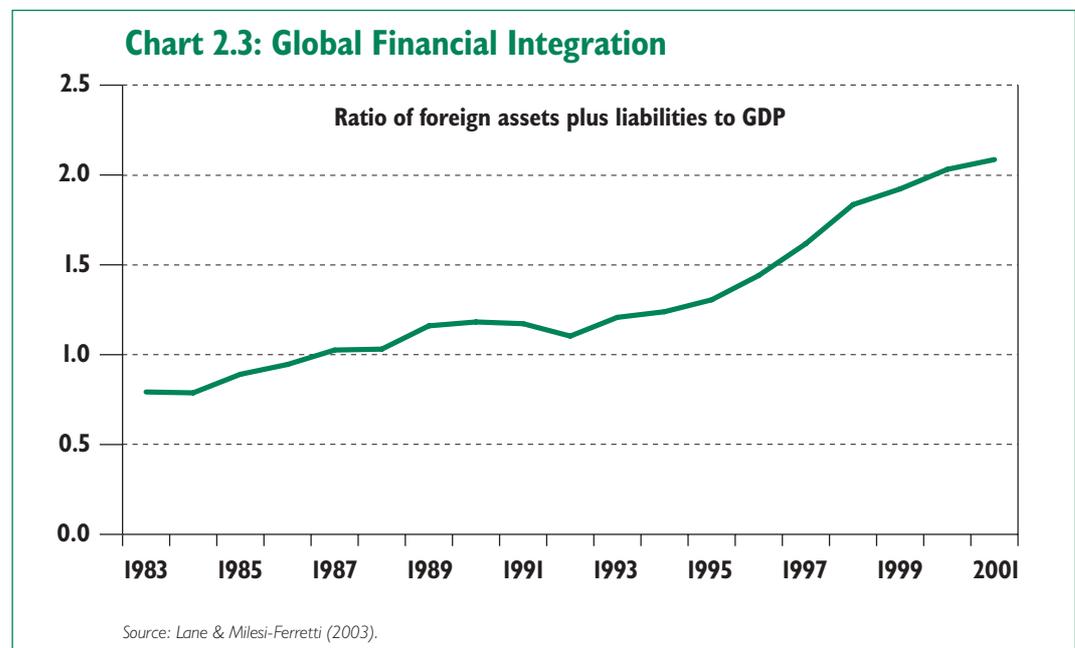
⁷ For example, import tariffs on manufactures in the UK fell from over 40 per cent at the end of the 1940s to around 4 per cent now. Greenaway, D. (2001) 'Written Evidence to the House of Lords Select Committee on Economic Affairs Enquiry into Globalisation', House of Lords, London.

Significant economic growth. **2.9** As the world economy began to recover after the war, supported by multilateral cooperation and tariff reductions, new economic centres of activity emerged. In Europe, increased openness to trade helped drive productivity and economic growth after the Second World War, in particular in the “Golden Age of European growth” between 1950 and 1973. The formation of the European Economic Community (EEC) in 1958 and the European Free Trade Area (EFTA) in 1960 reduced trade barriers within Europe, provided European producers with easier access to each others’ markets, and led to a strong expansion in intra-European trade.⁸ The late 1950s and 1960s also saw the rapid expansion of the Japanese economy, supported by increasing exports to opening markets in Europe and North America, and by 1968 Japan was the second largest market economy in the world. As well as trade, the period also saw a steady expansion of foreign direct investment, which grew at twice the rate of GDP during the 1960s.

The integration of financial markets

Expansion of international capital flows **2.10** The Bretton Woods system of exchange-rate and capital controls came under increasing pressure from the growing volume of cross-border financial flows and was abandoned in the 1970s. The following decades saw an expansion of international capital flows and the greater integration of financial markets,⁹ supported by a relaxation of capital controls, together with financial-sector liberalisation, both in industrialised and developing countries.¹⁰ However the IMF and World Bank remained important fora for economic cooperation, surveillance and development.

2.11 The trend towards increasing financial integration is illustrated in Chart 2.3 which shows the world’s international investment position (here defined as the sum of countries’ foreign assets and liabilities as a ratio of global GDP). This gives some sense of the scope of change in cross-border flows and the extent to which the global financial integration has advanced since the 1980s. Over the past two decades, financial integration thus measured has risen threefold.



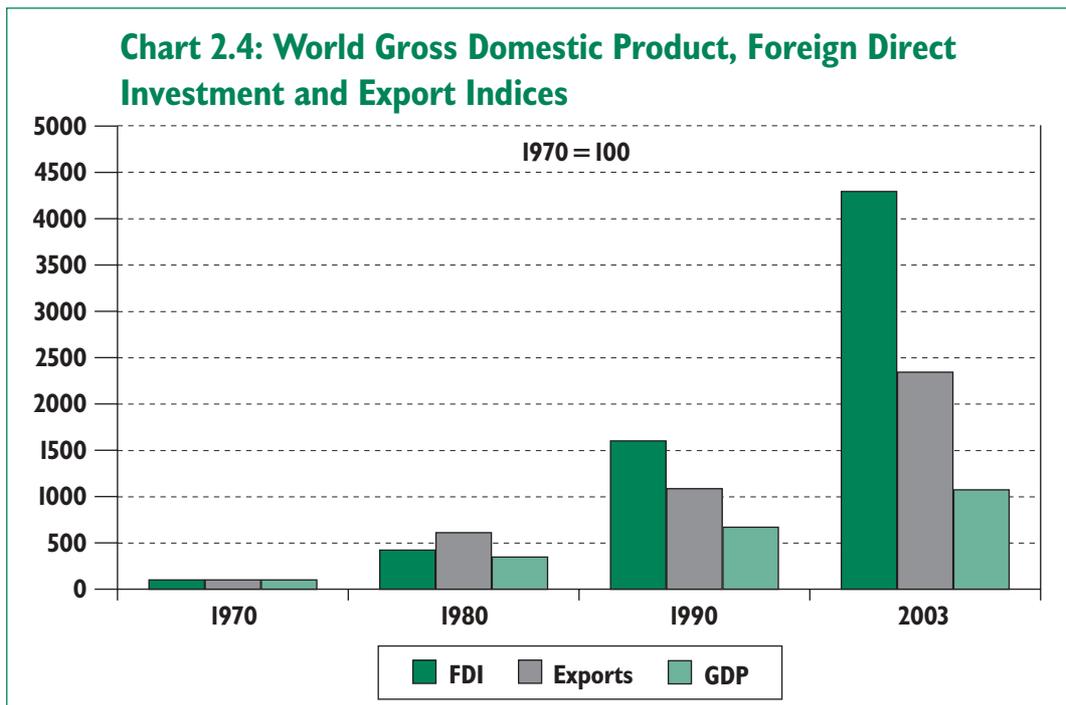
⁸ For a discussion of GATT, the European Economic Community, and the European Free Trade Area see *Trade and the Global Economy: The role of international trade in productivity, economic reform and growth* (HM Treasury and Department of Trade and Industry, May 2004).

⁹ For the history of Bretton Woods and capital flows see, for example, Manuel Guitián, “*The Challenge of Managing Global Capital Flows*”, IMF Finance and Development Review (June 1998).

¹⁰ For a more detailed discussion on globalisation and the integration of financial markets see Obstfeld, M. and Taylor, A. (2002) ‘*Globalization and Capital markets*’, NBER Working Paper, 2002; and Obstfeld, M. (1998) ‘*The Global Capital Market: Benefactor or Menace?*’, Journal of Economic Perspectives, 1998.

Foreign Direct Investment 2.12 The integration of financial markets is reflected in a number of different financial flows, including debt, remittances, portfolio and foreign direct investment (FDI). FDI is particularly relevant in this context as an indicator of the extent to which firms engage internationally and production is dispersed globally.

has grown in recent decades. 2.13 The acceleration of FDI from the 1980s onwards has been particularly significant in speeding up the process of global integration. World FDI flows grew dramatically in the 1980s and 1990s and at rates substantially above those of global GDP and trade (Chart 2.4). FDI inflows during the 1980s grew four times faster than world GDP and expanded by an average of 13 per cent per annum in the period between 1990 and 1997. They accelerated to an unprecedented average of almost 50 per cent a year during 1998-2000, largely as a result of substantial cross-border mergers and acquisitions activity, further spurring global financial integration.¹¹



2.14 Despite remarkable growth rates in world FDI throughout the last two decades, the geographical distribution of FDI has been uneven. Most FDI stocks still relate to developed market economies, especially some European countries such as the UK, France, Germany, the Netherlands, as well as the US and Japan. However, there are increasing signs that large emerging economies are becoming more important destinations for FDI. These are discussed in the next chapter.

THE CURRENT PHASE OF GLOBAL ECONOMIC CHANGE

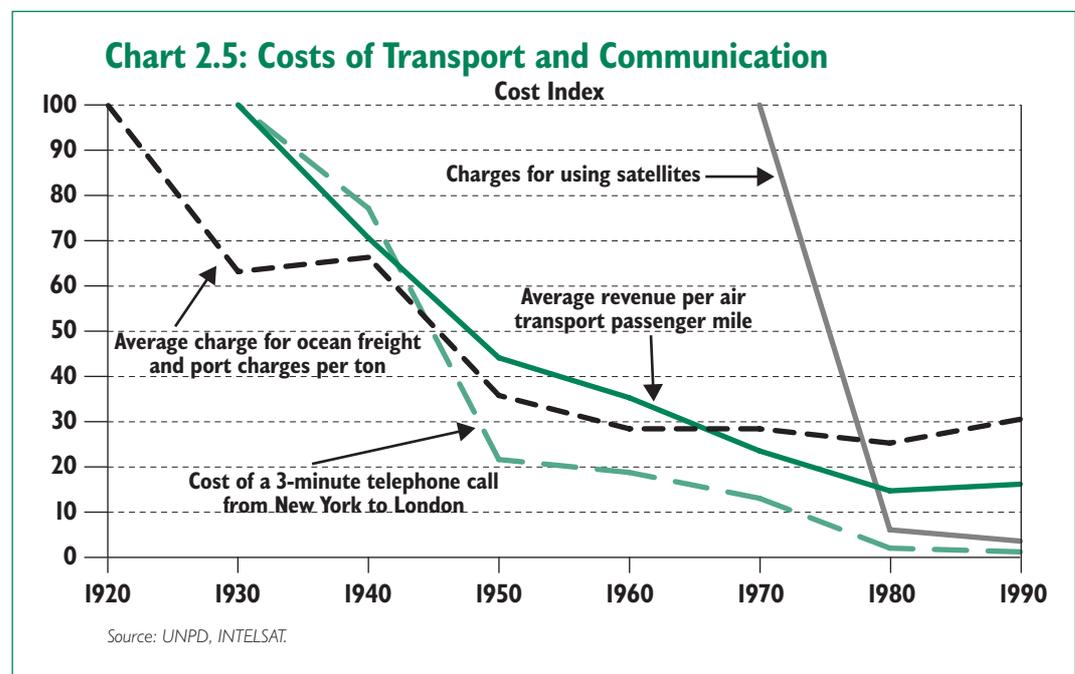
Period of intense change 2.15 In recent years, a number of developments have served to accelerate the pace of integration and restructuring, transforming the global economy in a way not seen since the emergence of the US as the leading world economy in the late 19th century. The rest of this chapter sets out how changes in technology and innovation, specialisation and internationalisation of production processes, and increasing integration of emerging economies into the global economy distinguish the current phase of global change from what came before.

¹¹ IMF (2003) *Foreign Direct Investment Trends and Statistics*, Washington D.C., 2003. For a discussion of recent trends in FDI see also OECD (2004) *Trends and Recent Developments in Foreign Direct Investment*, Paris, 2004; and UNCTAD (2004) *World Investment Report 2004*, Geneva, 2004.

Technology

2.16 Technological change is one of the principal catalysts of greater world integration. Although technology had a significant influence in earlier periods of economic change, one of the distinctive features of the current phase is the unprecedented speed and scale of change.

2.17 Advances in transport and communication technologies have been a principal driver in the integration of world markets. The transportation of physical goods and people is time-consuming, costly, and risky. Major technological advances in this field have considerably lowered the costs, increased the speed and improved the reliability of transport, extending the geographical reach of firms by making new markets accessible on a cost-effective basis. Similarly, major technological progress in the area of communication has been a powerful driver in facilitating global transactions and improving information flows. Chart 2.5 illustrates how technological advances have lowered communication and transport costs.



2.18 More recently, technological advance has particularly taken place in the area of information technology. For example, computing speed and storage capacity have progressed at an exponential rate over the last three decades. Between 1970 and 1999, the cost of 1 megahertz of processing power fell from \$7,601 to 17 cents.¹²

New opportunities for economic activity

2.19 As technology impacts on production and transportation processes and increasingly also on the flow of information, it influences the structure of firms, and the location, ownership and management of productive activity among regions and countries.¹³ The ease with which goods, capital and technical knowledge can be moved around the world has increasingly enabled the division of labour on a global scale, as firms allocate their operations in line with countries' comparative advantage. As a result, there has been a significant increase in the number of firms that locate, source and sell internationally, reflecting the new opportunities presented by the ICT revolution, alongside falling transport costs and easing trade and capital restrictions.

¹² Karoly and Panis (2004), 'The 21st Century at Work', Rand Corporation, www.rand.org.

¹³ Source: Brooks and Guile (1987) 'Technology and Global Industry: Companies and Nations in the World Economy', 1987.

Promoting productivity and growth

2.20 The related inventions of the personal computer, the Internet and the World Wide Web, which draw on and combine the advances in communications technology, have changed the way that many markets operate. Such technologies have led already to further integration of international markets – enabling more effective competition and hence international price convergence for traded goods and services. Internet-related technologies are boosting efficiency and growth by increasing the availability of information and improving access to markets. In tandem with this, advances in ICT have also enabled and encouraged fundamental changes in the way that businesses are run. The advent of real-time information systems has enabled better coordination of productive and administrative procedures, promoted transparency and improved response times. Data transfer can now be achieved more accurately and on a much more timely basis than was possible in earlier times. The Internet has also enabled the dissemination of knowledge and ideas at an unprecedented speed, contributing to an increase in the public availability of information.

International production of goods and services

Increasingly international and specialised

2.21 As a result of the combination of technological advance and policy liberalisation, many production processes are becoming increasingly specialised, international and dispersed. This spread and dispersion of production processes represents the international division of labour, splitting up the provision of goods and services into different units, which can be located in the region or country that can produce them most efficiently. Box 2.1 provides further detail on the increasing role of specialisation in economic activities.

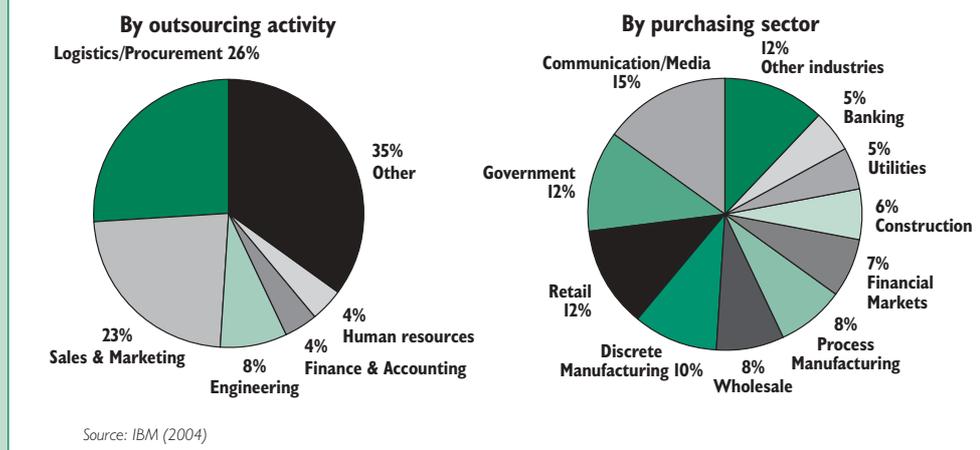
2.22 One important aspect of this internationalisation and subdivision of activities within and between firms is the increasing relocation of economic activity abroad, what has been termed international outsourcing or offshoring. There are several reasons why the specialisation and internationalisation of production processes has become more cost effective than in the past:

- First technological advances have lowered the costs and enhanced the ability of firms to manage complex, geographically dispersed and highly specialised production processes. For example, computers have allowed virtually costless means of communication via e-mail and the Internet, with national borders no longer providing boundaries to such transmission. Major advances in transport and information technology, enabling innovation in logistics, have also enabled firms to source components internationally, where previously they were constrained to local sources of supply.
- Second, policy liberalisation has permitted certain cross-border activities that were previously prohibited, and lowered the costs on others. Widespread deregulation of services activities – e.g. insurance, banking and transportation – has opened further opportunities.
- Third, developments in emerging markets – including greater stability and openness, improved infrastructure and rising education and skill levels – have helped make foreign provision of certain goods and services more economically viable.

Box 2.1: Specialisation

Specialisation in the production of goods and services has long been identified as a means of raising productivity. Specialisation occurs when a firm (or individual) focuses on a narrower set of activities. Within a firm, this may be achieved through focussing the activity of the firm – or some division within it – on a particular task, or narrower set of tasks. Specialisation in this way may require inputs of goods and services that were previously produced on site to be sourced from elsewhere, either within the same firm or through purchasing them from an external provider – which has been termed *outsourcing*. When such inputs are sourced from abroad – either from a foreign affiliate of the specialising firm or from a different firm, this has been described as *offshoring*.

Specialisation – particularly through outsourcing but increasingly through offshoring – has existed for centuries, predominantly in manufacturing. However, it has been promoted recently by advances in information and communication technology (ICT). These have facilitated the co-ordination of networks of specialised units and reduced the associated costs and risks – particularly when they form part of a geographically dispersed supply chain. ICT is also making specialisation viable in many service sectors. The following charts illustrate for the global economy which sectors are outsourcing services (right) and the types of services that are being outsourced (left).

Chart 2.6: Global Outsourced Spending

Advancing technology and other factors have broadened the choice of location for specialised activities. The choice of location will be based on a range of factors including: the local cost and availability of appropriately skilled labour; the co-location of other firms or individuals that could act as suppliers to or customers of the specialised unit; the proximity of natural resources that are used as inputs; and the policies, institutions, regulatory and legal frameworks that affect local economic activity.

2.23 Increasing specialisation and internationalisation of the provision of goods and services is reflected in the growth of trade in intermediate goods, which are used as inputs in production processes. There is growing evidence that this accounts for an increasingly large proportion of total trade. Intermediate goods trade represents around 30 per cent of world trade in manufactures. Also important is the growth of trade within industries rather than between industries. Intra-industry trade now accounts for about 70 per cent of European trade.¹⁴

¹⁴ OECD (2002) 'Intra-industry and Intra-firm Trade and the Internationalisation of Production', OECD Economic Outlook no. 71, Paris.

Increasing trade in services

Services provided across continents

2.24 The ICT revolution has intensified international trade in services, extending the frontiers of international competition into sectors that were once sheltered. Traditionally, international trade in most services has not occurred because such services were thought to require buyers and sellers to be in the same place at the same time. Many services, however, do not require physical proximity, but have usually taken place face-to-face because of technical constraints, habits or customs. Such services involve the exchange, storage, processing and retrieval of information. Production and consumption of services can now be separated through the standardisation of process and the capacity for data storage or because geographical distance is not a barrier for the simultaneous production and consumption of services, for example through call centres.

2.25 Use of ICT enables information to be codified and digitised. This information can be stored and exchanged in electronic form, and allows services that use it to be provided remotely, often much more cost-effectively than they could be locally. Such services range from simple data-handling activities to services that involve the application of a high degree of skill. Thus advances in ICT have solved the technical problem of transporting and storing many services.

Benefits but also challenges

2.26 In addition to cost advantages from relocating abroad, international service provision can raise productivity or the quality of service provision. For example, offshoring can be used to harness differences in time zones. Complementary service centres can be established in various locations around the world to ensure 24-hour, worldwide coverage and to enable further productivity gains. Increasing trade in services should bring about overall gain to the global economy as service production is reallocated more efficiently across countries to harness the gains to be derived from international specialisation.

2.27 The growing relevance of services activities around the globe has been mirrored in a shift in the composition of global FDI, with services now accounting for a growing proportion of investment. Between 1970 and 1990 the share of services in the world FDI stock grew from one quarter to almost a half, and by 2002 had risen to about 60 per cent. Over the same period, the share of the primary sector in world FDI stock declined, from 9 per cent to 6 per cent, and that of manufacturing fell from 42 per cent to 34 per cent. This change in the composition of FDI can be attributed to the growing share of the service sector in economies more generally. By 2001 the sector accounted, on average, for 72 per cent of GDP in developed countries and 52 per cent in developing countries.¹⁵

2.28 Economic progress in large emerging economies such as India and China will see them play an increasingly prominent role in the international specialisation of economic activity as they become increasingly important centres for exporting goods and services. As they advance, they in turn will specialise by offshoring activity. The UK, as the world's largest net exporter of services, is well positioned to harness the opportunities that the emergence of these economies will provide.

¹⁵ United Nations Conference on Trade and Development, World Investment Report 2004, *The Shift Towards Services*.

Rapidly growing emerging economies

Greater integration with global markets **2.29** The engagement of large emerging economies, in particular China and India, with the rest of the global economy over the past two decades has provided a significant impetus for growth. This was supported by a series of market-based economic reforms – following a period of rigid controls in the product, capital and labour markets during the post war period. As a result, the Chinese and Indian economies have grown by over 700 per cent and 250 per cent respectively since 1980, and have become increasingly integrated with world economic activities, with stocks of inward FDI increasing from less than 1 per cent of GDP in 1980 to currently over 35 per cent and over 5 per cent respectively.¹⁶

2.30 The rapid expansion of major emerging economies, is leading to a shift in the global balance of economic activity. In particular, China's contribution to global growth since the turn of the millennium has been highly significant. In each of 2001, 2002 and 2003, China contributed more to global growth than the whole of the G7 combined, measured in purchasing-power parity terms.

Expanding share of world trade **2.31** Looking at the evolution of trade flows, since 1990 Chinese exports have expanded by around three times the trend rate of global trade growth. This makes it easy to understand how China's share of global trade has increased markedly – from 0.5 per cent in 1980 to around 7 per cent currently. A very large labour force and low labour costs give China a comparative advantage in labour-intensive production. China is not just a growing exporter – its imports have been rising at similar speed. Many of these imports are semi-finished products from neighbouring countries, which are subsequently re-exported to world markets as finished goods. China is also increasingly dependent on raw material and energy imports, notably oil, and has a growing appetite for high-end consumables such as cars.

2.32 India's goods and services exports have grown by around 14 per cent per annum over the past decade, whilst imports have grown at approximately 9 per cent per annum. Export growth has been particularly strong in the services sectors – primarily as a result of the relocation of services. The composition of India's imports is different from that of China. The relative scarcity of domestic resources such as oil, gas and coal means that the India's rapid growth has been even more dependent on energy imports than China's.

Impact on world markets **2.33** The rapid development of China and India is also having a marked impact on world commodity markets. China is the world's largest user of steel, copper and iron ore – in 2003 China consumed 232m metric tones of steel, compared to 101m in the US and 864m worldwide. In 2004, it is estimated that China will account for around one third of the increase in world oil demand and two thirds of the increase in Asian oil demand. China is also an increasingly important source of demand for high-tech consumer goods. The spread of high-tech goods across the world's most populous country means that China now is the world's largest market for mobile phones with some 250 million handsets.

2.34 As China and India continue to develop rapidly they are attracting ever-increasing amounts of FDI. Indeed, China has recently overtaken the US as the largest recipient of FDI. Furthermore, both India and China are making significant attempts to develop infrastructure and improve the operating environment for business in order to attract increased investment flows (these trends are discussed further in the next chapter).

¹⁶ IMF (2004), 'World Economic Outlook,' Washington D.C., 2004.

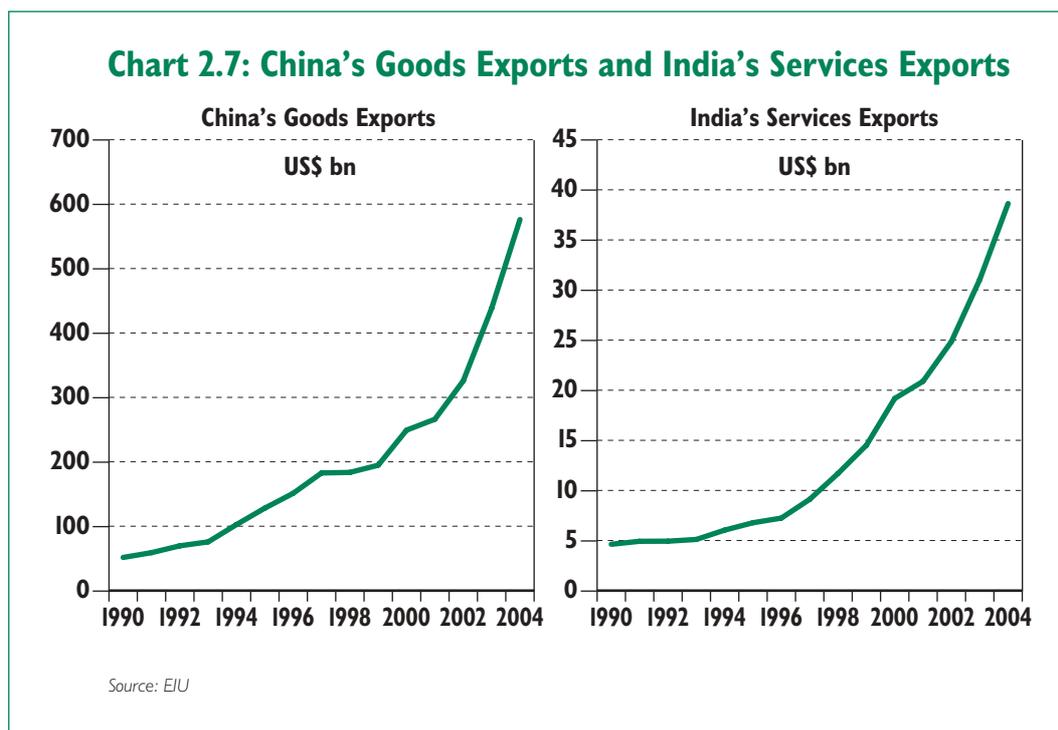


Table 2.2: Global share of commodity consumption in selected countries

(Per cent of the world)

| | China | US | Japan | India |
|-----------|-------|------|-------|-------|
| Wheat | 17.2 | 5.5 | 1.0 | 11.8 |
| Soybeans | 16.0 | 24.7 | 2.1 | 2.7 |
| Cotton | 31.1 | 5.8 | 0.7 | 13.6 |
| Copper | 19.8 | 14.9 | 7.8 | 2.0 |
| Aluminium | 19.0 | 20.3 | 7.4 | 2.8 |
| Steel | 26.5 | 11.9 | 8.0 | N/A |
| Petroleum | 7.7 | 25.2 | 6.6 | 2.8 |

Source: IMF WEO, 2004

Wider economic implications **2.35** Consumers in both advanced and emerging economies have benefited from the increase in the range of goods and services that increased global integration enables. Often these goods and services become cheaper as global supply chains are reorganised to make best use of the resources that emerging economies, such as India and China, have to offer. Increased integration also expands the range of assets available to investors, providing greater scope to diversify their investment risks.

Flexibility must be combined with fairness **2.36** However, as economies move into different areas of economic activity, this adjustment can have significant impacts. Capital and labour may need to move from traditional into expanding industries. At any point in time, the impacts can fall disproportionately on particular individuals and activities. For the individuals concerned, this may entail considerable challenges in adapting to change, acquiring new skills and finding new employment. It is therefore important, as set out in Chapter 4, that flexibility in the new global economy is accompanied by measures that enable individuals to make the transition from traditional activities into expanding areas. Such measures ensure that flexibility is accompanied by fairness.

CONCLUSION

2.37 This chapter has discussed the development of the world economy, from the significant changes that followed the industrial revolution to the current period of far-reaching economic change. It has described the role that technology and changing trade and investment patterns played in the late 19th and early 20th century, the benefits that flowed from greater openness and trade, but also the significant adjustments associated with the shifting balance of economic activity. It has looked at the costs of protectionism in the first half of the twentieth century, and described the benefits that flowed in the post-war period from an outward looking approach and multilateral cooperation, as governments worked together to promote shared opportunity and shared prosperity for all.

2.38 Finally, it has looked at the key factors that are driving economic change and shaping the world economy at the outset of the new century. These include rapid changes in technology and increasing rates of innovation, transforming the ease with which goods and in particular services can be traded between countries. They also include the increasing internationalisation and relocation of economic activities, dispersed across continents and with a finer level of specialisation. Perhaps the most dramatic change is the growing integration of large emerging economies, in particular China and India, with global economic markets. These changes have significant implications for the organisation and balance of economic activity across the world. The following chapter examines the implication of these developments for the global economy over the next ten years, identifying the key trends and challenges that will shape future global economic development.

3

FUTURE TRENDS IN THE GLOBAL ECONOMY TO 2015

3.1 The previous chapter described the current phase of global economic development, and the significant changes in the world economy brought about by rapid technological change and falling costs of transport and communication, by the increasing ease with which goods and services can be traded between countries and continents, by the subdivision and internationalisation of economic activity, and by the market reforms in China, India and other large emerging economies.

Key global economic trends to 2015

3.2 This chapter examines the implications of these underlying structural developments for the global economy over the next ten years. It identifies six key challenges and opportunities that will shape global economic development, and that governments in advanced economies will need to address in order to achieve a strong economy and fair society, where there is opportunity for all:

- First, the balance of global economic activity is likely to shift significantly, with an increasing proportion of global output produced in the rising Asian economies and other rapidly growing emerging economies.
- Second, integration of global economic activity will intensify as international trade and investment expand. In particular, the rapid and sustained growth in foreign direct investment (FDI) seems likely to continue, and the sources and destinations of FDI will become increasingly diverse.
- Third, driven by further advances in technology, economic activities will become increasingly international and specialised.
- Fourth, as both global competition and the speed of technological change increase, there will be increasing rewards from innovation.
- Fifth, higher skills levels will be critical to realise the benefits that come from global integration. Skills that were once regarded as high-level are increasingly viewed as basic. For firms deciding where to locate, the relative skills of the labour force are likely to become an ever more important factor.
- Sixth, the pace of global economic growth will place increasing pressures on resources and the natural environment.

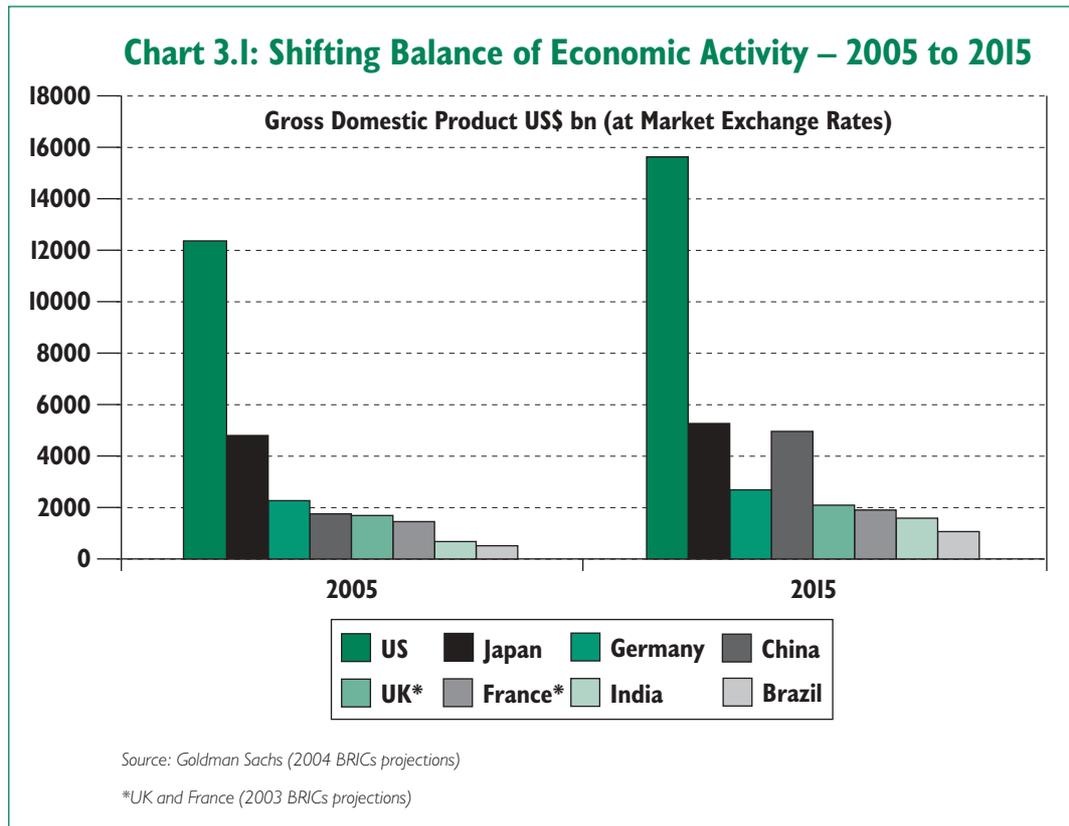
THE CHANGING BALANCE OF GLOBAL ECONOMIC ACTIVITY

Current period is one of profound changes in global economy

3.3 The global economy is undergoing a major transformation, as the last chapter discussed, with far-reaching and fundamental changes in technology, production, and trading patterns. Faster information flows and falling transport costs are breaking down geographical barriers to economic activity. The boundary between what can and cannot be traded is being steadily eroded, and the global market is encompassing an ever greater number of services and goods. Economic activity is becoming increasingly flexible, divisible and dispersed across continents, with an increasing level of specialisation. More countries are opening up their economies and seizing the opportunities that come from closer integration into the global economy.

Pace of change to accelerate over next decade

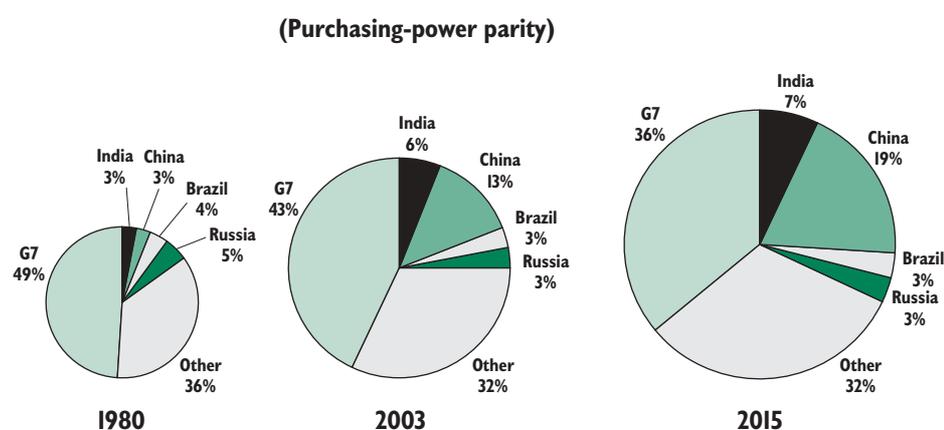
3.4 These changes will intensify over the next ten years. In particular, the rise of large emerging markets, most significantly China and India, is likely to shift the balance of global economic activity in the coming decade. The scale of this change is evident in projections for economic growth in these major emerging economies. For example, China is now the world's sixth largest economy; by 2015, it is likely to have surpassed every European economy in size, becoming the world's third largest economy – after the US and Japan. India is also set to increase its share of global GDP and trade significantly. This is illustrated in Chart 3.1, based on one set of external projections for growth in major advanced and emerging economies.



large emerging economies increasing their share of global GDP

3.5 The expansion of these emerging economies will mean that they account for an increasing share of global output. The relative economic position of advanced and emerging economies will change. At the moment China and India account for 19 per cent of global output, compared to an estimated 26 per cent in 2015. The share of world output accounted for by the G7 – the US, Japan, Germany, UK, France, Italy and Canada – was around half in 1980, falling to 43 per cent now, and is projected to decline further to around 36 per cent by 2015.

3.6 At the same time, however, overall global output will also be increasing. Indeed, based on World Bank projections, the size of the global economy could expand by 40 per cent by 2015. So while advanced economies' share of global output will decline, they can nevertheless benefit from the overall expansion. The amount of goods and services that advanced economies produce and consume is projected to be far larger in 2015 than now. This is illustrated in Chart 3.2, which shows both the changing proportions and the expansion of the size of the world economy.

Chart 3.2: Shifting Shares in Global Output


Source: IMF, Consensus Forecasts, HM Treasury.
Areas indicate size of global economy.

3.7 The acceleration in global growth to 3.2 per cent per annum over the period 2006-2015 on World Bank projections, driven primarily by higher growth in South and East Asia, compared with 2.6 per cent growth in the 1990s, could have a significant impact on living standards. The World Bank estimates that growth in incomes per head could accelerate to 2.2 per cent, over the period 2006-15, compared with 1.2 per cent recorded in the 1990s. This could enable significant poverty reduction in some emerging economies, as Table 3.1 illustrates. For example, the proportion of people living under one dollar per day in China could fall from 16 per cent in 2000 to 3 per cent in 2015. The number of people in China and South Asia combined living on less than \$1 a day is expected to halve between 2000 and 2015.

Table 3.1 Poverty indicators

| No of people living on <\$1 per day (millions) | 1990 | 2000 | 2015 |
|--|-------------|-------------|------------|
| China | 361 | 204 | 41 |
| South Asia | 466 | 432 | 268 |
| SSA | 241 | 323 | 366 |
| Total | 1237 | 1100 | 734 |

| No of people living on \$1 per day headcount index (per cent) | 1990 | 2000 | 2015 |
|---|-------------|-------------|-------------|
| China | 31.5 | 16.1 | 3.0 |
| South Asia | 41.5 | 31.9 | 16.4 |
| SSA | 47.4 | 49.0 | 42.3 |
| Total | 28.3 | 21.6 | 12.5 |

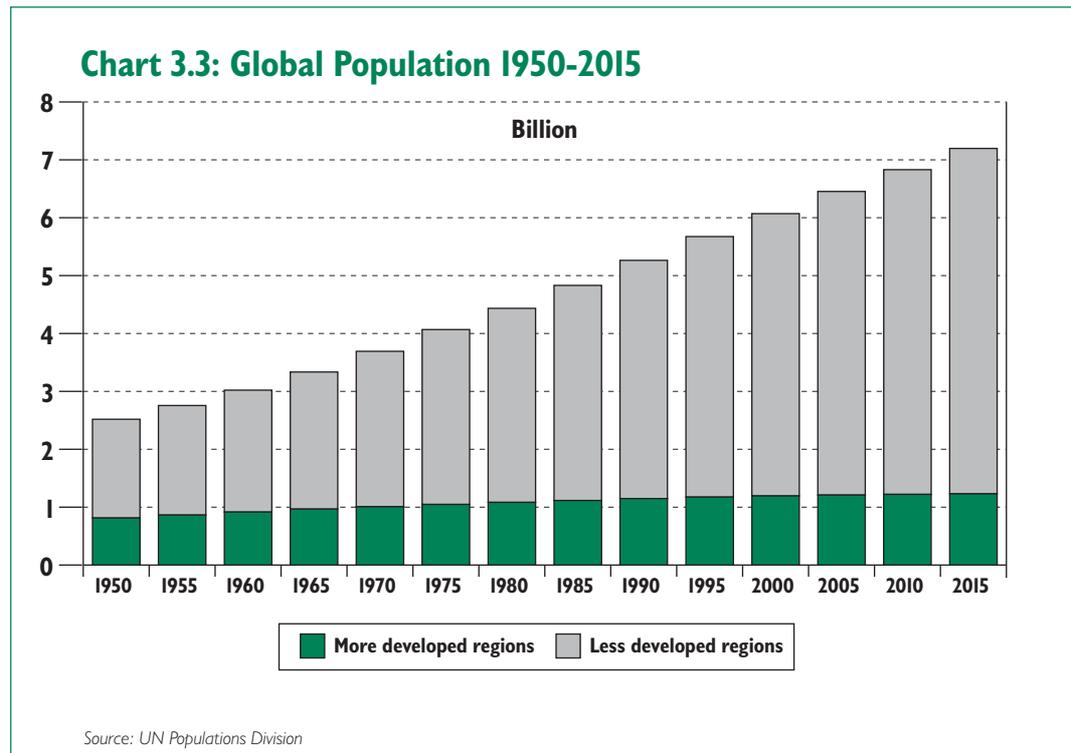
Source: World Bank, Global Economic Prospects 2004.

3.8 However, the anticipated poverty alleviation is not evenly distributed across regions, and much of the improvement occurs in rapidly growing emerging economies such as China. By contrast, the absolute number living on less than \$1 per day is projected on the basis of these assumptions to rise in sub-Saharan Africa by 2015. This underscores the critical importance of continued efforts to promote poverty reduction and increase aid levels to developing countries in order to meet the 2015 Millennium Development Goals.¹ In addition to higher aid flows, the Government has also proposed the International Finance Facility (IFF) as described further in the Pre-Budget Report.

Demographic changes will reshape global economy

3.9 Demographic changes will also have a significant impact over the next ten years. The United Nations projects that the world's population will increase by 12 per cent by 2015. But population growth will be much greater in developing countries than in developed economies (Chart 3.3). For example, Europe's population is projected to decline on average by 0.2 per cent per annum to 2015, while the population in Africa is expected to increase by around 2 per cent per annum. In addition, many countries will experience a sharp rise in the proportion of their population over 65.²

3.10 Differences in the rate of population growth and in the evolution of the age structure will have significant effects on economic developments. At the national level, they will affect the level of saving, investment, labour supply and output. And at the international level, they will influence the development of cross-border migration, trade and investment. The global population will also become increasingly urbanised – with, for the first time, more than half of the world population predicted to be living in cities by 2015.³



¹ See statement by the Chancellor of the Exchequer to the International Monetary and Financial Committee, 2 October 2004. <http://www.imf.org/external/am/2004/>

² United Nations Population Division (2002) 'World Population Prospects 2002', New York, 2002.

³ Population Resource Center (2004) 'Our Urban Future', 2004. Available at: <http://www.prcdc.org/>

Table 3.2: Regional population projections

| Population (millions) | 2000 | 2005 | 2015 | Growth Rate per annum 2005-2015 |
|---------------------------|--------------|--------------|--------------|---------------------------------|
| Europe | 728 | 725 | 713 | -0.2% |
| North America | 316 | 332 | 364 | 0.9% |
| India | 1,017 | 1,097 | 1,246 | 1.3% |
| China | 1,275 | 1,322 | 1,402 | 0.6% |
| Japan | 127 | 128 | 127 | -0.1% |
| Latin America & Caribbean | 520 | 558 | 628 | 1.2% |
| Sub-Saharan Africa | 653 | 733 | 902 | 2.1% |
| Western Asia | 192 | 213 | 257 | 1.9% |
| North Africa | 174 | 190 | 224 | 1.7% |
| SE Asia | 520 | 558 | 628 | 1.2% |
| Other | 548 | 597 | 704 | 1.7% |
| World | 6,071 | 6,454 | 7,197 | 1.1% |

Source: United Nations Population Division

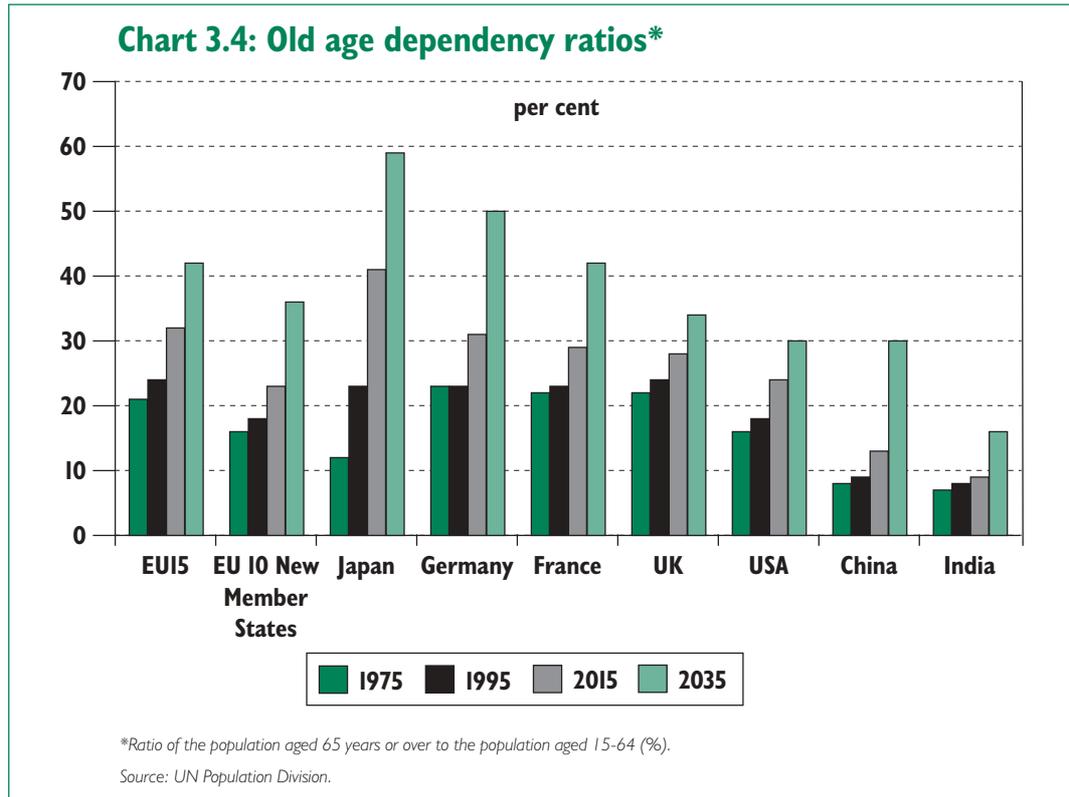
Population ageing will generally occur faster in advanced economies

3.11 Population ageing will be one of the most significant economic developments over the coming decades. The old-age dependency ratio – the ratio of the post-retirement age population relative to adults of working age – has been on a rising trend in recent decades, but is set to rise more steeply in the period ahead. These trends are particularly pronounced in developed countries, while the average age in many emerging economies will remain significantly lower. For example, the average age in India is now 24 and is projected to rise to 27 by 2015, while it will be over 40 by 2015 in many European countries. Looking further ahead, over the next three decades, old-age dependency will also rise in China and Russia.

3.12 The global ageing trend and the projected changing population sizes are likely to have significant effects on economic performance and on the balance of global economic activity. Everything else equal, different growth rates in the working-age population will be reflected in different trend growth rates across countries. Consequently the European and Japanese economies, which are faced with declining workforces, are likely to grow more slowly than other countries over the next few decades. This underlines the need for continued structural reform to raise the sustainable rate of growth in countries experiencing rapid population ageing.

International migration

3.13 International migration will represent another important demographic trend over the coming decade. The movement of people has increased markedly in recent decades, with international migration flows doubling since 1975. Today's migration flows remain relatively low, however, compared to those at the start of the 20th century. Around 3 per cent of the world's population currently live outside their country of birth. By comparison, an estimated 10 per cent of the global population migrated between 1870 and 1925.



3.14 Migration patterns today are very different to those of the past. Temporary migration, which is often work-related, has increased across many OECD countries over the past two decades. Migration of highly skilled people is also much more common than in previous eras of high migration. As competitiveness is increasingly defined by a country's ability to attract and retain a skilled workforce, competition between countries for high-skilled workers is likely to continue to increase.

3.15 Overall, the rapid economic growth in large emerging economies and the relative shift in the balance of economic activity will create both opportunities and challenges for today's advanced economies. The projected expansion of the global economy means that there is the potential for advanced economies to benefit significantly, despite the decline in their share of global output. However, it is likely that some economies will benefit more than others from this global economic expansion. And within national economies, certain sectors will come under pressure to expand, while others will come under pressure to contract.

3.16 These trends point to further significant changes in the cross-country distribution of production in the decade ahead. This increasing pace of change will impact on all sectors in the global economy. Responding to and benefiting from this challenge will require flexibility from every participant: governments, communities, businesses and individuals. Governments have a vital role to play in equipping their economies with the flexibility to respond to changing conditions in the global economy while ensuring fairness. This is set out in Chapter 4.

THE INTEGRATION OF GLOBAL MARKETS: CHANGING PATTERNS OF TRADE AND INVESTMENT

3.17 The second key trend is the further integration of global markets, and diversification in the pattern of trade and foreign direct investment. If ambitious liberalisation is undertaken, there is the scope for trade flows to expand significantly, given the still high levels of trade barriers and protectionism that need to be tackled. The rapid and sustained growth in foreign direct investment (FDI) seems likely to continue, with rapidly growing economies attracting increasing inflows and becoming more important suppliers of FDI.

Large gains from trade depend on multilateral liberalisation

3.18 Global markets for goods and services have the potential to become significantly more integrated by 2015 as a result of technological advances and a policy of trade liberalisation. The greatest benefits from trade integration and expansion over the next decade depend on further progress in trade liberalisation, led multilaterally by the Doha Development Agenda (DDA). The current WTO trade round should further integrate developing countries into the world trading system, leading to further restructuring of international trade and a more efficient allocation of resources on a global scale. The expansion of trade and increasing integration of the global economy could be one of the key drivers of increased global prosperity, productivity and development over the coming decade. The World Bank has estimated the gains from a good agreement, as set out in Table 3.3, which could lift 140 million people out of poverty by 2015.

3.19 As advanced economies liberalise previously heavily protected markets, such as agriculture, textiles and clothing, and developing countries utilise their comparative advantage to increase their share of global trade and grow, all countries can benefit from a more efficient allocation of resources, and more competitive prices, and developed countries with flexible economies will be able to move into more productive sectors. In particular, countries such as China and India are expected to be dominant players in the textile and clothing markets, especially after the end of the Multi-Fibre Agreement, while Brazil is well placed to become a dominant player in agriculture. The World Bank has estimated that China's share of global garment production will increase by 20-50 per cent by 2010. By 2015, emerging economies and developing countries could well account for approaching 40 per cent of global exports of manufacturers and 50 per cent by 2025.

Table 3.3: Gains from multilateral trade liberalisation

Real income gains in 2015 relative to the baseline in \$1997 billion

| | Gains to Lower Middle Income Countries | Gains to High Income Countries | Global Gains |
|-----------------------|--|--------------------------------|--------------|
| Agriculture and food | 240 | 117 | 358 |
| Manufacturing | 108 | 48 | 156 |
| All merchandise trade | 349 | 169 | 518 |

Source: World Bank

3.20 In addition to trade flows, shifts in foreign direct investment could significantly affect the global distribution of economic activity in the decade ahead. As noted in Chapter 2, FDI flows expanded rapidly over the last decade. However, despite remarkable growth rates in world FDI, the geographical distribution of FDI remains very uneven. Most FDI flows still take place among developed economies, especially some European countries such as the UK, France, Germany, the Netherlands, as well as the US and Japan.

Increasing FDI flows to emerging markets

3.21 Over the next decade, greater integration of the large emerging markets in the global economy will contribute to significant changes in global FDI flows. Emerging economies are likely to attract a greater share of FDI than in the past. These trends are already apparent. In 2003 emerging and developing economies accounted for 31 per cent of total global FDI inflows, up from 18 per cent in 1990. The growth of FDI inflows to China has been particularly striking. In 1990 China accounted for 1.7 per cent of global FDI inflows. By 2003 it accounted for almost 10 per cent.⁴

3.22 Forward-looking survey evidence points to an increase in large emerging markets' share in global FDI flows. The trend of investment into China, India and other large emerging markets is expected to continue to increase and impact on FDI patterns. One recent survey reported that China is now seen as the most attractive FDI destination in the world, and that India has moved from being the sixth to third most attractive destination (with the US the second, and the UK fourth).⁵ In terms of the type of business activities that could be relocated, China was seen as attractive for manufacturing and assembly, and India for IT, business processing and R&D investments.

3.23 More generally, an important issue is to what extent FDI flows will continue to grow, particularly in developing countries. In principle, the differential rate of population ageing between developed and some less developed countries could provide a further stimulus to cross border investment. This is because ageing societies will wish to increase their saving to build up a stock of assets that can be used to finance their post-retirement expenditure, and investment opportunities should be greater in younger societies with an abundant supply of labour but limited supply of domestic capital.

Improving the investment climate

3.24 However, cross-border capital flows depend not only on prospective returns, but also on the attendant risks. In the past, foreign investment flows into emerging markets and developing countries have been limited by poor economic policies, and a weak legal and institutional infrastructure, that have constituted an important deterrent. Investment inflows have increased in countries where these weaknesses are being addressed. The geographical distribution of future cross-border investment will depend importantly on the further progress countries make towards improving their investment climates. This may be achieved through reforms that improve macroeconomic stability, improve legal and regulatory frameworks, strengthen institutions, deepen financial markets, increase the transparency of national and corporate governance, and promote a skilled labour force.

3.25 The continuing development of emerging markets also means that they are likely to become more important as providers as well as recipients of FDI.

3.26 Overall, increasing cross-border trade, more integrated capital markets, greater global competition and the pressures of an aging society reinforce the need for a stable and sustainable macroeconomic framework. This framework provides a platform from which business can plan for the long term and can react flexibly to change, and is key to ensuring the UK continues to be an attractive destination for investment.

⁴ UNCTAD (2004) 'World Investment Report: The Shift Towards Services', United Nations, New York and Geneva, 2004.

⁵ AT Kearney (2004), FDI Confidence Index.

INTERNATIONAL ECONOMIC ACTIVITY

3.27 The international relocation of economic activity, particularly services, is expected to intensify over the next decade. Increasing flows of FDI, further trade liberalisation, rising skill levels and improving infrastructure in large emerging markets should support further international specialisation. Significantly, the relocation abroad of some service-sector activities is projected to grow. Over the next ten years, large emerging markets are expected to become increasingly important centres for the export of services. However, while some activities will be attracted to low cost locations, many activities will continue to be located in advanced economies.

3.28 It is difficult to estimate how far trade in services will extend by 2015. At present, international trade in services shows potential for continued rapid expansion. The global services sector accounts for over 70 per cent of GDP in advanced economies and over 50 per cent of GDP in developing countries. But currently only 10 per cent of services are traded, compared to over 50 per cent of manufactured goods⁶, and services accounted for only around 20 per cent of total global exports in the late 1990s.⁷

3.29 There is clearly scope for further expansion in the tradability of services. It has been estimated that total global spending on business process management services is \$19.6 trillion in 2004. Of this, only \$1.4 trillion or 7 per cent is currently sourced from external providers – either domestically or abroad.⁸ According to UNCTAD, only 1-2 per cent of business process outsourcing to date is done internationally.

3.30 However, it is also important to recognize that, under current technology, there are limits to the potential for growth in services trade and that not all services will become tradable. First, since services tend to be much less structured than manufacturing, it is often complex to source services remotely. Second, some types of services are simply not suited to remote provision, particularly those based upon face-to-face or physical contact. And third, there are capacity constraints on remote service provision – even in India, which educates over 2 million graduates annually, industry analysts are concerned about the future availability of appropriately skilled labour.

Significant growth in services trade by 2015

3.31 Despite these obstacles, future growth in services trade is projected to be significant. UNCTAD's World Investment Report (2004) notes that the offshoring of services is still at an early stage, but that a 'tipping point' may be approaching and that it is expected to increase in the future. Among the world's 1,000 largest companies, some 70 per cent have still not relocated any business processes to emerging economies. The report also notes that, in a 2004 survey of the top 500 European firms, only 39 per cent had experience with the offshoring of business services. A number of studies indicate that the relocation of services is likely to expand significantly over the next decade. Estimates suggest that around 5 million jobs from the US and Europe could be relocated abroad by 2015.⁹

⁶ UNCTAD (2004) 'World Investment Report, To Shift Towards Services', United Nations, New York and Geneva, 2004.

⁷ Oxford Review of Economic Policy (2004), Volume 20, Issue 1.

⁸ IBM research cited in *The Economist*, survey on outsourcing, 11 November 2004.

⁹ See projections published by Forrester Research at www.forrester.com. In addition, Bardhan, A and Kroll, C (2003), 'The New Wave of Outsourcing', (Fischer Center, Berkeley), which looks at the US, suggests that a higher number of jobs could be affected. See also UNCTAD, op.cit.

3.32 Overall, international services are likely to grow significantly over the next decade. As the global economy becomes more open and competitive, this puts a premium on governments ensuring an enterprising and flexible economy through policies that promote an enterprise culture, encourage new businesses, and promote competition. In the more competitive and integrated global economy, the pace of change will be ever quicker and more intense. This has great potential benefits in terms of growth and prosperity but also means that there may be transitional impacts for individuals and firms as labour and capital are redeployed from declining sectors to expanding ones. It is critical for governments to ensure fairness through policies that equip people with the skills they need to adapt to change, provide security for people when they need it and provide them with support to return to the labour market. This is discussed further in Chapter 4.

TECHNOLOGY AND INNOVATION

Increasing rewards from innovation

3.33 The fourth trend is that, as both global competition and the speed of technological change increase, there will be increasing rewards from innovation and increasing pressures on firms to make the best use of innovation.¹⁰ Countries at the forefront of research and innovation will be best placed to move into high-value added, technology driven areas, which can provide new sources of growth. And they will be best placed to apply new technologies to existing production processes, so expanding production possibilities, improving their efficiency, and enhancing their attractiveness as centres of production.

3.34 Chapter two discussed how rapid advances in technology are transforming the world economy. The rate of innovation in information and communication technologies (ICT) can be expected to continue over the next ten years, with significant further technological advances. Although expectations have been revised following the reversal of the ICT boom in 2000 and 2001, ICT remains a critical driver of economic activity. Indeed, there is increasing evidence of a strong relationship between ICT and improvements in economic performance. But it is the diffusion and application of new inventions and technology, rather than the speed of computers or information processing, that is most important in determining the pace of economic growth.¹¹

3.35 The rapid expansion of Internet access across the world, coupled with marked price declines in computer equipment, seems likely to continue in the future (as shown in Chart 3.5). While the rate of increase in Internet use has slowed (from a growth rate of 27 per cent in 2001 to 20 per cent in 2002), the number of users has continued to increase and is now around 600 million. There is the potential for further significant expansion in the diffusion and adoption of ICT. Overall, only around 10 per cent of the world population uses the Internet: around 30 per cent in developed countries and less than 4 per cent in developing countries. While current internet usage is heavily concentrated in developed countries, which account for over two thirds of users, the growth of use is fastest in developing countries. Indeed, it has been estimated that if current trends continue around 50 per cent of users could be in developing countries in the next five years.¹²

3.36 In terms of the way that the Internet is transforming other technologies and economic activity more generally, there is also significant scope for further development over the next decade. To take just one example, while the Internet has seen the development of new electronic marketplaces and auctions, Internet retail sales still only account for a small part of total sales, estimated at around 1.5 per cent in the United States and the European Union.

¹⁰ The increasing pace of technological change is also reflected in decreasing average product lifetimes. The European Commission (2003) estimates that product lifetimes have halved every five years over the past two decades.

¹¹ See Bronwyn H. Hall & Beethika Khan (2003) 'Adoption of New Technology', NBER Working Paper, Cambridge Mass, 2003.

¹² United Nations Conference on Trade and Development (2003), 'E-Commerce and Development Report 2003', United Nations, Geneva, 2003.

Economic activity moving up the value chain **3.37** Economic activity in all countries is under pressure to move up the value chain, utilising higher technology. An increasing proportion of manufacturing is focussed on high-tech activities. In 1981, high tech products accounted for just 14 per cent of world manufactured products. By 2000, they accounted for 28 per cent and were the second largest category.¹³ Moreover, this shift to high technology activities is evident not only in developed, but also in emerging and developing economies (see Chart 3.6). Indeed, emerging economies and developing countries now account for almost one third of world high-tech exports, and high tech manufacturing is growing at a faster rate. High-tech manufacturing growth has averaged 5.5 per cent per year in advanced economies over the last two decades, and 9.3 per cent in emerging economies and developing countries. The increasing importance of emerging economies is particularly influenced by the strong performance of the hi-tech sector in the fastest growing Asian countries. Again, this trend can be expected to strengthen. Chinese spending on research and development reached 1.1 per cent of GDP in 2002, compared to 0.6 per cent in 1996.

Acceleration of innovation and diffusion of new technologies **3.38** Globally integrated markets and better channels of information flow are putting increasing pressure on firms to innovate more rapidly and frequently. Innovations are becoming disseminated at an increasingly rapid rate – it took nearly forty years for 50 million people to own a radio, 16 years for 50 million people to own a PC, but just 5 years for 50 million people to connect to the Internet. In part, this reflects the increasing ease with which new technologies can be produced. Competition within these markets has intensified and the price of high-tech goods fallen rapidly. As these trends persist the premium associated with innovation and moving further up the value-added chain will rise further.

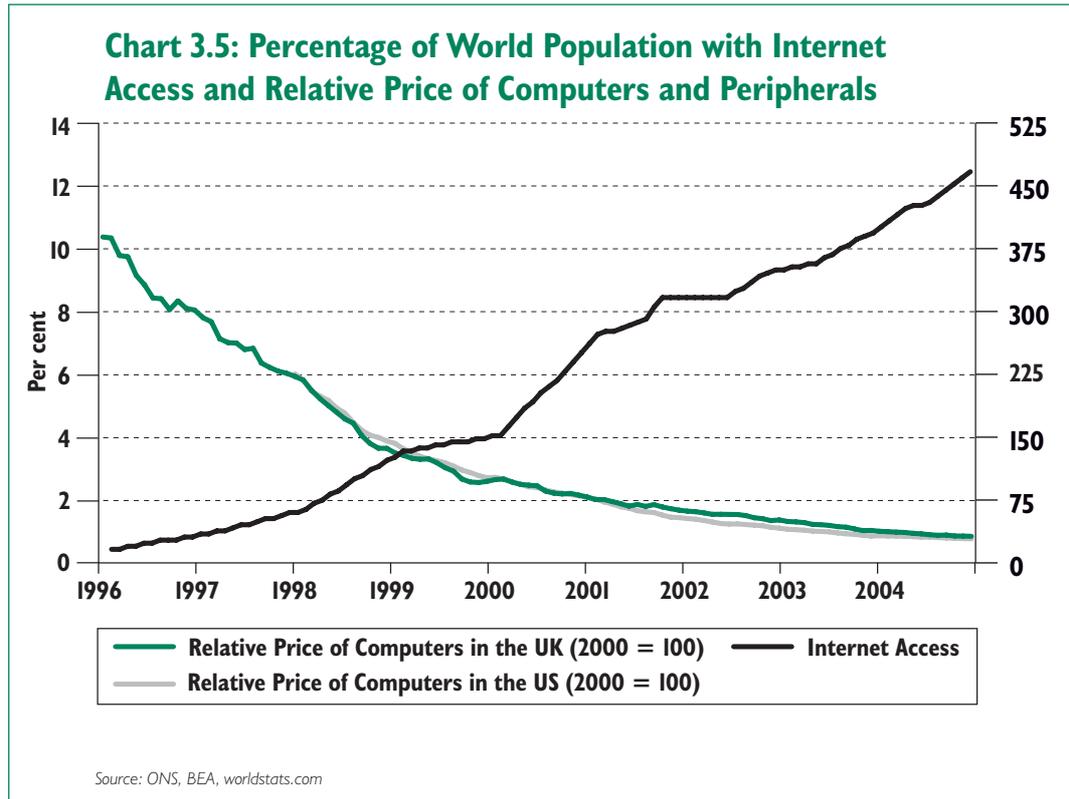
3.39 The increasing rewards to innovation and predominance of knowledge-driven industries, combined with strong growth in emerging markets, means that economies must find new technology driven and high value added areas. Governments have a critical role to play in stimulating investment and promoting access to ICT: funding basic research; tackling the market failures that slow the diffusion of new ideas; facilitating partnerships between researchers and industry to turn invention into innovation; and opening up access to ICT throughout society.

SKILL LEVELS

The importance of improving skills **3.40** The fifth trend is that higher skills will become increasingly important in order to harness the opportunities that come from accelerating global integration. Consequently, demand for skilled workers is likely to increase. Intensified global competition opens up new markets for firms, but means that advanced economies will find it difficult to compete in low value-added products and services. Instead their comparative advantage will lie in knowledge-based goods and services, which require highly skilled workers. Ensuring an adequate supply of skilled workers will be necessary to ensure prosperity and success in the global economy.

3.41 Continually taking advantage of new technological developments will require workers to update their skills. Increasingly, skills that were once regarded as high-level, such as certain IT skills, are viewed as basic and hence the minimum level of skills required to do many existing jobs is likely to rise. Patterns of demand are changing, with consumers increasingly demanding more sophisticated and individually tailored products. Meeting these demands requires the adaptability and flexibility brought by generic skills such as team working and communication.

¹³ See United Nations Industrial Development Organization (2004), 'Industrial Development Report 2004', United Nations, Vienna, 2004.



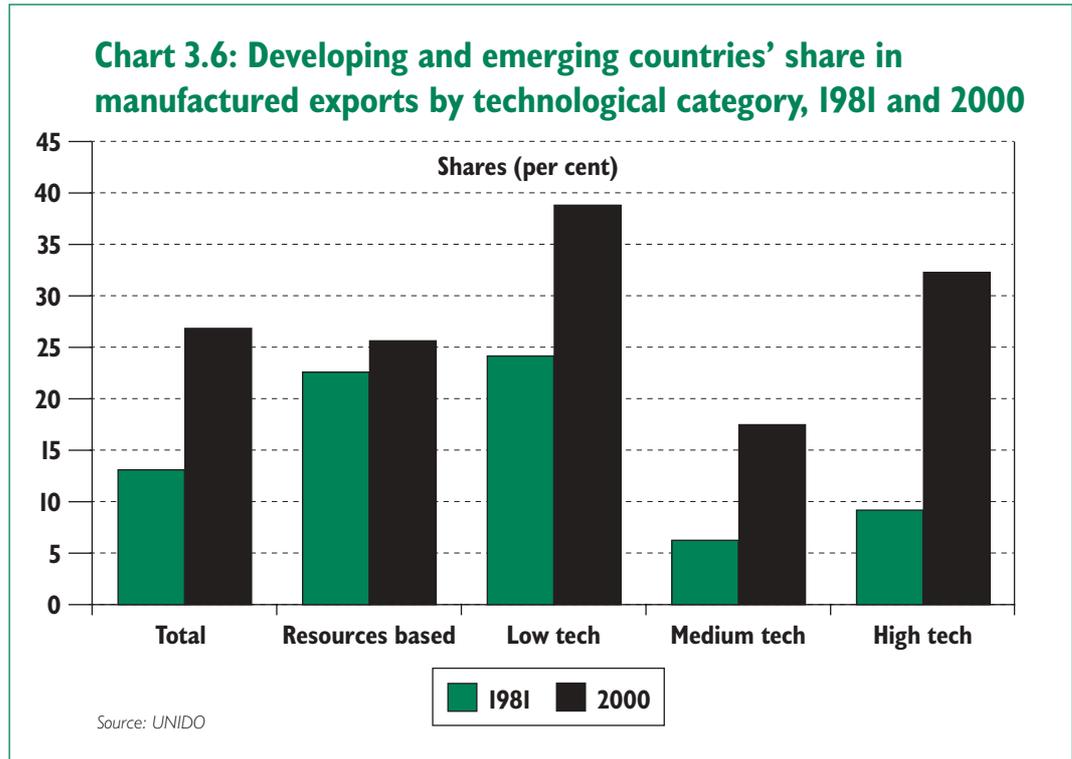
3.42 Global skill levels are rising, helping to increase productivity and prosperity. Many advanced countries are increasing their proportion of highly skilled workers to ensure they can take full advantage of increased innovation and accelerating technological change. For example, Finland, New Zealand and Australia are all increasing their stock of high skill workers faster than the UK, despite already having a higher proportion of high skilled workers. The proportion of highly skilled workers is almost 45 per cent in Canada and almost 40 per cent in the US, compared to 27 per cent in the UK.

3.43 However, skill levels are rising even faster, albeit from a lower base, in emerging market countries than in advanced economies. For example, China and India each educate over 2 million graduates per annum compared with around 250,000 in the UK. The proportion of 25-34 year-old South Koreans with a tertiary level qualification rose from 29 per cent in 1995 to 40 per cent in 2001. By 2015, the emerging market economies are likely to have experienced significant increases in their human capital. These increases in skills should spur productivity growth, helping to raise prosperity and lift more people out of poverty.

Increasing demand for higher skills

3.44 Rising skill levels should lead to overall gains for the global economy. However economic restructuring will see some sectors decline as other sectors, requiring different skills, expand. Estimates suggest that more highly skilled occupations will see the greatest expansion in coming years. The skills required within existing jobs are likely to increase, as a result of the development of new production techniques and the increasing tendency of consumers to demand products and services tailored to their individual needs.

3.45 As more sectors, including skilled professions, become exposed to international competition, particularly from increasing trade in services, individuals will need to be able to adapt – learning new skills and being able to move between firms and sectors. Continued participation in the labour market will therefore depend upon an individual's ability to adapt, replacing the old notion of a 'job for life' with 'employability for life'. Employability can be enhanced by the opportunity to improve and update skills. Increasingly, individuals without



this opportunity will be at risk of long-term worklessness and social exclusion. More than ever, therefore, ensuring skills opportunity for all will be essential for the achievement of social justice.

ENERGY AND ENVIRONMENT

Global economic growth will place increasing pressures on resources

3.46 The sixth trend is that the rates and patterns of global economic growth will place increasing pressures on resources and the natural environment. First, expanding demand may have economic impacts on the supply and price of critical resources, particularly energy. Second, there will be a range of ‘external’ effects on the environment caused by the interaction of economic and natural processes – effects such as climate change, air and water pollution, soil erosion, loss of biodiversity and deforestation. As the scale and reach of the global economy continue to expand to improve living standards and human development, one of the key challenges of the next decade will be to manage and reduce these environmental impacts.

Sustainable development ensures the viability of environmental resources

3.47 Sustainable development is the process by which environmental impacts are managed and reduced, living standards are improved and the needs of the poorest met, while ensuring the sustainability of economic activity over time. In economic terms the primary objective of sustainable development is to decouple economic growth from environmental damage – to improve the ‘environmental efficiency’ of growth. This can be done by increasing the efficiency of production (gaining greater value out of each unit of energy or materials used) and by changing its structure (moving from more energy and material intensive products and forms of production to less intensive forms).

3.48 This has been occurring in industrialised countries over the last decade, partly as a result of demand and supply processes, for example in improving energy efficiency and by substituting away from scarce resources in response to rising prices, and partly stimulated by policy. However the relative decoupling of growth from environmental damage has not

occurred across all sectors and has not kept pace with the rate of growth itself.¹⁴ As a result, on a global scale, many absolute environmental impacts are projected to worsen over the next decade. How far these impacts occur, however, will depend on the policy response of governments. This chapter focuses in particular on the long term issues of energy supply and climate change.

Energy and Climate change

Energy demand is set to grow strongly

3.49 Global energy demand is set to grow strongly over the next ten years. In the absence of policy changes energy demand is projected to increase by 1.7 per cent per year.¹⁵ Two thirds of the increase in demand is expected to result from rapid economic and population growth and trends towards industrialisation and urbanisation in the developing world, most notably in China and India. The non-OECD share of total energy demand is projected to reach one-half of the global total by 2015.

3.50 However, as with other resource and environmental issues, government action could substantially change this picture. The International Energy Agency suggests that a combination of environmental and energy security policies and faster deployment of energy efficient technologies could reduce the growth in global energy demand by 10 per cent over the next three decades and carbon dioxide emissions by 16 per cent.

3.51 Over the next decade global energy resources will be sufficient to meet the increase in demand. The IEA project that proven energy reserves are adequate to meet global energy demand until at least 2030, with proven gas and coal reserves far exceeding consumption estimates over this period. However, additional oil reserves, from new discoveries and confirming probable reserves, will be needed if oil production is not to peak before 2030.

Continuing environmental impacts

3.52 Rising demand for fossil fuels will result in continuing environmental impacts in terms of local and regional air pollution and climate change. There is now strong evidence, both from global climate models and from observed climate patterns, that climate change is occurring and is due largely to human activity.¹⁶ Over the next 50 years, the rising concentration of greenhouse gases in the atmosphere is expected to result in increasing global temperatures, changing patterns of rainfall, more extreme weather events and rising sea levels.¹⁷ These physical changes will have wider economic and social impacts as agricultural and human settlement patterns are required to adapt.

3.53 The current international policy framework for tackling climate change is the United Nations Framework Convention on climate change, ratified by 186 countries in 1992. This framework underlies the Kyoto Protocol, signed in 1997 and due to enter into force (following Russian ratification in November 2004) in 2005. The Protocol establishes legally binding targets for reducing greenhouse gas emissions and creates a number of economic instruments to ensure that emission reductions can be made cost-effectively. The Kyoto Protocol requires a total reduction in developed countries' emissions of 5 per cent of 1990 levels by 2012. Europe is required to reduce its emissions by 8 per cent by 2012. In addition the UK has a domestic goal of moving towards a 20 per cent reduction in carbon dioxide emissions by 2010, and around 60 per cent by about 2050. However the USA, which produces 24 per cent of all global greenhouse emissions, has not ratified Kyoto, and the Protocol does

¹⁴ World Resources Institute (2000) 'Weight of Nations: Material Outflows from Industrial Economies', available at: <http://materials.wri.org/>.

¹⁵ International Energy Agency, (2004) 'World Energy Outlook, Paris', 2004.

¹⁶ Recent research on climate change science from the Hadley Centre (December 2003) <http://www.metoffice.com/research/hadleycentre/>.

¹⁷ Intergovernmental Panel on Climate Change (2001) 'Climate Change 2001: Synthesis Report', 2001.

not require reductions from the major emerging economies, such as China, India and Brazil, whose historic emissions have been very small, but whose emissions will form a rising proportion of the global total in the future.

Conclusion

3.54 This chapter has set out the key challenges and opportunities facing the global economy to 2015. These include:

- the shifting balance of global activity, which will put a premium on flexibility, dynamism and entrepreneurship supported by an active and responsive welfare state to ensure economies can succeed;
- the greater integration of global economic activity as international trade and investment expand, underlining the need for sound macroeconomic policies and institutional arrangements that generate increased confidence, promote stability and create a strong investment climate;
- increasing rewards from innovation and further technological change, putting a premium on fostering innovative activities, promoting the adoption and application of new technologies, and removing the barriers to new ideas;
- the increasing importance of skill levels, enabling individuals to adapt to change, underscoring the need to invest in skills; and
- increasing pressures on the global environment, requiring action to improve the environmental efficiency of the economy at both domestic and multilateral levels.

3.55 The next chapter looks at the economic policy challenges for the UK in the decade ahead.

4

ECONOMIC POLICY CHALLENGES

4.1 This paper has explored the challenges and opportunities that global economic trends pose for the UK and other advanced economies in the next decade. Although these trends are occurring across geographic and political boundaries, governments play a critical role in responding successfully to them.

Flexibility is increasingly important

4.2 As the previous chapters have set out, the dominant feature of the world economy in the next decade will be the increasing pace of change and the expanding reach of global markets into national economies. People and businesses will need to be increasingly flexible to respond to these changes. Government has a crucial role to play. It needs to help shape global trends through multilateral action in areas such as trade, investment and regulation. Government must establish stable macroeconomic foundations that are robust to shocks. It needs to invest in public infrastructure and public services. It needs to promote flexibility in labour, product and capital markets so that individuals and firms can seize new opportunities and it must provide a modern and flexible welfare state that opens up opportunity to all, protects the vulnerable, and enables individuals to make the transition into new areas of economic activity.

The UK faces a number of economic policy challenges

4.3 Responding to the long-term challenges and opportunities highlighted in Chapter 3 will require sustained effort across a range of policy areas aimed at:

- entrenching macroeconomic stability in the face of the more integrated global economy where shocks in one part of the world can be rapidly transmitted to other regions, and maintaining fiscal sustainability in the face of the long-term demographic challenges facing all developed economies. This will give domestic and foreign businesses and individuals the continuing confidence to invest in both physical and human capital;
- building an enterprising and flexible business sector that is the best in the world, where firms can succeed and exploit the opportunities presented by a more open and competitive global economy;
- promoting innovation to ensure the UK is a world leader in turning scientific research into business innovation, at a time of increasing rewards to innovation and the growing importance of knowledge-driven industries in the world economy. This will require sustained investment in the science base while addressing barriers to the diffusion and adoption of new ideas;
- opening up the acquisition of skills to all, so that the UK has the right skills mix as it seeks to move into more innovative sectors and businesses, at a time of rising skill levels across the world economy. This will ensure that everyone in the workforce has the skills necessary to take higher value-added jobs and the flexibility to retrain and adapt to new technologies and innovation;
- ensuring fairness through a modern and flexible welfare state that provides security for people when they need it and provides strong incentives to work and save, at a time when the pace of change in the global economy will be ever quicker and more intense. This includes providing flexibility and choice in balancing work and family commitments, enabling women to participate fully and equally in the labour market, and focusing support on those sections of society who face the greatest barriers to work;

- increasing innovation and adaptability in the use of energy and resources and promoting low-carbon sources of energy, at a time when pressure on global energy and other resources are rising. At the same time, multilateral co-operation will be required to tackle global environmental issues, notably climate change.

4.4 For the UK to respond to these challenges, it must draw on its strengths and confront its historic weaknesses. It must become a flexible, dynamic, innovative and entrepreneurial economy that is supported by an active and responsive welfare state to ensure those most at risk are not left behind. It also needs to emphasise its commitment to sustainable development and resource efficiency in the domestic economy and promote multilateral cooperation to tackle climate change. The economic challenges are discussed in more detail in the following sections.

ENTRENCHING STABILITY IN AN OPEN ECONOMY

4.5 Chapter 3 described future trends of increasing cross-border trade and investment, more integrated capital markets and greater global competition. Together these reinforce the need for a stable macroeconomic environment to address the potentially increased uncertainties. Over the next decade, the UK must aim to capitalise on the new opportunities that increasing investment flows and trade can offer, while balancing this with the flexibility to adapt to greater uncertainty. To achieve this, the UK needs an outward-looking economy that enhances external and internal confidence, promotes stability and supports a strong investment climate.

Sustainable macroeconomic framework

4.6 The Government has a vital role to play in achieving this. Looking to 2015, a stable and sustainable macroeconomic framework is critical to mitigate the impact of external shocks on an open economy such as the UK and to minimise the adjustment costs associated with them.

4.7 The UK's macroeconomic framework is designed to maintain long-term economic stability.¹ Large fluctuations in output, employment and inflation add to uncertainty for businesses, consumers and the public sector, and can reduce the economy's long-term growth potential. Stability allows businesses, individuals and the Government to plan more effectively for the long term, improving the quality and quantity of investment in physical and human capital and helping to raise productivity.

4.8 The UK's macroeconomic framework is based on the principles of transparency, responsibility and accountability.² The monetary policy framework seeks to ensure low and stable inflation through, among its main principles, full operational independence for the Bank of England's Monetary Policy Committee in setting interest rates to meet the Government's inflation target. The current monetary policy framework is recognised by international commentators as close to, if not at, world best practice.³

4.9 Fiscal policy is based on the principles set out in the code for fiscal stability⁴ and is underpinned by two strict rules that ensure sound public finances over the medium term. The fiscal rules are the foundation of the Government's public spending framework, which facilitates long-term planning and provides departments with the flexibility and incentives they need to increase the quality of public services and deliver specified outcomes. The fiscal rules are:

¹ For further details on the UK macroeconomic framework see Chapter 2 of the 2004 Pre-Budget Report.

² For further details see HM Treasury (2002), *Reforming Britain's economic and financial policy*.

³ For example, Eijffinger and Geraats (2002) rank the United Kingdom's framework as second only to New Zealand based on a number of measures of transparency. Fracasso et al (2003) rank the Bank of England's quarterly Inflation Report as the highest among similar reports of world central banks.

⁴ For further details on the principles of the fiscal policy framework see HM Treasury (November 1998) *'Code for fiscal stability'*.

- the golden rule: over the economic cycle, the Government will borrow only to invest and not to fund current spending; and
- the sustainable investment rule: public sector net debt as a proportion of GDP will be held over the economic cycle at a stable and prudent level. Other things being equal, net debt will be maintained below 40 per cent of GDP over the economic cycle.

4.10 The UK has already begun to experience the benefits of a stable macroeconomic environment. The UK economy grew continuously throughout the recent global downturn. It was the only G7 economy not to experience contraction in output in any quarter over this period. It is currently continuing its longest unbroken expansion since quarterly national accounts data began, with Gross Domestic Product (GDP) having grown for 49 consecutive quarters. The framework has also allowed for sustained investment in public services, including health and education.

Demographic changes **4.11** A key challenge for the UK macroeconomy in the years to 2015 and beyond will be to lock-in macroeconomic stability in the context of an ageing society. Population projections provided by the Government Actuary's Department show the demographic old-age dependency ratio, the ratio of people aged 65 and over relative to the number of people aged 16 to 64 years, rising from 25 in 2004 to 29 in 2015 on its way to 38 in 2030 before stabilising at around 45 in the mid 2050s.

4.12 Although the UK population is projected to age less rapidly than in many other developed economies such as Japan, which faces a doubling of its old-age dependency ratio between 2004 and 2035, a thorough understanding of the implications of demographic and other long-term trends is critical to ensuring that Government policy will be fiscally sustainable in the long term. Without this type of analysis, there is a risk that unsustainable policies will be pursued which require sharp corrective policy adjustments in the future. This can be harmful and unfair to future generations and may undermine global confidence in the UK economy.

Long term sustainability **4.13** The Government publishes an annual *Long-term Public Finance Report*. The 2004 report published alongside the 2004 Pre-Budget Report shows that, drawing on a range of indicators and alternative assumptions, the UK fiscal position is sustainable in the long term on the basis of current policy and that the UK is well placed relative to many other countries to face the challenges of an ageing society. The Government will continue to update and refine its analysis of the sustainability of the UK's long-term fiscal position and encourage other developed and emerging economies to adopt similar approaches for their respective economies.

4.14 Demographic change of this scale means that individuals will need to adjust their behaviour to ensure they can meet their aspirations. In order to keep under review the regime for private pensions and long-term saving, the Government established the Pensions Commission in 2002. The Pensions Commission published *Pensions: Challenge and Choices* in October 2004. The Government welcomes this interim report, which furthers understanding of the challenges posed by an ageing population, and looks forward to the second report on policy recommendations in Autumn 2005.

4.15 The long-term policy challenge for the UK is to entrench this macroeconomic stability in the face of a more integrated global economy, where international shocks are felt in the UK and where long-term demographic changes present further challenges. Stability is also likely to have positive implications for investment decisions. This is discussed in more detail in the following section.

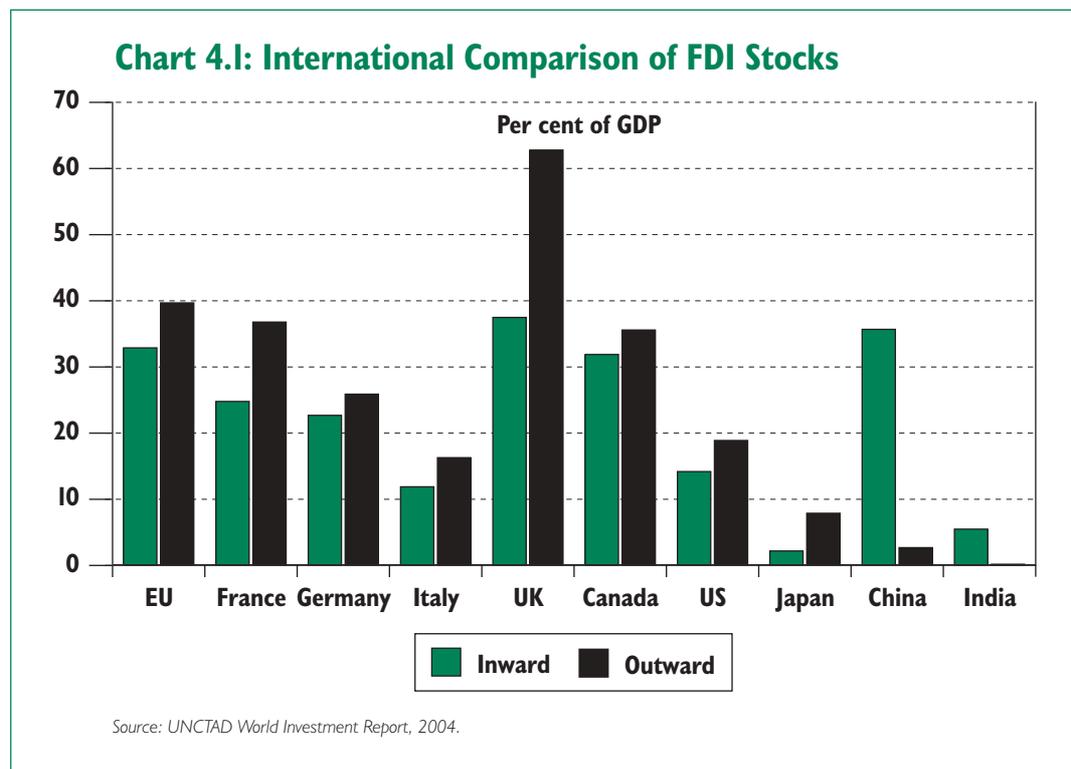
Promoting an outward looking economy

4.16 Macroeconomic stability and long-term sustainability are important in attracting foreign investment and retaining and encouraging domestic investment in increasingly integrated global financial markets, in which the sources and destinations of investment are becoming ever more diverse. Strong links with emerging economies and other trading partners at governmental, business and academic levels are also necessary to enable UK firms to access the opportunities of the changing global economy, as the balance of global economic activity shifts.

Economic environment needs to attract high-quality investment

4.17 Investment is a crucial driver of an economy's productivity performance and hence of the level of prosperity prevailing in the economy. In a world of more closely integrated global financial markets and mobile capital flows, mobile investment will increasingly locate in those economic environments where it can achieve the greatest, risk-adjusted, returns. A range of factors contributes to an economy's investment environment, and hence to the expected returns on investment. A key challenge for the UK is to provide an economic environment that is able to attract high quality domestic and foreign investment, not by attempting to compete with emerging economies on the basis of low labour costs, but through high levels of productivity built on a foundation of macroeconomic stability and driven by skills, competition, enterprise and innovation.

4.18 While, on average, real business investment growth has been higher than GDP growth over the past 20 years, the UK economy has historically lagged behind comparable economies both in terms of overall investment levels and capital intensity, driven in part by under-investment in public infrastructure. Evidence suggests that this 'capital gap' makes a significant contribution to the UK's relatively poor productivity performance,⁵ and is therefore an important impediment to achieving higher levels of prosperity. Closing this capital gap, relative to other economies, would require a sustained period of relatively high levels of investment in the UK economy.



⁵ O'Mahony and de Boer (2002), 'Britain's Relative Productivity Performance: Updates to 1999', NIESR.

4.19 In terms of mobile investment, the UK has a strong base to build on and to promote to international investors, as evidenced by its strong historical performance in terms of foreign direct investment (FDI). Figures for 2003 show that, after the US, the UK holds the second largest stock of inward FDI in the world and, relative to GDP, has the largest stock of any G7 country. However, as discussed in Chapter 3, FDI flows are increasingly shifting towards the rapidly emerging economies.

The UK is an open economy

4.20 The UK has traditionally been a very open economy and has been a major player in international trade since the 19th century. The UK's total trade activity (exports plus imports) accounts for over 50 per cent of UK GDP suggesting the UK remains very open. In terms of trading partners, around 55 per cent of the UK's trade in goods and services is with the EU and this proportion has risen steadily over the past few decades. This is likely, in part, to be a consequence of the single market. After the European Union (EU), the United States (US) remains the UK's second largest trading partner, accounting for 18 per cent of UK exports of goods and services.

4.21 However, trade with Asian economies is becoming increasingly important for the UK. In particular, the emergence of China and India has had, and will continue to have, a significant impact on world markets. As the Chinese and Indian economies have developed, their imports have increased. Reflecting these changes, UK exports to China have grown by 300 per cent since the early 1990s and by 25 per cent in 2003. Exports to India have grown by an average of 8 per cent each year since the mid-1990s. Imports from China and India to the UK have also increased markedly over the past decade. Yet despite these dramatic increases in trade with these countries, in 2003 UK exports to both China and India each accounted for just 1 per cent of total UK exports of goods and services.

The UK needs to improve relationships with new and existing partners

4.22 Developments in China, India and other emerging markets provide both opportunities and challenges for the UK. The success of the UK economy depends upon its continued commitment to improving relationships with new and existing trading partners. To this end, the Government has set itself an objective to build trade links with Asia which are as strong as those with Europe and the US: ensuring that UK businesses are well-placed to take advantage of opportunities in fast-growing markets; and that they, as well as governments, are involved in ongoing financial dialogues with Asian economies. Developments in the global economy mean that the UK, and the whole of Europe, will have to become increasingly outward looking in order to take advantage of changes in technology and trading and production patterns.

REMOVING BARRIERS TO COMPETITION AND ENCOURAGING ENTERPRISE

4.23 Chapter 3 discussed how the global economy has become more open and competitive, as communication, transport and technology continues to improve. Production processes are becoming increasingly flexible, with production dispersed across continents and accompanied by an increasing level of specialisation. This means that new sectors are opening up to international trade and emerging markets and developing countries increasingly have the means to compete in global markets.

The UK needs to compete on high-productivity

4.24 Productivity growth, alongside high and stable levels of employment, is central to long-term economic performance and rising living standards. The UK has historically experienced low rates of productivity growth compared to other major industrialised economies.⁶ In order to succeed in a more open and competitive global economy, the UK needs to compete on high-productivity products, services and production methods, rather than low wages.

⁶HM Treasury (November 2000), *Productivity in the UK: The evidence and the Government's approach*.

4.25 To help close the productivity gap with its industrialised competitors, over the next decade the UK must remove barriers to competition and enterprise to encourage individuals and firms to move into new markets to exploit the new opportunities created by the expansion of global economic activity.

4.26 A stable, macroeconomic environment, as discussed above, plays an essential role in providing a base for entrepreneurial activity and competition. The Government also needs to develop tax policies that promote innovation and enterprise and do not create unnecessary barriers to cross-border activity, while ensuring that all taxpayers contribute their fair share to the provision of public goods and services.

Tax systems must retain their flexibility

4.27 In particular, the growth and global integration of multinational companies and the emergence of new forms of business activity, such as diverse corporate financing structures and the use of intangible inputs and products, are reshaping corporate activity and pose opportunities and challenges for corporate tax systems. Inflexible systems, including those that could arise from harmonisation, will increasingly become barriers to growth. The UK will therefore continue to address unjustified distortions in the treatment of different types of assets, barriers to entrepreneurship and risk-taking, and outdated distinctions between different forms of commercial activity as part of the reform and modernisation of UK corporation tax. Similarly, the UK is a driving force behind changes to VAT rules to ensure that the operation of this tax reflects the realities of global e-commerce. In addition, the Government will continue to ensure the UK retains the flexibility necessary to deliver the benefits of economic integration by embracing fair tax competition and resisting harmonisation at the European level and beyond.

Competition needs to be encouraged

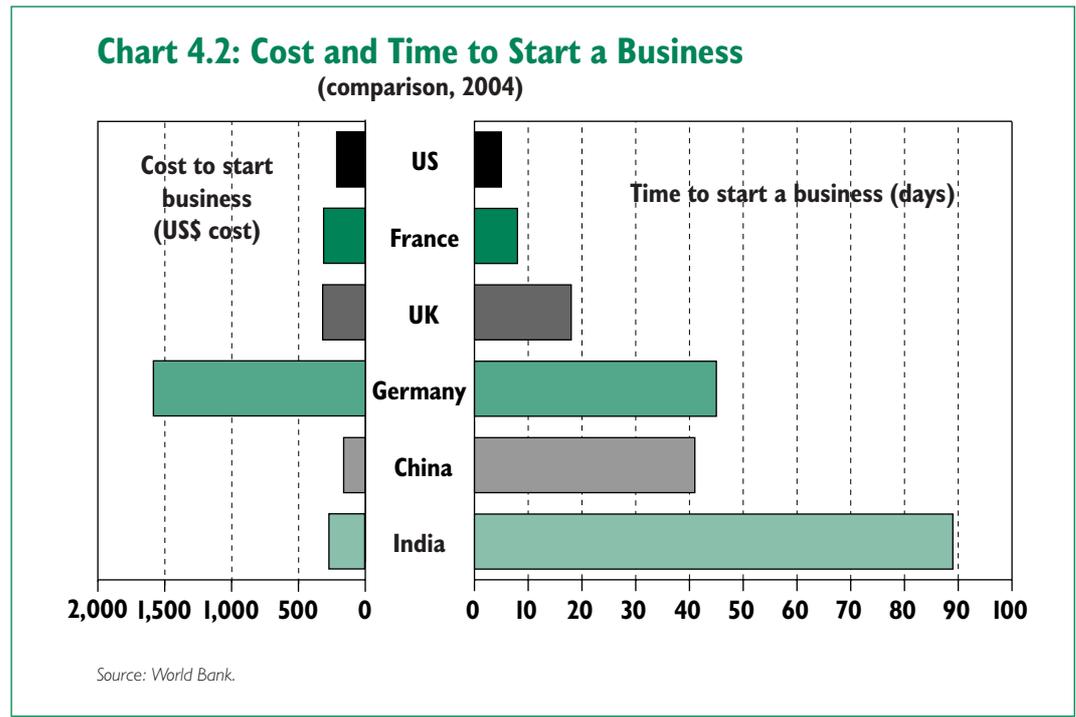
4.28 The Government also has a role to play in providing the framework to support competition. When a market is highly competitive, those firms trading in it are incentivised to be as efficient as possible in order to survive and maximise their returns. They have to be flexible in order to react quickly to changes, for example to their cost-base. Businesses in this environment are in a strong position to adapt to shifts in the global economy. Consumers also reap important benefits from having access to cheaper and higher quality goods and services.

4.29 The Government has introduced a series of reforms that are designed to make markets more competitive and therefore to improve the UK economy's ability to respond effectively to change. The Competition Act 1998 strengthened the Government's ability to combat anti-competitive agreements and abuses of a dominant market position. The Enterprise Act 2002 strengthened the UK's mergers regime and its ability to review the operation of markets to test whether they are working well for consumers. Importantly, the Enterprise Act also introduced an institutional change to make the competition authorities responsible for decision-making on specific cases. This allows the competition authorities, in the vast majority of cases, to reach decisions independently on the basis of their economic expertise. International comparisons rate the UK competition regime third behind the US and Germany.⁷ The Government welcomes steps taken in recent years to modernise the EU competition policy framework. In addition to pursuing individual case work, the UK believes that the EU's competition authority has a vital role to play in the development of the internal market through proactive investigation into specific sectors.

⁷ For example, KPMG (2004) *'Peer Review of Competition Policy'*, commissioned by DTI, London, 2004. See also Global Competition Review (2004) *'Rating Enforcement'*, 2004.

An efficient regulatory system allows business to compete effectively

4.30 The Government also needs to provide a regulatory environment that supports enterprise, competition and flexibility both at a national level and through the EU. An efficient regulatory system does not unnecessarily burden businesses but frees them up to allocate resources to their most productive use in order to compete effectively. The UK is in a good position compared to many of its global competitors with low barriers to entry for new firms, including relatively low set-up costs, as shown in Chart 2, and ranking competitively alongside other economies as a business-friendly environment.⁸ Low entry and exit barriers also enhance competition by ensuring that new firms can enter markets to challenge incumbents by introducing new products and services for the benefit of consumers.



4.31 The regulatory environment can help businesses and communities adjust to global economic challenges by correcting market failures, promoting fairness and competition and driving up standards. Well-designed regulations can help support individuals and also boost productivity and encourage labour market participation.

EU regulatory reform is a key theme of the UK presidency

4.32 The Government is committed to strengthening policy-making processes at UK and EU level, as well as improving co-ordination between EU institutions, to improve the quality of regulation. The Government is working closely with the Dutch and future Presidencies of the EU to prioritise progress on regulatory reform over the next months and years. Better regulation will be a key theme of the UK Presidency in the second half of 2005.

⁸The World Bank's study of 145 countries – "Doing Business in 2005" (Sept 2004) – placed the UK top in the EU and 7th in the top twenty economies in the world with the best business conditions.

Box 4.1: Economic reform in Europe

Economic reform remains a priority for Europe. The European Union has an important role to play. At the Lisbon European Council in 2000, Europe's leaders committed themselves to a ten-year programme of economic reform, aimed at making the EU "the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion." Four years on, the achievement of this goal looks as distant as ever.

The rapid growth and integration of the world's economies is putting Europe under intense competitive pressures, forcing Member States to adapt quickly to maintain growth and living standards in their economies. GDP per capita is more than a third higher in the US than in Europe and the gap could widen in the absence of reform.

The mid-term review of the Lisbon strategy provides a vital opportunity to address these challenges. The Government welcomes the recent report by Wim Kok, with its call for the EU to take urgent action to implement the reforms needed to deliver the Lisbon agenda, with a renewed focus on growth and employment.

The Government agrees with the priority areas for reform identified by Wim Kok: creating a knowledge society; completing the internal market; improving the business climate (including reducing the regulatory burden); reforming labour markets; and enhancing environmental sustainability. The Government also believes that continued efforts are needed to increase external openness to trade and investment as a driver of growth, employment and productivity.

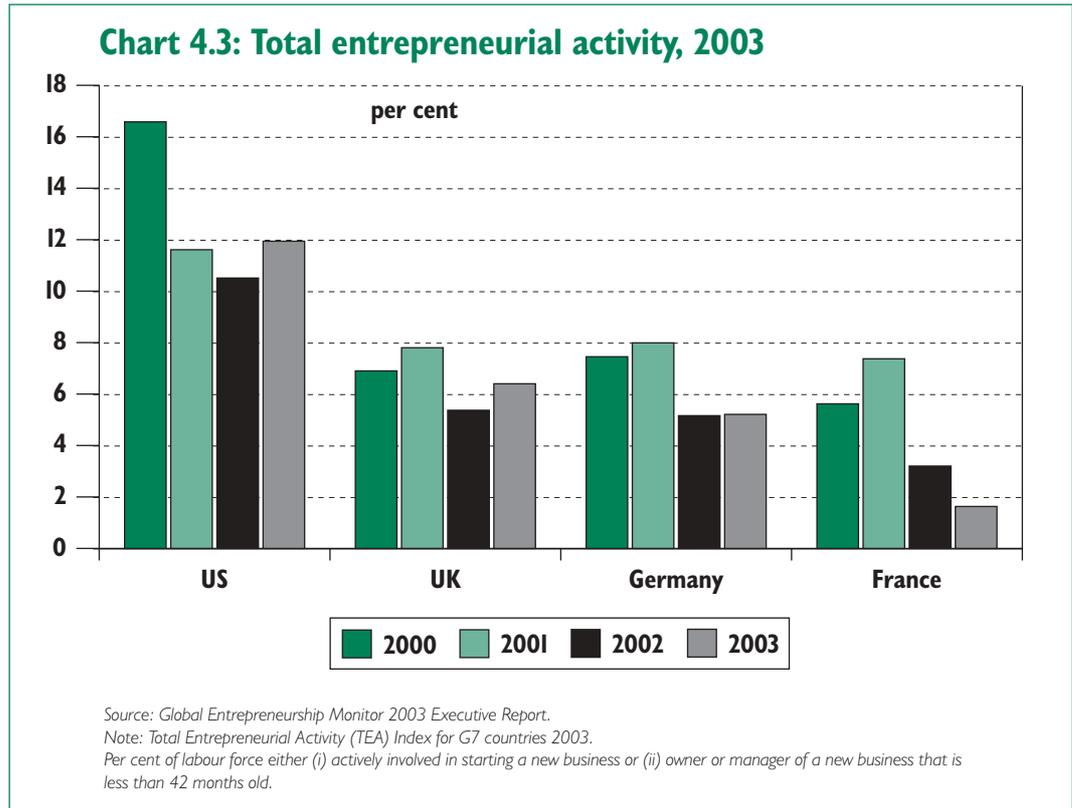
The Government supports Wim Kok's proposals for Member States to prepare National Action Programmes for reform. These should take the form of short, high-level political documents, with Europe's leaders making specific commitments to reform, and be reviewed annually as part of the Lisbon process. The Government will be working with its European partners to ensure a positive outcome on the mid-term review from next year's Spring European Council.

4.33 In addition to implementing better quality regulation, the Government is committed to delivering targeted deregulatory changes to relieve burdens on business. For example, the Government's Regulatory Reform Action Plan published in December 2003 contains over 650 deregulatory measures. This will further assist businesses to compete in a global market by allowing them to focus on their core activities.

4.34 For the UK to compete in global markets, it will require people with the ideas, resources and support to exploit entrepreneurial opportunities whenever they arise and to respond to the increasing movement of resources, technology and ideas. This will require individuals, communities and the established business community to work together in partnership with government to support risk-takers and entrepreneurs.

The UK has low levels of entrepreneurial activity

4.35 The UK faces a significant challenge to create a more enterprising culture. Historically, the UK has had low levels of entrepreneurial activity. Since 1997, more than 300,000 more businesses have been created, with small and medium enterprises (SMEs) employing over 12 million people. But, as a whole, UK business creation is still half that of the United States. Business start-up rates in deprived areas, most vulnerable to uncertainty created by global economic change, are up to 10 times lower than in the most successful areas of the UK.



4.36 If the UK was as enterprising as the US, then up to 1.8 million more people could be engaged in entrepreneurial activities. By spreading business creation across deprived areas, new opportunities could be created for individuals and communities most at risk from the unpredictability of global changes.

The Government is addressing barriers to enterprise **4.37** The Government encourages enterprise through a number of approaches, focusing particularly on correcting for market failures. It is taking steps to help small businesses to overcome the information barriers to expanding into export markets, including providing tailored advice to small businesses through the Business Link service, and a range of training, information and advisory services provided by UK Trade and Investment. The Government has also implemented a wide range of measures to address the issues faced by deprived areas and communities, including the Phoenix Development Fund, support for Community Development Financial Institutions, Enterprise Areas, Bridges Community Ventures, the Women's Enterprise Strategic Framework and City Growth Strategies.

Changing cultural barriers remains a challenge **4.38** A significant challenge still remains for the UK to reach the levels of enterprise seen in economies such as the US. Particularly difficult to change are the cultural barriers to enterprise, which can only be addressed through government, business and communities working together. The Government also needs to continue to focus on reducing the regulatory burden on business and removing other barriers to competition and enterprise. Chapter 3 of the 2004 Pre-Budget Report sets out a range of measures that the Government is implementing to remove barriers, including the publication of the Hampton Review interim report.

ENCOURAGING INNOVATION

Science and innovation are growing in significance

4.39 Chapter 3 highlighted the increasing rewards to innovation and the growing importance of knowledge-driven sectors. Countries at the forefront of research will be able to capture the positive spillovers of innovation. Emerging economies are progressing up the value chain from their initial position of specialising in low-cost manufacturing, and advanced economies need to continue to innovate and assimilate innovation into production processes and the creation of new products. To be competitive in the new global economy, the UK will need to build on its historical strength in scientific research to encourage innovation that creates new products, business processes, or entire industries. This will require sustained investment in the science base, while addressing barriers to the diffusion and generation of new ideas. Businesses will need to be innovative in their approaches and use of new technologies and to work together with academic institutions to further links between research, commercialisation and the adoption of science.

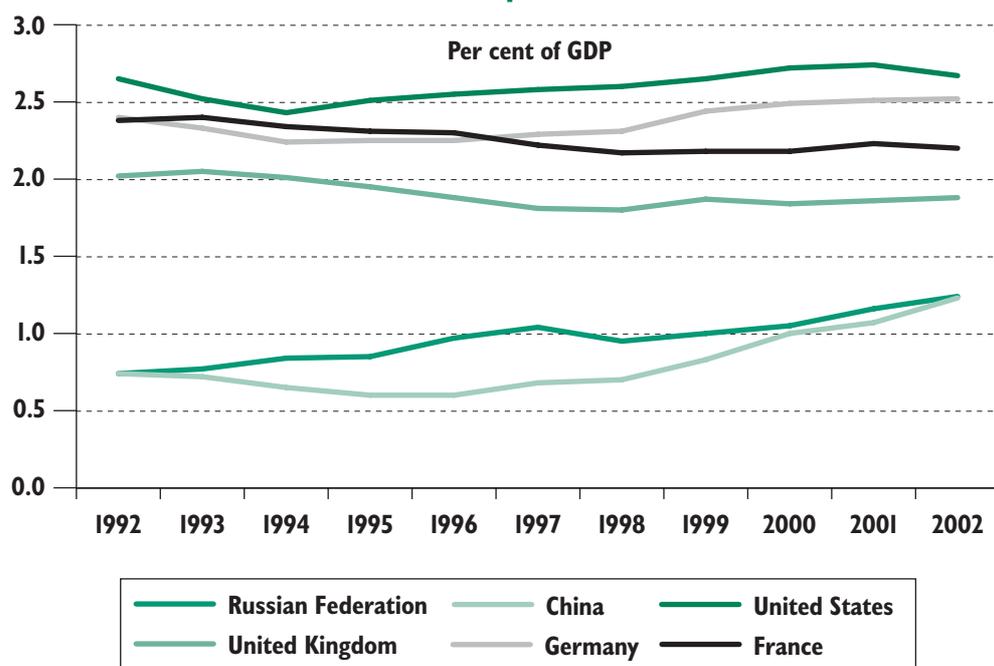
The UK has a strong science base

4.40 The UK has a strong science base, which performs well against other advanced economies. The UK currently accounts for 8.5 per cent of world scientific publications, in third place behind the US and Japan. Moreover, the UK accounts for 11 per cent of all citations (a generally accepted measure of research excellence), second only to the US. The UK is also the top performer within the G7 in terms of the productivity of its science base, with the greatest number of citations per capita. However, other countries are rapidly closing the gap, with Germany currently increasing its share of global citations more rapidly than the UK.

Innovation investment in business needs to improve

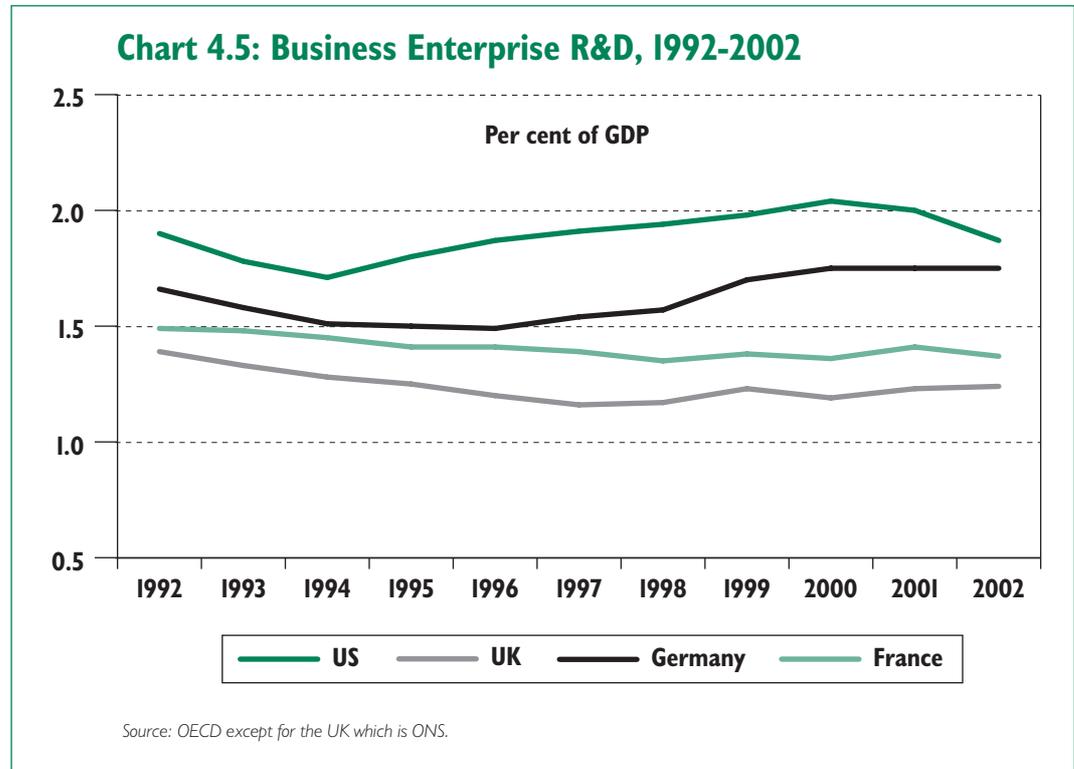
4.41 Although it is a strong performer in academic research, the UK is not in as strong a position with respect to innovation in business. Research and development (R&D) intensity (the ratio of investment in R&D across the economy to GDP) is an important indicator for measuring innovation performance. UK R&D intensity fell during the 1980s and 1990s as GDP growth outstripped growth in R&D. This puts the UK behind other major developed economies. 2002

Chart 4.4: Gross Domestic Expenditure on R&D



Source: OECD, Main Science and Technology Indicators.

figures show that UK business currently invests 1.24 per cent of GDP. This compares to French businesses with 1.37 per cent of GDP, German businesses with 1.87 per cent and US businesses with 1.87 per cent. The UK also lags behind on public sector investment in R&D, investing 0.62 per cent of GDP in 2002, compared to France (0.83 per cent), Germany (0.78 per cent) and the US (0.80 per cent).



Science and Investment Framework sets out Government priorities

4.42 The Government published a 10 Year Science and Investment Framework alongside the 2004 Spending Review. It sets out the Government's ambition, working with the private and not-for-profit sectors, for the UK to be both a key knowledge hub in the global economy, with a reputation for outstanding scientific and technological discovery, as well as a world leader in turning that knowledge into products and services. To achieve this, the framework includes the long-term objective of increasing the level of knowledge-intensity in the UK (as measured by the ratio of R&D across the economy to GDP), from its current level of around 1.9 per cent to 2.5 per cent. If met, this level of investment would put the UK in a position to secure a leading place among the major European countries and substantially close the gap between the UK and the US, the foremost innovation-driven major economy.

Increase investment in the science base

4.43 To reach this target requires substantial growth in business R&D in the UK, alongside similarly significant growth in the underpinning investment in the public sector science base. This is both to supply the skills and research results into the economy and also to attract mobile business R&D investment to the UK. Through the 2004 Spending Review, the Government provided substantial investment in the public science base, increasing funding at an average annual real growth rate of 5.8 per cent from 2004-05 to 2007-08, and setting out the Government's intention to increase investment in the public science base at least in line with trend GDP over the ten-year period, increasing science spending as a proportion of GDP. However, reaching the Government's overall ambition that R&D intensity should reach 2.5 per cent of GDP would require a higher rate of growth than this across the aggregate public and private sector research bases. This presents a considerable challenge both for Government and UK business and can be achieved only if the Government's commitment is matched by the private and charitable sectors.

Maintain the UK as a world-class centre of research excellence

4.44 Long-term investment in the science base will help to maintain the UK's position as a world-class centre of research excellence, and will facilitate greater transfer of research into business innovation. The increased funding, discussed above, provides greater support for priority research projects, the renewal of university infrastructure, and collaborative research. Extra funding will provide increased support for knowledge transfer and business innovation. In addition, the ten-year framework announced a comprehensive set of measures to enhance the teaching and learning of science, engineering and technology (SET) subjects, building on the recommendations of the 2002 Roberts Review which identified shortages in the supply of people with SET skills.⁹

Business and science base must work together

4.45 The UK's capacity to excel in the knowledge-driven global economy of 2015 will depend not only on the quality of its science base, but also, crucially, on its ability to translate research into expanded production possibilities. The UK has historically been poor at transferring knowledge from the science base to industry and increased collaboration is therefore important. The 2003 Lambert Review of business-university collaboration¹⁰ set out a number of recommendations for increasing knowledge transfer from the research base to business. The Government is responding in the context of the frameworks discussed above. Measures include giving Regional Development Agencies a greater role in promoting business-university collaboration, and the establishment of an Intellectual Property Working Group to develop a range of model contracts for collaborative research.

4.46 Businesses also have a role to play by directly investing in innovation themselves. Evidence suggests that businesses which conduct R&D themselves are best placed to reap the benefits of scientific and technological advances emerging from the science base.¹¹ In addition to the knowledge transfer and innovation programmes discussed above, the Government is encouraging greater business investment in R&D through the tax system, with the launch of the R&D tax credits scheme for SMEs in 2000 and its extension to larger companies in 2002.

Innovation in business practice is also important

4.47 As production processes become more flexible, through the introduction of new technologies, innovation in business practices is also important. Investment and progress in this is not easily captured in R&D investment figures or in measures such as citations or patents. Instead, it means businesses identifying new and more efficient means of operating through using technology, where appropriate, to increase productivity and compete more effectively.¹²

4.48 Looking towards 2015, the UK needs to maintain its world-class science base and to continue to build on it through commercialisation of research and proactive building of relationships with other economies. By achieving a position as a world leader in researching, innovating and commercialising new technologies, the UK can be best placed to apply new technologies to existing production processes and to capture the positive spillovers of innovation.

OPENING UP SKILLS TO ALL

4.49 Chapter 3 highlighted the increasing importance of skills as global integration accelerates, with demand for higher-skilled workers, in particular, likely to rise further as new innovations and business processes are introduced.

⁹ Roberts (April 2002), *SET for success – the supply of people with science, engineering, technology and mathematics skills*.

¹⁰ HM Treasury (2003) 'Lambert Review of Business-University Collaboration'.

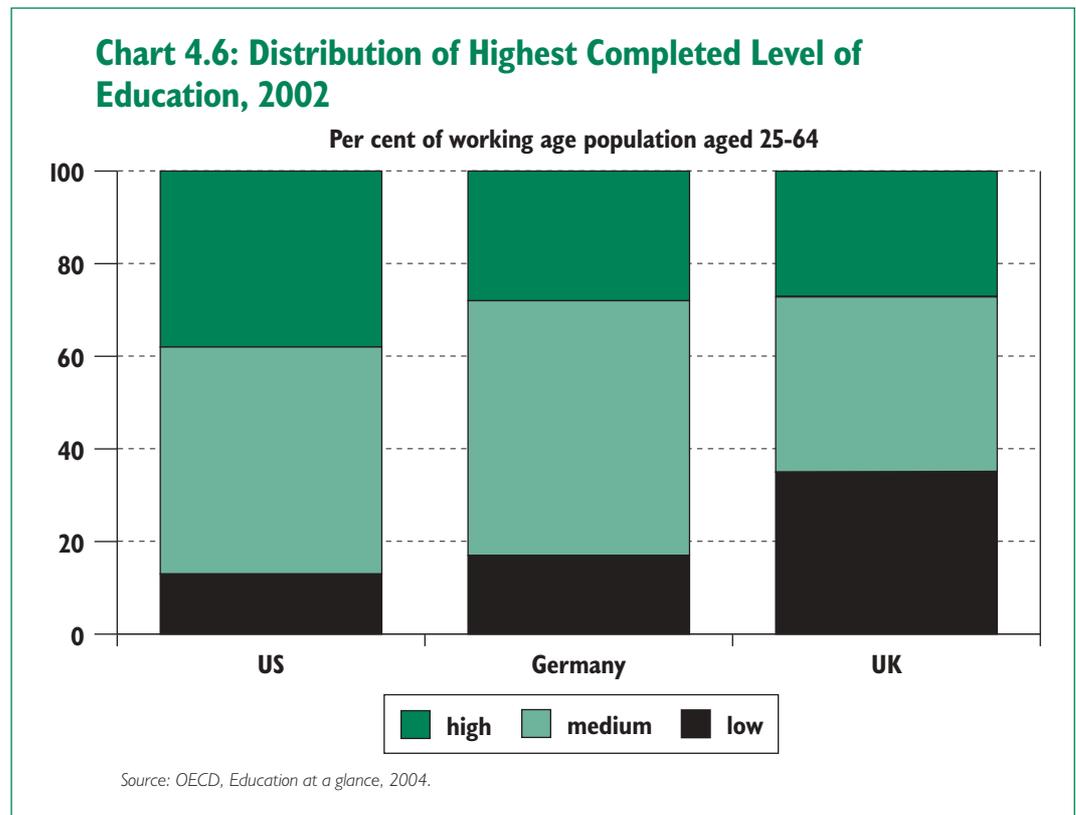
¹¹ Swan, G for the Department of Trade and Industry (2002) 'Innovative Businesses and the Science and Technology Base: An Analysis Using CIS3 Data'.

¹² Porter, M and Ketels, C (2003) 'UK Competitiveness: moving to the next stage' DTI Economics Paper No.3.

4.50 Higher levels of skills enhance the ability of individuals to adapt to the uncertainties posed by global changes. Adults will also increasingly need to have the flexibility to update their skills and acquire new skills throughout their careers. A more educated workforce where people expect to update their skills and continue to learn throughout their life is more likely to be able to adapt to economic shocks and respond effectively to technological change. This makes the economy more flexible and more productive over the long term, while also meaning that businesses are able to respond to changes in product markets.

4.51 Furthermore, improving the overall skills of people will directly benefit them – skills provide improved employment opportunities and the opportunity of higher pay.¹³ Extending the opportunity to learn and acquire new skills also aids social justice, improves social mobility and, as the pace of global change accelerates, provides security and adaptability while the economy works its way through transitional changes.

4.52 However, the UK’s distribution of skills compares relatively poorly to that of other fully industrialised comparator countries. The proportion of young people staying on at school beyond the age of 16 has been low. Similarly until recently only a small proportion of those leaving school at 18 went on to higher education – in the 1960s just one in 18 young people went to university, in the 1980s the proportion was still less than twenty per cent. Despite recent increases in the number of people staying on in education, the UK continues to have a more polarised skills distribution than many other countries. The number of people in the UK workforce with a higher-level qualification has expanded rapidly in recent years, rising to 27 per cent today. This compares fairly well internationally, although some other advanced economies, such as the US and Canada, have a higher proportion of graduates, for example 43 per cent of the Canadian workforce has a degree.



¹³ There is clear evidence that those with higher qualifications tend to be paid significantly more than those with no qualifications. On the returns to higher education see, for example see Walker and Zhu (2001) ‘*The return to education: evidence from the Labour Force Survey*’.

4.53 The UK, however, has a relatively large proportion of workers with low or no qualifications. Around 7.8 million people of working age in the UK do not have the equivalent of 5 good GCSEs, increasingly seen as the minimum required for employability. This constitutes 33 per cent of the total working-age population. Some progress has been made here: there has been a reduction of almost 500,000 in the number since autumn 2001. However, as Chart 4.6 shows, the overall proportion of workers with lower level skills is still much higher than in other comparator countries. In Germany the equivalent proportion is just 19 per cent, and in the US, often thought of as having a more polarised skills mix, it is only 15 per cent, half that of the UK. The UK also lags behind many countries in the proportion of its workers who have intermediate skills. Less than one third of the UK workforce has intermediate skills, compared to over half in both Germany and France.

4.54 To meet the challenge of ensuring that its workforce has the skills necessary to respond to the global challenges set out in Chapter 3, the UK will need to deliver a step change in the overall skill levels of its population, to keep pace with industrialised nations and, increasingly, the emerging economies of China and India. In particular the UK needs to increase the proportion of workers with intermediate and higher level skills by giving those with no or low level skills the chance to progress and to participate fully in the economy. This will help the UK workforce to adapt and respond to the increasing pace of innovation and change in a global economy whilst also allowing a broader range of people to benefit from the opportunities that global change presents.

4.55 Meeting the challenge of shifting the UK towards a more highly-skilled workforce will mean improving both the skills of people coming into the workforce from the education system, and improving the skills of those already in the workforce. This will involve engaging people in learning at all stages of life: from school through to university or apprenticeship, and throughout a person's working life. The minimum skills required for employability will continue to change and are likely to increase as technologies and production methods develop.

4.56 The Government has responded to the first part of this challenge by significantly increasing spending on education and schools.¹⁴ Overall levels of schools' performance and qualification levels of school leavers have improved. More people are staying on at school post-16, and the Government has a target to increase participation in higher education towards 50 per cent of those aged 18-30 by 2010. This will ensure a continued shift towards a high-skilled population and the UK retaining an internationally comparable stock of highly-skilled workers.

4.57 The Government has also developed policies to give people already in the workforce the opportunity to increase their skill levels and to ensure they have the flexibility to update their skills to adapt to new technologies and innovations. The Government's Skills Strategy, published in 2003, set out how the Government intends to deliver its ambition to ensure that those with low or no skills have the opportunity to improve their skills.¹⁵ At the heart of this strategy is a new guarantee of free tuition for a first full level 2 qualification for any adult. Building on this strategy, the New Deal for Skills will ensure that those who are out of work can access the training they need for sustainable employment and progression in the labour market.

4.58 The Government is also now introducing a new National Employer Training Programme, building on the success of Employer Training Pilots. This will provide a package of support for employers willing to offer individuals access to their entitlement to free training for a first full level 2 qualification in the workplace. Further detail is set out in *Skills in the Global Economy*, published alongside the 2004 Pre-Budget Report.

¹⁴ See Spending Review 2004 for details of the education settlement.

¹⁵ Department for Education and Skills (2002) '21st Century Skills: Realising our Potential'.

4.59 The UK can also make use of targeted migration and global increases in flows of high-skilled people to support its shift towards a high-skilled economy. Inward migration makes up around 10-15 per cent of forecast UK trend economic growth.¹⁶ However, this estimate does not take into account differences in the skills or economic activity of migrants, with migrants more likely than the native-born to be qualified to degree level.¹⁷ Careful targeting and promotion to attract individuals with skills in demand in the labour market, such as management skills and science and engineering expertise, can also help address the needs of the economy more broadly.

4.60 The UK is in a good position to benefit from carefully managed migration, while ensuring that appropriate measures are in place to address illegal immigration. Migrants to the UK can stimulate economic growth, introduce new ideas and processes, and meet skill and labour shortages easing inflationary pressures and increasing productivity. The UK Work Permits scheme and Highly Skilled Migrant Programme specifically target high-skilled migrants for periods of temporary work in the UK. These schemes both play an important role in meeting business needs for high-skilled labour in areas of skills shortages in the UK, and also attract highly-skilled individuals to the UK who can contribute through high productivity levels. The UK also has specific schemes targeted at science and engineering graduates and MBA graduates.

4.61 Flexibility of migration policy is important to ensure it is responsive to labour market needs. Otherwise, perverse outcomes can occur, such as in the US where the 2004 quota for high-skilled work permits was exhausted on the first day of the annual cycle. Migration policy must also be sensitive to the needs of developing countries to retain skilled individuals to contribute to their own domestic development. Finally, challenges exist in ensuring that new and existing migrants are integrated into the UK economy and society so that they can make a full contribution.

4.62 Achieving a higher-skilled economy will be one of the most critical challenges for the UK in responding to the global trends set out in this paper. Flexible skills are essential for businesses to be innovative and competitive in a broader global market. To meet this challenge the UK will need to address its existing substantial skills inequalities whilst continuing to invest in the education and training of those entering the workforce.

ENSURING A RESPONSIVE AND FLEXIBLE WELFARE STATE

A greater pace of change may mean transitional impacts

4.63 The global trends and challenges discussed in Chapter 3 are likely to lead to a greater pace of economic change with significant long-term benefits for the UK. However, they can also be associated with considerable transitional impacts for individuals and firms as labour and capital are redeployed from traditional sectors to expanding ones. If markets and individuals do not have the flexibility and adaptability to respond to change, then exposure to foreign competition in new markets and new technologies may result in falling relative earnings or long-term unemployment, particularly among lower skilled workers.

A responsive, flexible welfare state provides security

4.64 Flexible labour market policies are important to support a dynamic process of economic change as the UK economy adjusts to changes in global economic trends. However, this flexibility must be underpinned by a modern and flexible welfare state that provides security for people when they need it and supports people to move into and progress in work. Responsive welfare policies can also further enhance flexibility by encouraging risk-taking and entrepreneurship and enabling individuals to make the transition between different forms of employment more rapidly. To maximise the economic benefits of globalisation, all individuals must have the opportunity to upskill and receive regular training in the basic skills required to participate in the labour market.

¹⁶ See H. M. Treasury, *Trend Growth: Recent Developments and Prospects*, April, 2002.

¹⁷ Dustman et al (2002) 'Migrants in the UK: their characteristics and labour market impacts'.

4.65 To prepare and support individuals and communities in 2015, the UK needs to have a modern and flexible welfare state which equips people with the skills they need to adapt to change, gives them flexibility and choice in balancing work and family commitments, protects the vulnerable and provides strong incentives to work and save.

4.66 The UK has made considerable progress in reforming the welfare state to encourage labour market participation. Active labour market policies provided through the New Deal have been instrumental in reducing the ILO unemployment level to 1.4 million people – a reduction of 30 per cent over the last 7 years. The working age employment rate has increased to 74.7 per cent and the number of people in work, at 28.4 million, is the highest on record.

4.67 The UK has also reformed the tax and benefit system through the introduction of a National Minimum Wage and a national system of tax credits. Together these help to insure households against fluctuations in their incomes and provide support for the costs of raising children while at the same time strengthening work incentives.

Increasing employment opportunities

4.68 However, there remain challenges in increasing employment opportunities, for example, for the 2.7 million people claiming incapacity benefits. While the caseload has broadly stabilised since 1997, off-flows from the benefit are low: once a person has been on incapacity benefit for 12 months, the average duration of a claim is 8 years. The Government's Pathways to Work pilots are targeted on reshaping the culture and expectations of being on an incapacity benefit so that there is a much greater focus on returning to work. These reforms are important to ensure that those individuals affected by transitional economic impacts can re-engage with the labour market.

4.69 Flexible working patterns are important to ensure that labour demand and supply are matched efficiently. They give employers the flexibility to vary capacity levels and provide employees with the opportunity to balance their work and other responsibilities, such as caring. Part-time work can provide those with caring responsibilities a means of retaining engagement with the labour market.

4.70 These changing, more flexible, work patterns present both an opportunity and a challenge to individuals, particularly parents, and employers looking to find the right balance between work and family life. There is a role for government both in giving parents choice by enabling them to stay at home when their children are very young, and in supporting parents with the costs of childcare when they return to work.

4.71 Responding to global challenges means ensuring that everyone is able to make the most of his or her talents. This includes making certain that every child gets a good start in life with the cognitive and social skills needed to fulfil his or her potential. It also requires reducing barriers to parents who want to return to work, doing more to help working parents balance the needs of work and family life, and addressing barriers that prevent women from participating fully and equally in the labour market.

4.72 Ensuring that families have access to affordable, high quality childcare will make an important contribution to increasing labour market participation as well as to child development goals. The Government is publishing a Ten Year Strategy for Childcare alongside the 2004 Pre-Budget Report, which sets out the government's strategy for the role it can play in supporting parents' choices about childcare.

Skills are also important to progress in work

4.73 The New Deal, reforms to the tax and benefit system and addressing barriers to flexible working have been instrumental in moving people from welfare into work and have increased participation. But more is needed to equip people with the skills they need to progress in work and respond to the changing demands of the global economy. Investment from government, employers and individuals in areas like education, skills and childcare offers both greater security and ongoing flexibility in responding to change and complements the social protection offered by the welfare state.

Key challenges remain **4.74** In order to achieve the security and responsiveness required to provide the appropriate support and incentives for individuals, key policy challenges include reintegrating the inactive into the labour market; flexible working patterns and greater choice in balancing work and family commitments through support for childcare; and equipping workers with the skills they need to respond flexibly to the changing demands of the global economy and to progress in work.

4.75 If the UK can create a flexible and responsive welfare state, this would mean that people spend less time out of work, that people can progress in work and that there will be greater flexibility and choice for individuals in balancing work and family commitments.

MAKING BETTER USE OF ENERGY RESOURCES AND REDUCING ENVIRONMENTAL COSTS

Environmental pressure is increasing **4.76** With the global economy set to expand by 40 per cent by 2015, driven in particular by strong growth in the emerging economies, significant pressures will be placed on global resources, particularly energy, and on the natural environment. This presents a serious challenge to governments, to businesses and to individuals. For the UK it means that the economy will need to become significantly more energy and resource efficient, with resource pressures seen as opportunities to improve the productivity of the economy and of individual businesses.

The challenge for the UK **4.77** Through a combination of demand and supply efforts and policy measures – the climate change levy, climate change agreements, the UK emissions trading scheme and, from 2005, the EU emissions trading scheme and the flexible mechanisms of the Kyoto Protocol – businesses in the UK are already making improvements in energy efficiency, with consequent reductions in carbon emissions. Along with a major shift from coal-fired to gas-fired electricity generation in the 1990s, these measures have helped reduce greenhouse gas emissions from the UK economy by approximately 14 per cent from the Kyoto baseline of 1990 to 2003, with emissions of carbon dioxide down 7 per cent.¹⁸ However there is no room for complacency.

4.78 By 2015, energy and resource efficiency need to be key drivers of business productivity across the industrial, commercial, household and transport sectors. Government will need to ensure that environmental policy helps to stimulate technological and organisational innovation, so that the economic costs of meeting environmental objectives are reduced and productivity enhanced.

4.79 Increased energy efficiency will need to be accompanied by the development of low-carbon energy sources. Over the past decade, the Non Fossil Fuels Obligation and, since 2002, the Renewables Obligation (RO) have stimulated the UK's renewable energy industry. Just over 2 per cent of electricity was supplied under the RO in 2003, mainly from onshore wind. The Government aims to supply 10 per cent of UK electricity from renewable sources by 2010, subject to the costs being acceptable to the consumer. The UK has a strong academic research base in this field. Over the next decade, with the support of Government, it will need to work closely with business to develop technologies with the commercial potential to respond to the challenge of a lower-carbon future.

Multilateral action is also essential **4.80** Domestic policy however will not be sufficient to tackle climate change. Strong engagement in multilateral efforts to tackle climate change will be required to achieve greater energy security and sustainability. The UK produces only 2 per cent of global climate change emissions, so without action by other countries UK policy will have little impact. The UK will need to work with the European Union, the G8 and with emerging economies to support energy efficiency and investment in low-carbon sources of supply.

¹⁸See Chapter 7 of the 2004 Pre-Budget Report for further detail of environmental progress and policy.

CONCLUSION

4.8I This chapter has argued that meeting the long-term global economic challenges and opportunities set out in this paper will require sustained effort across a range of policy areas aimed at:

- entrenching macroeconomic stability in the face of the more integrated global economy where shocks in one part of the world can be rapidly transmitted to other regions; and fiscal sustainability in the face of the long term demographic changes facing all developed economies;
- building an enterprising and flexible business sector that is the best in the world, where firms can succeed and exploit the opportunities presented by a more open and competitive global economy;
- promoting innovation to ensure the UK is a world leader in turning science into business innovation, through investment in the science base and addressing barriers to the diffusion and adoption of new ideas;
- opening up the acquisition of skills to all, so that the UK has the right skills mix as it seeks to move into more innovative sectors and businesses. This will ensure that everyone in the workforce has the skills necessary to take higher-value added jobs and the flexibility to retrain and adapt to new technologies and innovation;
- ensuring fairness through a modern and flexible welfare state that provides security for people when they need it and provides strong incentives to work and save. This includes providing greater flexibility and choice in balancing work and family commitments; and
- increasing the energy and resource efficiency of the economy, particularly by stimulating technological innovation in the use of energy and by promoting low-carbon sources of energy. Tackling global environmental issues, notably climate change, will require intensive engagement with international partners to secure effective multilateral action.

5.1 This paper has assessed the long-term global economic challenges and opportunities facing the United Kingdom in the decade ahead. It aims to build a consensus to take the right long-term decisions, to ensure that Britain can succeed in this period of far-reaching economic change.

5.2 The global economy is in the midst of a radical transformation. Fundamental changes in technology and trading patterns have significant implications for individuals, businesses and government. The balance of economic activity is changing, with rapidly growing large emerging economies accounting for an increasing share of global output. The countries that succeed will be those that entrench stability; that promote enterprise; that foster scientific invention and business innovation; that improve skill levels; and that open up opportunity to all.

5.3 This paper has identified six key trends that will shape the global economy over the next decade to 2015. These include:

- the shifting balance of global economic activity, with an increasing proportion of global output produced in rapidly emerging large economies, including China and India, and other emerging economies such as Russia, Brazil and Mexico. In 1980 less than a tenth of manufacturing exports came from emerging economies and developing countries. Today it is 25 per cent, and in twenty years time 50 per cent. Demographic changes will also have a significant impact. These changes in the global economy present new opportunities, but bring new challenges too. The process of structural change requires flexibility, dynamism and entrepreneurship supported by an active and responsive welfare state.
- the increasing integration of global markets, as international trade and investment expand. Rapidly growing economies are attracting and supplying increasing inflows of foreign direct investment (FDI): China is already the world's leading investment location with FDI inflows of \$57 billion. A country's ability to attract investment will depend on sustainable macroeconomic policies and institutional arrangements that enhance confidence, promote stability and create a strong investment climate.
- the internationalisation of economic activities, with production chains becoming increasingly flexible, specialised and dispersed across continents. No economy can rely on its past strengths or traditional expertise, at a time when resources, technology and ideas can be moved to the most productive location. So it is vital to promote enterprise and productivity to ensure businesses and individuals can compete effectively in the global market place.
- the growing rewards from innovation, as the pace of technological change increases and countries move into higher-value activities. It took nearly forty years for the first 50 million people to own a radio, just 16 years for the first 50 million people to own a computer, but just 5 years for the first 50 million to be on the Internet. Over the next ten years, emerging economies and developing countries will account for around half of Internet users. Countries at the forefront of research, innovation and IT-use will be best placed to apply new technologies, expand output, and enhance their attractiveness as centres of economic activity.

- the importance of higher skill levels to realise the benefits that arise from global integration, enabling individuals to adapt to change and countries to move into high-value added areas. For firms deciding where to locate, the relative skills of the labour force is likely to become an increasingly important factor. Each year China and India educate more than 4 million graduates, compared to 250,000 in the UK. Moreover, skills that were once regarded as high-level are now increasingly viewed as basic skills. So countries need to invest in education and training, and ensure that they equip individuals to continually update their skills.
- the pace of global economic growth and the expansion of the global economy will place increasing pressure on energy resources, other natural resources and the environment. By 2015 emerging economies are expected to account for half of world energy demand. Action by governments to promote greater energy and resource efficiency, foster new, low-carbon sources of energy supply and to reduce environmental damage will become increasingly important. However, in light of the scale of future global demand and the fact that the environmental and energy costs of one country have implications for all countries, it will not be sufficient for countries to act alone. As the Prime Minister has made clear, multilateral action, notably on climate change, is essential.

5.4 Government has a critical role to play in responding to these challenges: it needs to help shape global trends through multilateral action in areas such as trade, investment and regulation; it must establish stable macroeconomic foundations that are robust to shocks; it needs to promote flexibility in labour, product and capital markets; and it must provide an active and responsive welfare state that opens up opportunity to all, and helps individuals and households to adapt to change and make the transition into new areas of economic activity. It needs to ensure that firms and individuals have the flexibility to adapt and innovate, and so take advantage of new opportunities. But it is important that flexibility is accompanied by fairness through policies that support individuals during periods of change, provide the skills they need to adapt and protect the vulnerable.

5.5 Responding to the long-term challenges and opportunities will require sustained effort across a range of policy areas aimed at:

- entrenching macroeconomic stability in the face of the more integrated global economy where shocks in one part of the world can be rapidly transmitted to other regions, and fiscal sustainability in the face of the long-term demographic challenges facing all developed economies. This will give domestic and foreign businesses and individuals the continuing confidence to invest in both physical and human capital.
- building an enterprising and flexible business sector that is the best in the world, where firms can succeed and seize the opportunities presented by a more open and competitive global economy.
- promoting innovation to ensure that the UK is a world leader in turning scientific research into business innovation at a time of increasing rewards to innovation and predominance of knowledge-driven industries in the world economy. This will require sustained investment in the science base while addressing barriers to the diffusion of new ideas.

- opening up the acquisition of skills to all, so that the UK has the right skills as it seeks to move into new more innovative sectors and businesses at a time of rising skill levels across the global economy. This will ensure that everyone in the workforce has the skills necessary to take higher value-added jobs and the flexibility to retrain and adapt to new technologies and innovation.
- ensuring fairness through policies that provide security for people when they need it and provide incentives to work and save, at a time when the pace of change in the global economy will be ever quicker and more intense. This will mean providing greater flexibility and choice in balancing work and family commitments, enabling women to participate fully and equally in the labour market and focusing support on those sections of society who face the greatest barriers to work.
- increasing the energy and resource efficiency of the economy, particularly by stimulating technological innovation and by promoting low-carbon energy sources. Tackling global environmental issues, notably climate change, will require intensive engagement with international partners to secure effective multilateral action.

5.6 These are the steps the UK must take to meet the long-term challenges and opportunities presented by the new global economy over the next ten years, and to deliver sustainable growth and opportunity for all in this period of far-reaching and fundamental economic change.

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