

The UK economy: addressing long-term strategic challenges

November 2008



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Enterprise & Regulatory Reform



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strategic challenges

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Executive summary

The Government's long term goal is to secure and maintain macroeconomic stability in order to promote a strong economy and achieve its objective of a fair society where there is security and prosperity for all. The short term actions to support the economy, set out in the 2008 Pre-Budget Report, are guided by this objective. However, at a time when the UK faces significant immediate challenges, it is important not to lose sight of the impact that long term trends in the global economy are likely to have over the next decade, and to consider how Government needs to respond so as to secure continuing growth and prosperity in the future.

By way of background, the Government has made it a priority since 1997 to build macroeconomic stability, and to promote UK productivity growth, for example by tackling the historic backlog of under-investment in the country's infrastructure and its skills and science base, and by promoting innovation, enterprise, and competition.

Looking forward, the document describes how, over the next decade, as the world becomes ever more connected and interdependent, as populations age, and as the countries of the world work together to tackle climate change, there will be new and different opportunities for Britain to prosper. There will also be new challenges and threats to economic growth and the pace of change will continue to accelerate.

In the light of these future trends, this document sets out the role that Government needs to play to help the UK face up to these challenges and make the most of the opportunities; so as to promote continuing growth and prosperity that is sustainable over the next decade and beyond. It shows how macroeconomic stability remains the essential platform for long term growth, hence the need for recent Government intervention to restore stability in the financial markets. It emphasises the continuing importance of maintaining an attractive business environment. However, it also sets out how Government investment programmes, both in infrastructure and in human capital, need to be protected during an economic downturn in order to secure prosperity in future years, while ensuring value for money.

In addition, Government policy needs to continue the drive for greater levels of productivity in the UK economy. However, in doing so, Government needs to recognise that those business activities and sectors which have the most potential to grow in an increasingly competitive global market place are those in which the UK has, or is able to develop, relative strengths. Therefore, this document sets out a framework for Government engagement with industry sectors to ensure that Government policies work to remove obstacles to growth and help improve the UK's long term competitiveness. It illustrates this by using examples of UK business sectors that have been internationally successful. It emphasises that our drive for a low carbon economy opens up many opportunities for growth, and the opportunity for more and better jobs. This document also sets out the importance of the UK's world class higher education and science assets for future growth.

This document also emphasises the critical role that city-regions will play in terms of economic growth, and recognises that the drivers of growth at a local level may be specific to local circumstances. It therefore sets out a number of reforms designed to ensure that city-regions have the levers to make the most of their opportunities, and to drive growth and prosperity at a local level.

The global context and the challenges and opportunities facing the UK economy will change and the Government will need to be agile in responding to these issues, and keep its approach under review. Notwithstanding this, the approach set out in this document represents a strategy

by which Government will play its part to secure the UK's future economic growth and prosperity. The first steps in implementing this strategy are set out in Chapter 4 of the 2008 Pre-Budget Report.

As the UK's prosperity increases, so does the opportunity to create more higher value jobs. This will create more 'room at the top', and so allow for more upwards social mobility. The Government is committed to ensuring not only that these higher value jobs are created, but also everyone has a fairer chance to get those jobs. The Government will therefore shortly be publishing a White Paper on Social Mobility setting out how it will ensure fairer chances, so that everyone is able to realise their potential and to compete effectively in the global economy.

A Recent performance and future trends

A.1 The Government's long term goal is to secure and maintain macroeconomic stability in order to promote a strong economy and achieve its objective of a fair society where there is security and prosperity for all. However, at a time when the UK faces significant immediate challenges, it is important not to lose sight of the impact that long term trends in the global economy are likely to have on the UK over the next decade. Part A describes these long term trends, and Part B considers how Government needs to respond so as to secure continuing growth and prosperity for the UK in the future.

1

Introduction: UK recent economic performance

1.1 This chapter briefly outlines the current challenges facing the world's economies, and the immediate actions taken by the UK Government in response. More detail on this can be found in the 2008 Pre-Budget Report. It also describes the foundations laid by the Government's economic reforms since 1997, and the subsequent growth in incomes, employment and productivity.

Current challenges

1.2 Over the past year or more, the world's economies have been subject to major global shocks. The credit shock that was triggered in July 2007 by developments in the US sub-prime mortgage market has intensified. The surge in commodity prices, which had built over a number of years, peaked in July 2008, although it has since eased significantly. These shocks have affected all the world's economies.

1.3 The clear priority is financial stability, and the Government has already announced measures to ensure sufficient liquidity and capital in the banking system to promote stability, protect depositors, and support lending in the economy. The 2008 Pre-Budget Report announces further steps to help support businesses through current difficulties. It also sets out the priority areas in which the Government has pushed for coordinated action at the G20.

1.4 The Government is also committed to helping individuals deal with the immediate challenges. In September 2008 the Government announced a £1 billion package to help first time buyers get onto the housing ladder, help homeowners in difficulty, and support the house-building industry. The Government is also helping families facing higher food and fuel bills. An income tax cut took effect in September 2008 and fuel duty has been frozen this year. The Government is also helping people reduce their utility bills through a package of energy efficiency measures. The 2008 Pre-Budget Report sets out further measures to help families through current challenges.

1.5 Across advanced and emerging economies, the economic outlook has deteriorated sharply and growth forecasts have been revised down significantly. The 2008 Pre-Budget Report sets out in more detail the Government's assessment of economic prospects.

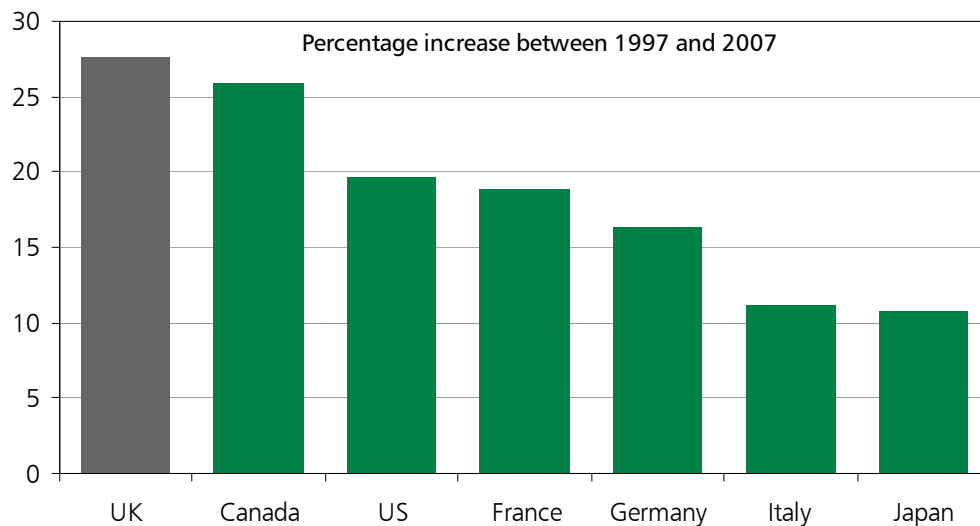
Performance over the last decade

1.6 The global economy faces significant challenges. These global economic shocks have struck after the UK has had an extended period of solid growth in output and employment.

1.7 In 1997, the Government laid the foundations for achieving sustainable economic growth through the introduction of a new macroeconomic framework. This has underpinned a decade of investment and microeconomic reforms, designed to increase the flexibility and openness of labour, capital, and product markets. These have helped to achieve a sustained period of income growth, job creation, and low unemployment

1.8 In the decade to the end of 2007, UK real GDP per person grew by 27 per cent, which was more than in any other G7 country (Chart 1.A).

Chart 1.A: Real GDP per capita



Source: IMF¹

1.9 By spring 2008, the number of people in work had increased by more than three million to around 29½ million – the highest number ever (Chart 1.B). The employment rate increased to more than 74 per cent, to be the second highest in the G7 and substantially higher than the EU27 average. In January 2008, the number of people unemployed and claiming benefits reached its lowest level for more than 30 years.

1.10 Employment has recently begun to fall from its historically high level. The Government takes this very seriously and new measures to address unemployment are outlined in Chapter 5 of the 2008 Pre-Budget Report. A flexible and dynamic labour market has contributed to the UK economy's strong performance over the last decade and will play a crucial role in dealing with the global economic shocks it currently faces.

1.11 Productivity growth, as the main determinant of sustained, long run growth, is central to delivering greater prosperity. The UK has made progress over the last decade in raising the rate of productivity growth and narrowing the productivity gap with comparator countries. In the last economic cycle (1997 to 2006) the average (trend) rate of productivity growth² was higher than in any previous complete economic cycle on record.³

1.12 Since 1997, in output per worker terms, the UK has closed the gap with Germany, narrowed the gap with France by more than a third, and has kept pace with the US's strong productivity performance⁴. Narrowing the productivity gap remains a key Government objective and further progress will be important in the future.

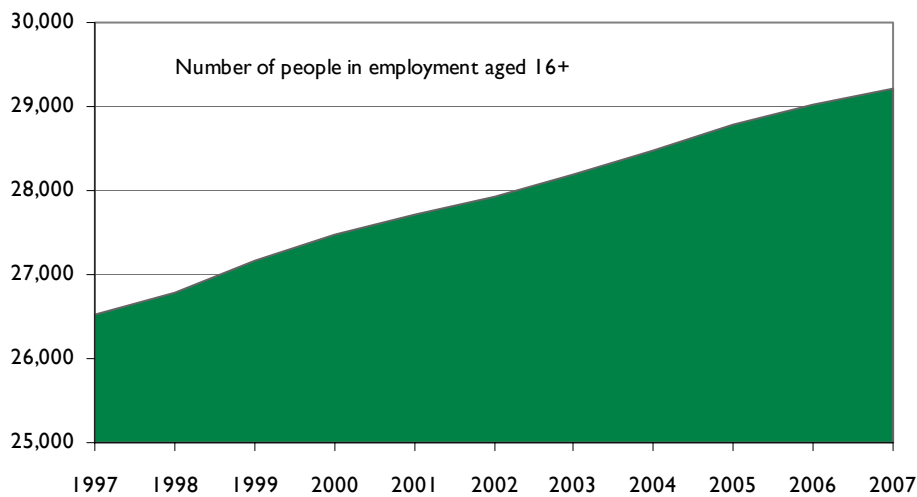
¹ *World Economic Outlook*, IMF, October 2008.

² Output per hour. Source: HM Treasury analysis. Latest estimates of the trend productivity growth projection set out in Pre-Budget Report 2008

³ As defined by HM Treasury, records start in 1974.

⁴ Office for National Statistics, October 2008.

Chart 1.B: Employment



Source: Office for National Statistics

1.13 Underlying these improvements has been a business environment in which enterprise can thrive. Latest World Bank research⁵ places the UK second only to the US in the G7 in terms of its business environment, and significantly above its large European neighbours (Table 1.A). The OECD found that the UK has the lowest barriers to entrepreneurship of all OECD countries.⁶

Table 1.A: World Bank 'ease of doing business' indicator

Country	Ranking
US	3
UK	6
Canada	8
Japan	12
Germany	25
France	31
Italy	65

Source: World Bank

1.14 The UK economy faces challenges, both today and in the future. The past decade of rising incomes, job creation, and higher productivity growth puts the UK economy in a position from which to address these challenges. In addition, there have been encouraging signs that, since 2000, some of the inequalities that prevented social mobility have been addressed⁷.

⁵ World Bank (2008). *Doing Business 2009*.

⁶ Conway, P. et al. (2005) *Product Market Regulation in OECD Countries: 1998 to 2003*, OECD Economics Department Working Papers, No. 419.

⁷ Cabinet Office (2008), *Getting on: getting ahead* <http://www.cabinetoffice.gov.uk/~media/assets/www.cabinetoffice.gov.uk/strategy/socialmobility/gettingon%20pdf.ashx>

The Government's growth framework

1.15 A number of factors are likely to have contributed to the solid performance of the UK economy over the last decade, including the UK's policy of openness to trade and investment and a stable economy. However, improved economic performance has also coincided with significant Government reforms with the aim of driving up the UK's productivity.

1.16 In the short term, the Government is committed to promoting financial stability and helping individuals and businesses deal with the immediate challenges.

1.17 However, the Government also continues to be committed to driving further progress on promoting sustainable growth and prosperity in the longer term. In particular, at a time when the economy is faced with large, immediate challenges, it is vital to retain focus on the key longer term challenges to these objectives. Addressing these challenges and making the most of the opportunities they bring will be crucial to continue to drive progress towards economic growth and prosperity, providing the opportunity for better jobs to allow greater upward social mobility.

1.18 The Government's framework for promoting productivity growth has been based on two objectives:

- seeking to secure and maintain macroeconomic stability to ensure businesses and individuals have the certainty needed to make long term investment decisions; and
- undertaking microeconomic reforms to tackle market failures around the drivers of productivity growth.

1.19 The productivity framework identifies five drivers that underlie long term productivity growth – competition, innovation, skills, investment, and enterprise:

- Physical **investment** directly influences how much a unit of labour can produce. Furthermore investment in infrastructure is a necessary pre-condition to economic activity, through provision of basic utility services. More widely, transport and communication infrastructure improves productivity by facilitating trade and competition in goods and services;
- Improved **skills** levels contribute directly to improved productivity but can also have wider impacts, helping to generate new innovations and technologies. The effects of globalisation, including greater international competition, accelerating technological change, and changing patterns of consumer demand, are likely to increase the demand for higher level skills and greater adaptability on the part of individuals;
- **Innovation** – the transformation of an idea into a new or improved product or process benefits firms other than those undertaking it. 'Spillovers' can increase the productivity of other firms as new ideas are emulated. Some new innovations are generated directly by firms. Others have their roots in research undertaken in universities and institutes;
- **Enterprise** – the creation and growth of firms – increases ideas and skills and provides incentives for others to innovate. Entrepreneurship can be viewed as dynamic competition or 'creative destruction', which occurs when new firms enter the market with new technology or work practices and compete with existing firms; and

- **Competition:** To stay ahead of competitors firms compete on quality and price and look for new markets to generate profits. Firms increase their productivity by developing new or improved products and services. A competitive market, with low barriers to entry, also allows entrepreneurs to enter and succeed. Firms with the highest productivity, and therefore the highest profits, increase market share. The least productive firms leave the market.

1.20 This conceptual framework has informed economic reforms that have driven productivity growth, which has contributed to the success of the UK economy over the past decade.

Future strategic challenges

1.21 Beyond the immediate challenges of dealing with the consequences of the global economic shocks, there are long term trends that will affect economic prosperity; creating challenges but also opening up opportunities for growth and the creation of better jobs, allowing for greater upward social mobility. Among them, the Government has identified four key trends that create opportunities and challenges for the UK.

1.22 As the current economic situation has shown, the UK is likely to face more **global uncertainties** in the future, resulting in part from stronger international interdependence. **Demographic trends** mean that the ratio of retired individuals to those of working age is increasing rapidly in most developed countries. There is increasing pressure on natural resources and the environment, with **climate change** in particular demanding urgent action. **Globalisation and technological change** are creating increasingly competitive and integrated global markets.

1.23 While it is not possible to predict future long term trends with certainty, the Government has identified these four as likely to have a significant impact on the economy in the long term. Chapter 2 of this document considers these trends in more depth, the implications for the economy as a whole, and for individuals and businesses, and at a local as well as national level.

2

Future strategic challenges and opportunities

2.1 The Budget 2008 document¹, *The UK economy: analysis of long term performance and strategic challenges*, updated work on the main challenges facing the UK economy that had been identified at the time of the 2007 Comprehensive Spending Review. These are:

- **global uncertainty;**
- **globalisation and technological change;**
- **environmental change; and**
- **demographic change.**

2.2 These economic trends are likely to shape the UK economy in future. While it is not possible to predict with great certainty, they are likely to create opportunities to be exploited and challenges to be met, both requiring the UK economy to be flexible and innovative. Although these trends are not new, the speed and breadth of global change has increased. This also means that both the opportunities and the risks are growing.

2.3 This chapter updates analysis of the trends, examines the interaction between them, and considers their implications for the economy as a whole, for businesses and individuals, and at a local as well as national level.

1. Global uncertainty

2.4 As set out at Budget 2008, an increasingly interdependent world has led to global uncertainty and a larger risk of instability. This has been graphically illustrated in the recent instability in financial markets, triggered by the US sub-prime mortgage market, and also includes threats from terrorism and crime, and human and resource pressures.

2.5 Capital markets play a crucial role in the economy by mobilising savings and channelling investment to where it is most productive. However, as has been seen in global financial markets over recent months, integration means that problems elsewhere in the world economy can impact on the UK. Disruption to these markets in the UK is then transmitted to the wider economy.

2.6 The 2008 Pre-Budget Report sets out in detail how the Government is tackling the current economic challenges and working with international partners to strengthen the stability and resilience of the global financial system.

2.7 The Government is working with other governments in both developed and developing economies. The UK takes over the Chair of the G20 from 1 January 2009 and, building on the recent G20 leaders' summit in Washington, the Government will ensure that the G20 plays a full part in rebuilding momentum in the world economy.

¹ *The UK economy: analysis of long term performance and strategic challenges*, HM Treasury, March 2008.

2.8 Uncertainty exists both around the type and extent of future global shocks to the UK economy, and around the pattern and course of globalisation and technological change, environmental change, and demographic change. It is therefore vital that the UK economy is both robust to short-term shocks and is well-placed to exploit the opportunities from future economic trends. This can be done by ensuring that the UK's markets are open to the benefits of trading opportunities, and sufficiently flexible to adapt, so that individuals and firms are in a position to respond. The Government also needs to ensure that all parts of the UK are able to benefit from the prosperity generated by economic development.

2. Globalisation and technological change

2.9 Globalisation and technological change are mutually reinforcing trends. Technological change allows transactions to take place across longer distances and can lead to the integration of global markets; globalisation in turn encourages the diffusion of technological advances, which itself encourages innovation.

2.10 In the short term, these trends may bring with them challenges for the UK. They have allowed shocks to spread around the global economy and have made every country more vulnerable to a global slowdown. However, in the long term, these trends will continue to create opportunities for UK firms and their workers. To exploit these opportunities, flexible markets and investment in science and skills will be necessary, so that high growth and innovative firms can respond quickly to developments. However, these opportunities will not be evenly spread across firms and sectors, and for some, the environmental and demographic trends, described later in this chapter, will be more significant.

2.11 This section examines both the drivers and results of globalisation and technological change. It examines:

- increasing demand from emerging markets;
- increasing demand for commodities in the long term;
- the impact of specialisation on trade; and
- the latest developments in technological change.

2.12 It also discusses the benefits of an open economy and some of the possible implications for different places, firms and individuals.

Increasing demand from emerging markets

2.13 Just like other markets, developing economies are currently facing serious challenges as a result of the global slowdown which will have an impact on their growth and their potential as markets for UK goods and services in the short term. However, over the longer term, the strong growth of developing economies, particularly Brazil, Russia, India, and China ('the BRICs'), is expected to continue towards 2025. There are significant uncertainties around their growth trajectory, particularly following recent developments in the world economy, but emerging markets are still likely to both increase global demand – providing opportunities for UK firms and sectors to exploit and develop new markets – and increase the competitive pressures on UK firms. This will in turn benefit the UK as a whole, as trade allows further specialisation and productivity improvements.

2.14 Economic growth is likely to lead to a dramatic increase in average per capita incomes in emerging markets. China and India's growing middle classes appear to be increasing their appetite for leisure and personal spending, demanding world-class goods and services. McKinsey

& Co forecasts that aggregate consumption in these countries will more than quadruple in real terms by 2025 to \$3,265 billion in China and \$1,521 billion in India.²

2.15 Analysis by the Department for Business, Enterprise and Regulatory Reform (BERR) shows that UK firms are already taking advantage of these opportunities. Over the last fifteen years exports to India have increased by more than 8 per cent per year, while exports to China have grown twice as fast again year on year. The composition of these exports reflects the UK's strengths in high skill manufacturing and service activities which dominate the figures.³

Other trading partners

2.16 These new opportunities will be an addition to – rather than a replacement for – the UK's traditional trading partners of the EU and US.

2.17 It is likely that there will continue to be opportunities for UK businesses in Eastern Europe and the Middle East. Trade with the Eastern European countries joining the EU has grown rapidly in recent years - the share of UK exports going to the new member states, known as the 'accession 10' (A10) increased from less than 1 per cent in 1992 to 1.5 per cent in 1999, and reached 2.25 per cent by 2005. In fact, UK exports to the A10 as a group have grown at a similar rate as those to China, and somewhat faster than those to India, and accounted for a much larger share of UK exports in 2007 than either of those economies.⁴

Commodity prices

2.18 The economic growth of developing countries, combined with rising population, is likely to increase demand from both firms and individuals for commodities, in turn influencing prices. As *Global commodities: a long term vision for stable, secure and sustainable global markets*⁵ points out, commodity prices are notoriously hard to forecast, even over relatively short periods.

2.19 However, some long term trends can be identified. The growth in emerging markets described above, combined with growth in the world's population – which is expected to rise from 6.7 billion in 2007 to 8.3 billion in 2030 - is likely to lead to growth in consumption of both food and energy. For example, the International Energy Agency projects, in a 'business as usual' scenario, that emerging markets will account for over 85 per cent of the increase in demand for global primary energy by 2030.⁶

2.20 In the long term there is the opportunity and time for supply to respond to demand. However, the *Global commodities* paper described how there are significant long term challenges constraining the responsiveness of supply in both food and energy markets. Energy security is also likely to continue to be a central challenge for the UK and a key factor in the transition to a low-carbon economy.

Specialisation and trade

2.21 The Budget 2008 document, *The UK economy: analysis of long term performance and strategic challenges*, described how technological change and the integration of global markets are encouraging further specialisation in firms. Technological progress is reducing transaction costs, diffusing knowledge, and allowing production to be divided into distinct activities. These activities can be outsourced to the most efficient sources of supply in the UK or globally. This is

² Both figures are in constant 2000 US dollars converted at market exchange rates *The Rise of the Chinese Urban Consumer*, McKinsey Global Institute, 2006; *Tracking the Growth of India's Middle Class*, McKinsey Journal, 2008.

³ China and India: Opportunities and Challenges for UK Businesses, BERR, forthcoming.

⁴ Budget 2007, Chapter B.

⁵ *Global commodities: a long term vision for stable, secure and sustainable global markets*, HM Treasury, June 2008

⁶ *World Energy Outlook 2008*, International Energy Agency, November 2008.

both driven by, and drives, the globalisation of markets. Box 2.A describes how this has influenced the development of the electronics industry. Chapter 4 outlines factors underpinning the competitiveness of the UK electronics industry and how the Government has supported it.

Box 2.A: Specialisation in the electronics industry

The UK electronics sector has seen a strong increase in productivity growth. This has been driven by companies increasingly specialising in high skill manufacturing processes and in product development, design engineering, and brand management. Such growth is heavily reliant on intellectual property rights to protect companies' reputation, investment, innovation, and creativity. By contrast, the instrument engineering sub-sector has continued to develop where technologies are bespoke, markets are niche, volumes are small, and where the technical feasibility and cost advantages of dividing up production have been weaker.

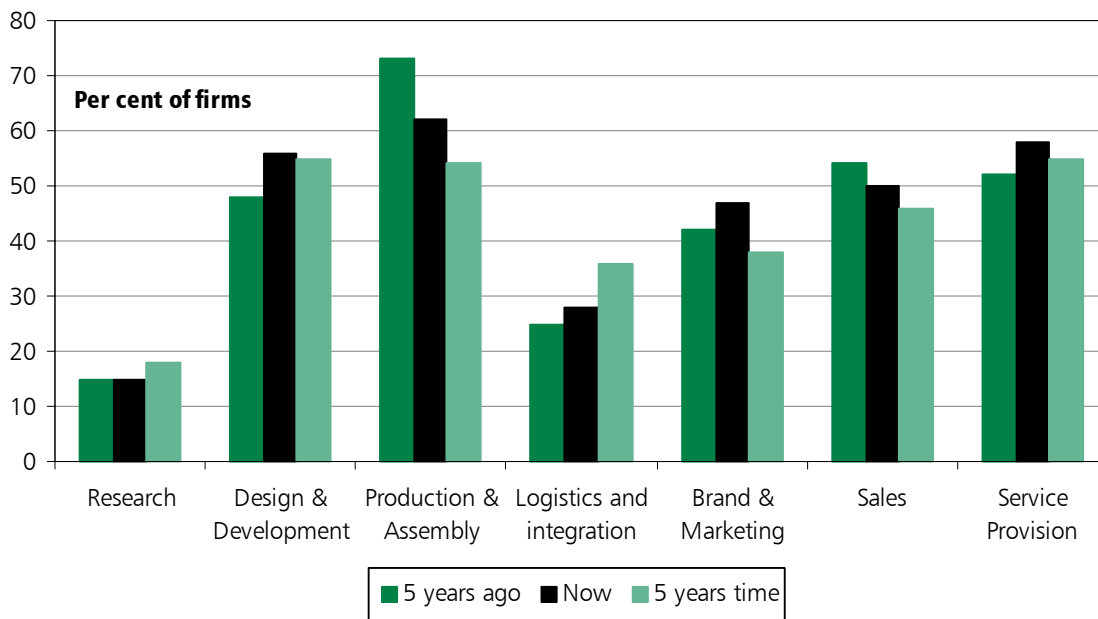
Outsourcing in electronics began in the 1980s and became widespread in the 1990s. Dividing up production is relatively advanced in electronics because intense global competition and strong demand has encouraged firms to seek a high level of cost efficiency. Activities which require low skill assembly, and some research and development, have been relocated to low cost regions. The UK electronics sector now comprises many small, niche companies with high productivity growth.

Source: Competitiveness in the UK electronics sector, DTI report, February 2005

2.22 Recent surveys conducted by the manufacturers association EEF and the CBI (Confederation of British Industry) illustrate the impact specialisation has had on UK manufacturing. The CBI survey⁷ asked firms to identify their top three sources of competitive advantage five years ago, at present, and in five years' time (see Chart 2.A). While a majority of firms still consider production and assembly to be among their prime sources of competitive advantage, other aspects such as logistics and integration, and design and development, appear to be growing in importance.

⁷ *Understanding Modern Manufacturing*, CBI, 2007.

Chart 2.A: Changing sources of competitive advantage – responses to survey identifying top three sources of competitive advantage



Source: CBI

2.23 Globalisation is particularly advanced in sectors which intensively use or supply Information and Communication Technology (ICT). The internet has provided the basis for the creation of markets of a scale and efficiency not previously possible,⁸ and this process is likely to continue. However, as yet the pace of the global relocation of activities (offshoring) has been gradual, with activities mainly moving from developed to other developed countries. The increasing geographical diversity of supply chains also emphasises the importance of securing wide geographical and sector coverage of global greenhouse gas emissions, as discussed later in this chapter, in the section on environmental change. BERR analysis suggests this has led to a shift in manufacturing from production based activities to service based activities.⁹

2.24 However, some activities are unlikely to be divided up at present because it is not feasible technically or desirable economically to do so. For example, many services require face to face contact between producer and consumer and cannot be supplied remotely. It may also not be desirable to outsource certain activities – such as product development – which are crucial to a company’s competitive advantage.

Technological change

2.25 Technological change helps to drive, and is shaped by, globalisation. This occurs through three interrelated channels: transaction costs, diffusion, and specialisation. It is impossible to predict the exact form which technological developments will take, but the rapid rate of technological change is almost certain to continue.

2.26 Transaction costs in many sectors have been significantly lowered by developments in ICT, a field in which the UK excels. Activities which require the exchange of large amounts of information, such as research and development or inventory management, can be much more

⁸ See for example *Outsourcing and offshoring of business services: how important is ICT?*, Abramovsky, L., and Griffith, R., Institute for Fiscal Studies, December 2005.

⁹ See figures 17 in *Five Dynamics of Change in Global Manufacturing, Supporting Analysis for 'Manufacturing Strategy: New Challenges, New Opportunities*, September 2008.

easily traded, leading to specialisation and economies of scale. The process of specialisation is further reinforced as technological change allows production processes to be broken into distinct activities and traded to find the most efficient supplier. This leads to the specialisation and benefits from trade which are described above.

2.27 Continuing developments in ICT also help to diffuse knowledge and new technologies, generating innovations as ideas are combined and developed. Private investment in knowledge creation in the past tended to benefit mainly local markets, partly because dissemination took place as workers moved between firms in a local area. However, evidence suggests that this local bias is reducing, and that in ICT intensive sectors it has virtually disappeared.¹⁰ This process of diffusion can also be seen in the growth of cross-border inventions. According to the OECD, cross-border inventions represented around 10 per cent of all patented inventions in 1990, and this has grown steadily to around 17 per cent in 2003.

2.28 Technological change is not, of course, restricted to ICT. Analysis by the Office of Science and Innovation (OSI)¹¹ suggests that technological change will continue across all scientific disciplines. Horizon scanning work by the OSI identified eight broad areas – known as ‘clusters’ – where technological change is likely to have an impact on wealth creation and society more generally:

- information handling & knowledge management – tools to store, process, collect, interpret, and transmit data;
- sensors and tracking – tools to enhance our knowledge of the physical world through effective monitoring of the environment, goods etc;
- network interactions – virtual and physical processes through networks;
- security – monitoring, tracking and detection tools plus understanding and identification of complex behavioural patterns to prevent, protect and profile security risks;
- advanced materials and robotics – production, distribution and logistics, use, disposal and recycling of new materials. Developments in processing, manufacturing, including robotics;
- nanotechnologies – production and use of nanoscale materials and devices. Associated developments in processing and manufacturing;
- body and mind sciences – tools to understand, repair, and enhance physical, mental, and behavioural capabilities; and
- energy – technologies to meet society’s energy and environmental needs.

2.29 The Government has a key role to play in maintaining the world class standard of the UK’s science base and higher education institutions, and framing the public debate about the impact of technological change. As Chapter 3 describes, the Government must enable the development of infrastructure – for example, Next Generation Broadband – and invest in the skills base – for example in science, technology, engineering, and mathematics – to fully utilise the opportunities from technological change. Chapter 4 describes how the Government has also implemented policies which have supported high technology sectors such as pharmaceuticals, and needs to understand how future policies affect such sectors.

¹⁰ Jaffe, A., Henderson, R., and Trajtenberg, M., *Patent citations and the geography of knowledge spillovers: A re-assessment – Comment*, American Economic Review 95(1), pp.461-464, 2005.

¹¹ Additional information on OSI horizon scans can be found on OSI website <http://www.foresight.gov.uk>

Implications of globalisation and technological change

Benefits of an open economy

2.30 Work by the OECD suggests that a 10 percentage point increase in trade openness translates into an increase of around 4 per cent in per capita income.¹² Although such estimates should be treated with caution, they do indicate the potential positive effect of openness on an economy. The UK's policy of openness to trade and investment has enabled it to benefit from growing economic interdependence.¹³

2.31 Although the benefits of openness are widely recognised, there are two reasons why the risks also have to be managed for the benefits to be realised. First, as described in the discussion of global uncertainty above, the interdependence of markets leaves an economy vulnerable to the rapid transition of shocks of the type we have seen over the last year. The increase in economic interdependence has often made greater protectionism superficially attractive, as countries seek to protect their own industries from competitive pressure or economic shocks. Second, if skills and infrastructure do not adapt to shifts in relative strengths and movements in sectors, then individuals, firms, and place will be unable to exploit the full benefits of trade.

2.32 Increases in protectionism, restricting the flows of goods, services, people, capital, and ideas are more likely to stifle than promote a strong economy. Insulating firms from global competition, and the innovative development which such competition brings, raises the price of both imports and domestic products, restricts consumer choice, and reduces the effectiveness of the key drivers of productivity. Protectionism limits the diffusion of technology and other innovations, reducing spillover benefits, and prevents firms from fully exploiting production opportunities. Protectionist policies might, therefore, be popular in the face of short-term instability, but are likely to inhibit growth and prosperity in the longer term.

Increased global competition

2.33 The growth of the emerging markets, described above, has occurred mainly in low skilled and labour intensive activities, increasing competition in these areas. However, emerging markets have at the same time been investing strongly in the skills of their workforces. Since the 1990s government spending on education has been growing at 12 per cent per year in India and 16 per cent per year in China. Around a fifth of this spending goes to higher education.¹⁴

2.34 Combined with the spread of technological change, a higher skilled workforce means that firms from emerging economies are also exploiting the benefits of trade, and in some activities are likely to continue to move into direct competition with UK firms. UK firms need to respond to this challenge through innovation and further productivity improvements.

Implications for firms

2.35 Individual firms therefore face both opportunities and challenges from the opening of markets and the technological trends:

- on the supply side, larger markets mean that competition will be increased as a larger number of firms from across different countries compete with UK firms. Competition is likely to be particularly intense in low skill activities. Firms will therefore need to be able to innovate rapidly, both to reduce costs in existing markets, and to create new products and open up new markets; and

¹² *The Sources of Economic Growth in OECD Countries*, OECD, 2003.

¹³ See also *Economic Survey of the United Kingdom, 2007*, OECD, September 2007.

¹⁴ *China and India: Opportunities and Challenges for UK Businesses*, BERR, forthcoming.

- on the demand side, the opening of markets means larger groups of consumers, and in particular a growth in the middle classes of BRIC countries, which UK firms can respond to. Diversifying exports across international markets can allow firms to increase the resilience of their revenues by reducing their dependence on a narrow customer base.

2.36 The OECD has identified four principal barriers to firms exploiting international markets. These are a shortage of working capital to finance exports, difficulty in identifying foreign business opportunities, limited information to locate or analyse markets, and inability to contact potential overseas customers.¹⁵ UK Trade and Investment provides services which either directly address these barriers or give access to training and other sources of information.

2.37 The environment for Small and Medium-Sized Enterprises (SMEs) is challenging at the moment, but BERR analysis suggests that increased globalisation could lead to more high growth SMEs.¹⁶ These firms contribute significantly to employment and productivity growth. In a competitive, consumer-driven business environment, SMEs often have highly advantageous characteristics. As specialist suppliers to niche markets, they may have an entrepreneurial culture of constant improvisations of technology and components to suit the needs of customers. They are able to identify opportunities from specialisation at many points in a divided production chain and so innovate and improve productivity. Large businesses try to emulate these characteristics, so partnerships between SMEs and large businesses could be mutually beneficial.

2.38 To grasp both international and domestic opportunities firms are going to need to be able to respond flexibly. On the world stage they will need to respond to changes in relative strengths, which are determined both by the UK's characteristics and by the characteristics of other trading partners. At a domestic level they will need to respond to shifting consumer demands and new technologies. Key to this flexibility is that firms are able to exploit innovations and access a skilled workforce, and that the Government works closely with industry sectors to overcome barriers to growth that are sector specific. Chapter 4 sets out the framework for engagement with industry sectors.

Exploiting innovation

2.39 As the global economy becomes more competitive and technological change accelerates, there will be increasing rewards for innovation, and knowledge-driven sectors will grow in importance. Success in these areas will require firms to invest in knowledge-intensive activities such as research and development (R&D), new ways of organising the production of goods and services, and access to a skilled and flexible labour force, by building human and organisational capital and other intangible assets¹⁷.

2.40 The mode in which innovation happens is constantly evolving, driven by ongoing specialisation and technological change. Some firms are moving away from generating and developing ideas completely in house, and are instead relying heavily on intellectual property transactions such as licensing. Chapter 3 sets out how the Government will ensure science and innovation policy is responsive to these trends, and create conditions in which UK businesses can start-up, innovate, and grow in order to remain competitive and exploit the opportunities of ongoing globalisation.

¹⁵ *Removing Barriers to SME Access to International Markets*, OECD-APEC, 2006.

¹⁶ *High Growth Firms in the UK: lessons from an analysis of comparative UK performance*, BERR Economics Paper No 3, Forthcoming.

¹⁷ *Intangible investment and Britain's productivity*: Treasury Economic Working Paper No. 1, HMT, October 2007.

A skilled workforce

2.41 Individuals will need the skills to meet and respond to the demands of firms. Knowledge-intensive service sectors now account for over 40 per cent of employment in Britain, higher than in France, Germany, Italy, and Spain.¹⁸ Stronger management and leadership skills are also necessary to manage resources effectively as well as to exploit the new opportunities created by dividing up the production process.

2.42 Evidence also suggests that globalisation and the speed of technological change are translating into the content of jobs changing more than their duration. Multi-tasking and teamwork have transformed the content of many jobs and most of this change has occurred within workplaces rather than taking the form of movement between workplaces. A flexible labour market is also an important mechanism for ensuring that people are able to join growing sectors of the economy and fully utilise their skills.

2.43 The Government supplies basic skills as a platform to build upon and support lifelong learning. Chapter 3 outlines steps the Government is taking to ensure there is a demand-led skills system that is responsive to the skill needs of individuals, firms and the wider economy.

Regional and city impacts

2.44 Specialisation of activities and changing production trends will have particular impacts at a local level. Since the industrial revolution, regions, cities, and towns have specialised in particular sectors – for example, Sheffield in the steel industry or Manchester as the nineteenth century centre of the world’s cotton trade.

Box 2.B: Agglomeration

Firms and individuals benefit from the positive spillovers of agglomeration, which leads to higher productivity and employment. Economies of agglomeration come in two forms:

- **economies of urbanisation** are the benefits to individual households or firms selling direct to consumers resulting from the agglomeration of populations or to firms benefiting from the access to a general labour force; and
- **economies of localisation** are effects captured by particular sectors of the economy as they grow within an area. In doing so they create linkages with suppliers and the market which can result in lower costs and create greater output. When transportation costs are significant, users of the outputs of an industry may benefit from a nearby location to save on these costs.

As firms and people cluster they can realise increasing returns to scale from the accumulation of knowledge and the flow of new and innovative ideas between firms and individuals. This is why agglomeration favours highly urbanised environments and may lead to specialisation, create skilled labour pools which more efficiently match workers and firms, and lower costs through proximity.

2.45 This process has taken place because the agglomeration of firms allows them to share innovations and draw from a pool of skilled labour. Firms benefit from locating in close proximity to each other and from access to high density of labour and consumers. Box 2.B sets out the academic evidence on why cities attract firms. However, agglomeration effects can also bring costs – for example, in congestion, higher rents and risks of rising inequality.

¹⁸ Eurostat: Community Labour Force Survey.

2.46 Regional and city responses are crucial in addressing current economic challenges. As Chapter 4 describes, the Government is setting out the role of the Regional Development Agencies (RDAs) in supporting regional economies.

2.47 By shaping the infrastructure and workforces of regions, cities, and localities, specialisation has led to ‘path dependencies’ – where past decisions, or historical accidents, have important implications for the nature of subsequent economic development. Such path dependencies can bring great prosperity to a city when they create a critical mass of firms and knowledge, giving advantages over other cities.

2.48 The infrastructure and workforce of cities need to adjust as sectors decline and new market trends emerge. Adjustment allows specialisation to take place and the opportunities from global trade and other trends, such as the transition to a low-carbon economy (set out below), to be exploited. Cities that do not adjust are likely to become reliant on declining sectors and falling productivity. Chapter 4 outlines how the Government will help regions, local areas and cities to build on existing strengths, and specialise in higher-value products and services.

3. Environmental change

2.49 The Government views the natural environment as an indispensable factor underpinning long term economic prosperity. Environmental pressures – and the measures taken to deal with these – will be significant in shaping both global and the UK’s economic prosperity. Policy responses will be required, from managing water resources and preserving biodiversity to achieving lower stabilisation levels in greenhouse gases and avoiding dangerous impacts from climate change.¹⁹

2.50 The Stern Review²⁰ found that stabilising greenhouse gas concentrations at levels low enough to avoid the worst impacts of climate change will require urgent and substantial reductions in global emissions. The Review concluded that the costs of delivering the necessary reductions in emissions levels are significant but manageable, but delay would have significant environmental and cost implications.

2.51 The next section sets out the impact of environmental change on the economy, including

- the impacts of global climate change on the UK economy;
- the impact of the steps the UK will take to meet its environmental goals; and
- the opportunities from the transition to a cost-effective low-carbon economy.

Impacts on the UK

2.52 Although the direct effects of climate change on the UK over the next decade are not projected to be as significant as changes later in the century, effective action taken now could reduce costs in the future. In particular, infrastructure needs to be resilient to changes in the climate. There are also likely to be indirect effects on the UK from climate change elsewhere in the world. Developing countries are particularly vulnerable to the impacts of climate change – by the 2020s, yields from rain-fed agriculture in some African countries could fall by up to 50 per cent.²¹ The potential consequences of these changes could include higher food and energy prices, greater migration pressures and a greater risk of regional conflict.

¹⁹ IPCC, Fourth Assessment Report (AR4), 2007.

²⁰ *The Economics of Climate Change: The Stern Review*, Cambridge University Press, 2007.

²¹ *Ensuring the UK’s food security in a changing world*, DEFRA, July 2008.

The UK's environmental goals

2.53 The UK has ambitious environmental goals ranging from the measures taken to tackle climate change to forthcoming legislation for the marine environment and a recently announced Ecosystems Assessment for England. The Government is committed to the UK's role as a leader in the global drive to avoid dangerous climate change and to making the UK a low-carbon economy. Action is being taken at internal, EU and domestic UK levels.

International framework

2.54 An international agreement to reduce greenhouse gas emissions is already in place through the UN Framework Convention on Climate Change, within which all governments work together to achieve global emission reductions. Under the Kyoto Protocol, which came into force in February 2005, most of the world's industrialised countries have agreed to limit their total emissions of six greenhouse gases over the period 2008-2012 relative to a 1990 baseline. Overall, this should lead to emissions in these countries being around 5 per cent lower than they were in 1990.

2.55 The UK is now working with its international partners towards agreeing a realistic, robust, durable and fair framework to follow the first Kyoto commitment period at the end of 2012. To reduce the costs of tackling climate change, the international community must agree and deliver a long term plan to reduce emissions – including a long term goal for global reductions – based on the science and its economic implications. At the 2009 United Nations Framework Convention on Climate Change conference in Copenhagen, the UK will be seeking to agree a reduction in global emissions of at least 50 per cent below 1990 levels by 2050, with emissions to peak by 2020.

EU framework

2.56 In 2007, the EU Heads of State and Government agreed to a 20 per cent reduction in greenhouse gas emissions from 1990 levels by 2020, rising to a 30 per cent reduction as part of a wider international climate change deal. The UK is playing a key role in negotiating the elements of this package:

- developing the next stage of the EU Emissions Trading Scheme, including setting a tighter cap and downward trajectory for emissions from power generation, industrial and other installations; and
- the Renewable Energy Directive which legislates for a target for 20 per cent of final energy consumption across the EU to come from renewable energy sources.

UK domestic framework

2.57 The Climate Change Bill, currently before Parliament, will make the UK the first country to set a long term legal framework for reducing emissions, setting a target of reducing greenhouse gas emissions by at least 80 per cent by 2050. The Bill will introduce five year carbon budgets, setting binding limits on domestic emissions and ensuring the trajectory towards these targets is clear.

2.58 Chapter 4 describes the policy framework the Government is putting in place to actively encourage investment in the low-carbon economy, and to build a domestic industry to supply the global market for low carbon goods and services. The 2008 Pre-Budget Report also describes the key emission reduction policies in place or under development, and their contribution to achieving the UK's goals.

Macroeconomic impacts

2.59 Reducing the carbon intensity of the UK economy will require a move towards cleaner energy sources, greater energy efficiency and more careful energy usage. A range of studies has been undertaken to estimate the macroeconomic costs of medium (2020) and long (2050) term greenhouse gas reduction targets. The EU Commission's modelling for the extensive impact assessment of their proposed Climate and Energy package estimated that, relative to 'business as usual', the macroeconomic costs for the UK of meeting a 20 per cent reduction in greenhouse gas emissions in 2020 would be a 0.4 per cent reduction in the level of GDP.²²

2.60 In providing advice to Government on the level of the 2050 emissions reduction target within the Climate Change Bill, the Committee on Climate Change assessed the long term costs to the UK of reducing greenhouse gas emissions by 80 per cent relative to 1990 levels by 2050. The Committee estimated these costs to be between one to two per cent of GDP in 2050 if policy design and implementation is effective – a level the Government believes is acceptable, given the potential consequences and huge costs of inaction.

The implications and opportunities of a low-carbon economy

Infrastructure

2.61 It is clear that significant investment in the UK's electricity networks, together with changes to existing access arrangements, will be needed in order to connect new renewable and other low-carbon and conventional generation. Chapter 3 sets out how infrastructure needs will be met.

2.62 Further decarbonisation of the energy supply through technologies such as Carbon Capture and Storage (CCS) would also require new infrastructure – in this case the development of pipeline networks for the transportation of carbon dioxide and offshore storage infrastructure.

2.63 The infrastructure being put in place in the next decade will need to be resilient to changes in environmental conditions in the longer term, such as increasing temperatures, the increased likelihood of events such as flooding or heatwaves and rising sea levels. The extent of the adaptation required will vary across the UK.

2.64 Each locality will need to be alive to the specific environmental challenges that they face. Different sectors are becoming increasingly interdependent, and so the failure of one asset can cause the failure of wider systems. For example, the Pitt review into the events of 2007 concluded that vulnerability to flooding could have cascading impacts on the delivery of essential services.²³

2.65 Urban areas, which generally have high resource and energy consumption and transport intensity, face a particular challenge. Planners will need to continue to investigate innovative designs for housing and mixed-use developments, and the concentration of development in locations accessible by public transport.

Impact on high carbon industries

2.66 All firms will need to respond to a low-carbon economy by increasing energy efficiency and considering other ways of abating emissions. For more than 90 per cent of UK manufacturing activities, the Carbon Trust has found that the EU Emissions Trading Scheme and other carbon

²² *Package of Implementation measures for the EU's objectives on climate change and renewable energy for 2020, Impact Assessment*, Commission of the European Communities, January 2008.

²³ *Learning Lessons from the 2007 Floods*, The Pitt Review, June 2008.

control measures expected up to 2020 will have negligible impact on international competitiveness.²⁴

2.67 However, the potential exposure of different industries to changes in the cost of EU carbon allowances varies widely.²⁵ It will be important to guard against the risk of 'carbon leakage', where industries move or relocate investment outside the EU to an area without similar carbon constraints, as a result of the cost of carbon.

2.68 Evidence suggests carbon leakage in the short-term would be limited.²⁶ However, in the longer term, the best solution is a comprehensive international deal on climate change. In addition, carbon pricing will increasingly make low-carbon technologies more cost effective, encouraging innovation by manufacturers. Nevertheless, in the absence of an agreement, action will be needed.

Increased global demand for low-carbon goods and services

2.69 The global drive for greenhouse gas reductions, and rising global commodity prices, are already causing a rise in the global demand for low-carbon goods and services. The responsiveness of this sector in the UK means that UK firms are well placed to compete. The UK is a net exporter of environmental goods and services, with an estimated €1.5bn of exports and €1bn of imports in 2004. Emerging findings from a recent study estimate that currently around 350,000 people are directly employed in low-carbon goods and services (including energy efficiency).²⁷

2.70 The Commission on Environmental Markets and Economic Performance (CEMEP) examined the future possibilities for this sector and reported in November 2007.²⁸ It highlighted that the overall added value in the low-carbon energy industry could be at least \$3 trillion per year worldwide by 2050 and that it could employ more than 25 million people. The UK is well placed to harness opportunities for more and better jobs in the growing global market for environmental technologies.

2.71 The Government's response to CEMEP, *Building a low carbon economy: unlocking innovation and skills*, sets an ambition to make the UK one of the best locations in the world to develop and introduce low-carbon and resource efficient products, processes, services and business models.²⁹ There are products and services in which the UK is, or can become, a market leader. Further growth in demand represents a major opportunity for the UK. To realise the opportunities available, the UK will need a suitable skill and infrastructure base and conditions conducive to innovation. Chapter 4 sets out how the Government will support the shift to a low carbon economy and help build a domestic market for low carbon products and services, thus providing the opportunity for better jobs to allow greater upward social mobility.

4. Demographic change

2.72 The Office for National Statistics (ONS) projects that the UK population will exceed 70 million by 2030. The proportion of the UK population aged over 65 is projected to increase from 16 per cent in 2006 to 22 per cent in 2030.³⁰

²⁴ *EU ETS impacts on profitability and trade: a sector by sector analysis*, Carbon Trust, January 2008.

²⁵ *Differentiation And Dynamics Of EU ETS Industrial Competitiveness Impacts: Final Report*, Climate Strategies, 2007.

²⁶ *EU ETS impacts on profitability and trade: a sector by sector analysis*, Carbon Trust, January 2008.

²⁷ Emerging findings from research commissioned by BERR and produced by Innovas and K-matrix, 2008.

²⁸ *Report of the Commission on Environmental Markets and Economic Performance*, November 2007.

²⁹ *Building a low carbon economy, unlocking innovation and skills*, HM Government, May 2008.

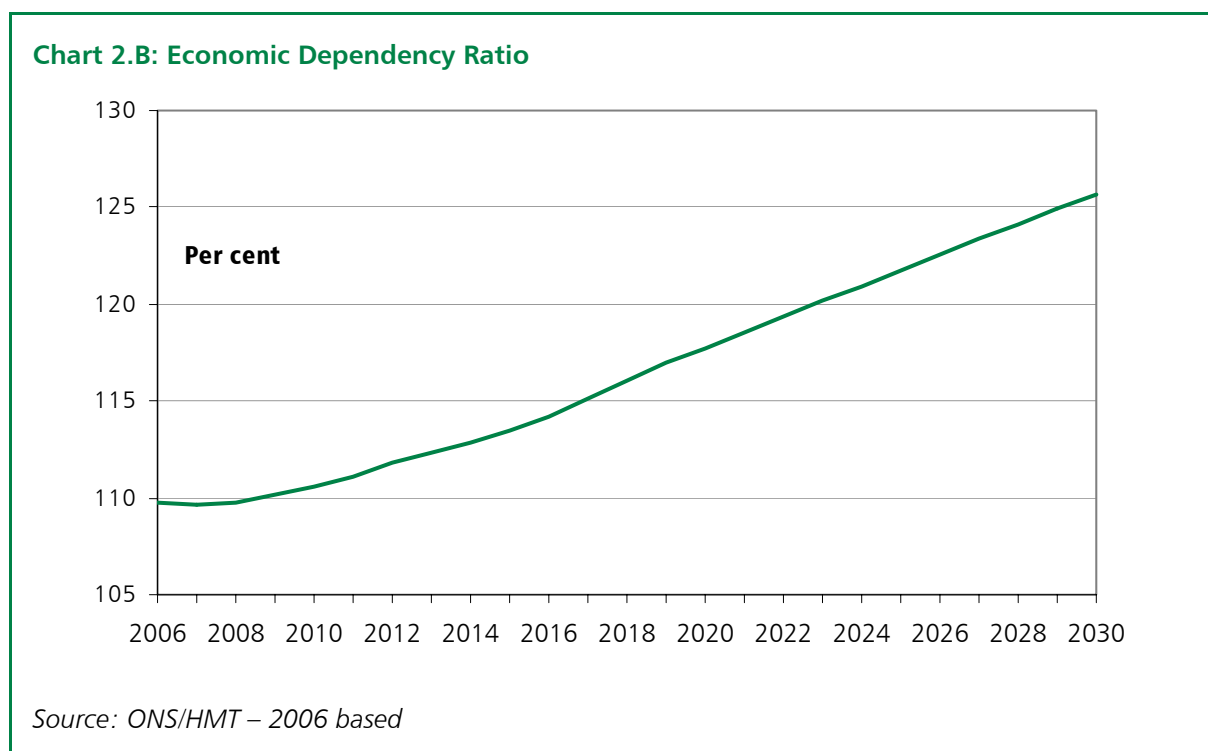
³⁰ 2006-based and earlier population projections can be found at <http://www.gad.gov.uk/Demography%5FData/Population/Index.asp>.

2.73 Population growth will interact with environmental change, increasing pressure on resources such as water and land. This section sets out the trends and impact of demographic change including:

- an ageing workforce and dependency ratios;
- the effects of migration; and
- patterns of population growth across regions and cities.

An ageing workforce and dependency ratios

2.74 As the population ages, so the economic dependency ratio – the ratio of workers to non-workers in the UK³¹ – is forecast to rise, with 100 workers supporting 126 non-workers by 2030 on the principal projection (see Chart 2.B). Productivity growth in the UK then takes on even more importance because the production of any single worker has to increase the living standard not only of that worker but also of a greater number of non-workers. It also emphasises the need to ensure that the highest possible proportion of workers are employed. The Government has a long term aspiration of an employment rate equivalent to 80 per cent of the working age population³² and the most recent part of its strategy to achieve this was set out in *No one written off: reforming welfare to reward responsibility*³³.



Migration

2.75 An open economy which allows properly managed migration is vital to prosperity. The UK benefits from the increased mobility of people in the same way that it benefits from free trade, as migration allows the benefits of trade to be extended to sectors producing goods or services which are not inherently transportable. Migrants bring skills which complement those of UK workers, and encourage innovation as UK workers and businesses learn from the exchange of

³¹ A higher economic dependency ratio means that each individual worker is having to support a larger number of non-workers (people of non-school ages, working age but not in work or people in retirement).

³² See *A New Deal for Welfare: Empowering people to work*, Department for Work and Pensions, 2006.

³³ *No one written off: Reforming welfare to reward responsibility*, Department for Work and Pensions, 2008.

ideas and experiences with immigrant workers. In the short term, migrants also help to lower the economic dependency ratio because most are of working age.³⁴

2.76 Migration can also support growth in GDP per head by allowing employers greater choice in a wider labour market, improving the match between vacancies and available labour, and enhancing the labour market's ability to respond quickly to capacity constraints.

2.77 However, to ensure that these economic benefits are realised, migration needs to be carefully managed. The UK therefore launched a new points-based system for migration in February 2008. This will enable migration to be controlled more effectively, tackle abuse and identify the most talented workers, while creating a fair, transparent and more effective system.³⁵

Patterns of population growth in regions and cities

2.78 Since Budget 2008, 2006-based population projections have been published for regions and local authorities in England.³⁶ These project widely different population growth across different cities and regions (Table 2.A).

2.79 Regionally, the East Midlands is forecast to grow by around 25 per cent, the highest of the nine regions. The North East is projected to grow least at under 10 per cent for the same period. At the local level, the population of Bristol is projected to grow by nearly a third and the population of Leeds by a quarter between 2006 and 2031, while the population of Liverpool is projected to remain relatively similar in size.

Table 2.A: Population projections by region

	2006 (millions)	2031 (millions)	Increase (millions)	Percentage Increase
East Midlands	4.36	5.49	1.13	25.8
East	5.61	7.00	1.40	24.8
South West	5.12	6.37	1.25	24.4
Yorkshire and The Humber	5.14	6.32	1.18	22.9
South East	8.24	9.81	1.58	19.1
London	7.51	8.86	1.35	17.9
West Midlands	5.37	6.11	0.75	13.9
North West	6.85	7.70	0.84	12.3
North East	2.56	2.77	0.21	8.3

Source: ONS 2006-based projections³⁷

The implications of demographic change

Infrastructure and housing for a larger population

2.80 Places with growing populations are likely to experience greater economic growth due to a larger labour pool and a bigger market. However, they can also face growing congestion and

³⁴ In the long term, the impact depends on whether the migrants remain in the UK beyond working age or migrate to other countries.

³⁵ *A Points-Based System: Making Migration Work for Britain*, Home Office, March 2006.

³⁶ Sub national population projections for England can be found at: <http://www.statistics.gov.uk/statbase/Product.asp?vlnk=997>.

³⁷ The projections in Table 2.A are based on recent trends in fertility, mortality and migration rather than analysis of future economic trends which might affect internal (within UK) migration, and therefore need to be treated with caution.

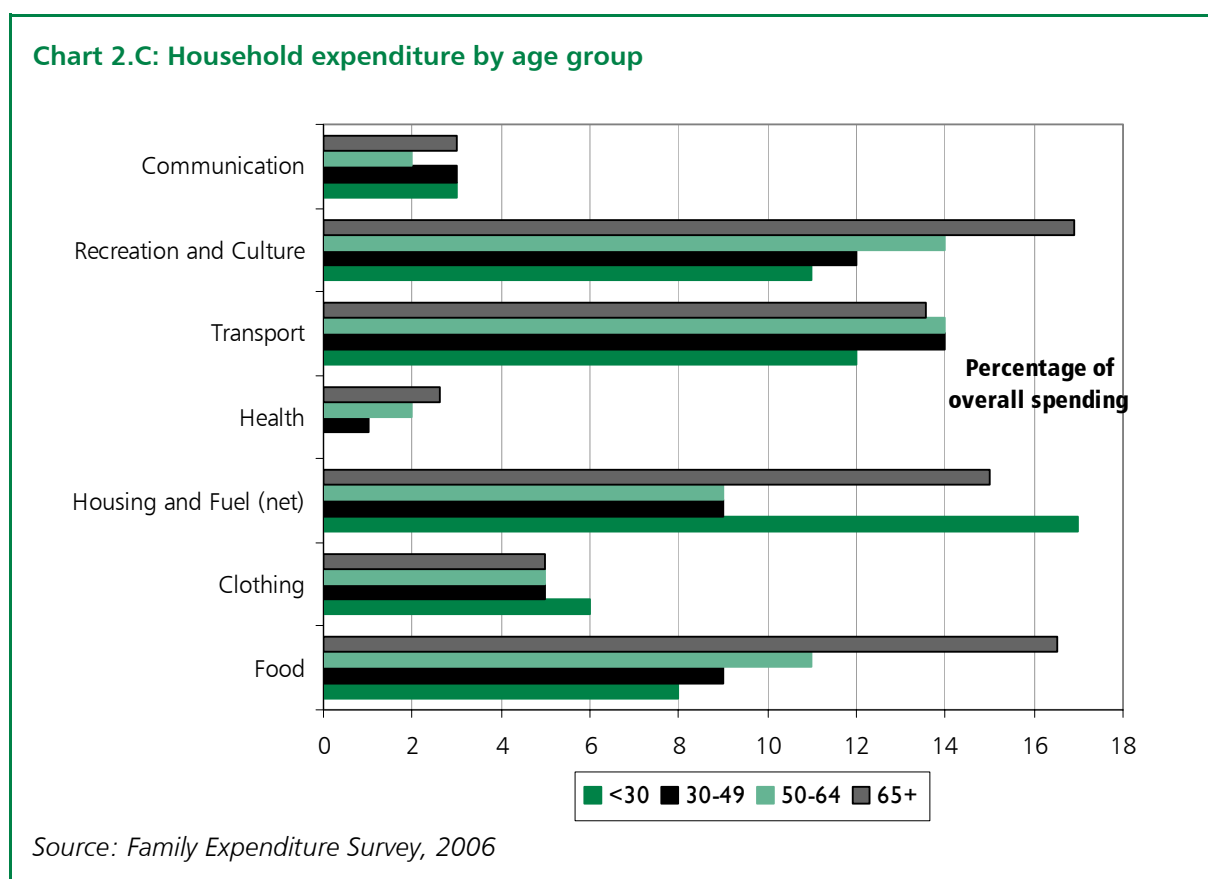
rising inequality. City authorities therefore need to understand their population dynamics and how they link with wider regional populations. Cities experiencing slower growth may benefit from fostering linkages with nearby faster growing cities, in order to develop synergies.

2.81 The Eddington Review also concluded that, while the basic connectivity of the UK transport network is good, congestion and unreliability at certain places at certain times of the day constrain economic growth.³⁸ Eddington therefore recommended that the focus should be on improving the performance of existing networks rather than building new ones.

2.82 An increase in housing supply is also necessary to address demographic change and improve affordability. Although current market conditions are challenging, the Government remains committed to addressing the long term problems of affordability and inadequate housing supply. The 2008 Pre-Budget Report sets out how the Government is responding to short-term market conditions.

2.83 As well as requiring a Government response, the challenges of population growth provide opportunities for firms that can develop innovative solutions in sectors such as housing, waste management and distribution of natural resources.

Implications for firms



2.84 Demographic change is likely to provide opportunities for the emergence of new sectors. Firms will need to take account of these demographic changes both in the composition of their workforce and in their consumer base. It is impossible to predict future demand for goods and services, particularly over long periods. However, current household expenditure by age group may provide some guide to the sectors in which demand is likely to grow (see Chart 2.C). Although expenditure by the groups expected to grow – those 65 years and older - follows a

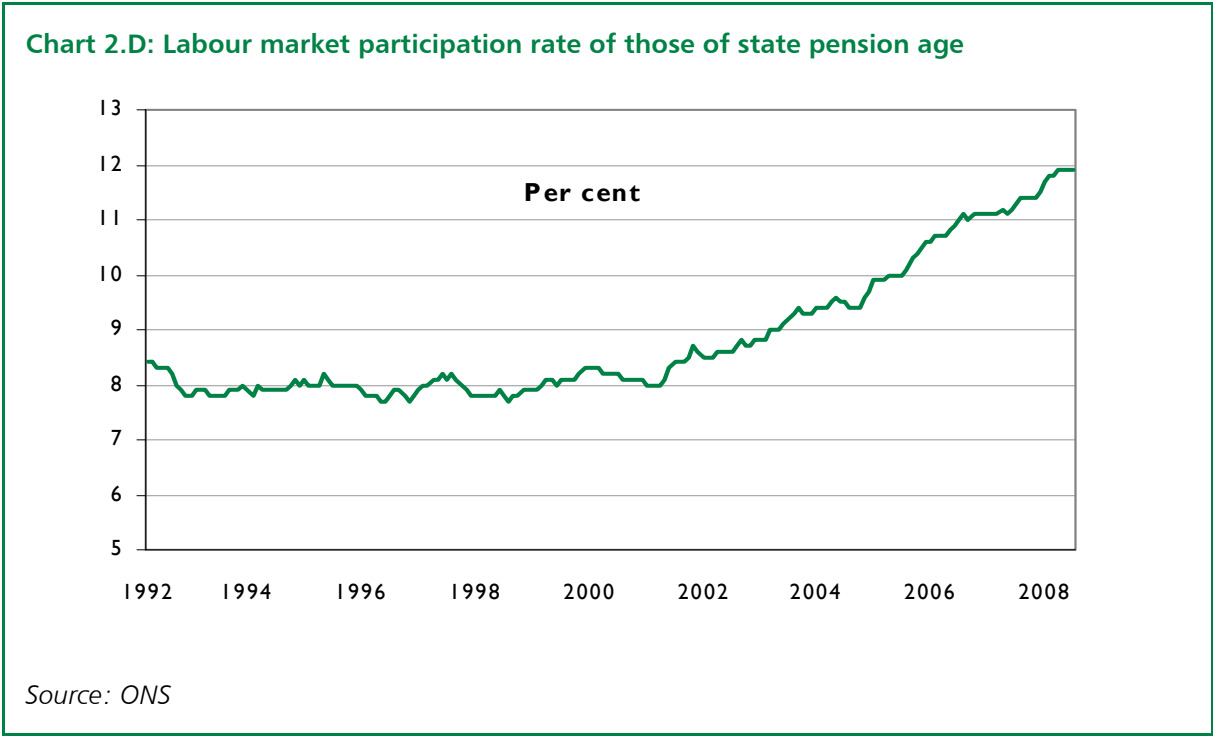
³⁸ The Eddington Transport Study, Sir Rod Eddington, December 2006.

similar pattern to other age groups, they do spend a higher proportion of their expenditure on food, health, and recreation and culture.

2.85 Research also suggests that increasingly older people will seek independent living and care within their homes and indications suggest a 33 per cent increase in private home care demand by 2020.³⁹ This may in part be driven by the increase in home ownership by older people. In 2001, 68 per cent of older people owned their own home and this is expected to rise to 75 per cent by 2026. Housing supply will need to respond to this potential growth sector.⁴⁰

Implications for individuals

2.86 These demographic trends indicate that individuals are more likely to remain in the workforce after state pension age in order to prepare for a longer retirement. In fact, the labour market participation of those of state pension age is already increasing (see Chart 2.D).



2.87 These trends also have implications for individual skill needs and for the firms which employ them. Workers are likely to have longer working lives, reinforcing the importance of life-long learning to adapt to the developments in the global economy described above. Over 75 per cent of the workforce of 2020 is already in work and outside of compulsory education today. The increasing number of students in Higher Education will also take a growing proportion of young people out of full-time employment. Support therefore needs to be given to both those currently inactive, to encourage greater labour market participation, as well as to those already searching for work to move into gainful employment.

³⁹ *Projections of demand for residential care for older people in England in 2020*, Personal Social Services Research Unit, University of Kent, December 2001.

⁴⁰ *Anchor 2020: meeting the challenges of older people's housing and care*, Anchor Trust, 2008.

5. Interaction of trends

2.88 The trends described in this chapter – of globalisation and technological change, environmental change and demographic change – will provide long term opportunities for the UK economy and challenges which need to be met.

2.89 The UK's firms – the drivers of prosperity – are likely to face more competitive markets internationally and have to adapt as the UK continues to develop a low-carbon economy. Those competitive and growing international markets will mean that the UK's relative strengths will continue to change, driving the growth and decline of sectors. The UK will need to build on its existing strengths to capture future market opportunities, with cities and regions developing their infrastructure and skills bases to exploit new opportunities.

2.90 There will be opportunities for firms from growing markets and in particular sectors, for example in low-carbon technology. These trends will open up opportunities in high value markets and help drive the creation of more higher value jobs, which will allow increased upward social mobility. However, to capture them firms will need to be able to draw on a skilled workforce and new sources of labour. Individual workers will need to develop their skills throughout their working lives so that they can adapt to the changing needs of firms and resulting growth and decline of sectors. This will be reinforced by the need to increase labour supply and productivity as the age profile of the population becomes older and workers need to support a larger number of dependents.

2.91 There are, of course, uncertainties around these trends and their opportunities can only be fully realised in an open world economy which avoids the risks of protectionism and maintains the flow of goods, services, capital, people and ideas.

2.92 Across the world there is an increasing consensus that Governments can and should play an active role in the development of their economy. To ensure economic flexibility, the Government's policy framework and responses need to be robust to a wide range of scenarios. The Government cannot prescribe how the economy should respond, but needs to help individuals, firms and cities and regions to become more competitive, more flexible and more able to deliver prosperity. This help will include ensuring that the outcomes of key Government programmes, both in infrastructure and in human capital, are protected during an economic downturn, to ensure that future prosperity is not harmed. It also needs to work closely with industry sectors to overcome barriers to growth which are sector-specific and tailor policy responses to boost competitiveness.

2.93 In order to grasp the opportunities for the UK economy resulting from these trends, the UK will need to build on its existing strengths to capture future market opportunities and further develop higher-value products and services. Part 2 sets out how Government policies are creating flexibility in the UK economy, and how the Government will engage with industry sectors to remove sector-specific barriers to growth, and introduce reforms to give city-regions the levers to make the most of growth opportunities at the local level.

2.94 As the UK's prosperity increases, so will the number of higher-value jobs in the UK. This will create more 'room at the top', and so allow for more upwards social mobility. The Government is committed to ensuring not only that these higher-value jobs are created, but also everyone has a fairer chance to get those jobs. The Government will therefore shortly be publishing a White Paper on Social Mobility setting out how it will ensure fairer chances, so that everyone is able to realise their potential and to compete effectively in a global economy.

B Responding to challenges and opportunities

B.1 Part A identified the main trends that are likely to face the UK economy over the coming decade. It explained how, as the world becomes ever more connected and interdependent, as populations age and as the countries of the world work together to tackle climate change, so there will be new and different opportunities for Britain to prosper. There will also be new challenges and threats to economic growth. The pace of change, both in opportunities and in challenges, will continue to accelerate.

B.2 Part B sets out the Government's response to this changing world and comprises two chapters. Chapter 3 shows that since 1997, the priority for Government investment has been to tackle the backlog of under-investment in the country's infrastructure, its skills and science base to drive forward the productivity of the UK. Looking forward, the Government will ensure that the outcomes of the programmes crucial for long term growth are protected during economic slowdown, whilst ensuring value for money.

B.3 In Chapter 4 the approach is developed further to consider the sectoral and geographic perspective to the policy response. Government policy should continue to drive for greater levels of productivity in the whole economy. However, in doing so, Government needs to recognise that those business activities and sectors that have the most potential to grow in an increasingly competitive global market place are those in which the UK has particular relative strengths. In addition, the drivers of growth at a local level are specific to local circumstances. This is particularly the case for clusters of growth, for example in cities and city-regions, and Government policy needs to ensure that city-regions have the levers to make the most of their opportunities.

Providing macroeconomic stability

B.4 The Government's long term goal is to secure and maintain macroeconomic stability in order to promote a strong economy and achieve its objective of a fair society where there is security and prosperity for all. International experts such as the IMF have recognised the role that the macroeconomic framework has played in supporting strong and stable economic performance over the past decade, providing a strong foundation from which the UK economy can respond to global challenges.

Box B.1: The UK macroeconomic framework

The Government's macroeconomic framework, introduced in 1997, is designed to achieve and maintain economic stability:

- the monetary policy framework seeks to ensure low and stable inflation;
- the fiscal policy framework seeks to maintain sound public finances over the medium term, while allowing fiscal policy to help smooth the path of the economy over the short-term; and
- the public spending framework facilitates long term planning, helps protect public investment and incentivises departments to increase the quality and cost-effectiveness of public services.

B.5 Box B.2 outlines the UK's framework for financial stability, which was established in 1997 and updated in 2006.

B.6 The Government has committed to further review these arrangements once the current financial instability has subsided, so that lessons learned in recent months are fully reflected in the arrangements. Chapter 3 of the 2008 Pre-Budget Report includes further information on the Government's responses to ongoing financial instability.

Box B.2: The UK financial stability framework

The current UK framework for financial stability was established in 1997, with the introduction of a Memorandum of Understanding (MoU) between HM Treasury, the Bank of England and the FSA (the 'Authorities'). The division of responsibilities between the authorities is based on four guiding principles: clear accountability; transparency; avoidance of duplication; and regular information exchange. The main responsibilities of the different Authorities are:

- HM Treasury is responsible for the overall institutional structure of financial regulation and the legislation which, governs it;
- the FSA carries out the authorisation and prudential supervision of financial institutions and financial markets; and
- the Bank of England contributes towards the maintenance of the stability of the financial system as a whole, in particular by addressing fluctuations in liquidity.

3

Investing in the UK's future

3.1 This chapter shows how Government has tackled the historic under-investment and increased spending to promote productivity and maintain an attractive business environment. It demonstrates how Government will protect the outcomes of key programmes that are crucial to promote economic growth during economic slowdown, while ensuring value for money.

Tackling the backlog of under-investment

3.2 Over the past decade, the Government has tackled the historic backlog of under-investment to help prepare Britain for the challenges of the future. This includes investment in infrastructure, such as transport assets, and in human capital such as skills, science, and enterprise. This has been delivered in part by direct investment by Government, but also by encouraging investment from the private sector, more generally by creating a stable macroeconomic platform for investment decisions, but also specifically through incentives (including through the tax system), regulation and public private partnerships and the Private Finance Initiative.

3.3 Public sector net investment increased from 0.5 per cent of GDP in 1997-98 to 2.5 per cent of GDP in 2008-09 (£36.6 billion), putting in place some of the vital infrastructure required to promote the UK's economic growth and productivity. This includes an increase in capital investment on the transport network from £2.9 billion in 1998-99 to a planned £11.9 billion in 2008-09, and £12.5 billion in 2009-10.

3.4 As important as the Government's investment in infrastructure has been its investment in human capital through other programmes that contribute to growth – through skills, science, innovation and enterprise. The UK has world class higher education and science assets that are key contributors to UK prosperity. The Government plans to invest a further £20.6 billion in 2008-09, and £21.2 billion in 2009-10 on other programmes that contribute to growth, including in:

- higher education, from £5.9 billion in 1997-98 to £9.5 billion in 2008-09, and £9.6 billion in 2009-10;
- adult skills, from £3.8 billion in 2002-03 to £4.7 billion in 2008-09, and £4.9 billion in 2009-10;
- science, from £2.4 billion in 1997-98 to £5.6 billion in 2008-09, and £5.9 billion in 2009-10;
- innovation, from £235 million in 2004-05 to £350 million in 2008-09, and almost £400 million in 2009-10; and
- enterprise, around £450 million in each of 2008-09 and 2009-10.

3.5 In future years, the Government is committed to protecting the outcomes of those key programmes that are crucial to promoting economic growth, while acknowledging the drive for efficiency applies as much to these programmes as any other part of Government spending, so as to demonstrate value for money.

3.6 As the challenges of global competition and technological change intensify, so the pattern of investment programmes needs to be responsive to the changing requirements of the UK economy. These requirements vary place by place, firm by firm, and individual by individual. In addition, infrastructure needs to be resilient to climate change.

Delivering infrastructure

3.7 In infrastructure particularly, the Government has been investing to help the UK meet the challenges of globalisation, population change and environmental change set out in Chapter 2. This has included directly investing in efficient and reliable transport networks, linking the UK's growing cities and linking the UK to the world, and enabling investment from the private sector in a high-class information and telecommunication network. It also means making the UK's infrastructure resilient to environmental change.

Investing in a high performing transport system

Investing

3.8 By 1997, the transport network had suffered from decades of under-investment. The Government has prioritised investment in transport infrastructure over the last decade, capital spending in transport increased from £2.9 billion to £11.9 billion in 2008-09 and a planned £12.5 billion in 2009-10.

3.9 This increased investment, alongside investment from the private sector, has delivered significant improvements in the UK's transport infrastructure. Major projects have included the completion of the Channel Tunnel Rail Link; the new St Pancras terminal; upgrading the West Coast Mainline; the opening of Terminal 5 at Heathrow; the Highways Agency's programme of motorway and trunk road schemes; high levels of investment in the railway infrastructure since the creation of Network Rail; and consent for major container port developments at Bathside Bay Harwich, Felixstowe South and Liverpool.

Key programmes

3.10 Over the next ten years, the Government's plans will ensure that the transport network continues to support economic prosperity within the context of the UK's commitment to sustainable development. Crossrail and Thameslink will provide London with a large increase in its rail capacity. Capacity on the strategic road network will be increased, with real time control of traffic, reduced congestion, and improved journey time reliability. Across the country, investment by local authorities, Network Rail, and the Highways Agency will ensure regional transport priorities continue to be met.

3.11 The Department for Transport will shortly consult on the transport goals and priorities for the 2014-19 period. This is part of the continuing response to the *Eddington Transport Study*¹ and the *Stern Review of the Economics of Climate Change*² which explored the role of transport in economic growth and climate change.

Enabling Information and Communications Technology (ICT)

3.12 The ICT sector, and associated content industries, are areas in which the UK excels. Over the last ten years ICT markets have changed dramatically, with more services available (including the introduction of digital TV and broadband internet and improvements in mobile phone networks) and a more rapid adoption and integration of services into daily lives. Technological

¹ *The Eddington Transport Study*, Department for Transport, December 2006.

² *The Economics of Climate Change: The Stern Review*, Cambridge University Press, 2007

innovation has played a key role, but Government policy has also been an important enabler, particularly in increasing competition in the markets, for example the award of new radio spectrum and the introduction of the Communications Act (2003).

3.13 Digital technology is revolutionising business and society. It creates significant opportunities for businesses and consumers alike and already underpins the wider economy. Going forward, a range of decisions will be required from Government and industry to keep digital infrastructure and content industries to the forefront globally, and to enable UK workers to compete effectively.

3.14 The *Digital Britain Report* is developing a strategic framework for the digital communications sector. This will include taking forward the *Caio Review of Next Generation Broadband investment*, which made clear that to facilitate market-led investment Government needs to address planning, access and other supply side issues³. There will be an interim report in early 2009 which amongst other things include options and prospects for a universal broadband infrastructure, and a liberalised and fully functioning spectrum market providing the spectrum to support new ICT services.

Responding to environmental changes

3.15 Chapter 2 describes the impact and consequences of global change and the steps the UK is taking towards a low-carbon economy.

3.16 The Energy White Paper⁴ sets out the Government's energy strategy to meet the UK's economic needs. The provision of clean energy will be vital in meeting the Government's Renewable energy and Green House Gas Reduction targets. The Government is currently acting on this through the Planning Bill to streamline decisions and simplify the planning process in order to bring projects forward.

3.17 The UK's energy security and climate change objectives will need to be underpinned by the appropriate electricity grid infrastructure. Both regulation and investment will be critical to achieve this:

- Ofgem (working with Government) are currently taking forward a Transmission Access Reform programme, reviewing the framework for access to the electricity transmission system. The Government is also seeking powers in the current Energy Bill to direct changes to industry licences and codes, if necessary, in order to implement transmission access reform; and
- the transmission companies (National Grid and Scottish transmission companies), with the support of industry, are undertaking studies to set out a vision for the transmission network up to 2030. The first part of these studies will be completed by January 2009. Ofgem expect to consult shortly on revised incentives for network companies that will enable timely, strategic investment in the grid network.

3.18 The introduction of smart meters will help both businesses and households to understand the energy they are using in real-time and to support more sophisticated demand side response across the economy. Government has recently concluded its consultation on smart meters for Small and Medium Enterprises (SMEs). The Government has committed to mandating a roll out of smart meters to domestic consumers. The indicative timeline would see delivery of smart meters by the end of 2020.

³ *Caio review of barriers to investment in next generation access*, Francesco Caio, September 2008.

⁴ *Meeting the Energy Challenge: Energy White Paper*, BEER, May 2007.

3.19 The Government is undertaking a wide variety of work to safeguard the UK's environmental assets and improve the UK's ability to meet the environmental challenges facing the economy. For example:

- the *Ecosystems Assessment for England*, announced in July 2008 and taking place over two years, will result in the most comprehensive picture ever of our natural environment, the benefits it provides to society, and how it is changing. This assessment is vital to help understand the role of the environment for future development;
- as part of the Adapting to Climate Change Programme, the Government will increasingly consider the impacts of climate change in investment decisions. A long term strategy is also being developed by the Department for Environment, Food and Rural Affairs (DEFRA) for flood and coastal erosion risk management;
- the Government is exploring the possible creation of a system of biodiversity offsets, whereby unavoidable damage to the environment arising from infrastructure development might be compensated for by the provision of equivalent environmental resources elsewhere; and
- reforms to ensure effective water and waste provision are under way. *Future Water*, the Government's water strategy for England⁵, outlines the 2030 vision for the water sector ensuring sustainable management of water. A draft Floods and Water Bill will be introduced in Spring 2009 to simplify and streamline complex and outdated flood risk management legislation.

Reforming planning regulations

3.20 In order to deliver the infrastructure of the future, the new Planning Bill introduces a more integrated approach to support the changing needs of firms and individuals. The Planning Bill aims to streamline the process for delivering nationally significant infrastructure projects. It will reduce the time it takes for major infrastructure to get planning consent and will improve the involvement of individuals and communities in the process. The development of National Policy Statements will give developers certainty as to the requirements they have to meet, as well as ensuring that policies are consistent.

3.21 The Planning Bill will also introduce new powers to allow local authorities to apply a Community Infrastructure Levy (CIL) to most types of new development in their area, helping local authorities to deliver the infrastructure needed to support the development of their area.

Developing the workforce and skills

3.22 Given the implications of globalisation and technological change outlined in Chapter 2, skilled workers are increasingly important for the economy and for businesses to respond rapidly to new market opportunities, and to develop innovative products, services and ways of working. Individuals increasingly need a range of transferable skills to respond to the needs of firms, and to be equipped with the skills they need on an ongoing basis for sustainable employment. To meet these challenges, the Government is taking steps to ensure the skills system is more responsive to the skills needs of both employers and individuals. The *Leitch Review of Skills*⁶ sets out a vision for the UK to become a world leader in skills by 2020. The Government is

⁵ *Future Water: The Government's water strategy for England*, HM Government, February 2008.

⁶ *Leitch Review of Skills, Prosperity for all in the global economy - world class skills*, HMT, December 2006.

committed to ensuring people are given the opportunity and encouragement to develop their skills and abilities to the maximum.

Investing

3.23 Over the last decade major investments and reforms have been made to raise skill levels, and provide the skills businesses will need:

- the UK has world-class higher education institutions. Public investment in higher education in England has increased from £5.9 billion in 1997-98 to £9.5 billion in 2008-09 and a planned £9.6 billion in 2009-10. Over the same period, the total number of Higher Education students in England (covering all levels of study) has increased to from 1.66 million in 2000/01 to almost 2 million in 2006-07 and the total supply of graduates has also been steadily rising annually from around 380,000 in 1997-09 to almost 545,000 in 2006-07; and
- public investment in adult skills in England has increased from £3.8 billion in 2002-03 to £4.7 billion in 2008-09, and a planned £4.9 billion in 2009-10. The UK has made strong progress in recent years, particularly in helping those with the lowest skills. Apprenticeship starts have increased from 65,000 in 1996-97 to 184,000 in 2006-07. The proportion of people of working age in England with no qualifications has fallen by almost 6 per cent, from over 17 per cent in 1997 to over 11 per cent in 2007. Around 75 per cent of economically active adults aged 18 and over are now qualified to at least level 2.

3.24 Going forward, the Government will build on this investment to help employers and individuals develop and utilise skills in the most effective way, through responding to current skills needs, understanding future needs, and putting in place mechanisms to deliver them.

Key programmes

Understanding future skills needs

3.25 The UK Commission for Employment and Skills (UKCES) was established in April 2008 and will strengthen the employer voice in advising Government how to achieve greater productivity through the employment and skills systems. The Commission will be the centre of excellence for labour market intelligence, skills analysis, and prioritising the skills needed for the future and is expected to publish its Five Year Strategic Plan for 2009-2014 in April 2009. The Government and Devolved Administrations will look to the Commission to help assess medium to longer-term strategic skill needs and inform the appropriate policy response to meet future challenges.

Meeting skills needs

3.26 Building on progress to date, the Government is taking steps to make the skills system more responsive to the changing demands of the economy, individuals and employers:

- the Government is continuing to introduce very substantial **reform of 14-19 education** over the next decade, improving the flow of skills in to the economy, and providing young people with better opportunities to meet their potential. As outlined in the Department for Children, Schools and Families (DCSF) 14-19 Next Steps document⁷, this includes increases in the compulsory

⁷ *Delivering 14-19 Reform: Next Steps*, DCSF, 2008.

age of participation in education and training, and curriculum reform with the introduction of Diplomas from September 2008;

- there is a need to invest in **science, technology, engineering, and mathematics skills (STEM)**, and the number of students taking science and maths GCSEs and A Levels, to meet the demand of innovative businesses. The Government will shortly publish an analysis of the factors that affect take-up of more courses and more generally what drives the supply of STEM skills into the workforce;
- the Government has developed the **National Skills Academies (NSAs)** programme to allow employers to intervene directly in the delivery of skills and shape the system to their needs. NSAs bring employers together with networks of specialist training providers to tackle the key skills challenges facing their sector. Ten NSAs are already approved with six more in business planning phase and, resources permitting, the Government's ambition is to have at least one NSA in every major sector of the economy. NSAs are a powerful mechanism to help tackle demand and supply issues simultaneously, including for strategic priorities such as adult progression or the transition to a low carbon, resource efficient economy;
- Sector Skills Councils are developing **Compacts** with Department for Innovation, Universities and Skills (DIUS) and the Learning and Skills Council (LSC) to tailor the Train to Gain offer to the needs and circumstances of the employers in their sector. The Government is exploring how Compacts can be extended to support the delivery of higher-level skills training in relevant sectors. The Government will be helping each sector assess its response to the economic slowdown, including how to make best use of the new Train to Gain flexibilities introduced for SMEs in 2009-10 and 2010-11;
- the Government has begun to use opportunities to promote **training in the workplace**, and apprenticeships in particular, through its public procurement role. For example, college and school building programmes contractors are now required to make a formal training plan and provide access to apprenticeships for the project workforce;
- **regional and sub-regional arrangements** are being strengthened to complement the work of the UKCES and enable employers to coordinate and articulate their demand for skills. Within the programme of Multi-Area Agreements, the Government is encouraging employer-led Employment and Skills Boards in major cities and city regions, and investigating ways of bringing together employers within sectors and localities with a focus on raising progression and productivity;
- major reform of the skills system is well underway to **raise standards**, give the further education sector a clear economic mission, and give learners and employers more influence. The UKCES published simplification proposals in October and will work with Government and delivery partners to implement them as part of the overall longer-term reform programme. Following consultation, the Government will shortly publish its plans for a new, streamlined Skills Funding Agency responsible for delivering Apprenticeships, Train to Gain, Skills Accounts and the new Adult Advancement and Careers Service; and
- on higher education, the Government has developed the **new two year Foundation Degrees**. These are designed with employers and combine

academic study and workplace learning to equip people with the relevant knowledge, understanding and skills to improve their performance and productivity. More than 70,000 students are now enrolled, with 100,000 expected by 2010.

Supporting science and innovation

3.27 The increases in global competition and the pace of technological change, set out in Chapter 2, mean that the UK's long term success will increasingly rely upon world class science and innovation. UK businesses will need to innovate to adapt to changes by introducing new or significantly improved products and services, changes to business models, and more efficient organisational structures. The Sainsbury Review⁸ set out how the UK should be a global leader in science and innovation, famed for innovation as well as its outstanding record of discovery, the partner of choice for global businesses.

Investing

3.28 Funding for the public science base and innovation since 1997 has reversed the backlog of underinvestment, making the UK's science base a world class asset:

- the level of investment in the science base has increased from £2.4 billion in 1997-98 to £5.6 billion in 2008-09, and will increase to £5.9 billion in 2009-10, including dedicated funding for university research infrastructure; and
- investment in innovation increased from £235 million in 2004-05 to over £350 million in 2008-09 and will increase to almost £400 million in 2009-10; in addition, the Technology Strategy Board has been created to give a stronger leadership role on innovation across all areas of the economy.

Key programmes

Boosting the UK's capacity to exploit new knowledge

3.29 Over the last ten years, the Government has implemented a range of policies designed to help make Britain one of the best places in the world for science, research, and innovation. For example, research and development (R&D) tax credits were introduced for small and medium-sized companies in 2000, and for large companies in 2002; and dedicated support for knowledge transfer activities between universities and firms, for example through the Higher Education Innovation Fund (HEIF) in England. As a result, university research income from contract research and consultancy has trebled since 2000, to over £1 billion per year, and income from Intellectual Property licensing has also trebled in this period.

3.30 To demonstrate how the UK will continue to build on the progress already made, the Government published an innovation White Paper, *Innovation Nation*⁹. This recognises the complex, diverse nature of innovation today and the need for Government to continue to articulate a coherent portfolio of policies in response. It examines the increasing importance of firms collaborating with users and universities to respond to competitiveness pressures, and provides a new approach of public sector innovation.

3.31 Key proposals in the White Paper to be implemented include:

- five new Innovation Platforms, which bring together departments, business, and academia, to increase business investment in R&D and innovation. Existing

⁸ *The Race to the Top: A Review of Government's science and innovation policies*, Lord Sainsbury of Turville, October 2007.

⁹ *Innovation Nation: Unlocking talent*, DIUS, March 2008.

platforms are addressing challenges such as Low Impact Buildings and Low Carbon Vehicles;

- doubling the Knowledge Transfer Partnership programme, which place academic experts with Small and Medium Enterprises to tackle business problems;
- specialisation and Innovation Fund pilot schemes for Further Education institutions, which encourage knowledge transfer from colleges to businesses;
- Innovation Vouchers to help small businesses connect with the research base; and
- the development of new measures of innovation through the National Endowment for Science, Technology and the Arts (NESTA) Innovation Index.

3.32 The Government will also publish the first Annual Innovation Report, which will highlight steps to be taken to promote innovation across Government.

Supporting enterprise

3.33 As set out in Chapter 2, the rapidly changing global economy will present more opportunities for businesses to exploit in the longer term. Emerging markets abroad and population growth in the UK, will create new opportunities in new markets. However, businesses will have to respond rapidly to changes in global demand and specialisation.

3.34 The Government aims to ensure that the UK maintains an attractive business environment that continues to encourage entrepreneurial activity.

Investing

3.35 Since 1997 the Government has introduced a range of policies to encourage firm creation and growth, and plans to invest around £450 million in each of 2008-09 and 2009-10.

Key programmes

Encouraging firm creation and growth

3.36 The Enterprise Strategy¹⁰, published at Budget 2008, built on actions over the last ten years and set out further measures to support business start up and growth.

3.37 Key interventions include:

- the Small Firm Loans Guarantee (SFLG) scheme, which has been continually improved and enhanced. Over the last ten years it has enabled around 40,000 firms to borrow around £2.5 billion;
- the introduction of Enterprise Capital Funds, in 2006, which have provided Government support for equity finance; and
- RDAs' support targeted at firm creation and including through the Business Link advisory service, which helps over 800,000 businesses a year.

3.38 The banks using the Recapitalisation Scheme have made an explicit commitment as part of their agreement with the Government, that they will maintain, over the next three years, the availability and active marketing of competitively-priced lending to small businesses at 2007

¹⁰ *Enterprise, Unlocking the UK's talent*, BERR and HMT, March 2008.

levels. This commitment means that the banks will offer a wide range of products at competitive rates, which will be made available to creditworthy customers.

3.39 Further measures to support enterprise throughout the current financial disruptions are outlined in Chapter 4 of the 2008 Pre-Budget Report.

Undertaking other microeconomic reforms

3.40 The Government remains committed to increase the competitiveness of the business environment through a simpler and competitive UK tax system.

3.41 In addition, the Government will continue to ensure that other reforms are undertaken, especially by strengthening competition and markets. The Government will also take steps to ensure its own activities take account of the need to enhance productivity by simplifying regulation, and improving public sector efficiency. This section describes how the implementation of key reforms in these areas will prepare the UK to meet future challenges.

Tax competitiveness

3.42 Taxation remains a key part of the competitiveness of the business environment in the UK. The Government will continue to focus on a flexible and adaptable tax system, seeking to balance the trade-offs between its objectives to enhance competitiveness whilst maintaining taxation's primary role as a means to raise revenue to fund public services. In these uncertain times, simplicity and certainty in the tax system, delivered through greater dialogue with business about its needs, are increasingly important, as is continuing to enhance competitiveness for the long term.

3.43 The Government remains committed to a simpler and more competitive UK tax system. The 2008 Pre-Budget Report announces reforms to enhance the competitiveness of the UK's tax system in the long term including measures on the taxation of foreign profits, which balance competitiveness against the risks to maintaining revenues, and also sets out the next stage in the Government's rolling programme of tax simplification.

Strengthening competition and markets

3.44 Open, flexible, and competitive markets are key to the UK economy successfully exploiting the commercial opportunities presented by international trade. International trade remains a key driver of productivity growth through access to larger markets, exposure to innovation, and greater competitive pressures in foreign and domestic markets.

3.45 The Enterprise Act 2002 brought changes to the competition regime that helped to establish the reputation of the UK's competition authorities, with recent peer reviews¹¹ suggesting that the Office for Fair Trading and Competition Commission are among the best in the world.

3.46 Going forward, the UK will continue to maintain an open economy, with international trade and investment flows contributing to a competitive business environment in the UK.

3.47 The process of globalisation is likely to continue to increase competition for UK firms in global markets both in the UK and overseas. Regulation and enforcement of competition will increasingly need to operate effectively and efficiently across international boundaries, maximising the benefits of competition while minimising burdens and uncertainty for businesses. This will also involve an effective EU competition framework to open up EU markets in key sectors such as energy and telecommunications.

¹¹ *Peer Review of Competition Policy*, Department of Trade and Industry (now BERR), June 2007.

Simplifying regulation

3.48 Simpler, better-targeted regulation contributes to improving the UK's competitiveness by saving organisations time and money. The Government's approach to regulatory reform is recognised as one of the most ambitious in the world. It includes:

- **a commitment to a net reduction in the administrative burden of regulation** of 25 per cent by 2010. This is the cost of filling in forms, dealing with inspections and providing statutory information to third parties, and policy simplification measures. Progress on this agenda was published in the second round of annual Departmental Simplification Plans in December 2007. £800 million net savings to business have already been delivered. £3.5 billion in net annual savings are planned by May 2010;
- **a risk-based approach to inspection and enforcement.** The Hampton Review found that risk assessment should help regulators target non-compliant businesses more effectively, and reduce the burden on those businesses that do comply.¹² The new Regulatory Enforcement and Sanction Act will give regulators clearer powers and help them target non-compliant businesses. Potential gains are to reduce inspections by up to a third (meaning around one million fewer inspections) and cut the number of forms sent by regulators by almost 25 per cent;
- **a commitment to publishing cost/benefit ratios for new regulation** on an annual basis in future. This will reflect the financial benefits that well designed regulation can create; and
- **the recent consultation on regulatory budgets** considers how to drive the regulatory reform agenda even further.

Improving public sector efficiency

3.49 The Government will continue to take steps to deliver high quality services and projects in a way that represents value for money.

3.50 Over the last ten years Government has made major reforms to improve the quality of public services that will be essential in a globalised world while at the same time dramatically improving value for money, releasing over £25 billion of efficiency savings since 2004. Building on these commitments, the Government launched the Operational Efficiency Programme (OEP) and the Public Value Programme (PVP) at Budget 2008. The PVP looks at major areas of public spending and identify where there is scope to improve value, such as in road-building and major public IT projects. The OEP is using the expertise of the private sector and the public sector to look at improving the efficiency of cross-cutting issues such as back office/IT and asset management. Chapter 6 of the 2008 Pre-Budget sets out progress on the PVP and emerging findings from the OEP.

3.51 *Infrastructure procurement: delivering long term value*¹³, sets out the next steps the Government is taking to secure value for money in its procurement of significant assets and long term service provision. It recognises the evolving needs of the public sector and the changing approaches to complex procurement. It outlines a framework designed to drive value for money and ensure the effective scrutiny of key projects.

¹² Hampton review on regulatory Inspections and enforcement, HM Treasury, March 2005.

¹³ *Infrastructure procurement: delivering long term value*, HM Treasury, March 2008.

4 Engaging with sectors and local areas

4.1 This chapter considers the sectoral and geographic perspective to the Government's response. While the Government pursues policies that drive productivity growth for the economy as a whole, this chapter sets out how Government will engage with sectors with the aim of removing barriers to growth and improving competitiveness. It also describes how Government will engage at a local and regional level, and ensure that city-regions have appropriate levers to promote growth and prosperity.

Engaging with industry sectors

4.2 No one can predict with certainty those business activities and sectors in the UK that have the most potential to grow, and a focus on a few sectors today can be at the expense of the high growth sectors of tomorrow. However, the Government has an important role to play in recognising those business activities in which the UK has relative strengths, actual and potential, and helping to identify threats and opportunities. By working closely with industry sectors, the Government can help identify barriers to growth that are sector-specific, and tailor policy responses accordingly.

4.3 The Government's approach is also informed by a desire for the UK to compete effectively in higher-value added sectors of the economy that will be increasingly important for its long term economic success.

4.4 This section sets out the objective of a sectoral approach and the engagement framework. It then illustrates how Government policies have been developed in response to challenges faced by individual sectors using examples from pharmaceuticals, advanced manufacturing and the creative industries. Similar examples are found in other sectors across the economy. It also looks at how Government is looking to help UK low carbon industries to capture new markets and become a high growth sector.

Sectoral approach

Objective

4.5 The objective of a sectoral approach is to maximise the benefits global changes will create and manage the increased uncertainties they may bring with them by:

- uncovering where the most significant obstacles lie within sectors, which would impact on the ability of firms to move to activities with higher value and higher returns;
- identifying what type of Government interventions are most likely to remove these obstacles to take advantage of new sources of growth; and
- assessing whether Government policies are impacting in a consistent and mutually reinforcing way on firms, and reviewing them if necessary.

4.6 The Government will help the UK take advantage of the opportunities of globalisation by better understanding what promotes or constrains growth in different sectors, and applying

these lessons to future policy development. This section illustrates how the Government has been developing responses to challenges faced by some sectors.

Framework

4.7 The framework across Government for considering sector-specific policy, includes:

- **Government departments' roles:** Government departments share responsibility for engaging with different sectors, with BERR taking on the role as the voice for business across Government. For example, in consultation with other departments, the Department for Culture, Media and Sport (DCMS) has the leading role for the creative industries, HM Treasury for financial services and BERR for manufacturing industries. Departments regularly review the opportunities and challenges faced by different sectors, as set out in of recent reports published by these departments¹;
- **Government-industry fora for many major sectors:** A number of fora exist to facilitate sector input into the policy-making process. For example, HM Treasury established the Chancellor's High-Level Group on City Competitiveness in 2006, bringing together senior executives from across the financial services industry. Similarly, the Vehicle Industry Policy and European Regulation (VIPER) Group was established in 2003 by BERR to provide a 'one stop policy shop' for the automotive sector, where representatives of a cross-section of the industry can be brought together on a regular basis with officials from across Whitehall. There are similar groups for pharmaceuticals, aerospace, electronics and chemicals, among many others;
- **focused sector input to skills policy:** the Government has established Sector Skills Councils that together articulate the voice of approximately 85 per cent of the UK's workforce on skills issues;
- **sector representation at different regional levels:** RDAs take the lead on sector representation at the regional level; and
- **sector representation overseas:** UK Trade & Investment (UKTI) engages with a wide range of innovative sectors to market UK strengths in overseas markets and target potential overseas investors and research and development (R&D) partners. The choice of sectors is largely driven by consultation with sector representatives on where there is a strong perception of the UK's relative strengths. UKTI has developed international marketing strategies in financial services, ICT, life sciences, creative industries, and energy and is now developing strategies in low carbon solutions and advanced engineering. The aim of the strategies is to focus work by UKTI, others in Government, and leading businesses around a common vision of UK sectoral strengths, to build the reputation of the sector through high impact marketing activities with business in target markets.

Working with sectors to improve competitiveness

4.8 While some challenges and opportunities are common across sectors, their scale and impact can vary. Indeed, sectors differ greatly in terms of the intensity with which they use capital, skills and innovation, their size, growth, productivity, profitability, strategies, and

¹ For example, *Manufacturing: New Challenges, New Opportunities*, BERR and DIUS, 2008; *Creative Industries Strategy*, DCMS, 2008

behaviour. Even within sectors, there are some differences in terms of firm development, performance, and priorities.

4.9 Policies therefore need to be based on a detailed understanding of sectoral needs and their implementation tailored to sectoral realities. A sectoral focus could also help disseminate lessons about which sector responses have worked and which have not.

4.10 The following section illustrates how Government policy can be developed in response to challenges faced by individual sectors and the outputs it has been leading to, using a few examples from pharmaceuticals, advanced manufacturing and creative industries. These examples are illustrative and similar examples can be found in other sectors across the economy. This section also sets out the action Government is taking to support low carbon industries. These and other sectoral policies will help the UK build on its existing strengths, and specialise in the higher-value products that are increasingly important for long term economic success.

Pharmaceuticals

Background

4.11 The pharmaceutical industry accounts for around 0.6 per cent of UK GVA (gross value added) and 70,000 jobs. The UK is one of the world's largest exporters of pharmaceuticals by value: exports in 2007 were £14.6 billion with a net trade surplus of £4.3 billion. The pharmaceutical industry also accounts for nearly one quarter of total business R&D expenditure in the UK, rising from £2.2 billion in 1997 to £3.9 billion in 2006.

4.12 The sector's competitiveness is based on the quality of the UK's commercial and academic science base. The UK presently hosts a number of world leading research institutes, including the Laboratory for Molecular Biology, the European Bioinformatics Institute and the Sanger Institute.

Sectoral policies

4.13 Following the recommendations of Sir David Cooksey's review of health research², the Government implemented new arrangements for the strategic oversight of UK health research and development through the creation of the Office for the Strategic Coordination of Health Research (OSCHR) in 2007, with an increased focus on clinical and translational research. The relationship between the Government and the pharmaceutical industry is overseen by a high-level Ministerial Industry Strategy Group (MISG). The Government will continue to work with the industry to deliver a step change in the UK environment for research, for example by promoting innovation in the NHS in line with Lord Darzi's review³, and increasing the uptake of cost-effective innovative medicines as part of the new voluntary agreement on the Pharmaceutical Price Regulation Scheme (PPRS) – as set out in Box 4.A.

² *A Review of UK health research funding*, Sir David Cooksey, December 2006.

³ *High Quality Care For All: NHS Next Stage Review Final Report*, Department for Health, June 2008

Box 4.A: Working with the UK pharmaceuticals industry

In recent years, the Government has worked closely with industry and the major research funders to launch a number of initiatives, including:

- the National Institute for Health Research (NIHR), which has established a number of Clinical Research Networks to support randomised controlled clinical trials and other well designed studies;
- a Research Capability Programme implemented with NHS Connecting for Health that has enabled ethical access to national electronic patient record data to support clinical trials and observational research from 2010;
- a range of model Clinical Trials Agreements that have been developed and implemented with industry to speed up trials initiation in the NHS, and a national costing template and guideline tariff which has been launched to ensure consistent pricing for contract trials run via NIHR Clinical Research Networks;
- the National Research Ethics Service Integrated Research Application System, which provides a single web-based point of access for ethical and regulatory approvals, and the NIHR will roll out a coordinated system for gaining NHS permissions for clinical studies; and
- the new National Skill Academy for Process Industries which is helping drive up the skills of the pharmaceutical manufacturing industry.

Advanced manufacturing

4.14 The UK's manufacturing base has transformed in recent years to specialise in high value-added activities in the manufacturing value chain. The aerospace and electronics industries rely on highly skilled workers and the UK's strong science base.

Aerospace: background

4.15 The UK aerospace industry is the second largest in the world behind the US. The industry employs 113,000 people and contributed 0.5 per cent to GDP in 2006. The UK accounts for more than 13 per cent of the total turnover in the world aerospace market. In 2006 aerospace exports from the UK were about £14 billion (63 per cent of total sales), making it one of the country's biggest exporting industries. The sector invested about £3 billion in R&D in 2007.

4.16 The sector's competitiveness has derived from Britain's position as the world's second largest defence market after the United States. The sector today focuses on serving international commercial markets as much as it does the British defence market. The UK was the top global defence exporter in 2007, with a 33 per cent market share. UK designed and manufactured commercial aircraft engines are in service with more than 600 airlines around the world, while UK designed and manufactured wings are fitted on more than half of all large aircraft sold globally.

4.17 The UK also has recognised strengths in the assembly of combat aircraft and military helicopters, smart munitions, avionics and sensor systems, landing gear, wheels and brakes, electrical, and fuel system design.

Aerospace: sectoral policies

4.18 The Government has played a significant role in supporting the sector through close working relations with industry, strong support for R&D, and as a major consumer of aerospace products, as shown in Box 4.B.

Box 4.B: Working with the UK aerospace industry

- the Government has invested significantly in the aerospace sector, including R&D funding (£200 million for National Aerospace Technology Strategy projects since April 2004); Selective Finance for Investment/Regional Selective Assistance (over £23 million in 2007); and support for overseas sales campaigns;
- the Government helped the success of the aerospace sector through risk-sharing investment in the design and development of several technologically advanced civil aerospace projects;
- the National Composites Network, jointly funded by industry and Government, is a knowledge transfer network supporting the industry's strategic transition towards composite structures; and
- the Defence Industrial Strategy (DIS) launched in December 2005 aims to ensure that the Armed Forces are provided with the equipment they need, on time and at best value for money for the taxpayer.

4.19 The Government will continue working with the industry, for example through the Aerospace Leadership Council, to address issues such as globalisation in supply chains, cost pressures, environmental concerns, and technological and market uncertainty.

Electronics: background

4.20 In 2006, the electronics sector generated around £12 billion in gross value added (GVA) and employed some 211,000 people. This represented around 1 per cent of total UK GVA and employment. UK exports totalled some £55 billion in 2006 compared to imports of some £79 billion.

4.21 A number of factors may explain the competitiveness of the sector. As noted in Chapter 2, specialisation has played a significant role as companies have outsourced manufacturing to lower cost countries and in turn focused on higher value added activities such as product development and design and the creation of intellectual property.

Electronics: sectoral policies

4.22 Government has also been working closely with industry and other stakeholders on ways to support the ongoing competitiveness of the sector, as shown in Box 4.C.

Box 4.C: Working with the UK electronics industry

- the Government has been working closely with the industry on ways to support the sector. For example, the Electronics Leadership Council (ELC) and United Kingdom Electronics Alliance (a body which brings together the leading trade associations from the electronics sector's supply chain) help create the right business environment for electronics firms to succeed and use their knowledge of the sector, markets, and technologies to inform wider government policies;
- Knowledge Transfer Networks (KTNs) aimed at promoting innovation by facilitating the transfer between companies in the sector of knowledge about research, design and product development, sales and marketing. These include the Electronics KTN, the Integrated Manufacturing Products KTN, Photonics KTN, and UK Displays and Lighting KTN; and
- the Technology Strategy Board has invested over £120 million in electronics and photonics since 2004.

Creative industries

Background

4.23 The creative industries include advertising, computer and video games, industrial design, film and television, performing arts and publishing⁴. Growth in the sector averaged 6 per cent per year from 1997 to 2005, which is above the rate of the economy as a whole (3 per cent per year), increasing the sector's share of GVA by almost 2 per cent.

4.24 The UK has many strengths in the creative industries, which increasingly compete in global markets, supported by natural advantages including the English language and the concentration of creative activity in London.

Box 4.D: Working with the UK creative industries

Over recent years, the Government has:

- provided a supportive environment e.g. regulating TV to ensure a quota of independent production; maintaining public service broadcasting; and public and investing National Lottery funds in arts and culture, which have spillover effects into the creative industries;
- created Ofcom, a combined regulator for the broadcasting and communications sectors, recognising the increasingly integrated nature of creative industry content and delivery media;
- promoted technology e.g. introducing more efficient management of the radio spectrum and promoting digital television switchover;
- ensured necessary skills e.g. the Sector Skills Councils Creative and Cultural Skills and Skillset are working with the industry's employers to establish future skills needs and help shape skills provision;
- provided tax relief for British films which are seen as unique for cultural and economic reasons. In addition to tax incentives, funding is provided through the UK Film Council; and
- supported growth areas at a regional level through, for instance, the London Development Agency (LDA).

Sectoral policies

4.25 Government policy has also played a role in supporting this natural competitiveness, as outlined in the Creative Industries Strategy published by DCMS and shown in Box 4.D.

4.26 Going forward, the copyright framework is one of the key building blocks for success in the creative world, providing the economic framework within which people have the incentive to create and share works. The UK-IPO will lead the development of a UK Copyright Strategy to address these issues, to deliver necessary changes where we can, and to drive forward progress at EU and international levels.

⁴ The exact size of the creative industries depends on how it is defined – DCMS estimates that creative industries represented around 7% of GVA in 2003. More information can be found in Creative Industries: New talent for the new economy, DCMS, February 2008.

Low carbon industries

4.27 The challenge presented by climate change, and the Government's response to it, will have a transformational effect across all industry sectors as we move towards a low-carbon economy. The opportunities are huge. As global policies on climate change evolve, the market for low carbon goods and services (including energy efficiency) is expected to grow rapidly, as set out in Chapter 2. Further information on how Government is supporting low carbon industries can be found in the 2008 Pre-Budget Report.

4.28 In the UK alone, it is estimated that around 350,000 people are already employed directly in low carbon industries⁵. This includes new growth areas such as:

- renewable energy and alternative fuels (e.g. wind, biomass, nuclear);
- energy efficiency (e.g. in lighting, buildings);
- transport (e.g. hybrid vehicles); and
- carbon finance and consulting.

4.29 To ensure UK service and technology industries can fully exploit the opportunities of a low carbon market, and minimise economic risks, the Government is taking action now to:

- remove barriers to investment;
- enable the supply chain and skills base to develop; and
- support innovation in low carbon technologies.

Removing barriers to investment

4.30 Chapter 2 described how the UK Government is playing a key role in setting international, EU and domestic frameworks for the transition to a low-carbon economy. The Government also has a role in actively encouraging investment in the low-carbon economy, and building a domestic industry to supply the global market for low carbon goods and services. For example:

- getting the right planning system in place for renewables, nuclear, and carbon capture and storage (CCS), and balancing the urgent need for clean electricity with other societal concerns;
- addressing barriers to grid access for low carbon electricity generation technologies, through the *Transmission Access Review*, published in June 2008;
- providing incentives for households, businesses and the public sector to improve energy efficiency through the Carbon Emissions Reduction Target, the Carbon Reduction Commitment, the EU Emissions Trading Scheme, and other policies (such as the Government's Zero Carbon Homes target); and
- overcoming information barriers to enable consumer investment and choice, through, for example, providing customers with advice on managing their energy bills and reducing their carbon footprint. The British Standards Institution (BSI), the Carbon Trust, and DEFRA have recently developed a standard methodology for assessing the carbon footprint of products across their lifecycle.

⁵ Emerging findings from research commissioned by BERR and produced by Innovas and K-matrix 2008.

Enabling the supply chain and skills base

4.31 Having the necessary skills and strengthening the supply chain will be vital in developing the low carbon economy:

- the Manufacturing Strategy⁶ set out how the Government will assist renewable and nuclear energy supply chain companies (particularly in the production of components and products), and provide increased support for low carbon vehicle technology and infrastructure;
- next year the Government will publish its Low Carbon Industrial Strategy. This strategy aims to help businesses adapt to the low carbon economy and respond to the growing market opportunities which will be created; and
- the Government will ensure that the skills implications of the transition to a low carbon economy are being identified and addressed. Government will work proactively with Sector Skills Councils and with leading industries to draw cutting edge practice into the skills system and build the framework of National Occupational Standards and qualifications that will be needed for developing a low-carbon economy.

Supporting innovation in low carbon technologies

4.32 The Government is encouraging the supply of low carbon technologies by funding and leveraging investment in low carbon Research, Development, and Demonstration, through for example, the Research Council's energy research programme, the Energy Technologies Institute, the Technology Strategy Board, and by accelerating the commercialisation of low carbon technologies through the UK Environmental Transformation Fund.

4.33 The Government is also encouraging demand for low carbon technologies:

- the Government will publish its final Renewable Energy Strategy in Spring 2009. This will look at incentives to bring forward large scale renewables investment, more effective financial support for small-scale renewable heat and electricity technologies in homes and buildings;
- the White Paper, *Innovation Nation*, published in March 2008, set out that Departments will publish Innovation Procurement Plans. For example, the Department for Transport (DfT) has appointed Cenex (the UK's Centre of Excellence for Low Carbon and Fuel Cell Technologies) to run its Low Carbon Vehicle Procurement Programme⁷ (initial funding of £20 million); and
- as noted in Chapter 2, in early 2009, UK Trade and Investment (UKTI) will publish a new Low Carbon Marketing strategy, promoting the UK as a global hub for low carbon solutions. The City of London is already a global hub for carbon trading.

Engaging at a local and regional level

4.34 Commercial innovation and adaptation takes place at the local level and high-growth firms benefit from dynamic environments that are suitable and complementary to the needs of specialised local businesses. Different regions and localities have their own specialisms based on their own circumstances and history. Local authorities and RDAs need to work together at the

⁶ *Manufacturing Strategy Review 2008*, BERR, September 2008.

⁷ See www.lcvpp.org.uk

city-regional and sub-regional levels, to help businesses specialise in areas of relative strengths, and ensure that city-regional and sub-regional economies are sufficiently diverse to face new challenges.

4.35 This section sets out how action at a local and regional level, and particularly at the level of the city-region or sub-region, is increasingly vital for economic growth. It sets out how the city-region level is often the appropriate spatial level for coordinating a range of policies such as planning, housing, transport, skills, and regeneration to provide the support and infrastructure for sustainable growth in the medium and longer term.

4.36 For both central and local government, working across administrative boundaries is essential to supporting and maximising local opportunities for growth. Many economic flows overlap local authority boundaries, so that the functional economic areas over which key economic markets operate are typically much larger than the administrative units of local authorities, and broadly correspond to sub-regions or city-regions.

Approach to sub-national economic growth

4.37 The Government is committed to raising the rate of economic growth in every English region, and to narrowing the gap in growth rates between regions. The gap in growth rates between the top performing regions (London, the South East and East of England) and other regions (the North West, North East, Yorkshire and the Humber, West Midlands, East Midlands and South West) has fallen from 0.6 per cent in 1990-2002 to 0.3 per cent between 2002-2006, with every region growing throughout the same period. However, overcoming persistent disparities across the UK remains a challenge, and more needs to be done to strengthen the ability of every part of the country to improve its performance.

4.38 The creation of RDAs in England has decentralised decision-making and made policy implementation more responsive to regional and sub-regional needs. RDAs lead economic policy and strategy at the regional level and engage with businesses to understand and respond to particular economic challenges, and anticipate and respond to changes in the region's economic outlook. Further discussion of the Government's engagement with city-regions can be found in Chapter 4 of the 2008 Pre-Budget Report.

4.39 In 2007, the Government published the Review of Sub National Economic Development and Regeneration (commonly referred to as the SNR), setting out proposals for strengthening economic performance in regions, cities, and localities throughout the country, as well as tackling persistent pockets of deprivation where they remained. It set out the principles of managing policy at the right spatial level, providing appropriate incentives for growth, ensuring clarity of objectives, and enabling places to reach their potential.

4.40 In line with these principles, the Government introduced a programme of reforms to establish powers and responsibilities below the national level to support its objectives to encourage economic growth throughout the country by:

- empowering all local authorities to promote economic development and neighbourhood renewal, and ensuring Local Area Agreements (LAAs) give a clearer role to local government in promoting economic development;
- supporting local authorities to work together at the city-region and sub-regional level, including through Multi-Area Agreements (MAAs);
- strengthening the regional tier; and
- reforming central government's relations with regions and localities.

Role of cities and city-regions

4.41 Within the sub-national landscape, city-regions are a key spatial level around which growth is concentrated. This is because, as set out in Chapter 2, firms and individuals benefit from the positive spillovers of agglomeration, which leads to higher productivity and employment. In a more competitive, globalised world, cities and city-regions tend to gain the benefits of specialisation, as firms cluster together to exploit the benefits of agglomeration and increasing economies of scale, meaning that city-regions will increasingly be critical to driving national and regional growth. The Cambridge Life Sciences cluster is an example of this type of clustering of firms, as shown in Box 4.E. Increasingly, cities have become important as nodes of the global economy and as places of wealth creation.⁸

- successful cities are critical as centres of business, skills and innovation;⁹
- in England, urban areas have delivered the greatest increases in productivity and GVA between 1995 and 2004;¹⁰ and
- cities are also where the majority of labour is employed - in 2005 the share of national employment within the city-regions of the 56 largest urban areas in England was 73 per cent.¹¹

Box 4.E: Cambridge Life Sciences cluster

The accumulation of expertise, the presence of specialist suppliers, and a highly local skilled labour force are just some of the factors that contribute to successful clusters.

Cambridge¹² is an example of a city that has benefited from its academic expertise and capitalised on intellectual capital,¹³ attaining an internationally recognised as a life sciences cluster. The cluster initially developed out of technology transfer from the University of Cambridge, but has recently been driven by agglomeration benefits that have attracted further talent to the area and local venture capital investment.

The sector has been supported by the development of a number of business and science parks in the Cambridge area by both public and private sponsors. The growing demand for housing and the need to ease congestion in the area as a result of this successful economic development is being met by local, regional and national authorities, for instance by the development of the new town of Cambourne and the upgrading of local highways.

Learning from successful cities

- The UK's cities have generally been successful over the past decade. Many cities have been able to overcome years of industrial decline by attracting new business and international trade and by revitalising their city centres. Cities have developed through different patterns:
- the **large 'core' cities** outside London (Birmingham, Manchester, Sheffield, Leeds, Liverpool, Newcastle, Bristol and Nottingham) are major contributors to the economic growth in their region; in the three regions that make up the

⁸ The Review of sub-national economic development and regeneration, HM Treasury, BERR and Communities and Local Government, July 2007.

⁹ Habitat Debate Cities: magnets of hope' UN Habitat, September 2006.

¹⁰ The Review of Sub-national economic development and regeneration, HMT, BERR, CLG, July 07.

¹¹ The 56 cities are illustrated in the State of the English Cities, Communities and Local Government, 2006. Data from State of the Cities Database (<http://www.socd.communities.gov.uk/SOCD/>).

¹² Agglomeration and Growth: A study of the Cambridge hi-tech cluster, Athreye, Suma S., The Open University, June 2001.

¹³ Enterprise Priorities to Enterprise Powerhouses: The Public Sector in the Knowledge Economy The Work Foundation 2008.

Northern Way¹⁴ partnership, the total contribution of core cities is between 30 to 50 per cent of the regional economies. Box 4.F describes the successful transformation of Newcastle's economy;

- evidence from the last ten years also suggests that the UK is developing a network of smaller, **niche cities** that are driving growth in new industries. Brighton, as an example, has a diverse economy but also houses niche specialisms in creative and cultural industries, making it a distinct economic hub for these sectors;
- other smaller cities specialise by accumulating the necessary skills and linkages with surrounding areas of success, such as Hull and York medical school where both universities joined forces to collaborate, rather than compete. The Northern Way Cities Forum was established to encourage this collaboration between cities.

Box 4.F: Newcastle's new drivers of growth

The city of Newcastle has experienced considerable growth rates over the past ten years. Between 1995-2005 the city achieved 77 per cent growth in Gross Value Added (GVA), above the national average. This is a relatively recent story of resurgence. Previously, Newcastle was an industrial city in decline, between the 1950s and 1970s approximately 100 mines were closed – virtually wiping out its industrial base. More recently, productivity, earnings, and employment rates have increased and Newcastle now has one of the highest GVA growth rates per capita of the 56 largest English urban areas¹⁵. The city has developed into a world-class research centre in life and biosciences, has high-quality universities, and business partnerships in a diverse array of sectors.

4.42 However, despite notable improvements in terms of growth, disparities between and within cities and city-regions remain:

- the performance of cities has been mixed.¹⁶ There remain key challenges for policy makers in tackling the constraints to further city growth. These barriers can include the problems associated with the industrial legacy of many cities, including a relatively low skills equilibrium and lack of economic diversity; and infrastructure, in terms of housing stock and transport provision that needs further upgrading to suit the aspirations of residents and needs of business;
- there is still a striking regional pattern of GVA growth per capita in cities. Most of the best performers are concentrated in the South, although places in the North like Manchester and Newcastle have shown considerable improvements in growth rates. There is an even more marked disparity in skills levels: nine of the ten highest skilled cities are in the south; all of the bottom ten are in the Midlands and the North; and¹⁷
- unequal performance is also at least as pronounced within cities as between them and may be holding cities back. Eight out of the nine largest cities in England¹⁸, including London, are in the bottom ten least equal cities.¹⁹ Cities

¹⁴ North East, North West, Yorkshire and Humberside.

¹⁵ State of the English Cities, Communities and Local Government, 2006.

¹⁶ GVA per head in Inner London is over 2.5 times larger than Outer London; Analysis of 2005 NUTS3 GVA data from ONS Regional Accounts.

¹⁷ Cities Outlook 2008, Centre for Cities, December 2007.

¹⁸ Birmingham, Manchester, Bristol, Liverpool, Leeds, Newcastle, Sheffield and Nottingham.

¹⁹ Cities Outlook 2008, Centre for Cities, December 2007.

contain 59 per cent of the UK's population, but 68 per cent of benefits claimants and 64 per cent of the UK's workless population.²⁰

4.43 Widening disparities can act as a constraint to growth, representing under-utilised resources and imposing additional costs in remedying problems.

Delivering solutions at the city-regional level

4.44 The SNR set out the principles of ensuring policies are delivered at the most appropriate spatial level. Markets and market failures operate at different spatial levels, and so the most effective level of intervention will also vary according to the nature of the market in question.

Policy development principles

4.45 The SNR identified four criteria to help illustrate the relative strengths and limitations of policy intervention at different spatial levels:

- ***enabling local solutions:*** or the tailoring of economic policies to reflect the different economic challenges facing different places. Decentralising economic policies can bring benefits when places face different challenges, either because the market failures which the policy seeks to address have different impacts across places or to ensure that policies do not have unintended spatial impacts;
- ***enabling effective coordination:*** reflecting the need for coordination both within different dimensions or service areas of a policy and between different policies;
- ***ensuring that costs and benefits are considered across economic areas:*** economic policy decisions will optimise economic efficiency if they take full account of the impacts across the relevant economic areas. Formulating economic policies at the level at which the relevant economic market operates, whether national, regional, sub-regional or local level, will be most likely to take account of these economic impacts; and
- ***exploiting economics of scale and scope:*** the benefits from tailored local solutions may be offset by the loss of economics of scale and scope. Higher tiers of government may enjoy cost savings from delivering large volumes of public goods and services or have better access to specialised staff or knowledge of best practice.

Partnership working

4.46 Where functional economic markets exist beyond local authority boundaries, functional coordination of policies with other authorities, as well as with regional and national bodies, can deliver greater efficiency and better outcomes. Partnerships, such as MAAs, which set joint priorities between neighbouring local authorities and key delivery partners such as RDAs, are already overcoming functional fragmentation by aligning policy on planning and housing, transport, skills and regeneration.

4.47 The first round of MAAs were signed in July 2008, and a number of areas are now taking forward this approach, see Box 4.G. The Association of Greater Manchester Authorities (AGMA) is an example of local authorities working strongly together across a city-region to develop and deliver shared strategies to promote economic growth. AGMA was formed after the dissolution

²⁰ Worklessness, A City Approach, Simmonds, D, Bivand, P, , Centre for Cities, June 2008.

of the Greater Manchester County Council in 1986. Its ten authorities cooperate on a number of issues to improve the coordination of delivery on key economic priorities, such as transport, skills and employment.

Box 4.G: Multi-Area Agreements (MAA)

Tees Valley: The MAA aims to improve the sub-region's GVA from 80 per cent to 86 per cent of the national average by 2017-18, improve the reliability of the road network by improving access to, and the reliability of, public transport alternatives, provide 6,000 new homes by 2011, and facilitate swifter decisions and greater certainty on regeneration projects. This will allow for more effective investment decisions.

Partnership for Urban South Hampshire (PUSH): The focus of the PUSH MAA sets out joint priorities on employment and skills, housing, transport, and skills. The transport priorities will deliver a seamless management system for the area's roads which will lead to better planning and delivery of transport priorities across the area.

Ensuring city-regions have the levers to promote growth

4.48 The Government is acting to allow further city-regional and sub-regional collaboration, to encourage a shared understanding of economic conditions, and to provide the tools for city-regions to act to remedy their unique economic problems.

4.49 In line with the core proposals of the SNR, the Government is implementing the following reforms that will support integration of economic decision-making at the city-regional and sub-regional level:

- supporting the implementation of the MAAs signed off in July 2008, and working with further city-regional, and sub-regional partnerships to develop and sign off further rounds of MAAs;
- developing a new duty on local authorities to assess the economic conditions of their area. This duty is likely to be carried out across a city-regional or sub-regional level to reflect the shape of the local economy, and will provide evidence to support the development of particular localities and cities on the basis of their distinctive circumstances.
- bringing forward legislation to introduce statutory arrangements for sub-regional cooperation, as part of the broader implementation of the SNR;
- consulting on distributing funding from the Local Authority Business Growth Incentive scheme on the basis of performance at a sub-regional level, giving clearer focus and incentives for local authorities to work together to promote economic growth;
- introducing legislation to introduce Business Rates Supplements to enable local authorities to invest in projects that benefit their economy;
- bringing forward a new regeneration framework, *Transforming Places; Changing lives*²¹. This sets out a new approach to targeting regeneration investment to improve people's lives. Focusing on improving economic performance and rates of work and enterprise in deprived areas, and creating sustainable places where people wish to live and work and businesses want to

²¹ *Transforming places; changing lives*, CLG, July 2008.

invest. The framework emphasises the important role of the sub-region in designing interventions, investment, and accountability mechanisms; and

- publishing *Towards a Sustainable Transport System*²² in October 2007, and commencing shortly a consultation to agree goals and priorities for the 2014-19 period. Building on existing processes, cities and regions will then be asked to put forward packages of options to be considered for implementation.

4.50 Further discussion of the Government's engagement with city-regions can be found in Chapter 4 of the 2008 Pre-Budget Report.

²² Towards a sustainable transport system, DfT, October 2007.

5

Conclusion

5.1 Over the last decade, the Government's strategy has supported strong and stable economic performance and increased productivity by tackling the backlog of under investment and by undertaking reforms in competition, innovation, skills and enterprise. The UK's infrastructure, openness to trade, strong science base, flexible labour market, and entrepreneurial environment mean that the UK is in a position to respond to the challenges of globalisation and technological change, climate change and demographic change over the next decade. There will also be new and different opportunities for innovative businesses to compete globally in growing markets. The UK will need to build on its existing strengths to capture future market opportunities and further develop higher-value products and services.

5.2 The Government will continue to promote macroeconomic stability in uncertain times. Working with individuals, communities and businesses at all levels, the Government will also continue to invest in the UK's future by building on the investment programmes to date and developing policies to:

- **deliver infrastructure** – delivering an efficient and flexible infrastructure, resilient to environmental change;
- **develop the workforce and skills** – developing a skills system responsive to the future needs of employers and individuals;
- **support science and innovation** – strengthening the UK capacity to exploit new knowledge and develop high value products and services;
- **support enterprise** – ensuring that the UK business environment continues to provide incentives to encourage entrepreneurial activity;
- **strengthen competition and markets** – maintaining a competitive business environment that keeps pace with global changes;
- **simplify regulation** – taking steps to bear down on the administrative burden faced by business; and
- **improve public sector efficiency** – enhancing value for money.

5.3 The Government will also help to drive greater levels of productivity in the UK economy by:

- **engaging with industry sectors** – ensuring that Government policies work to remove obstacles to growth; and
- **engaging at a local and regional level** – ensuring that city-regions have the levers to make the most of growth opportunities.

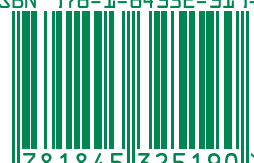
5.4 The Government will need to continue to protect the outcomes of programmes in both infrastructure and in human capital, while ensuring value for money, in order to ensure that future prosperity is not harmed.

5.5 As the UK's prosperity increases, so does the opportunity to create more higher value jobs. This will create more 'room at the top', and so allow for more upwards social mobility. The

Government is committed to ensuring not only that these higher value jobs are created, but also everyone has a fairer chance to get those jobs. The Government will therefore shortly be publishing a White Paper on Social Mobility setting out how it will ensure fairer chances, so that everyone is able to realise their potential and to compete effectively in the global economy

5.6 Over the next decade, the Government is committed to ensuring the right policy framework is in place to secure long term prosperity for the UK.

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