Conditions for Growth

What government can do to promote long-term growth

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SUMMARY

- This report considers what Government can do to help to create the conditions which will lead to an increase in the long-term growth rate of the UK economy.

- While this report puts forward various policy recommendations, it is emphasised that good policies cannot in themselves guarantee good performance. Bad polices, however, almost inevitably result in bad performance.

- The recommendations are based on international experience of what has worked in OECD countries over the last 20 years or so. Some recommendations – such as the proposals on training and education – may be considered "statist"; others – such as the proposals on reducing administrative burdens on companies – may be thought of as "laissez-faire". But all are put forward with one aim: to create the conditions in which long-term growth can flourish.

- Over the past 50 years, the UK economy has grown at an average rate of about 2¼% per year, albeit with some variation. The growth of potential may have been 2½% or a little higher in recent years; but the new Office for Budget Responsibility (OBR) has recently forecast that potential output will grow at just over 2¼% per year over the coming three years, and then slow to just over 2% from 2014, as demographic changes reduce the growth of potential labour supply.

- The speed and manner in which the UK economy recovers from the recession stands to affect both the level, and the growth rate, of potential output over the coming five to ten years.

- Removing macroeconomic support too early could put the nascent recovery at risk, thereby damaging investment and economic potential. However, maintaining high government spending for too long would risk rapid increase

in the public debt, rising interest rates, thereby crowding out of private investment and damaging economic potential.

- As the private sector resumes borrowing, to finance consumption and investment, it will be appropriate for macroeconomic to be withdrawn quickly.
- It will be important that the increases in taxes and reductions in public expenditure be undertaken in ways that take account of the likely implications for productive potential.
- International experience, particularly over the past 20 years, suggests that paying close attention to the design and implementation of structural policies can have important consequences for the growth of potential.
- Labour market reforms, and especially active labour market policies, stand to contribute particularly to faster growth of economic potential. These would aim to:
  - Minimise the long-run effects of the downturn on the labour force, placing particular emphasis on youth, low-skilled, and older workers.
  - Activate more of the long-term unemployed and inactive, particularly older workers and second earners.
  - Strengthen labour market policies that enhance, and minimise labour regulations that inhibit, the ability of labour to adapt to structural change.
  - Improve the skills base of the labour force in general, and of those at the lower end of the skills distribution in particular, where the UK ranks poorly in international comparison.
  - Reduce, through sustained measures aimed at weak performers, the distributional gap in the educational achievement of young people.
  - Increase the intergenerational mobility of workers, an economic inefficiency particularly prevalent in the UK.
  - Strengthen vocational tracks alongside more traditional academic routes.
  - Increase the efficiency of the training market, and aim to ensure that all workers, including the low-skilled, can make lifelong learning a reality.
- Other reforms too stand to be important, in increasing the efficiency of markets and the ability of capital to flow into most productive use, thereby also contributing to faster growth of potential output. These would aim to:

  - Foster creative destruction through reducing the impediments to the creation of new firms.
  - Minimise anti-competitive product market regulation, including reducing the administrative burdens on firms.
  - Minimise, through improved bankruptcy policies, the cost of exit.

- A thoroughgoing programme of these and other reforms would not be easy. Structural policies are complex; they frequently interact; and typically they affect a range of interest groups. They require sensitive and determined co-ordination and implementation.

- Given the size of the challenge, including the inherent political difficulty of implementation, policy makers could be expected to ask what the benefit of such measures would be. In our judgement it would be reasonable for a full-blown programme of structural reform, rigorously implemented, to aim at raising the trend growth of the economy by ½ to ¾ of a percentage point.

- Cumulated over ten years to 2020, this would be worth £82 billion to £124 billion of additional GDP.

1. INTRODUCTION

This paper considers how government policy can help to increase the growth of the UK economy's productive potential (the maximum rate of growth that can be sustained without running into problems such as inflation or balance of payments problems).

Succeeding in this challenge is important, for a diverse range of reasons, including:

- An ageing population requires that more output be forthcoming from those in work if the income of everyone in society is to be maintained.
- Demand for publicly-provided services, including health services, continues to rise fast.
- Transition to a low-carbon economy probably need not reduce the pace of growth significantly, but is likely to cost several percentage points of GDP.
- Reducing the burden of the public sector debt is less painful the faster the economy is expanding.

The challenge is considerable. The UK has historically been a comparatively slow-growing economy, the growth of potential typically being taken as lying in the 2½% to 2¾% range. The Treasury, for example, having worked with an estimated growth of potential of 2½% per year, raised its estimate to 2¾% in 2002, specifically for the period 2001 to 2006. For the post-2006 period, trend growth was assumed to slow to 2½% as a result of demographic change. This post-2006 estimate was increased again in 2006 to 2¾% in the light of a higher contribution from net migration.

The new Office for Budget Responsibility (OBR) has recently forecast that, on present policies, potential output will grow at just over 2¼% over the coming three years, and slow to just over 2% from 2014, as demographic changes reduce the growth of potential labour supply.

Policy can do only so much. It would be a mistake to assume that policy can simply, easily, or quickly increase an economy's potential rate of growth. But there are things

that can be done; and there are policies which stand to have incremental, but cumulatively significant, effects on growth, spread over many years.

Some of the requisite policies are macroeconomic – fiscal and monetary policies whose primary purpose is to influence the level of total spending (aggregate demand.) They can also have important effects on the structure of demand, and thereby on the growth of potential output: a rapidly-growing economy is likely to call forth strong investment growth.

The importance of structural policies

Even more important however are "structural" policies.[1] These policies affect the functioning of the supply side of the economy. They influence the quantity of the economy's fundamental inputs – its labour force and its stock of capital. They also affect the quality of those inputs. And they influence the ease with which the economy's resources flow from one activity to another, in responses to changes in the pattern of demand, in sources of supply, and technology.

In short, structural policies do much to determine the manner and effectiveness with which an economy responds to change. Hence they bear importantly on the performance of the economy over a run of years.

Structural policies are inherently complex, however. Moreover, in many cases they interact with one another. Good structural policy design therefore requires not only that each policy be economically rational in its own terms, but also that collectively structural policies interact coherently.

It is possible to suggest broad lines of desirable structural policies, and this paper does so. But structural policy is an area in which "the devil lies in the detail": turning broad lines for structural policy reforms into detailed policy blueprints requires careful, highly detailed work of the sort that can generally be undertaken only within government or by highly specialist scholars.

There are considerable political challenges to structural policy reform. The political pain of policy reform often occurs in the early years, whereas many of the economic benefits come significantly later – one of the reasons why structural reform is generally undertaken only when policymakers feel obliged to do so.

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[1] Structural policies include reforms in education (and its impact on the skills of workers), the labour market, competition, health, and transport infrastructure. Fiscal policy, in contrast, involves the use of taxes and government expenditure to influence the level of spending (aggregate demand) in the economy. Monetary policy involves the use of interest rates and money supply to influence aggregate demand.

The need for urgency

Nevertheless there is a powerful case for always seeking to pursue the best possible policies: while good policies cannot guarantee good performance, bad polices almost inevitably result in bad performance.

The current recession makes meeting the challenge all the more important. There is never a politically "right" time to undertake policy reform. When an economy is doing well, reform risks seeming unnecessary: when an economy is doing badly, reform, and particularly structural policy reform, may seem like one burden too many.

It is particularly urgent to start undertaking structural reform now because not only the pace, but also the manner, in which the UK recovers from its recent recession stands to do much to influence the evolution of productive potential over the medium term. Particularly important is likely to be the course of investment, both in physical and in human capital.

International experience

There are lessons to be learned from other countries. This experience, much of it researched in, and documented by, the OECD,[2] suggests that structural policies have much to offer in raising the growth of potential output over the medium term.

Furthermore, while much has been done in the UK over past years, international comparisons suggest that there is scope for government to do significantly more over the years ahead.

A well-performing economy needs both good macroeconomic and good structural policies. In nearly all OECD economies at present, and certainly in the UK, this mix of policies needs to be directed at:

- Achieving the fastest possible recovery of output;
- Fostering strong investment in physical capital;
- Fostering strong investment in human capital;
- Increasing the size of the labour force;
- Increasing the efficiency of firms; and
- Fostering a more sustainable structure of demand and output.

[2] See particularly the OECD *Going for Growth* (various years), OECD *Economic Outlook* (various years) the OECD *Employment Outlook* (various years) and other works referred to throughout.

2. ACHIEVING THE FASTEST POSSIBLE RECOVERY OF OUTPUT

The pace at which an economy is able to grow over the medium term is determined by many factors. But three are fundamental:

- the trend growth of the labour force;
- the trend growth of investment (in both physical and human capital); and
- the trend growth of productivity.

In many cases, these factors have been able to be considered separately from the causes and consequences of short-term changes in economic activity. This time, however, the two issues have to be considered together. While investment – both in physical plant and in people – typically falls disproportionately in a recession, the current recession is unusual, both in its causes and in its depth. In the UK, as in other Western economies, the manner in which the economy leaves this recession, and in particular how strongly investment evolves – both in physical and in human capital – is likely to prove unusually important in determining the pace of growth in the years ahead.

This issue is thrown into stark relief by contrasting the prospects in the West, including the UK, with those in Asia.

Asia was not the epicentre of the crisis. Asians and their institutions held few of the assets that plummeted so dramatically in value.[3] Certainly, Asia was hit hard by the ensuing collapse in Western demand for consumer durables, in the manufacture of which Asia specialises. But for Asia this was only a trade shock: Asia's policymakers were able to replace their (temporary) loss in export demand by a fiscal boost to domestic demand. In the event, Asia's GDP growth hardly missed a beat: scarcely any hiccough is visible in the annual data.

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[3] See James et al (2008), Chapter 4: Asian Exposure to the Financial Turmoil.

This experience contrasts starkly with that in the West. In most Western economies, and certainly in the UK, the problem has been, and remains, both different in nature and more severe in outcome. What struck the West was not a *trade* crisis, but a *financial* crisis, a destruction of value that invalidated the basis on which many past spending decisions had been predicated.

The massive and unprecedented monetary and fiscal policy response to the financial crisis of 2008 – a boost averaging around 3% to 4% of GDP both in the West and in Asia[4] – seems to have been successful in supporting aggregate demand in both regions. But in the West, the underlying factor that drove the weakening of demand – the collapse in asset values and thereby the destruction of apparent wealth – largely remains.

The prospects are that people and institutions in the West will progressively seek to reconstitute at least part of this lost wealth, to which end they will likely both increase their saving rates and be more hesitant to borrow.[5] To the extent that they respond to the destruction of their wealth in this way, the trend growth of aggregate demand in the West, and thereby GDP, may be slow for a number of years. None of this is certain, but the experience of recoveries in advanced economies over the past 50 years[6] suggests that it is likely:

- In a normal recovery, it typically takes about three quarters after the trough to regain the level of activity of the previous peak;
- Recovery from financially-induced recessions, however, takes longer – on average about seven quarters;
- Similarly, recoveries from downturns that are highly synchronous[7] across countries take longer than average – around four quarters – mainly because world trade is sluggish;

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4 IMF (2009) April.

5 Koo (2003) coined the term "balance sheet recession" to characterise Japan's experience following the collapse of its real estate and stock market bubble in 1990.

6 A comprehensive examination of the broad features of recessions and recoveries since the Great Depression has been conducted by the International Monetary Fund (IMF). In an examination of 21 advanced economies over the past 50 years, the IMF classified recessions (peak-to-trough in the level of GDP) and recoveries (trough-to-pre-crisis-peak of GDP) according to their underlying causes.

7 Highly synchronised recessions are defined as those during which 10 or more of the 21 advanced economies in the sample were in recession at the same time.

- Recoveries from downturns that are both financial in origin and synchronous across countries are particularly slow – around seven quarters.

A difference between the policy response in Asia and in the West concerns the type of support offered to demand. In Asia, an important part of the stimulus took the form of investment in infrastructure, which stands to support economic growth over the long term,[8] whereas much of the support in the West was to private consumption, through the operation of automatic stabilisers[9] (reduced taxes and increased social payments). This will do less to support growth over the longer term.

The UK might have benefited more from more public investment, which was low prior to the crisis, by OECD-country standards (See Figure 1). Transport infrastructure, in particular, has been identified as an area that needs improvement in the UK.[10] The expenditure on infrastructure investment conducted as part of Asia's stimulus is likely to stand Asia's economies in good stead over the years ahead, particularly to the extent that it has been carefully directed at areas of weakness.[11]

That said, two important potential mistakes have largely been avoided. During the Great Depression, global trade fell by around two-thirds, and it has been estimated that between a quarter and a half of this fall was due to protectionist measures.[12] In the current crisis, however, the UK, in concert with its trading partners, has so far broadly succeeded in maintaining the openness of the international trading system and the free flow of capital.

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8 The positive link between infrastructure investment and growth has been widely studied and discussed since the work of Aschauer (1989); see Munnell (1992), Easterly and Rebelo (1993), Gramlich (1994), Lau and Sin (1997).

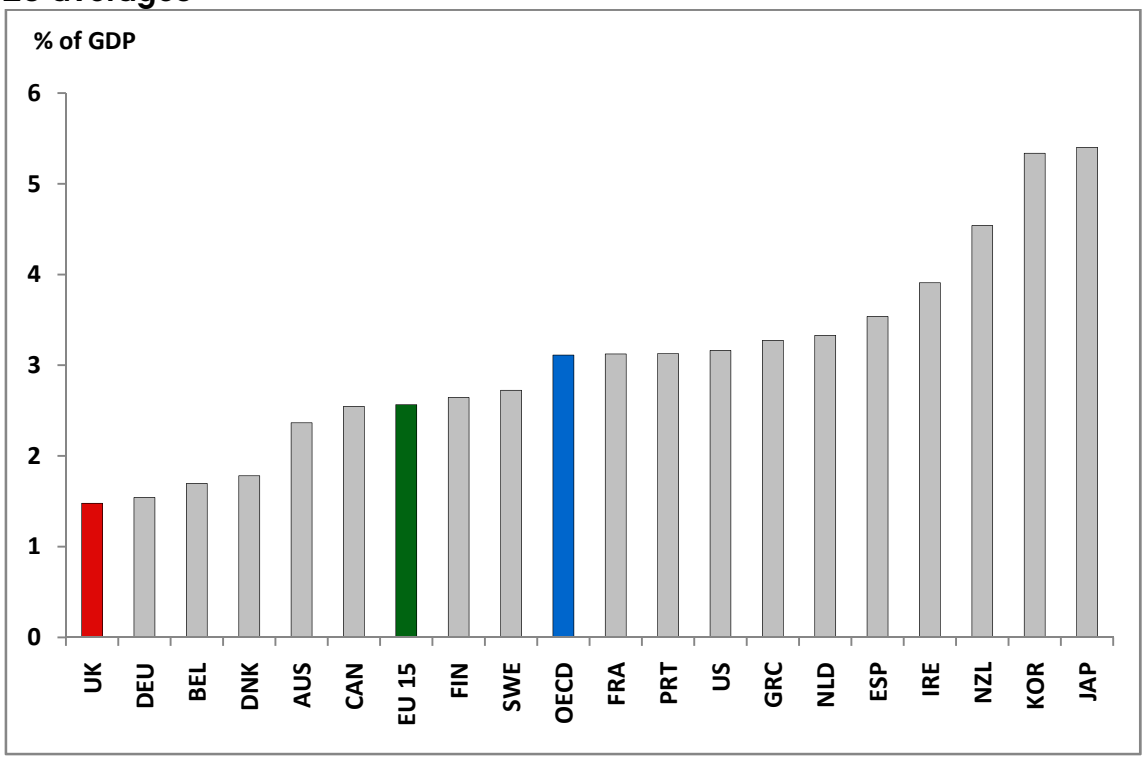
9 There was also a discretionary fiscal stimulus, worth 1.6 % of GDP, largely composed of a temporary reduction in VAT, also to support consumption. Some capital spending was also brought forward from the future.

10 See OECD (2010) *Going for Growth: UK Country Notes* which indentifies improvements in infrastructure, particularly in transport, as a priority for the UK in 2005, 2007 and 2009. See also The Eddington Study (2007).

11 Though infrastructure investment is an area where the long-run impacts of expenditure on GDP per capita may be relatively high, with multipliers as high as one (meaning that a permanent increase in investment by 1% of GDP may be able to yield a sustainable additional increase of up to 1% in GDP), the range of outcomes is highly variable, and multipliers may be as low as zero: OECD *Going for Growth* (2010). The Eddington Study (2006) concluded that where there are already clear signs of economic success (economic growth, high wages and land prices), and where transport demand is starting to outstrip supply (signs of congestion and unreliability), investment is most likely to offer real economic benefits. Choosing the right projects, particularly for developed economies, will therefore be key to maximising the growth effects of infrastructure.

12 See Foletti et al, (2009).

Figure 1: From 2000-07, Public Investment was low relative to OECD and EU averages



Source: OECD.Stat

Moreover, governments in the UK and elsewhere have, so far at least, resisted previous harmful labour market practices, such as those that encourage older workers to leave the labour market, or ease access into non-employment benefits on the (misguided) belief that this helps younger workers.

The speed of recovery

The UK recovery may follow the trajectory typical of financially-induced recessions. To the extent that it does, UK GDP will regain the level of its previous peak sometime around mid-2011.This recession may well prove to be atypical, however: a number of special factors, some positive, some negative, stand to determine what the UK outcome will actually be.

The depreciation of sterling is helping the UK. The value of the UK's exports has returned to pre-crisis levels, outpacing the export performance of the economies in continental Europe. Depreciation is also serving to reduce UK imports, relative to where they would have been had sterling not fallen. Overall, this trade performance has played a significant role in cushioning the fall in the UK's aggregate demand.

Not too much should be expected of export growth, however. Around 70% of the UK's exports currently go to the major EU countries and the US, which both seem likely to grow less rapidly than many other economies, particularly in Asia, to which the UK exports comparatively little.

Past labour market reforms too may be helping. Output tends to rebound more rapidly – even if the initial downturn is often stronger – in economies where labour markets are flexible and where product market competition is strong.[14] The UK economy has made progress over the past 30 years in increasing both the flexibility of its labour markets and the competitiveness of its product markets, so it can be expected that this will help the recovery.

The situation is currently finely balanced. To the extent that government spending is currently supporting aggregate demand, unwinding this too fast, and in the wrong way, could put the nascent recovery at risk.[15] And consequent weak investment, particularly weak business fixed investment, would hurt not only the immediate recovery, but also productive potential in subsequent years.

The risks of removing policy support for aggregate demand too quickly are exemplified by the experience of the Great Depression, where a tightening of both fiscal and monetary policy preceded a damaging return to recession.[18] And there is also the more recent experience of Japan, where attempts, in 1997 and again in 2001, to reduce the public sector deficit by tightening fiscal policy before private-sector recovery had become firmly established caused the overall recovery to stall, and the public sector deficit to increase.[19]

The need to cut government spending

Current levels of government spending are however too high. The risks that would have followed from maintaining current levels of government spending for too long are exemplified by the experience of many OECD economies in the 1980s. The public sector deficits and consequent levels of public debt that built up in the 1970s provoked high and rising bond yields, obliging policymakers to respond by tightening fiscal policy.

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14 Duval et al (2007) and OECD (2009) *Going for Growth*.

15 The IFS has recommended no further fiscal tightening this year (see IFS Green Budget 2010) and on market concerns, as Robert Chote, director of the IFS put it in his post Green Budget briefing "tightening is going to be rather more like a marathon than a sprint, and it is rather more important to convince investors that you will last the course than to be leading off the first bend."

18 See Romer (2009).

19 See Koo (2008).

This policy tightening succeeded in its aim of seeing bond yields come down, and the public finances thereby improved. But it led to the OECD region experiencing its slowest growth in the post World War II period, in turn damaging investment and productive potential. This experience shows the importance of minimising the impact of tight fiscal policy on the supply-side of the economy.

From the standpoint of growth potential in the medium term, it is important to achieve productivity improvements in the public-sector so as to be able to ensure that lower spending is able to at least maintain levels of service, particularly in areas important for growth such as health and education.

Beyond that, there is an important role for policy in ensuring that current (and also future) spending is growth-promoting. The need to start reducing the public debt at a time when aggregate demand perhaps remains fragile puts a premium on spending of a type that both supports demand in the near term and promotes growth in the future. There are several potentially good candidates, including particularly investment in infrastructure, and a range of active labour market policies.[24]

Policy recommendations

These considerations suggest a number of thrusts for policy:

1. Remove any remaining barriers to the supply of credit and a robust pick-up in investment and exports.
2. Progressively reduce macroeconomic support contingent on a recovery in private-sector borrowing, and the need to achieve the maximum possible rate of growth of aggregate demand.
3. Protect government investment (in for example transport infrastructure) that will augment long-term productive potential.
4. Recycle efficiency savings into government spending that can both promote long-run growth and support demand in the short run – such as government investment in infrastructure and active labour market policies (ALMPs).
5. Re-orient the tax structure, and reduce the overall tax burden, in ways that support investment and growth.[25]

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[24] See OECD (2009) *Going for Growth: Structural Reform at a Time of Financial Crisis* and OECD (2010) *Going for Growth: Responding to the Crisis while Protecting Long-term Growth.*

[25] Arnold, (2008).

3. FOSTERING STRONG INVESTMENT IN PHYSICAL CAPITAL

As output approaches its pre-crisis level, policymaking needs progressively to concern itself with fostering growth that is as fast and sustainable as possible over the medium term. In previous financial crises, on average, even seven years after recovery started, output in OECD economies has typically been about four percentage points below where it would have been had it remained on its pre-crisis trend.[26] Recessions thus are expensive[28]: they typically result in a "permanent" loss of output – permanent in the same sense as water that has flowed under the bridge and out to sea is lost forever.

Such an outcome is not a given, however: it can be better; and it can be worse than these average results. Many factors stand to determine the trend rate of growth after the recovery, and hence the ultimate size of the permanent output loss, with the level and rate of growth of investment, in both physical and human capital, almost certain to be key determinants.

Compound arithmetic being what it is, achieving even quite small increases in average growth rates after the recovery stands to result, over a number of years, in large differences in the level of output. Assuming that UK GDP returns to its 2008 peak in 2011, average growth rates ranging from, say, 2% to 3¼ % after this point would result in the permanent output losses from the recession being almost cut in half, from about 10% to around 5% (see Figure 2).

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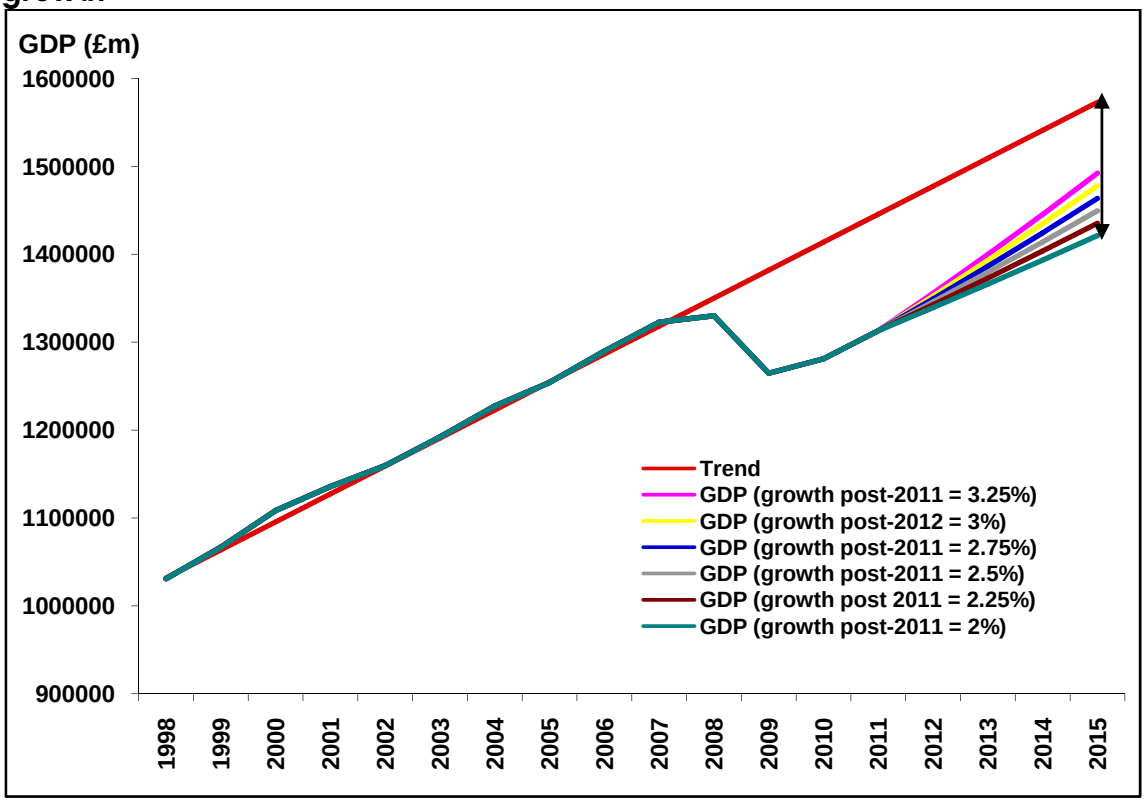
26 See Furceri and Mourougane (2009).

28 The effects are even larger when all economies, including the developing economies, are considered, with most instances lying within a range of -6% to -14 %. See IMF (2009), Chapter 4, October, *What's the Damage? Medium-term Output Dynamics after Financial Crises*.

Figure 2: The UK's permanent output loss will depend on its post-crisis growth



Source: Office for National Statistics and Authors' Calculations

Business fixed investment typically falls in a recession by much more than output[29] – in financially-induced recessions the fall has been about 30%, on average across countries, relative to its pre-crisis path.[30] In the UK in the current recession, UK business investment fell by almost a quarter in 2009. And from its peak in Q4 2007 to its (presumed) trough in Q2 2009, the fall was over 30%.[31] These falls are further magnified when considered in relation to what the pre-crisis path of investment would have been.

Hence, the behaviour of investment stands to play a crucial role in the next stages of the UK recovery:

- The sooner that private sector business fixed investment picks up, the more appropriate will be the reduction of support to aggregate demand; and,

29 Moreover, if bank lending channels are compromised, the effect on investment is likely to be particularly severe.

30 See IMF (2009), October: Chapter 4.

31 Source: Office of National Statistics.

- The stronger is private business fixed investment thereafter, the faster will the economy be able to grow sustainably over the coming several years.

A strong bounce-back in business fixed investment requires at root that firms look past short-term difficulties and see a better future – in short, that they re-discover their "animal spirits".

To the regret of many policymakers, policy can do little *directly* to make private-sector investment increase:[32] but policy can do a significant amount *indirectly* to make overall conditions propitious for investment, thereby increasing the likelihood of firms' "animal spirits" returning sooner rather than later.

This matters. The experience of Japan's "lost decade" provides a sobering reminder of what can happen if firms' lose faith in the ability of their economy to grow over the medium term.

[32] See Matthews, R.C.O (1968).

4. STRUCTURAL POLICIES: THE FOUNDATION FOR MEDIUM-TERM GROWTH

The 1994 OECD Jobs Study and its sequels[33] lay out a comprehensive agenda of structural reform for all OECD countries, with the aim of reducing structural unemployment and thereby boosting long-term growth.

Globalisation is bringing considerable benefits in the form of high-quality, low-cost consumer and capital goods to consumers and producers.[34] And the rapidly-growing economies, particularly in Asia, represent dynamic new markets in which to produce and sell. Similarly, the IT revolution has accelerated the pace of change from which economies stand to benefit. Nor does the pace seem about to slow. The number of innovations potentially available to be implemented has probably never been as great: it has been said by one expert that "if the number of inventions and innovations discovered were measured in kilometres, the number that have been implemented to date can be measured in centimetres."[35]

There is clearly much more to come, and the ability to capitalise on these innovations will influence future growth prospects.[36] Moreover, many of these innovations, unlike most of those associated with the Industrial Revolution, go beyond the manufacturing sector: they affect almost all sectors of the modern economy, including importantly virtually the entire services sector.

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33 See particularly OECD (1996): *The OECD Jobs Study: Pushing Ahead with the Strategy*; OECD (1997) *Implementing the OECD Jobs Strategy: Lessons from Member Country Experiences* and OECD *Economic Outlook 2006: Re-assessing the OECD Jobs Strategy*.

34 For a discussion of globalisation trends, opportunities and potential benefits see Wolf (2004) and Bhagwati (2004).

35 Professor Chris Freeman of the Science Policy Research Unit, University of Sussex, in conversation with one of the authors.

36 For the effects of ICT utilisation on firm productivity, see Bloom et.al (2005).

Additionally, policy made in the name of climate change also stands to transform the global and the UK economy, changing what is produced, how it is produced, and where it is produced.

Realising the benefits of globalisation and technical change, and making the move to a low-carbon economy, all involve mastering change, and will require increasing levels of adaptability and flexibility. All developed economies are facing these challenges, and those that deal with them best will be the ones that stand to prosper most.

Whereas an unskilled worker was previously in wage competition only with similarly unskilled workers in his or her own country, today that competition is with workers earning only around only around one twentieth of the average wage in the richer OECD countries, such as the UK.

It is not just the low-skilled, however, who need to adapt to the effects of globalisation. Medium-skilled jobs too are coming under increasing pressures from outsourcing and off-shoring[37], and these workers too need to adapt to change. Workers who do not have the capacity to adapt will be left behind, and place an increasing burden upon welfare. In recognition of this, amongst the most important of the challenges is the continual up-skilling of the labour force.

The recently re-stated, and particularly comprehensive, OECD Jobs Strategy[38] highlights the joint importance of both macroeconomic and structural policies in creating good framework conditions. These include macroeconomic policies conducive to sustained growth and price stability, flexible labour markets, an effective education and training system, and competitive product markets. Both the 1994 and the re-stated Jobs Strategy also highlight the particular importance of structural policies in equipping economies to benefit from conditions of rapid change.

As matters stand today, a comprehensive and a well-communicated agenda of structural reform is the most effective way to prepare the economy for the challenges it faces over the medium term. It is also the most helpful way to raise confidence and foster a strong pick-up in investment. To the extent that firms judge that faster growth is indeed both feasible and likely, the more they will be inclined

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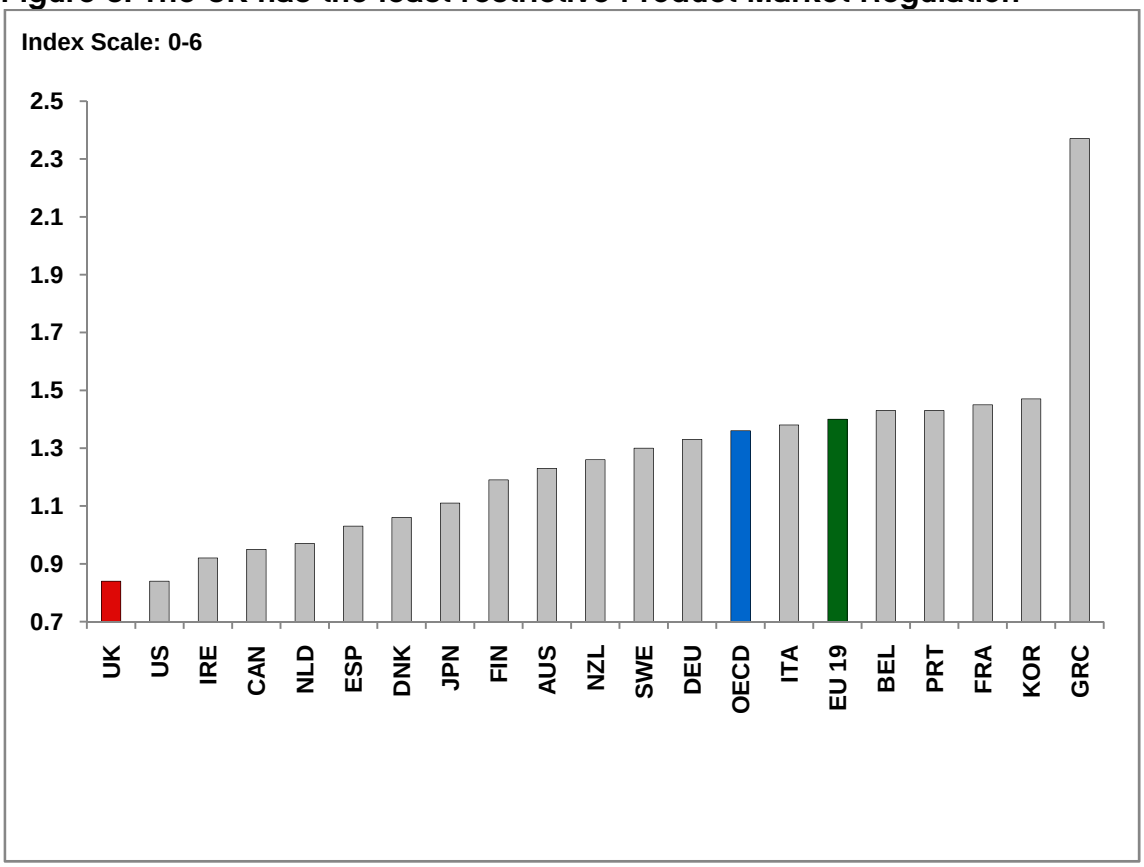
37 Deloitte (2005) noted that UK–based companies have more than one-fifth of all their non-customer operations located outside the UK, and interestingly this was driven more by capability acquisition than cost reduction.

38 See OECD, *Employment Outlook, 2006 : Re-assessing the Jobs Strategy*, 2006.

to invest so as to participate in that faster growth. And the more that, collectively, they do so, the more likely is that recovery thereby to be brought about.

The UK does not begin from a bad position on structural reform. Over the past three decades, the UK economy has embraced the challenges of globalisation and rapid technological change through open markets. Labour markets have been made more flexible, and product markets have been made considerably more competitive.[39] Indeed, recent OECD Economic Surveys of the UK[40] suggest that the UK has one of the most flexible labour markets in the world, and product market competition that rivals the very best: the UK has, for example, amongst the lowest levels of overall employment protection legislation, one of the two least-restrictive economy-wide product market regimes, and is the most open to foreign direct investment of all OECD economies.[41] (See Figures 3, 4 and 5).

Figure 3: The UK has the least restrictive Product Market Regulation



Source: OECD.Stat

39 See Metcalf (2004), Barrell and Genre (1999) and HM Treasury (2006) *Productivity in the UK 6: Progress and New Evidence*, Chapter 2: A Decade of Reform.

40 See OECD *Economic Surveys* (2007, 2009).

41 See OECD Going for Growth 2010 Database.

Figure 4: UK has a low level of employment protection legislation

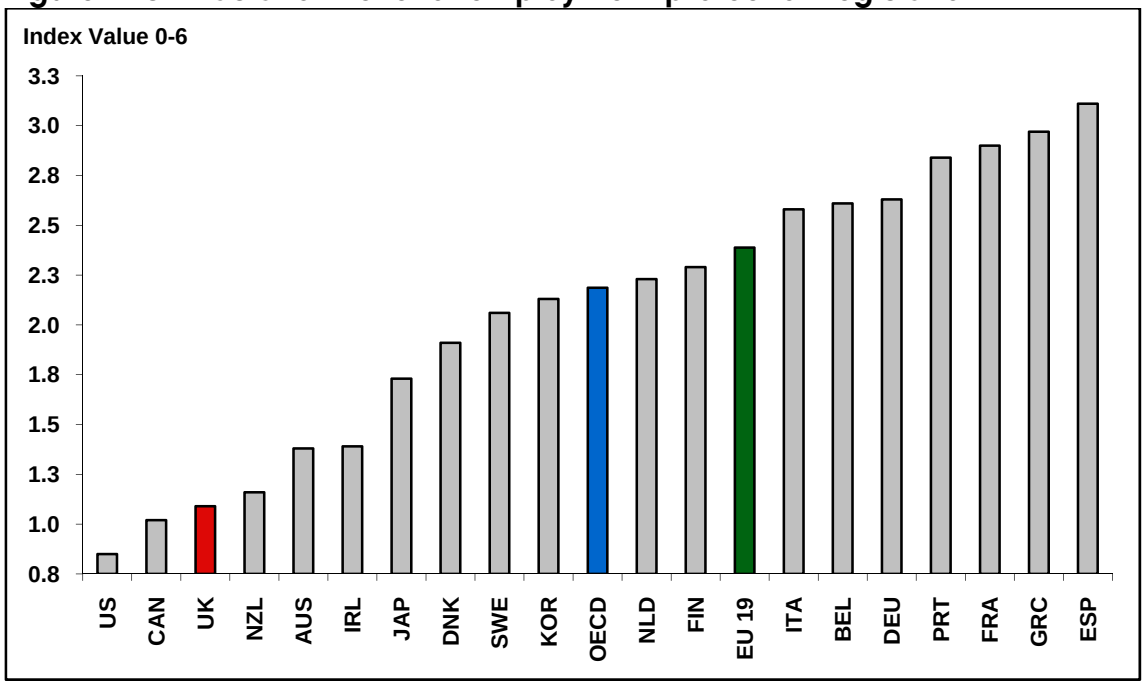
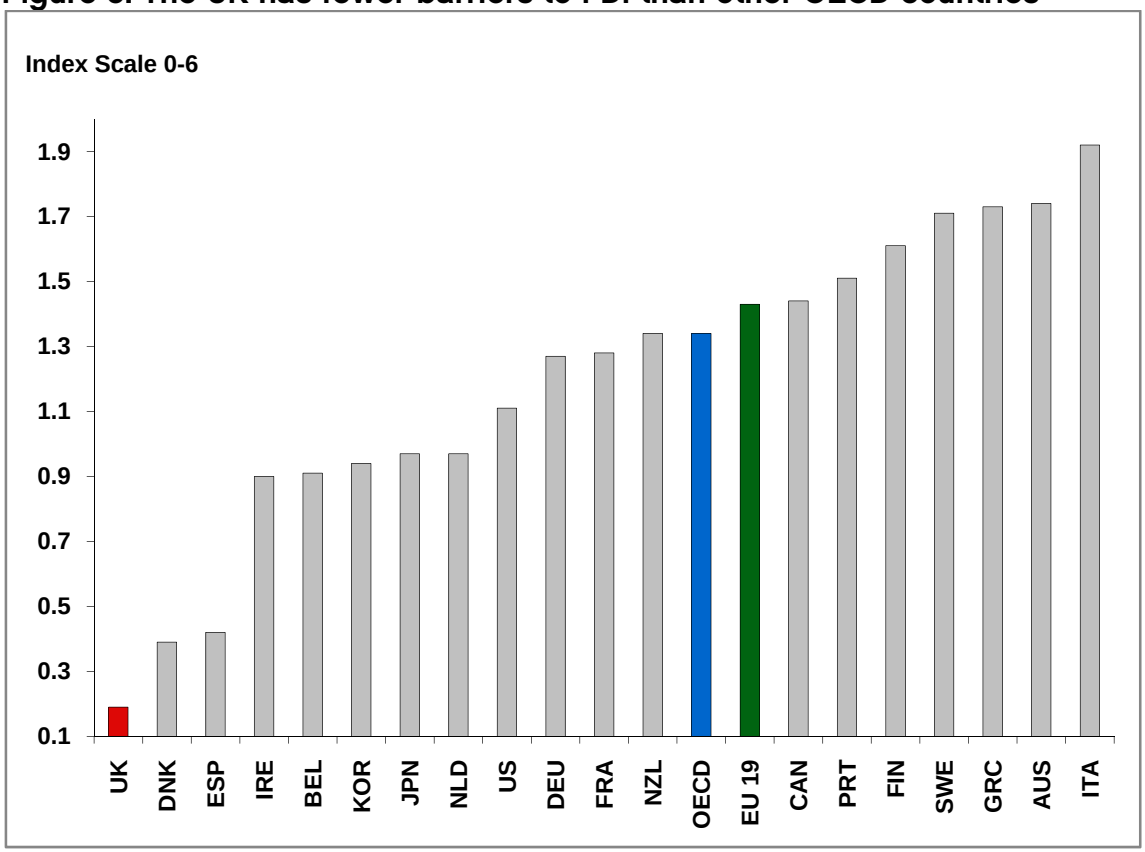


Figure 5: The UK has fewer barriers to FDI than other OECD countries



Source: OECD.Stat

But it is important not to be complacent. There are areas where the UK can improve and – and, given the challenges ahead, should improve. The objective

should be not only to deal with remaining areas of weakness, but also to continue to improve areas of strength, guarding against backward steps.

In particular, structural policies, aimed at increasing the number of people working each year, their productivity and their adaptability to change, can be improved. That should be the focus for policymakers; and is addressed in the following chapters of this paper.

5. FOSTERING INVESTMENT IN HUMAN CAPITAL

Improving human capital performance has a well-established link to economic growth, both in economic growth models and in empirical studies.[42] Investing in human capital starts with protecting existing human capital, and policy has a central role in preventing the financial crisis and the subsequent downturn from negatively impacting the labour market well into the future.

Severe economic downturns can have long-lasting negative effects on the labour force: not only the quality, but also the effective size, of the labour force stand to be affected, thereby damaging productive potential in the longer term. Preventing recession-induced increases in unemployment from turning into long-term unemployment, demoralisation, and detachment from the world of work is a priority.

In the recession of the early 1990s, unemployment in the UK reached 10%, and long-term unemployment almost doubled, to around 4%. It did not return to its 1990 level until the late 1990s.[43] Unemployment has risen in all OECD countries since the onset of the crisis,[44] and in the UK it has risen from 5.3% in 2007 to 8% in the first quarter of 2010.[45] In a deep recession, job losses are more likely to result in long spells in unemployment, leading to a more severe loss of skills, reduced lifetime earnings potential and an increased probability of unemployment becoming entrenched, reducing the size of the effective labour force.

The experience of past recessions has been that youth, unskilled, and temporary workers are particularly likely to see demand for their labour falling.[46] Many of these

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42 The importance of human capital for growth has been documented in the endogenous growth literature, for example in Lucas (1988), and also by empirical studies of growth, for example Benhabib and Spiegel(1994) and Mankiw, Romer and Weil (1992).

43 OECD (2009) *Economic Survey*.

44 See OECD (2009) *Employment Outlook*.

45 Labour market data are from the Office of National Statistics (2010) *Labour Force Survey*.

46 See OECD (2009) *Policy Brief: Helping Workers Weather the Economic Storm.*

people are already disadvantaged by their limited skills. There is a clear case for policy to ensure that further losses are cost-effectively avoided where possible.

The role of active labour market policies

Experience has been accumulating in OECD countries over the past 20 years or so about the effectiveness of active labour market policies in both keeping unemployment down and combating disincentives often faced by those out of work.[47] These policies are to be distinguished from "passive measures" that merely provide income support to those who, for whatever reason, are out of work. Active measures aim, in addition, to promote re-employment by providing job search assistance, training, and other help to re-equip for the world of work. Increasingly, sanctions have been imposed for non-compliance.

Although they cost more than simple income support, over the longer term they can, if well-designed and well-implemented, be cost-effective: in particular, increased spending on active measures has been found to lower unemployment in response to an adverse macroeconomic shock.[48] Active measures can also increase job finding rates,[49] and reduce the time spent on unemployment benefit.[50] Speeding re-employment for job losers can provide a double fiscal dividend, by simultaneously lowering unemployment benefits and increasing tax receipts.

The potential payoff for successful active labour market policies is probably even higher in a downturn than in normal times. This suggests that spending on these policies should be increased to a level that at least maintains the level of spending per person unemployed.

All OECD economies have implemented new, or strengthened existing, active labour market policies ALMPs) in response to the crisis.[51] The UK has increased spending by a quarter,[52] but from a base that was low by OECD standards (see

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47 The original OECD Jobs Study highlighted the role of active measures in bringing down equilibrium unemployment, and this was re-confirmed in the re-stated Jobs Strategy in the OECD (2006) *Employment Outlook*. For empirical work see: Bassanini and Duval (2006), Boone and Van Ours (2004).

48 See Blanchard and Wolfers (2000) and Bassanini and Duval (2006).

49 See evidence based on a controlled experiment in Denmark in Graversen and van Ours (2006) and Rosholm (2007).

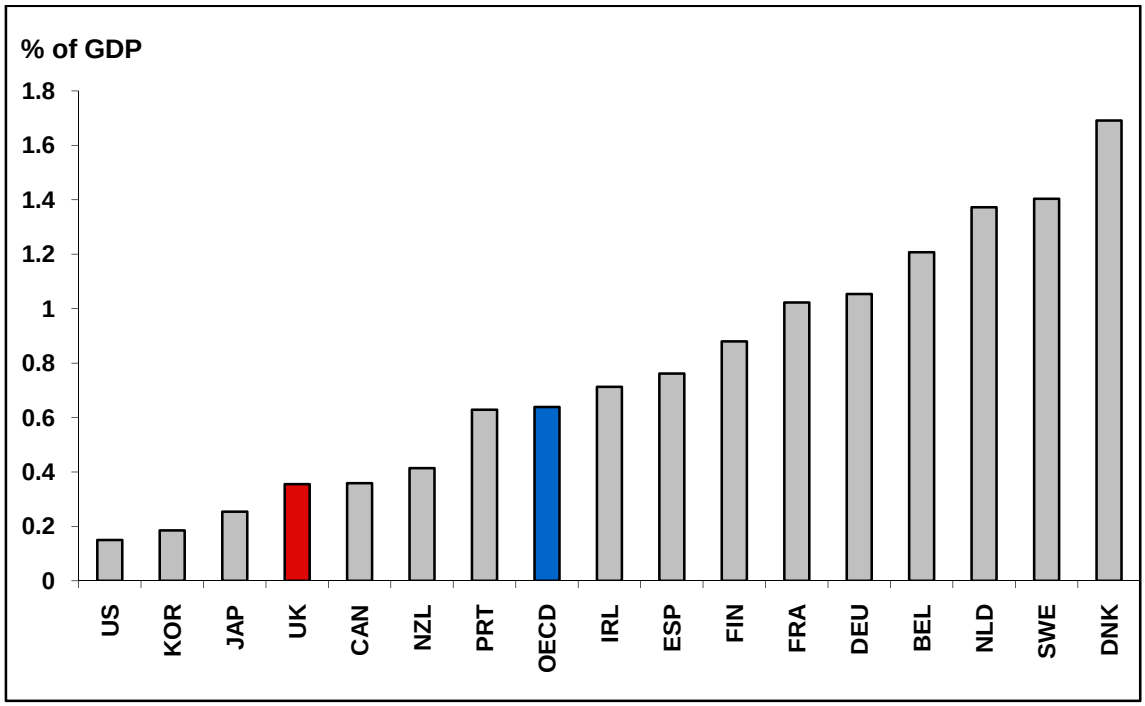
50 See evidence based on experimental design using treatment and control groups in Berger et al. (2003) in the US and Geerdsen (2006) in Denmark.

51 See OECD (2010).

52 OECD (2010).

Figure 6). It will be a challenge to prevent resources from being spread thin, given the large numbers that have flowed into unemployment, and that the recovery in unemployment is likely to lag the recovery in output.[53] The challenge for policy is to design measures that can cushion the effects of the crisis in a way that, as much as possible, aligns with the longer-term goal of promoting more and better jobs.

Figure 6: From 2000-07, UK Public expenditure on ALMPs was low by OECD standards



Source: OECD.Stat

The long-term unemployed

Limiting and then reversing the number of people who become long-term unemployed will be important. Long-term unemployment[54] in the UK has increased since 2007, from around a quarter of total unemployment (1.3%) up to around a third (2.4%) in 2010. The number of long-term unemployed now stands at 757,000, the highest figure since May 1997.[55] As more workers compete for fewer jobs, there is a greater likelihood of those already out of work remaining unemployed for long periods, whereby their skills atrophy and the prospects of becoming re-employed diminish. The risk is then of permanent exclusion from the labour market.

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53 The flip-side of stronger than expected employment performance/labour hoarding.

54 Defined as those unemployed for over a year.

55 OECD Employment Data.

Limiting those entering incapacity benefit and early retirement

Access to incapacity benefits, in common with pathways towards early retirement, tends to lead workers down a one-way street away from the labour market. And the cost of supporting them thereafter is high. It is therefore cost-effective for policy to ensure that gate-keeping measures limit both the numbers flowing on to incapacity benefits, and the number of older workers who leave the labour force.

Indeed, many such workers would like to return to the world of work. Keeping such people as job-seekers, and trying to maintain or increase their skills, is a far better option than letting them drift into inactivity.

This warrants, where feasible, that as many as possible be kept as job seekers, and by measures to ensure that such workers are accommodated adequately in the workplace. Though past policy has acknowledged the problem, the numbers on disability benefit schemes in the UK remain high by OECD standards.

The ideal way to improve the lifetime income prospects of those out of work or inactive is to encourage labour force participation and facilitate continual raising of skills. Well-designed active labour market policies can, albeit gradually, achieve both aims.

In addition to the need to maintain investment in human capital in the short-term there is a longer-term need continually to raise the quality of the entire labour force. Raising productivity through increased human capital levels will require improvements in education, skills, and training acquired both on and off the job[56].

Youth unemployment

Young people have been particularly hard hit in the downturn, and their short-term and long-term prospects are a key policy challenge. Youth unemployment has risen by over five percentage points since 2007, to just under 18%, almost double the average rise in unemployment.[57]

For youth, unemployment can be particularly damaging. Early youth unemployment has been found to harm future incomes, and can also increase risks of future unemployment.[58] Spells of unemployment while young have been argued to affect happiness, job satisfaction, wages, and even health, many years later. For the most

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56 For the link between human capital and productivity at the firm level see Haskel, Hawks and Pereira (2004).

57 Source: ONS

58 See Gregg and Tominey (2005) and Gregg (2001).

disadvantaged youth, lacking basic education, a tough beginning tends to be particularly harmful, not only for the individual but also to society.[59] It is important to direct policies carefully at youth, lest a whole generation of young people not reach their potential in the labour market.

The UK's compulsory active labour market programme the "New Deal for Young People" (NDFYP) has had some success. But the future challenge is great. Evaluations of the NDFYP find that job-finding rates increased by 20%,[60] and it has been claimed that the decline in long-term youth unemployment of over seven percentage points over the past decade has been assisted by this policy.[61]

There has, nevertheless, been a deterioration in youth outcomes – and this started even before the crisis. Youth unemployment in the UK began moving up in 2004, to reach 14.4 % in 2007 – above the OECD average, and approaching the average of the Euro area (see Figure 7). Youth unemployment also rose relative to adult unemployment, and more so than both the OECD and Euro area average (Figure 8) – all at a time of rapid economic growth.

The number of youths classified as not in employment, education, or training (NEET) has also become a cause for concern. The trends for 18 to 24 year old NEETs are similar to those for youth unemployment, and the NEET rates for 16 to 17 year olds are high – one in five, if part-time students are included – and one in ten if they are excluded, still a large ratio.[62]

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59 See Bell and Blanchflower (2009).

60 See Blundell et al. (2004) and di Giorgio (2005), who exploit large differences in treatment between 24 year olds in the programme and 25 year olds who were not.

61 See OECD (2009) *Economic Survey* Chapter 5.

62 See Petrongolo and Van Reenen (2010).

Figure 7: Youth Unemployment began increasing in 2004, before the crisis

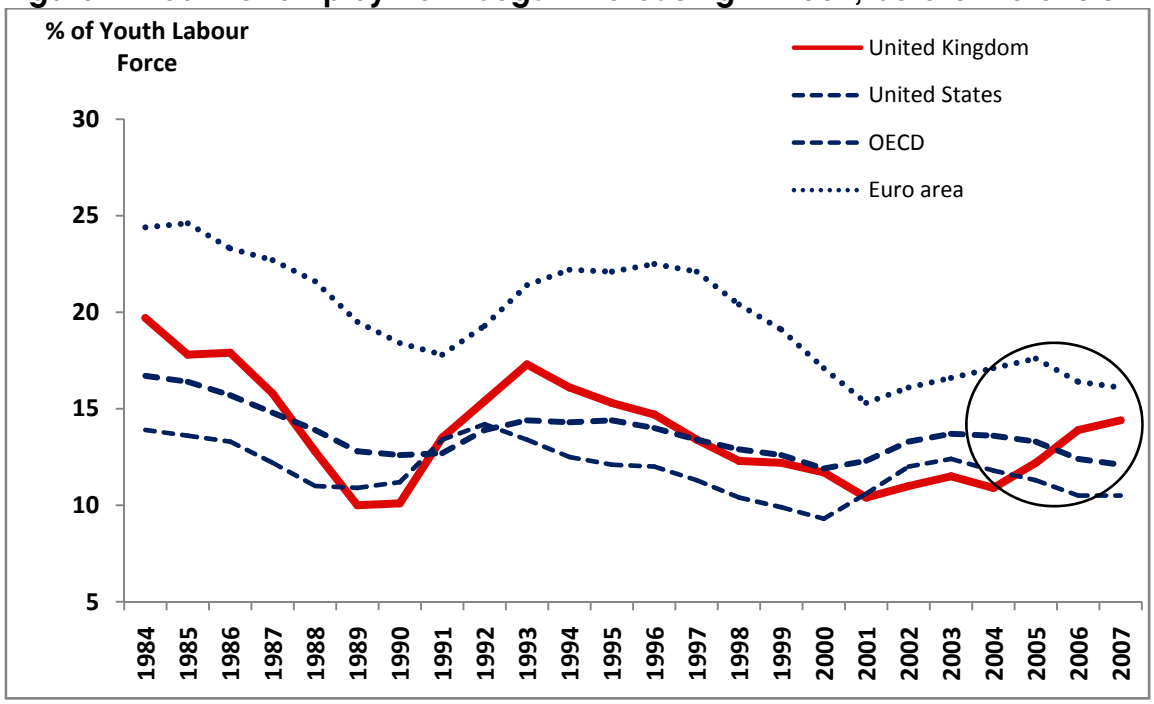
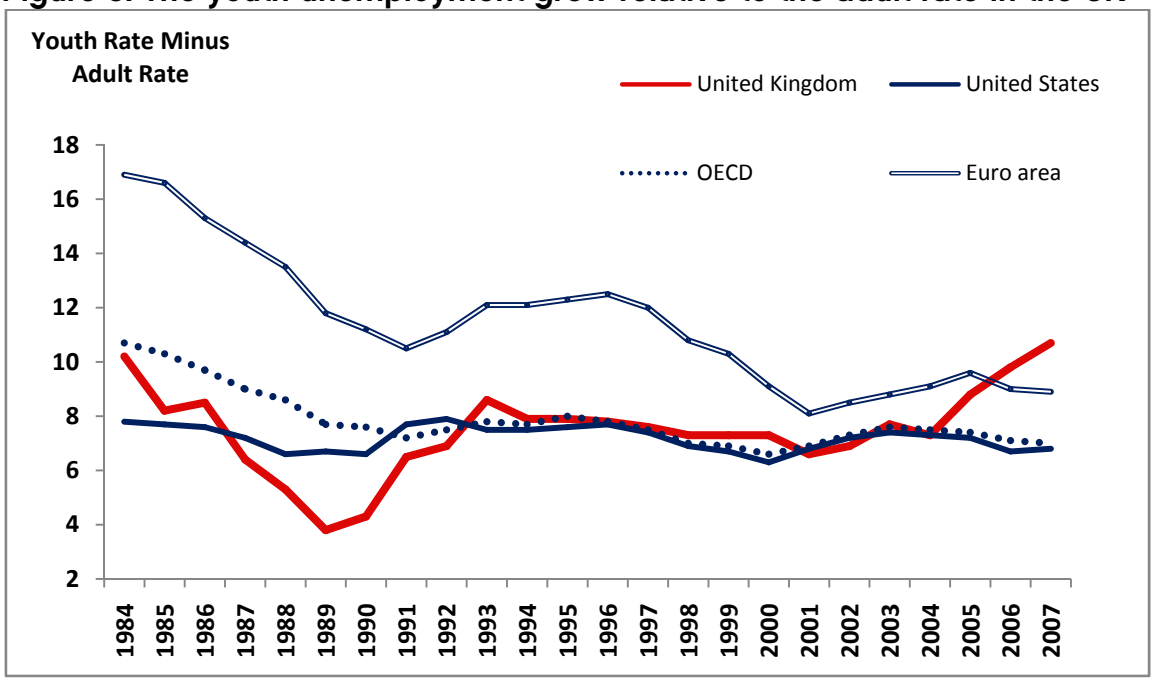


Figure 8: The youth unemployment grew relative to the adult rate in the UK

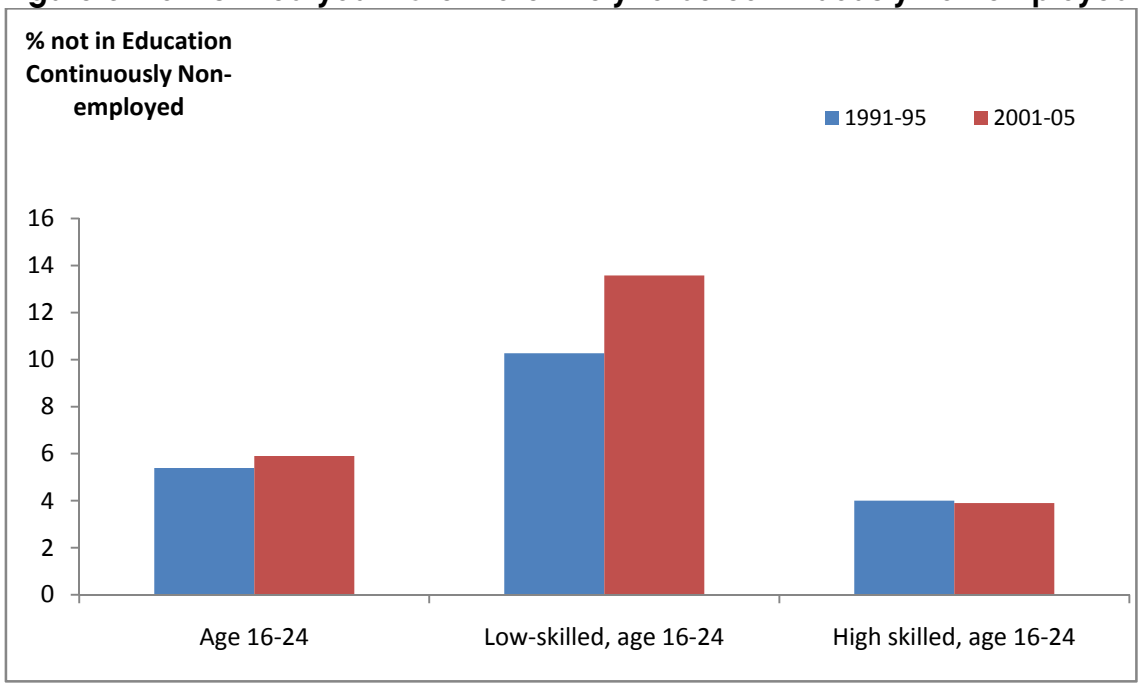


Sources: OECD (2009), *Economic Survey of the United Kingdom* and OECD.Stat

It has been estimated that the number of 16 to 24 year old NEETs has remained at around 6% since the mid 1990s. Within this, however, low-skilled youth have experienced a far greater labour market deterioration than have skilled youth: recently, low-skilled youth have been five times more likely to be unemployed than their skilled

counterparts, and low-skilled NEETs are much more likely to be continuously non-employed (see Figure 9).[63]

Figure 9: Low-skilled youth are more likely to be continuously non-employed



Sources: OECD (2009), *Economic Survey of the UK* and OECD (2008a), *Jobs for Youth: United Kingdom*

Countries all around the world have difficulties in helping youths who leave education without basic skills. Many different types of programme have failed to make a significant impact on disadvantaged youth in particular.[64]

A one-size-fits-all approach for youth is unlikely to succeed. In the short-term a priority is to enforce the "mutual-obligations" approach and to keep those young people who are at danger of losing contact close to the labour market. Training programmes are especially suitable for low-skilled youth in order to consolidate their skills and enhance their chances of finding work when the recovery strengthens. The challenge should not be underestimated, however, particularly in regard to improving the outcomes of the very low-skilled. A promising avenue for policy for the low-skilled is to offer apprenticeship contracts in the private sector, given that this would allow them to gain both skills and work experience.

63 OECD (2009) *Economic Survey* and OECD (2008a) *Jobs for Youth.*

64 See Heckman et al. (1999).

What works: the international evidence

The cross-country evidence on early active labour market policies was mixed.[65] Some schemes seemed to work, but many did not.[66] As the number of schemes has increased, however, many more programmes have been evaluated rigorously.[67] They have been shown capable of yielding positive results in terms of some combination of higher employment, shorter spells in unemployment, higher attachment to the labour force, and also higher wages.[68] Successful programmes tend to have the following characteristics:

- In the short term, relatively low-cost job-search often rates well.[69] Services such as deep counselling, job-finding incentives, and search assistance should be combined with increased monitoring and sanctions for non-compliance.
- In the long-term, and though generally more expensive, public training programmes can do well. Such programmes have been found to exert a larger positive effect when evaluated over a longer period.[70] Design is key: training programmes should be small and directed carefully at the needs of job seekers and local employers, building in on-the job content where possible, and leading to qualifications that are recognised by employers.
- Private sector employment incentive schemes can yield significant results, but subsidies should be short, carefully directed, and closely monitored.
- Direct public sector job creation is rarely effective, and often detrimental to future prospects. There may be a case for these policies in a deep recession, but even if so they should be brief, directed at the most disadvantaged, and aimed at raising employability.
- Active labour market policies can also be a powerful tool in compensating the losers from structural change, and can combine such equity concerns with

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65 Expected in the sense that the design of individual programmes is key for achieving favourable labour market outcomes and cost-effectiveness.

66 See Heckman et al. (1999) for a thorough analysis of early programmes in the US and Europe.

67 Much evaluation has now been undertaken using experimental data, using treatment and control groups to better identify causal effects and avoid the problems of earlier studies.

68 See Lechner et al. (2006), Kluve (2006), Martin and Grubb (2001), and Bassanini and Duval (2006).

69 Kluve (2006) finds the effects of private sector incentive programmes and job search assistance combined with sanctions are strong and even stronger than training programmes.

70 Studies that have taken into account the long-run effects of training have found larger effects e.g. Boone and Van Ours (2004).

improving efficiency in the labour market. They help to re-allocate labour quickly into more productive use, and limit the long-term costs to the state and, indeed, the resistance to change, that can otherwise result.

Such policies are not a substitute for removing disincentives to work. But they can help to overcome such hurdles to employment while they remain[71] and, if combined with other structural policies that promote employment, in the tax and benefit system and in education and training, they stand to be even more effective.

Active labour market policies are a relatively new area of policy, and there are many lessons still to be learned. Improvement in policy is a continual process. It is therefore important that policy be continually evaluated.[72]

Policy Recommendations

These considerations suggest the following lines for policy:

1. Maximise the effectiveness of active labour market policies that limit the effects of weak growth on those who stand to be most affected, and who stand to put the public purse under most strain over the long term.
2. Keep as many people as possible actively searching for work and limit skills losses cost-effectively.
3. Limit and then reverse the number of people, particularly youth and older workers, who become long-term unemployed and inactive.
4. Limit numbers flowing on to incapacity benefits, and continue to assist those on incapacity benefits back to work.
5. Devise a strategy for youth, particularly low-skilled and NEETs, that both addresses the short-term difficulties they face and the long-term challenges to their success in the labour market.
6. Devise a strategy for older workers, aiming to raise participation and accommodate them in the workplace for longer.
7. Break the culture of benefits dependency that can perpetuate itself across generations, through a system of compulsory, well-designed, integrated ALMPs.
8. Help workers to adjust to efficiency enhancing structural change.

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71 The negative effects of high unemployment benefits can be ameliorated by active measures. See: Bassanini and Duval (2006) and Boone and Van Ours (2004).

72 Riddell (1991).

6. EDUCATION, TRAINING AND GROWTH

While active labour market policies are a potential solution to a number of the problems that many youth face in the labour market, improving the educational achievement of the young is the best long-run solution to improving their prospects in the labour market and their ability to adapt to the requirements of the future.

A successful future for those currently in education will require much higher levels of skills than has been the case in the past: the education system has a fundamental role in the economy's long-term growth prospects.

The starting point for raising human capital begins with education, and the UK lags behind the best performers internationally. Though national testing shows that progress has been made in the UK,[74] international comparison suggests that more should be done to improve the educational attainment of young people as a key step towards improving human capital and productivity.

Internationally-comparable test results, such as those from the Programme for International Student Assessment (PISA), rank 15 year-olds in the UK far below those in the top-performing countries in reading, science and mathematics, and overall at about the average of all OECD countries (see Figures 10, 11 and 12). Finland is consistently the best performer on all fronts.

[74] See OECD *Economic Survey* 2009 and HM Treasury (2007), Chapter 2, *A Decade of Reform*. Note also the many concerns expressed over the validity of the UK testing programmes in general, and the UK's approach in PISA in particular.

Figure 10: UK 15-year- olds rank below top performers in reading, PISA 2006

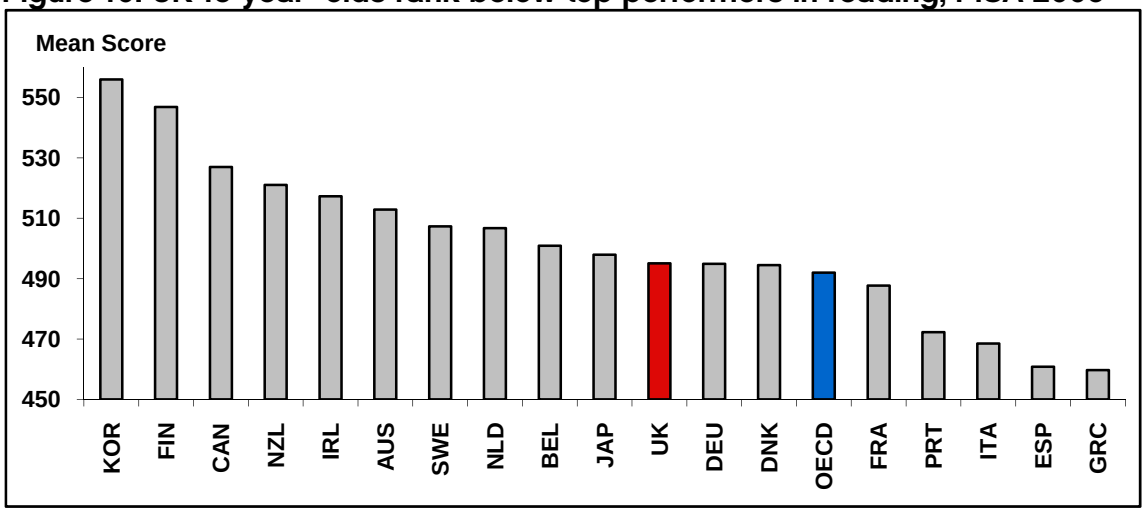


Figure 11: UK 15-year-olds rank below best performers in science, PISA 2006

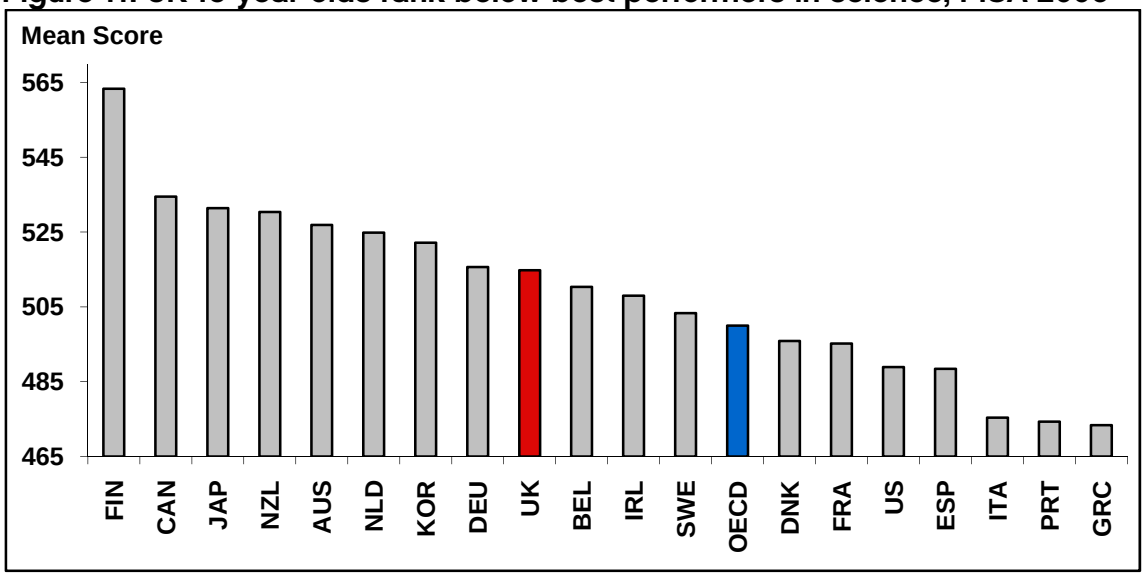
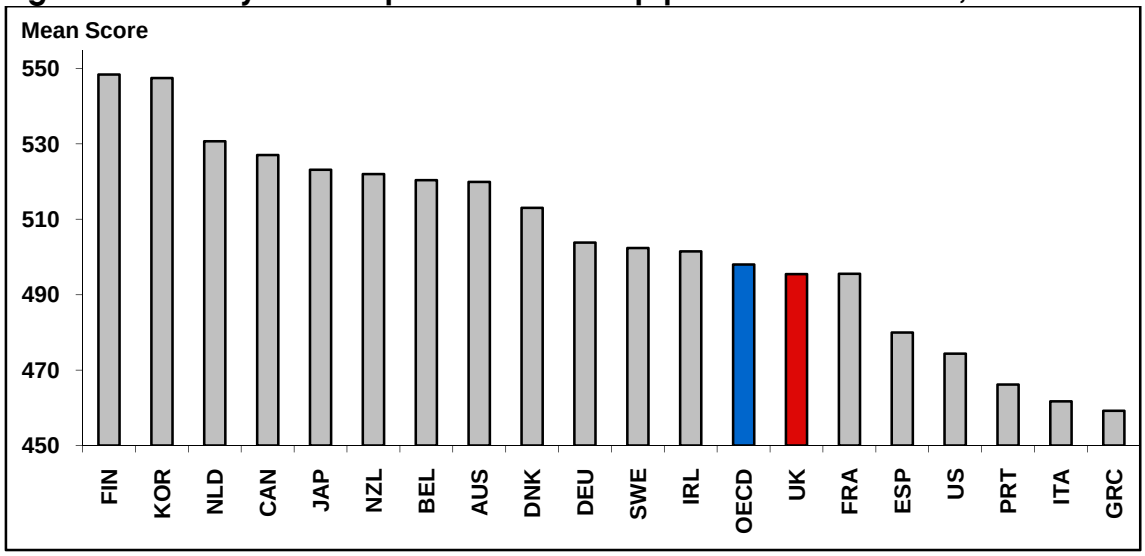


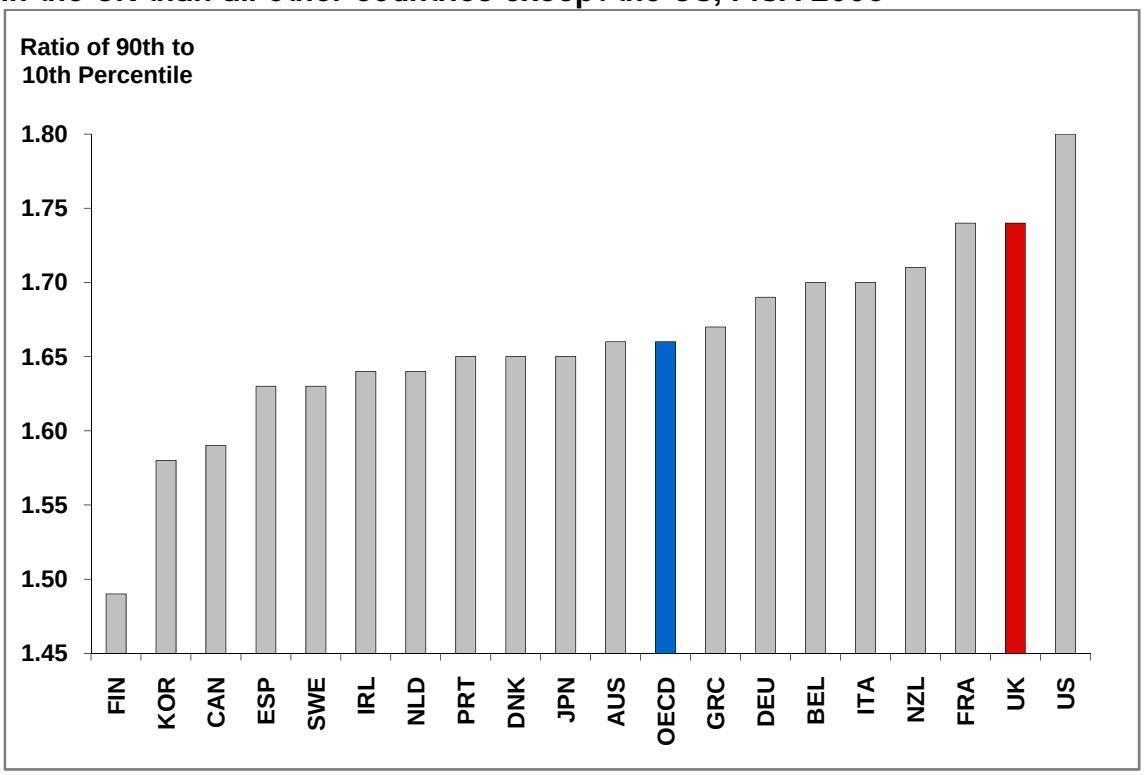
Figure 12: UK 15-year-olds perform below top performers in maths, PISA 2006



Sources: OECD.Stat and OECD (2007), PISA 2006: *Science Competencies for Tomorrow's World*

Dispersion in performance between UK students is wider than the OECD average, and in science is wider than in all countries except the US (see Figure 13). While the performance of the UK's top students is good, according to the PISA 2006 study, almost one in five of UK 15-year-olds performed at the lowest level of competence, compared with around one in 20 in the best-performing country, Finland.

Figure 13: Gap between highest and lowest performers in science is larger in the UK than all other countries except the US, PISA 2006



Sources: OECD.Stat and OECD (2007), PISA 2006: *Science Competencies for Tomorrow's World*

Moreover, the difference between the UK and the top-performing countries is more marked towards the lower end of the distribution. Table 1 shows that, while the best performers in the UK have a gap of 15 points relative to best-performers in the top-seven countries, this gap gets bigger further down the distribution: in the UK, the worst performers have a larger gap than the worst performers in the top seven countries.

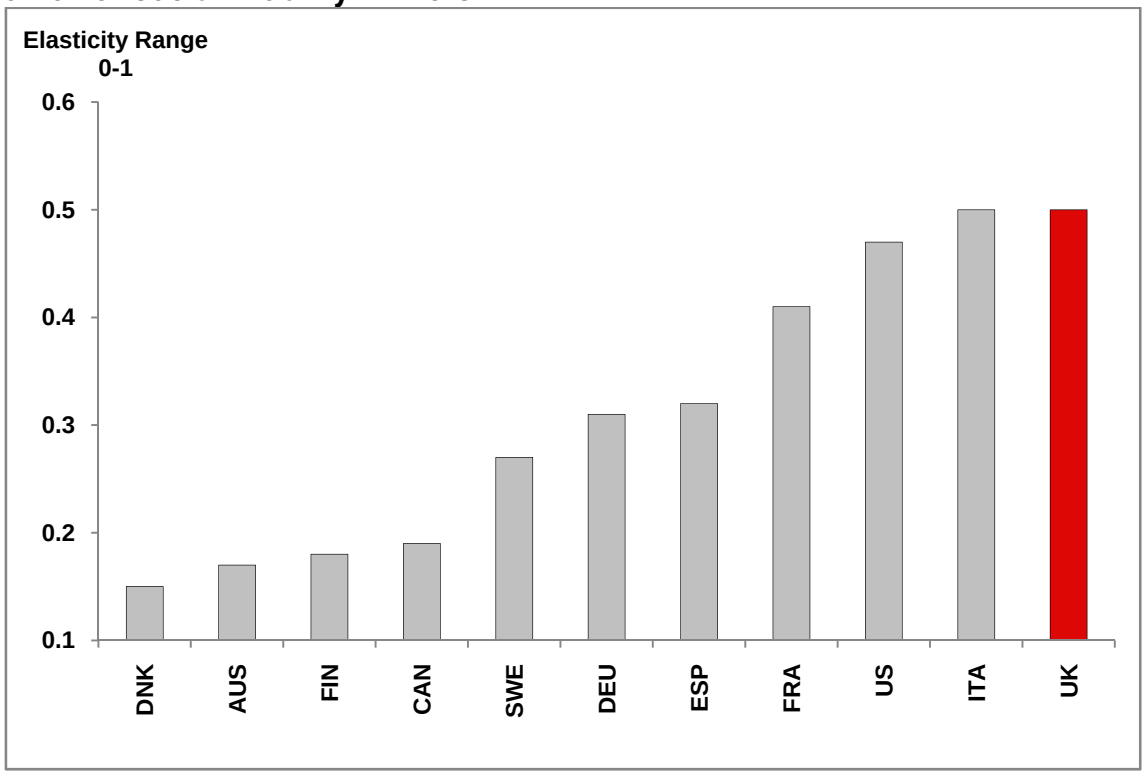
Table 1: Average PISA scores by percentile ranking – top seven performers vis-à-vis the UK[75]

	5th	10th	25th	Mean	75th	90th	95th
Average PISA Score of Top 7 Countries	370	407	468	530	595	646	675
UK	335	372	435	502	571	628	660
Gap: Top 7 - UK	34	35	32	28	24	18	15

Sources: OECD (2009), *Economic Survey of the UK* and OECD (2007), PISA 2006: *Science Competencies for Tomorrow's World*

Another widely recognised measure of performance is intergenerational earnings mobility – the proportion of relative income disparities between parents that is transmitted to their children. The higher the ratio, the lower is income mobility between generations. Intergenerational mobility is highest in the Nordic countries, Canada, and Australia, and lowest in the UK (Figure 14).

Figure 14: Higher earnings persistence across generations is an indicator of lower social mobility in the UK



Sources: OECD (2009), *Economic Survey of the UK* and d'Addio (2007)

Low intergenerational earnings mobility reflects a failure to use a major part of the nation's resources – its labour – to its full potential. To the extent that earnings are a reflection of productivity, persistent intergenerational earnings immobility

[75] Measured by the unweighted average of the various percentile scores for mathematics, reading and science. The top seven performers are Finland, Korea, Canada, New Zealand, the Netherlands, Australia and Japan.

suggests that disadvantage, like advantage, is transmitted through the generations. Breaking that link can have a significant impact, because it stands to be not just the individual who will benefit, through higher productivity and future earnings, but potentially the economy as a whole, generation after generation.

Improvements in education, particularly early and sustained intervention aimed at the poorest performers, can do much to improve the economy's future productive potential. However, with skills at an increasing premium, it is important that current and future workers demand, and have opportunities, to continually increase their skills. The trend of unequal educational attainment goes beyond initial education, and extends to training. The returns to adult education and training are potentially high: workers who maintain and upgrade their competencies by undertaking training during their working life fare better in the labour market, with higher wages, better employability, and stronger job attachment.[76]

Across the OECD, better-educated people are more likely to receive employer-sponsored training than are the low-skilled. This leads to a widening of existing skills gaps.[77] Moreover, gender differences in the volume of education and training are of the order of 15% on average. Even more striking, older workers and people with less than upper secondary education receive less than half of the training received by an average person aged between 26 and 65 – and this despite the evidence that the impact of training on employability varies little by age group or skill level.[78]

Companies tend to under-provide training, particularly general training, because the cost is borne by individual firms, whereas the benefits, for example through increased employability, often accrue to future employers, and thereby the economy as a whole. This incentivises firms to tie in the workers they train through firm-specific training, while not training those whom they consider they are unlikely to be able to retain.

This raises the question of whether government initiatives can bring about a more efficient market in training. Designing efficient co-financing is a challenge, and

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[76] For a thorough review of the empirical literature linking vocational training and labour market performance see Leuven (2004). See also OECD (2003) *Beyond Rhetoric: Adult Learning Policies and Practices*, Chapter on Workers Skills.

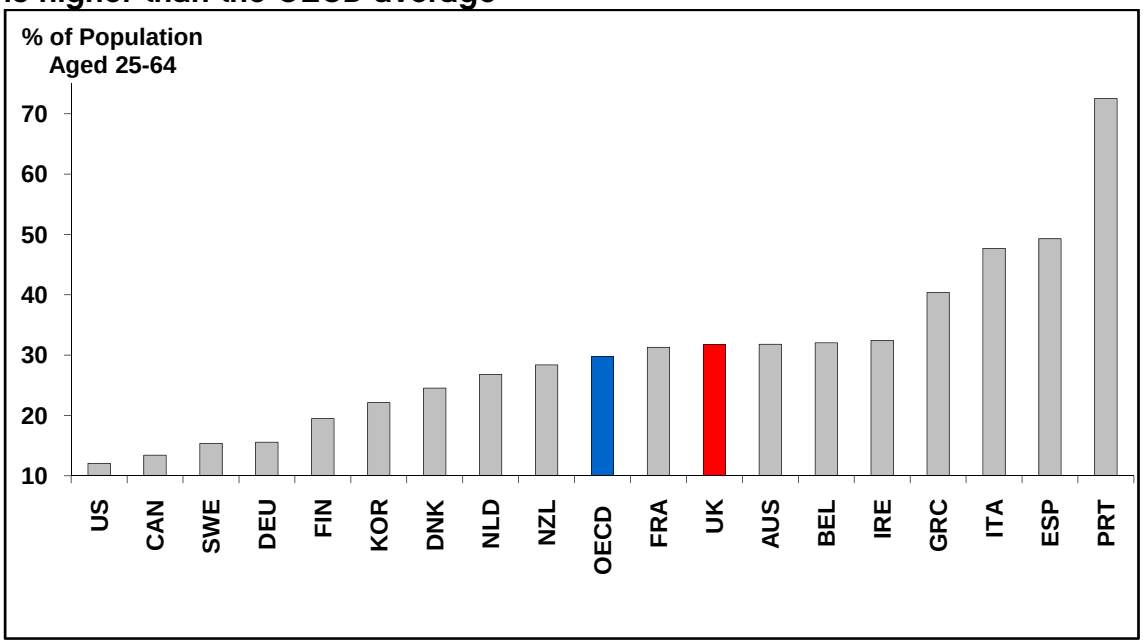
[77] See OECD (2001) Economics *and Finance of Lifelong Learning, Promoting Adult Learning* and OECD (2004) *Co-financing Lifelong Learning: Chapter on Human Capital Investment.*

[78] See OECD *Employment Outlook* (2006), Chapter 3: General Policies to Improve Employment Opportunities for All.

countries have taken different approaches – in the US and Canada for example, "individual learning accounts", in which governments, firms, and workers invest, could be promising for developing adult learning, particularly for the low-skilled.[79]

The UK has historically had low skills levels compared with its main competitors. Recent OECD data show that the UK has more of its adult population without basic skills than does the average OECD country (see Figure 16). The 2006 Leitch Review of Skills identified skills as a major challenge for future UK productivity performance, and concluded that achieving a skills base that is truly world-class could deliver significant benefits to the UK economy through higher productivity and employment. The Review noted that, even if the UK were to meet challenging skills targets by 2020, the UK would stand to rank 15th out of 30 OECD countries in respect of those aged 25-64 with low skills, 13th in terms of intermediate skills, and 13th in terms of high qualifications.

Figure 16: The % of the UK population without upper secondary education is higher than the OECD average



Source: OECD.Stat

Arguably, the biggest challenge to the UK's long-term growth prospects will be its ability to increase the skills base of the entire population, a traditional area of weakness compared with comparator countries.[80] In today's world, skills are at an increasing premium, and raising the skills of the entire population to higher levels

79 See OECD *Economic Outlook* (2006) Chapter 3 for a discussion of this and other financing schemes and OECD (2005) *Promoting Adult Learning*.

80 See HM Treasury (2007) *Productivity in the UK 7.*

will increase productivity. Continuing to improve schools will not be enough – 70% of the 2020 workforce has already left compulsory education.[81] The ageing population places a further premium on increasing adult skills, and if this were achieved it could significantly improve productivity in the economy.

Policy Recommendations

These considerations suggest the following lines for policy:

1. Continue to improve the quality of, and access to, pre-primary education, particularly in disadvantaged areas.[82]
2. Focus on raising core literacy and numeracy in primary schools, and provide extra help for poorest performers.
3. Raise the proportion of students from low socio-economic backgrounds who obtain sufficiently high quality education to continue to post-secondary study.
4. Continue to increase information and communication technology (ICT) skills in education, and ensure that teachers have adequate skills in this area.
5. Strengthen vocational tracks alongside more traditional academic routes and otherwise strengthen school-to-work transition.
6. Develop institutional frameworks that are more conducive to lifelong learning, and allow individuals greater choice over their own development.
7. Increase incentives both for firms and workers to invest in socially valuable training, including for underrepresented groups.
8. Encourage cooperation between social partners in meeting individual, firm-level and economy-wide training needs and in sharing the costs.

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81 Leitch Review.

82 See d'Addio (2007).

7. INCREASING THE LABOUR FORCE

Achieving faster economic growth over the medium term requires not only that the existing labour force has the requisite skills and incentives to work: it is also likely to require faster growth of the labour force itself.

Faster growth of the labour force can be promoted, up to a point, through immigration of people of working age. But a rate of immigration sufficient to make a material difference to the rate of growth of the labour force over the medium term risks engendering problems of absorption; and over the longer term the age distribution of the immigrant population tends, for a variety of reasons, to acquire the age distribution of the host population.

The best way to achieve faster growth of the labour force is probably through an increase in labour force participation – the proportion of the population of working age that is fit and able to work. This results both in an increase in tax revenues and a decrease in social expenditures, including importantly on unemployment benefit and pensions. The potential dividend of an increasing labour participation rate in the UK stands to be large. And there is significant scope for policy to offer incentives to achieve that.

Reducing the numbers who retire early

Older men participate in the labour force much less than they used to, despite their increasing health and life expectancy. In the mid 1960s, about 90% of men aged 60 to 64 were economically active: by 2000, this proportion had declined to 50%. The ratio has since risen somewhat, but only to around to 60% by 2008. While it might not be reasonable to assume a full return to the 90% figure of the 1960s, it would be realistic to aim for a participation rate of around 75%, the rate that obtains for example in (culturally similar) New Zealand.

As regards women in the UK, the proportion of those aged 55 to 59 who were economically active stood at around 46% in the mid 1960s, and has been increasing since, reaching 65% by 2008. It would not seem implausible that, if

supported by policy, this upward trend will continue. An increase to around 75% would again put the UK broadly on a par with New Zealand.

Increasing the statutory age of retirement

An increase in the statutory age of retirement, which would result in an outward shift in the distribution of ages at which people retire, would produce considerable, additional, effects. Such a shift in years worked would represent a large shift for male workers, while being in line with the likely rise for female workers by 2020.

Taken together, an increased participation of workers before official retirement and an extension of working lives by five years by 2020 could result in the labour force growing on average by an extra 0.5% or so annually. The effect on GDP would depend on a number of additional factors, including the productivity of older workers, and the level of additional investment that was forthcoming. But it could well be that, overall, GDP growth would increase by a broadly similar amount.

Government policy could contribute importantly. While at first sight it might seem that having to work more years would represent a postponement of an acquired right to retirement, many people in today's world, in which healthy life expectancy is increasing by six to eight years per generation, do not wish to retire as early as did their forefathers. And, for many people, working longer prolongs their lives. As has been noted by the National Institute for Social and Economic Research:[83]

> "Increasing working lives can be driven either by a statutory increase in the age at which state retirement pension is available, or by changes in the legal system and in the perception of expected life. It is indeed possible that increasing the state retirement age would change perceptions of expected life more effectively than any other policy."

Moreover, early announcement, even of change in policy to be implemented in the future, could help the UK economy to grow faster now. The NIESR notes that:

> "If an extension of working lives were to be announced now then rational consumers would start to spend their higher lifetime incomes, and rational firms would be looking for a higher capital stock to employ them when they work longer in future. Although both firms and individuals are more borrowing constrained than usual at present an extension of working lives from say 2012 would help alleviate the reduction in both consumption and the capital stock we are currently seeing."

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83 Barrell et. al (2010).

Policy Recommendations

These considerations suggest the following lines for policy:

1. Progressively remove inappropriate incentives for people to retire before the statutory age of retirement.
2. Progressively increase the statutory retirement age.
3. Encourage changes in business practices to accommodate older workers.

8. RAISING THE EFFICIENCY OF FIRMS

In common with most economies, the UK economy exhibits a persistent spread in (labour) productivity across firms in any given industry.[84] High-productivity, high-wage firms co-exist with low-productivity, and hence low-wage, firms.[85] The economy is thus not maximising its potential productive capacity: if under-performing firms were able to move at least some way to achieving the performance of the leaders in their sector – or even the average – there would be substantial productivity gains for the UK economy.

The most productive plants can be over five times as productive as the least productive.[86] In the service sector the dispersion is even wider.[87] This may be an indication of firm-level factors such as insufficient managerial quality,[88] lower quality labour and capital inputs,[89] or perhaps inefficient use of information and

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84 See for example Martin (2008) and Syverson (2010).

85 This phenomenon is sometimes called "X- (in)efficiency". The concept was introduced by Liebenstein (1966).

86 See Barnes and Haskell (2000).

87 See Oulton (1996).

88 Economists have long postulated that managerial skills are important for differences in productivity and ultimately profits. Walker (1887) posits that managerial ability is the source of differences in surplus across businesses:

> "The excess of produce which we are contemplating comes from directing force to its proper object by the simplest and shortest ways; from saving all unnecessary waste of materials and machinery; from boldly incurring the expense – the often large expense – of improved processes and appliances, while closely scrutinizing outgo and practicing a thousand petty economies in unessential matters; from meeting the demands of the market most aptly and instantly; and, lastly, from exercising a sound judgment as to the time of sale and the terms of payment. It is on account of the wide range among the employers of labour, in the matter of ability to meet these exacting conditions of business success, that we have the phenomenon in every community and in every trade, in whatever state of the market, of some employers realizing no profits at all, while others are making fair profits; others, again, large profits; others, still, colossal profits."

89 See Oulton (2000).

communication technology (ICT). But it may also reflect external factors such as an insufficiency of competitive pressure.[90]

Both managerial quality, and investment in and utilisation of ICT, have been recognised as important drivers of firm-level productivity.[91] It has been suggested that, as a possible explanation for the productivity surge seen in the US in recent years, the US economy has been better able to exploit the opportunities offered by ICT to increase efficiency in the production process than has the UK.[92]

It has also been suggested that the UK lacks the management skills seen in other countries.[93] Although there is little policy can do to affect these directly, creating an environment conducive for firms to adopt best practice is possible. Strengthening competition in markets increases the pressure on firms to become efficient, and can thereby contribute towards raising productivity in the economy as a whole.[94]

There is a well-identified connection between strong competition in markets for goods and services and better productivity.[95] There is evidence that a more pro-competitive regulatory framework has a significant positive effect on the level of productivity in the long term, and strong results have been reported for reducing administrative burdens.[96] It has been estimated that a 25% reduction in administrative burdens[97] in the UK would result in an increase in GDP of 0.9% by 2025.[98] There is consequently an important role for minimising anti-competitive regulation in improving productivity performance.[99]

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90 See Oulton (1996) and Barnes and Haskell (2000).

91 See HM Treasury (2006).

92 See Basu et al. (2003).

93 See Tamkin et al. (2006).

94 See Blundell et al. (1995) and Nickel (1996).

95 See OECD (2002a) Economic Outlook; Ahn (2002); Crafts and Mills (2003).

96 See Niccoletti and Scarpetta (2003).

97 Reducing administrative burdens was also a priority for the UK in the OECD (2007) *Economic Survey.*

98 See Gelauff & Lejour (2006).

99 See also Conway et al.(2006).

More creative destruction

New entrants and the threat of entry ("contestability") are also a key component of competition, as well as a source of innovation.[100] Competition through entry and exit has positive effects on productivity growth,[101] and provides an important mechanism whereby resources are reallocated from less to more productive companies.[102]

New entry can also change the face of entire industries. New entrants can bring with them higher productivity,[103] driving other firms to innovate, and forcing out those which remain static. This dynamic competition – 'creative destruction'[104] – is a powerful force for productivity growth in an economy.

It is therefore important, if productivity in the UK is to keep improving at the same sort of pace as in comparable economies, that creative destruction is not resisted. German policymakers in particular espouse this concept: gentle but progressive currency appreciation has long been regarded by German policymakers as a key means whereby pressure is continually applied to firms to become ever more efficient.

Embracing greater levels of creative destruction does however have a number of implications. In OECD economies, and probably in others too, around 20% of all companies operating in any given year are new ones, and only 60% to 70% of companies survive their first two years in business. Although failure rates decline with longevity, only 40% to 50% of firms live to see their seventh birthday.[105] Embracing the process of creative destruction therefore inevitably leads to more firms – though not their resources – being wiped out.

It follows that the economy as a whole has to be as efficient as possible in shifting resources – both labour and capital – from declining activities to growing activities. Whereas, in the case of labour, this can be addressed effectively through high levels of labour flexibility encouraged by the sort of active labour market policies outlined above, in the case of physical capital, efficient procedures in the case of bankruptcy could well be helpful.

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100 See Porter (1985).

101 See Nickell (1996).

102 See Disney et al. (2003).

103 See Caves (19998).

104 See Jovanovic (1982).

105 See Scarpetta et al. (2002).

The US Bankruptcy Code has received much attention in Europe. By being more debtor-friendly, is considered by many to cater better for re-organisation and the preservation of the value of businesses. Re-organisation can help to preserve value, if general creditors, as the main beneficiaries of re-organisation, play a significant role in re-organisation proceedings. Access to new finance may also be important for giving viable businesses a second chance.

Bankruptcy procedures need to achieve the most efficient *ex-post* outcome of liquidating unviable businesses and re-organising viable ones. They also need to foster *ex-ante* efficiency by ensuring that poor performance by managers and shareholders is punished adequately. There does not yet seem to be a consensus as to what might constitute an ideal set of bankruptcy provisions, but having an efficient bankruptcy regime is important if an economy is to maximise the benefits of creative destruction.

Policy Recommendations

These considerations suggest the following lines for policy:

1. Strengthen competition and trade policies to promote openness and efficiency in markets, and encourage firms to adopt best practice techniques and innovate.
2. Implement bankruptcy procedures that combine *ex-post* and *ex-ante* efficiency to maximise the value of businesses.
3. Minimise unnecessary or unduly costly administrative burdens on firms.
4. Develop institutional frameworks for knowledge sharing and otherwise aim to improve the performance of managers and firms' utilisation of ICT.
5. Strengthen active labour market and regulatory policies to promote the adaptability and flexibility of labour markets.

9. FOSTERING A MORE SUSTAINABLE STRUCTURE OF DEMAND AND OUTPUT

There are many, intertwined, reasons for the current crisis, ranging from regulatory failure through to an unsustainable structure of demand in a number of major economies.[106]

While there is no policy lever that operates *directly* upon the structure of demand, in the UK a shift is nevertheless taking place towards a more sustainable configuration.

Sterling has fallen, serving to boost exports and curtail imports. Moreover, the coming exhaustion of North Sea oil, and the ending of what may prove to have been an unduly large financial services sector on the back of unsustainably large profits, may mean that sterling will remain relatively low for some years. A sustained low value of sterling would be consistent with a larger share of exports in aggregate demand, and a smaller share of imports, than would otherwise have been the case.

Further, the current outlook is for consumption to be weak, as households increase their saving rates to reconstitute their lost wealth, in whole or in part. All in all, consumption may grow at only around 1.5% per year on average over the next few years,[107] down from an average of around 3% in the decade up to the crisis.

With consumption growing slowly and net exports growing more rapidly, the structure of aggregate demand stands to become more sustainable.

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106 One of the author's has devoted an entire journal article to considering the multiple causes of the recent financial crisis, concluding that "…there was no one, single cause: this crisis is systemic, with multiple causes that interacted. Policymakers cannot simply address one or two issues, and then claim "job done." See Llewellyn (2010).

107 Model simulations by the Institute of Fiscal Studies suggest, assuming 'normal' animal spirits and no 'excess saving', consumption growth of 1 % in 2010, and 1.75 % in 2011 and 2012. See IFS *Green Budget 2010.*

Achieving a high and sustainable growth of output will ultimately depend, however, on the growth of investment picking up sustainably. Currently, only a comparatively small part of UK government expenditure is on investment, at least as measured. From 2000-07, government investment averaged 1.5% of GDP, well below the OECD average of 3.1% and higher only than that of Austria among all OECD countries.

In aggregate, investment – public plus private – stood at 16% of GDP in 1997, and in 2009 fell to its lowest level since before the 1980s – 14% – lower than in all OECD economies except the US.

What is to be hoped is that, as the world and UK economies recover; as demonstrable progress is made with further structural reform; and as the structure of the UK's aggregate demand becomes recognised as becoming more sustainable, the "animal spirits" of the UK private sector will return, leading to an early and buoyant upturn in private sector investment.[108]

[108] The advantages of such a more sustainable configuration of demand have been demonstrated by Martin (2010).

10. REFORM WILL NOT BE EASY

It is easy for economists to propose structural reforms of the nature outlined above. But politicians are not afforded the luxury of ignoring the sensitivities and challenges posed by such difficult decisions made in the name of efficiency. Individual reforms create winners and losers. In particular, it is inevitable that some people will lose their jobs as a result of structural reform, even though others will become newly employed. Change can often be met with strong opposition, particularly when the external environment is challenging. On the other hand, a crisis often provides a good opportunity to enact reforms.

The task of designing and implementing reforms along the lines suggested is far from straightforward. In particular, politically acceptable, least-cost policy solutions require that policymakers get many technical and presentational details right.

This Study has suggested only a number of broad lines for the reform of structural policies: working-up a detailed set of specific policies would require the resources of Government, informed by national and cross-country evidence from a range of expert sources, including importantly the OECD.

Experience from a range of OECD countries suggests that both the credibility of reform, and solid public support for reform, are crucial. These are underpinned by:

- A clear demonstration of the need for policy.
- Objectives that are achievable and sustainable, and that can be recognised and demonstrated as such.
- Clearly-established costs and benefits. Electorates can believe (wrongly) that structural reforms are incompatible with economic growth.
- Rapid implementation of reform. Delaying fundamental reforms only makes reform ultimately more costly.

- Compensation measures which address specific needs. Reforms, at the level of the firm and individual, inevitably create losers as well as winners. Attention to equity during transition is a key part of successful or unsuccessful reform.

- Increased mobilisation of the potential winners from reform.

- Advanced planning, with a commitment to giving advance notice of any major changes to policy, while also ensuring that policy does not slip into 'ad hoc' responses to inevitable but usually unforeseeable crises.

- Regular appraisal and monitoring of progress and the instruments and measures used. It is important to establish momentum for reform; and to stay "ahead of the curve".

Ultimately, successful reform often depends not only on policy design, but also on the determination and capacity to carry reform through. Much therefore hinges on effective communication; and a committed champion at senior level is crucial.

11. CONCLUSIONS

The UK may be at a watershed in its economic history. Now emerging from its deepest recession since the Great Depression, the UK, in common with most other Western economies, faces an unusually wide range of economic challenges.

While economic growth is not a panacea, achieving brisk, sustained growth over a run of years would serve to alleviate, or at least reduce, a number of major problems. It would:

- slow the rise in, and then reverse, unemployment;
- make the problem of the public finances more tractable; and
- help to create an environment in which private sector investment would begin to lead growth, resulting in a more sustainable configuration of aggregate demand and output.

Macroeconomic policy stands to play a role in achieving such an outcome. However, it is most unlikely to be enough. Structural policies are of great importance in determining the modern economy's ability to capitalise on opportunities for faster economic growth.

A range of structural policies is likely to be needed: individual policies seldom work well in isolation. Structural policy is inherently complex, and there are widespread interactions and complementarities, including with macroeconomic policy. A wide-ranging strategy that incorporates reforms across labour and product markets, competition, taxation, education and training will serve the economy best.

The UK has made progress in improving its structural policies. But there is further to go: the UK is rarely "best in class". In some areas there is great room for improvement, particularly in improving skills (which will allow the economy to become truly flexible).

As has often been the case in the past, high unemployment must be tackled. Key challenges will include integrating youth and older workers into the labour market; and maximising their productivity.

Even more importantly, it will be necessary to achieve not only a reduction in the proportion of people who retire early, but to increase the average age at which all people retire. And this need not be the burden that it is often represented as being: retaining some form of attachment with the world of work leads people to live longer, healthier lives.

These challenges are not unique to the UK. All OECD economies face the need to improve their ability to adapt and grow in a rapidly changing economic environment, and the UK will have to make continuing progress simply in order to maintain its relative performance.

The potential benefit

It would be reasonable for UK policymakers to ask what the order of magnitude of the potential benefits could be from such a difficult and wide-ranging set of reforms.

No calculations of this sort can be precise, and much would depend upon the specific design of the range of structural policies. However, if the full range of policies outlined in this paper were to be adopted, policymakers could in our judgement reasonably set themselves the objective of raising the rate of growth of the economy's potential output by at least half a per cent per year on average over the coming decade, and perhaps by as much a three quarters of a percentage point.

Assuming a current average growth rate of 2½% a year, an additional ½ to ¾% of growth per year after 2010 could be worth a cumulative £82 billion to £124 billion by 2020 – or an average £8 billion to £12 billion per year in extra GDP).

Achieving that would make a real difference. There is a lot to play for.

REFERENCES

Abiad, A., Balakrishnan, R., Brooks, P., Leigh, D., Tytell,I. (2009), "What's the Damage? Medium-term Output Dynamics after Financial Crises", *IMF World Economic Outlook*, Chapter Four, October

Ahn, S. (2002), *Competition, Innovation and Productivity Growth: A Review of Theory and Evidence*, OECD Economics Department Working Papers, No. 317

Anderson, T. M. and Svarer, M. (2007), *Flexicurity – Labour Market Performance in Denmark*, Oxford University Press

AM (Danish Ministry of Labour) (2000), *Effects of Danish Employability Enhancement Programmes*

Arnold, J. (2008), *Do Tax Structures Affect Aggregate Economic Growth? Empirical Evidence from a Panel of OECD Countries*, OECD Economics Department Working Paper No. 643

Artis, M., Flemming, J., Matthews, R., and Weale, M., (2000), "Christopher Dow on Major Recessions", *National Institute Economic Review*, Vol. 173, No. 1, 89-105

Aschauer, D (1989) "Is Public Expenditure Productive?", *Journal of Monetary Economics*, Vol. 23

Barrell, R., and Genre, W. (1999), *Labour Market Reform in the UK, Denmark, New Zealand and the Netherlands*, National Institute of Economic and Social Research

Bassanini, A., and Duval, R. (2006), *Employment Patterns in OECD Countries: Reassessing the Role of Policies and Institutions*, OECD Economics Department Working Papers, No. 486

Basu, S., Fernald, J., Oulton, N. and Srinivasan, S. (2003), *The Case of the Missing Productivity Growth: Or, does Information Technology Explain why Productivity Accelerated in the United States but not the UK?*, FRB Chicago Working Paper

Benhabib, J. and Spiegel, M. (1994), “The Role of Human Capital in Economic Development: Evidence from Aggregate Cross-Country Data”. *Journal of Monetary Economics*, Vol. 34, No. 2

Berger, M., Black, D., Noel B. and Smith, J (2003), "Is the Threat of Reemployment Services More Effective than the Services Themselves? Evidence from Random Assignment in the UI System". *American Economic Review*, Vol. 93, No. 4

Bhagwati, J.N. (2004), *In Defense of Globalisation: Its Evolution and Contemporary Consequences,* Oxford University Press

Blanchard, O., Dell’Ariccia, G. and Mauro, P. (2010), “*Rethinking Macroeconomic Policy*”, IMF Staff Position Note

Blanchard, O., and Wolfers, J. (2000), “The Role of Shocks and Institutions in the Rise of European Unemployment: The Aggregate Evidence”, *The Economic Journal*, Vol. 110

Blanden, J., Gregg, P., and Macmillan, L. (2007), “Accounting for Intergenerational Income Persistence: Noncognitive Skills, Ability and Education*”, The Economic Journal*, Vol. 117, No. 519, Blackwell Publishing

Blanden, J., and Machin, S. (2004), “Educational Inequality and the Expansion of UK Higher Education”, *Scottish Journal of Political Economy*, Vol. 51, No. 2, Blackwell Publishing

Bloom, N., Van Reenen J. and Sadun, R. (2005), *IT ain’t what you do IT’s the way that you do I.T. – Testing Explanations of Productivity Growth Using U.S. Affiliates*, Centre for Economic Performance

Blundell, R., Costas Dias, M., Meghir, C., and J. Van Reenen, J. (2004), “Evaluating the Employment Impact of a Mandatory Job Search Program”, *Journal of the European Economic Association*, Vol. 2, No. 4

Boone, J., and Van Ours, J. C. (2004), *Effective Active Labour Market Policies*, Centre for Economic Policy Research Discussion Paper No. 4707

Brook, A. (2008), *Raising Education Achievement and breaking the Cycle of Inequality in the UK*, OECD Economics Department Working Paper, No. 633

Conway, P., de Rosa, D., Nicoletti, G. and Steiner, F. (2006), *Regulation, Competition and Productivity Convergence*, OECD Economics Department Working Papers, No. 509

Di Giorgio, G. (2005), *The New Deal for Young People Five Years on*, Fiscal Studies, Vol. 26, No. 3

Deloitte (2005), *Trading Places – How globalisation will drive future UK Competitiveness*

Dow, J.C.R., (1998), Major *Recessions: Britain and the World 1920-1996,* Oxford University Press

Duval, R., Elmeskov, J., and Vogel, L. (2007), *Structural Policy and Economic Resilience to Shocks*, OECD Economics Department Working Papers, No. 567

Easterly, W. and Rebelo, S. (1993), "Fiscal Policy and Economic Growth", *Journal of Monetary Economics*, Vol. 32, No. 3

d'Addio, A. (2007), *Intergenerational Transmission of Disadvantage: Mobility or Immobility across Generations? A Review of the Evidence of OECD Countries,* OECD Social, Employment and Migration Working Paper, No. 52

Foletti, L., Fugazza, M., Nicita, A. and Olarreaga, M. (2009), "Tariff Changes", in Evenett, S. J., Hoekman, B. M. and Cattaneo, O. (eds.), *The Fateful Allure of Protectionism: Taking Stock for the G8*, CEPR-The World Bank

Furceri, D. and Mourougane, A., (2009), *The Effect of Financial Crises on Potential Output: New Empirical Evidence from OECD Countries,* OECD Economics Department Working Paper No. 699

Gramlich, E, (1994), "Infrastructure Investment: A Review Essay" *Journal of Economic Literature,* Vol. 32, No. 3.

Gregg, P., and Tominey, E. (2005) *The Wage Scar from Youth Unemployment*, The Centre for Market and Public Organisation, No. 04/097

Grubb, W.N. (1999), *Lessons from education and training for youth: Five precepts, in Preparing youth for the 21st Century: The Transition from Education to the Labour Market*, OECD

Haskel, J., Hawkes, D. and Pereira, S. (2004), *How Much do Skills Raise Productivity? UK Evidence from Matched Plant, Worker and Workforce Data*, Centre for Research into Business Activity

Heckman, J.J., LaLonde, R. J. and Smith, J. A. (1999), "The Economics and Econometrics of Active Labour Market Programs", in O. Ashenfelter and D. Card (eds.), *Handbook of Labor Economics* Vol. 3

HM Treasury & DTI (2000), *Productivity in the UK: Evidence and the Government's Approach*

HM Treasury (2006), *The Eddington Transport Study*

HM Treasury (2006), *Leitch Review of Skills, Prosperity for all in the Global economy – World Class Skills"*

HM Treasury & DTI (2006), *Productivity in the UK 6: Progress and New Evidence*

HM Treasury & DTI (2007), *Productivity in the UK 7: Securing Long-Term Prosperity*

Institute for Fiscal Studies (2010), *The IFS Green Budget*

International Monetary Fund (2009), *World Economic Outlook*, April

International Monetary Fund (2009), *World Economic Outlook*, October

International Monetary Fund (2009), *The State of Public Finances: A Cross-Country Fiscal Monitor*

James, W. E., Jha, S., Jongwanich, J., Park. D., Sumulong, L., and Terada-Hagiwara, A. (2008), *The US Financial Crisis, Global Financial Turmoil, and Developing Asia: Is the Era of High Growth at an End?*, Asian Development Bank Working Paper Series No. 139

Jovanovic, B. (1982), "Selection and the Evolution of Industry", *Econometrica*, Vol. 50, No. 3

Keynes, J.M. (1936), *The General Theory of Employment, Interest and Money*, Macmillan

Kindleberger, C.P., (2000), *Manias, Panics and Crashes*, John Wiley

Kluve, J., *The Effectiveness of European Active Labor Market Policy*, Institute for the Study of Labour, Discussion Paper No. 2018

Koo, R., (2003), *Balance Sheet Recession: Japan's Struggle with Unchartered Economics and its Global Implications*, John Wiley & Sons

Koo, R., (2008), *The Holy Grail of Macroeconomics: Lessons from Japan's Great Recession*, John Wiley & Sons

Lau, S.H.P, and Sin, C.Y., (1997*),* "Public Infrastructure and Economic Growth: Time Series Properties and Evidence", *Economic Record*, No. 73

Lechner, M., Miguel, R. and Wunsch, C. (2004), "*Long-run Effects of Public Sector Sponsored Training in West Germany*", Institute for the Study of Labour, Discussion Paper No. 1443

Liebenstein, H. (1966), "Allocative Efficiency vs. 'X-Efficiency' ", *The American Economic Review,* Vol. 56, No.3

Llewellyn, J., (2010), *Lessons from the Financial Crisis,* The Business Economist

Lucas, R. (1988): "On the Mechanics of Economic Development", *Journal of Monetary Economics*, Vol. 22, No. 1

Manchester, J., Song, J. and von Wachter, T. (2009) '*Long-term Earnings Losses due to Mass Lay-offs during the 1982 Recession: an Analysis using US Administrative Data,* University of Columbia

Mankiw, G., Romer, D. and Weil, D. (1992): "A Contribution to the Empirics of Economic Growth", *Quarterly Journal of Economics*, Vol. 107

Martin, J.P. and Grubb. D (2001), *What works and for whom: a Review of OECD Countries' Experiences with Active Labour Market Policies*, IFAU Working Paper

Martin, R., (2008), *Productivity Dispersion, Competition and Productivity Measurement,* Centre for Economic Performance

Martin, W., (2010), *Rebalancing the British Economy: a strategic assessment*, Centre for Business Research, University of Cambridge

Matthews, R.C.O., (1968) "Why has Britain had Full Employment since the War", *The Economic Journal*, Vol. 78, No. 311, Blackwell Publishing

Metcalf (2004), *British Unions: Resurgence or Perdition*?, Policy Studies Institute

Munnell, Alicia H. (1992), "Policy Watch: Infrastructure Investment and Economic Growth"*, The Journal of Economic Perspectives*, Vol. 6, No. 4

Nickell, S. (1996), "Competition and Corporate Performance", *Journal of Political Economy*, Vol. 104, No. 4

Nicoletti, G. and Scarpetta, S. (2003), *Regulation, Productivity and Growth: OECD Evidence*, OECD

Organisation for Economic Cooperation and Development (1994), Jobs Study

Organisation for Economic Cooperation and Development (1996), The 1994 OECD Jobs Study: Pushing Ahead with the Strategy

Organisation for Economic Cooperation and Development (1997), *Implementing the OECD Jobs Strategy: Lessons from Member Countries' Experience*

Organisation for Economic Cooperation and Development (1997), *The OECD Report on Regulatory Reform I-II*

Organisation for Economic Cooperation and Development (2001), *Economics and Finance of Adult Learning*

Organisation for Economic Cooperation and Development (2001),*OECD Economic Studies: Special Issue on Regulatory Reform*, No. 32

Organisation for Economic Cooperation and Development (2003), *Beyond Rhetoric: Adult Learning Policies and Practices*

Organisation for Economic Cooperation and Development (2004), *Co-financing Lifelong Learning. Towards a Systemic Approach*

Organisation for Economic Cooperation and Development (2005), *Promoting Adult Learning*

Organisation for Economic Cooperation and Development (2006), Re-assessing the OECD Jobs Strategy in the OECD

Organisation for Economic Cooperation and Development (2006), *Employment Outlook 2006*

Organisation for Economic Cooperation and Development (2008a), *Jobs for Youth*

Organisation for Economic Cooperation and Development (2010), *Tackling the Jobs Crisis*

Organisation for Economic Cooperation and Development (2010), *Tackling the Jobs Crisis*

Organisation for Economic Cooperation and Development (various years), *Economic Survey of the UK*

Organisation for Economic Cooperation and Development (various years), *Going for Growth*

Organisation for Economic Cooperation and Development (various years), *OECD Employment Outlook*

Oulton, N. (1996), *Competition and the Dispersion of Labour Productivity amongst UK Companies*, National Institute of Economic and Social Research

Petrongolo, B., and Van Reeson, J. (2010), *Jobs and Youth Unemployment: It's Bad but not as Bad as you Might Think*, Centre for Economic Performance

Reinhart, C., and Rogoff, K. (2009), *This Time is Different: Eight Centuries of Financial Folly,* Princeton University Press

Romer, C., (2009), *The Great Depression and the Double-dip*, Brookings

Scarpetta, S. and Tressel, T. (2002), "Productivity and Convergence in a Panel of OECD Industries: Do Regulations and Institutions Matter?" *OECD Economics Department Working Papers*, No. 342.

Scarpetta, S. et al. (2002), "The Role of Policy and Institutions for Productivity and Firm Dynamics: Evidence from Micro and Industry Data", *OECD Economics Department Working Papers*, No. 329.

Syverson, C., (2010), *What Determines Productivity?,* National Bureau of Economic Research

Walker, F. A., (1887), "The Source of Business Profits", *Quarterly Journal of Economics*, April

Wolf, M. (2004), *Why Globalisation Works",* Yale University Press

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