# Look Back from the Future

A radical path to growth and prosperity in the 21st century

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## SUMMARY

- Reducing the deficit and restoring competitiveness are the preconditions for the future prosperity of the UK.
- In addition, three strategic challenges face the UK:
  - the rise of the BRICS and other emerging economies
  - the ageing of our population
  - increasing global demand for energy and other resources.
- To meet these challenges, future prosperity will depend not just on getting back to where we were before the recession but on clear-sighted and far-reaching reforms to improve our long-term productivity and to earn our way in global markets. Five reforms will be critical.

#### Reform one: restructuring public services

 Productivity in the public sector is notoriously poor. Enabling far greater private sector involvement – and particularly competition – in the delivery of public services will do much to achieve this. It is therefore essential that the Coalition's NHS and school reforms are implemented in full.

#### Reform two: raising the level of UK savings

In the long term, high rates of productivity growth and economic growth are associated with high savings ratios. The Coalition has taken some steps to encourage long-term savings but should also simplify the tax incentives for retirement savings by merging pensions and ISAs. If the higher earners were also allowed to use an ISA for their full annual retirement savings, the Treasury could save a substantial part of the roughly £30 billion annual cost it currently incurs in upfront pension tax relief. This is a winwin-win for government, the economy and savers.

#### Reform three: refocusing education on excellence

 In a global economy where brain power and innovation will be the route to prosperity, we cannot afford to exclude any of the brightest children from the best education. New statefunded selective schools are needed in each local area.

# Reform four: developing education, health and science as export earners

 Education and health together represent 15% of our GDP. Private organisations in both sectors are now actively looking to foreign markets for growth (but are very small compared to those in the public sector). The Coalition proposals for greater freedoms for state schools, universities and NHS hospitals are welcome but more can be done to encourage them to expand rapidly in this area.

#### Reform five: secure low-cost energy

• Newly built nuclear plants provide the cheapest (and cleanest) source of energy. The Coalition plans in this area are welcome and must be delivered.

# SCORECARD ON THE COALITION'S PROGRESS ON THE DRIVERS OF GROWTH

<ul> <li>Restructuring public services to drive up productivity and innovation</li> <li>Initiated reforms in health, education and outsourcing but still to be carried through. Some worrying signs that Coalition may be lsoing its momentum</li> </ul>	(?)
<ul> <li>Raising the level of UK savings and investment</li> <li>Good progress on controlling the deficit</li> <li>Good progress on pension reform/incentives</li> <li>Missing opportunity to elevate ISAs as retirement savings whilst reducing upfront tax cost</li> </ul>	(?)
<ul> <li>Developing Education, Health &amp; Science Research as global industries</li> <li>Rhetoric is supportive, but no clear plan</li> <li>Ensure simple visa process for genuine students/patients</li> <li>Encourage private sector expansion</li> </ul>	(?)
<ul> <li>Refocus education to give more opportunity to high achievers</li> <li>Academies and free schools an important first step</li> <li>But need free selective schools to provide best education on merit, regardless of ability to pay</li> <li>Ensure top universities have open recruitment but do not compromise on quality</li> </ul>	(X)
<ul> <li>Accelerate secure low cost energy based on nuclear generation</li> <li>Shown support, but pace/commitment still too slow compared to subsidies for higher cost alternatives</li> </ul>	(?)
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## **1. INTRODUCTION**

Since the General Election in 2010, the primary focus of the Coalition Government has been to restore economic stability through tackling the country's unsustainable public sector deficit. Increasingly, however, the focus is shifting towards the next challenge: rebuilding economic growth in order to create the wealth needed to meet both public and private aspirations for the future.

Too often that discussion is rooted in short-term, incremental measures. What will be the next quarter's growth rate? How has the weather affected this month's change in retail sales? What are the seasonal variations in employment statistics?

Too often, the implicit assumption is that, if we get back to where we were before the global recession and financial crisis, then all will be well. Yet the uncomfortable truth is that, if we take a longer-term perspective, our growth and prosperity will require far more than that.

In short, if we are to have a reasonable chance of prosperity in the next decades, then we must make radical changes and adjustments today.

#### BRICs, demography and energy

We face three major challenges:

- We need to adapt to earning our way in a world where economic power and growth will have shifted over the next 25 years from the old, familiar markets of Europe and North America to the new and challenging markets of China, India and the other emerging economies.
- 2. At the same time, we need to cope with the changing demographics of the UK which will see an increasing proportion of our population who are no longer wealth-creating, and who expect to be supported in retirement.
- 3. And as the world economy grows, we need to realise that demand for energy and other basic resources will threaten to increase the cost of the raw materials on which our living standards depend.

Short-term tinkering is not enough. We need to put ourselves in the future – the world as it will be – and look back to see what path we will wish we had taken to arrive at a secure and prosperous future.

But we should not be pessimistic. The forces of enterprise and innovation will continue to power global growth and wealth creation, creating new opportunities for trade and investment to boost our own productivity and growth. The question for the UK is whether the path we take enables us to share in that future prosperity, or leaves us languishing in the slow lane as the world passes us by.

Government policy clearly has an enormous impact on how our economy will react to these challenges. We do not need a return to central planning, but we do need to develop a vision around the major drivers of future economic growth in order to ensure that government policies support, rather than obstruct, our journey to prosperity. As government regulation and state spending now plays such a major role,<sup>1</sup> the policies which the Coalition follows today will inevitably have a decisive impact on how that future evolves.

<sup>&</sup>lt;sup>1</sup> In the most recent World Economic Forum *Global Competitiveness Report*, the UK ranked 72<sup>nd</sup> of 139 on wastefulness of government spending; 89<sup>th</sup> for burden of government regulation; 117<sup>th</sup> for government budget balance; 108<sup>th</sup> for government debt; and 95<sup>th</sup> for the 'effects and extent' of taxation.

## 2. THE GROWTH EQUATION

The starting point for a longer-term, strategic approach to economic growth is to focus on the simplest and starkest relationship between national output and its underlying drivers, namely:

#### GDP = Labour force x Labour productivity

To this can be added net income from overseas assets (less payments to overseas investors) to get to a full measure (GNP) of the spending power of a nation's population.

Short-term economic cycles may cause output and employment to fluctuate around the long-term trends. Over a long period of time, however, the output and income of any country are determined by the population (and its employment participation rate) and by the economic value created by every hour worked. Consequently the only way to increase national income and prosperity over the long term is to either increase the number of hours worked or to increase the value created for each hour worked. This simple relationship underlies the range of growth rates experienced by different countries over the past 20 years. It also explains how, if these trends were to continue, economic prospects of leading nations would diverge over the next 20 years.

As shown in Table 1, OECD countries have typically enjoyed modest rates of both population and productivity growth over the last 20 years. GDP growth rates have varied between 1.5% and 2.5% a year. In contrast, the emerging economies have experienced both faster population growth and productivity growth over this period, and much higher overall growth rates as a result.

Looking ahead, the growth in the labour force is projected to slow in both developed and developing economies. However, in India and China a continuation of the same productivity trends will still lead to continued rapid economic growth. But in some European countries, the net impact is expected to reduce growth to close to zero. For example, unless Germany raises its historic rate of productivity growth, its GDP is destined to be almost flat for the next 20 years.

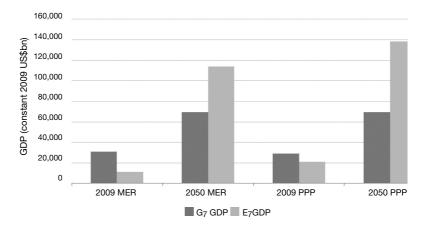
Furthermore, productivity growth in developed economies over the last 20 years has benefitted from almost unprecedented conditions of favourable global trade. Low productivity activities have been displaced by cheap imports, allowing labour to migrate to higher value goods and services. As labour costs in developing economies catch up, and as resource costs rise, this windfall is unlikely to be repeated.

		1990-2010	_		2010-2030 (e	2010-2030 (extrapolations)	
	Average annual employment growth	Average annual productivity growth	Real average annual GDP growth	Projected Average annual employment orowth	Trend annual productivity growth	Real average annual GDP growth	GDP growth 2010-2030
OECD				'n			
Countries							
Germany	0.50%	0.80%	1.41%	-0.75%	0.80%	0.20%	+1%
Japan	0.10%	1.01%	1.28%	-0.89%	1.01%	0.32%	+2%
France	0.54%	1.11%	1.65%	0.05%	1.11%	1.17%	+26%
NK	0.39%	1.50%	1.91%	0.14%	1.50%	1.65%	+39%
SU	0.83%	1.59%	2.49%	0.56%	1.59%	2.17%	+53%
Non-OECD							
countries							
Brazil	2.18%	0.33%	2.72%	0.89%	0.33%	1.34%	+23%
Indonesia	2.04%	2.83%	5.02%	1.00%	2.83%	3.88%	+110%
India	1.83%	4.44%	6.47%	1.34%	4.44%	5.44%	+179%
China	0.99%	8.81%	9.85%	-0.19%	8.81%	8.71%	+424%

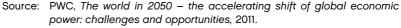
Table 1. The fundamental determinants of economic growth

Sources: US Census Bureau; OECD World Dataset; World Bank; Real GDP series from a dataset developed by Dr Matthew Shane.

A recent PWC report forecast that by 2050 the largest emerging economies (the 'E7') will have moved from a position where their combined GDP is currently one third of the G7 developed economies to a dominant position where their combined GDP is two thirds larger than the G7 (measured at market exchange rates).



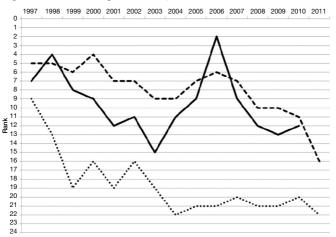
#### Figure 1: Relative size of G7 and E7 economies



Note: MER= Market Exchange Rates, PPP= Purchasing Power Parity

So what can be done to improve the UK's growth trend and gain a larger share of the world's future prosperity? The last Government pursued a policy of increased immigration to boost the UK working population – with a net population increase from migration of 2.2 million between 1997 and 2009. However this policy, while boosting aggregate output, does not necessarily lead to higher income (and living standards) per head – and given the social and infrastructure challenges associated with high immigration is unlikely to repeatable. Other things can be done to boost the number of hours worked by the existing UK population. Many Coalition policies are addressing these: encouraging the long-term unemployed and other welfare recipients who can participate to move back into productive work; and raising the retirement age to extend the working lifetime. However, while these measures could raise national output by roughly 10% over the next 20 years, they will not permanently change the long-term growth trends. Sustainable growth therefore has to come from constantly raising the average value of UK labour output – and to do so in a way that has a major and continuing impact.

The foundation for productivity growth is an economy that is as attractive as possible for enterprise and talent. That means, above all, that the UK's position as a competitive place to do business must be restored. The bad news is that, as the following chart shows, three separate international organisations have tracked a significant fall in UK competitiveness in recent years.



#### Figure 2: declining UK competitiveness

WEF Global Competitiveness Report Ranking ••••• IMD World Competitiveness Scorboard 🕳 Heritage Index of Economic Freedom

Sources: R Bourne and J Wilson, *How to reverse the UK's declining competitiveness*, Centre for Policy Studies, 2011.

The government's first priority of cutting the deficit and reigning back over-large government – and unnecessary regulation – is therefore the pre-requisite for all that follows.

It is easy to then get submerged in a long list of other factors that all contribute to productivity. However, if you take the long view – looking back from the future – five areas stand out as having the greatest potential to address the emerging challenges and collectively 'change the game' for the UK.

- 1. Restructuring public services to drive up productivity and innovation
- 2. Raising the level of UK savings and investment
- 3. Refocusing education to give more opportunity to the high achievers
- 4. Developing education, health and science research as global industries
- 5. Accelerating secure low-cost energy based on nuclear generation

This paper sets out the rationale for each of these priorities and sets out the practical steps that a government with the political will could take to set the UK on the path to future growth and prosperity.

## **3. RESTRUCTURING PUBLIC SERVICES**

Despite the extensive privatisations of the 1980s, which stimulated a massive jump in UK productivity in the following years, about 6.2 million people – over one in five of the workforce – are currently employed in the public sector.<sup>5</sup> Another 1.4 million are estimated to work for companies which work predominantly on behalf of the public sector.<sup>6</sup>

Although successive governments have made repeated efforts at driving efficiency gains over the last 20 years, productivity growth in these remaining public sector activities has been minimal. Indeed official statistics show that public sector productivity actually declined at an average rate of 0.3% a year between 1998 and 2008, dragging productivity growth for the economy as a whole down to 1.7% against 2.2% for the private

<sup>&</sup>lt;sup>5</sup> Office for National Statistics, *Public Sector Employment Statistics Q4 2010*, 2011.

<sup>&</sup>lt;sup>6</sup> This estimate is calculated by dividing total employment in outsourcing sectors in proportion to public sector and private sector value added. Source data from Oxford Economics, *The size of the UK outsourcing market* – across the private and public sectors, April 2011. See R Bourne, *TITLE* GOES HERE, CPS, June 2011.

sector on its own. If the whole economy had achieved productivity growth of 2.2% a year over this period, national income in 2008 would have been 10% higher – and the gap continues to widen as each year passes.

Of course, public sector output (and hence productivity) is notoriously difficult to measure accurately, but few doubt that this poor productivity performance is real.<sup>7</sup> The reasons are well known – reflecting top-down management structures with few freedoms or incentives to innovate or improve efficiency at the front line, and no overriding imperative to satisfy customers and deliver the bottom line.

The steps taken by the Coalition to reform public services are beginning to tackle this. But they have not yet gone far enough. Some activities – for example front-line armed forces – will always need to be delivered by state employees. But the model should be that wherever possible the role of the state as the funder of a public service should be clearly separated from the ownership of the organisations that deliver that service. Provision of public services should be seen as a competitive market served by private, entrepreneurial suppliers – whether not-for-profit, charitable or fully commercial organisations.

The Coalition's promotion of independent Academies and Free Schools, and the declared intention to move more of the delivery of other central and local government services into outsourced contracts with private sector competitors are welcome moves in this direction. So too were the original plans for NHS reform (which allowed a greater role for private

<sup>&</sup>lt;sup>7</sup> For an analysis of the unreliability (and over-optimism) of NHS productivity estimates, see T Morgan, *Five Fiscal Fallacies*, CPS, 2011.

organisations to provide NHS services). However, the subsequent restatement – while maintaining many of the core principles – risks slowing the pace and impact of these changes.

Political resistance to reform remains a continuing barrier, with strong entrenched interests in many areas. There are worrying signs that, as with NHS reforms, the Coalition may be losing its momentum. The Government will need to stick to its guns if the prize of faster economic growth – and, with it, better public services – is to be grasped.

## 4. RAISING THE LEVEL OF UK SAVINGS

The ageing of the UK population means that the pension support ratio – the ratio of active workers to non-active pensioners – will decline over coming years. Even with the changes to push back the state pension age, this ratio is estimated to reduce from 3.2 workers for each pensioner in 2009 to around 2.8 in  $2050.^8$ 

Against this background, recent reports on retirement provision in the UK – in particular the Turner review of 2004 – have highlighted the massive savings gap for much of the population if they are to accumulate enough capital during their working lives to support themselves through an increasingly long retirement. A recent analysis from AVIVA put the total savings gap at around £300 billion per year – over 20% of GDP – if everyone aspired to retire on 70% of their final salary.<sup>9</sup>

<sup>&</sup>lt;sup>8</sup> For base data and analysis, see M Johnson, *Don't let this crisis go to waste* Centre for Policy Studies, 2009.

<sup>&</sup>lt;sup>9</sup> Aviva, Mind The Gap; Quantifying the Pensions Gap in the UK, 2010.

Of course, at the time pensioners need to draw their income, the aggregate resources they consume have to come out of output being generated by those still active in employment whether their share of national income arises out of dividends and interest on capital, sale of assets or state pensions funded from general taxation. So while there are personal reasons for individuals to accumulate savings to preserve their independence and living standards, the primary macroeconomic benefit from higher savings is to boost investment and productivity, and hence the future national income levels from which pensions are paid.

Higher savings to boost growth may seem to contradict the conventional short-term thinking that governments want consumers to spend more and save less in order to stimulate demand. However the short-term effect is indeed short-lived – higher spending without higher productivity cannot be sustained, and may damage long-term growth rates by raising debt levels and interest rates. In the medium- and long-term, the economy will move towards full employment whatever the level of savings – but with a higher mix of investment goods which help boost productivity and future growth if the savings ratio is high.

International comparisons demonstrate this relationship clearly. As Table 2 shows, the fastest growing economies have experienced savings and investment levels more than double that of the UK over the last 20 years.

Sa	Average ross National avings % GDP 1998 – 2008	Average Investment % GDP 1998 – 2008	Average GDP Growth % Per Annum 1998 – 2008
UK	16.4	18.6	2.3
Advanced Economies	22.0	22.9	2.6
Emerging & developing economie	es 26.9	27.3	4.9
Developing Asian Economies	35.6	34.8	7.7

Table 2. Relationship of savings and investment to economic growth rates

Source: EconStats IMF data

Of course, we could reach the position where there are insufficient opportunities for productive investment in the UK to absorb a higher savings flow. However there are almost unlimited opportunities to invest surplus UK capital overseas. While this will not raise domestic output, it will lead to a growing stream of additional income for the UK from dividends and other returns on those overseas investments – providing spending power for the retired and other investors which in turn adds to the growth in UK wealth and prosperity.

So what can government do to boost our national savings rate? Gross Savings as defined above is made up of the sum of household saving, corporate saving and the net government surplus. The first and biggest step is to reduce the negative impact of the current high government deficit – selling government bonds to finance current expenditure is dis-saving on a major scale. In the interests of long-term growth, the Coalition should not be deflected from its key objective of moving the government budget back into balance over the course of this parliament – allowing personal and corporate savings to flow into productive investment rather than recycled as current spending. Corporate savings and investment can also be encouraged by supply side reforms. The steps that the Coalition is taking to make the UK a more attractive place to do business once again – reducing corporate tax rates and removing excess regulations – are welcome in this context.

However, more can be done to raise the level of household savings – both for the macro-economic benefits and to increase the ability of individuals to support themselves in retirement. The proposal to raise the basic state pension to replace means-tested benefits together with the introduction of auto-enrolment in the new NEST pension plan, are a good start. But the current incentives for long-term savings remain complicated and unattractive for many people – particularly the 'lock-in' applied to contributions to pension plans that prevents access to savings if an urgent need for cash arises before retirement.

One major reform the Coalition could make would be to simplify the tax incentives by allowing everyone to save for retirement in a single tax-incentivised annual allowance, so that individuals could choose either to put their annual pension contribution into a conventional pension or an ISA style account (or some combination of the two). For most individuals the net tax benefit when they draw down retirement income is the same. With pension savings, the government provides a tax break on the initial contribution but then taxes the income subsequently drawn as a pension; with an ISA the initial contribution comes from taxed income but the income subsequently drawn down is free of tax. The net result – in terms of post tax income – is identical if the individual continues paying the same tax rate.<sup>10</sup>

<sup>&</sup>lt;sup>10</sup> The option of a 25% tax-free withdrawal from pension savings would make this form of saving more tax efficient.

However, to many people, the flexibility associated with ISAs makes them much more attractive than locking savings into a pension plan.<sup>11</sup> There are currently around 18 million ISA accounts, the majority of which are held by people on less than median income. If these individuals were to put their contributions to corporate retirement plans into an ISA rather than a conventional pension, the take-up rate could be significantly enhanced. Furthermore, if the Coalition were to allow higher earners to use an ISA for their full annual retirement savings rather than restricting ISAs to £10,680, the Treasury could save a substantial part of the roughly £30 billion annual cost it currently incurs in upfront pension tax relief. This is a win-win-win for government, the economy and savers.

<sup>&</sup>lt;sup>11</sup> For more details, see M Johnson, Simplification is the Key, CPS 2010.

## 5. REFOCUSING EDUCATION ON EXCELLENCE

Raising standards in education has been a holy grail for many governments. Unfortunately, political dogma and social engineering has consistently got in the way of practical approaches to delivering higher standards. In particular, the move away from selection and streaming, and the historic promotion of 'mixed ability' classes in comprehensive schools has blatantly ignored the evidence that children – and particularly bright children – do best when challenged by a peer group of children with broadly equal ability. Yet it is the success, innovation and leadership of the most able in society on whom economic advance for everyone most depends.

Thus, for example, research by Professor Jesson of York University reported in 2005 followed a cross section of the most able pupils – those who achieved the top 5% of grades in tests at 11+ in 1999 – to see how their subsequent performance was affected by their secondary schooling.<sup>12</sup> He found that the average number of GCSE A\*/A passes for those who had gone

<sup>&</sup>lt;sup>12</sup> See The Sunday Times, 'Cromwell was right', 5 February 2006.

on to selective schools was significantly higher than those who had gone to comprehensives. He also showed that there was a strong linkage between the number of very able children in a school and their average achievement, illustrating the peer group effect. Children in comprehensive schools with 20 or more very able children did as well as those at grammar schools; those with ten or fewer able children did considerably worse.

Perversely, while we are happy to recognise and promote excellence in sports or arts, the educational system has been embarrassed to recognise and support those children with outstanding academic ability. As a result, it has failed to give them the special treatment needed to fulfil their potential. Recognising those with high ability has been frowned on as fostering social inequality; greater priority has been given to keeping them in groups with less able children in the hope they can raise the average standard. Even though recent surveys suggest setting and streaming has now returned to most schools in subjects such as Maths and Science, a report by Teach First in 2009 was still advocating the abolition of all setting as 'unfair'.<sup>13</sup>

For the same reason, grammar schools – the traditional beacons of academic excellence open to all social classes – have been abolished in many areas of the country, depriving high achievers of access to a top-class education unless they belong to the privileged minority that can afford private school fees (or a house in an affluent postcode that where the average level of parental support is higher).

<sup>&</sup>lt;sup>13</sup> See *The Daily Telegraph*, 'All pupils should be in mixed ability classes', 23 November 2009.

This approach to education is fundamentally unfair to high ability children from poorer families. Today, they are denied the opportunity to move ahead of their less able – and less motivated – social peers. Instead, confined to a local school that often suffers from both low average standards and a poverty of aspiration, they face the double barrier of overcoming both their disadvantaged background and a poorer quality education than their ability properly merits. It is no surprise that social mobility has declined over the last 40 years, and the top universities and professions – which used to have a high proportion of grammar school entrants – are now finding it hard to attract state school pupils that can compete with their public school rivals.

Thus, for example, research for the Sutton Trust in 2004 showed that 55% of partners in the 'Magic Circle' law firms attended feepaying schools and 34% from grammar schools – with only 11% from comprehensives. For partners under 40, however, the proportion drawn from fee paying schools had increased to 71% – reflecting the relative decline of state education standards for the brightest children.<sup>14</sup>

This failure to foster the academic ability of the brightest is not only socially divisive, but also hugely detrimental to our ability to generate the leaders and innovators of the future. Of course it is important to raise average educational standards. However there are few – if any – examples of major scientific breakthroughs or business innovations that have been created by a committee of 'average' performers. Creativity, intellect and leadership capabilities are not evenly distributed throughout the

<sup>&</sup>lt;sup>14</sup> Sutton Trust, The Educational Background of the UK's Top Solicitors, Barristers and Judges, June 2005, Appendix 2.

population – throughout history it has always been a small group of individuals with exceptional talent who break the mould, take the initiative and create the breakthroughs that result in a major step change in productivity and well-being.

Not all top entrepreneurs start life as top stream academics – there are many other qualities at play. However the self confidence and raising of personal aspirations that many children can get from mixing in a peer group of other high ability children – where social class is no longer a concern – can be hugely important.

If we want to compete with the fast growing emerging economies, we cannot afford for a large part of the population to be shut off from the chance to go to a school or university where they too, if they have the ability, can excel. The Coalition is right to focus attention on early stage learning to ensure that all children get a good start. But it is also right to ensure that university selection procedures do not unfairly discriminate against able children from less advantaged schools – and there may be scope, for example, to make more use of US-style GMAT tests alongside A-levels and interviews to get an unbiased view of raw aptitude. However we must ensure that pressure for equal access does not lead to pressure for a lowering of standards, which would act against the need to nurture excellence.

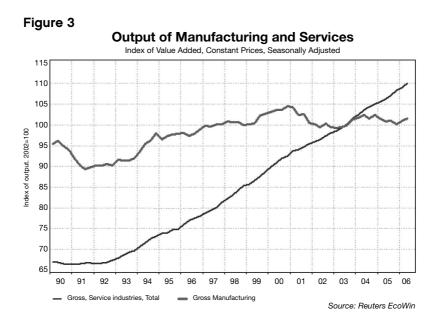
The further development of independent academies and the new free schools is an important step in escaping from the rigidities of the past. However the Coalition should go further in recognising and promoting opportunities for the highest ability children by establishing new, state-funded selective schools in each local authority that are open to all based on ability across a wide catchment area. Unlike the old grammar schools, there would be no compulsory 11+ test for all; but those children who had the ability and motivation would be free to apply for places based on merit – ideally at a range of different entrance ages. They would then have access to an élite education in the company of other high performers, opening the doors to gain entry to the best universities, professions and other positions of leadership.

In a global economy where brain power and innovation will increasingly be the route to the prosperity of the country as a whole, we cannot afford **not** to educate a premier league. Instead of berating top universities for not lowering the bar to admit more state school pupils, Ministers should grasp the political nettle and set about ensuring the state sector provides top quality schooling for the most able children, one that allows them to compete on equal terms – both within the UK and with their international peer group.

## 6. EDUCATION, HEALTH AND SCIENCE RESEARCH AS GLOBAL INDUSTRIES

Raising productivity is not just about working longer hours. We can also raise the value achieved for each person employed by growing those sectors of the economy where we have a comparative advantage in knowledge and skills. In general, this will mean a continuing switch from labour-intensive manufacturing activities – particularly in low value areas where low labour cost countries have an advantage – towards service sectors and skilled manufacturing which depend more on brain power and skills. In particular, we will need to respond to the shift in economic power across the world by focusing on those sectors that are most valued by the fast-growing emerging economies.

This switch from manufacturing to service industries has, of course, been under way for some time. This has been a significant positive factor in enhancing the UK's historic growth.



Financial Services, despite recent stresses, is clearly one area where the UK has already established a powerful competitive position across the world – a position that needs to be carefully protected against those who seek to diminish the status of London as a financial centre. Arts and media are other obvious areas, where our cultural heritage and language have enabled us to develop a strong base despite the scale advantages enjoyed by US producers.

However, key areas where we could have a strong international position – but are hindered by the current public sector structures – are in education, health and scientific research. Education and health expenditure together account for some 15% of the UK's GDP,<sup>15</sup> so they already very important parts of

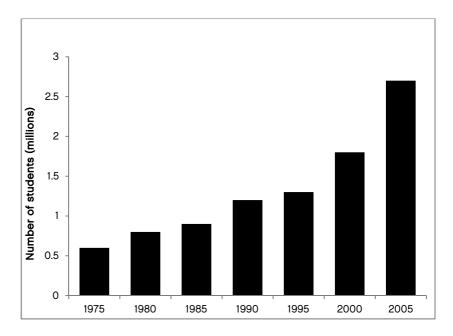
<sup>&</sup>lt;sup>15</sup> Office for National Statistics, Gross value added sector analysis, 2010.

the economy. Historically these have been perceived and managed in the UK as 'National Overhead', meeting the needs of the local population, where the objective is to deliver the required service at the lowest possible cost. Instead they should be seen as wealth-creating industries, with the potential to expand to meet global market opportunities.

#### The opportunities for education and science

In education, the market for international tertiary education (students studying outside their home country) has grown rapidly over the last 20 years.

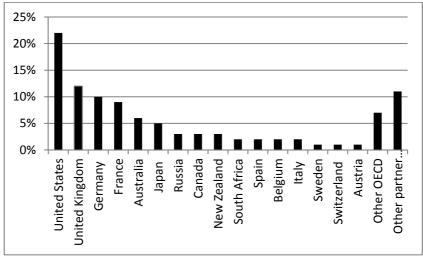
## Figure 4. Long-term growth in the number of students enrolled outside their country of citizenship



Source: OECD and UNESCO Institute for Statistics.

Fortunately the UK has some of the best-known and wellregarded universities in the world, with the advantage of teaching in English – the world's universal language. We also have a cultural affinity with many of the new emerging countries who, in many cases, modelled their education system on the UK. Singapore, for example, sends about 75% of its top science scholars to the UK for their undergraduate studies.<sup>16</sup> According to OECD figures, the UK was the second most popular choice for international students in 2005, after the US.





Data show the percentage of foreign tertiary students reported to the OECD who are enrolled in each country of destination. Source: OECD and UNESCO Institute for Statistics for most data on partner economies. See http://news.bbc.co.uk/1/shared/bsp/hi/pdfs/18\_09\_07\_oecd.pdf

<sup>&</sup>lt;sup>16</sup> See 'The role of science, research and innovation in creating growth', speech by Vince Cable MP, 8 September 2010.

The number of foreign students coming to the UK for their higher education has almost doubled over the last 10 years – reaching over 400,000 in 2009/10, or some 16% of total student numbers. However, this has been seen by many universities as a means of raising additional income to cover their costs, rather than as an opportunity for business development.

What if, instead, some of the UK's well-regarded universities set out to substantially increase their overall size – perhaps even doubling – by marketing their courses more actively overseas and investing in the accommodation, teaching staff and facilities to support this? The same opportunity equally applies to our top-rated private and state-sector schools.

The value to the UK economy, of course, is not just the employment it would provide for high quality academics but also the income it would provide for all the support services needed by those students living in the UK. In addition, why should universities and schools not be more aggressive in setting up overseas satellite campuses where they could export their educational brand and approach?

An expanded university sector centred on the UK would also have substantial additional benefits in increasing the scale and funding of our scientific research base. Pure and applied research has long been recognised as an important driver of innovation and productivity growth, and another area where the UK has historically had an outstanding reputation. The size and funding of the university research capabilities are, however, an important determinant of their ability to attract the best international brains and create a self-feeding 'hotspot' of innovation and development. The wealthier our universities are, the more they will be able to invest in leading-edge research and talent – and the better they will be able to compete against the growing scale of research activities in China, India and the other emerging economies.

Such expansion would need to be done in a controlled way, and over an appropriate timescale, in order to maintain standards and consistency. However it will require a major change in the way universities are managed and funded – giving them more freedom and more incentives to increase student numbers, raise capital, benefit from intellectual property and provide profitable returns to investors. Private fundraising may also need to be matched by new forms of public investment to allow them to overcome price competition from universities in the US. The New College for the Humanities shows how there may also be scope for new providers to enter the market, focused on the international opportunity.

All this can only work if regulations on student entry – including visas and work experience – are made as simple and attractive as possible for those students seeking genuine education in the UK. Fears that the tightening of student visas will act as a deterrent must be allayed.

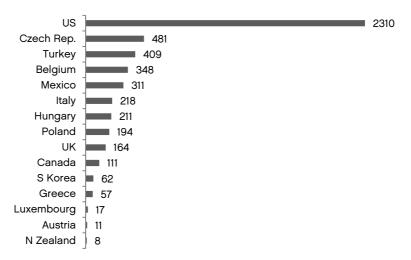
#### The opportunities for health

Healthcare, similarly, is a growing global opportunity. Demand comes both for high quality care for patients from countries with less developed facilities, and for training experience for those overseas students who want to return to their home countries. It also has strong links to the strength of our science research base.

However the UK is substantially behind other developed and developing economies. In contrast, the US, as well as the Czech Republic, Turkey and Belgium, is taking advantage of this market (see Figure 6).

#### Figure 6: Exports of health-related travel

#### US\$ millions, 2007



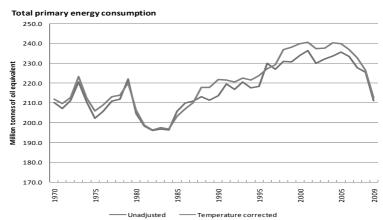
Note: Health-related travel exports occur when domestic providers supply medical services to non-residents travelling for medical reasons. Source: OECD, *Health at a glance*, 2009.

Our system has traditionally regarded health travellers as individuals imposing costs on our health system rather than as sources of income. As more of our leading NHS hospitals become Foundation Trusts, and as other ownership structures emerge with greater independence from the state, this could change. In particular, barriers to their development as global medical centres must be removed. In addition, incentives must be created to encourage entrepreneurial expansion.

In both sectors, the Coalition reforms are helping to move towards an environment where business expansion – rather than just domestic cost-management – is possible. However other countries are moving fast too. As the state dominates this sector in the UK, it has a significant responsibility for enabling them to develop to a new global, commercial future.

## 7. SECURE, LOW COST ENERGY

Since the industrial revolution, energy costs have been one of the most significant components of the economy, amounting to 11% of GDP in 2006. Despite efforts to promote energy efficiency, UK energy consumption has continued rising until the recent recession – with declining industrial use and energy efficiency offset by increasing transport and travel, and greater use of technology in the home.



#### Figure 5: UK Energy consumption

Source: DECC data tables (Energy consumption in the United Kingdom).

With energy demand rising across the world in line with rapid economic development, it seems likely that energy prices will continue to rise. Economic growth is therefore likely to depend crucially on maintaining a secure, low cost and environmentally acceptable source of energy generation as a support to future competitiveness and productivity.

Although the Coalition has committed itself to ambitious targets for 'renewable energy' generation over the next few decades, many commentators are sceptical that wind generation and similar technologies will provide the answer at an acceptable cost. Not only are wind-farms high cost to build and connect to the network, but the unreliability of power generation (dependent on whether or not the wind blows) means that they have to be backed up by maintaining high levels of costly conventional power generation in reserve. Much of the current investment in UK wind-farms is only viable because of the high level of public subsidies they now receive.

However continuing dependence on gas seems equally undesirable, given the insecurity of the world's major gas sources, the fluctuating prices and our limited storage capacity. And while UK coal supplies could provide another alternative, if the government maintains its policy of requiring new coal stations to incorporate carbon capture, the costs are likely to be significant.<sup>19</sup>

While experts provide differing views on costs – depending on the allocation of fixed capital and assumptions over life cycles – there is a strong argument that the best near-term, available substitute for fossil fuels is new nuclear plants. Some estimates

<sup>&</sup>lt;sup>19</sup> For more details, see the work of Tony Lodge in this field, in particular *Wind Chill* (CPS, 2008) and Step off the Gas (CPS, 2009).

have shown that new nuclear build can be highly competitive with other sources.

Table 3: UK energy costs for different generation technologies in pounds per megawatt hour (2010) Technology Cost range  $(\pounds/MWh)$ 

Type of technology	Levelised cost	
New nuclear	55-85	
Natural gas turbine, no CO2 capture	55-110	
Biomass	60-120	
Natural gas turbines with CO2 capture	60-130	
Onshore wind	80-110	
Coal with CO2 capture	100-155	
Solar farms	125-180	
Offshore wind	150-210	
Tidal power	155-390	

Source: Parsons Brinckerhof, *Powering the Nation Update*, 2010. For a full summary of the findings see http://www.pbworld.co.uk/index.php?doc=528

It is also worth noting that the average unit cost of electricity for an industrial user in France – an economy where about 80% of power generation comes from nuclear plant– averaged 6.15p/kWH before taxes in December 2010, as against 8.34p/kWh in the UK on a comparable basis – a 25% cost advantage.<sup>21</sup>

Nuclear also enjoys the further advantage that two of the major sources of uranium ore – Australia and Canada – are open, stable democracies where there is less risk of political disputes disrupting the security of supply.

After decades of government prevarication, the Coalition has committed the UK to supporting a programme of new nuclear build. Recent events in Japan will of course require a fresh look at the safety parameters, but should not impose a significant

<sup>&</sup>lt;sup>21</sup> Department of Energy and Climate Change, *Quarterly Energy Prices*, December 2010.

delay given the low risk of severe earthquakes in the UK and the lessons learned on plant safety since these facilities were constructed.

Implementing a viable policy to deliver secure, low cost energy to the UK in a world where global energy costs are likely to rise is a crucial measure the Coalition needs to deliver. We cannot afford any further prevarication.

## 8. CONCLUSION

There is no single silver bullet that can transform the UK economy and enable it to prosper in an increasingly competitive global economy. Nevertheless a clear focus on the long-term strategic drivers of economic growth would enable the Coalition to enhance significantly our potential for productivity growth and prosperity. We need to look back from the future, recognising the world economic order is changing and that we must adapt if we are to prosper.

In many areas the Coalition is moving in the right direction, but needs to go further and faster. Creating the conditions which will enable long-term growth to flourish – rather than looking for short-term fixes – will not be easy. It will require considerable courage and commitment. Many of the policies will be controversial.

It remains to be seen whether the Coalition – and the country – are up for the challenge.



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