Rebalancing the UK economy

A post-Brexit industrial strategy

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dynamic markets, inclusive societies

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"The question 'are you in favour of government intervention in industry?'
is one that a reasonable man should refuse to answer.
It is the kind of intervention that is all important."

Samuel Brittan, 1971

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Executive Summary

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On the eve of the EU referendum vote, according to numerous measures the British economy was performing exceptionally well. Unemployment was low and employment participation rates were at all-time highs, with continued low inflation. GDP growth since the financial crisis was only marginally behind Canada and the US, but well ahead of Germany and France.

For those in tradeable services jobs and already on the housing ladder in London and the south east, the economy was in particularly good health. Direct investment flows into the UK remained robust and house prices continued to rise, along with household purchasing power due to the relatively strong value of sterling. However, these figures hid some major imbalances resulting in an economy that was only working for part of the population. To what extent these imbalances impacted the vote on June 23rd remains difficult to quantify, however, the underlying imbalances themselves can be identified clearly.

Britain's persistent current account deficit suggests a wider malaise within the economy. The record trade deficit in goods highlights the decimation of manufacturing in the UK which has impacted the midlands, the north of England , Scotland and Wales disproportionately. Moreover, investment and productivity remain low partly due to this decline. Consumption remains the main driver of the economy, however, this appears unsustainable given the negative savings ratio. Despite these indicators, the value of sterling remained high as it has been supported by the sale of UK assets including companies and property to international investors. The sale of these assets has largely been financing the current account deficit.

The picture for those not participating in this growth is rather different, particularly in the midlands and north of England, Scotland and Wales. Rates of productivity remain substantially lower as does employment growth. This bifurcation of the British economy is not a recent phenomenon. In 1984, an elderly Harold Macmillan made his debut speech in the House of Lords citing, "the growing division of comparative prosperity in the south and an ailing north and midlands."

The recent creation of the Department for Business, Energy and Industrial Strategy suggests that Theresa May's government is committed to finding a solution to this problem. This follows on from a raft of policies on industrial strategy at the end of the New Labour government and the coalition, covering access to finance, skills, innovation, procurement, sector partnerships and specific technologies. This marked an important shift in the way government interacts with industry. But many of these policies will take time to bed in and have an impact on the economy. For example, each of the 11 new catapult centres have been running at most five years. These are physical centres where businesses, scientists and engineers work side-by-side on late stage R&D, transforming high potential ideas into new products and services, as well as developing supply chains. But they are only beginning to build the networks and infrastructure which other countries have developed over decades.

But how can Theresa May's government build on what has already been achieved on industrial strategy? British economic history is littered with failed interventions. Indeed, despite the numerous policies that have been attempted to reverse the trend, this bifurcation has if anything continued to widen.

Samuel Brittan's insight, despite its gender bias, that a government should intervene in the economy remains at the heart of economic liberalism. But as he pointed out, it is the type of intervention that matters. Government needs to focus on improving the physical and business environment, enabling managers and workers to drive successful businesses. It should also push on with the devolution agenda since this is beginning to create local government institutions with the necessary scale to provide the physical infrastructure to accomplish this.

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However, for an industrial strategy to make a difference it will need to address two quite fundamental and pervasive issues that have impacted the economy for generations. First, the persistent overvaluation of sterling has resulted in a general decline in the competitiveness of UK manufacturing firms. Although globalisation has accelerated the outsourcing of manufacturing to lower-cost countries such as China, Britain's decline has been far greater than other developed economies. Crucially, it has become far less profitable to manufacture goods in the UK than in other advanced countries.

In tandem with this persistent problem, the UK has also failed to develop an appropriate system of technical education. More than 460,000 technical jobs were difficult to fill last year due to technical skills shortages, and this is even after the current ability of firms to attract labour from the EU. Just being able to fill these technical roles alone would lead to a £17,000 jump in salary for hundreds of thousands of workers on the minimum wage across the country, resulting in an overall increase in wages of up to £8bn. Moreover, the productivity data suggests that without a rise in the workforce's technical skill-base it will be hard to maintain competitiveness in the global market place.

For many British firms, having to rely on a sub-standard technical skills system in addition to the strength of sterling has been a double whammy. In order to address the persistent overvaluation of the pound, an industrial strategy needs to address the market failures that have given rise to an excessive demand for sterling from international investors. This includes ensuring that there is an appropriate monetary policy regime in place in conjunction with reforms that reduce the demand for UK assets such as firms and property that have been financing the current account deficit and which appear to have limited benefit for the UK economy. The following three policies should be central to a 21st century industrial strategy and would help to address the issue of a persistently overvalued currency.

- ***Recommendation 1: Shift the current monetary policy regime away from an inflation target towards a nominal GDP target.*** An inflation target can lead to an overly-tight monetary policy. In particular, an increase in commodity prices might generate higher rates of inflation resulting in a tightening of monetary policy. But if an economy is not at capacity, then this is likely to have a damaging effect by increasing the cost of credit and the value of the currency. Moreover, there is increasing evidence that wage inflation is being kept in check by globalisation. As such inflation targeting appears to have largely outlived its usefulness. There are legitimate concerns that if the nominal gross domestic product level is set too high this might lead to rising inflation expectations as well as asset price booms. By targeting nominal income growth to equal the growth in total factor productivity, rising inflation expectations would be avoided.

- ***Recommendation 2: Remove all confidentiality surrounding beneficial ownership of property and reform land markets to reduce the returns from property speculation.*** Preventing overseas firms withholding the beneficial owner of UK property assets would reduce inflows into the UK from criminal organisations looking to launder money into high-value assets. It would also make it clearer to the monetary authorities who exactly might be financing the current account deficit. In addition, amending the 1961 Land Compensation Act to improve the efficiency of the land market would reduce capital inflows into existing assets and provide less support for sterling. The dysfunctional land market is one of the main reasons why the rate of housebuilding is so low and why the returns on residential property as an asset class are so high. Extending the capture of windfall profits to existing property assets by aligning council tax and business rates to actual values would also reduce speculation.

- ***Recommendation 3: Strengthen competition policy to prevent consolidation in sectors where the UK has a competitive advantage.*** Acquisitions of large and successful UK companies as a result of consolidation by international competitors does not appear to support a rebalancing of the UK economy. The 2002 Enterprise Act should be amended to expand the remit of the Competition and Markets Authority (CMA) to review merger situations where it believes that an acquisition of a UK firm may result in a lessening of competition in the UK, regionally or globally. Particular focus ought to be given to acquisitions driven by industry consolidation that might result in negative long-term effects for the UK economy in terms of industrial capacity, less innovation and research, and higher prices. Such an approach would still provide the freedom for M&A transactions that do not increase consolidation, particularly for smaller firms who are more likely to be capital-constrained.

In order to deliver the world-class technical education system that the country so desperately needs, an industrial strategy needs to transform the way that courses are funded to match the technical skills in demand by local employers. This would be underpinned by a more stable system of national qualifications and standards that stands the test of time. The following three policies should be central to a 21st century industrial strategy and would address the issue of an inadequate technical skills framework.

- ***Recommendation 4: The government should ensure that all local enterprise partnerships (LEPs) are sufficiently resourced to assess the local supply and demand for skills, and further strengthen the evidence base and expertise provided nationally.*** The 39 LEPs across England play a crucial role in bringing together local employers with councils, colleges and universities to boost economic growth. Given the diverse challenges faced around the country, they should be a key part of the government's industrial policy. As it stands though, many LEPs lack the capacity to perform what should be one of their core functions: to assess the local supply and demand for skills. They have the links with employers and local knowledge to understand in detail the local labour market, but this needs to be backed up by a stronger evidence base with hard data. The decision to abolish the UK Commission on Employment and Skills, which had strong employer and trade union support, could potentially further weaken the evidence base which both local and national policymakers draw upon.

- ***Recommendation 5: New metro mayors should prioritise their control of the adult education budget to incentivise local skills providers to focus on either basic or technical education that reflects the needs of the local economy.*** The decision to gradually devolve control of the £1.5bn adult education budget to those areas that are introducing a metro mayor from May 2017 was a major step forward for the devolution agenda. The budget primarily funds basic education for adults, which can prove crucial in helping those out of work to gain employment. Beyond joining up employment and skills support, this is also an opportunity for metro mayors to incentivise the provision of the right technical education and training. Based on labour market intelligence and local insights into the needs of employers they can agree wide-ranging funding agreements with local skills providers to shift provision to where there are shortages. Over time, this approach can incentivise further education colleges to specialise in what they do best: either providing second chances for those let down by the education system; or delivering high-quality technical education, grounded in the needs of employers.

- ***Recommendation 6: Set up the new Institute for Apprenticeships and Technical Education with the aim for it to last for at least a generation to give stability to national standards and qualifications.*** The history of skills policy in the UK is littered with short-lived government agencies that have overseen the standards and quality assurance of technical education and training. Unless we can ensure that the new Institute for

Apprenticeships and Technical Education stands the test of time and lasts at least a generation, the incessant overhauling of qualifications and standards will continue. This has undermined the value of the achievements of students and apprentices by making it almost impossible for employers to understand the system.

The evidence set out in this report suggests that without tackling these two key issues, the new secretary of state is unlikely to make much progress in rebalancing the economy and delivering the Prime Minister's objectives of making Britain a country that works for everyone.

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Chapter 1:
Macroeconomic imbalances and the decline of manufacturing

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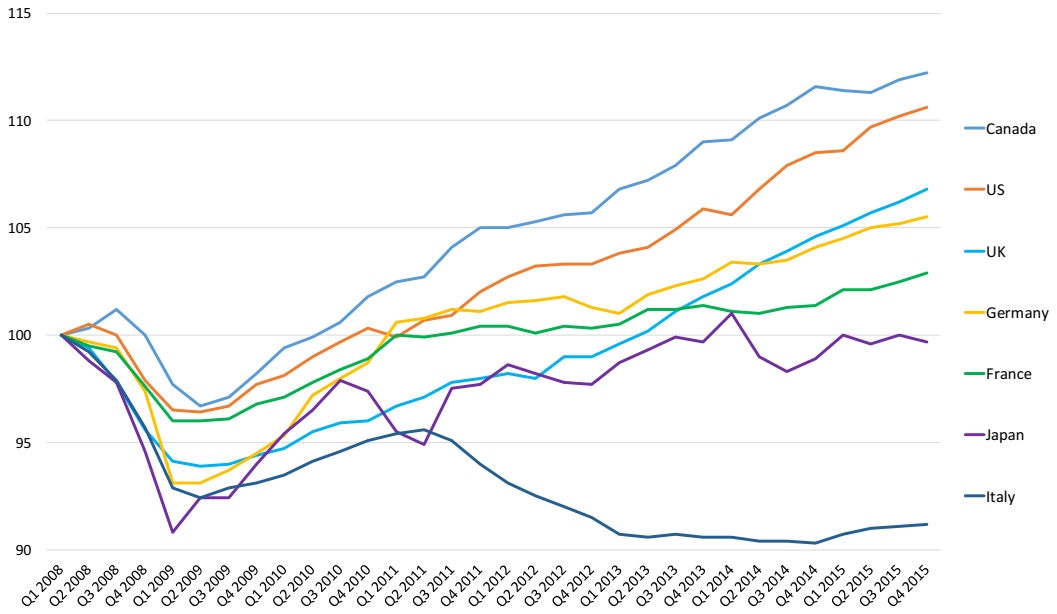
Contribution to GDP growth

The UK economy has performed well in terms of real GDP growth since the financial crisis. As of 2015, the UK was the third best performing country in the G7. Although the UK took longer than most to rebound to pre-crisis levels, its subsequent growth rate from 2013 has seen it eclipse both France and Germany. Moreover, when the growth rate analysis is extended back to 1997, the UK has been reasonably consistent in its level of performance, behind only Canada and the US. Growth in GDP per capita at purchasing power parity has been around average for the G7 since 1997.

Chart 1.1: Quarterly growth in GDP, 2008-2015 (index, 100=Q1 2008)



Source: ONS

However, an aggregate GDP figure does not provide much insight into what is really happening inside an economy. Disentangling the sources of growth from different perspectives provides a much greater understanding of some of the underlying challenges for the UK, including potential economic imbalances.

From the expenditure side, it is clear that the behaviour of households has a significant effect on GDP growth in the UK, explaining two thirds of the positive contribution. Indeed, the UK has the highest percentage contribution of consumption to GDP in the G7. Like the US, the UK has a trade deficit importing more than it exports, however, the UK has by far the lowest levels of investment.

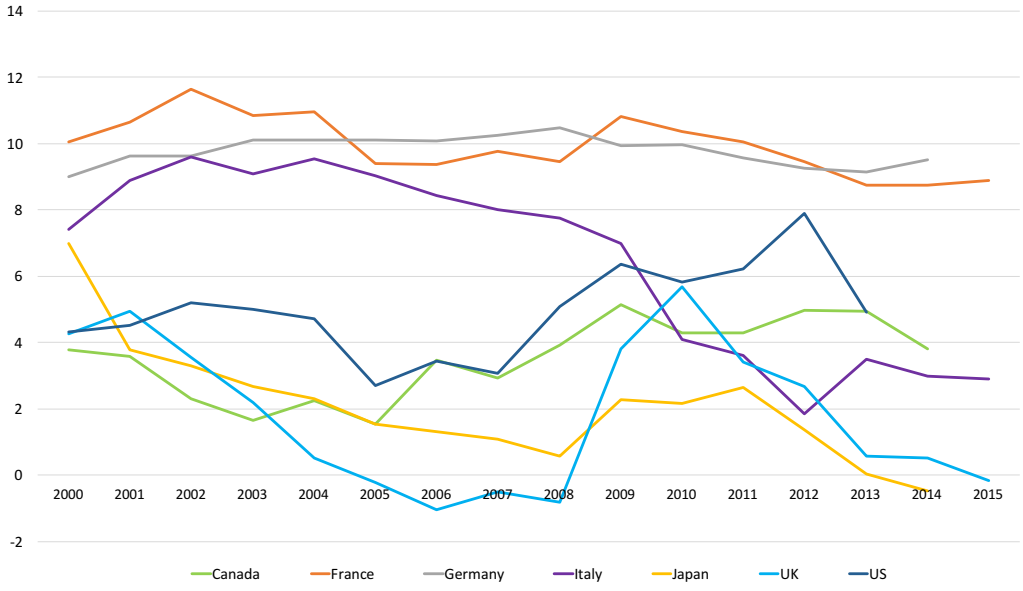
Table 1.1: Comparison of national accounts by expenditure, 2010-2015 average (% of GDP)

Country	Private consumption	Government consumption	Investment	Exports	Imports
Canada	57%	20%	24%	32%	33%
France	56%	24%	22%	28%	30%
Germany	55%	19%	20%	45%	39%
Italy	60%	20%	18%	28%	27%
Japan	59%	19%	20%	16%	14%
Netherlands	44%	26%	20%	78%	68%
Sweden	46%	27%	23%	44%	40%
UK	66%	20%	16%	30%	32%
US	65%	18%	20%	12%	15%

Source: Thomson Reuters Datastream, Credit Capital Advisory

One characteristic of high consumption economies is that they tend to save less, and as such have lower savings ratios. The UK has the lowest savings rate in the G7, which recently turned negative meaning that UK consumers spend more than their disposable income. A lower savings rate in the medium term can reduce the future rate of investment, or it could lead to increased dependency on international financing for investment

Chart 1.2: Household savings as a share of household disposable income, 2000-2015 (%)



Source: OECD

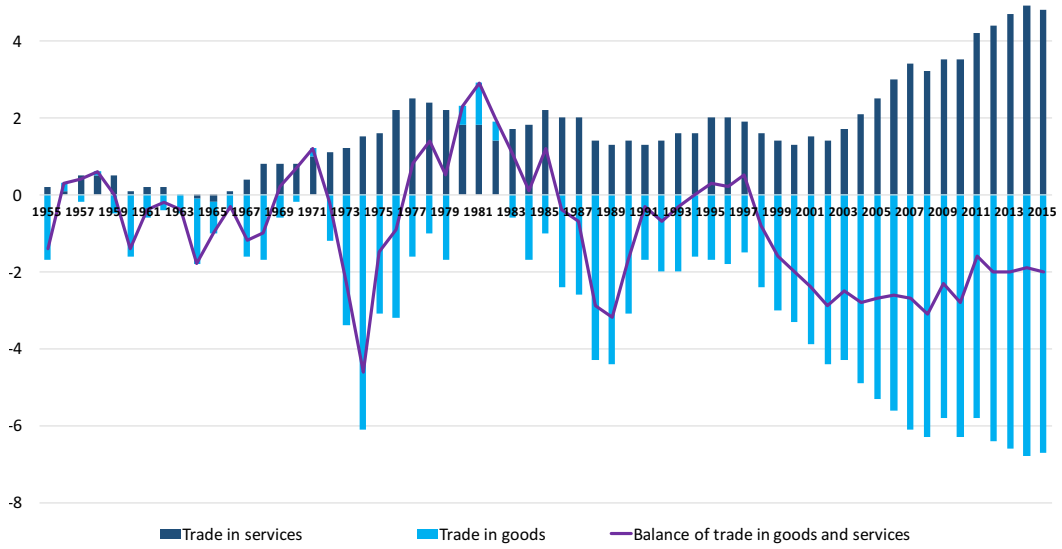
Economies like Britain, which are overly dependent on household consumption to drive the economy rather than investment and net exports, can also generate persistent trade and current account deficits. Indeed, these concerns were raised by 49 of the 104 economists polled by the FT in their annual survey in early 2016 [1]. Britain's current account and trade deficits have been long-standing, which suggests there may be structural imbalances within the economy.

Britain's on-going dependency on consumption for economic growth and its low rate of investment are some of the reasons why the economy has shown a trade deficit since 1997. Low rates of investment imply lower levels of competitiveness, making it much harder for British firms to compete internationally. The trade deficit currently stands at 2% of GDP. Furthermore, the UK has not had a

1. E. Cadman & C. Giles, "Economists' forecasts: Fears over balance of recovery", Financial Times, (Jan 3rd 2016)

surplus in goods since 1982, a figure which was flattered by North Sea oil exports. Aside from this positive blip, the UK has had a deficit in goods for most of the post-war era – and is now at record levels of nearly 7% of GDP. On the plus side, the UK maintains a trade surplus in services of just over 4%.

Chart 1.3: UK trade balance, 1955-2015 (% of GDP)



Source: ONS

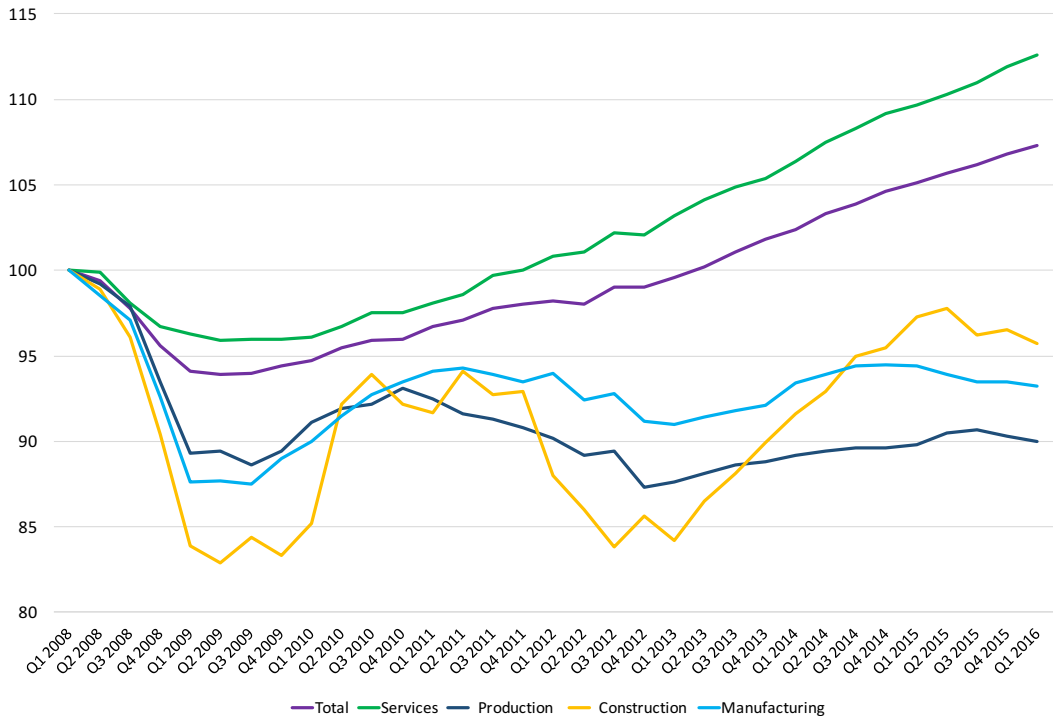
Although the UK has a trade surplus in services, particularly in financial services, which accounts for just under half of the UK's trade surplus in exports, large sections of the service economy are not tradeable. Using the OECD definition that at least 10% of a sector must be exported or 20% imported before that sector can be considered tradable, analysis by the Centre for Progressive Capitalism estimates that just 35% of UK services are exportable.[2] This is somewhat up from estimates by a House of Lords Trade Committee in the late 1980s which put the figure at 20% of the service sector being tradable.[3] This is a key reason why manufacturing still does matter for a trade deficit, as virtually all manufactured goods are potentially tradable.

But UK manufacturing has suffered a far deeper drop in output since 2008 of around 13% compared to just 4% for services. The services sector reached its 2008 peak again at the end of 2011 and is now 13% above 2008 levels. In contrast, UK manufacturing output remains 7% below its 2008 peak having faltered after signs of recovery up until 2011. This suggests that the UK has lost more of its industrial capacity as a result of the crisis, putting further pressure on the trade deficit.

2. For methodology of calculating % of services that are tradeable see appendix 1

3. A. Thirlwall & H. Gibson, (1992), Balance of Payments Theory and the United Kingdom experience

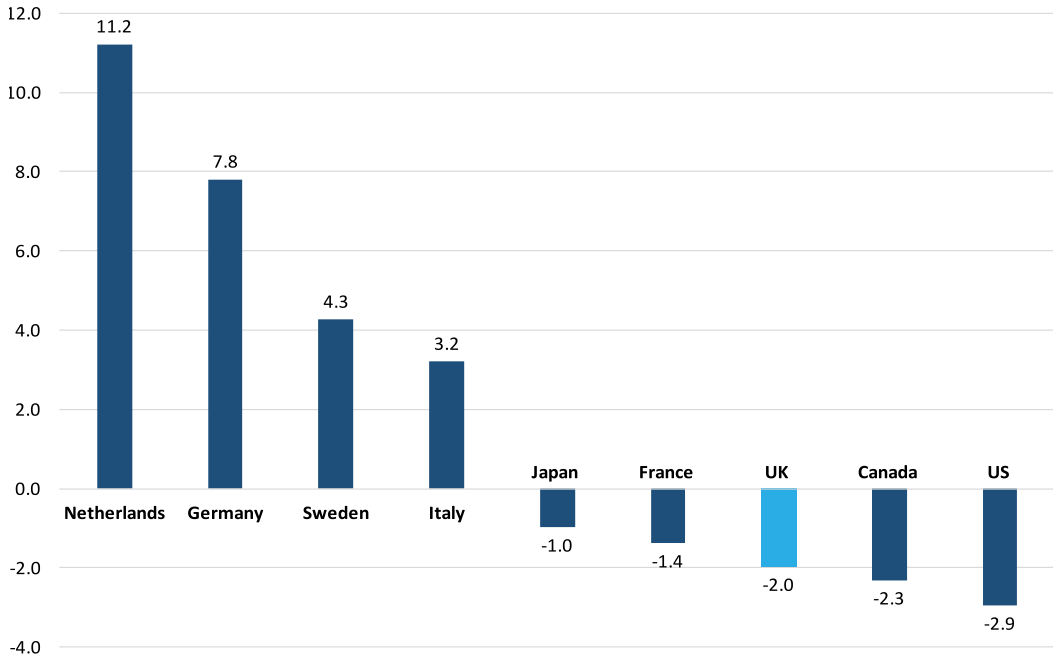
Chart 1.4: Components of UK GDP growth, 2008-2016 (index, Q1 2008=100)



Source: ONS

The UK is of course not the only country with a trade deficit: the US and Canada had worse trade deficits than the UK in 2015. Canada's deficit is largely down to falling commodity prices, as nearly a fifth of the economy derives from natural resources. This suggests that this is less of a structural issue and more of a cyclical issue for the Canadian economy. Although the US is in a far worse position than the UK, this is largely down to the fact that the US dollar acts as a reserve currency. This phenomenon, known as the Triffin Dilemma, is where the country of the reserve currency in effect runs perpetual trade deficits to keep the world financial system functioning.

Chart 1.5: Net trade, 2015 (% of GDP)



Source: World Bank (2016), National Accounts Data

However, when it comes to the current account deficit the UK is in a far worse position than its international peers. The latest comparative data show that the UK has a deficit of 5.2%. The current account deficit consists of the trade deficit as well as primary investment income and secondary investment income. Primary investment income is the return from past investment in financial assets and production processes, which is largely dividends and interest. Secondary investment income is small for most countries and includes personal transfers, international assistance, charities and some inter-government payments.

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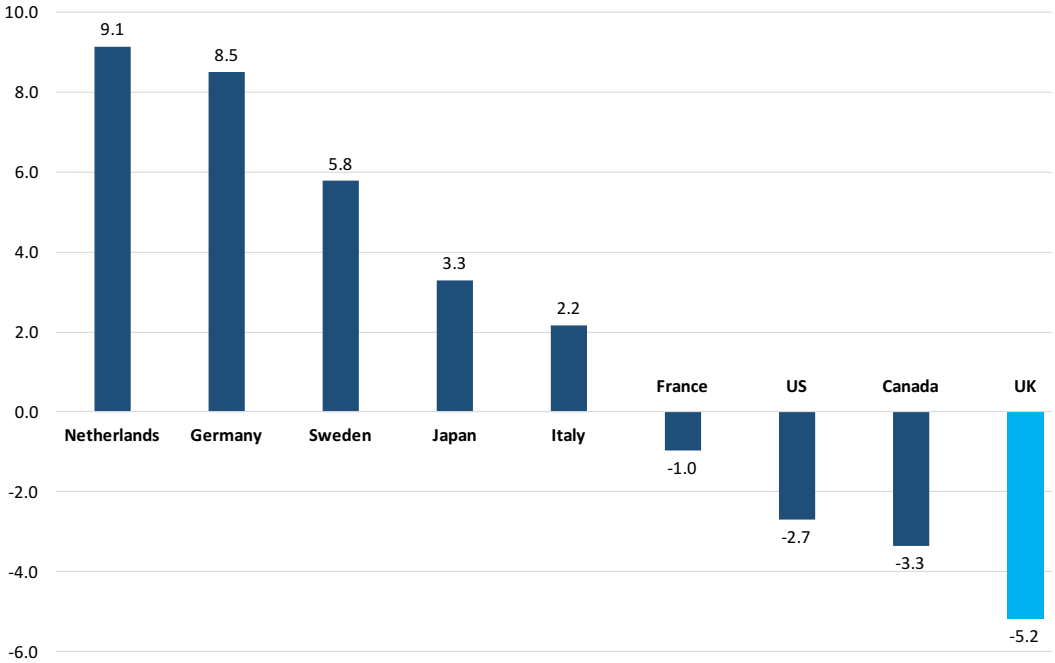
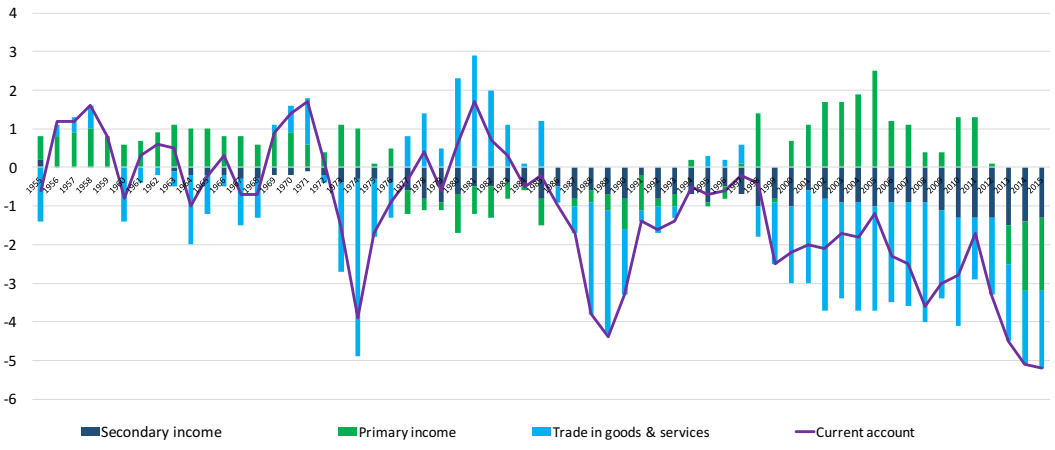
Chart 1.6: Current account, 2015 (% of GDP)



Source: World Bank (2016), World Development Indicators; 2014 data for France

The reasons for the high level of the current account deficit though are not just a lousy trade performance, which has been consistently poor at around 2% of GDP since the late 1990s. The UK has had a persistent negative secondary income since the early 1970s, which since the 1980s has been around -1%. Crucially, the UK's primary income, which was robust and positive between 1999 and 2012, has now become large and negative and is mostly responsible for the recent worsening of the current account deficit.

Chart 1.7: UK current account balance, 1955-2015 (% of GDP)



Source: ONS

Analysis by the IMF suggests there a number of reasons for the decline in the primary income including: lower returns from FDI made by UK firms, reductions in corporation tax which may have led investors to repatriate earnings that previously were invested abroad, the relative success of the UK economy and crucially lower returns from commodities.[4] The IMF analysis concludes that a number of factors diminish the risks associated with such a large deficit, such as a strong institutional monetary framework, but that such large deficits still warrant monitoring.

A current account deficit must be financed by non-domestic capital flows. This can be achieved by the sale of UK assets such as companies and property to foreigners, as well as international investors acquiring equity and debt instruments. This situation was recently described by the Governor of the Bank of England as relying on "the kindness of strangers". But relying on the kindness of strangers can increase risks. Moreover, the sale of UK assets to finance the current account deficit does not appear to be a sustainable or sensible long-term strategy.

Kristin Forbes, a member of the monetary policy committee at the Bank of England has recently argued that a large current account deficit increases vulnerability to any increase in risk aversion or economic uncertainty. The sharpest capital outflows (and corresponding currency depreciation and increase in borrowing costs) occurred in countries with the largest current account deficits.[5] Forbes suggests that the UK's strong institutions reduce some of the risk associated with such large deficits. But she also emphasises the importance that financial flows can have on the current account deficit, and the potential vulnerabilities these flows can bring. For a globally integrated economy, these financial flows are more likely to have a greater impact on the current account deficit than the trade deficit. Another critical factor with regards to financial flows is that they also have a significant effect on the exchange rate. Variations in the value of a currency impact import and export prices, and these feed through to the rate of change of prices as well as the competitiveness of domestic firms to exports.

From a policy perspective, it is not clear to what extent politicians are worried about the persistent current account deficit, and the risk of the UK experiencing significant capital outflows and currency depreciation. This may well be because the UK has not had much of a tradition of prioritising this indicator. Maintaining the value of sterling and fighting inflation have taken precedence in the policy hierarchy. It is also plausible that many do not see these concerns as being directly relevant to Parliament's remit, given monetary policy is managed by the Bank of England. However, it is of course Parliament that decides the remit for the Bank of England.

A number of politicians would perhaps point to the IMFs own work which suggests that sterling in 2015 was around 11% overvalued. Moreover, in a world with few safe assets and excess demand for long-dated bonds, it appears unlikely that the UK's borrowing costs would rise any time soon in the event of capital outflows. With inflation having been consistently below the Bank of England's 2% target, some politicians might even welcome a rise in prices as a result of depreciation increasing import prices. However, rising prices do not necessarily filter through to rising wages, hence such a scenario is more likely to generate a fall in real wages or at least a slowdown in real wage growth.

Since sterling left the exchange rate mechanism (ERM) in 1992 and began to float, the prevailing view of exchange rate policy appears to be that there is not much than can be done about the value of sterling, as the market sets the price. If there are deficits, then they need to be funded by international investors willing to acquire UK assets. If demand for these assets falls, then sterling would need to depreciate until it becomes economical to acquire assets or the terms of trade improve

During the 1980s when the trade deficit began to widen, the response from the then Chancellor, Nigel Lawson, was that deficits were "benign and self-correcting" and therefore were not worth worrying about. They were just the outcome of the market. Hence, recent attempts to improve the terms of trade, thereby potentially improving the current account deficit, have focussed more on what might be done to improve skills and a coherent industrial strategy to make the UK more competitive.

4. IMF Country Report - United Kingdom, (February 2016), 'How much of a concern is the UK's current account deficit?'

5. K. Forbes, (March 2016), 'The UK Current Account Deficit: Risky or Risk-Sharing?'

The incoming Labour administration in 1997 made education its mantra, with a focus on improving skills and employability. During the 1990s, senior labour party officials had become concerned that the British labour force was increasingly falling behind international competition. Furthermore, the US' highly interventionist industrial policy, particularly through the use of defence R&D and procurement, was demonstrating significant positive spill-overs into the economy.[6] This led to a new science-based strategy under the minister of science and innovation David Sainsbury, which was subsequently continued by David Willets during the coalition government.

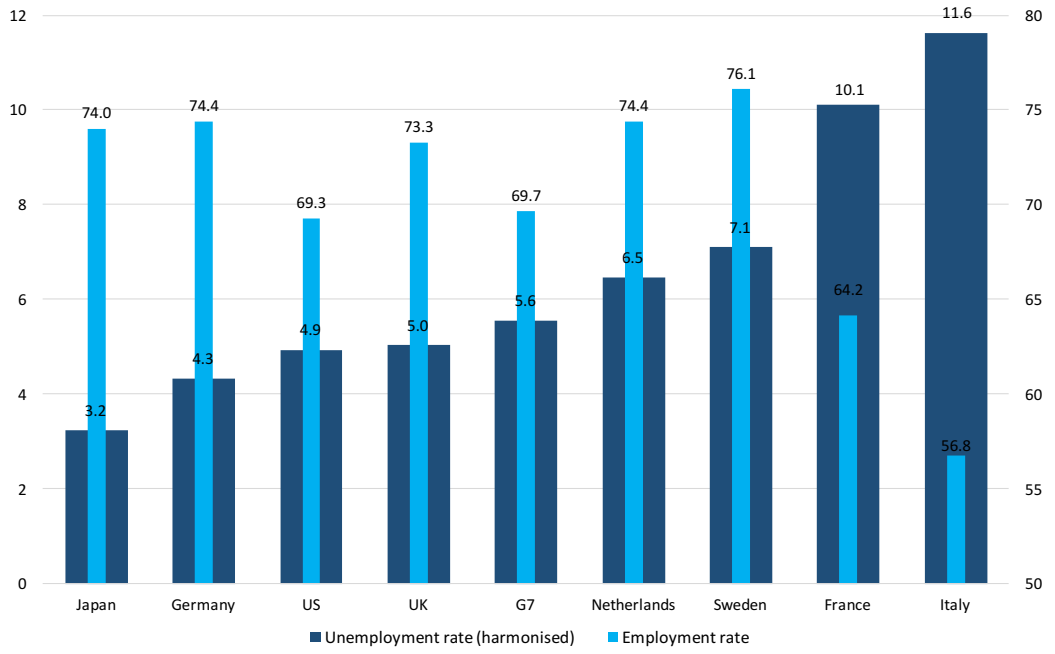
Alongside this shift towards skills, the notion of rebalancing the economy away from London and the south east also became central to policy. The New Labour administration set up regional development agencies in England as well as devolving power to Northern Ireland, Scotland and Wales. Ideas on regional development and rebalancing were continued by George Osborne during the coalition who emphasised manufacturing through his ideas on the 'march of the makers', and the development of the Northern Powerhouse.

However, the persistence of the UK's trade deficit throughout this period suggests that such interventions have not transformed the economy as hoped. As such, it would appear useful to understand what might be driving Britain's economic imbalances of low investment and a persistent trade deficit. An analysis of the factors that drive long run growth including the labour market, the rate of capital investment and productivity growth may provide greater insight into the economic challenges facing the UK.

Britain's flexible labour market

The UK has seen strong growth in its labour market with comparatively lower rates of unemployment and higher levels of employment than its peers. At 73.3%, the UK's employment rate is well ahead of the G7 average and countries such as the US. Unemployment meanwhile stands at just 5.0%, similar to the US and below the G7 average.

Chart 1.8: Employment and unemployment rate, Q1 2016 (%)

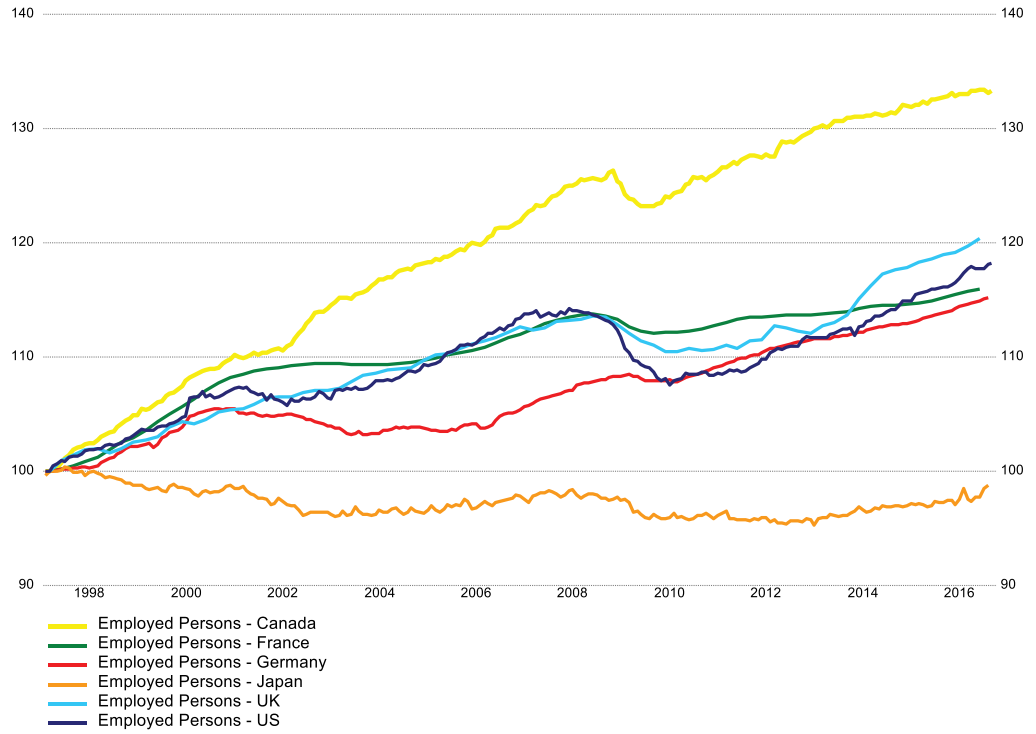


Source: OECD

Moreover, an index of employment growth shows that with the exception of Canada, the UK has had the fastest growing labour force of the G7, increasing its total employment by 20% since 1997.

6. M. Mazzucato, (2013), The Entrepreneurial State

Chart 1.9: Employment growth, 1997-2015 (index, January 1997=100)



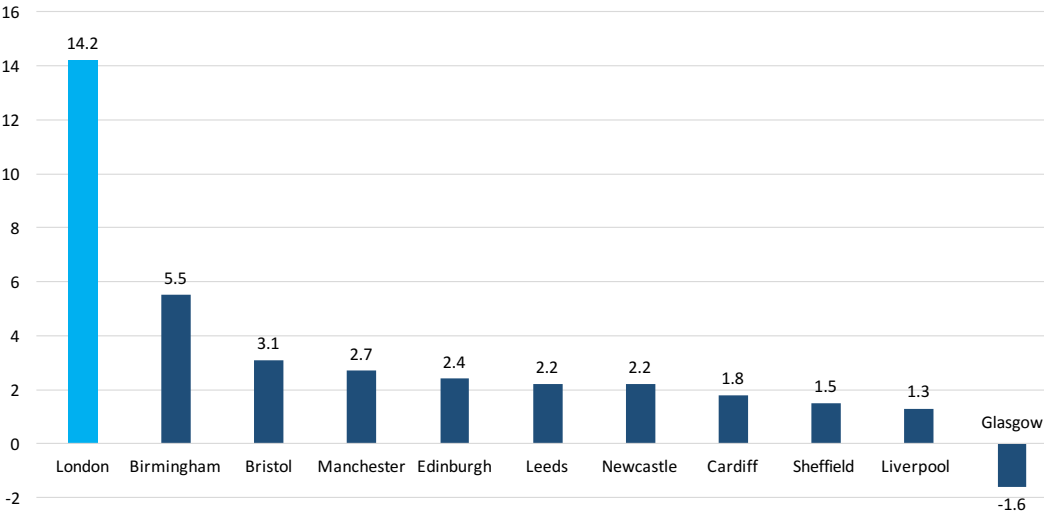
Source: Thomson Reuters Datastream, Credit Capital Advisory

Although the UK labour market has performed extremely robustly, underneath the positive headline data, there remain three key issues:

i) Jobs growth has been far higher in London and the south

Employment in the north of England and Scotland fell between 2009 and 2013, and had increased by just 2.1% by 2014. Whereas employment in the south has grown every year since 2009, and increased 7.4% overall. London accounted for much of this growth, with employment increasing by 14.2% over the five years.

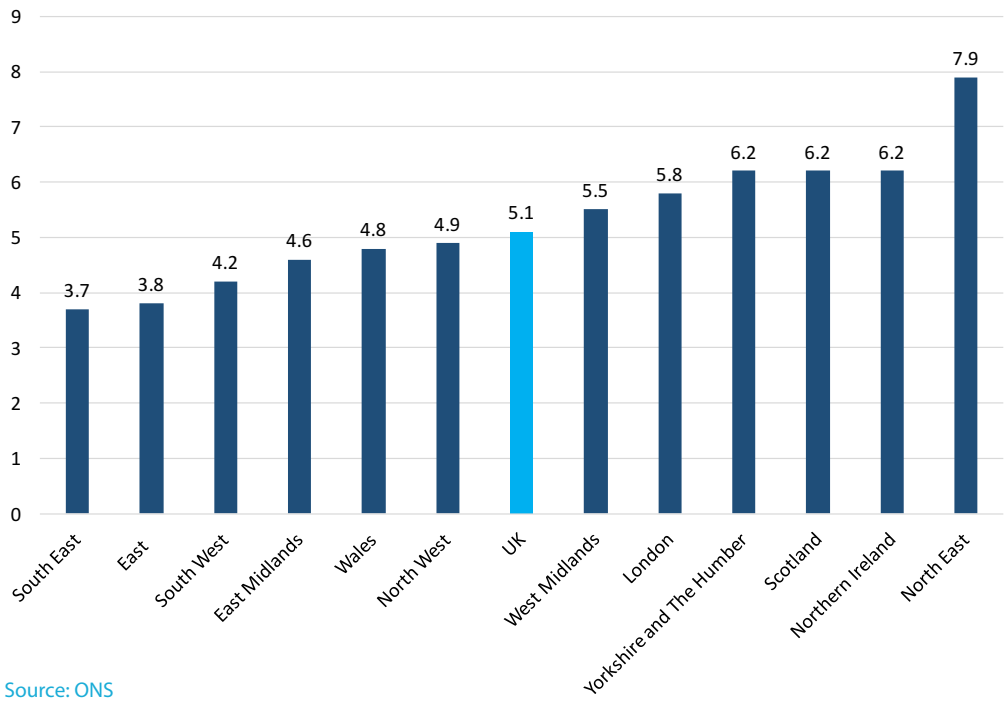
Chart 1.10: Employment growth by city region, 2009-2014 (%)



Source: ONS

Furthermore, the rate of unemployment varies significantly between regions. For the north east, the unemployment rate, at 7.9%, is more than twice the rate of the south east and east regions.

Chart 1.11: Unemployment rates by UK region, Q1 2016 (%)



Source: ONS

One of the reasons behind this bifurcation within the UK economy has not just been the relative decline of the midlands, the north of England and Scotland, but also the relative success of London and the south east dominated by competitive service industries. London and the south east have a much higher share of innovation jobs in the predominantly tradeable services sector, particularly in financial services and other business services. In 2015, the surplus on trade in services was £88.7bn, 45% of which was generated from financial services and 33% from other business services.[7]

Research on US city regions by Enrico Moretti has found that these innovation roles have a jobs multiplier effect about three times larger than that of manufacturing. Innovation jobs also help create jobs in both skilled and unskilled occupations, many in the non-tradeable services sector. It is worth noting that wage growth in London, in aggregate, has been slower than the rest of the UK since the financial crisis. This is likely to be related to higher rates of productivity growth in the tradable sector substituting technology for labour in conjunction with poor productivity growth in the non-tradable services sectors.

ii) The UK still has a high proportion of young people who are not in education, employment or training (NEET)

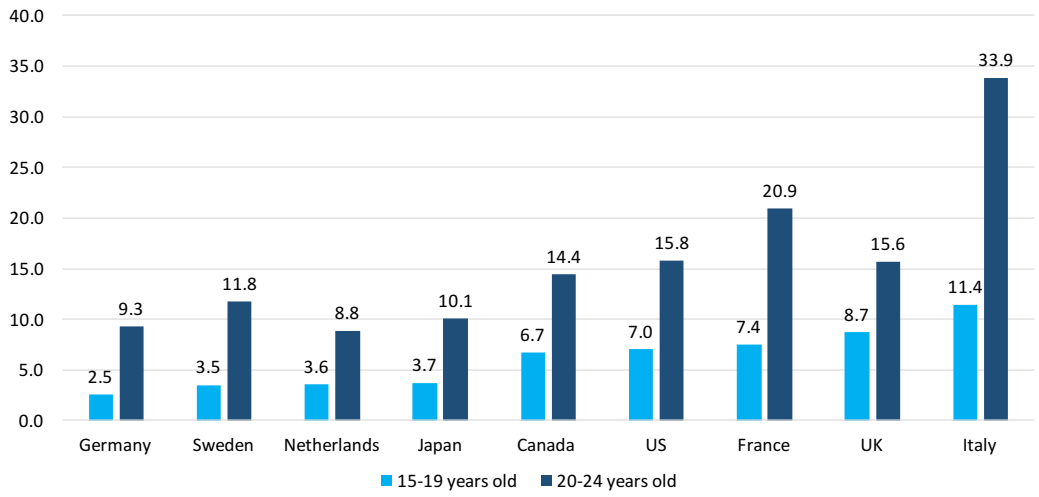
8.7% of young people aged 15 to 19 are NEET, more than three times the level of Germany. Around one in six (15.6%) young people aged 20 to 24 is NEET.

The UK has comparatively high levels of young people who are NEET in part due to the high proportion of young people leaving school with a low level of education. In a review for the UK government, Professor Alison Wolf concluded that: "on even the most conservative of interpretations, it seems clear that at least one in five of each cohort is getting very little benefit from the post-16 secondary education system. Put simply, as a society we are failing at least 350,000 of our 16 to 18-year-olds, year on year." This makes it extremely difficult for many of these young people to progress into higher levels of education and training or to secure stable employment.

7. http://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/bulletins/uktrade/january2016#trade-in-services

Furthermore, even for those leaving school at 18 with a strong base of education, there are a lack of opportunities for technical training for those not choosing to go to university. While apprenticeships could help bridge this gap, most apprenticeships are for adults aged over 25 and very few are offered for those under the age of 18.

Chart 1.12: Share of young people not in unemployment, education or training (NEET), 2015 (%)



Source: OECD; 2014 data for Japan

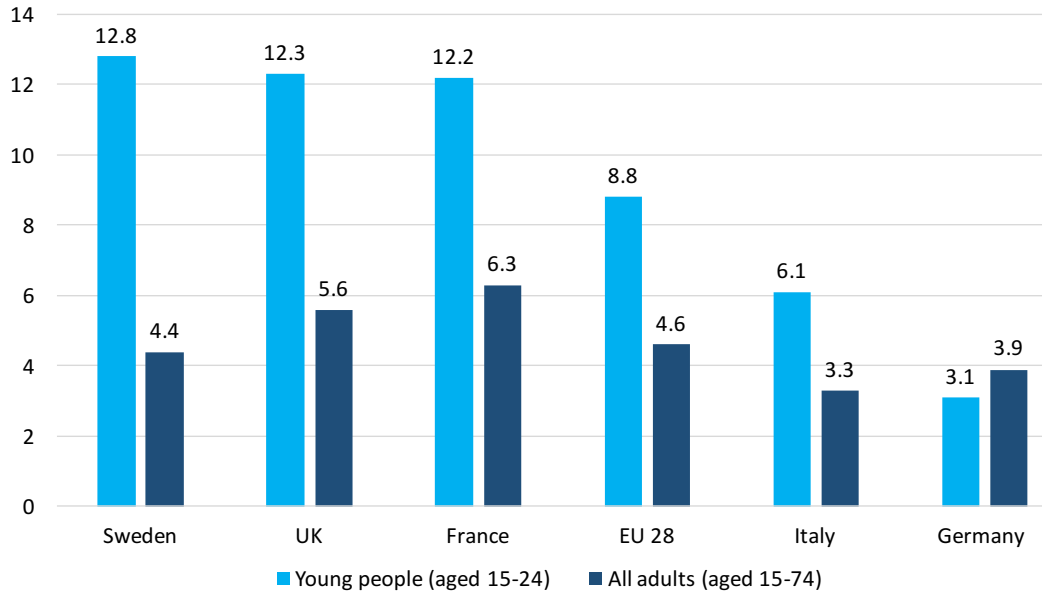
iii) There is an increasing trend of underemployment

The most recent data show that there were 2.8 million people in the UK who wanted to work more hours than they are currently employed to do – and are therefore classified by the ONS as 'underemployed'. This is far more people than the 1.7 million who were unemployed. And whereas the level of unemployment has fallen significantly since it peaked in the middle of 2013, the level of underemployment has remained stubbornly high. The percentage of those in employment who are underemployed is also higher than the EU average. It is particularly high for young people, with 12.3% of those aged 15-24 underemployed compared to 3.9% in Germany and 3.3% in Italy.

Underemployment particularly affects people in lower-skilled work. Analysis by the Joseph Rowntree Foundation has found that in general, the lower skilled (and lower remunerated) the job, the larger the proportion who would like to work more hours and the larger the increase since 2008. For example, of those in elementary occupations one in five workers (21%) wanted to work more hours in 2014, up from 14% in 2008.[8] This rise in underemployment among low-skilled workers is likely to be partly due to the rise of insecure work, such as zero hours contracts, that is more prevalent in the UK due to the comparatively more flexible labour market. Other European countries have seen higher levels of unemployment in recent years but lower levels of underemployment.

8. https://www.jrf.org.uk/mpse-2015/underemployment

Chart 1.13: Underemployment rate, 2015

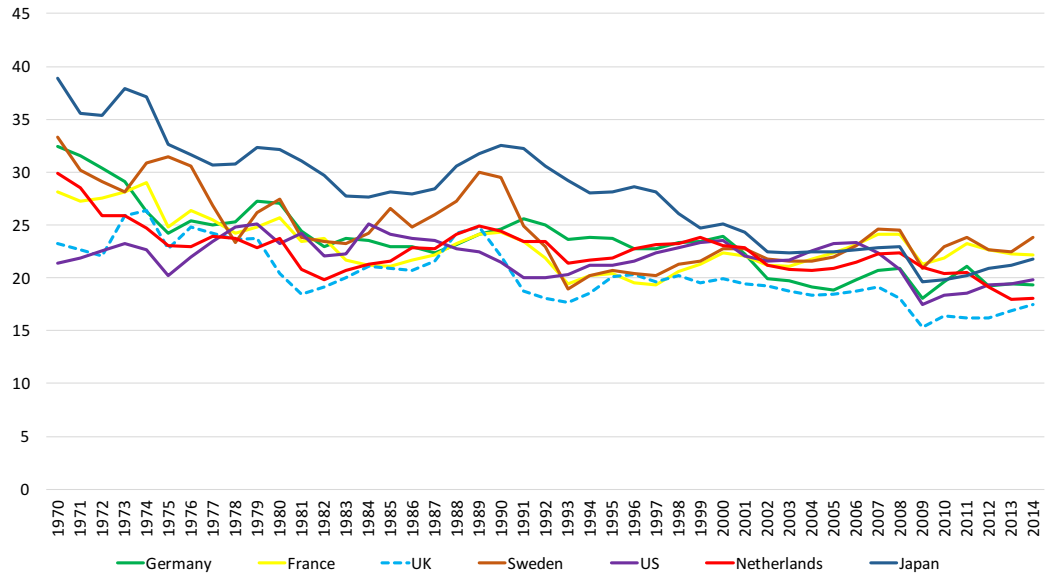


Source: Eurostat

Deficits in capital investment and R&D

According to the World Bank, the level of investment is substantially lower in the UK than in other major countries. Since 1960, Britain's rate of gross fixed capital formation has almost always trailed other major economies.

Chart 1.14: Gross capital formation, 1970-2014 (% of GDP)



Source: World Bank (2016), World Development Indicators

Furthermore, during the post crisis period of 2009 to 2014, the UK had the lowest rate of investment by a significant margin. This is likely to have been exacerbated by the lower levels of public capital expenditure as part of the coalition government's attempt to reduce the budget deficit.

Table 1.2: Gross capital formation, 2004-2014 (% of GDP)

Country	2004-2014 average	2009-2014 average
Sweden	22.9	22.8
France	22.6	22.3
Japan	21.5	20.6
OECD members	21.4	20.2
High income: OECD	21.4	20.2
Netherlands	20.4	19.5
Germany	19.6	19.5
US	20.5	18.8
UK	17.4	16.4

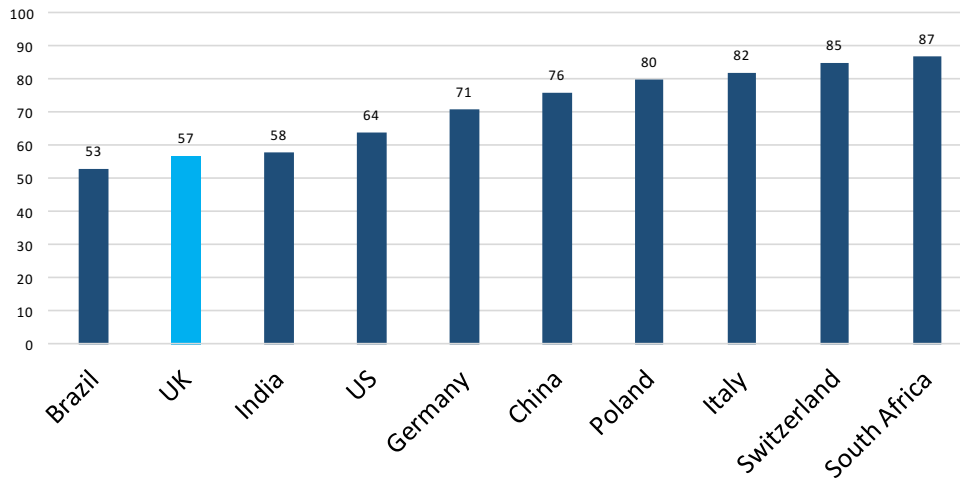
Source: OECD

These cuts in government capital expenditure have been widely criticised, particularly given the current low cost of borrowing to fund such projects.[9] Furthermore, during periods of uncertainty firms would rather hoard cash than invest. As such, an injection of infrastructure investment would most likely have helped increase this rate of investment, thereby improving output.

Within these overall investment figures, both public and private sector investment have consistently been lower than in other countries. Over the past decade, private sector investment rates in the UK have been the lowest in the G7 and public sector investment rates were second lowest. But during the 1980s and 1990s the UK had the lowest rates of public investment of any G7 country. Given the long timeframes and lifecycles of investments in infrastructure, this sustained level of low public investment explains why a study by the management consultancy firm McKinsey found that the UK's total infrastructure stock was only 57% of GDP compared to 71% in Germany.

According to the Civil Engineering Contractors Association, this lack of investment in infrastructure is costing the UK around £78bn per year in lost output.[10] In the CBI's recent infrastructure survey, 94% of businesses said that the quality of infrastructure is a decisive factor when planning future investment. Although the government has established the National Infrastructure Commission, the majority of firms 53% are not confident of seeing tangible improvement in the coming five years. Moreover, 62% of firms are unhappy with the pace of progress.[11]

Chart 1.15: Total infrastructure stock, 2013 (% of GDP)



Source: McKinsey & Co

Another factor that has negatively impacted the UK economy has been the consistently low levels of

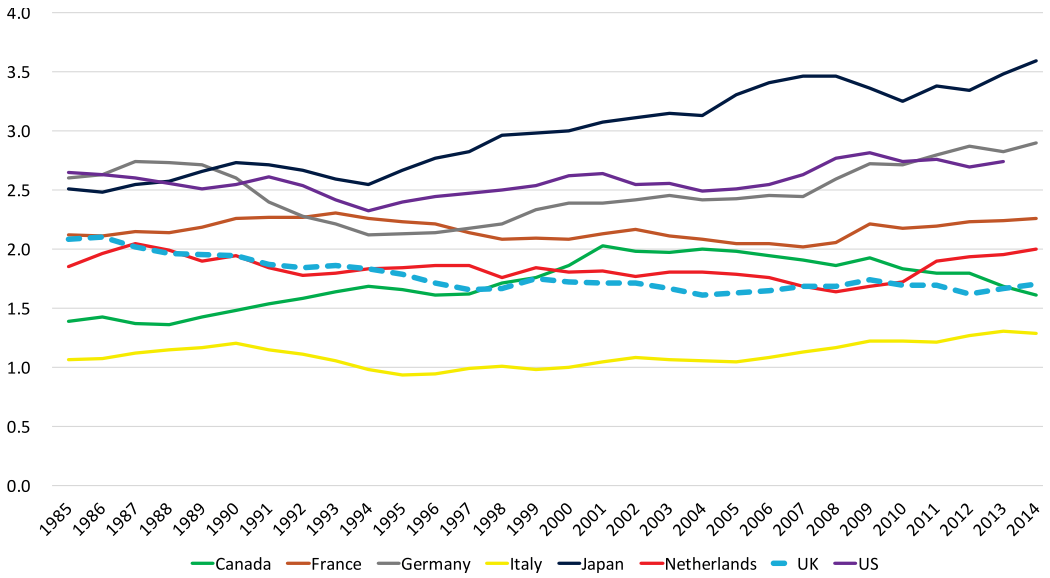
9. The Economist, 'A little faster, George?' (9th March 2013)

10. Civil Engineering Contractors Association, (2013), Securing our economy: The case for infrastructure

11. CBI/AECOM Infrastructure Survey, (2015), Turning Momentum into Delivery

research and development (R&D). R&D is a major driver of innovation, which is critical in determining productivity levels. Since 1985, every member of the G7 has increased investment as a share of GDP on R&D except the UK, which has seen investment fall from over 2% to around 1.7%.

Chart 1.16: Gross expenditure on R&D, 1985-2014 (% of GDP)



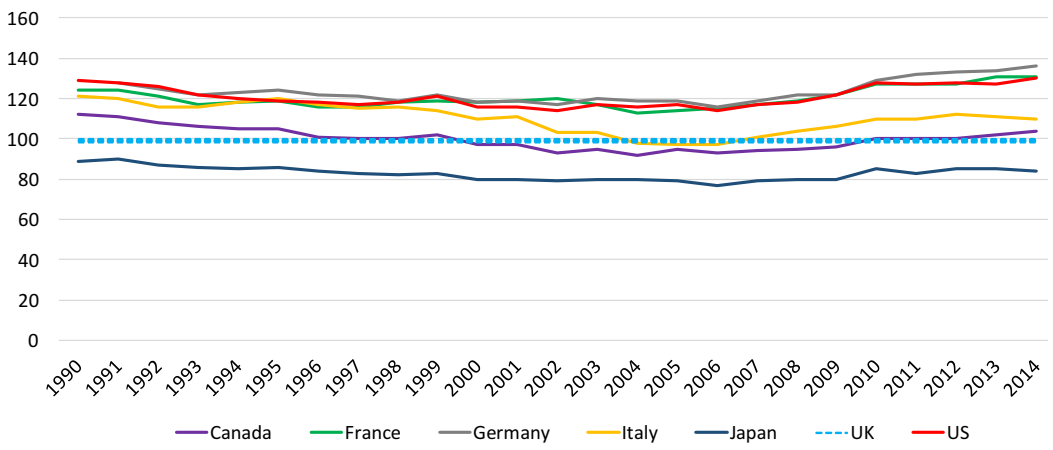
Investment funded by industry and government have both fallen, but government investment has fallen furthest. In 1985, government and industry each invested almost 1% of GDP in R&D. Government investment fell to 0.5% by 1995, and has remained relatively constant since. Industry financed investment, meanwhile, fell more gradually, reaching 0.69% in 2005. It has increased marginally since to 0.79%. The UK's total R&D expenditure was 1.73% of GDP in 2014. This compares to an OECD average of 2.4%, and is around half the level of expenditure seen in Sweden which invested 3.41% in R&D in 2014. A fall in R&D, according to the OECD, has a strong negative impact on innovation.[12] Such low levels of R&D and investment are also one reason why UK productivity has been so poor.

Britain's productivity problem

Given the low level of capital investment and R&D, the productivity figures for the UK are unsurprisingly extremely poor, with only Japan underperforming the UK within the G7. Moreover, this productivity gap between the UK and other major economies has grown in recent years. GDP per hour worked in Germany is now 36% higher than in the UK, compared to a gap of 22% in 2009.

12. OECD, (2012), Science, Technology and Industry Outlook, figure 1

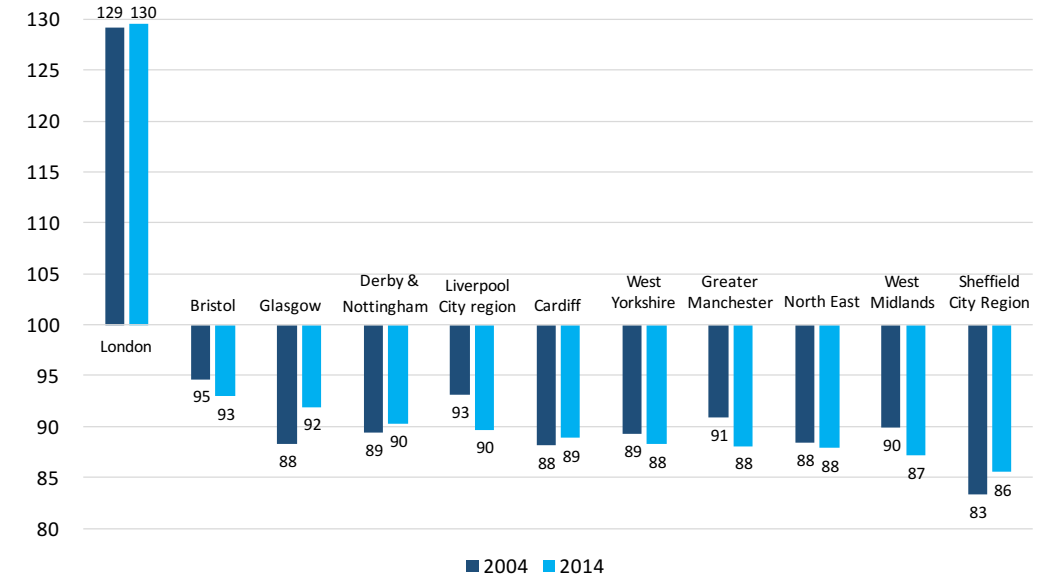
Chart 1.17: GDP per hour worked, 1997-2014 (index; UK=100)



Source: ONS

A further dissection of the data shows one of the major drivers behind the UK's productivity failings is poor performance outside of London. The gap between London and the UK average has grown to 30%, up from 29% in 2004. Meanwhile, many of the UK's other major cities are actually falling further behind the UK average. The productivity gap between Greater Manchester and the UK average, for example, increased from 9% to 12% between 2004 and 2014. The West Midlands went from being 10% behind the UK average in 2004 to 13% behind in 2014.

Chart 1.18: GVA per hour worked in the UK's 'core cities', 1997-2014 (nominal indices; UK=100)

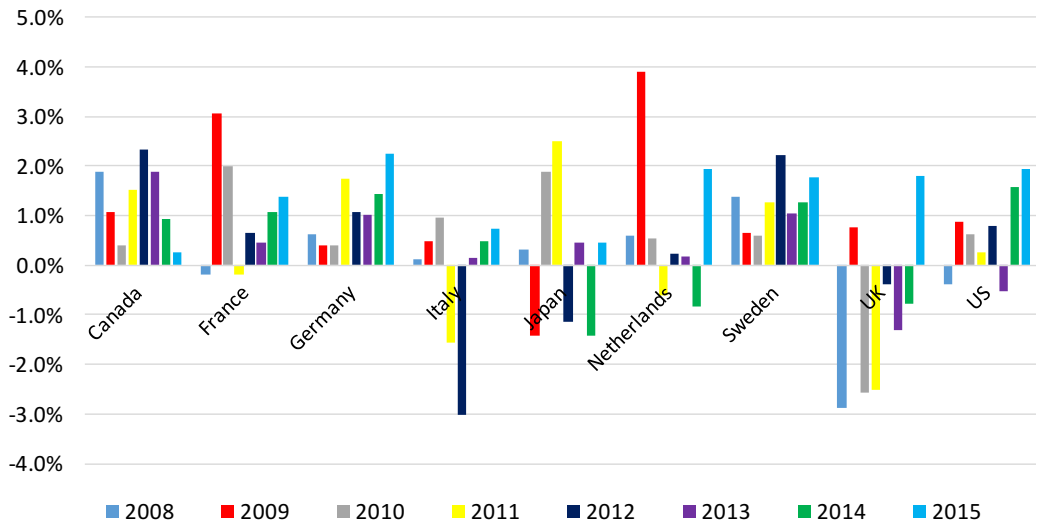


Source: ONS; where possible the city regions reflect the boundaries agreed for combined authorities

The challenge for economies that are over reliant on consumption, and have lower levels of investment and productivity, is that long-term rates of growth are likely to be lower. Productivity growth is the key determinant of rising income levels but it generally requires higher levels of investment and R&D to increase the rate of growth. Given that the UK's savings ratio has turned negative when taken with low rates of investment and productivity, it is plausible that future growth rates may be lower too.

The lack of productivity growth since the financial crisis has been particularly low and one reason why income levels have stagnated. Between 2008 and 2013, the UK experienced the largest fall in real wage growth of the countries shown in chart 1.19. Real wage growth has picked up in the past couple of years but real average wages remain below 2009 levels.

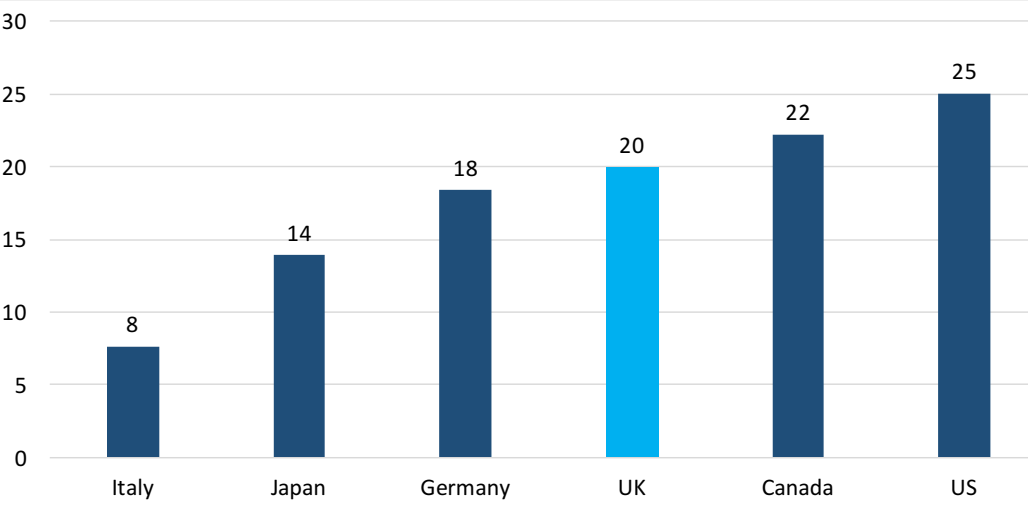
Chart 1.19: Change in real wages, 2008-2015



Source: OECD

As well as a lack of wage growth, around a fifth of UK workers are on 'low pay', as defined as being on less than 60% of the national median. This is high by European standards, although not as high as in the US or Canada.

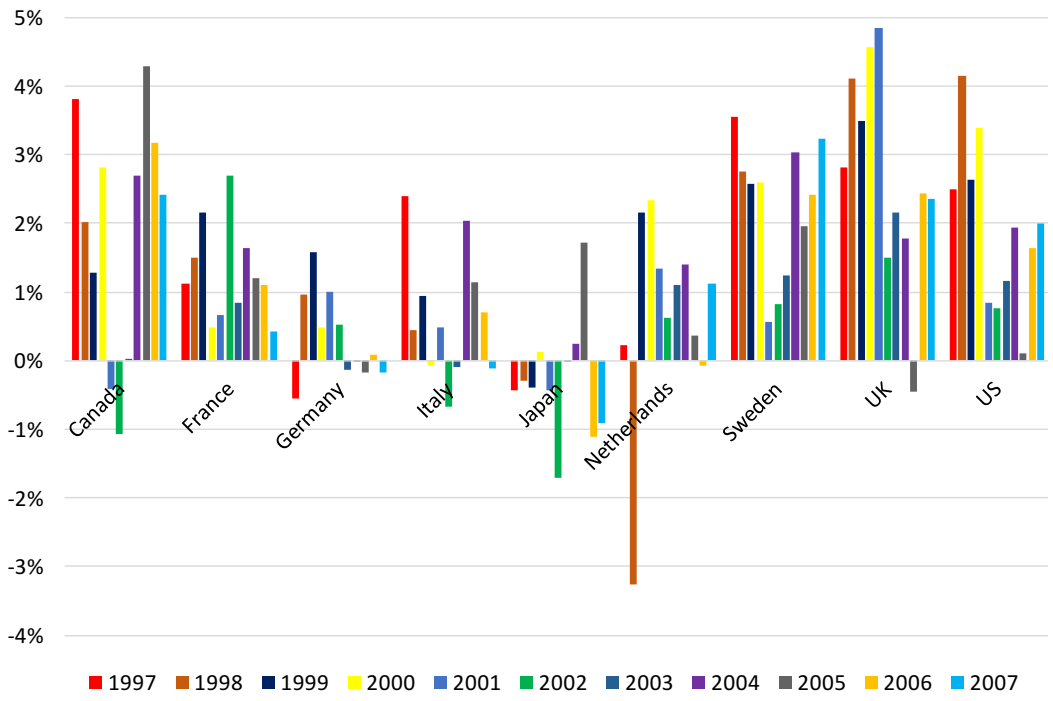
Chart 1.20: Share of workers on low pay, 2015 (%)



Source: OECD (2016), Wage levels; 2014 data for Italy, Japan and Germany

When the analysis is extended back in time between 1997 and 2007 the data shows that UK real wage growth was the strongest in the G7. Yet, it remains debatable whether this growth in real wages was in fact sustainable. This growth was positively impacted by Britain's strong period of growth after exiting the ERM in 1992. However, the massive expansion of consumer debt, fuelled by rising house prices from 2002, was partially responsible for maintaining output and wage growth in the UK. As such not all of this rise in real wages can be said to have been sustainable.

Chart 1.21: Growth in real wages, 1997-2007



Source: OECD

In summary, output in the UK has been strong compared to other major advanced economies in conjunction with high levels of employment. However, this growth has been characterised by an excessive reliance on consumption, low investment, low productivity, a negative balance of trade and an even worse current account deficit. Although employment growth has been robust, the UK still has a high number of young people not in education employment or training, and there is also an increasing trend of underemployment.

The UK's growth has also been highly imbalanced with improvements in output, productivity and jobs much higher in London and the south east of the UK which are oriented towards a service economy. Manufacturing and construction remain depressed and are still at lower levels of output than in 2008. Given the importance of manufacturing to help improve the UK's productivity figures, it remains critical to understand why manufacturing has suffered more than in other countries.

Decline of manufacturing

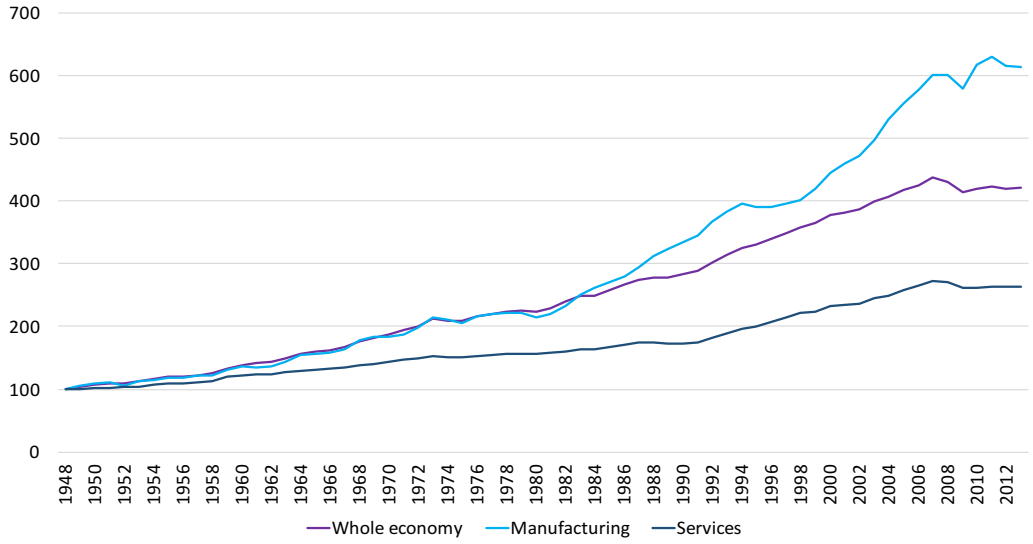
One of the major challenges for the British economy has been the relative decline of its manufacturing sector vis-a-vis its global competitors. The process of globalisation has led to the offshoring of production in numerous sectors to low cost countries such as China. However, this shift does not signal the end of manufacturing in the developed world. Indeed, a number of countries including Germany continue to be economic powerhouses with regards to manufacturing despite it becoming a smaller part of the overall economy.

As industries become more productive, they tend to employ fewer people and output prices tend to fall. Thus the most productive sectors generally shrink as a portion of the economy, despite the fact that they remain in expansion mode in terms of output, exports, profits and wages.

Productivity is generally strongest in tradable sectors as there tends to be more competition. This in turn drives greater levels of innovation. As manufacturing is mostly tradable, it should not be surprising that productivity has risen much faster than in services, where just over a third of services

are tradeable. Hence for economies like the UK with a low productivity problem, but also a lower manufacturing base, the future sources of productivity growth remain a concern. As such the relative decline of British manufacturing is troublesome indeed.[13]

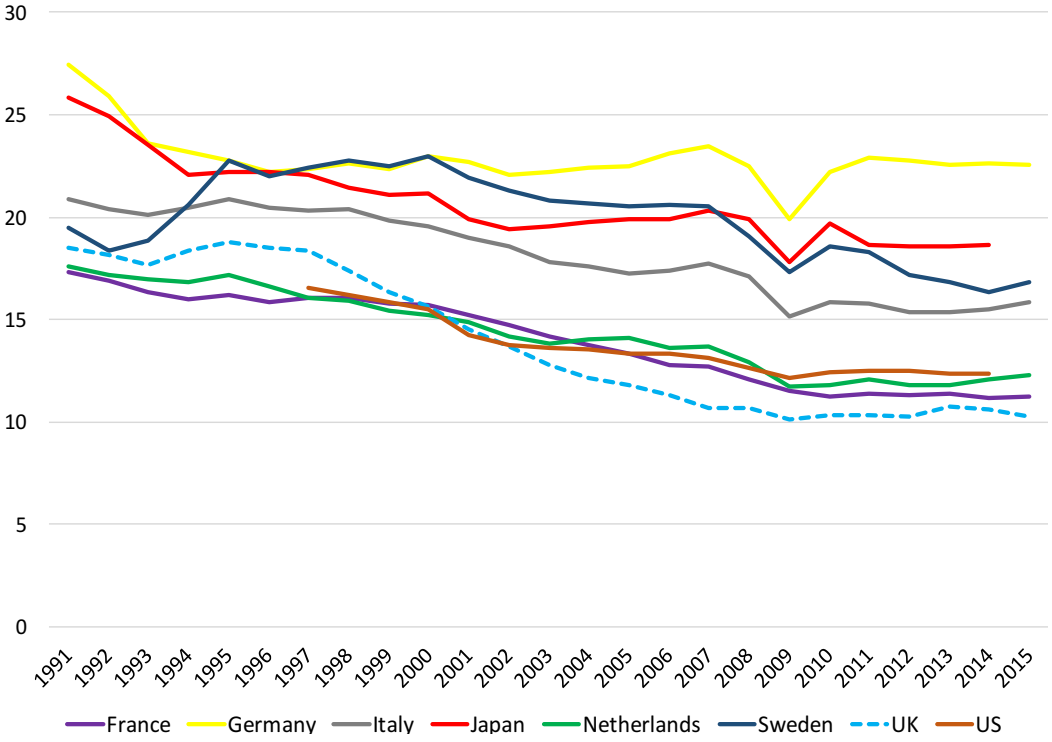
Chart 1.22: UK labour productivity, 1948-2013 (index, 1948=100)



Source: ONS

Between 1990 and 1997, UK manufacturing accounted for around 18% of UK GDP. Since then it has nearly halved as a portion of the economy. By 2014, manufacturing accounted for just 10.6% of UK GDP. However, other countries have not suffered such sharp falls in their manufacturing base. The share of manufacturing in Germany, for example, fell from 26.8% in 1990 to 22.6% in 2014. As argued above, the general trend downwards should be expected as a result of productivity increases, since manufacturing is more productive than services which are only partially tradeable.

Chart 1.23: Manufacturing as share of GDP, 1990-2015 (%)

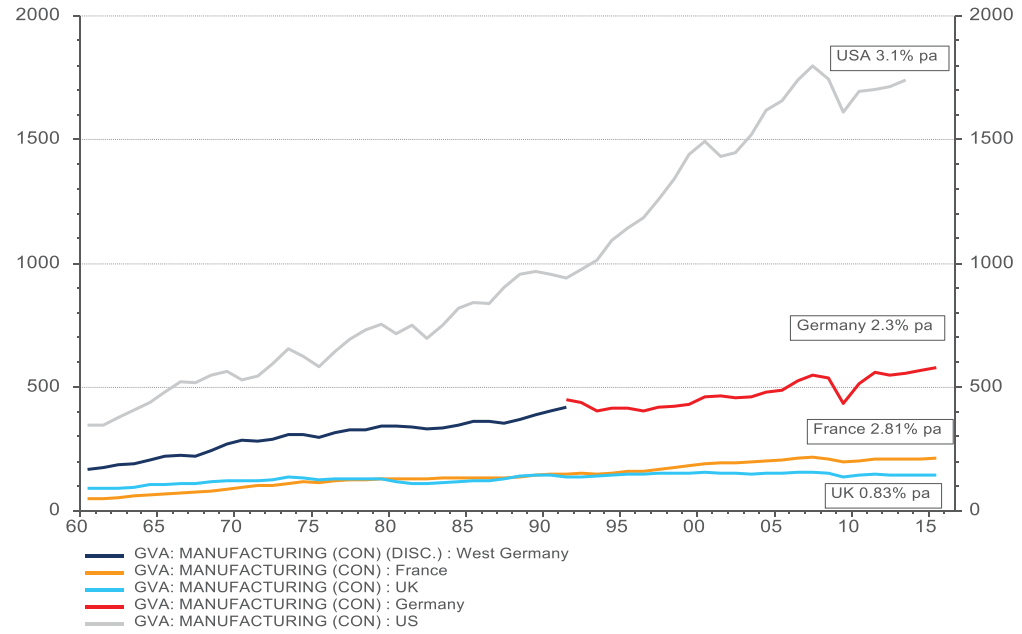


Source: World Bank (2016), National accounts data

13. Office for National Statistics, (22nd October 2014), The Changing Shape of UK Manufacturing

The relative decline in British manufacturing against its major competitors can be seen even more clearly when the growth in gross value added is compared between 1960 and 2013. The data shows that the compound average growth rate for the US was four times higher than the UK.

Chart 1.24: GVA in manufacturing, 1960-2015 (local currency, bn, constant prices)

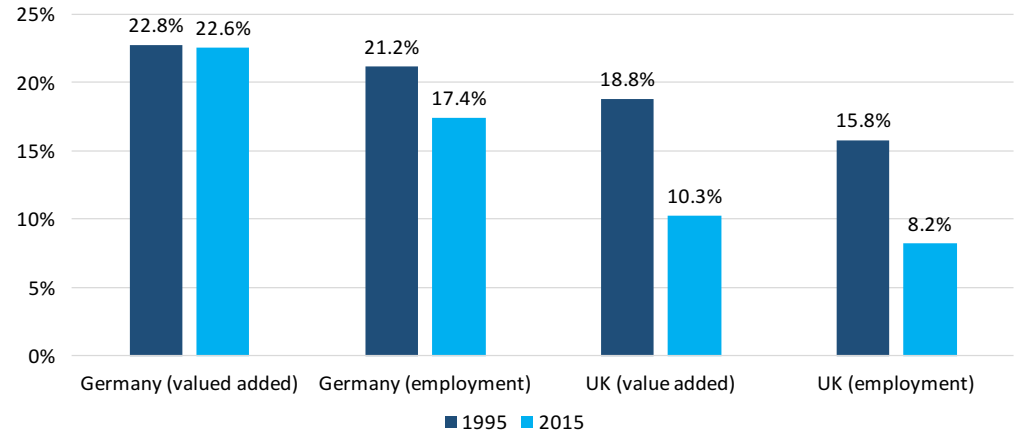


Source: Thomson Reuters Datastream, Credit Capital Advisory

Both the UK and Germany have seen employment in manufacturing fall over the past couple of decades. The share of total employment accounted for by manufacturing fell by almost half in the UK, from 15.8% to 8.2%. In Germany, there was a more modest fall of less than a fifth, from 21.2% to 17.4%.

Notably though, Germany has maintained its manufacturing output, which has remained steady over the past two decades at just under 23% of total output in the Germany economy. This suggests that job losses have been associated with increased productivity. In the UK, however, the share of manufacturing output almost halved, mirroring the fall in employment before levelling off in the past few years. This suggests that job losses have been associated with manufacturing output shrinking, rather than a sustained increase in productivity.

Chart 1.25: Manufacturing's share of the economy in Germany versus the UK, 1995-2015

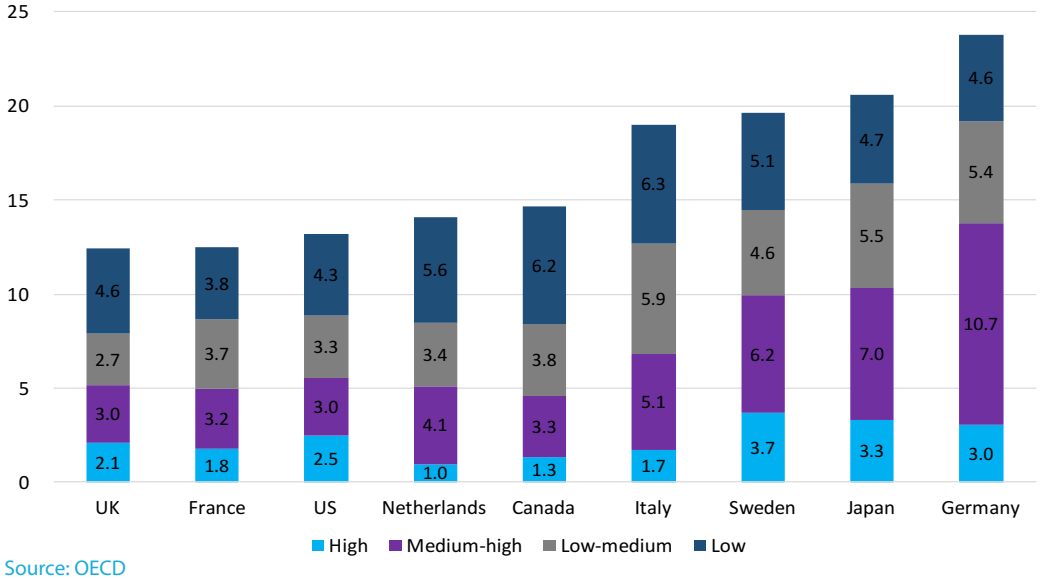


Source: OECD

Clearly the decline in UK manufacturing has been significantly worse than other advanced economies. However, this decline has not been uniform across the skill level within manufacturing. High-technology manufacturing exports increased between 1990 and 2011 as a percentage of total exports, whereas low-technology exports declined.[14] Furthermore, high-technology manufacturing as a percentage of the total economy only declined by a third between 1990 and 2007, whereas it declined for medium-high and medium-low technology by a half.[15] Medium-low and medium-high technology includes chemicals, automotive, and trains, and on a comparative basis Britain's contribution from medium-high and medium-low is well below the average. The contribution from high-tech manufacturing in the UK however is around average.

Another factor to take into account in assessing the relative success of high-tech manufacturing is that the division between products and services can start to blur. For example, Rolls Royce's business model has increasingly shifted away from generating revenues from selling the engines towards servicing the engines it manufactures. More than 50% of Rolls Royce's aerospace revenues are now derived from aftermarket services.[16]

Chart 1.26: Manufacturing GVA by technology level, 2011 (% of total economy)



Source: OECD

The challenge for the UK is that to boost its manufacturing output, focussing on high technology alone is unlikely to be sufficient to drive a rebalancing of the economy. Moreover, the ability for low-and-medium-tech firms to supply high-tech firms with components generally increases the efficiency and success of the manufacturing sector due to stronger and more integrated supply chains.

However, there is evidence that supply chains across the UK have been hollowed out over recent decades, and that domestic suppliers now play a far smaller role in supplying domestic manufacturers than is the case elsewhere. UK suppliers made up three quarters of consumption by UK manufacturers in 1995 but this fell to around 64% in 2011. While a downward trend may be expected due to globalisation, this does not explain why other countries have been able to maintain stronger supply chains. In automotive, for example, just 40% of parts for UK-based manufacturers are sourced from domestic suppliers compared to over 60% in Germany and France.[17]

A 2013 CBI survey found that 78% of firms view supply chain development as important or very important to the long-term growth of their sector.[18] An EU-wide reshoring survey carried out by the CBI in 2014 also found that a third of respondents had already re-shored to Europe, and of these 50% cited supply chain resilience as a key factor in their decision to do so.[19]

14. OECD

15. OECD

16. James Pozzi, 'Rolls-Royce Seeks Flexibility with New Aftermarket Service' Aviation Week & Space Technology (4th February 2016)

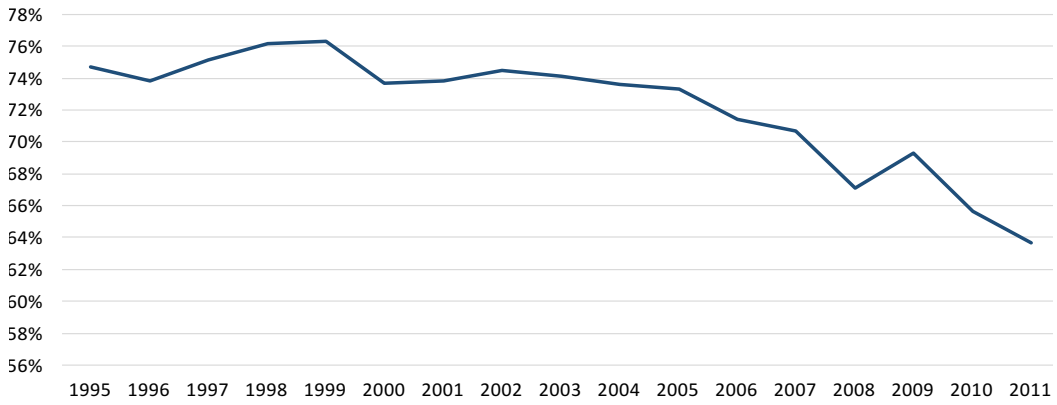
17. HM Government, (February 2015), Strengthening UK manufacturing supply chains: An action plan for government and industry

18. CBI, (2013), Raising the bar

19. CBI, (March 2014), EU Reshoring survey

As well as there being huge potential to boost supply chains for high-tech sectors where the UK already has a comparative advantage, there are also major opportunities to exploit developing sectors. For example, it has been estimated that a new shale gas supply chain could potentially be worth £33bn in 15 years,[20] and that a nuclear new build supply chain has opportunities to add £4.7bn to UK GVA.[21]

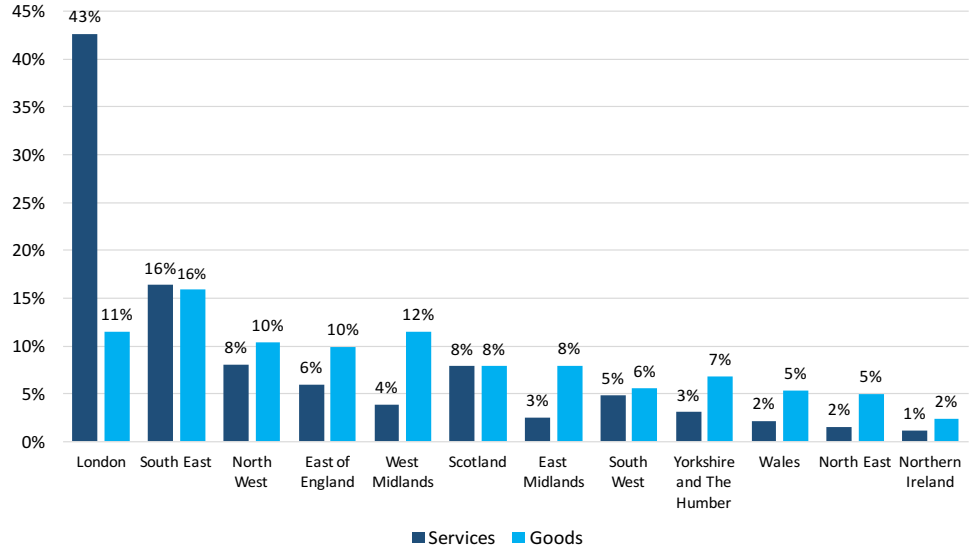
Chart 1.27: The share of intermediate consumption for UK manufacturing industries from UK suppliers, 1995-2011



Source: Centre for Progressive Capitalism analysis of World Input-Output Database

One of the consequences of the decline of manufacturing is that it has disproportionately impacted the northern economy. An analysis of the export of goods and services by region shows that northern regions account for the bulk of goods exports. Despite having a far smaller economy than London, for example, the west midlands makes up 12% of all UK goods exported. London accounts for the overwhelming share of services exports although experimental data from the ONS, which controls for the 'head office effect' to regionalise export data, suggests that London accounts for 43% of all services exports – amounting to £92bn in 2014.

Chart 1.28: Share of goods and services exports from UK regions, 2014



Source: Centre for Progressive Capitalism analysis of ONS and HMRC data

Manufacturing is also important for the northern economy when it comes to jobs. It accounts for 11% of jobs in the west midlands, 12% in the east midlands, 10% in the north east and north west, and 11% in yorkshire and the humber. In London, manufacturing accounts for just 2% of jobs. In the

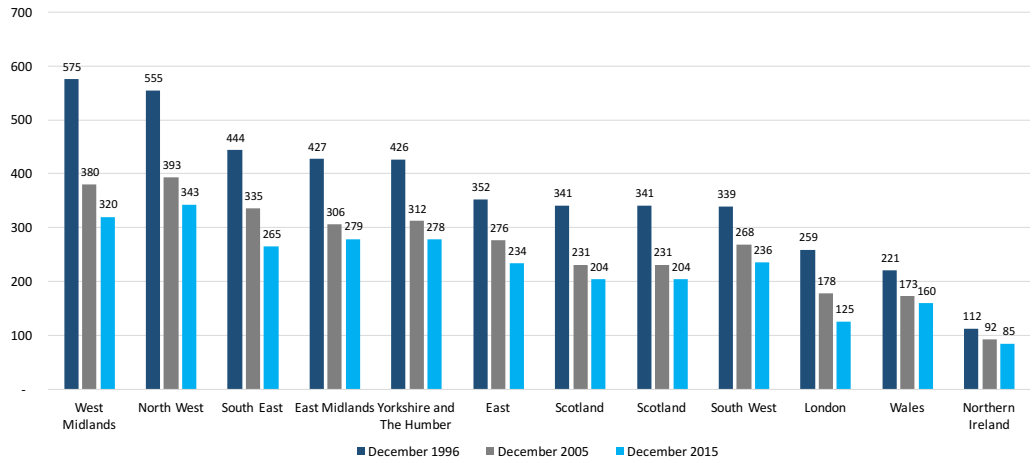
20. EY, (April 2014), Getting ready for UK shale gas: Supply chain and skills requirements and opportunities, April

21. Oxford Economics, (March 2013), The economic benefit of improving the UK's nuclear supply chain capabilities

south east, the figure is 6%. As such, the decline in manufacturing has impacted the rest of the UK significantly more than the south east of the country. And this decline has had a significant negative impact on the northern regional economies.

Between 1996 and 2015, the west midlands lost 255,000 manufacturing jobs, 44% of the total. The north west lost 212,000 manufacturing jobs, 38% of the total. In most northern regions, the share of jobs in manufacturing has almost halved since 1996.

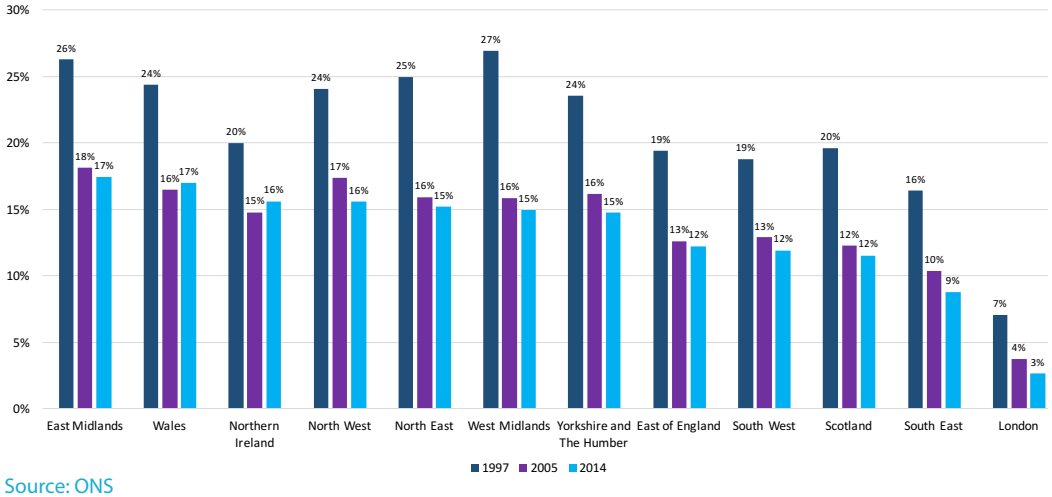
Chart 1.29: Number of jobs in manufacturing, 1996-2015 (thousands)



Source: ONS

In conjunction with a substantial fall in manufacturing jobs in the midlands and northern regions of England and Scotland, manufacturing as a share of GVA has also fallen off a cliff. This implies that the job losses are not related to productivity but rather a massive loss of industrial capacity.

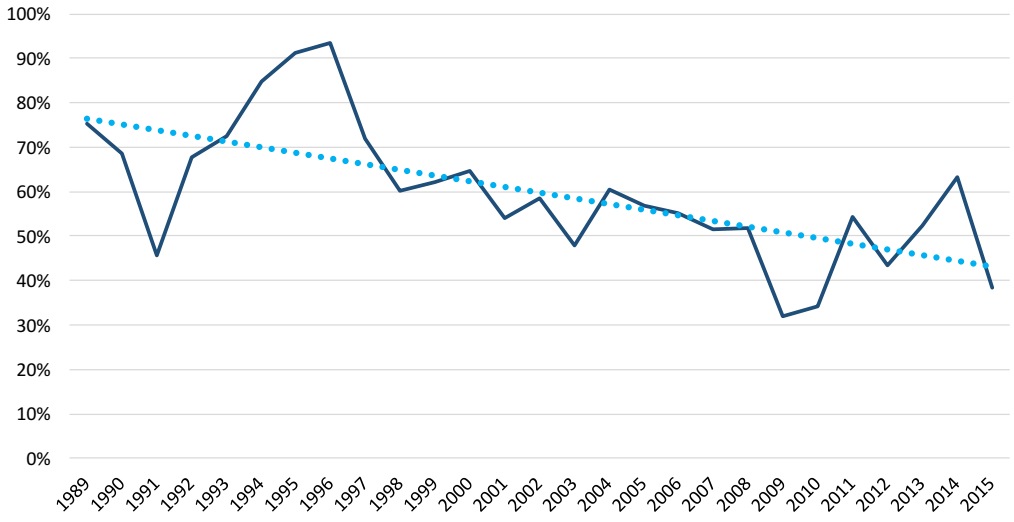
Chart 1.30: Manufacturing share of GVA by region, 1997-2014



Source: ONS

One of the major challenges for manufacturing firms is that it has become increasingly less profitable to produce goods in the UK. In 1989, the profitability of manufacturing was around 75% of the services sector. This rose to over 90% of services in 1996, largely as a result of sterling's exit from the ERM and subsequent devaluation. This caused domestically-produced goods to become relatively cheaper to imported goods, whose prices were higher because of the lower value of sterling. But by 2015, the profitability of manufacturing had fallen to less than 40% of services. Clearly any manufacturing renaissance in Britain will require manufacturing to be more profitable, otherwise there will not be a sufficient incentive for firms to invest. As such the level of competitiveness needs to be central to any future industrial strategy.

Chart 1.31: Relative profitability of manufacturing to services, 1989-2015



Source: ONS

In summary, the data shows that the decline in manufacturing in the UK has been far deeper than other developed economies. Moreover, this decline in manufacturing has been a major driver of the regional decline of the rest of the UK outside of the south east given that most manufacturing was located in these areas. In addition, this decline also partially explains why productivity and investment remain so much lower in the UK than other advanced economies.

The underperformance of Britain's post-1945 economy and the decline of manufacturing has received a great deal of attention in the literature. Factors often emphasised include the lack of competition which was exacerbated by poor management techniques and difficult industrial relations. Although all of these issues accelerated the relative decline of manufacturing in the UK, they have not persisted through to today.

There is evidence that the lack of competition for British firms in the post-war period did negatively impact performance.[22] The larger US market encouraged more competition as did the European Economic Community (EEC) for its six founder members. However, since 1979, Britain's economy has long since had exposure to greater international competition both through joining the EEC in 1973 and from the lower levels of trade barriers from the Tokyo agreement under the GATT framework. The Tokyo trade round, which concluded in 1979, resulted in an average one-third cut in customs duties in the world's nine major industrial markets.

It is plausible that Britain's managers were worse than their peers as a result of less competition, however, the internationalisation of the management of UK firms since the 1980s suggests that this has not been persistent. Moreover, recent analysis suggests that although UK managers remain some way behind the US, they score better than France and Italy.[23]

The difficult period of industrial relations, typified by the high level of strikes between the late 1960s and mid-1980s, again has not been persistent through time while the decline of manufacturing has. These strikes can perhaps be seen more of a symptom than the cause, particularly with regards to the decline of coal mining.

There are however, two factors that have remained persistent throughout the period which may be worth looking at in more detail. One has been an overvalued currency as indicated by the strong real exchange rate relative to other economies. The second has been Britain's inability to educate a more technical workforce resulting in a lower rate of productivity.

22. N Crafts, (2002), Britain's Relative Economic Performance

23. http://worldmanagementsurvey.org/

Chapter 2:
The conflict between monetary and industrial policy

Centre for
Progressive
Capitalism

Persistent overvaluation of sterling

The idea that the level of sterling relative to other currencies has damaged British manufacturing has a long tradition in economic analysis. For much of the 20th century, British governments, in particular the Treasury, remained committed to an exchange rate policy that emphasised maintaining the value of sterling and international influence over industrial competitiveness.

For nearly the entire post-war period, the UK has had a persistent deficit in the trade of goods averaging -0.7% of GDP between 1955 and 1971. Between 1997 and 2015 it worsened considerably averaging -5.1% of GDP. Although Britain's trade surplus in services has been able to counter these effects somewhat, the overall balance of trade was still negative averaging -0.9% of GDP between 1955 and 2015, with the period between 1955 and 1971 still negative averaging -0.3% of GDP.

A 1958 speech given by the Chancellor, Heathcoat-Amory, sums up the view that monetary policy was more important to the British economy than industry. "Strength of sterling remains the primary objective of our economic policy".[24] Up until the early 1970s, this resulted in subsequent governments supporting sterling at persistently high fixed exchange rates relative to other currencies.

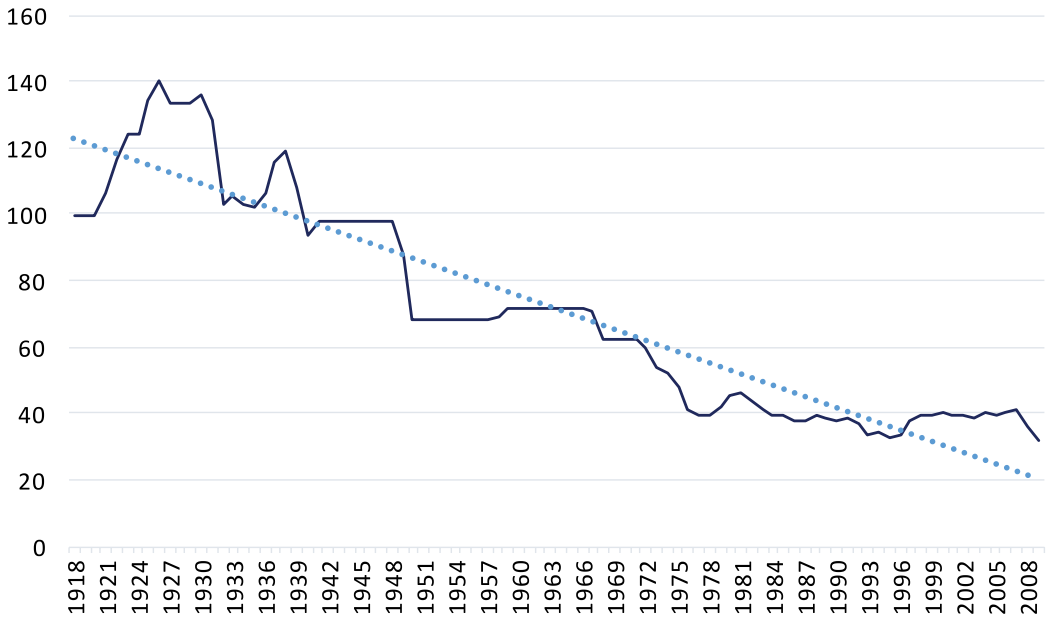
After sterling floated in the 1970s, the threat of inflation became a critical priority for monetary policy. The incoming Thatcher administration adopted an aggressive contractionary monetary policy to keep inflation under control, resulting in interest rates rising to 15% and sending sterling soaring, with support from the rising oil price as Britain was then a net exporter. Between 1979 and 1983 manufacturing output fell by 12% and manufacturing employment by 24%. In 1997, the Blair administration granted independence to the Bank of England, requiring the newly formed monetary policy committee to hit an agreed inflation target. Between 1997 and 2007, sterling remained strong relative to other currencies while Britain's manufacturing base almost halved.

Improving the competitiveness of the British economy has long been core to economic policy in the UK in an attempt to revive this dramatic decline. Both major political parties have begun to use the language of rebalancing, talking up investment and skills. However, from a policy perspective the value of sterling has been largely ignored. This is probably due to the consensus view that not much can be done about a floating exchange rate, hence the focus on supply-side issues. But if the high value of sterling really has been a key factor in weakening manufacturing in Britain, then this is an area that ought to still be explored in more detail.

The relative strength of sterling against a basket of currencies is rather revealing since its high point in 1926, it has fallen by more than 70% in value. Such a move in the value of a currency suggests that sterling was persistently overvalued, negatively impacting the competitiveness of the UK. Moreover, the frequency of these shocks throughout the period can have done little to improve the outlook for firms thinking of making large investments and improving their rate of productivity. It rather gives the impression of firms having to constantly react to changing macroeconomic conditions instead of planning for the future. This macroeconomic environment was clearly sub-optimal if the policy objective was to increase competitiveness and improve productivity.

24. S. Brittan, (1971), Steering the economy

Chart 2.1: Nominal effective exchange rate of sterling, 1918-2009 (index, 1913=100)



Source: Bank of England

In order to understand this trend in more detail, it is helpful to summarise some of the major shocks to sterling over the period. After the First World War, Britain declared its intention of returning to the gold standard at the same pre-war rate. This caused the value of sterling to rise and the economy to deflate. In 1931 Britain abandoned the gold standard once more, resulting in sterling falling back to its 1918 level. Throughout the mid 1930's sterling began to climb before falling again on the outbreak of the Second World War. In a period of 20 years sterling appreciated and depreciated by 40% followed by an appreciation of 20% and a similar depreciation. Such continuous and large fluctuations are clearly sub-optimal from an industry perspective.

After World War Two, sterling, now part of the Bretton Woods agreement which pegged the value of currencies to the dollar which in turn was pegged to the value of gold, came under further pressure and in 1949 was devalued. Sterling was devalued once more in 1967, and after the Bretton Woods agreement was abandoned in 1971, sterling continued its downward momentum. Between 1949 and 1976, British industry had to contend with three major devaluations or depreciations of sterling resulting in it falling by nearly 60%. This implies that sterling was likely to have been persistently overvalued in relation to the competitiveness of its economy.

Since the late 1970s and the age of floating exchange rates, sterling appears to have ended its downward trend against other currencies, however its volatility has not gone away. Sterling rose strongly in the early 1980s as a result of high interest rates and high oil prices, before falling to new lows in 1985. This was in part due to the strength of the dollar, which had benefitted from higher interest rates as the Federal Reserve sought to contain inflation. This over valuation of the dollar led to a major campaign in the US to bring down its value, which eventually resulted in the Plaza Accord. Around $10bn was subsequently spent by participating central banks to deliberately devalue the dollar.

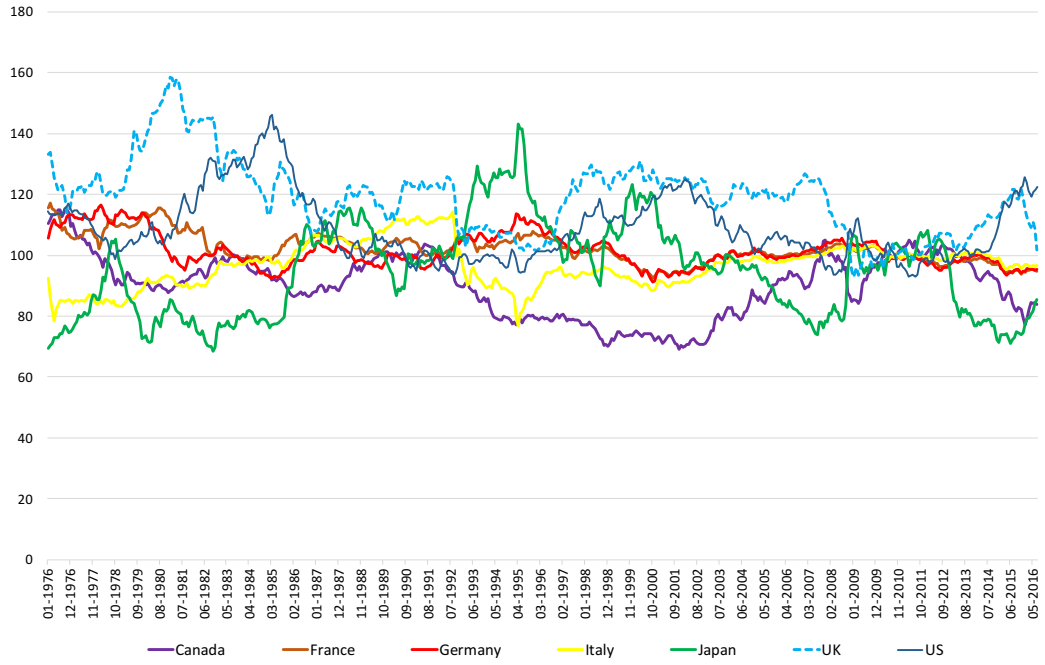
These short-term gyrations may well have been the reason, along with Britain's relatively higher rate of inflation, that the Chancellor of the Exchequer decided in 1987 to target the Deutschmark. This in turn led the UK to join the exchange rate mechanism (ERM) to try and stabilise sterling. This experiment – as with Britain's previous ones with fixed rates – did not end well, with sterling leaving the ERM and devaluing. By the late 1990s, sterling had recovered its pre-1992 value where it stayed

until the onset of the financial crisis. The onset of the financial crisis has led to the sterling roller coaster setting off once more, falling by nearly 30% due to the perceived increase in risk of UK assets and the outlook for the economy. However, by 2015, sterling had recovered more than half of its its pre-crisis value again.

Although sterling has been volatile since the late 1970s, the nominal effective exchange rate has not shown any specific trend since then. However, this on its own cannot tell us much about whether the currency is under- or over-valued. For this it is necessary to compare real exchange rates to take into account the different cost structures across countries.

Chart 2.2 shows the light-blue line of the UK demonstrating an exchange rate that has tended to be overvalued. The data shows that the average index value of sterling over the period was 119, compared to 102 in August 2016.

Chart 2.2: Real effective exchange rate for G7 countries, 1976-2016 (index; 2010=100)



Source: Bank for International Settlements

Impact of sterling on manufacturing

The above analysis suggests that sterling has been persistently overvalued, which in turn may well have impacted the competitiveness of British industry. Clearly not all ills impacting manufacturing can be attributed to this, but a strong exchange rate makes exports less competitive, and the process of exporting itself is related to higher levels of innovation and competitiveness.

It is generally assumed that devaluing a currency done will increase exports, as products and services become cheaper relative to other international competitors. The price of imported goods will also rise, which over time should lead to a fall in demand for imports. Hence, the impact of a fall in the value of a currency should lead to an improvement in the trade balance, higher levels of investment and a boost for industry.

The reality is that this process is far more complex. Different industries are affected in different ways. Some sectors might be dependent on imported goods as an input into their production process. The level of oil prices also has an effect given it is such an important component of general production.

Moreover, consumers or businesses might not be as responsive to changes in the value of goods with respect to demand. Another problem with devaluation is that it can lead to imported inflation as imports will be more expensive. Higher inflation, however, can reduce a country's competitiveness. Therefore, the improvement in industrial output might only be temporary.

It has generally been found that trade in goods tends to be inelastic in the short term as it takes time to change consuming patterns and trade contracts. Thus, a devaluation is likely to worsen the trade balance initially. But in the medium term, consumers may well adjust to the new prices, and the trade balance may improve. This is called the J-curve effect. However, a devaluation will only improve the balance on the current account, on the condition that the combined elasticity of demand for imports and exports is greater than one. This is known as the Marshall Lerner Condition.

During much of the post-war period, many academics and policy advisers advocated devaluation as a response to Britain's declining competitiveness. Indeed, the downward spiral of sterling suggests that sterling was persistently overvalued. To help provide some insight into the impact of a devalued or depreciated currency on industry and the trade deficit, a brief analysis of the last six major falls in the value of sterling was undertaken.[25]

1931 devaluation

Immediately after World War One the British economy was characterised by fiscal contraction and a rise in unemployment. Despite these two trends, there was a general view that restoring sterling to the gold standard at the pre-war parity would be good for Britain in terms of its influence in the world. The Treasury also saw the reconstruction of the gold standard as the single most effective step they could take to increase global trade. This intention led to the gradual appreciation of sterling in the market. By 1924 consumption and imports had climbed to their 1913 levels, but exports had risen to less than three quarters of pre-war levels.

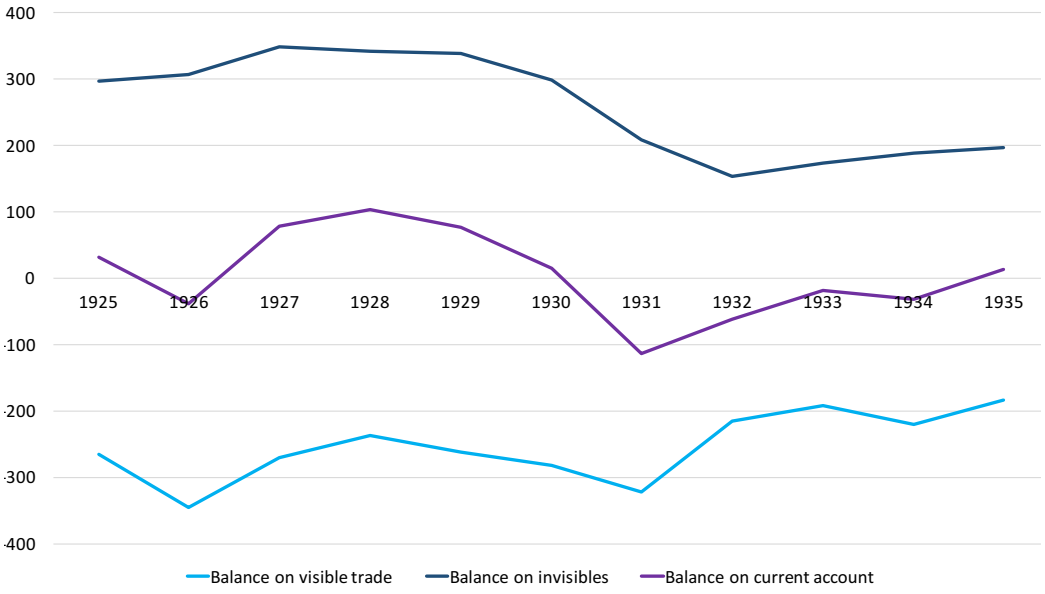
The effect of re-establishing the pre-war gold standard in 1925 had a substantial detrimental impact on British industry. Between 1925 and 1930, Britain was the worst performing of the leading industrial nations in terms of growth. By 1931, unemployment was close to 15% and the Bank of England's reserves were close to exhaustion with high interest rates. The balance of trade reached a record visible balance deficit of £322m, considerably worse than the deficit of £265m in 1925. Eventually on 20 September 1931 the gold standard was suspended and sterling devalued 25% against the dollar.

As anticipated by the J-curve, the trade balance worsened until January 1932. However, by 1935 the visible balance deficit was cut to £183m and the current account was in surplus. Devaluation had enhanced the competitiveness of British goods by encouraging exports and discouraging imports. Crucially, lower interest rates, which fell as there was no longer any need to support sterling at the pre-war parity, eased credit conditions thereby stimulating investment.

By 1937 industrial production was up by 50% despite the fact that by 1937 sterling had clawed back more than half of its losses from the initial devaluation. The period between 1931 and 1937 led to one of the fastest ever growth rates of British industry. Interestingly devaluation had little effect on inflation, which Keynes commented was remarkable. In 1931, Britain's supply of food stuffs and raw materials were priced in sterling, resulting in virtually no inflationary impact.

25. This section was largely drawn from secondary material including: R. Bootle & J. Mills, (2016), The Real Sterling Crisis; Brittan, Steering the Economy (1971); A. Cairncross & B. Eichengreen, (2003), Sterling in Decline; A. Schonfield, (1958), British Economic Policy since the War; Thirlwall & Gibson, (1992), Balance of Payments in theory and Practice; W. Wallace, (1975), The Foreign Policy Process. Data on the trade and current account deficit was sourced from Cairncross & Eichengreen up until 1955 and ONS thereafter

Chart 2.3: Impact of the 1931 sterling devaluation on the UK's trade balance and current account, 1925-1935 (£m)



Source: Cairncross & Eichengreen (1984), Sterling in decline

1949 devaluation

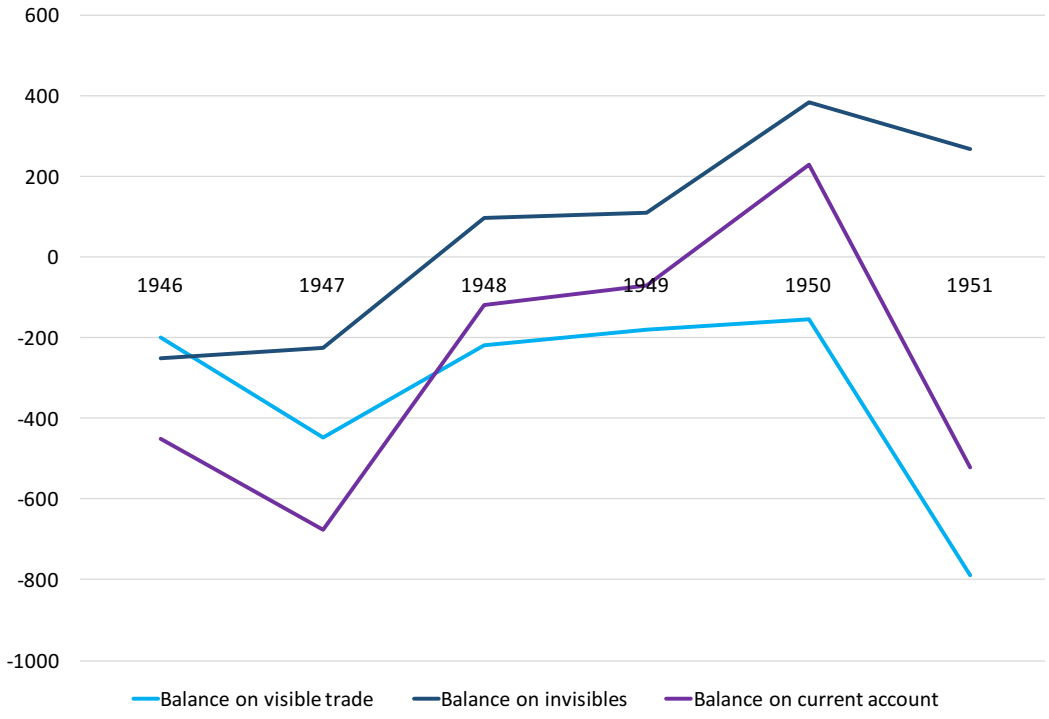
After the Second World War, the Bretton Woods agreement pegged sterling to the dollar at the rate of $4.03. By 1948, the balance of trade was improving so it was not clear that British industry needed a further boost by devaluing sterling. Moreover, import restrictions were still largely in place and British industry was at capacity due to long order books as a result of excessively loose monetary policy. Critically though, Britain had a shortage of dollars to finance payments. The dollar had effectively become the reserve currency as a result of Bretton Woods.

However, the divergence of the official and black market sterling dollar rates indicated to the authorities the need for devaluation. This led to a public debate and the expectation from financial markets that a devaluation would take place. This expectation began to put pressure on sterling, draining the Bank of England's reserves. In September the pound was devalued by 30% to a level of $2.80. The devaluation did stop the dollar drain, although the divergence between the black market and official rates continued which probably had more to do with capital controls.

The effects of devaluation did not have any material impact on competitiveness or the trade deficit. Although devaluation did improve the invisible balance, the trade deficit worsened by 1951. Furthermore, Britain maintained a trade deficit in all but one of the five years between 1950 and 1954 although the outbreak of the Korean War in 1951 makes it hard to disentangle the effects of devaluation.

One effect of the devaluation is that it reduced the US trade surplus, largely because other European currencies also devalued. With regards to inflation, import prices rose by 17% and export prices by 5% between June 1949 and June 1950, but inflation remained subdued mainly due to wage controls.

Chart 2.4: Impact of the 1949 sterling devaluation on the UK's trade balance and current account, 1946-1951 (£m)



Source: Cairncross & Eichengreen (1984), Sterling in decline

1967 devaluation

During the latter part of the 1950s, although imports rose at a faster rate than exports there were no major issues with the balance of payments. For most of the 1960s however, the balance of trade was in deficit. Manufacturing was losing market share and the competitiveness of British industry was declining. The economy remained close to its potential in terms of low unemployment and high output, however, the anticipated increase in productivity growth never arrived.

The long-standing unfavourable balance of payments led successive governments to pursue a deflationary policy. Major deflationary packages were imposed in 1957, 1961 and 1966. The government's aim in deflating the economy was to restore confidence in sterling by reducing demand in the economy, thereby decreasing imports and improving the trade balance. But this policy not only reduced growth, the continuous round of stop-go cycles deeply depressed business expectations, limiting efforts to invest, expand output and raise productivity.

Such a policy today seems quite absurd, but it was also seen as absurd by many contemporary commentators. Sam Brittan wrote that, "the position of sterling as an international currency with all the risks to which it exposed Britain was regarded as desirable in itself, like a prisoner kissing the rod with which he is being beaten."[26]

As a result, sterling came under constant pressure and remained weak. Ministers felt trapped between their expansionist fiscal policies and the balance of payments constraints. Discussions about devaluing the pound had been persistent, and many economists sought devaluation to resolve Britain's competitiveness problem.

In 1966, the government introduced deflationary measures to reduce domestic demand including a 10% increase in indirect taxation. Consumption did fall and investment did increase, but it had little impact on the balance of trade. By 1967 the expectation of a devaluation was building and when

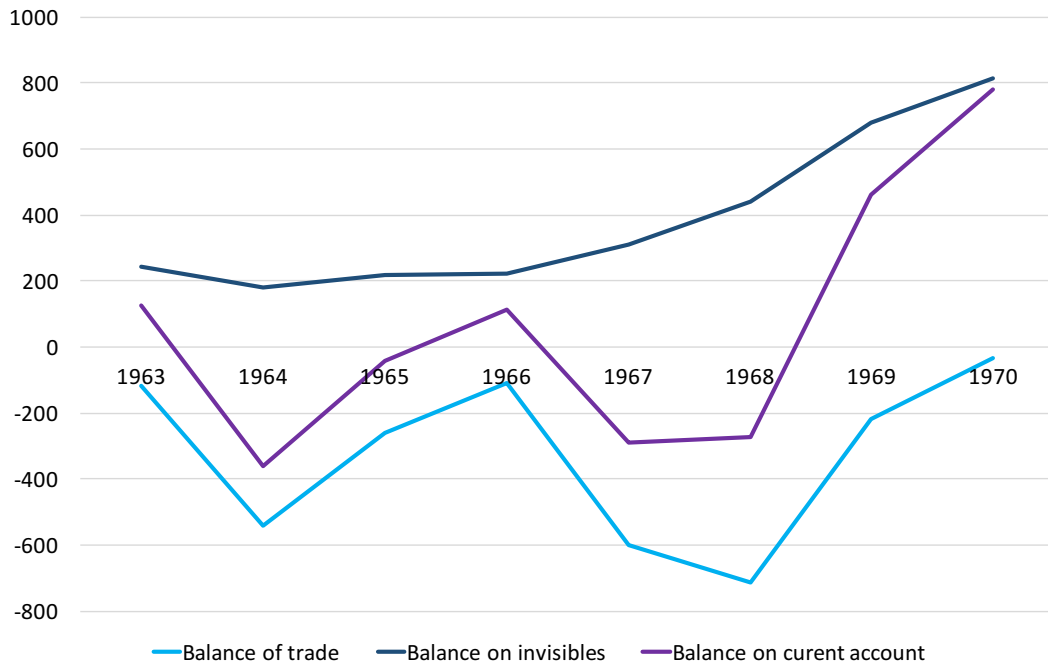
26. Brittan, (1971), Steering the Economy

foreign demand fell in the second half of the year, the UK was not able to support sterling at parity resulting in devaluation of just under 15%.

Devaluation boosted the current account as a result of the invisible balance improving. And although by 1969 the visible trade balance did return to just above where it was in 1969 and continued improving into 1970, the boost was only temporary and did nothing to resolve Britain's declining competitiveness.

Import prices rose less than imported manufactured goods, as 20 other countries devalued at the same time who were dependent on the UK for their exports of agricultural goods and raw materials. Wage inflation remained subdued too, partly due to lower food price rises and partly because profits did not grow sufficiently. However, the expectations of higher prices did lead to a rise in consumption and fall in savings ratio which in turn increased demand for imports. This was not sustainable though and the savings ratio recovered after a few quarters, reversing the jump in consumption.

Chart 2.5: Impact of the 1967 sterling devaluation on the UK's trade balance and current account, 1963-1970 (£m)



Source: ONS

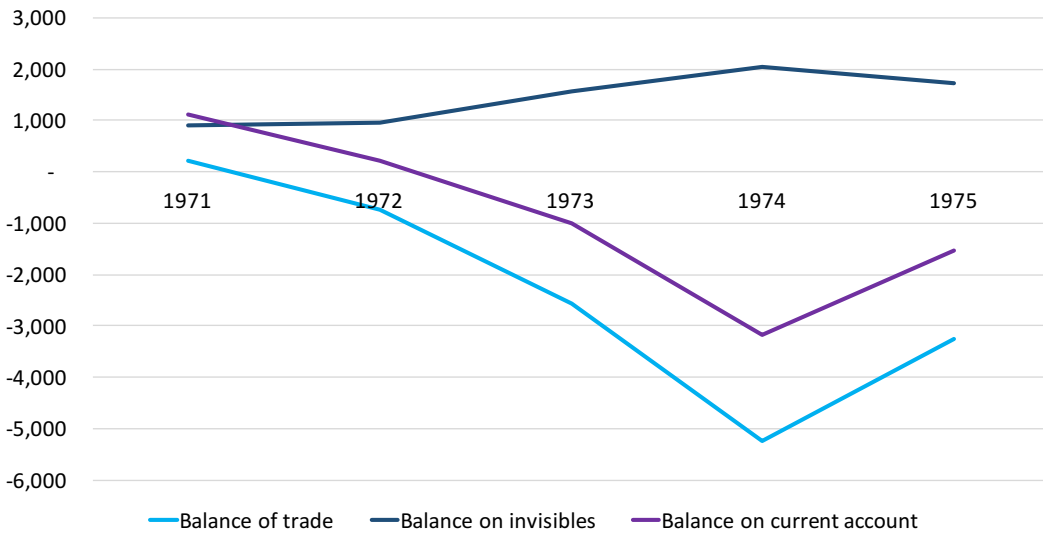
1972 depreciation

In August 1971, the Bretton Woods agreement was shattered due to the suspension of the convertibility of the dollar into gold at $35 per ounce, resulting in the world's currencies floating against each other. An attempt to establish a new regime in December did not last long with sterling floating again by June 1972. The initial expectation was that floating exchange rates would make macroeconomic policy making more effective. But for the UK during this period, it was not to be.

The floating of sterling led to a significant depreciation of nearly 22% against a basket of currencies by the beginning of 1975. This depreciation had a massive negative effect on Britain's balance of payments deficit, which was exacerbated by the rise in commodity prices in 1974, which the UK was mostly importing. This resulted in a record current account deficit.[27]

27. Thirlwall & Gibson, (1992), Balance of Payments theory

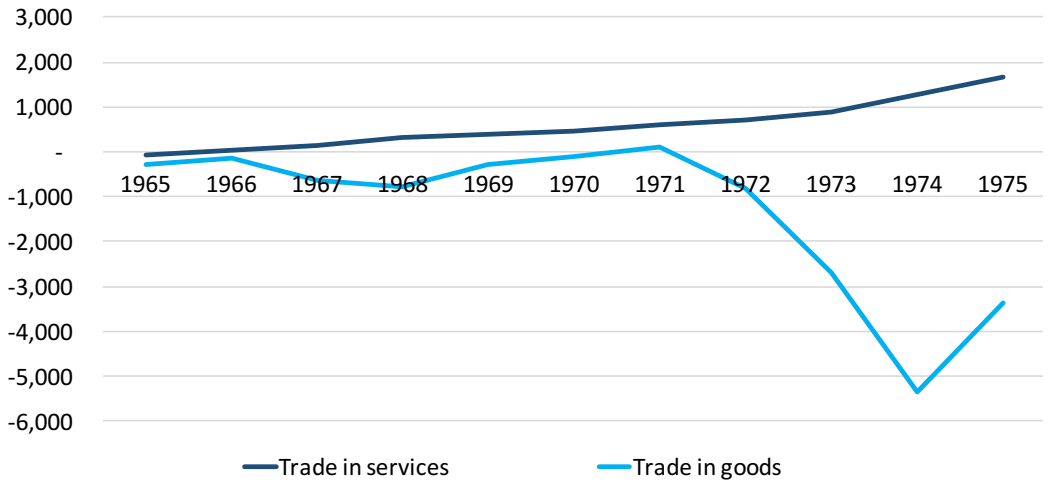
Chart 2.6: Impact of the 1972 sterling depreciation on the UK's trade balance and current account, 1971-1975 (£m)



Source: ONS

One critical distinction between the 1967 and 1972 examples is the dramatic difference in the way that goods and services behaved. During the late 1960s, the trade for goods behaved in a traditional J-curve mode before recovering back to previous levels. However, we also saw services being less affected. During the 1972 fall, the divergence between goods and services is starkly different. Again services continued to rise, while goods reached record deficit levels. No doubt the rising price of oil had an impact on this, but this also impacted other oil-importing countries too. This depreciation is perhaps where the persistent productivity issues of British industry began to reveal themselves in such a dramatic way.

Chart 2.7: Balance of trade in UK goods and services, 1965-1975 (£m)



Source: ONS

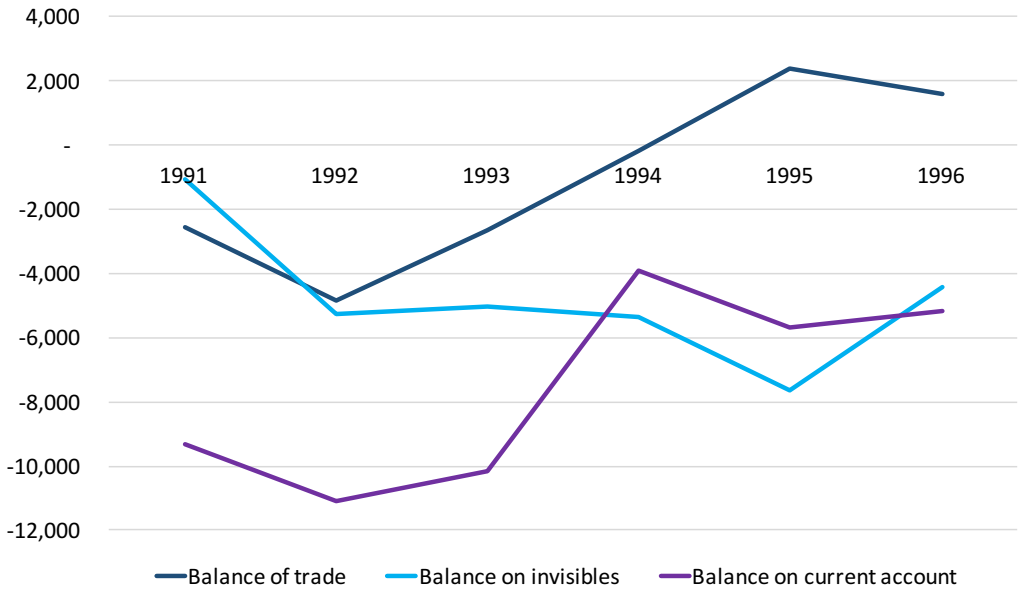
1992 devaluation

In 1987, Chancellor Lawson began to shadow the Deutschmark, as he believed this would help keep inflation under control. In 1990, John Major, Lawson's successor, subsequently took sterling into the exchange rate mechanism pegged at 2.95 Deutschmarks. However, the UK joined the ERM at a rate too high in relation to its economic cycle, characterised by high inflation and high interest rates. As interest rates rose in Germany to reign back excess spending due to unification, pressure on sterling

began to increase. Eventually, the Bank of England, unable to support sterling due to the heavy market pressure, capitulated and on Black Wednesday in September 1992, sterling left the ERM. The pound fell in value by 16% between September and November 1992, remaining reasonably stable against other currencies for the next four years.

The result of this devaluation was positive for both the balance of trade and the current account. Perhaps surprisingly the balance on invisibles was unaffected by the devaluation, mainly due to negative secondary income, but the balance of trade received a dramatic boost from the devaluation.

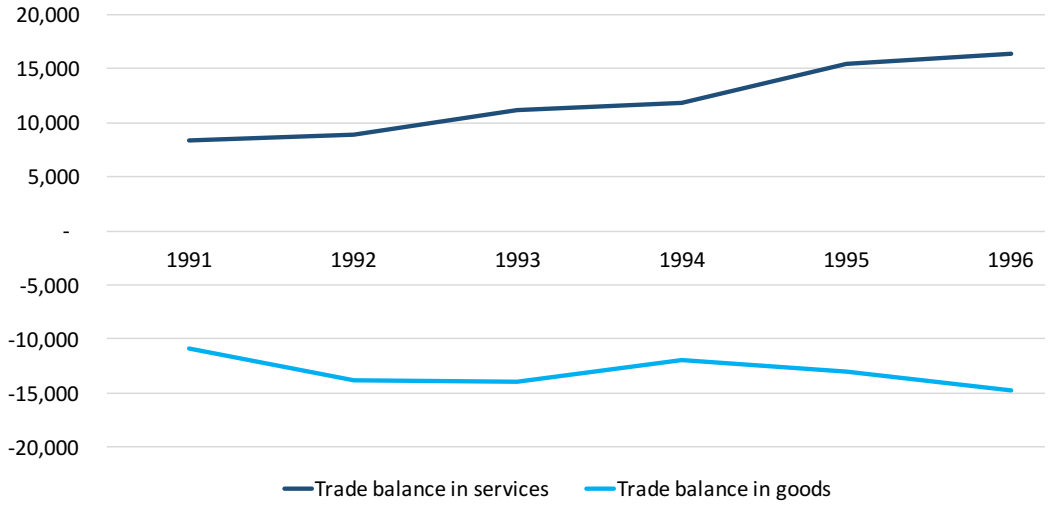
Chart 2.8: Impact of the 1992 sterling devaluation on the UK's trade balance and current account, 1991-1996 (£m)



Source: ONS

Once again it was mainly services that benefitted from the devaluation, although manufacturing did recover back to its 1991 levels, and expanded over the period by 10% suggesting it received a significant boost.[28]

Chart 2.9: Balance of trade in UK goods and services, 1991-1996 (£m)



Source: ONS

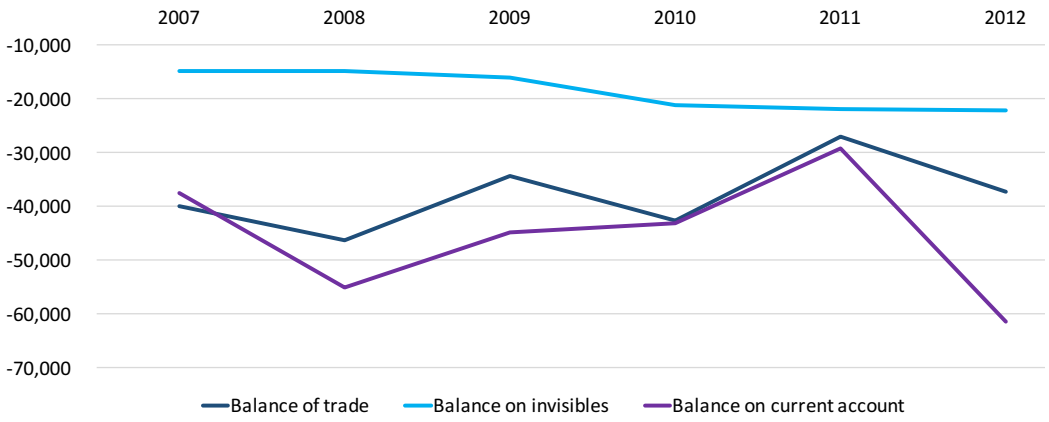
28. https://www.ons.gov.uk/economy/economicoutputandproductivity/output/timeseries/k22a/diop

2008 depreciation

Following the financial crisis, the effective exchange rate of sterling plummeted by almost 30% between Q3 2007 and Q1 2009, although by Q3 2009, sterling had bounced back by nearly a third. The reason behind the depreciation of sterling was likely to have been the perceived increase riskiness of UK assets. Given that the UK was dependent on "the kindness of strangers" to balance the current account, a fall in the value of a currency was inevitable. Other factors include the relative cycle of the UK economy including lower output and higher inflation.[29]

The depreciation of sterling did have some impact on improving the balance of trade over the period. However, the invisible balance worsened as a result of negative primary income flows, reducing any significant positive impact on the current account.

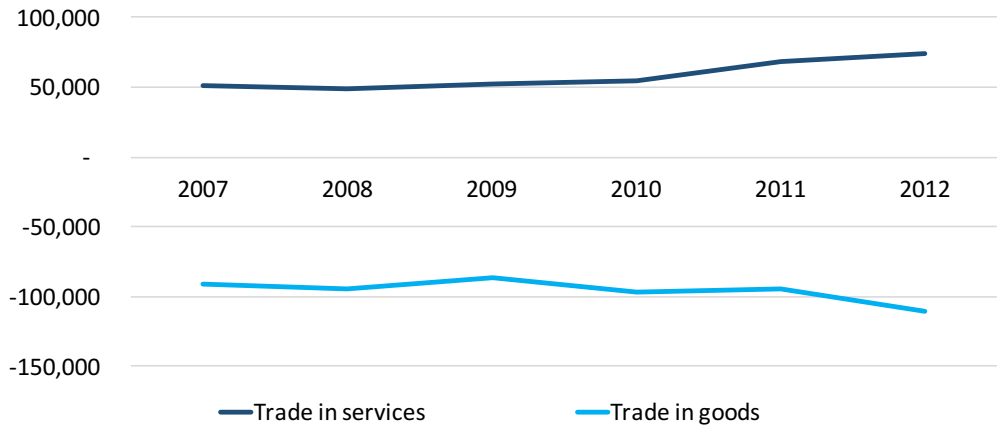
Chart 2.10: Impact of the 2008 sterling depreciation on the UK's trade balance and current account, 2007-2012 (£m)



Source: ONS

With regards to the trade balance, one of the reasons why services did not benefit much from devaluation is that finance is the largest portion of the UK's services exports. Given the global downturn, particularly in Europe, the demand for these services fell. On the manufacturing side, as the percentage of domestic component suppliers has fallen, it has made the UK far more integrated into global supply chains. These components tend to be priced in dollars, thus leading to a rise in import prices and offsetting much of the benefit of the devaluation. The high price of oil during this period also reduced some of the advantages of the depreciation. In 1992, the price of oil was significantly lower. As a result, goods remained mostly flat, but by 2012 as the currency strengthend, the balance of trade in goods worsened.[30]

Chart 2.11: Balance of trade in UK goods and services, 2007-2012 (£m)



Source: ONS

29. Bank of England, (Q3 2009), 'Interpreting recent movements in sterling'

30. ONS, (2013), 'Explanation beyond exchange rates: trends in UK trade since 2007'

In summary, the analysis of the six major currency devaluations/depreciations of sterling since 1931 shows that only two seemed to have much impact on improving the trade and current account deficits: 1931 and 1992. In both cases, at the time of devaluation the economy was some way from operating at its potential. 1967 demonstrated an improvement in the current account balance as a result of improved invisibles but not the trade deficit, while 2008 did show an improvement in the trade deficit but not the current account deficit.

The evidence also suggests that concerns arising from a fall in the value of a currency leading to wage inflation thus eroding the gains from devaluation, were in nearly all instances overstated. The depreciation of sterling between 1972 and 1975 took place at a time of rising wage inflation and rising oil prices, and seems to have been the exception. Although devaluation has not tended to drive up wage inflation, prices can be affected. Recent research suggests that the effect of devaluations on prices is contingent on the source of the devaluation. For example, in 2008 the devaluation of sterling coincided with a negative supply shock which had a larger impact on price movements, and therefore higher than expected inflation. Other shocks have far less impact on prices.[31]

Although the British economy did see some medium-term benefit from 1931 and 1992, this was not the case in the longer term. By the late 1930s the benefits of the 1931 devaluation had eroded, partly due to an appreciating currency, and partly due to the rearmament programme which increased the import of raw materials with fewer goods for export.[32] The industrial consolidation of heavy industry during this period also led to price rises and falls in productivity. Accusations of collusion and poor management practices were widely blamed given the economy appeared to see little benefit from the economies of scale brought about.[33]

The benefits of the 1992 stimulus were largely undermined by the subsequent appreciation of sterling from mid-1996 to even higher levels than before sterling fell out of the ERM. Between 1972 and 1991 the deficit in goods averaged -1.9% of GDP, which improved to -1.7% during 1992-1997. Between 1997 and 2015, it averaged -5.1% of GDP as sterling strengthened.

Although the above analysis suggests that the persistent overvaluation of sterling has led to low levels of competitiveness, the data also demonstrates that currency devaluation on its own is not a sufficient policy to trigger a renaissance in manufacturing. Without the necessary investment in skills to improve productivity and R&D, it is quite likely that a fall in the value of a currency will not have much impact on long-term competitiveness. However, an appropriately valued currency is likely to remain a pre-condition to start down this road. Hence, it is critical that the long-standing issues related to the dearth of technical skills, which have persistently dragged down the levels of productivity growth, need to be addressed.

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31. K. Forbes, (2015), 'Much ado about something important: How do exchange rate movements affect inflation?

32. P Trubowitz & P Harris, (2015), When states appease: British appeasement in the 1930s

33. B. Eichengreen, (2002), The British economy between the wars

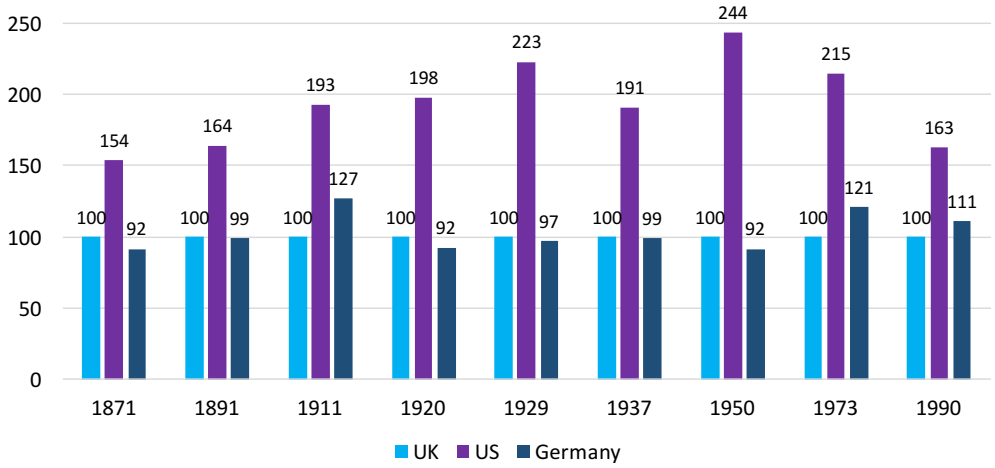
Chapter 3:
The technical capability of the UK workforce

Centre for Progressive Capitalism

Productivity since the industrial revolution

The long-run data shows that Britain's recent poor productivity performance has been the norm rather than the exception since the early 20th century. Indeed, Britain lost its competitive edge from industrialising much more quickly than might have been expected. By 1911 both the US and Germany had overtaken UK industry in terms of productivity. Although productivity subsequently collapsed in Germany as a result of its political and military turmoil, by the early 1970s it had once again overtaken the UK.

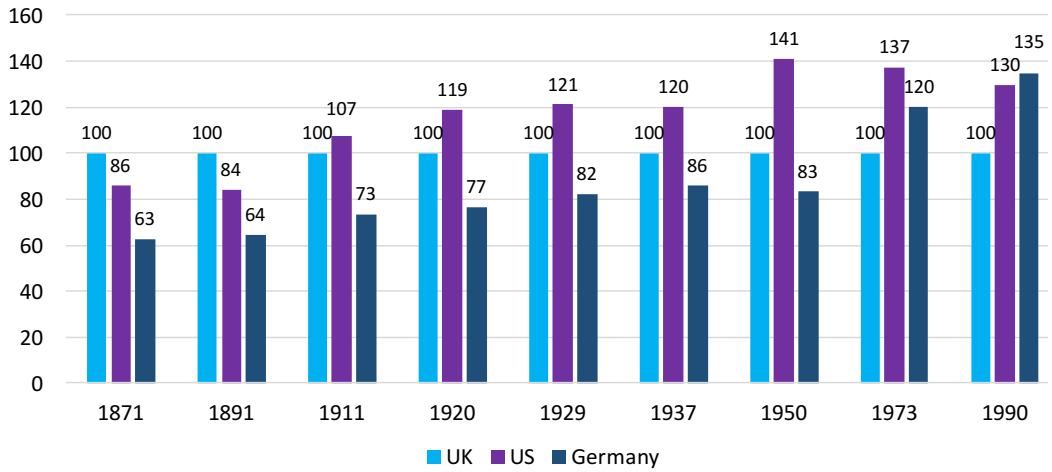
Chart 3.1 Productivity of US, UK and German industry, 1871-1990
(index of GDP per person engaged; UK=100)



Source: S. Broadberry & M. O'Mahony (2004), Britain's productivity gap with the US and Europe

Britain's lead in terms of productivity in the service sector lasted longer. But by 1920, the US had overtaken the UK. This has been attributed to the US leading the way on the 'industrialisation of services'.[34] By 1990 the services sectors in both the US and Germany were more than 20% more productive than the UK's services sector.

Chart 3.2 Productivity of US, UK and German services, 1871-1990
(index of GDP per person engaged; UK=100)



Source: S. Broadberry & M. O'Mahony (2004), Britain's productivity gap with the US and Europe

34. S. Broadberry & M. O'Mahony, (2005), Britain's twentieth century productivity performance in international perspective

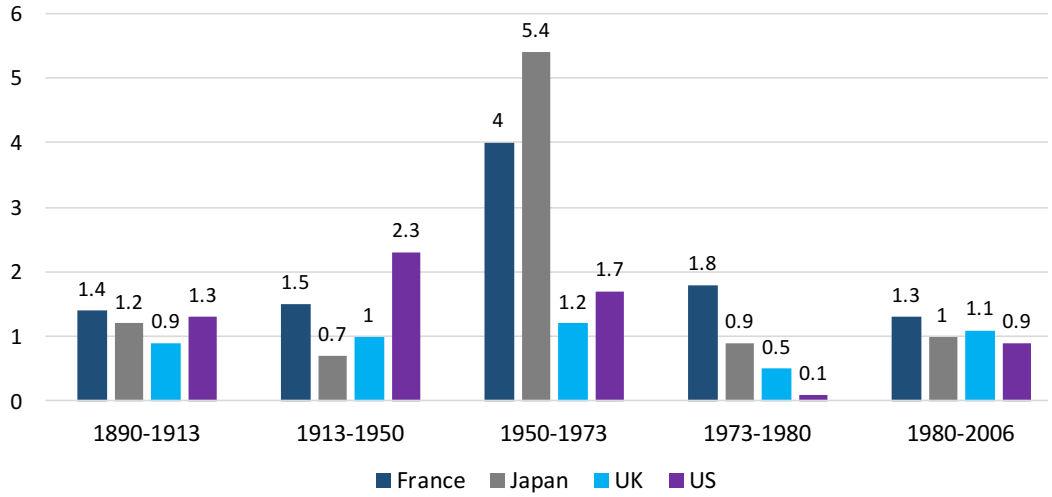
Sources of labour productivity

Productivity can be thought of as growing as a result of two distinct forces: capital deepening and total factor productivity (TFP). Capital deepening occurs when the flow of physical capital services rises faster than hours. TFP is the residual which reflects technical change, improvements in the delivery of services, the organisation of production, and of course the rise in skill levels.

The general approach to growth accounting from Robert Solow's pioneering work is that labour-augmenting technological progress leads to capital deepening because it enhances the marginal productivity of capital. This implies that rises in TFP are largely responsible for rises in capital deepening. Some recent estimates suggest that TFP growth explains three quarters of all capital intensity.[35] This means that a more technically sophisticated workforce applies innovations to their production processes, thus driving new capital investment and increased output per employee.

Long-run data analyses suggest that the UK has floundered on both TFP and capital deepening. Given its early technological lead, one would have expected other economies to initially have faster rates as they were able to benefit from Britain's early development. However, the persistence of low rates particularly from the post 1945 period suggests more of a structural issue related to the low rates of productivity.

Chart 3.3: Total factor productivity (TFP) average annual growth rates for France, Japan, UK and US, 1890-2006 (%)



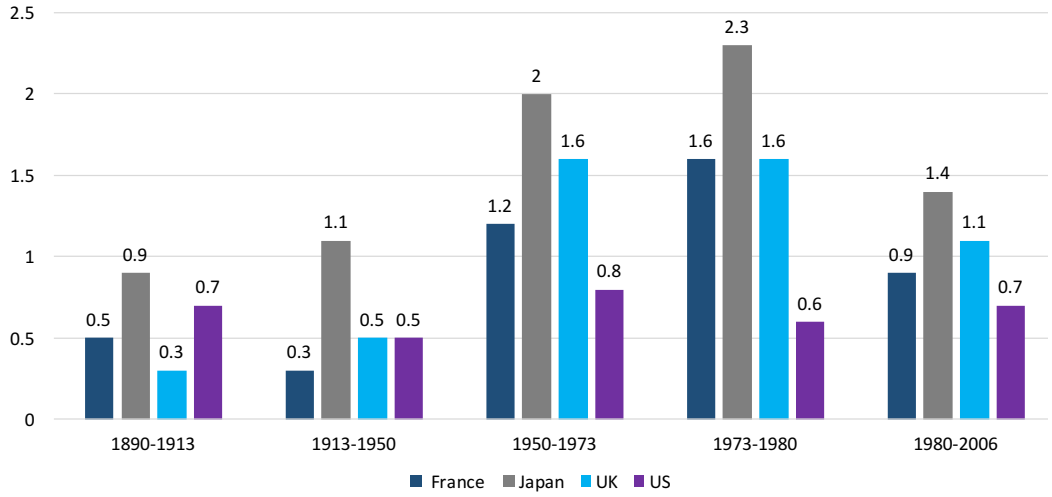
Source: Cette et al (2009), Productivity growth and levels in France, Japan, UK & US

Although it is plausible that the effects of capital deepening might also impact TFP, without the improved workforce to take advantage of the capital deepening, it is less clear how productivity might be increased, as the effect from economies of scale is only one factor potentially impacting TFP. Moreover, the effects of economies of scale are not linear as at some stage the benefit becomes negated by other issues such as responsiveness to the market, resulting in diseconomies of scale. Empirical estimates of the impact of scale suggest that it explains less than 10% of TFP.[36]

35. J. Madsen, (2010), Growth and capital deepening since 1870: Is it all technological progress?

36. N. Crafts, (2002), Britain's Relative Economic Performance, 1870–1999

Chart 3.4: Capital deepening average annual growth rates for France, Japan, UK and US, 1890-2006 (%)



Source: Cette et al (2009), Productivity growth and levels in France, Japan, UK & US

Given that capital deepening and TFP are both partly related to the capability of a firm's workforce, a further analysis of the technical skills base may prove useful in shedding light on the UK's performance. Indeed, the UK has persistently lagged its peers in terms of the average length of time that workers have been educated, the quality of education, the highest level of achievement, and the amount of on-going training conducted in the workplace.

Failed education reforms during the post-war period

During the latter half of the 20th century, Britain suffered from a working population that had received less education than its competitors. The legal age when a child in England and Wales was permitted to leave compulsory education was controlled by the introduction of compulsory education in 1860, with the compulsory aged enforced from 1880. The compulsory age was just 12 years old at the beginning of the 20th century. It has since increased every 20 years or so. The compulsory age increased to 14 in 1921, to 15 in 1947, and then to 16 years old in 1973. More recently it has been increased to 17 from 2013, and 18 from 2015.[37]

But despite having a legal minimum that was ahead of most of its peers for much of this period, the average number of school years remained low. In the UK the minimum legal age became the default leaving age for the vast majority of young people. In 1960, the average number of school years completed by adults in the UK was just 6.7. Whilst this was similar to France, this was well below the US (10.6), West Germany (9.6), the Netherlands (8.1) and Sweden (9.0).[38] Moreover, only 12% of students in the UK stayed on past the compulsory school leaving age in 1960 which was just 15.[39] For all countries the number of school years has increased gradually, but the UK has remained behind the US and much of the G7 for the last 50 years.

37. http://www.educationengland.org.uk/history/timeline.html

38. BBVA, (2012), Educational Attainment in the OECD, 1960-2010

39. K. Hansen, (2005), The United Kingdom Education System in Comparative Context

Table 3.1: Average years of schooling for the adult population, 1960-2010

	1960	1965	1970	1975	1980	1985	1990	1995	2000	2005	2010
US	10.6	11.0	11.3	11.8	12.1	12.4	12.7	13.0	13.2	13.3	13.5
Sweden	9.0	9.3	9.6	10.1	10.5	11.0	11.7	12.1	12.7	13.1	13.4
Canada	9.9	10.2	10.6	11.1	11.6	12.0	12.3	12.6	12.8	13.0	13.3
Netherlands	8.1	8.5	8.8	9.3	9.8	10.3	10.8	11.3	11.6	12.2	12.4
Germany	9.6	10.0	10.5	10.9	11.4	11.8	12.0	12.0	12.1	12.1	12.2
France	6.4	6.7	7.0	7.6	8.1	8.7	9.4	10.0	10.6	11.3	11.9
UK	6.7	7.1	7.6	8.0	8.5	9.1	9.7	10.4	10.9	11.2	11.6
Italy	5.0	5.2	5.5	5.9	6.5	7.0	7.5	8.2	8.8	9.5	10.0

Source: BBVA (2012), Educational Attainment in the OECD, 1960-2010

One reason behind this poor relative performance was the failed attempt to introduce a tripartite system of education in England and Wales consisting of grammar schools, technical schools and secondary moderns. This failure led to an education system that for most students provided neither sufficient academic nor technical education. In 1958, Sir Geoffrey Crowther, deputy chairman of The Economist, led a review of the new system for the minister of education. The review found that there were over 1.5 million pupils in secondary modern schools, 683,000 in grammar schools and just 95,000 in secondary technical schools. The review went on to conclude that "'we do not now have, and never have had, a tripartite system".

The secondary modern schools catered for children who had not passed the 11 plus exam and were not selected to go to grammar or technical schools. These schools, which the Crowther review found catered for around two thirds of pupils in the late 1950s, offered little in the way of either academic or technical education. In 1963 the Newsom Report observed that secondary modern schools combined a few academic subjects with some practical subjects such as art, crafts, bookkeeping domestic science, house crafts, metal work, needle work, technical drawing and woodwork. Newsom also highlighted that even where technical and vocational components existed it was overall of poor quality and only, on average, occupied 20% of the fourth year timetables.[40]

This finally led to the majority of authorities introducing comprehensive schools. So technical schools were gradually absorbed into the comprehensive system along with the secondary moderns. But given there were so few of them, what commercial, technical and vocational education existed in comprehensives was largely based on the residuals of provision from the secondary modern schools. The number of technical schools peaked in 1948 at 319 and had fallen to fewer than 100 by 1970. The comprehensive school emerged as an experiment in a few areas in the early 1950s. This alternative to the 'tripartite' system increased modestly at first to just over 100 schools in 1959, but then accelerated from 1965 after Circular 10/65 was issued by the Ministry of Education encouraging local education authorities to move to non-selective education.[41] There has been little change in the size of the non-comprehensive sector since 1985.

Britain's underdeveloped technical skills system

The failure of the UK to develop a system of technical education explains much of why the UK has a higher share of adults with low levels of education. Today, OECD data show that more than a fifth (21%) of working age adults have an education below upper secondary level – more than twice the level of the US. The UK is ranked 26th out of 33 OECD countries [42] for the share of adults with an upper secondary education, with just over a third (36%) of British adults having achieved this level of education. This has been a persistent problem. A separate analysis by BBVA showed that the UK lagged all the G7 countries except Italy from 1960 until the 2000s, when Italy overtook the UK.[43]

In the 1990s the UK did dramatically increase the share of high-skilled workers owing to an increase

40. http://technicaleducationmatters.org/2011/04/24/technical-and-secondary-technical-schools/

41. House of Commons Library (2016), Grammar school statistics

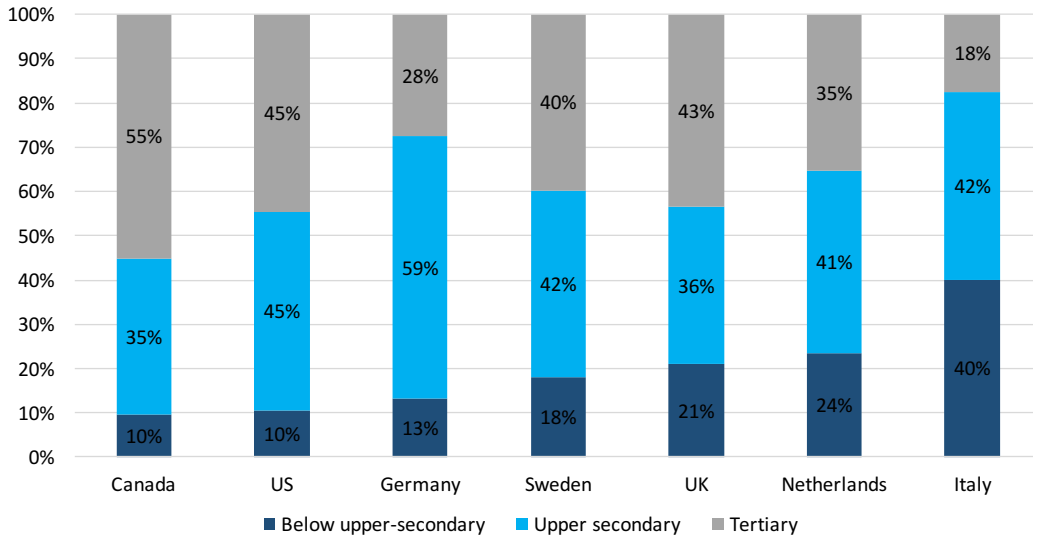
42. OECD data, (2016), Adult education level

43. BBVA (2012), Educational Attainment in the OECD, 1960-2010

of university graduates. 43% of adults now have a tertiary education. But despite this landmark shift toward higher skills in the UK, this has not fed through to a corresponding shift in labour productivity. This suggests that the longstanding failure to develop a technical education has inhibited productivity growth.

Germany meanwhile, which has lower levels of university graduates but far higher levels of workers with intermediate skills, increased its substantial lead over the UK in labour productivity, both across the economy and specifically in manufacturing. This analysis suggests that the priorities within the UK education sector need to shift towards upper intermediate skills to support a rebalancing growth strategy.

Chart 3.5: Education level of adults aged 15 to 64, 2015 (%)



Source: OECD

It is widely held that the inability of the UK to provide greater number of appropriately educated workers is the result of the failure to develop a coherent system of technical education. Addressing this issue has been the subject of numerous reports and reforms. Writing in 1851 when London hosted the Great Exhibition of the Works of Industry of All Nations, Charles Babbage argued that Britain's industrial supremacy had disguised the need to develop technical education. As noted in the foreword to the latest review of technical education, led by Lord Sainsbury for the UK government: "It is over a hundred years since the first report was produced which highlighted the failures of technical education in the UK, and since the Second World War there have been very many attempts to reform the system. These have all been unsuccessful because they tinkered with technical education, and failed to learn from the successful systems in other countries."[44]

The UK's technical skills system has been in a state of almost constant flux for much of the post-war period. The institutions involved in overseeing and delivering technical education and training, as well as the qualifications on offer and the funding available, have been through a myriad of reforms. In contrast, the academic route has been more stable. This has enabled institutions to develop strong brands, for qualifications to have value in the labour market and for young people, adults and employers to understand the system. The lack of institutional stability for technical education can be seen in numerous areas of policy, as shown in the box below.

The Sainsbury Review also highlighted that there remain over 21,000 qualifications available, including over 13,000 for 16- to 18-year-olds.[45] It recommended a streamlined set of 15 technical routes for 16- to 18-year-olds – something that the government has committed to introducing from 2019. This follows another recent report by the House of Lords Committee on Social Mobility which

44. Gatsby Foundation, (2016), Report of the Independent Panel on Technical Education

45. Gatsby Foundation, (2016), Report of the Independent Panel on Technical Education

concluded that "Non-academic routes to employment are complex, confusing and incoherent. The qualifications system is similarly confused and has been subjected to continual change."[46]

The OECD has highlighted the importance of post-secondary technical education and training, and how few people take such routes in England. It ascribed a lack of specialist institutions as one of the major causes, arguing that:

> *FE colleges are at present in a weak position to play the necessary role of champions for this type of provision, partly because much of their energy is now devoted to mainstream academic teaching at upper secondary level, and partly because ownership of the relevant qualifications is vested either in awarding organisations or (in the case of foundation degrees) in universities.*[47]

Similarly, a government consultation published at the end of the coalition government argued that the reform of universities in the early 1990s was to blame for leaving a gap for post-secondary technical skills provision:

> *…the conversion of the polytechnics into universities left a space in the provision of sub degree level technical qualifications. This can be seen in retrospect to have created a long term structural gap in skills infrastructure – and contributed to a decline in the perceived value of technical skills pathways. It was not wrong to create the conditions to allow the then polytechnics to become universities. But no good answer was given to the question of how what the polytechnics had previously done would be secured in future. In so far as there was an answer to that question, it was that the further education sector would pick up the slack.*[48]

There are also longstanding issues around employer engagement in training. Only 15% of all employers in the UK offer formal apprenticeships. This is slightly higher in sectors suffering from major skills shortages, at 19% for manufacturing and construction for example.[49] However, this is low given the longstanding issues of skills shortages in these industries. As the employer-led UK Commission for Employment and Skills has argued: "the future employment and skills system will need to invest as much effort on raising employer ambition, on stimulating demand, as it does on enhancing skills supply."

The history of institutional reform in the UK skills system

Qualifications – NVQs, GNVQs, AVCEs, Applied A-Levels, Diplomas, Technical Awards, Applied General, Tech Levels and Technical Certificates: The National Vocational Qualifications (NVQs) introduced in 1986 aimed to increase participation amongst young people and also to align qualifications with occupational competence. In 1992, the General National Vocational Qualification (GNVQs) were introduced amidst criticisms that occupation-specific qualifications would limit young people's career prospects. GNVQs underwent further iterations when Advanced Vocational Certificates of Education (AVCEs) were introduced in 2000, and ran alongside GNVQs. Both were eventually phased out between 2005 and 2007 following the introduction of the Applied (GCE) A-level in 2005. In 2008, the Advanced Diploma was introduced alongside the Applied A-level, as an alternative, parallel qualification. The Diploma never took off. The coalition introduced Technical Awards for 14- to 16-year-olds and three vocational options for 16- to 19-year-olds: Applied General; Tech Levels; and Technical Certificates.

National agencies – MSC, TC, TA, FEFC, LSC, YPLA, SFA, EFA, UKCES and IfATE: The Manpower Services Commission (MSC) was a non-departmental public body created by Edward Heath's Conservative Government in 1973. It coordinated employment and training services in the UK through a ten-member commission drawn from industry, trade unions, local authorities and

46. House of Lords, (2016), Overlooked and left behind: improving the transition from school to work for the majority of young people

47. OECD, (2013), A skills beyond school review of England

48. Department for Business, Innovation &Skills, (2015), A dual mandate for adult vocational education

49. UKCES, 2014, Employer Perspectives Survey

and education interests, and oversaw the Youth Training Scheme (YTS). The MSC lasted up until 1987 before being scrapped. Since then, the UK has had the Training Commission (TC), Training Agency (TA), Further Education Funding Council (FEFC), Learning and Skills Council (LSC), Young People's Learning Agency (YPLA), Skills Funding Agency (SFA) and the Education Funding Agency (EFA). The UK Commission on Employment and Skills (UKCES), which was launched in 2008 to provide an employer-led organisation and to help develop the evidence base, was recently abolished. A new Institute for Apprenticeships was set to launch from 2017, but before it had chance to it was recently announced that it will have an expanded brief to cover technical education and be called the Institute for Apprenticeships and Technical Education (IfATE).

Sectoral standards – ITBs, OSCs, NTOs, SSCs and IPs: The UK went from having 25 statutory sectoral Industry Training Boards to mainly voluntary organisations: Occupational Standards Councils, then National Training Organisations, Sector Skills Councils and now Industry Partnerships and other 'employer groups'. These sectoral organisations were initially coordinated by the relevant government department, followed by the Sector Skills Development Agency and latterly the UKCES, before it was recently abolished.

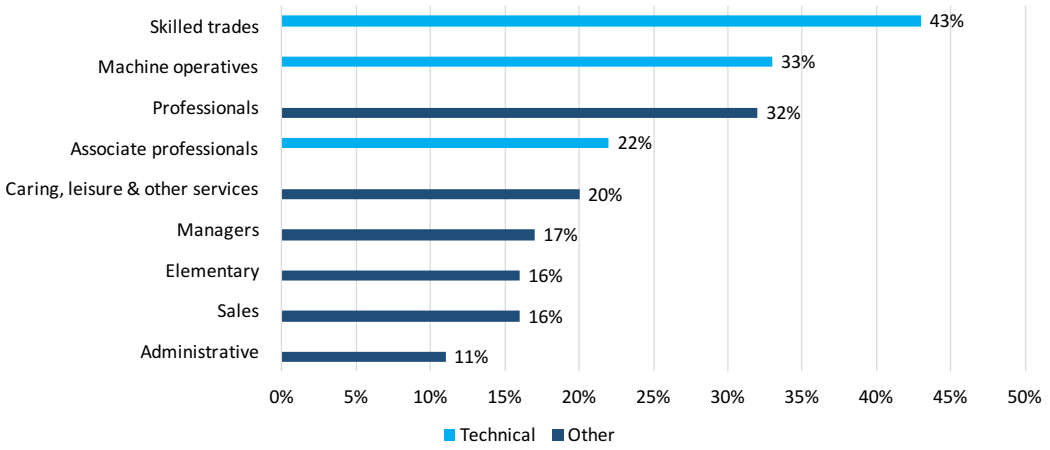
Local organisations – AMBs, TECs, LLSCs, RDAs and LEPs: The national Manpower Services Commission had a network of Area Manpower Boards up until the late 1980s, when 72 Training and Enterprise Councils (TECs) were set up in England and Wales in 1989 to administer publicly-funded training programmes. There were as many as 72 TECs before they were abolished in 2000. The national Learning and Skills Council, which was set up in 2001, oversaw 47 Local Learning and Skills Councils. A network of nine Regional Development Agencies was also introduced in 1998 with a statutory remit including "to enhance the development and application of skills relevant to employment". These were scrapped in 2011 and replaced with Local Enterprise Partnerships (LEPs), which have gradually been given more control over skills funding.

As well as low achievement of post-secondary education, the UK has also suffered from funding the wrong types of courses. This mismatch has meant that despite high levels of spending on education, the UK suffers from major skills shortages for technical roles. This can partly be explained by the funding system which has historically focused on the number of individual qualifications, unlike in many other countries. The Wolf Review concluded that this led to a system whereby there were vast numbers of short, low-quality qualifications being delivered without expectations of progression. The government has introduced a per-student rather than per-qualification funding basis for 16- to 19-year-olds to encourage colleges to deliver broader programmes that enable students to progress to higher levels. However, the system still creates strong incentives for providers to focus on courses that are easier and less risky to deliver, rather than necessarily what would provide the best employment prospects and address skills shortages among local employers.

The shortfall of the right technical education and training has a real direct impact on the economy. According to UKCES' 2015 Employer Skills Survey, 43% of all vacancies for skilled-trades roles were difficult to fill due to the employer not being able to find applicants with the appropriate skills, qualifications or experience. This is significantly more than for other types of vacancies. These are longstanding issues that have held back key parts of the UK economy and look set to continue to do so. UKCES' 2010 National Strategic Skills Audit, for example, highlighted an urgent need for STEM technicians within sectors of high economic importance, including manufacturing, oil, gas, electricity, chemicals, pharmaceuticals, automotive, engineering and broadcasting. In manufacturing, the share of workers over the age of 50 in manufacturing has increased from 21% in 1993 to 31% in 2013. While in engineering, Engineering UK data show an annual shortfall of 29,000 people with level three skills and 40,000 with skills at level four and above.[50]

50. Engineering UK, (2016), 'Synopsis, recommendations and calls for action'

Chart 3.6: Percentage of UK job vacancies that were proving difficult to fill due to skills shortages, 2015

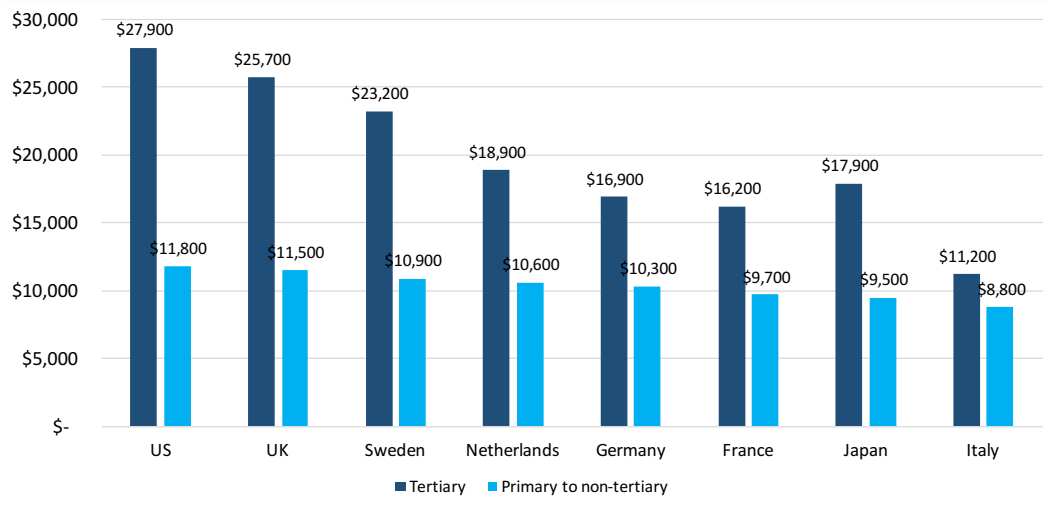


Source: UKCES Employer Skills Survey 2015

In addition to these challenges, basic education outcomes are also poor by international standards. The UK is ranked 46th in the world for maths and science education – two key disciplines especially for manufacturing. Among 16- to 24-year-olds, England and Northern Ireland together now rank in the bottom four OECD countries for literacy and numeracy.[51] This is despite a higher level of investment in education in the UK. Spending per student in primary to non-tertiary education is similar to other major economies such as Germany and Canada. For tertiary education spending is far higher than most other major economies, at $25,700 compared to $16,900 in Germany and $16,200 in France.

The UK has particularly high levels of skills shortages for well-paid technical roles, largely the result of adults in the UK with low rates of upper secondary education. The impact of this institutional shortfall on firms being unable to fill their vacancies for technical roles has been twofold. It has not only been one of the drivers of lower productivity growth, but it has also caused per-capita income to stagnate in certain parts of the economy.

Chart 3.7: Education spending per student, 2013 ($US)



Source: OECD

The decline of manufacturing in Britain has been long standing and significantly worse than in other advanced economies. One of the major drivers of this decline has been persistently lower labour productivity than in other major economies. The inability of Britain to develop an institutional infrastructure for technical skills remains a major barrier to reversing this trend. Moreover, this issue

51. OECD, (2013), OECD Skills Outlook 2013: First Results from the Survey of Adult Skills.

is impacting firms daily, with a lack of sufficiently trained workers to fill hundreds of thousands of well-paid vacancies. This has prevented firms from expanding and exploiting competitive advantages where they exist, and of course has constrained productivity growth.

If Britain is able to build a robust set of technical institutions in the medium term, the issue of monetary policy and the level of sterling must also be addressed if there is to be a rebalancing of the economy. For firms to invest and build industrial capacity further, the terms of trade with other countries need to be more favourable than they have been given the low levels of profitability in manufacturing. This requires a greater understanding of the causes of the appreciation of sterling in the late 1990s that brought to abrupt end the mid-1990s boost to manufacturing.

Centre for
Progressive
Capitalism

Chapter 4.
Financial flows and exchange rate determination

Centre for
Progressive
Capitalism

Why was sterling strong between 1997 and 2007?

In terms of attempting to formulate policy as to what might be done to help kick-start a renaissance in British manufacturing in conjunction with a technical skills strategy, it makes sense to understand why sterling was so strong between 1996 and 2007. Particularly given that the period between 1992 and 1996 provided some respite for Britain's beleaguered manufacturers. Moreover, it was during this period that productivity received a boost as did the growth in real wages.

In the two years from Q2 1996 to Q2 1998, sterling increased in value by 32%. The trade deficit trebled over a similar period, from -1.1% in Q1 1997 to -3.3% in Q1 1999. This appreciation was also one of the reasons why many firms were keen to join the euro during this period despite its flaws.[52] Sterling remained at similar levels for almost a decade until the financial crisis with the trade balance reaching a record -6.5% before the financial crisis.

The challenge for policymakers though is that the appreciation of sterling during this period was somewhat of a mystery. The governor of the Bank of England, Eddie George, gave a speech at the Institute for Manufacturing in 1999 where he stated that, "it was never entirely clear just why sterling – and the dollar – strengthened in this way – or more appropriately why the core European currencies weakened – when they did."[53] In 2000, The Economist argued sterling was overvalued and that it ought to fall soon.[54] But it kept on rising for another seven years.

There are a number of reasons that might explain the increased demand for a currency leading it to being overvalued. The traditional purchasing power parity approach suggests that when net exports are high, international importers need to pay more for those exports. The theory implies that this should eventually lead to currencies re-aligning as exports become too expensive. Currencies can also appreciate when interest rates are at relatively higher levels than in other countries which can be impacted by fiscal policy. Supply-side effects can also impact the demand for currency as the economy expands. Finally, the demand for currency can also be impacted by international capital flows.

Since the 1980s, theoretical developments in exchange rate theory have focussed more on international capital flows and treating currencies as assets, rather than currencies equilibrating based on the trade balance. Indeed, contrary to the theory of purchasing power parity, there is not a close link between movements in exchange rates and movements in the ratio of national price levels. Highly mobile capital is able to offset current account deficits, implying a close relationship between the capital account and the exchange rate.[55]

In November 1996, the Bank of England inflation report argued that the strengthening of sterling by 8% since August 1996 was mostly explained by the tightening of monetary policy in the UK and the loosening of monetary policy overseas.[56] By May 1997, the inflation report however concluded it was not obvious why sterling had appreciated, and still expected sterling to depreciate based on the banks' uncovered interest parity (UIP) model.

The UIP approach to exchange rate valuation assumes that the difference in interest rates between two countries is equal to the expected change in exchange rates between the countries' currencies. Given that UK interest rates were higher, the Bank of England assumed that therefore sterling would fall.

Sushil Wadhwani, a member of the Bank of England monetary policy committee between 1999 and 2002 argued that Britain's supply-side reforms in conjunction with relatively higher interest rates were the main drivers of the rapid appreciation of sterling.[57] He was also not particularly enthusiastic of the UIP approach to forecasting exchange rate movements. However, a comparison of real interest

52. http://news.bbc.co.uk/1/hi/business/500231.stm

53. http://www.bis.org/review/r990118c.pdf

54. The Economist, (January 27th 2000), 'The Mighty Pound'

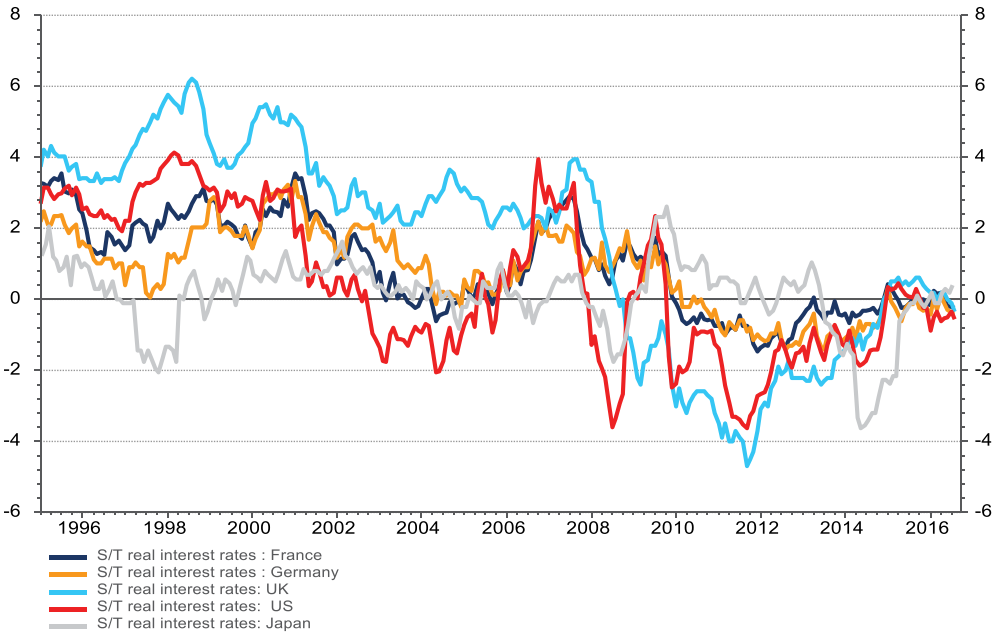
55. IMF, (2011), Capital Flows, Exchange Rate Flexibility, and the Real Exchange Rate M. Mussa, (1984), The Theory of Exchange Rate Determination R. Dornbusch & S. Fischer, (1980), Exchange rates and the current account

56. Bank of England, (November 1996), Inflation report

57. S. Wadhwani, (2000), 'The Exchange Rate and the MPC: What can we do?'

rates partly explains why sterling did appreciate against other currencies. Between 1996 and 1998, short-term real interest rates in the UK remained significantly higher than in other major currency areas.

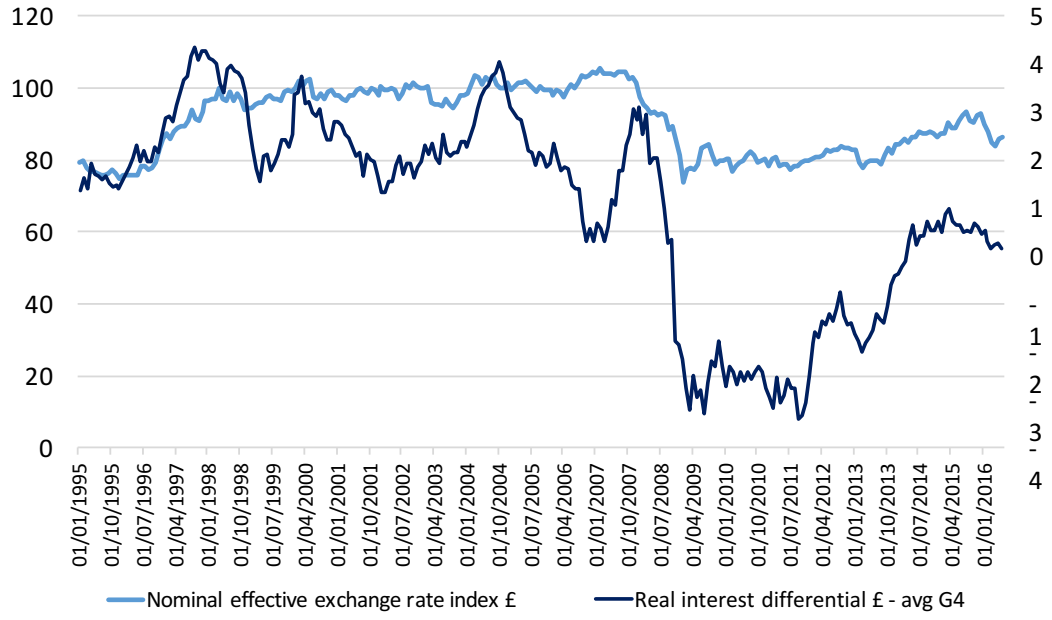
Chart 4.1: Real interest rates, 1995-2016 (%)



Source: Thomson Reuters Datastream, Credit Capital Advisory

Moreover, when the effective exchange rate is plotted against the difference between UK real interest rates and the average of the other big four exchange rate areas (dollar, franc, mark, yen), it is even clearer why sterling appreciated. From 1996 the dark blue line accelerates, demonstrating a widening of real interest rates between the UK and the other major economies. This is clearly signalling that sterling would strengthen and not fall as the Bank of England expected.

Chart 4.2: Sterling nominal effective exchange rate versus real interest differential, 1995-2016 (sterling; average of US dollar, franc, deutschmark and yen)



Source: Thomson Reuters Datastream, Credit Capital Advisory

Thus the rise of sterling should have not been a surprise at all, and the foreign exchange markets took advantage of this. This trade is indeed very common and is called the 'carry trade'. Currency traders using currency swaps might for example have sold Yen or Marks (these currencies had the widest real interest differential) and bought sterling to take account of the diverging real interest rate. Given the leveraged nature and therefore size of these derivative trades, which could have been as much as £300bn per day, they were able to significantly impact the exchange rate. However, as these trades were derivatives, they would not show up in the capital inflow data.

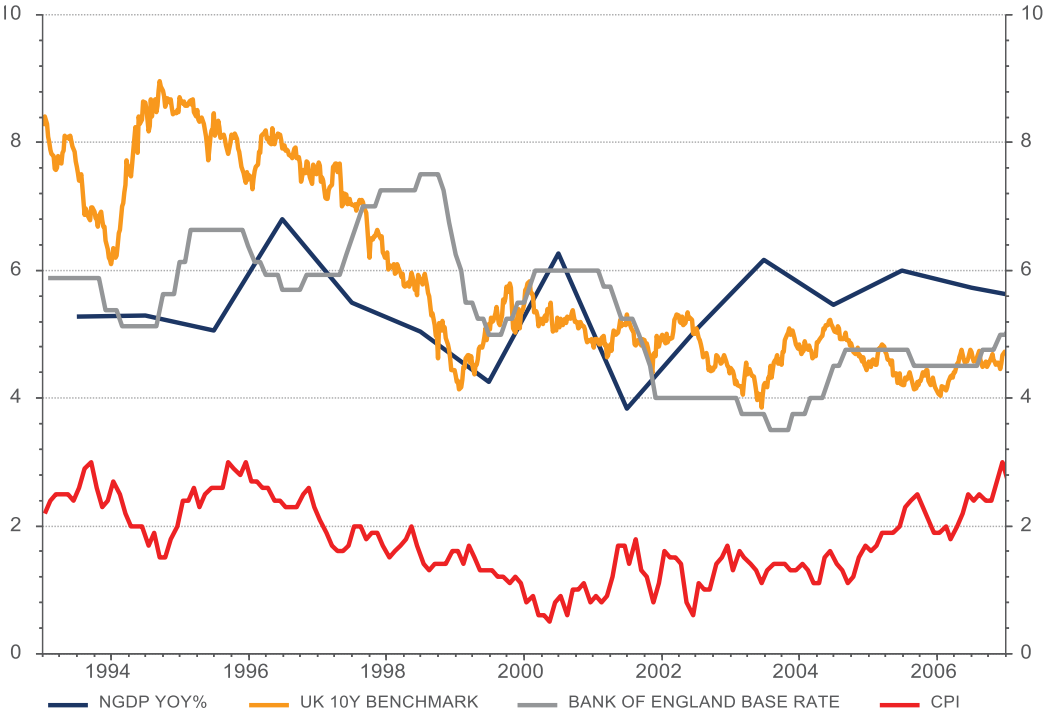
The foreign exchange market

The foreign exchange market transacts around $5.1tn of volume per day. Daily sterling-denominated transactions amount to $650bn per day – or just under 13% of all transactions. However only 33% of GBP transactions are spot (cash) transactions, with the majority of transactions using some form of derivative, which permit trades to be leveraged. These trades are undertaken by a variety of financial institutions including banks and hedge funds.[58]

Most academic research suggests that currencies generally follow random walks, which are interspersed by periods of volatile movements sometimes known as structural breaks.[59] The reasons for these structural breaks are usually identifiable and quite short term. It also appears that outside these structural breaks international capital flows play a significant role in determining exchange rates.

The major driver behind this carry trade was the fact that the Bank of England maintained monetary policy at levels that were too tight due to excessively high nominal interest rates. Chart 4.3 highlights the argument in more detail. Between 1996 and 2000 inflation remained on a downward trend, however so did NGDP from 1997 to 1999. Moreover, by 1998, the UK was faced with an inverted yield curve with the 10-year rate falling below the short-term rate. All these factors point to excessively tight money, hence the on-going carry trade.

Chart 4.3: Inflation, 10-year government bond yield, Bank of England base rate and nominal GDP for UK, 1993-2007 (%)



Source: Thomson Reuters Datastream, Credit Capital Advisory

58. BIS, (2016), Triennial Central Bank Survey Foreign exchange turnover in April 2016

59. J Voit, (2005), Statistical mechanics of financial markets

One other factor that can be seen in all of the Bank of England's inflation reports is unease over the impact of the loosening of monetary policy. These concerns focussed on how such a loosening might induce a rapid depreciation in sterling, thereby leading to higher than expected inflation. This emphasis suggests a preference by the monetary authority for a stronger currency. This view, however, appears to be at odds with empirical evidence which suggests that inflationary responses to devaluations are muted.

Although import prices will rise, unless a wage price spiral happens to be occurring wages do not tend to increase as a result of falling currencies. This suggests that wage growth is determined by other factors instead. Indeed, there is increasing evidence that the level of trade openness has an impact on nominal wage levels. As the level of trade openness increases – defined as the sum of imports and exports divided by GDP – wages tend to be less responsive to falls in unemployment. This process can be described as the flattening of the Phillips Curve. In essence, globalisation has been one of the key drivers of falling inflation expectations.

Table 4.1: Trade openness and the Phillips Curve for the UK, 1873-2009

Period	Openness averages	Linear Phillips Curve slope
1873-1890	53.89	-0.36
1891-1914	51.63	-0.41
1918-1939	39.77	-1.44
1945-1973	40.07	2.34
1974-1992	52.68	-1.49
1993-2009	56.35	-0.12
1873-2009	47.09	-0.79

Source: Credit Capital Advisory [60]

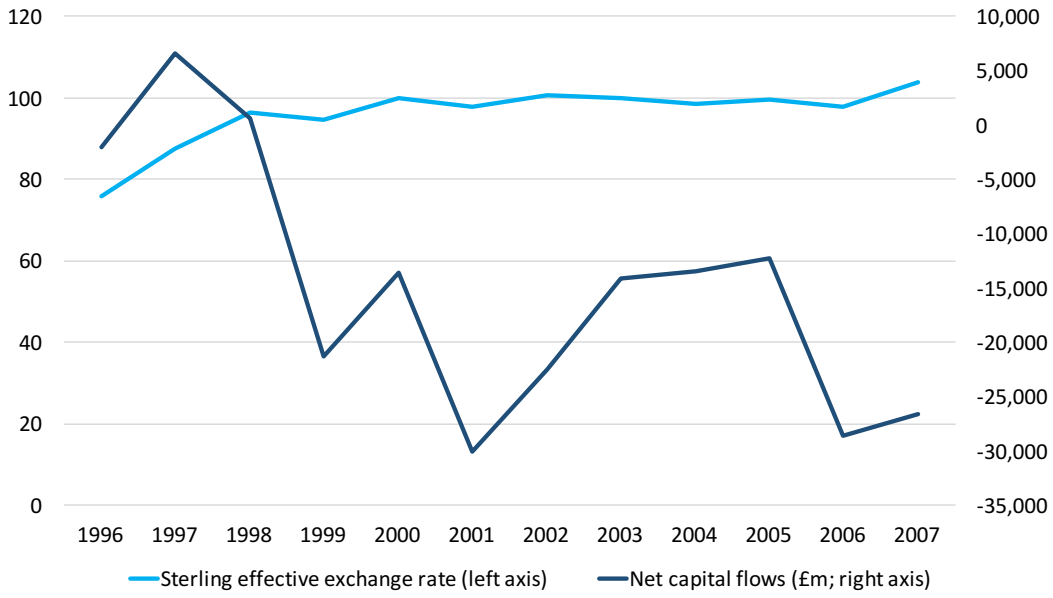
Critically, if the level of trade openness has played a major role in reducing inflation and inflation expectations, this does call into question the current mandate of the Bank of England which focuses on an inflation target. Inflation targeting appears to have contributed to an excessively tight monetary policy at the end of the 1990s, but it can also lead to excessively loose monetary policy generating asset booms.[61] Clearly it is for government to decide any future remit that the Bank of England should have with regards to monetary policy. However, in a world of intense globalisation and its associated low level of inflation, it is less clear that an inflation target is optimal for an industrial strategy. Moreover, the low rates of nominal output across many parts of the world also suggest this might not be an optimal target. Finally, an inflation target might result in the economy contracting as a result of the rise in commodity prices. It makes little sense to tighten monetary policy as a result of a supply shock. Hence, regional political and business leaders, the Treasury, the Department for Business, Energy and Industrial Strategy and the Bank of England should take stock of whether the current approach to monetary policy is an enabler of a modern industrial strategy or in fact an obstacle to one.

In addition to analysing real interest rate differentials, given that exchange rate determination is increasingly linked to capital flows, an analysis of financial flows in and out of the UK is required to understand what impact they had on the value of sterling between 1996 and 2007. An analysis of the summary financial account data shows that during this period the UK received a net inflow of nearly £180bn, which equates to around £14bn per annum. This appears to have had some impact in maintaining the value of sterling after the initial appreciation of sterling driven by relatively higher interest rates.

60. T Aubrey, 'Voter frustration and the Phillips Curve' Lipper Alpha Insight (23rd March 2016)

61. T. Aubrey, (2012), Profiting from Monetary Policy

Chart 4.4: Index of sterling effective exchange rate versus net capital flows, 1996-2007



Source: ONS, Thomson Datastream, Credit Capital Advisory

The below table provides the sources of capital flows by category and suggests that the flows on reserve assets, other investment and derivatives can largely be ignored as their impact was less than 10% of total capital flows. However, portfolio investment of equity and debt, as well as direct investment consisting of equity, debt and the reinvestment of earnings play a significant role.

Table 4.2: Total capital flows by category, 1996-2007

	Total (£m)	Average (£m)	Share of total
Reserve Assets	-3,264	-272	2%
Other Investment	-15,716	-1,310	9%
Derivatives	56	5	0%
Debt Instruments	-70,817	-5,901	40%
Reinvestment of earnings	260,074	21,673	-147%
FDI	96,411	8,034	-54%
Equity Portfolio	44,371	3,698	-25%
Debt portfolio	-488,635	-40,720	275%
Total	-177,520	-14,793	

Source: ONS, Centre for Progressive Capitalism

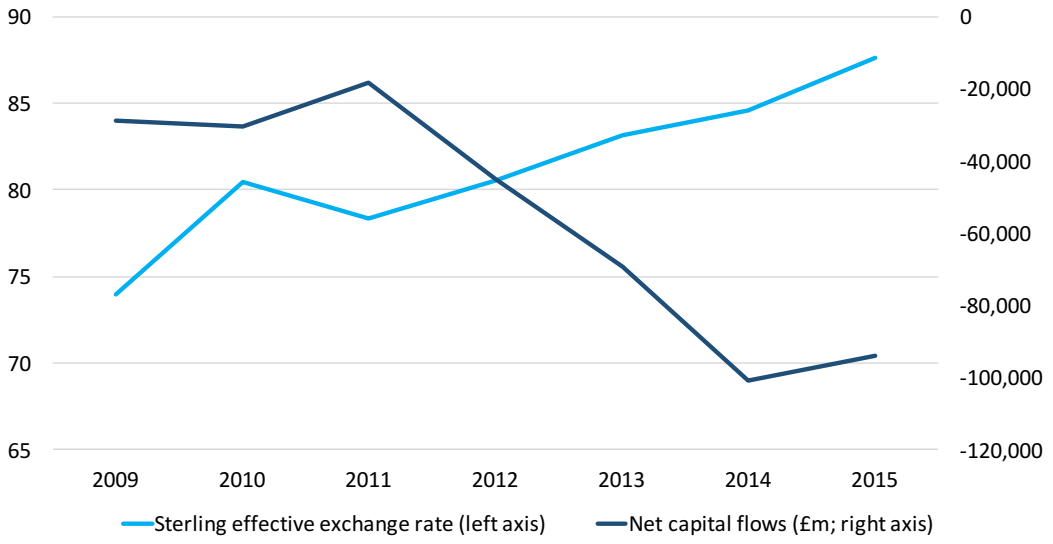
Further analysis between direct and portfolio investment suggests that the portfolio investment segment played the greatest role in supporting capital inflows during this period. Between 1997 and 2000, there was a significant increase in international investors buying sterling to acquire equities, which can be explained by the dotcom boom and the rapidly rising stock market. These equity flows began to reverse in 2002 due to poor returns, but were subsequently followed by a large inflow into bonds as the relatively higher yields in the UK fell.

Chart 4.5: Net portfolio flows, 1997-2007

Source: ONS

The financial crisis led to another structural break in the value of sterling and an initial depreciation. But between 2009 and 2015, sterling appreciated by just over 20%. This time the real interest differentials were no longer present. Indeed, for much of this period real interest rates were lower on a relative basis. The balance of trade was also lousy, and until 2012 so was domestic demand. However international capital flows into the UK remained buoyant.

Chart 4.6: Index of sterling effective exchange rate versus net capital flows, 2009-2015



Source: ONS

The major driver of these net capital inflows into the UK has been through the FDI channel in conjunction with poor reinvestment of earnings. Equity portfolio inflows have also performed well supported by quantitative easing which enabled firms to refinance their debt to maintain profit growth. Falling bond yields as a result of quantitative easing have also supported rising debt inflows.

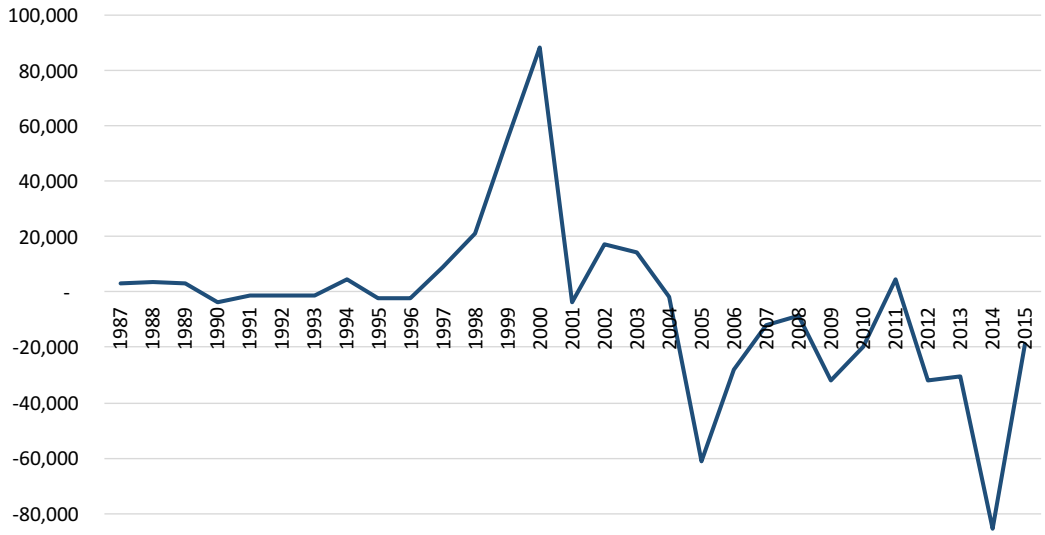
Table 4.3: Net capital flows by category, 2009-2015

	Total (£m)	Average (£m)	Share of total
Reserve Assets	57,576	8,225	-15%
Other Investment	122,764	17,538	-32%
Derivatives	-115,616	-16,517	30%
Debt Instruments	-46,935	-6,705	12%
Reinvestment of earnings	35,672	5,096	-9%
FDI	-213,089	-30,441	55%
Equity Portfolio	-142,444	-20,349	37%
Debt portfolio	-84,187	-12,027	22%
Total	-386,259	-55,180	

Source: ONS, Centre for Progressive Capitalism

One aspect that is striking about the FDI data is that the net data only started to inflow from 2004. Indeed, between 1987 and 2003 the average FDI was a net outflow of £12bn per annum which increased significantly during the dotcom boom, but since 2004 this reversed leading to a £27bn per annum net inflow.

Chart 4.7: Net flow foreign direct investment, 1987-2015 (£m)



Source: ONS

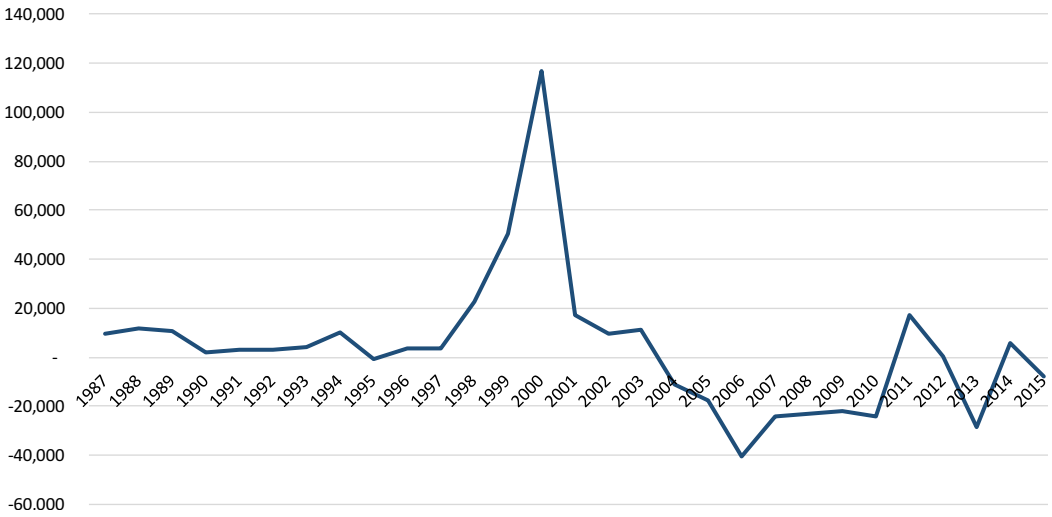
FDI is defined as investment that results in the ownership of 10% or more of a business. But it would be wrong to assume that the UK has benefitted from £27.1bn per year of investment into new assets such as car factories. Indeed, the greater part of FDI is in fact related to investment in existing assets. The investment in existing assets of course does not actually add much value to the economy. Instead it has other effects, such as pushing up asset prices and of course increasing the demand for sterling, thereby strengthening the currency.

Disentangling foreign direct investment (FDI)

M&A

One of the major drivers of FDI is M&A transactions. Data from ONS shows that UK firms up until 2004 had mainly been net acquirers of international firms. However, the data shows that in 2004 something quite dramatic happened. Between 1987 and 2003, there was an average net outflow of £16.9bn per annum. But from 2004 to 2015 there was an average net inflow of £14.6bn per annum, which accounts for 54% of all net FDI since 2004.

Chart 4.8: Net transactions for mergers and acquisitions, 1987-2015 (£m)



Source: ONS

The reason for this was that at the end of 2002, the Labour government introduced the Enterprise Act. The Act removed the public interest test from the minister, and only permitted specific industries such as defence and media to be subject to a public interest test. The net result of this was that the UK overnight was transformed into the most liberal M&A regime in the world.

Moreover, the wording under the Act required the competition authority to make a reference to the Competition Commission if the merger has resulted or may be expected to result in a substantial lessening of competition within any market or markets in the UK for goods and services. One potential implication of this wording is that the odds were stacked against domestic firms trying to acquire other UK firms, with international firms acquiring domestic firms not caught by this wording, even though it might potentially reduce competition at the global level through consolidation.

Indeed, by permitting such high levels of global corporate consolidation where fewer and fewer companies generate an ever greater share of profits,[62] politicians have weakened a mechanism that has been successful in supporting inclusive growth: competition.

Besides the pressure on potentially maintaining sterling at higher levels than are appropriate for an economy, the actual value that M&A brings to an economy, beyond large fees for corporate advisors, is more limited. According to the Harvard Business Review the failure rate of M&A is somewhere between 70% and 90%.[63] Given this failure rate is so high and M&A so prevalent in the UK economy, this may well be another reason why productivity in the UK has failed to budge that much. Furthermore, research by Cass Business School on 3,272 acquisitions of UK targets between 1997 and 2010 highlighted that the majority of transactions are unsuccessful in adding value.[64]

62. The Economist, (September 17th 2016), The rise of the superstars

63. https://hbr.org/2011/03/the-big-idea-the-new-ma-playbook

64. M&A Research Centre Cass Business School, (2013), The Economic Impact of M&A: Implications for UK firms

Other concerns around M&A in the UK that have arisen include the potential for foreign companies to acquire private monopolies including infrastructure and utility firms. The lack of competition means that these have become highly-regulated sectors, which often results in a guaranteed profit rate despite investors sometimes saddling the firms up with debt and paying themselves handsome dividends as a reward. Other issues relate to instances when UK firms are acquired by foreign companies to consolidate their global market share. This tends to result in significant job losses, the loss of industrial capacity and potentially a raw deal for consumers. The Kraft takeover of Cadbury grabbed the headlines in 2010 when the firm closed the Cadbury plant near Bristol, only a week after it stated it would keep it open.[65]

This prompted a shift in the takeover procedures in the UK with bidding firms now required to provide more information about their intentions towards the firm being acquired including the impact on jobs, assets and information on company headquarters. However, if circumstances change then firms are no longer held to their post-offer undertakings. Given the dynamism of the international economy, this is quite a likely scenario. In the event that a firm does renege on its promises the Takeover Panel can order the firm to submit reports to explain itself and require the appointment of an independent supervisor to monitor compliance with the undertaking. And if the firm is still not compliant, the Takeover Panel can refer the issue to the courts, although to date this power has never been used.

The recent attempt by Pfizer to acquire Astra Zeneca would have led to cuts in high-value-added research and development jobs, an area which is already low in the UK by international standards. More importantly though, there appear to be broader economic effects when a large firm at the summit of a successful industrial cluster is acquired. These firms support a myriad of suppliers and sub-contractors and are central to the ongoing success of the cluster. When these firms are acquired as part of a global consolidation strategy, this can lead to the decline of the cluster and the loss of industrial capacity.

For example, the aerospace companies Rolls Royce and BAE Systems are largely responsible for the continued success of a significant portion of Britain's manufacturing base. Both firms have remained protected from foreign ownership due to the public interest test for defence. Without this in place, it is highly likely that Pratt & Whitney or General Electric would have acquired Rolls Royce decades ago, with BAE Systems potentially acquired by Lockheed Martin or Boeing. In the medium term, these acquisitions would most likely to have led to less R&D and manufacturing in the UK and more in the US. With one fewer competitor, these firms would have been able to increase their prices and would have had less need to innovate to improve efficiency. In effect it would have been a bad deal for nearly everyone.

Recently Theresa May has stated that all foreign takeover bids will be assessed to determine whether they are in the national interest. Such a policy would mark a dramatic shift in the ambivalence towards foreign ownership of leading British firms. The evidence does suggest that some form of protection can help support clusters, and rather than harming the efficient allocation of capital it may well have contributed to the success of the cluster. However, an industrial strategy that attempts to create clusters from scratch including forms of protection is most likely to fail and damage the economy instead.

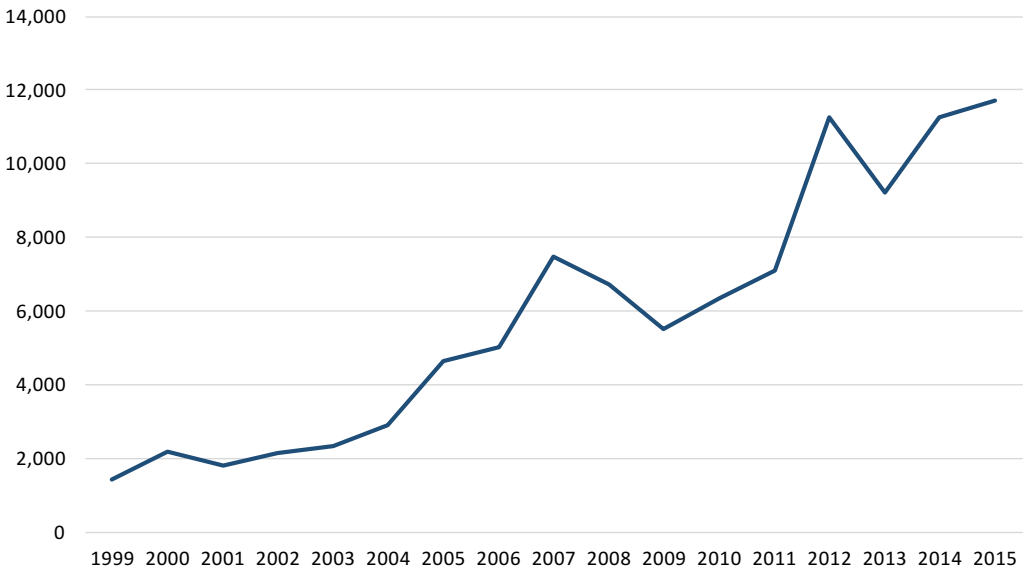
Although this shift in thinking by policymakers is to be welcome, care needs to be taken that the system does not revert to a broader public interest with the minister attempting to prevent small transactions in marginal constituencies. Although the acquisition of successful UK firms that result in a loss of jobs, R&D personnel and industrial capacity, many firms – particularly high growth ones – do require international capital to expand. Hence any policy needs to be clear in its remit, and ensure that arbitrary decisions by ministers do not discourage beneficial transactions.

65. Plans to move production to Poland had already been planned by Cadbury http://news.bbc.co.uk/1/hi/business/8507780.stm

Property

One of the other major components of FDI has been net inflows into the UK property market. The Land Registry provides data on the number of transactions by overseas companies for both residential and commercial property. The data shows that between 1999 and 2003, the number of transactions was roughly constant at around 2,000 transactions per year. However, since 2004 the number of transactions has risen dramatically by 418%.

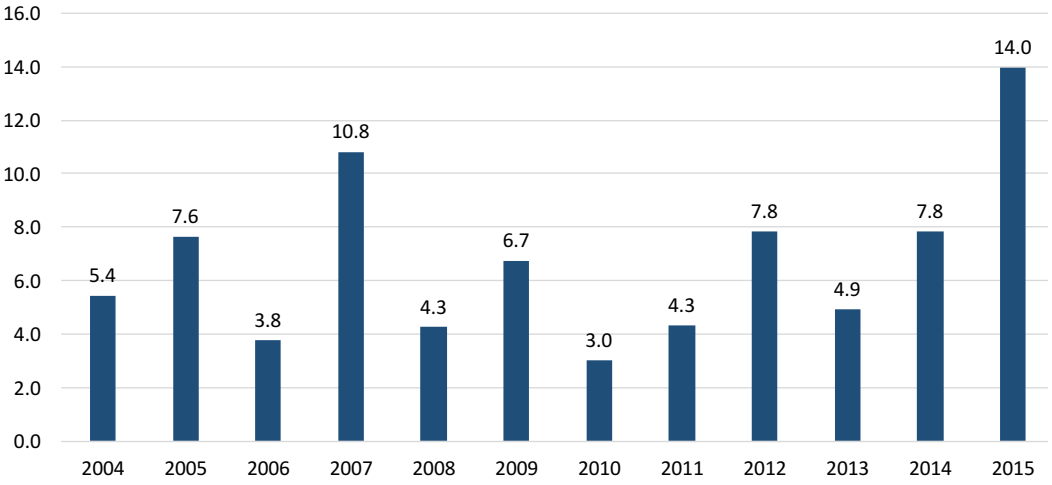
Chart 4.9: Number of UK property transactions made by overseas companies, 1999-2015



Source: Land Registry, Centre for Progressive Capitalism

Data from Real Capital Analytics / Property Data, which tracks UK investment inflows and outflows, shows the scale of this activity in terms of net inflows into the UK. Between 2004 and 2015, the annualised average net inflow into UK property was £6.7bn which accounts for 25% of all FDI inflows since 2004. Crucially, 97% of these inflows acquire existing assets as opposed to directly financing the creation of new assets.

Chart 4.10: Net inflow into UK property, 2004-2015 (£bn)



Source: Real Capital Analytics / Property Data

These elevated levels are largely a function of international investors increasing their exposure to commercial property, particularly in the Greater London region where asset values are much larger

and have risen significantly. Over the last decade, according to IPF, the market share of UK commercial property owned by international investors has nearly doubled from 15% in 2004 to 28% in 2015.

The main driver behind these flows has been the high returns on both offices and residential property compared to equities and bonds. On a three-, five- and 10-year basis the returns from residential and commercial property have far outperformed the returns from bonds and equities. These robust returns have in turn created greater demand for these assets, which in turn has supported higher prices.

Table 4.4 Annualised returns by asset class (%)

	3 year	5 year	10 year
Offices	18.1	13.4	7.6
Residential property	11.6	11.0	9.6
Equities	5.2	4.8	4.7
Bonds	2.3	5.4	5.6

Source IPD, UK annual property index

Beyond supporting a higher valued currency and making manufacturing less profitable, this flow of capital into these existing property assets have in certain parts of the country contributed to higher commercial rents, higher house prices and rising private sector rents. For example, record rents are likely to discourage new tech firms from setting up in London, which is now more expensive than San Francisco.[66] Crucially, this is cash that could be better spent on employing more people to grow the business.

It is also probable that prices in the higher-end luxury units in Greater London have increased as a result of the residential property inflows. Evidence from a recent study suggests that the global super rich's purchasing power has forced the indigenous wealthy population out of the most exclusive areas of London.[67] In turn this group's relatively higher purchasing power then drives up prices in the slightly less exclusive areas, a process which spirals outwards into cheaper areas driving up prices. This effect is also likely to have impacted land prices given that new builds are being sold at higher values as a result of this demand. In turn, these higher land prices may have made the construction of lower end units less viable, altering the mix of housing construction and exacerbating the housing crisis.

If these inflows have provided some support to rising asset prices and rents, then it is plausible that this has had other macroeconomic effects with rents rising as a portion of profits and household income thereby reducing investment and consumption. A number of countries with similar issues have implemented or are thinking of implementing rules to limit the acquisition of property by international investors, as well as taxing property more efficiently.

For example, Australia has implemented rules surrounding the purchase of real estate assets by anyone other than Australian nationals or permanent residents.[68] Many other countries have also looked at how to reduce the acquisition of property by foreign nationals.[69] However, from a policy perspective, it is not clear that attempting to distinguish between foreign and domestic owners will necessarily resolve the issue of rising asset prices. Australian house prices remain over valued on most measures. Clearly the reason why investors both international and domestic want to invest in property is that the returns have been so high. This rather suggests that the underlying issue is a market failure of housing where the high returns to these assets are the reason why the demand for the assets is so great.

Indeed, attempts to just restrict capital flows will not necessarily stop inflows into existing property assets. Domestic institutional investors could still acquire the assets, and raise capital from

66. A. Kharpal, 'London is more expensive than San Francisco for tech start-ups', CNBC.com (15th September 2016)

67. http://www.lse.ac.uk/newsAndMedia/news/archives/2016/08/Londons-wealthiest-familes-feel-they-are-being-pushed-out-of-elite-neighbourhoods.aspx

68. http://www.exfin.com/australian-property-firb

69. The Bow Group, (2015), Solving the UK housing Crisis

international investors. Capital has a habit of flowing into assets where the returns to be had are greatest. Hence such a reform may merely change the way in which international money flows into property assets. Addressing the issue of high returns from property directly therefore may prove to be a better policy. The Australian authorities are also looking at how they can improve the efficiency of the land market to resolve this issue.

In 2012, Canberra implemented a change to ensure its method of property taxation was able to reduce the incentive for property speculation by taxing the economic rents that accrue to landholders. The initial findings from this shift in fiscal policy are encouraging in that it has reduced vacancy rates and rents and has increased the levels of residential construction.[70] The Centre for Progressive Capitalism has undertaken extensive work to understand what policy approaches might help support greater levels of housebuilding in the UK, which in turn might reduce the demand from speculative property investors which have been distorting market prices.[71]

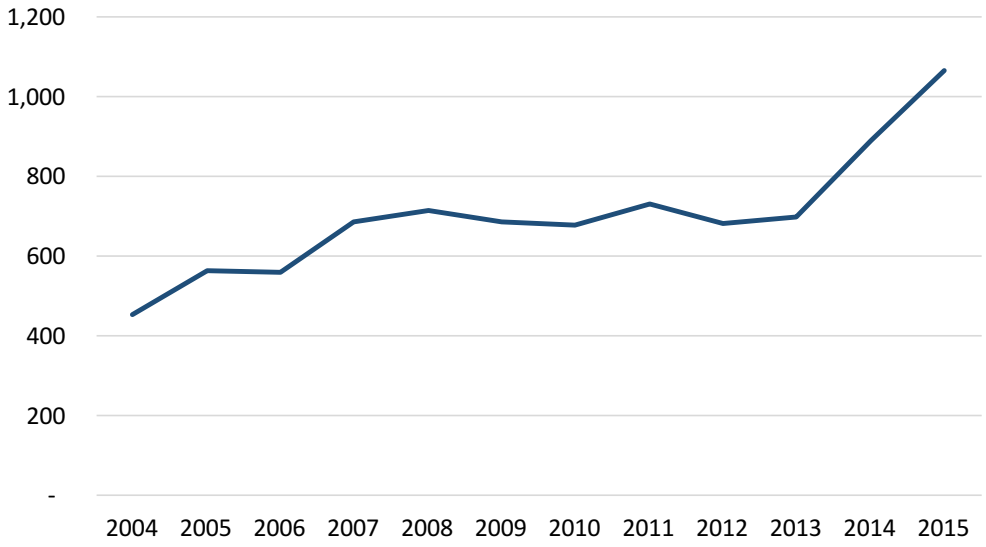
One other factor that may be contributing to net property inflows is to what extent the UK property market, and in particular the London market, is being used for money laundering purposes. The UK's stable political and legal system, developed over hundreds of years, is seen as a safe haven to park capital. Moreover, the UK does not require the beneficial owner of a UK property to be made public, and at least £120bn of property assets are now held by offshore companies. The leak of the Panama Papers appears to have been the catalyst for David Cameron proposing to bring greater transparency to the market by requiring the registration of the beneficial owner.[72] For those interested in the current account deficit, understanding who is actually financing the deficit would clearly be of great benefit.

Capital investment

The final component of FDI flows is capital investment. This includes the investment in the Nissan plant in Sunderland and the Hitachi factory in County Durham. Given that M&A and property investment inflows account for 79% of all FDI flows, this leaves 21% left or an average of £5.7bn per annum to be apportioned to capital and other investment.

The accounting and consultancy firm, EY, has conducted an annual survey on actual FDI projects into the UK, and provides a consistent dataset in terms of analysing to what extent Britain is attracting actual investment and jobs into the UK, rather than acquiring existing assets. Between 2004 and 2015 the number of inward investment projects into the UK more than doubled from 453 in 2004 to 1,065 in 2015.

Chart 4.11: Number of inward investment projects into the UK, 2004–2015



Source: EY Attractiveness Survey

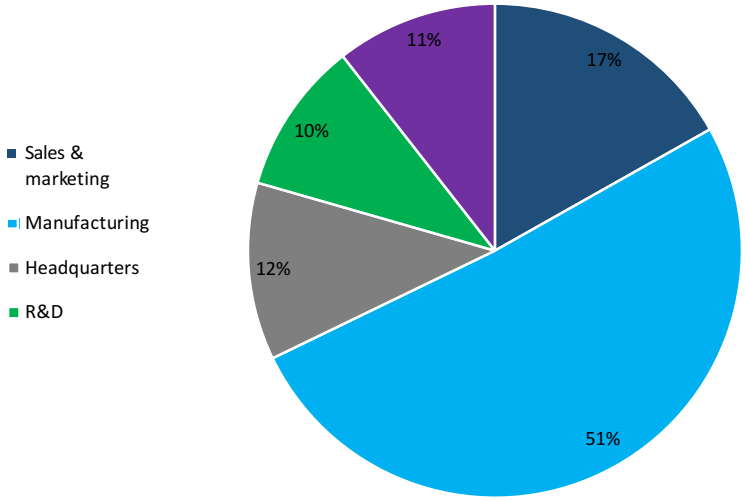
70. C. Murray, (2016), The First Interval – Evaluating ACT's Land Value Tax Transition

71. Centre for Progressive Capitalism, (2016), Bridging the Infrastructure Gap

72. H. Mance & V. Houlder, 'Cameron targets offshore owners of UK property, Financial Times, (12th May 2016)

In terms of the breakdown of these projects, by far the largest number of projects are sales and marketing projects accounting for nearly half of all investment, with manufacturing making up just under 20%. However, in terms of employment, manufacturing is more important as the average number of jobs from a manufacturing investment is almost eight times larger than a typical sales and marketing investment.

Chart 4.12: Inward investment projects by share of employment creation, 2015



Source: EY Attractiveness Survey

Although the gross flows seem impressive which in some years can be in excess of £20bn, when the net is estimated by subtracting the UK net outflows, it appears that net capital investment into the UK has a very small effect on financing the current account, averaging only around £100m per year.[73] The capability of assessing the impact of around 80% of the FDI flows into the UK provides some insight into the future direction of sterling dependent on these flows. Clearly the fact that roughly 20% of the net inflows remain unaccounted for, does limit our total understanding of the problem.

The framework of the above analysis suggests that international capital flows play a major role in the medium-run determination of exchange rates, but that exchange rates can shift when the market perceives a structural break for other macroeconomic reasons. This was also the case more recently as a result of the vote to leave the EU on 23rd June. This prompted sterling to fall over 11% by the first week of July. This has reignited the debate over the financing of the current account deficit and the impact of a currency depreciation on the economy.

Impact of Brexit on sterling and the current account deficit

The impact of a sudden devaluation of a currency generally raises issues with regards to the funding of the current account deficit. The Bank of England in its most recent Financial Stability Report highlighted the concern as to whether inflows of portfolio and FDI will continue to finance the large current account deficit, or whether sterling will have to fall much further to compensate. The report argued that persistent falls in capital inflows would be associated with further downward pressure on the exchange rate and tighter funding conditions for UK borrowers.[74]

The recent fall in the value of sterling should at least have a positive impact on the UK's net investment income, as receipts on foreign-currency denominated assets will be worth more. The depreciation might also improve the balance of trade in the medium term. In the short term the rise in import prices is likely to outpace the fall in export prices, thereby leading to a worsening of the trade deficit as described by the J-Curve. However, the uncertainty surrounding Britain's future international

73. Using FDI Intelligence data from 2014, 2015, 2016 reports on the net inflow in USD. This generates c. $150m net inflow or £100m

74. Bank of England, (July 2016), Financial Stability Report

trading relations does make the medium-term outlook of the trade balance much harder to assess. For example, if the UK loses access to the single market for its successful financial services sector – which is less price sensitive than goods – this might lead to a worsening of the trade deficit in the medium term. However, if Britain is able to resolve its long-standing skills deficit, then there might be potential for new domestic entrants to compete with more expensive imported manufactured components. Such a shift in the manufacturing of goods would most likely take time to re-orient the UK's globally integrated supply chains in order to become more domestically focussed.

Attempting to forecast the future direction of sterling is mostly unhelpful. However, it might be possible to at least shed some light on what might happen to capital inflows by their source as a result of the Brexit vote. This in turn might shed light on what could be done to address the issue of a persistent over valuation of the currency.

Looking ahead, there appear to be fewer reasons why equity and debt portfolio flows into the UK are likely to continue to grow. The uncertainty surrounding the future path of sterling may deter investors, particularly if they see the possibility that sterling could depreciate further. Future cash-flow generation for UK companies also remains uncertain due to the absence of a clear global trading framework to supersede the EU.

On balance therefore it seems plausible that portfolio flows may shift at least from positive to neutral, thereby reducing support for sterling. The recent Bank of America Merrill Lynch Global Fund Manager Survey indicated that fund managers have reduced their allocation into UK equities in Q2, with the balance of asset managers reporting they are underweight in UK equities in May reaching its highest point since 2008.

The analysis of FDI flows is harder to ascertain. With respect to M&A activity, the fall in the value of sterling makes British companies much cheaper for foreign companies to buy. Thus, it is plausible that the future levels of M&A FDI flows could actually increase, and potentially support sterling from falling much further. The recent acquisition of ARM Holdings by Softbank for £49bn is a good example of what might become a large-scale trend. If M&A activity does pick up due to British firms being cheaper, then this may have other consequences for R&D and job creation in the UK. In essence, the current liberal regime may well lead to large-scale capital inflows supporting the appreciation of the currency. But this might also lead to further decline in Britain's industrial capacity as profitability wanes once more.[75]

With regards to property it appears that net inflows are likely to fall in scale, but may well remain positive. The drop in the value of sterling in conjunction with falling land prices, and potentially lower demand from London-based services companies, may lead to lower expected returns for commercial property. However, it is plausible that flows will increase into residential housing.

Although residential prices are expected to soften[76], lower building rates as a result of falling land prices will act as a brake on house prices crashing given the persistent under supply. This is already indicated by the drop off in land acquisition by major housebuilders.[77] The latest data from RCA shows that the Q2 2016 data had a net outflow of commercial property but still a net inflow into residential property which chimes with this view.

Finally, capital investment, which has traditionally played a very minor role in financing the current account deficit, may well become negative placing downward pressure on sterling. The latest EY survey states that 79% of investors in the UK cited access to the European Single Market (ESM) as a key feature of the UK's attractiveness. Moreover, when asked about whether a decline in access to the ESM would impact attractiveness, over 50% said this would have a negative effect. As such it would be reasonable to assume that capital investment might become a net outflow rather than a small net inflow.

75. BofE, (July 2016), Financial Stability Report

76. Reuters, UK housing market activity ebbs after EU referendum 0 RICS Survey, (August 11th 2016

77. J. Evans, 'Brexit fears drive fall in UK land prices' Financial Times, (August 9th 2016)

The impact of recent events related to the depreciation of sterling remains highly uncertain given the above. Although sterling might fall further as a result of lower portfolio flows and capital investment, it may well be that property inflows and inbound M&A transactions provide some respite for sterling leading to its appreciation.

If over the next decade or so sterling does appreciate as it did between 1997 and 2007, then it will become almost impossible to implement a long-term industrial strategy to boost manufacturing and generate higher-income jobs in the midlands, northern England, Wales and Scotland. However, if policies are implemented to curtail inflows into existing assets and if the UK can also resolve its technical skills issue, then an economic rebalancing is a distinct possibility.

Centre for
Progressive
Capitalism

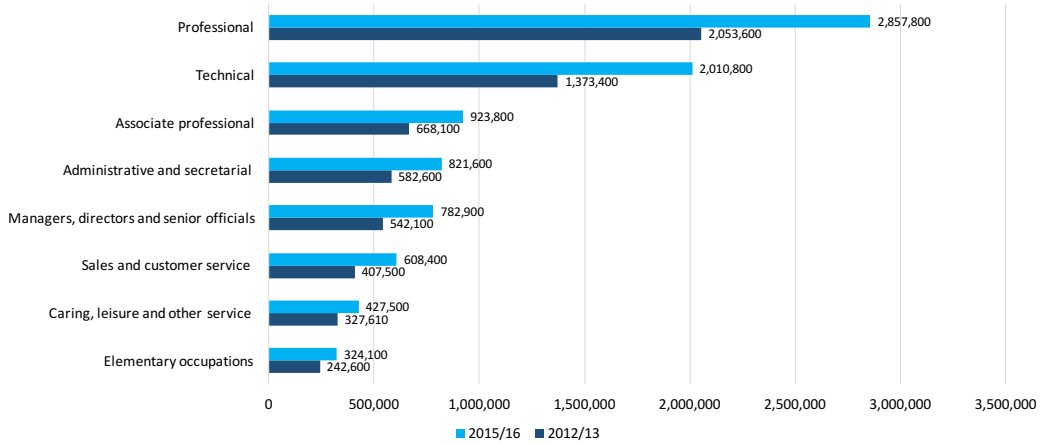
Chapter 5:
Instigating a revolution in technical skills training

Centre for Progressive Capitalism

The technical skills mismatch

One of the major challenges for the British economy has been the education system's inability to train a sufficient number of technicians to meet employer demand. This is critical as technical roles make up the second largest segment of job vacancies across the UK after professional roles. Moreover, technical roles are central to manufacturing and therefore critical for driving up productivity. The fact that there were more than two million technical job vacancies over the year from August 2015 to July 2016 suggests that British firms have the desire to expand. Furthermore, there has also been a significant increase in technical job vacancies in recent years, rising by 46% since 2012/13.

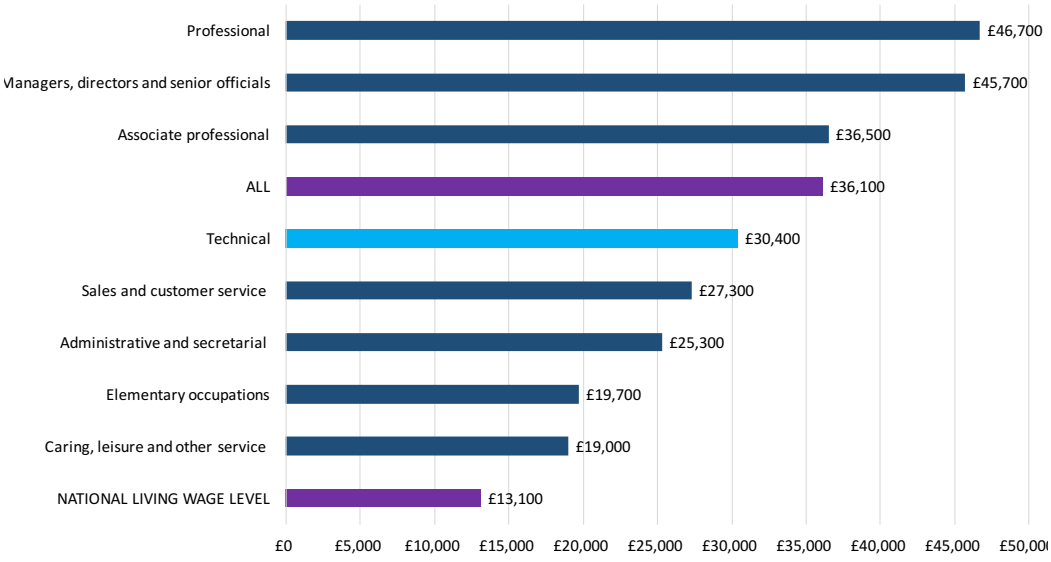
Chart 5.1: Number of UK job vacancies by broad occupation level, 2015/16 and 2012/13



Source: Centre for Progressive Capitalism analysis of Burning Glass

Technical jobs are invariably well-paid. They offer a pay premium above the National Living Wage of around £17,300, according to our analysis of the average advertised salary for job vacancies.

Chart 5.2: Average advertised salary of UK job vacancies, 2015/16



Source: Centre for Progressive Capitalism analysis of Burning Glass

Technical roles are also open to those without university education. Job vacancies are most likely to be for roles typically held by people with A-levels or equivalent level three technical qualifications or apprenticeships. Just 11% of staff in technical roles have a degree or equivalent.

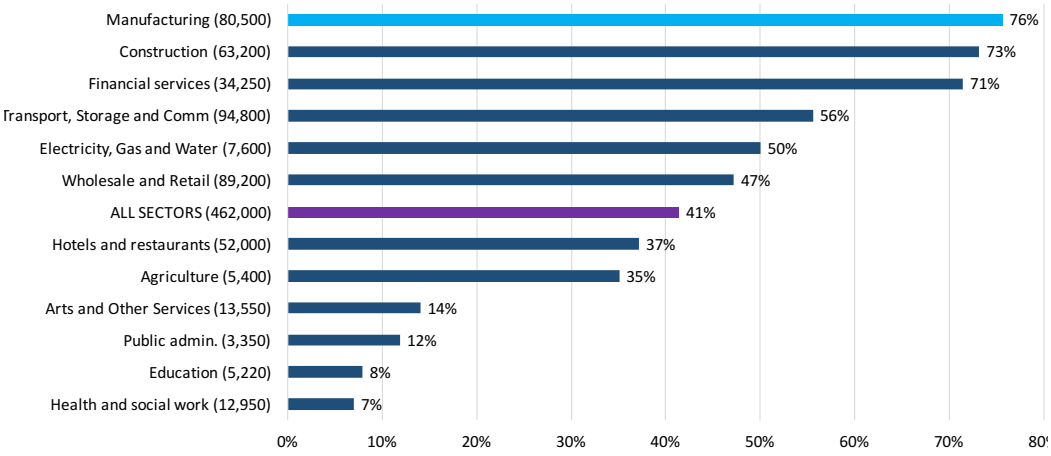
The problem for the UK is that it has a major shortage of people with the right technical skills to fill all the technical vacancies. The most comprehensive survey is UKCES' Employer Skills Survey which surveyed 91,000 employer establishments. This found that job vacancies were proving difficult to fill due to skills shortages for more than four out of five skilled trades roles, and one in three machine operative roles (see chart 3.6).

Over the past year, the Centre for Progressive Capitalism estimates that in total there were 462,200 technical job vacancies in the UK that were difficult to fill due to skills shortages. Addressing this shortfall for technical skills could have huge benefits for living standards and for social mobility by opening up well-paid jobs to people from all backgrounds. It would also offer major economic benefits through increased consumer spending and tax receipts. Based on the average salary for these roles, we estimate that if the UK addressed these shortages then in aggregate workers could get an uplift of £8bn alone by shifting people from low-paid jobs paying the National Living Wage. There would be numerous other economic advantages including rising aggregate demand and lower government benefits.

Above all, plugging the gap for technical skills would particularly help UK manufacturers since they are disproportionately affected by the lack of technical skills. More than three out of four (76%) technical job vacancies in the manufacturing sector were proving difficult to fill due to skills shortages. This was a higher share than any other sector and far higher than the UK average of 44%. The construction and financial services sectors were also heavily affected by the lack of technical skills. Critically, a higher-skilled workforce is central to improving productivity and competitiveness, something that has been rather elusive for the British economy.

The overwhelming issue for British industry is that there is a lack of education and training in the technical occupations most in demand and too much provision of courses with little demand from employers. Every year thousands of courses are completed in occupations with few job vacancies, whether nationally or in the local economy.

Chart 5.3: Percentage (and annual number) of UK technical job vacancies that were difficult to fill due to skills-shortages, 2015/16



Source: Centre for Progressive Capitalism analysis of the UKCES Employer Skills Survey 2015 and Burning Glass; note the roles in the business services sector were excluded as the majority were not technical

Why is there a mismatch?

A lack of local data and intelligence on what employers need

One of the key barriers has been a lack of awareness of technical careers and training routes. This is not helped by outdated perceptions of these careers. Young people, parents, teachers and employers are all clear that careers advice and information is not good enough, particularly for non-university routes into employment. A recent survey by Ofsted found that only 40% of parents thought that their child's school had helped them to make informed decisions about their post-16 options.[78] The CBI's survey found that four out of five businesses do not think their future employees are getting the right advice.[79]

Part of the issue is the lack of data on the local labour market. A recent review of careers guidance by the BIS and education select committees recommended that "The Government should ensure that Local Enterprise Partnerships have the capacity—and are encouraged—to provide up-to-date, good quality labour market information to schools, colleges and careers professionals in their areas."[80]

As well as enabling improved careers advice and guidance, better local data and labour market intelligence is crucial for shifting the provision of skills towards those most in demand. The need for better data has become even more important given the drive to devolve power and funding for adult skills. The 39 LEPs around England play a crucial role in bringing together local employers with councils, colleges and universities to work together on the economy. They should be a key part of the government's industrial strategy, given the diverse challenges faced around the country. As it stands though, many LEPs lack the capacity to perform what should be one of their core functions: to assess the local supply and demand for skills. They have the links with employers and local knowledge to understand in detail the local labour market, but this needs to be backed up by a stronger evidence base with hard data. Even those areas that are furthest on with devolution deals have challenges in understanding their local labour markets.

Many LEPs have not even been given the access they would like to data collected by government and skills providers. A LEP Data Cube has been made available by the Skills Funding Agency, but many LEPs would for example like to get access to the destinations data collected by individual colleges within their areas. Furthermore, the national infrastructure supporting LEPs has been weakened by the closure of UKCES. UKCES oversaw the Labour Market Information for All data sets that LEPs as well as schools and colleges relied upon. It led the largest survey of employers, the Employer Skills Survey (ESS), which surveys 91,000 businesses every two years. It also conducted detailed studies focused on particular sectors, something that was in need following the withdrawal of funding for many Sector Skills Councils. The level of detail required for these sector specific reports is something that LEPs would find difficult to replicate in all but a handful of sectors.

The skills minister has confirmed the ESS and LMI for All will be continued by the Department for Education[81] but there is uncertainty about the future of many of UKCES' other key functions such as the specialised work focussed on sectors. The government should prioritise the funding of research that is relied upon by LEPs and organisations around the country since it could prove more costly for taxpayers in the long term if these organisations individually funded aspects of this themselves. Having reviewed how the data is used around the country, the government should quickly make clear what will and will not be continued so that LEPs and other users of the data can plan accordingly.

LEPs also need the capacity to analyse complex data sets. Greater Manchester has long benefited from the creation of New Economy, an economic and policy analysis body for the local economy. In contrast, many LEPs rely on a single economic analyst, often working part-time and covering a broad range of policies beyond skills.

This is not to argue that local policymakers should be micromanaging delivery in an attempt to have

78. Ofsted, (2013), Going in the right direction?

79. CBI/Pearson, (2015), Education and skills survey

80. House of Commons Business, Innovation and Skills and Education Committees, (2016), Careers education, information, advice and guidance

81. https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2016-07-21/HCWS121/

one person doing a course for every vacancy – like some kind of Soviet planning system. Of course, people move between areas and employers could over time switch to recruiting people already in the labour market or recent graduates. But when there are so many job vacancies in occupations where local employers struggle to recruit it surely makes sense to reform the system to tilt provision towards those occupations most in demand. Employers should invest in their own training too, including via apprenticeships. But they can also expect a reasonable understanding and aptitude among those they recruit, even for entry-level jobs or apprenticeships. So it matters what local colleges deliver.

Crucially the role of LEPs and metro mayors should be clearly defined. They are but one part of a complex skills system. Standards should be set nationally. LEPs and metro mayors should focus on steering providers towards the courses most in demand, working with providers to invest in facilities and new courses, and brokering relationships between employers and providers.

The funding system is not aligned with employer demand

Student's decide which courses to take. However, what is offered by local providers and the number of places available can shape and constrain choices. Most colleges engage with employers to understand their needs, but because their funding is so dependent on student demand from previous years, they are hesitant to shift the bulk of their provision to new types of courses. It is particularly challenging for colleges to switch to technical courses which require upfront investment in equipment and machinery, and the hiring of new specialist teachers. A survey of further education colleges found that 58% cite the relative cost as the main challenge for the successful design of STEM courses.[82]

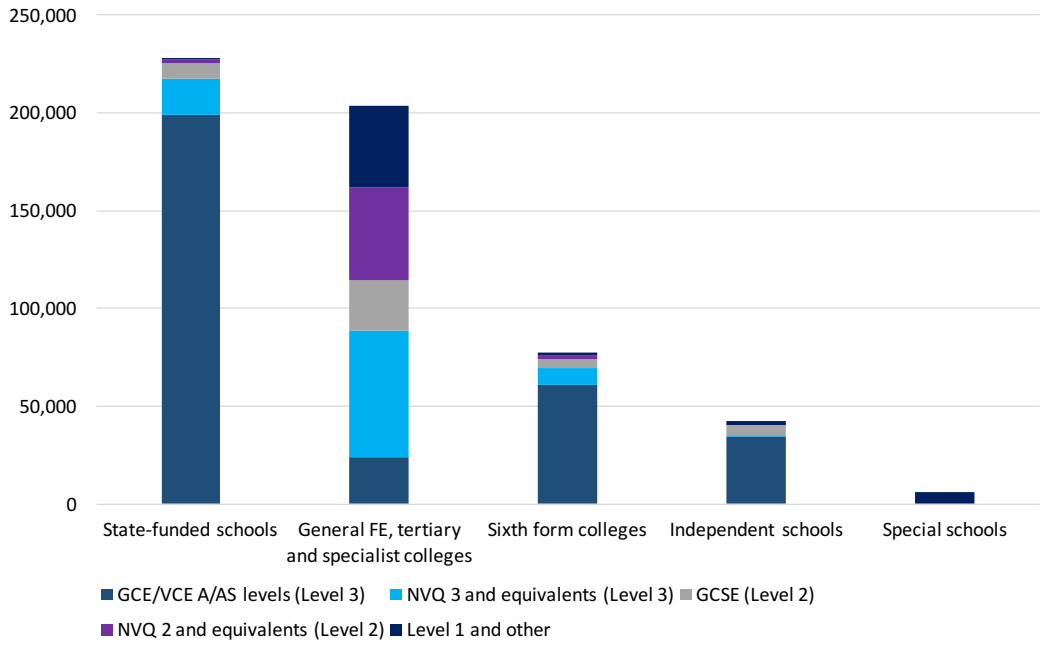
The current funding system for courses is based on a series of complex national formulae. But they take little account of employment outcomes or the needs of local employers. The incentives are for colleges to chase numbers of students, regardless of the type of industry they are being prepared for. LEPs do control the budgets for capital investment in FE in their local areas, as well as some small pots of skills funding such as the European Social Fund. However, while this gives local employers and local authorities some influence over the investments made in colleges, it will not necessarily lead to changes in the types of courses on offer. Capital investment can often be for generic buildings in which any course can be taught.

The new metro mayors will get their hands on a slice of the £1.5bn adult education budget (AEB). This is a landmark shift in the way training is funded but it is also a major administrative challenge for them to take on. The budget primarily funds basic education at lower levels though. Technical education at levels three is largely funded via loans rather than grant funding. The solution lies in metro mayors using their new budgetary powers to make wide-ranging agreements with skills providers about the types of courses they provide, whether covered by the AEB or not.

This is also an opportunity for metro mayors to help local colleges specialise more in what they are good at. The UK has many colleges and other skills providers with deep-routed links to employers. This is especially the case in manufacturing in parts of the country where a single large employer or cluster of employers have invested in a local economy over decades. In these cases, working with local colleges has become critical to maintaining their skills base. However, most are 'general FE colleges' which tend to be tasked with delivering a whole range of education and training: A-levels, apprenticeships, traineeships, technical qualifications, higher education, entry level training, and basic maths and literacy courses. As the chart below highlights, even for just 16-year-olds, general FE colleges have a diverse range of types and levels of provision. Understandably many struggle to maintain the high standards of technical education and training in all the disciplines they cover.

82. 157 Group (2012), The challenges of Stem provision for further education colleges

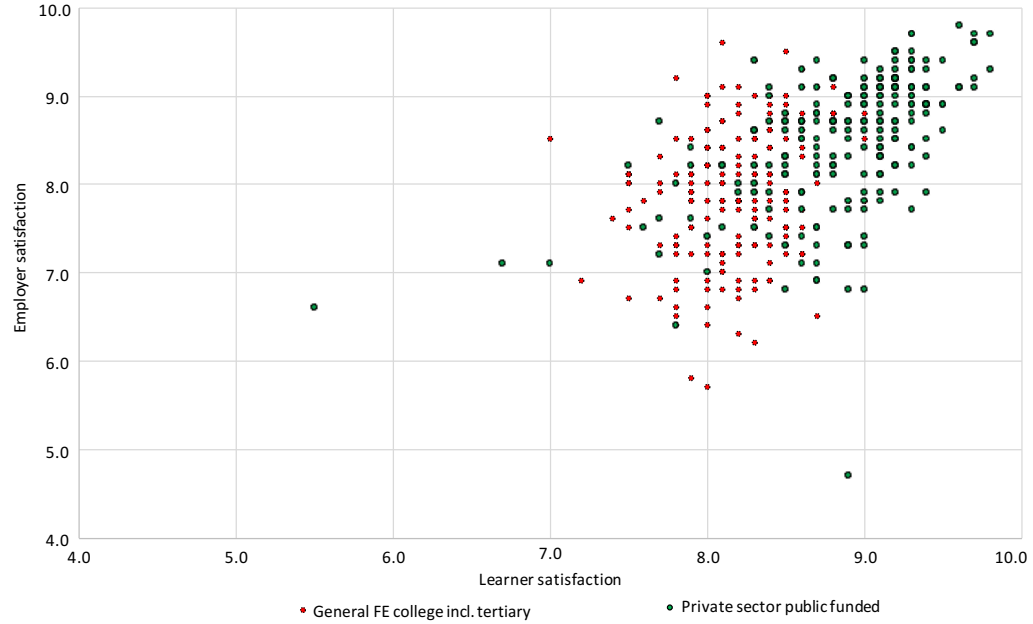
Chart 5.4: The number of 16-year-olds participating in full-time education by level and institution, 2014



Source: Department for Education

This is because most FE colleges strand two distinct roles: delivering high-quality technical education and basic education for those left behind by the education system. The scale of the latter problem is huge. The government has estimated there are 8.1 million adults in England who do not have the numeracy expected of an 11-year-old child leaving primary school.[83] Many private skills providers tend to focus on one of these two roles, and then hone in on the specific part of this they are most effective at. As the chart below shows, private providers tend to have higher satisfaction among both students and employers.

Chart 5.5: Satisfaction among employers and learners of general further education providers versus private providers (survey scores out of 10), 2014/15



Source: Skills Funding Agency

83. Department for Business, Innovation and Skills, (2011), Skills for Life Survey: Headline findings

The government has instigated a rolling process of local 'FE area reviews' around the country. This process has the potential to explore how to reform local institutions to best meet the dual mandate of delivering high-quality technical education and basic education. However, the process has been rushed in many areas and dominated by the need to resolve financial issues with colleges. This followed a report by the National Audit Office (NAO) in 2015 which concluded that the "financial health of the…sector has been declining since 2010/11" and that "the number of colleges under strain is set to rise rapidly".[84] Combined with a lack of local data and intelligence, this has meant that the 'big bang' approach to FE area reviews instigated from central government could end up being a missed opportunity. The process was also criticised by the Public Accounts Committee for excluding schools, remarking that: "It is unclear how area-based reviews of post-16 education, which are limited in scope, will deliver a more robust and sustainable further education sector."[85] What is needed is an ongoing system whereby LEPs and combined authorities convene skills providers and employers to constantly review and reform local institutions to meet the ever-changing needs of the economy.

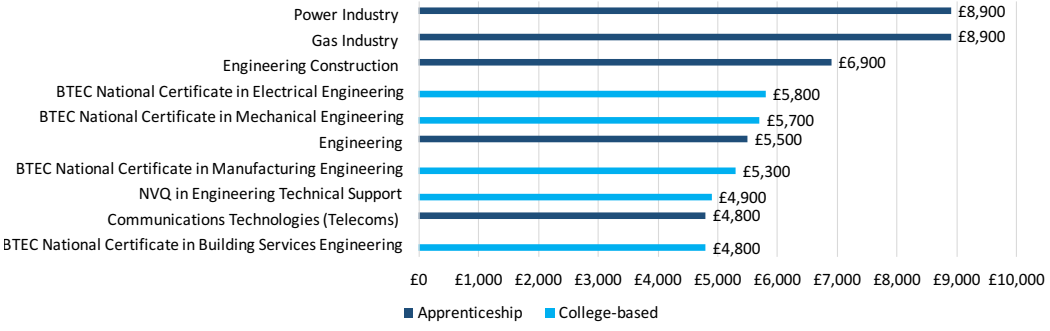
Unlike FE courses, an apprenticeship should, in theory, be aligned to individual employer demand since an employer has chosen to create this vacancy and invest time and resources into training the apprentice. However, as shown by the Richard Review, the way that apprenticeships have been funded by the government in the past has enabled training providers to cherry-pick the easiest courses to secure government subsidies, offering them en masse to employers at low quality. This enabled some to offer apprenticeships for free to employers, even though employers were meant to contribute towards the direct cost of training for all but the youngest apprentices. While some of these apprenticeships may still have been meeting genuine demand for new skills, there have been concerns that much of it has simply replaced short, job-specific training that merely accredits existing skills as opposed to providing new skills that would enable a successful apprentice to progress in their chosen career.

The coalition introduced a minimum 12-month duration for apprenticeships alongside giving groups of employers the opportunity to write new standards, as discussed further below. This will help to route out some of the low-quality provision. The other big incoming reform is the introduction of the apprenticeship levy on large employers. It remains to be seen how this will impact the incentives on employers when it is introduced in May 2017. However, the decision to charge the 98% of businesses not eligible to pay the levy only 10% of the cost of apprenticeship training will mean that they have less skin in the game, a key recommendation from the Richard Review of apprenticeships.

An ever-changing, complex system

The UK has many qualifications and apprenticeships that are well understood and valued by employers. As the chart below shows, the top level three apprenticeships in the gas and power industries add on average £8,900 to someone's wage three years after completion. While those completing the top college-based courses as electrical engineers and mechanical engineers add £5,800 and £5,700 respectively.

Chart 5.6: Top 10 adult (19+) further education courses and apprenticeships at level three by median wage uplift three years after completion, 2009/10-2012/13



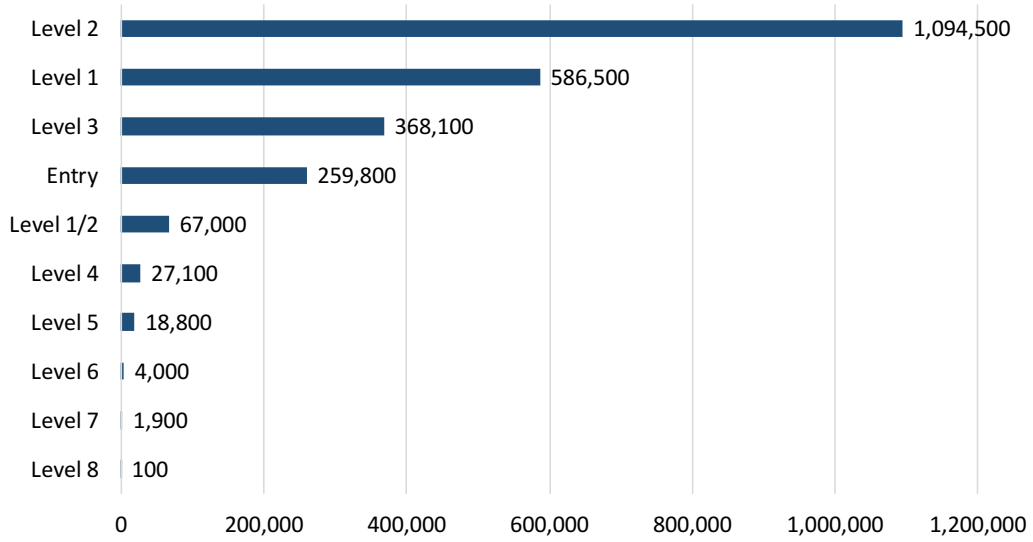
Source: Department for Education

84. National Audit Office, (July 2015), Overseeing financial sustainability in the further education sector

85. Public Accounts Committee, (December 2015), Overseeing financial sustainability in the further education sector

However, most provision of vocational qualifications is at low levels (see chart below). Only 17% of achievements in the past year were at level three (the equivalent to A-levels) and above, with just 2% at level four and above. A significant part of this is not technical, and many of these qualifications have little value among employers. The UK has a bewildering array of vocational qualifications. The Sainsbury Review highlighted that there are over 21,000 qualifications available, including over 13,000 for 16-18 year-olds.[86] This follows another recent report by the House of Lords Committee on Social Mobility which concluded that "Non-academic routes to employment are complex, confusing and incoherent. The qualifications system is similarly confused and has been subjected to continual change."[87]

Chart 5.7: Vocational qualification achievements in the UK by level, 2015/16



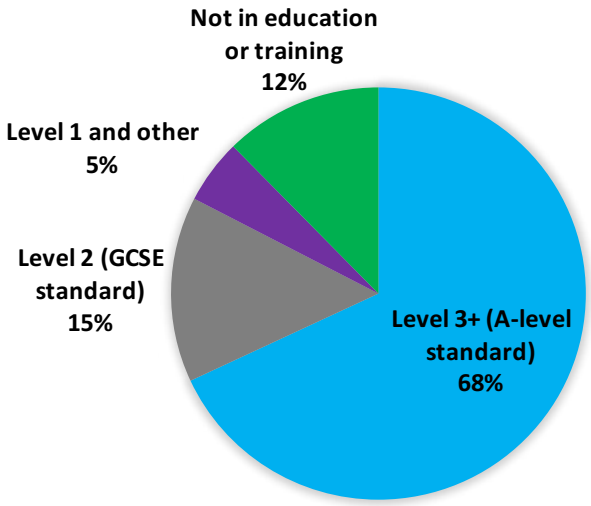
Source: Skills Funding agency

It is also clear that many programmes and qualifications are of little value to them or to employers. Professor Alison Wolf's review for the government concluded that: "on even the most conservative of interpretations, it seems clear that at least one in five of each cohort is getting very little benefit from the post-16 secondary education system. Put simply, as a society we are failing at least 350,000 of our 16- to 18-year-olds, year on year." Certainly, the data show that almost a third (32%) of 17-year-olds are studying towards no qualifications at the equivalent to AS- or A-levels (level three). This makes it extremely difficult for many of these young people to progress into higher levels of education and training or to secure stable employment. Furthermore, even for those leaving school at 18 with a strong base of education, there are a lack of opportunities for technical training for those not choosing to go to university. While apprenticeships could help bridge this gap, most apprenticeships are for adults aged over 25 and very few are offered for those under the age of 18.

86. Gatsby, (2016), Technical Education

87. House of Lords, (2016), Overlooked and left behind

Chart 5.8: Participation in education and apprenticeships in England of 17-year-olds by highest qualification aim, 2014



Source: Centre for Progressive Capitalism analysis of Department for Education data

The Sainsbury Review recommended a streamlined set of 15 technical routes for 16- to 18-year-olds. The government's response made a commitment to introduce these new routes by 2019-20. The UK is also in the midst of overhauling its apprenticeship standards. Employer groups have been gradually overhauling all of the apprenticeship frameworks, replacing them with new 'trailblazer' standards. This an attempt to create a less bureaucratic, bottom-up approach to standard development which leads to simpler standards that are more relevant to the sector. However, it is yet another change to the system of apprenticeships that will take years to be rolled out, and even longer to be understood by employers. Delivery of apprenticeships according to these new standards is only steadily being introduced, and only recently did the first apprentices complete one of these apprenticeships.

To oversee these new apprenticeship standards the government is setting up a new Institute for Apprenticeships and Technical Education as a statutory body from 2017. The government is aiming to have "a long-term governance arrangement which will support employers to uphold the high quality of apprenticeship standards and be able to respond to the changing needs of business."[88] Since the Act was given royal assent in May 2016, the government has also since announced that the Institute will oversee the new system of 15 technical routes which will be "facilitated by employer panel discussions" so that employers set "universally agreed standards for each technical route".[89]

This new Institute needs to last for at least a generation if we are going to avoid the mistakes of the past. Given the fate of similar skills bodies over recent decades, the worry is that this new body could be scrapped just as easily. There does not appear to be anything in how the Institute looks set to be incorporated that would prevent this. The government may argue that it will have strong employer representation, and that this will act as a bulwark against ministerial interference. By law the Institute "must have regard to… the reasonable requirements of industry, commerce, finance, the professions and other employers regarding education and training within the IfA's remit", as well as to learners.[90] However UKCES, which was abolished earlier this year, arguably had strong employer involvement from businesses of all sizes and trade unions, as well as a high-profile chairman from a major employer.

British firms have been unable to maximise their comparative advantage and expand as they would have wished due to the significant shortfall in Britain's technical training system. This has contributed to lower levels of productivity growth and incomes. If the economy is to be rebalanced, local economies need to be able to understand the extent of the mismatch between what local employers

88. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/503151/bis-16-138-enterprise-bill-apprenticeships-institute.pdf

89. https://www.gov.uk/government/news/technical-education-overhaul-unveiled-by-skills-minister

90. http://www.legislation.gov.uk/ukpga/2016/12/pdfs/ukpga_20160012_en.pdf

want and what colleges are providing. Where there are mismatches, action clearly needs to be taken to invest in courses to better match the skills demanded by local employers. Finally, providing greater visibility and stability for technical education is absolutely critical. The British political system has a terrible record of tearing up the prior governments' institutions, only to reinstate a similar kind of body. The outcome of this is that the underlying problems rarely get focussed on.

If successive governments are able to forge a consensus that to rebalance the economy the priority must be on improving the technical skills system and ensuring an appropriately valued currency, then the British economy has a bright future.

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Chapter 6: Conclusions

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The primacy of an industrial strategy

Samuel Brittan's quote at the start of this report remains highly pertinent to today's debate on what an industrial strategy should mean for Britain. Government should intervene in industry, but it is the type of intervention that matters. However, British economic history is littered with failed interventions.

So what should Theresa May's "proper industrial strategy" look like? Put simply, it should ensure that the business and physical environment is constructed to allow industry to scale-up and grow, building on the recent work on industrial strategy of previous governments. This should include a wide range of measures such as improving connectivity within sectors and across supply chains, something that Germany does particularly well. It should improve government R&D and procurement practices as demonstrated by the US in its highly successful Small Business Innovation Research programmes. Continued support for the catapult centres and for Innovate UK is also key. The devolution of power out of Whitehall to city regions is also beginning to create local government institutions with the necessary scale to invest in the physical infrastructure. This agenda should be turbo-charged.

But delivering on such a wide-ranging agenda will not have the desired impact unless the UK addresses two longstanding weaknesses. First, monetary policy has consistently failed to maintain an appropriately valued currency to enable industry to operate in a competitive environment. Second, successive governments have failed to create a system of technical education and training that would allow firms to take advantage of a competitively priced currency.

Exchange rate policy

Since 'Black Wednesday' when the pound crashed out of the Exchange Rate Mechanism, the general consensus has been that sterling should float against other currencies. The catastrophic failure of fixed and pegged exchange rates stands out as perhaps the clearest lesson of British economic history in the 20th century. That leaves a floating exchange rate as the only real option.

That does not mean though that policymakers should turn a blind eye to the value of the pound. Floating exchange rates, too, can lead to stark overvaluations. Between 1997 and 2007, for example, the overvaluation of sterling decimated manufacturing across the UK. Moreover, it would be wrong to assume that this was inevitable or that any intervention would distort the market signal, generating worse outcomes. This commonly-held view makes the grand assumption that a market has been set up in such a way that it is efficient. But it is rarely the case that markets operate in conditions of perfect competition and information.

What is more, many markets operate with the objective of benefitting some of the players, instead of society. For example, before the 1842 Mines Act, it was considered acceptable by many mine owners to employ children as young as five to work long hours underground for a fraction of an adult's wage. Fines from investigations into the foreign exchange market, including the LIBOR scandal, are currently running at more than $10bn. As Bank of England Governor Mark Carney has argued, "left unattended, they [markets] are prone to instability, excess and abuse…Real markets don't just happen; they depend on the quality of market infrastructure."[91]

To improve the outcome of any market, its design needs to be carefully assessed to ensure that there is no collusion at the expense of the general public. Adam Smith, writing in the late 18th century, emphasised this very point. Hence price signals observed in the market can often be distorted rather

91. M. Carney, (2015), Building real markets for the good of the people

than efficient.

Sterling's market value between 1997 and 2007 was significantly distorted by an overly-tight monetary policy in the late 1990s resulting in relatively higher real interest rates. This was mostly driven by the Bank of England's concern that inflation might accelerate, despite the fact that it was falling over the period. As the cycle turned after the dotcom boom and rates began to fall, there was an increasing demand for UK bonds as a result of the relatively higher, but declining, real interest rates. This is why policymakers should address the current inflation targeting framework to avoid these exchange rate distortions.

In addition, inbound FDI has seen substantial positive net inflows from M&A activity and property investment since 2004 as a result of changes to the underlying market structure. These flows have maintained support for the overvaluation of sterling and helped finance the current account deficit. Crucially though, there is little evidence that any of these flows have been particularly beneficial for rebalancing the economy. On the contrary, they appear to have further reinforced the current imbalances. Policies that benefit international property speculators and the chief executives of international firms are only beneficial for part of the UK economy.

So, if the government is set on rebalancing the economy for everyone rather than the few, then it should prioritise improving the macroeconomic environment for British firms and workers. The following three policies would help to address the issue of a persistently overvalued currency.

- ***Recommendation 1: Shift current monetary policy regime away from an inflation target towards a nominal GDP target.*** An inflation target can lead to an overly-tight monetary policy. In particular, an increase in commodity prices might generate higher rates of inflation resulting in a tightening of monetary policy. But if an economy is not at capacity, then this is likely to have a damaging effect by increasing the cost of credit and the value of the currency. Moreover, there is increasing evidence that wage inflation is being kept in check by globalisation. As such inflation targeting appears to have largely outlived its usefulness. There are legitimate concerns that if the NGDP level is set too high this might lead to rising inflation expectations as well as asset price booms. By targeting nominal income growth to equal the growth in TFP, rising inflation expectations would be avoided.

- ***Recommendation 2: Remove all confidentiality surrounding beneficial ownership of property and reform land markets to reduce the returns from property speculation.*** Preventing overseas firms withholding the beneficial owner of UK property assets would reduce inflows into the UK from criminal organisations looking to launder money into high-value assets. It would also make it clearer to the monetary authorities who exactly might be financing the current account deficit. In addition, amending the 1961 Land Compensation Act to improve the efficiency of the land market would reduce capital inflows into existing assets and provide less support for sterling. The dysfunctional land market is one of the main reasons why the rate of housebuilding is so low and why the returns on residential property as an asset class are so high. Extending the capture of windfall profits to existing property assets through aligning council tax and business rates to actual values would also reduce speculation.

- ***Recommendation 3: Strengthen competition policy to prevent consolidation in sectors where the UK has a competitive advantage.*** Acquisitions of large and successful UK companies as a result of consolidation by international competitors does not appear to support a rebalancing of the UK economy. The 2002 Enterprise Act should be amended to expand the remit of the Competition and Markets Authority (CMA) to review merger situations where it believes that an acquisition of a UK firm may result in a lessening of

competition in the UK, regionally or globally. Particular focus ought to be given to acquisitions driven by industry consolidation that might result in negative long-term effects for the UK economy in terms of industrial capacity, less innovation and research, and higher prices. Such an approach would still provide the freedom for M&A transactions that do not increase consolidation, particularly for smaller firms who are more likely to be capital-constrained.

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Technical education and training

The UK has suffered historically from an overly-centralised approach to funding technical education and training that is divorced from the needs of the economy. It has also had far too much churn in its skills system. The qualifications and standards for technical education and training have changed incessantly, undermining their value.

The 1980s saw a largely top-down approach to skills funding. Some local institutions were introduced in the early 1990s by the Major government, but these were scrapped after 1997 before they could bed in. Funding for skills and training was increased by the New Labour administration but courses were largely funded via nationally set targets and incentives. The quasi-market of FE colleges and private providers led in many cases to providers chasing the easiest returns, delivering vast numbers of low-quality courses in occupations with little link to demand from employers. Many employers similarly gamed the public funding system to rebadge job-specific training that failed to deliver wider economic benefits.

After regional development agencies were scrapped by the coalition, the local enterprise partnerships (LEPs) that have replaced them have only recently begun to take on any sizeable pots of skills funding, with most courses funded nationally. The devolution deals signed in the past couple of years now offer the chance to move towards a more locally-driven skills system. Metro mayors could lead a more robust and dynamic system of skills funding, using data and labour market intelligence to drive a smarter, more responsive approach. Crucially, it will be far more difficult for ministers to scrap the new funding powers set to be granted to metro mayors given their local democratic mandates, thus providing the system with greater resilience.

The coalition put great emphasis on reducing the vast number of qualifications eligible for funding and simplifying technical routes. The latest skills strategy perhaps offers the boldest vision to achieve this, rationalising the system down to just 15 technical pathways that are the same for 16- to 18-year-olds and adults. But this overhaul, along with the changes to apprenticeship standards, needs to stand the test of time. This will only happen if the new Institute for Apprenticeships and Technical Education can avoid the typical institutional upheaval that is pervasive in British politics.

This drive towards technical education also requires colleges that are focused on delivering this to world-class standards. Rather than asking FE colleges to be catch-all institutions, those with the best technical courses should be enabled to focus on expanding this provision – recruiting technical teachers, investing in facilities and further strengthening their links with employers. Other colleges and skills providers should focus on providing core academic education to those left behind by mainstream schooling. Metro mayors should use their new funding powers to help incentivise colleges to do this, based on a detailed assessment of local colleges and other skills providers.

The following three policies would transform the way that courses are funded to match the skills most in demand by local employers. This would be underpinned by a more stable system of national qualifications and standards that stands the test of time.

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- ***Recommendation 4: The government should ensure that all local enterprise partnerships are resourced sufficiently to assess the local supply and demand for skills, and further strengthen the evidence base and expertise provided nationally.***

  The 39 LEPs across England play a crucial role in bringing together local employers with councils, colleges and universities to boost economic growth. Given the diverse challenges faced around the country, they should be a key part of the government's industrial policy . As it stands though, many LEPs lack the capacity to perform what should be one of their core functions: to assess the local supply and demand for skills. They have the links with employers and local knowledge to understand in detail the local labour market, but this needs to be backed up by a stronger evidence base with hard data. The decision to abolish UKCES could potentially further weaken the evidence base which both local and national policymakers draw upon.

- ***Recommendation 5: New metro mayors should prioritise their control of the adult education budget to incentivise local skills providers to focus on either basic or technical education that reflects the needs of the local economy.*** The decision to gradually devolve control of the £1.5bn adult education budget to those areas that are introducing a metro mayor from May 2017 was a major step forward for the devolution agenda. The budget primarily funds basic education for adults, which can prove crucial in helping those out of work to gain employment. Beyond joining up employment and skills support, this is also an opportunity for metro mayors to incentivise the provision of the right technical education and training. Based on labour market intelligence and local insights into the needs of employers they should agree wide-ranging funding agreements with local skills providers to shift provision to where there are shortages. Over time, this approach can incentivise FE colleges to specialise in what they do best: either providing second chances for those let down by the education system; or delivering high-quality technical education, grounded in the needs of employers.

- ***Recommendation 6: Set up the new Institute for Apprenticeships and Technical Education with the aim for it to last for at least a generation to give stability to national standards and qualifications.*** The history of skills policy in the UK is littered with short-lived government agencies that have overseen the standards and quality assurance of technical education and training. Unless we can ensure that the new Institute for Apprenticeships and Technical Education stands the test of time and lasts at least a generation, then the incessant overhauling of qualifications and standards will continue. This has undermined the value of the achievements of students and apprentices by making it almost impossible for employers to understand the system.

The process of undertaking an industrial strategy to rebalance the UK economy by maintaining sterling at a more appropriate level in conjunction with a technical skills revolution will not be straight forward. Any further devaluation in sterling as a result of a reduction in capital inflows will have an economic and therefore political impact. It is plausible that in the short term, real wage growth will stagnate as higher import prices increase faster than real wages.

However, there are some quick wins for government in terms of focusing on the local supply and demand for technical roles, which will drive up real wages for those who can move up the skills ladder. Indeed, this has the potential to substantially improve the lives of hundreds of thousands of people across the country. Furthermore, the ability of the UK to generate a higher number of well–paid technical jobs in areas that have experienced dramatic industrial decline over generations may well be seen as an extremely positive opportunity to be supported rather than to be resisted.

The prize of balanced growth has eluded governments for over a generation. But this is surely a prize worth prioritising, and hence should take centre-stage in any post-Brexit industrial strategy.

Appendix
The extent of Britain's tradeable services sector

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Data for the share of services that are 'tradeable' – meaning open to international competition – are not readily available for the UK. We have conducted our own analysis which is based on a methodology used by the OECD.[92] Our approach uses data for the exports and imports of services split into 105 'products', including 48 that are services. This product-level data is used instead of data for exports and imports by the industry of the business as these are only available at broad industry levels.

For each service product we calculated the share of total final demand from the exports of services and the import of services. We used the same thresholds used by the OECD as to what constitutes a 'tradeable sector. Each product was defined as tradeable if exports of services were greater than 10% of output and/or imports were greater than 20% of output.

To reach a figure for the share of all services in the UK economy we combined all the total final demand for each of these tradeable products as a share of the total final demand for all services products. This gave a figure of 35%.

92. See this OECD study on New Zealand, for example: