July 2015

UK Economic Outlook

UK housing market outlook: the continuing rise of Generation Rent

Does trade hold the key to the UK services productivity puzzle?

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Contents

Highlights and key messages for business and public policy

- The UK economy slowed a little in early 2015 but domestic demand growth remained relatively strong, helped by lower oil prices. Net exports continued to subtract from UK growth, reflecting sluggish growth in early 2015 in both the US and the Eurozone.

- In our main scenario we expect UK GDP growth to average around 2.6% in 2015, which could again be the fastest in the G7, before easing slightly to around 2.4% in 2016. Consumer spending and business investment will be the main drivers of UK growth in these years.

- Risks to growth are weighted somewhat to the downside in the short term due to international risks, including uncertainties relating to Greece and the recent turbulence in the Chinese stock market. But there are also upside possibilities in the medium term if the global environment improves and real wage and productivity growth rates accelerate in the UK.

- London and the South East continue to lead the recovery, with growth of around 3% in 2015, but all other UK regions should also register positive real growth of around 1.8-2.5% in 2015.

- Inflation seems likely to rise back towards its 2% target by the end of 2016, so the MPC may start to raise interest rates gradually from early next year. Businesses and households should plan for rates to be back to around 3-3.5% by 2020.

- The July Budget confirmed plans for significant further fiscal tightening to eliminate the budget deficit before the end of this decade, but with a somewhat slower and smoother profile of public spending cuts and around £7 billion per annum of net tax rises to be phased in by 2020. The impact of £12 billion of welfare cuts will be offset for some lower earners by the new National Living Wage.

Key projections

	2015	2016
Real GDP growth	2.6%	2.4%
Inflation (CPI)	0.3%	1.7%

Source: PwC main scenario projections

House price growth moderates but rise of Generation Rent will continue

- UK house price growth has moderated recently, particularly in London. But lack of supply means that we expect medium-term UK house price growth to average just over 5% per annum over the period to 2020.

- This would be somewhat higher than expected average earnings growth of around 3-4%, implying some further worsening of affordability problems in getting on to the housing ladder, particularly as mortgage rates are also likely to increase gradually over the rest of this decade.

- As a result, we expect a continuing rise in the proportion of households renting from around 20% now to around 25% by 2025. For 20-39 year olds, we would expect over half to be renting by 2025, implying a continuing rise in the size of 'Generation Rent'.

- At the other end of the housing market, we would also expect a growing number of older households to own their home outright, while fewer would have mortgages. In total, we project the owner occupation rate to fall to around 60% by 2025, down from its peak of just under 70% in the mid-2000s.

- Increasing the supply of affordable housing in the long run, which the government has set as an objective, will require a range of measures including further planning reform, action to address skills shortages in the housebuilding sector and enhanced financial incentives to build more homes. But cuts to social rents announced in the Budget will tend to work against this for local authorities and housing associations, while private developers may be cautious about expanding too rapidly. So we expect housing supply shortages to persist for at least the next decade.

Services sector remains key driver of growth and trade

- The services sector will remain the main engine of UK growth for both output and employment, with manufacturing and construction growth having slowed since last summer.

- Productivity growth has been relatively weak since the crisis in financial services and also remains subdued in the public sector. But it remains stronger in other non-financial private services sectors, where we estimate the long-term trend productivity growth rate at around 1.7% per annum.

- Services have also become increasingly important for UK trade. Indeed we expect the total value of UK services exports to exceed that of manufactured goods exports by 2020.

1 – Summary

Recent developments

The UK economy grew by 3% in 2014 as a whole, which was the fastest rate seen since 2006 and the strongest growth rate in the G7.

However, UK growth slowed somewhat to 0.4% in the first quarter of 2015, which appears to reflect the drag in that period from sluggish growth in the US and the Eurozone and the ongoing problems in Greece, as well as pre-election political uncertainties at home and wider global geopolitical risks related to the situation in Russia/Ukraine and the Middle East.

In contrast, UK domestic demand growth remained strong in the first quarter, driven by rising employment, a pick-up in earnings growth and the benefits of lower global oil prices for UK consumers and most businesses.

UK growth continues to be driven primarily by services, with manufacturing and construction growth having slowed in late 2014 and early 2015.

Business investment has shown signs of a stronger recovery in the latest official data, although this has not yet translated into stronger productivity growth. Public spending cuts have slowed down somewhat over the past couple of years, but the Budget confirmed they will continue at a steady pace for the next four years. The Budget also announced net tax rises building up to around £7 billion by 2020. The impact of severe welfare cuts will be offset for some lower earners by the new more generous National Living Wage, which is estimated to rise to over £9 per hour by 2020 for those aged 25 and over.

Table 1.1: Summary of UK economic prospects

Indicator (% change on previous year)	OBR forecasts (July 2015)		Independent forecasts (June 2015)		PwC Main scenario (July 2015)	
	2015	2016	2015	2016	2015	2016
GDP	2.4	2.3	2.5	2.3	2.6	2.4
Consumer spending	3.0	2.5	2.7	2.4	2.8	2.5

Source: Office for Budget Responsibility (July 2015), HM Treasury survey of independent forecasts (average values in June 2015 survey) and latest PwC main scenario.

The rate of consumer price inflation (CPI) has fallen sharply over the past year as import price inflation has dropped due to global energy and food price declines. But we expect this effect to be only temporary.

Future prospects

As shown in Table 1.1, our main scenario is for UK GDP growth to average around 2.6% in 2015 and around 2.4% in 2016. This is broadly similar to the latest consensus and OBR forecasts.

Consumer spending growth is projected to be slightly stronger than GDP growth, with a boost from lower oil prices and increased real earnings growth, but follows a similar path over time.

We expect continued relatively strong business investment growth in 2015 and 2016, but at a somewhat slower rate than in 2014. Business confidence could be affected by increased international risks relating to Greece, recent turbulence in the Chinese stock market (which could have wider contagion effects within China and beyond) and continued unrest in parts of the Middle East and North Africa, as well as uncertainties around the planned referendum on UK membership of the EU. But the domestic outlook still seems reasonably favourable for UK business investment, helped by the corporation tax rate cut announced in the Budget.

We expect net exports to continue to make a negative contribution to UK GDP growth in 2015 given ongoing sluggish growth in the Eurozone and only moderate rates of US growth, though both may pick up somewhat in 2016.

As always there are many uncertainties surrounding our growth projections, as illustrated by the alternative scenarios in Figure 1.1. There are still considerable downside risks relating to developments in Greece and the Eurozone more generally, and in some emerging markets (including China as noted above). But there are also upside possibilities if these problems can be contained and a virtuous circle of rising confidence and spending can be established as in past economic recoveries.

Inflation will remain very low this year, but could rebound to close to its 2% target by the end of 2016 assuming there is no repeat of past falls in global energy and food prices. There could be upside risks to this inflation outlook in the longer term if domestic wages continue to recover without a corresponding rise in productivity.

We do not expect any immediate rise in official UK interest rates, but a gradual upward trend seems likely from early 2016 onwards. In the long term, we would expect official rates to rise very gradually to more normal levels of around 3-3.5% by 2020.

Higher interest rates will help savers and reduce pension fund deficits, but borrowers (including businesses and the government) might gain from locking in funding now for long term investments such as infrastructure and housing. Households need to bear in mind likely future interest rate rises in any decisions on mortgages or other longer term loans.

Housing market outlook: the continuing rise of Generation Rent

As discussed in detail in Section 3 of this report, UK house price growth has decelerated over the past year, especially in London. Nonetheless, we project that average UK house prices could still rise by around 5% this year.

Assuming that the supply of new homes continues to be relatively sluggish, house prices are expected to keep growing at around this 5% annual rate for the rest of this decade. In our baseline scenario, the average UK house could be worth around £360,000 in cash terms by 2020. There could be some convergence between lower house price regions like Northern Ireland and the national average, but only at a slow rate over the rest of this decade.

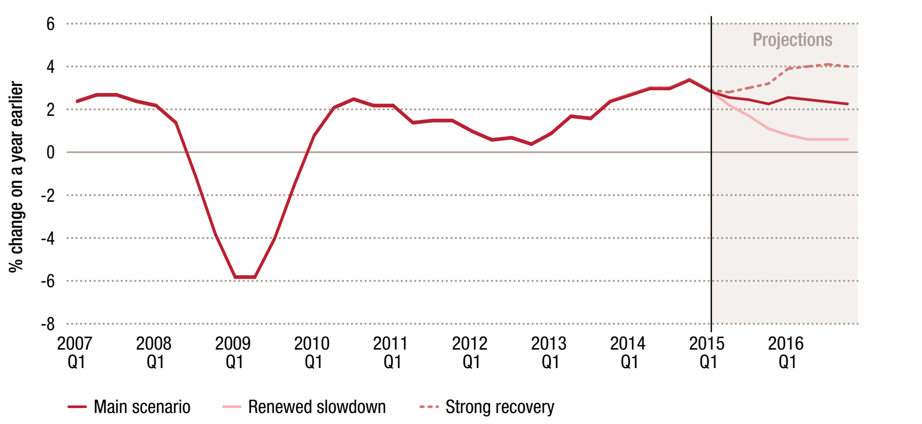
As house prices have risen and social housing supply remains constrained, the number of households in the private rented sector has more than doubled since 2001, rising from 2.3 million to 5.4 million by 2014, around 20% of the total. We project that this trend will continue with an additional 1.8 million households becoming private renters by 2025. This would take the total to 7.2 million households – around one in four of the UK total (see Figure 1.2). The trend is particularly strong in the 20-39 age group where we expect more than half to be renting privately by 2025.

Fewer households will have mortgages. The number of households who own their home with a mortgage fell from around 10 million in 2001 to only around 8 million in 2014. We project a further decline to 7.2 million by 2025 as limited housing supply, affordability and mortgage availability make it harder for first time buyers to get on the housing ladder.

The other key tenure trend is that a greater number of people than ever before own their own home outright. This now accounts for 8.4 million households or 32% of the total. We expect this to rise to 10.6 million households, around 35% of the total, by 2025. A key driver is the rising proportion of over 60 year olds in the UK, who are far more likely to have paid off their mortgages.

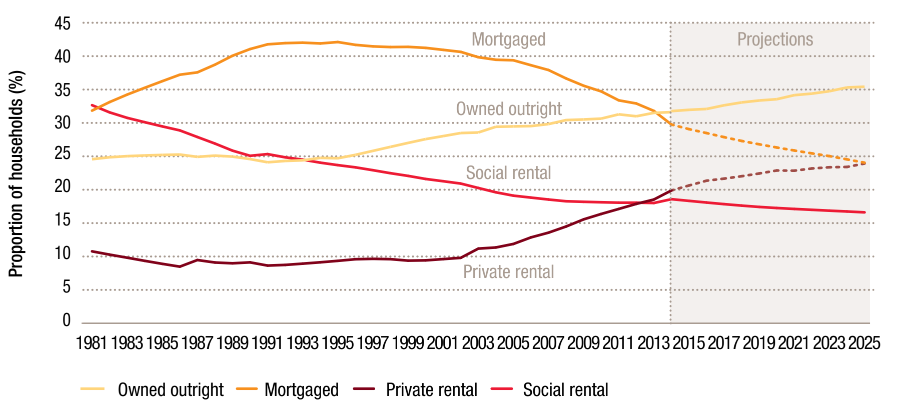
In total, we project the owner occupation rate to fall to around 60% by 2025, down from its peak of just under 70% in the mid-2000s.

Figure 1.1 – Alternative UK GDP growth scenarios



Source: ONS, PwC scenarios

Figure 1.2. Projections for UK housing tenure, share of households



Source: PwC analysis, English Housing Survey

Increasing the supply of affordable housing in the long run, which the government has set as an objective, will require a range of measures including further planning reform, action to address skills shortages in the housebuilding sector and enhanced financial incentives to build more homes. But cuts to social rents announced in the Budget will tend to work against this for local authorities and housing associations, while private developers may be cautious about expanding too rapidly. So we expect housing supply shortages to persist for at least the next decade.

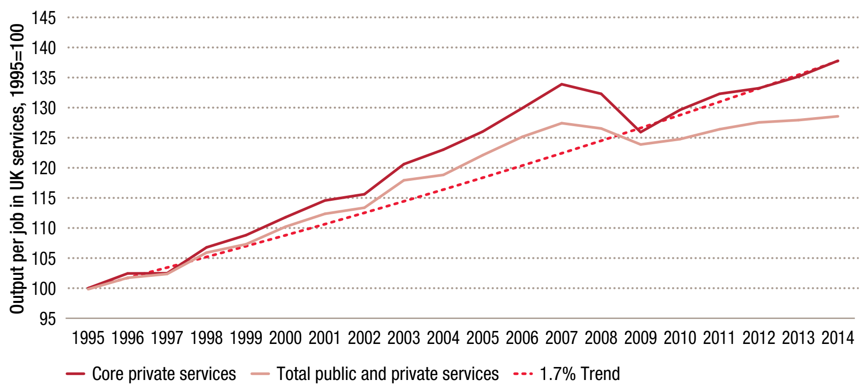
The UK services productivity puzzle and trade performance

The UK has a highly services-oriented economy. Services make up nearly 80% of GDP and more than 80% of employment. So understanding the services sector is critical to analysing the performance of the British economy as a whole and this is discussed in detail in Section 4 of this report in an article by Andrew Sentance, our senior economic adviser.

Recent economic debate has focussed on the so-called "productivity puzzle". Output per person employed (or per hour) has not grown as strongly since the financial crisis as before. The bulk of this puzzle reflects the performance of the services sector. In the decade from 1995 to 2005, services sector productivity grew by 2% per annum on average. Since 2005, it has increased by an average of just 0.6% per year - less than a third of the previous rate.

Our analysis suggests that three main factors have contributed to this productivity growth slowdown. First, a number of highly tradeable services activities provided a boost to productivity before the financial crisis. These sectors benefited from the globalisation of the world economy, providing a temporary increase in the pre-crisis productivity trend. In other words, productivity growth before the crisis was inflated by this one-off shift.

Figure 1.3: Core UK private services productivity trend has been around 1.7% since 1995



Source: ONS

Second, the financial and property sectors have been a serious drag on productivity since the crisis, as banks have restructured and had to deal with increased regulation. In retrospect, the strong pre-crisis productivity growth of the banking sector looks to have been unsustainable.

Third, public sector productivity has also been disappointing both before and particularly after the crisis – at least according to the official GDP estimates (though there are serious measurement difficulties in this area).

Once we allow for these three factors, the core productivity rate in UK private non-financial services has been on a more consistent trend since the mid-1990s, which we estimate at around 1.7% per annum (see Figure 1.3).

Our analysis in Section 4 also highlights the potential role of trade in boosting productivity within UK services. In general, services activities are less open to trade than the production of goods. But the UK appears to have a strong comparative advantage in many tradeable services sector activities and this has contributed to a substantial trade surplus in services, which is now around 5% of GDP – offsetting the UK's deficit in manufactured trade. Future trade agreements which open up overseas markets to UK services firms could be highly beneficial for the future growth of the UK economy.

Extrapolating from recent trends, we project that the total value of UK services exports will exceed that of manufactured goods exports by 2020, the first time this has happened.

2 – UK Economic prospects

Key points

- The GDP growth rate in the UK was 3% in 2014, the highest in the G7. Growth slowed in early 2015, but there are signs of a revival more recently.

- We expect the UK economy to grow by around 2.6% in 2015 as a whole, somewhat above trend and possibly again the fastest in the G7, before moderating slightly to around 2.4% in 2016 in our main scenario.

- The services sector remains the key driver of UK growth, which continues to be powered by domestic private demand. The construction sector has cooled from the rapid growth rates seen in mid-2014, though there were signs in June of a post-election upturn. The manufacturing sector continues to be held back by relatively weak growth in the Eurozone and the comparative strength of the pound against the euro.

- London and the South East have been the fastest growing regions in the UK since the recession and are expected to maintain this position with average growth of close to 3% in 2015 and 2016. However, most regions in the UK are expected to grow by more than 2% per annum in 2015-16, except for Northern Ireland where average growth may be slightly below 2%.

- The UK recovery is still exposed to downside risks, including uncertainties relating to Greece and possible financial contagion effects from recent turbulence in Chinese stock markets. However, there are also upside possibilities from stronger than expected trends in real wage and productivity growth and, with the election out of the way, UK business investment.

- Headline inflation has been close to zero recently, but this is mostly a temporary effect of past global energy and food price falls. As these fall out of the 12-month inflation rate towards the end of 2015, we would expect inflation to rise back towards its 2% target rate by the end of 2016. Higher unit labour cost growth as wages rise will also contribute to higher inflation in the medium term.

- The Bank of England is likely to respond to this by raising interest rates gradually from early 2016 onwards, though a case could be made for moving earlier than that. In any event, businesses and households should prepare for higher borrowing costs in the medium term, perhaps reaching around 3-3.5% by 2020.

- The July Budget set out plans for further fiscal tightening over the next four years through a combination of public service spending cuts, welfare benefit cuts and net tax rises, which should eliminate the budget deficit before the end of the decade. This will be a drag on growth over this period, though there should be offsetting benefits from lower long-term interest rates than would otherwise be the case.

Introduction

In this section of the report we describe recent developments in the UK economy and review future prospects. The discussion covers:

2.1 Recent developments and the present situation

2.2 Economic growth prospects: national, sectoral and regional

2.3 Outlook for inflation and real earnings growth

2.4 Monetary and fiscal policy options

2.5 Summary and conclusions

2.1 – Recent developments and the present situation

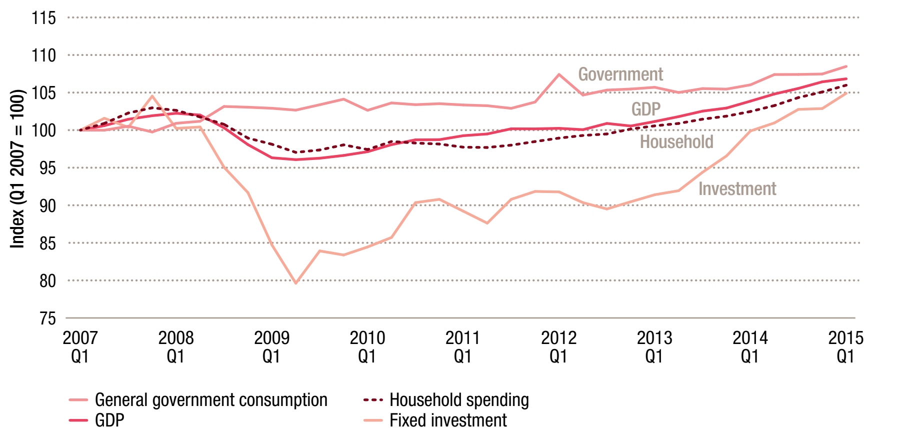
Quarterly real GDP growth has been running at an average rate of around 0.8% per quarter during 2014, but the latest ONS estimates show that this slowed markedly to around 0.4% in Q1 2015. Nonetheless, the economy continued to expand and aggregate output is now estimated to be more than 10% above its trough in Q2 2009 and around 4.5% higher than at the start of the recession in Q1 2008 (though real GDP per capita remains 0.6% below its pre-recession level after allowing for population growth).

The slowdown in GDP growth in the first quarter reflected a small fall in construction output and significantly slower growth in the services and manufacturing sectors as compared to average quarterly rates seen during 2014.

Economic growth is often erratic from quarter to quarter, however, and recent data could well be revised significantly in future, so we generally prefer to focus on broad trends in the level of economic indicators over longer periods of time, rather than short term fluctuations in growth rates.

As Figure 2.1 shows, GDP growth and consumer spending growth have been on a fairly steady upward trajectory since mid-2009. Fixed investment growth has been more volatile but has also generally been on an upward trajectory since mid-2009, with the latest vintages of data showing more positive trends here than earlier estimates. Government consumption spending remained strong through the recession, but has grown more slowly since then (though it has not actually declined in real terms according to these official estimates).

Figure 2.1 – GDP and key components of domestic demand



Source: ONS

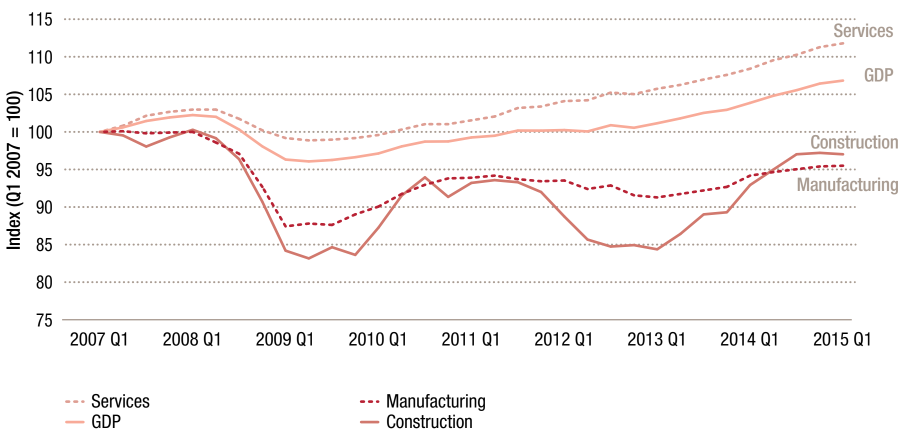
Construction falls back, services growth slows but continues to drive economy

As Figure 2.2 shows, the construction sector had been growing very strongly up to Q3 2014, but has levelled off since then, with a small decline estimated in Q1 2015 (though this is much less marked now than in earlier preliminary estimates). However, there are signs that growth in the sector may have resumed after the general election in May produced a decisive result, as indicated by a rebound in the construction purchasing managers' index (PMI) in June.

The services sector continues to be the dominant driver of the UK economy, but growth slowed markedly to 0.4% in the first quarter due in particular to weakness in financial services output, linked in part to a slowdown in the mortgage market in late 2014 and early 2015.

As Figure 2.3 shows, however, the Services PMI remained above 55 for the

Figure 2.2 – Sectoral output and GDP trends



Source: ONS

first five months of this year, with the latest June data showing a pick-up to 58.5, perhaps again in part due to a reduction in political uncertainty following the election. This suggests some pick-up in services output growth between the first and second quarters, which should also feed through into stronger overall GDP growth.

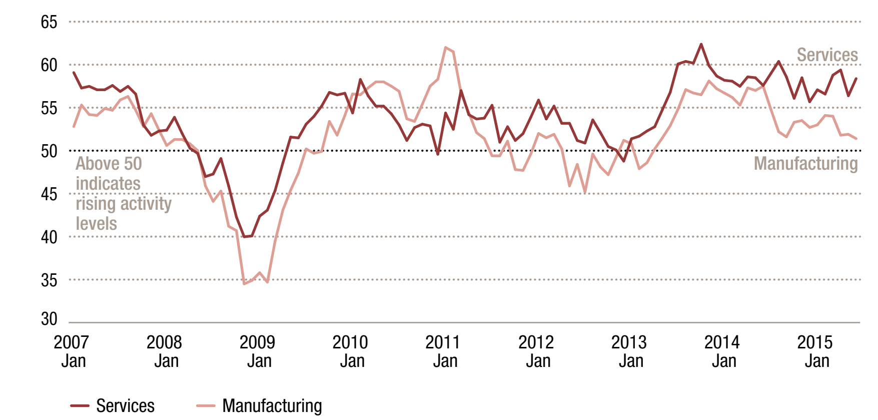
The manufacturing sector also disappointed with estimated growth of just 0.1% in Q1 2015, and the manufacturing PMI has also remained relatively subdued in the second quarter, with the latest data showing a decline to 51.4 in June, which was a 26-month low (see Figure 2.3). It seems the boost to this sector from lower oil prices has not yet come through with any strength, while continuing relatively sluggish growth in the Eurozone, uncertainty about Greece and the relatively strong pound against the euro, has held back manufacturing output growth recently. Nonetheless, the data suggest modest but positive growth during the first half of 2015, rather than an outright decline in output in the sector.

Employment has risen strongly since 2012, holding down productivity growth

Figure 2.4 shows how the number of workforce jobs and productivity (defined here as output per job) have changed since 2007. The workforce has expanded rapidly for the past three years, while productivity has been broadly flat according to the official data since early 2012, having earlier shown a more normal cyclical recovery between mid-2009 and late 2011.

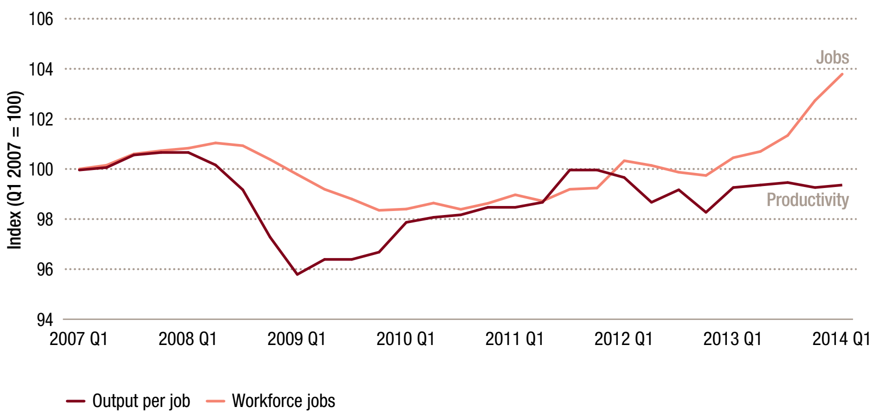
These two trends are connected and reflect a range of complex factors that vary significantly by industry sector, including measurement issues for services sector productivity in particular. The general topic of productivity growth is discussed in much more detail by Andrew Sentance, our senior economic adviser, in Section 4 below, but the general message is that weakness since the recession ended in mid-2009 has been concentrated in a few sectors such as public services, financial services and North Sea oil and gas. Productivity trends in manufacturing and the non-financial private services sector have generally been stronger and should remain so going forward.

Figure 2.3 – Purchasing Managers' Indices of business activity



Source: Markit/CIPS

Figure 2.4 – Productivity and employment



Source: ONS

Consumers more confident now than at any point since 2008

Figure 2.5 shows results from PwC's regular consumer survey alongside trends in retail sales volumes since 2008. Consumer confidence has been volatile over this period, but has shown a clear positive trend over the past two years, which also matches the upward trend in retail sales volumes over this period.

Growth in retail sales values has, however, been much less strong over the past 12-18 months, reflecting a trend to deflation on the high street driven both by falls in global commodity prices and intense price competition particularly in the supermarket sector where discounters have played an increasing role in the market.

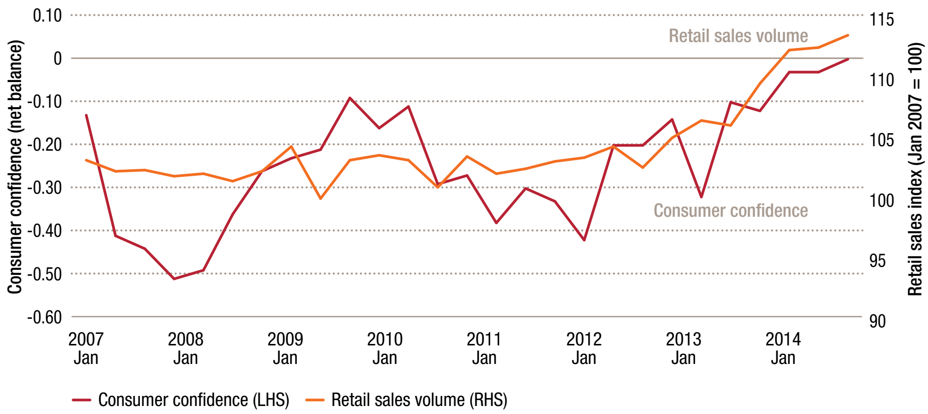
Stocks in Europe rally during Q1 2015 before flattening off in second quarter

As Figure 2.6 shows, equity markets in developed economies have grown at varying paces since the global financial crisis. The US market led the way, with a fairly consistent underlying upward trend since 2009. The UK market initially recovered broadly in line with the US until 2011, but has shown a shallower upward trend since then, perhaps because of a greater sensitivity to European economic problems and wider geopolitical risks for those international companies that dominate the FTSE index.

The European equity market (Euronext 100 index) took longer to recover, only starting this process on a sustained basis from mid-2012 onwards when the ECB introduced its Outright Monetary Transactions (OMT) mechanism and vowed to 'do whatever it takes to preserve the euro'. There was a particularly strong surge in the European index in Q1 2015 when the ECB announced its new Quantitative Easing (QE) asset purchase programme, though this levelled off in the second quarter as ongoing uncertainties around Greece took centre stage.

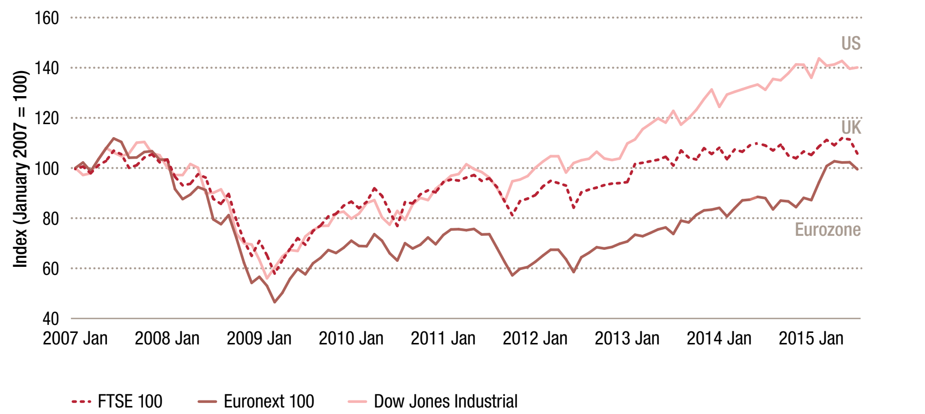
At the time of writing, the outcome of the Greek crisis remains highly uncertain, so we can expect this to be the source of continued volatility in European financial markets and beyond. However, with QE and OMT, the ECB does now have the tools to limit contagion from a possible Greece exit from the euro to other markets in

Figure 2.5 – Consumer confidence and retail sales volumes



Sources: PwC Consumer survey, ONS

Figure 2.6 – Equity market indices



Source: Thomson Reuters Datastream

Europe and elsewhere. Other Eurozone crisis economies like Spain, Ireland and Portugal are also in better shape than they were in 2011-12, as is the European banking sector more generally. As a result, while 'Grexit' could still lead to considerable short-term turbulence in markets, we do not think its effect would be nearly as severe as if this had happened three or four years ago[1].

At the time of writing, there is also concern about financial contagion effects from the sharp falls in the Chinese stock market in recent months. While we assume these can be contained by the Chinese authorities in our main scenario, it remains a downside risk to our international projections that could also have knock-on effects on UK financial markets.

1 For more discussion of the potential impact of Grexit, see our Economics blog: *http://pwc.blogs.com/economics_in_business/2015/07/what-would-grexit-mean-for-the-eurozone-and-uk-economies.html*

2.2 Economic growth prospects: national, sectoral and regional

As Table 2.1 shows, our main scenario projection is for UK GDP growth of around 2.6% in 2015, moderating slightly to around 2.4% in 2016. With US growth disappointing in early 2015, there is now a good chance that the UK could repeat its 2014 success in being the fastest growing G7 economy in 2015 (see Appendix A for our latest global projections).

Consumer spending is projected to grow at a relatively strong pace of 2.8% in 2015, supported by stronger real wage growth and continued increases in employment. These factors may ease a little in 2016, however, so we expect some moderation in consumer spending growth to around 2.5% next year.

Business investment is expected to grow less strongly in 2015 and 2016 than it did in 2014, but still at a reasonably healthy rate of around 5-6%. The decisive election outcome should be a positive factor here, though there are clearly also still ongoing sources of uncertainty relating to Greece and other international risks, as well as Britain's own place in Europe, that could have a dampening influence. Higher interest rates may also be a negative influence in the medium term, but not to any significant extent in our view given that the absolute level of interest rates will remain very low by historic standards for at least the next few years.

Government consumption is expected to grow only slowly, with a further deceleration in 2016, though not an absolute decline given the way this is measured in the national accounts.

With the UK growing faster than its major trading partners in the Eurozone and possibly also the US, and sterling remaining relatively strong (at least against the euro), we expect net trade to continue to have a negative influence on overall GDP growth, but to a somewhat lesser extent than in 2014.

Table 2.2 shows the OBR and average independent forecasts of GDP and other key variables for comparison with our own main scenario. In general, our growth projections are broadly similar to those of other forecasters, with differences in GDP growth in particular being well within the margin of error of any such projections.

Table 2.1 - PwC main scenario for UK growth and inflation

% real annual growth unless stated otherwise	2014	2015	2016
GDP	3.0%	2.6%	2.4%
Consumer spending	2.6%	2.8%	2.5%
Government consumption	1.6%	1.4%	0.4%
Fixed investment	8.6%	5.2%	5.7%
Domestic demand	3.5%	2.9%	2.8%
Net exports (% of GDP)	-0.6%	-0.4%	-0.4%
CPI inflation (%: annual average)	1.5%	0.3%	1.7%

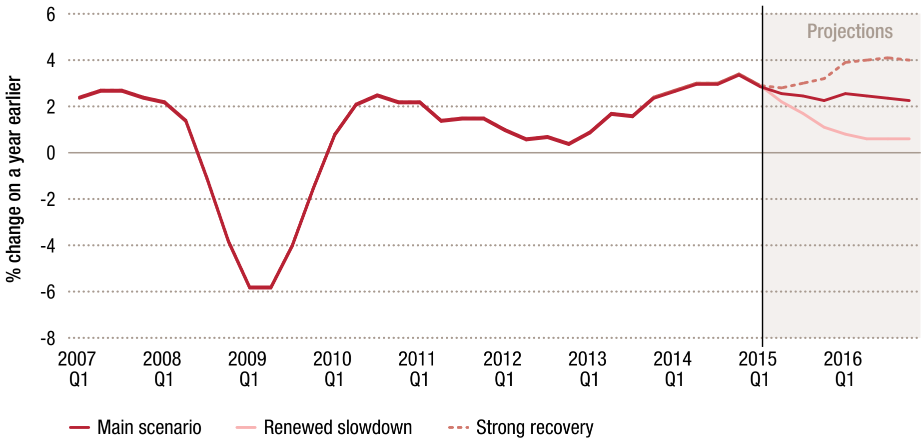
Source: ONS for 2014, PwC main scenario for 2015-16

Table 2.2: Official and independent forecasts

(% real YoY growth unless stated otherwise)	Latest estimates	OBR forecasts (July 2015)		Average independent forecast (June 2015)	
	2014	2015	2016	2015	2016
GDP	3.0%	2.4%	2.3%	2.5%	2.3%
Manufacturing output	3.2%	N/A	N/A	1.7%	1.9%
Consumer spending	2.6%	3.0%	2.5%	2.7%	2.4%
Fixed investment	8.6%	5.6%	5.6%	4.4%	4.9%
Government consumption	1.6%	0.8%	-0.7%	0.9%	-0.1%
Domestic demand	3.5%	2.6%	2.6%	2.5%	2.3%
Exports	0.5%	3.8%	3.8%	4.0%	3.8%
Imports	2.4%	5.1%	4.6%	4.1%	3.6%
Current account (£bn)	-106	-93	-75	-86	-81
Unemployment claimant count (Q4, m)	0.91	0.78	0.73	0.72	0.69

Source: ONS for 2014, OBR Economic and Fiscal Outlook (July 2015), HM Treasury Forecasts for the UK economy: a comparison of independent forecasts (June 2015)

Figure 2.7 – Alternative UK GDP growth scenarios



Source: ONS, PwC scenarios

Alternative growth scenarios

We have considered two alternative UK growth scenarios in addition to our main scenario, as Figure 2.7 shows:

- Our **'strong recovery' scenario** projects growth accelerating to around 4% in 2016. This relatively optimistic scenario assumes stronger growth in the Eurozone and other global economies, which would also boost consumer and business confidence in the UK. This in turn would result in businesses undertaking greater investment activity, an increase in consumer spending and greater UK exports.

- Our **'renewed slowdown' scenario**, by contrast, sees UK GDP growth slowing down to below 1% in 2016. This is based on the assumption of adverse shocks such as a chaotic Greek exit from the Eurozone, a further intensification of unrest in the Middle East and North Africa and significantly weaker economic growth in key emerging markets including China. These events would have negative implications for UK businesses, damaging confidence and leading to cutbacks in investment and employment, thereby also depressing consumer spending.

We do not believe that these alternative scenarios are the most likely outcomes, but they are certainly well within the bounds of plausibility. Businesses should ensure they have appropriate contingency plans in place to deal with the possibility of these kinds of events and outcomes.

Positive growth expected in all key sectors of the economy, but with some significant variations across sectors and over time

The sector dashboard in Table 2.3 shows the actual growth rates for 2014, alongside our projected growth rates for 2015 and 2016, for five of the main sectors within the UK economy. The table also includes a summary of the key issues affecting each sector.

Regional prospects

London and the South East are expected to grow at the fastest pace of all UK regions at around 3% in 2015, as Figure 2.8 shows. Other regions are expected to expand at a slightly slower rate than the UK average this year, but almost all should see positive growth of more than 2% in 2015, except Northern Ireland which may be slightly lower at 1.8% in our main scenario.

At this stage our model projects all regions to show a slight deceleration in growth in 2016 in line with national economic trends, but this is highly uncertain at this stage.

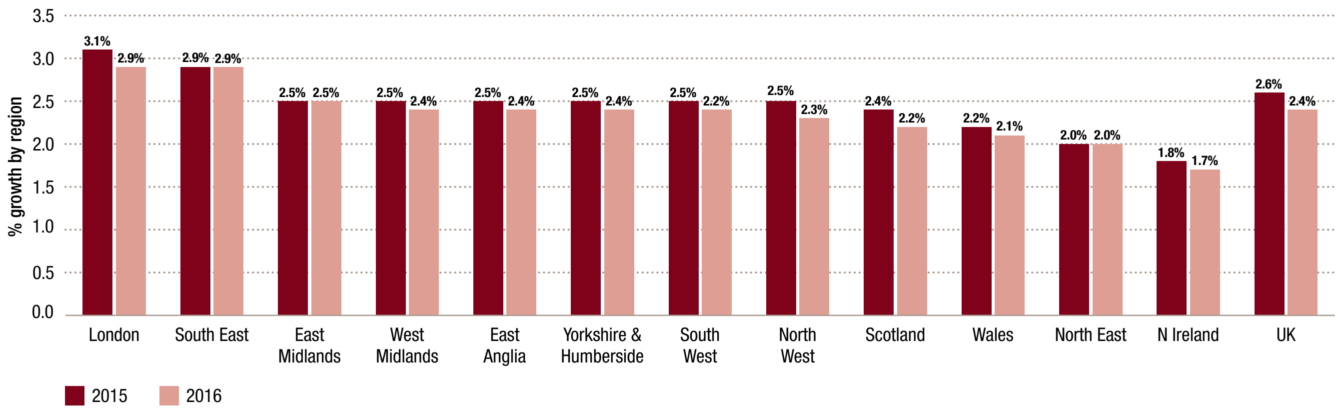
It is important to note here that regional data are much less timely than national data. As a result, the margins of error around these regional projections are even larger than for the national growth projections, so they can only be taken as illustrative of broad directional trends. Small differences in projected growth rates between regions are not of any practical significance.

Table 2.3: UK sector dashboard

	Growth			
Sector and GVA share	**2014**	**2015p**	**2016p**	**Key issues/trends**
Manufacturing (10%)	3.1%	2.0%	3.1%	Manufacturing PMI has remained above 50 for the first 6 months of the year despite official figures showing slow growth. Low oil prices should help but sluggish Eurozone growth and the Greek crisis remain negative factors for UK goods exporters.
Construction (6%)	9.5%	2.3%	2.0%	The construction sector has slowed since mid-2014 when it was growing very rapidly. Output growth rates in residential, commercial and civil engineering activity have all slowed down since then. However, construction PMI hit its highest level of 2015 in June, perhaps boosted by the decisive election result in May.
Distribution, hotels & restaurants (14%)	4.8%	4.0%	2.6%	Retail sales volumes have been growing strongly, but value growth has been lower due to fierce price competition on the high street, particularly for supermarkets. Real earnings growth have lifted consumer purchasing power recently and should keep spending strong this year, but with some reversion to trend expected next year.
Business services and finance (31%)	3.8%	3.1%	3.2%	The business services sector continues to lead the expansion of the UK economy. However, the financial sector remains exposed to important risks and regulatory constraints that may limit future growth.
Government and other services (23%)	1.1%	0.9%	1.2%	Government services output has expanded slowly and is expected to continue to do so given continuing public spending constraint.
Total GDP	**3.0 %**	**2.6%**	**2.4%**	

Sources: ONS for 2014, PwC for 2015 and 2016 main scenario projections and key issues. These are only five of the most important sectors of the economy, so their GVA shares only add up to around 84% rather than 100%.

Figure 2.8 – PwC main scenario for output growth by region



Source: PwC analysis

2.3 Outlook for inflation and real earnings growth

Inflation falls to around zero, but likely to be only a temporary dip

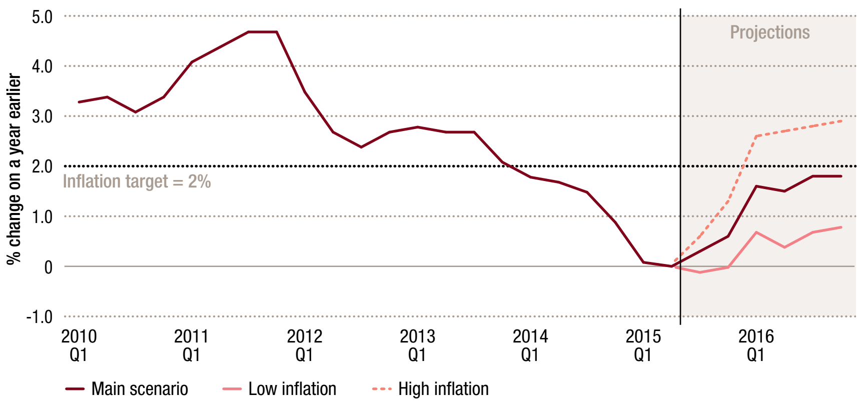
Consumer price inflation (as measured by CPI) had been fluctuating close to deflationary levels in the first quarter of 2015 and was driven down to -0.1% in April. The primary causes of this downward trend included falls in costs of imported goods (especially food and energy) over the past year, supermarket price wars and cheaper transport services. The timing of the Easter break in April exacerbated the effect of decreased transport costs, but this was reversed in May. Inflation was zero in the year to June.

The Bank of England has estimated that around three-quarters of the 2 percentage point shortfall of inflation from its target was attributable to falling prices of energy, food and other imported goods. The other quarter of the shortfall reflected slow growth in earnings and weak upward domestic price pressure. It can be expected that the windfall from the shock of low energy, food and other imported goods will dissipate over the next 12 months, leading to higher inflation later in 2015 and through 2016.

Alternative inflation scenarios

As Figure 2.9 shows, in our main scenario, we expect the annual rate of inflation to average 0.3% this year and 1.7% in 2016, returning close to target by the end of next year. Our expectations that inflation will increase in 2016 are in line with those of the OBR and most independent forecasters. This higher inflation rate will result not only from past international price shocks dissipating but also domestic wage pressures building up as the labour market tightens, which is already evident in the earnings data for recent months.

Figure 2.9 – Alternative UK inflation (CPI) scenarios



Source: ONS, PwC scenarios

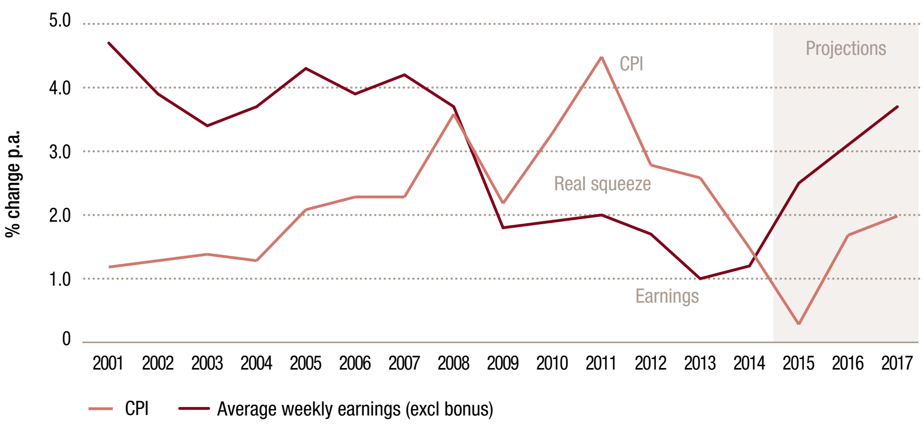
This would matter less if higher earnings growth was matched by higher productivity growth, but this has not happened yet as discussed in Section 2.1 above and in more detail in Section 4.

As with our GDP scenarios, we have considered two alternative scenarios for UK inflation:

- In our **'high inflation' scenario**, which assumes stronger global growth and a marked rebound in oil prices, we project headline inflation to increase to just under 3% on average in 2016.
- In our **'low inflation' scenario**, by contrast, we assume that UK domestic demand growth will be slower, global GDP growth rates will deteriorate due to shocks including a chaotic Greek exit from the Eurozone and commodity prices will remain weak. Here, we project that average annual inflation rates will remain below 1% in 2016.

As with GDP growth, these alternative scenarios are not as likely as our main scenario, but businesses should plan for such contingencies.

Figure 2.10 – CPI inflation vs average earnings growth



Source: ONS for data up to 2014, PwC analysis for 2015-17

A positive outlook for real earnings growth

After the recession hit in 2008, average UK real earnings fell consecutively for 6 years. This can be seen in Figure 2.10, which shows that the inflation rate exceeded nominal earnings growth between 2008 and 2014. This trend has now reversed. Inflation levels fell rapidly below their target level in 2014 and early 2015, whilst nominal wage growth has picked up markedly this year as past strong employment growth reduced spare capacity in the labour market, despite continued high levels of inward migration of workers.

Going forward, we expect real earnings growth to continue, though this may moderate somewhat from 2016 as inflation returns towards target, even if nominal wage growth continues to rise to over 3%. Despite this more positive trend, however, the level of real earnings would not be expected to regain itspre-crisis peak until late in this decade.

2.4 – Monetary and fiscal policy

Interest rates likely to start to rise gradually during 2016

So far the Monetary Policy Committee (MPC) has continued to maintain the Bank Rate at 0.5% and the stock of purchased assets financed by central bank reserves (i.e. QE) at £375 billion. The members of the MPC voted unanimously in favour of both these decisions in June and it seems likely they also did so in July (though we do not know that for sure at the time of writing).

Going forward, the current low rate of headline inflation and the uncertainty around Greece may cause most MPC members to vote against interest rate rises for the next few months, though a minority vote for an early increase seems quite likely to emerge, perhaps from August onwards.

Our main scenario assumes, however, that the Bank rate will only start to rise from early 2016, with increases proceeding at only a very modest pace after that. In the medium term, however, official rates could increase to around 3-3.5% by 2020 so businesses and individuals should assume that the cost of borrowing will increase gradually over the next few years and should stress test how such rate rises will affect them financially.

Budget confirms more fiscal tightening to come over next four years

The recent Summer Budget gave more detail of the government's plans for further fiscal tightening to eliminate the projected overall budget deficit by 2019/20. The pace of spending cuts has been smoothed and extended over an additional year, which will allow affected government departments, local authorities and households more time to adjust.

In general, there will now be smaller cuts to public services spending, though these could still be severe for unprotected departments (i.e. all except health, schools, overseas aid and now defence). We will get further details of this in the Spending Review in the autumn.

By contrast, welfare cuts eventually building up to around £12 billion per annum will be phased in over the period to 2020. However, the adverse impact of this will be offset for many low earners by the new National Living Wage, which is set to rise to over £9 per hour by 2020 for over-25s. The OBR estimates that this could cost around 60,000 jobs, but this is only around 0.2% of total UK employment and would be against a backdrop of continued expected strong employment growth across the economy as a whole. Sectors with relatively low pay such as hotels and restaurants, social care and parts of retailing could, however, face some tough choices on how to adapt to these higher minimum wage levels.

On the tax side, there was the usual complex mix of offsetting measures. The biggest giveaways related to cutting corporation tax to 18% by 2020, further increases in personal income tax allowances and extending inheritance tax relief for main residences.

These giveaways were more than outweighed, however, by a series of tax increases relating to dividend taxation, insurance premium tax and vehicle excise duty, as well as restrictions in pensions tax relief and a range of anti-avoidance measures. By 2020, the OBR estimates the implied net tax rise to be around £7 billion, although this would only be around 0.3% of GDP so its macroeconomic impact is likely to be small compared to over £30 billion of planned real spending cuts by 2019/20.

While the planned fiscal consolidation may dampen growth in the short term, however, there should be some offset from lower long-term interest rates. More importantly, returning to a small budget surplus by 2020 and a clearly declining public debt to GDP ratio of just under 70% by that time (compared to just over 80% now and less than 40% before the financial crisis) will give more scope for future UK governments to respond to major adverse economic shocks.

The optimal longer term fiscal target to adopt is open to debate, but the need for some significant additional fiscal consolidation seems clear given that the cyclically-adjusted structural budget deficit will still be around 3.2% of GDP this year according to the OBR.

2.5 Summary and conclusions

The UK economy slowed during the first quarter of 2015 from the 3% average annual rate seen in 2014, but there are signs of a post-election recovery more recently. Despite the relatively slow start to 2015, we project GDP growth to be around 2.6% in 2015, which could still be the fastest in the G7, with a modest further deceleration to a near trend rate of 2.4% in 2016 in our main scenario.

The non-financial private services sector remains relatively buoyant and should continue to lead the UK recovery, helped by steady consumer spending growth supported by continued employment growth and a recent recovery in earnings growth. The construction sector has cooled since mid-2014, but seems now to be enjoying a post-election rebound.

The manufacturing sector has been suffering more from ongoing sluggish growth in the Eurozone, as well as uncertainties related to Greece, though the impact of possible Greek euro exit (which is less likely, but still possible after the recent proposed deal) should not be overstated for the UK economy as a whole. The ECB and other central banks have better tools now to prevent any Greek default leading to wider financial and economic contagion and both European banks and economies are in better shape now than if Grexit had occurred in 2011-12.

London and the South East are forecast to remain the fastest growing regions in both 2015 and 2016, with average growth of close to 3% per annum, but all UK regions should achieve positive growth of over 2% per annum on average in 2015-16, except perhaps Northern Ireland, where average growth is projected to be slightly lower at around 1.7-1.8%.

Under our main scenario, consumer price inflation is forecast to average 0.3% this year, but this is largely due to temporary factors so we would expect it to move back up towards its 2% target rate by the end of 2016. This should eventually cause the MPC to start raising interest rates gradually, although probably not until early 2016 (though a minority of MPC members could well start to vote for a rate rise before that).

The July Budget set out more details of the government's plans to tighten fiscal policy significantly over the next four years with a view to eliminating the overall budget deficit by 2019/20. The direct effect of this may be to dampen growth somewhat, but it should also have offsetting benefits in terms of lower long-term interest rates than would otherwise be the case and giving more fiscal scape to respond to any future adverse economic shocks.

In summary, the UK economic outlook remains positive, but there are still downside risks such as those relating to a Greece for which affected businesses should make appropriate contingency plans.

In summary, the UK economic outlook remains positive, but there are still downside risks

3 – UK housing market outlook: the continuing rise of Generation Rent

Introduction and summary

In this section we review recent trends in the UK housing market and present projections for house price growth in the UK and the regions. In addition, this new research looks at trends in tenure (i.e. whether people rent or own the homes they live in). The key findings are:

- House price growth in the UK has decelerated over the past year, especially in London.
- **Nonetheless, we project that average UK house prices could rise by around 5% this year**. Assuming that the supply of new homes continues to be relatively sluggish, house prices are expected to keep growing at around this rate for the rest of this decade. In our baseline scenario, **the average UK house could be worth around £360,000 in cash terms by 2020**.
- As house prices have risen and social housing supply remains constrained, the number of households in the private rented sector has more than doubled since 2001, rising from 2.3 million to 5.4 million by 2014, around 20% of the total. We project that this trend will continue with an **additional 1.8 million households becoming private renters by 2025**. This would take the total to 7.2 million households – almost one in four of the UK total. The trend is particularly strong in the 20-39 age group where more than half will be renting privately by 2025. The rise of 'Generation Rent' will continue.
- **Fewer households will have mortgages**. The number of households who own their home with a mortgage fell from around 10 million in 2001 to only around 8 million in 2014. We project a further decline to 7.2 million by 2025 as limited housing supply, affordability and mortgage availability make it harder for first time buyers to get on the housing ladder.
- The other key tenure trend is that a **greater number of people than ever before own their own home outright**. This now accounts for 8.4 million households or 32% of the total. We expect this to rise to 10.6 million households, 35% of the total, by 2025. A key driver is the rising proportion of over 60 year olds in the UK, who are far more likely to have paid off their mortgages.
- **For younger generations, renting privately is now the norm and many will only become home owners quite late in their adult lives**. A significant rise in the supply of affordable housing might change this in the long run, but seems unlikely to occur fast enough to stem the rise in Generation Rent between now and 2025.

The discussion below begins by reviewing recent housing market developments (Section 3.1) and then goes on to consider trends and prospects for housing tenure to 2025 (Section 3.2). Section 3.3 then concludes by looking at projected future UK and regional house price prospects. Further details of our modelling work are contained in a technical annex at the end of the article.

3. 1 – Recent housing market developments

There has been a marked deceleration in UK house price growth so far in 2015, following a period of accelerating increases since 2012. A slowdown is not wholly unexpected: average UK house price inflation was around 10% in 2014[1], far above the growth in earnings. Growth in London reached an even higher rate of 17.4%.

By May 2015, in contrast, UK average house price growth had fallen to 5.7%. The price slowdown in London has been even more marked, declining to 4.7%. Base effects (the surge in prices a year ago) mean that the house price inflation rate in London could even turn negative during the summer, although we would expect this to be only temporary as the election result has removed fears of a possible mansion tax that would have affected London much more than other regions.

House price growth in 2013 and 2014 was accompanied by an expansion in gross mortgage lending, indicating that looser credit conditions helped to release pent up demand. However, the past year has seen lending weaken. Monthly gross mortgage lending peaked at £19 billion in July 2014, but has now stabilised at around £16 billion a month. This is likely to be restricting demand, contributing to the slowdown in house price growth.

Another important and much publicised factor is the limited amount of new housing available. Decades of declining housebuilding continue to bite, whilst population growth has increased markedly. Over the last five years only around 140,000 homes a year have been completed, well below average rates over the last four decades.

Rising house prices tend to have an adverse effect on affordability, acting as a natural brake on the market. But unprecedentedly low mortgage rates have meant that some aspects of affordability have been improving, despite house price increases: mortgage payments as a proportion of income are well below their 2007 levels and have followed a general downward trend since then (as shown in Figure 3.2). However, as we discuss

1 According to the ONS's most recent house price statistics, which we use throughout this report as our source of house price data. But most house price indices have shown broadly similar trends over time, even if estimated house price inflation can sometimes vary materially across indices in the short term.

further below, initial deposits have become a bigger affordability problem for many first time buyers.

Market commentators tend to focus mostly on house prices, and we have updated our projections for these prices in Section 3.3 below. But there is another huge change underway in the market that we look at first. In 2001, just 10% of dwellings were privately rented, but now this figure is almost 20%. Furthermore, the proportion of households with a mortgage has fallen from almost 45% to under 30%. There is a growing dichotomy in the market between those who own a house outright and aspiring buyers.[2] At the same time, the ability of people to use the mortgage market to make the transition from renting to owning appears to be diminishing, with younger generations having to wait longer to buy in many cases.[3]

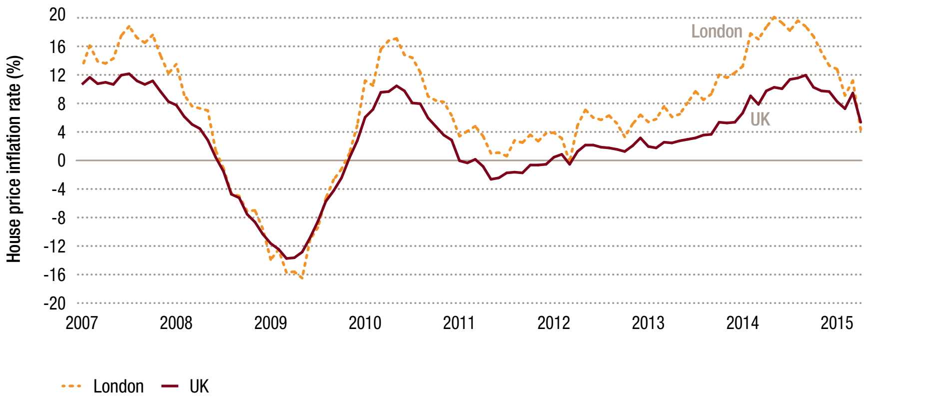
3.2 – Housing tenure in 2025: the continuing rise of Generation Rent?

We highlight the recent shifts in UK tenure trends below, which can be summarized into three broad phases.

Phase 1: 1981-1990: *Thatcher's mortgage boom*

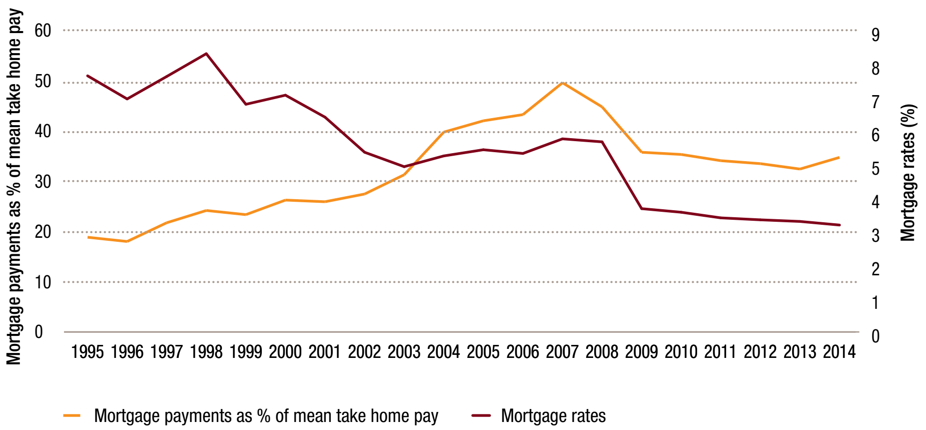
The 1980s offered many the chance to own their own homes for the first time. The Conservative government under Mrs Thatcher used Right-to-Buy as a tool to fulfil Britain's housing aspirations and this was supported by extensive liberalisation of the financial sector, which made mortgages much more widely available. This supported a significant fall in the share of people living in socially rented accommodation from 33% to 25%. In their place, the number of home owners with mortgages grew, from 32% to 41% by the end of the decade.

Figure 3.1. House price inflation rate, UK and London (cash terms)



Source: PwC analysis of ONS data

Figure 3.2. Mortgage rates and mortgage interest payments, % of take home pay



Source: PwC analysis of Nationwide and Bank of England data

Phase 2: 1991-2002: *Increasing outright ownership*

At the start of the decade, mortgages rates were driven to highs of 15% in 1990, and the ensuing recession and house price collapse brought a swift end to the mortgage-driven boom of the 1980s. But the following decade saw increasing numbers of people come to own their home outright as the population aged and older mortgages matured. During this period owner occupied tenure grew from around 25% in 1990 to around 30% by 2002, and social rented housing continued to decline (albeit at a slower pace than in the 1980s) as council homes continued to be sold and fewer replacements were built.

2 According to the 2013-14 English Housing Survey, 61% of private renters (2.5 million English households) stated that they expected to buy a property at some point in the future.
3 26% of private renters who indicated they expected to buy said that they expected to buy within two years, but 44% expected that it would be five years or more before they could buy a property.

Phase 3: 2003-present: *the rise of Generation Rent*

In the 1980s and 1990s, the share of households living in private rented accommodation had been relatively stable at around 10% of the total. However, from 2003 onwards, growth took-off and the proportion of households who were privately renting almost doubled. The global financial crisis brought tightened credit conditions, particularly affecting deposits, forcing people to rent for longer. Home ownership with a mortgage fell sharply, social housing continued to decline gradually, and only modest growth was seen in outright owner occupation. The private rented sector acted as a default option for the increasing number of people who could neither afford to buy nor qualify for social housing. For some people, renting may be a desirable choice for its flexibility, but for others it may be due to the absence of alternative options.[4]

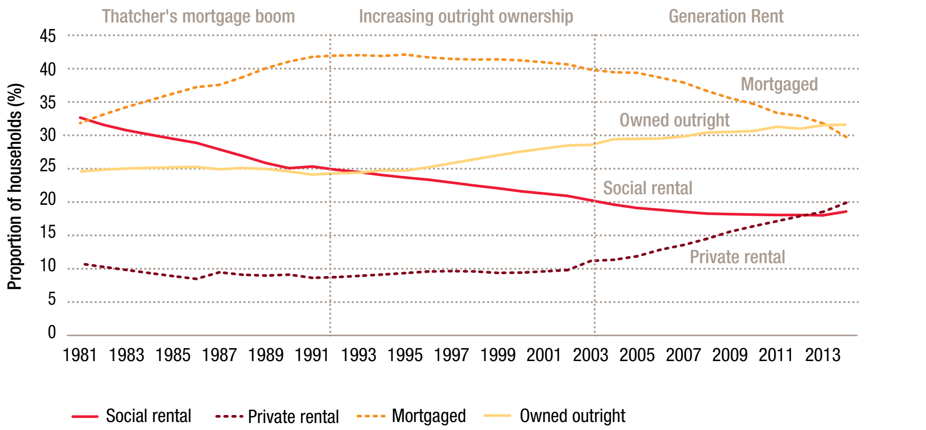
How will housing market tenure change up to 2025?

In order to assess whether these recent trends are set to continue, we must first understand what has driven them. We evaluated a range of financial, demographic and supply measures and identified three factors that appear to have had a particularly strong influence on the split between households buying and renting.

Affordability

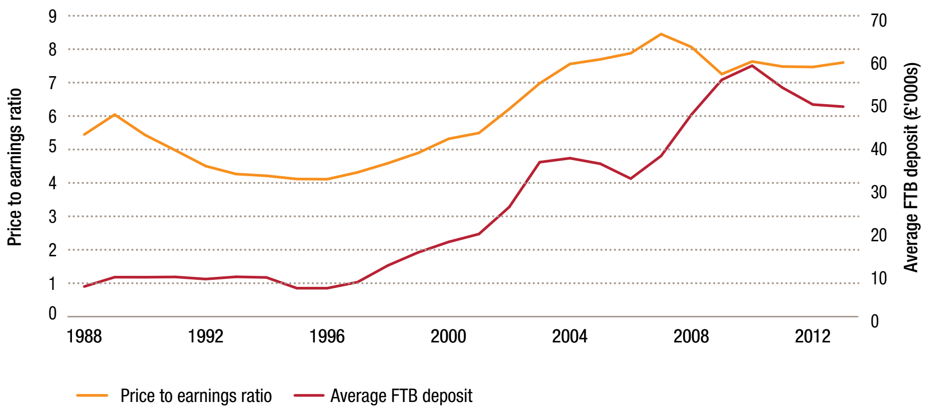
Renting has become more common as buying a property has become less affordable. The steep increase in house prices in the early 2000s led to a doubling of the house price to earnings ratio, from around 4 in the 1990s to just under 8 now (see Figure 3.4). Whilst falling mortgage rates (shown previously in Figure 3.2 over) have constrained the growth in interest costs, the same is not true for first time buyers' deposits.

Figure 3.3. UK share of households by tenure type, %



Source: PwC analysis of English Housing Survey, DCLG

Figure 3.4. House price to earnings ratio, and average first-time-buyer deposit, 1988-2013



Source: PwC analysis of ONS data

First time buyers have been hit by the combined effect of rising house prices and lenders withdrawing higher Loan-to-Value mortgages. This means that average first time buyer deposits have increased almost five-fold since the late 1990s, from £10,000 to almost £50,000 (see Figure 3.4).

The rise in average deposits far exceeds the growth in average earnings over this period (which have gone up by only around 50%), so creating a much greater hurdle for first time buyers to overcome.

This trend threatens to lock large segments of society out of the housing market, especially those on middle or low incomes, and who live in higher priced areas such as London, Oxford and Cambridge.

We observed earlier that the proportion of people living in private rented accommodation had doubled from around 10% to 20% overall since 2000, but for those in the 20-39 age bracket it has jumped from 20% to 50%. In terms of trends in deposits looking forward, whilst

4 Based on regression analysis which controlled for other factors such as income, economic status and health, English Housing Survey data for 2013-14 suggested that the highest life satisfaction was associated with those owning a detached home outright. Those privately renting flats had the lowest life satisfaction after controlling for other factors.

we expect to see some increase in higher Loan-to-Value mortgages, assisted in some cases by the Help to Buy scheme, the continued increase in house prices will ensure that the ratio remains elevated.

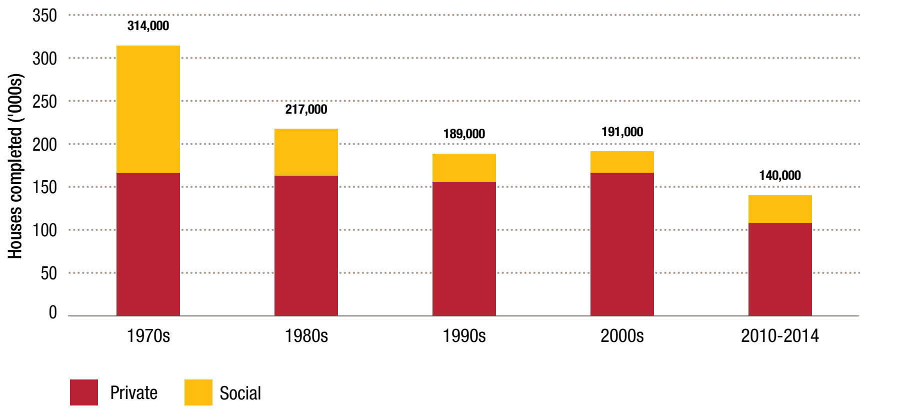
Housing supply

It has long been acknowledged that house building in the UK is insufficient to satisfy demand. The last 5 years have seen an intensification of this shortfall as average numbers of completions have fallen markedly, as shown in Figure 3.5. Low overall building levels have contributed to rising house prices, and the affordability issues discussed above.

There has also been a significant change in the make-up of new housebuilding, which has contributed to the tenure trends. Social housing completions have fallen from 47% of the market in the 1970s to only around 20% on average since 1980 (with some variation over time). The general decline in the number of homes being built also means that the absolute number of social homes being constructed is historically low. This, and the impact of Right-to-Buy moving social rented stock into other tenures, has contributed to the steady decline in social rented housing as replacements failed to keep up with those being sold. The rise of the Buy-to-Let market has also been a factor in the recent rise of the private rented sector.

To gauge potential future trends in social housing supply we have looked at the likely impact of the extension of Right-to-Buy (see Box 3.1 on policy changes below). We expect this to lead to an increase in sales of social housing, with a smaller pick up in building as it takes time for funds raise through sales to be used in new construction. Based on current policies, we expect that this will cause the share of households living in social rented accommodation to continue to drift down over the next 10 years, continuing the long term trend since 1980.

Figure 3.5. Housing completions by private and social sectors, annual averages



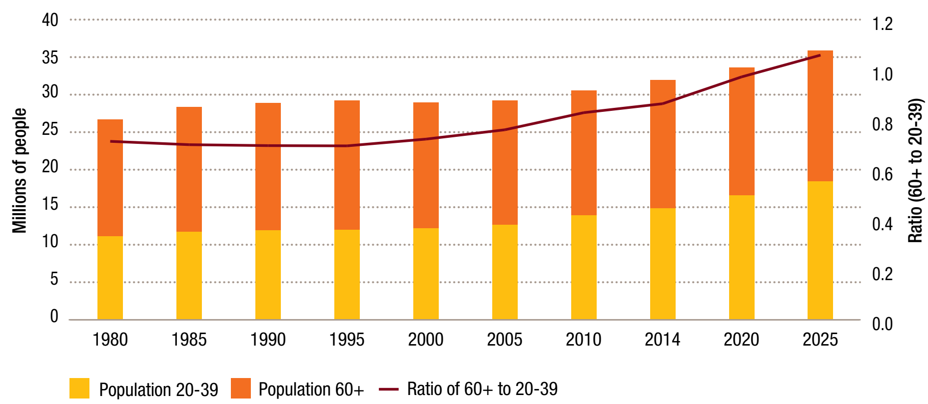
Source: DCLG

Demographic trends

Demographics have also played their part in the changing structure of UK housing tenure. A growing share of people in older age groups since 2000 has driven the cross-over between those with a mortgage and those owning outright. Those aged over 60 have a far higher propensity to own their home outright than own with a mortgage as loans are often timed to mature around expected retirement ages. On the other hand, the share of the UK population in prime first time buying ages (20-39) has been broadly flat.

The growth in the over 60s is expected to continue according to ONS projections, reaching almost 27% of the total UK population by 2025. In contrast, the proportion of 20-39 year olds is expected to remain at around 25%. This increases the size of the group with high levels of owned outright tenure relative to those groups looking to take out mortgages.

Figure 3.6. Share of UK population in different age brackets



Source: ONS, PwC analysis

The continuing projected growth of Generation Rent

We have used expected future trends in these factors, combined with observed historic relationships, to generate a projection for tenure trends over the next ten years, as shown in Figure 3.7. See the technical annex for more details of our methodology here.

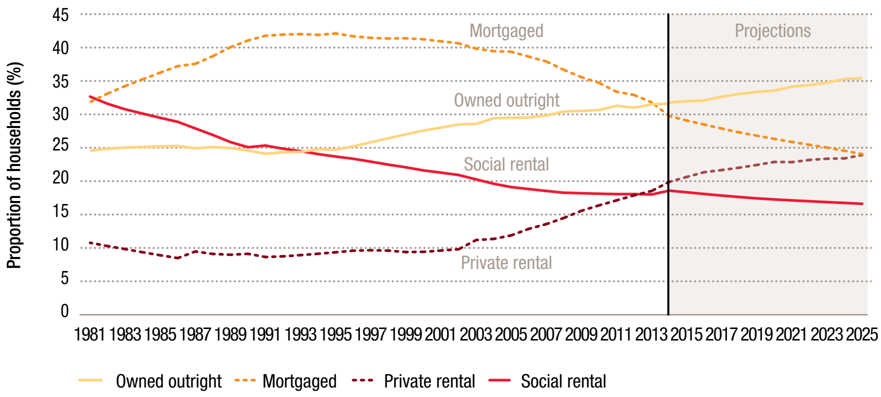
Based on our analysis, the trend towards increased private renting will continue, reaching just under 25% in 2025 from around 20% today. To put this in context, there were 2.3 million household renting privately in 2001; this rose to 5.4 million in 2014 and we estimate that there could be 7.2 million households renting privately by 2025 (allowing for growth in total household numbers).

The counterpart of this is the decline in the number and share of households with a mortgage. We expect this to fall from 29% of the total in 2014 to 24% in 2025, a decline from around 8 million to around 7.2 million (almost exactly the same as the number renting privately).

Outright ownership will continue to rise, as the large number of mortgages taken out in earlier decades mature. We expect this to rise from 8.6 million households in 2014 (32%) to around 10.6 million in 2025 (35%).

The number of households in social rented accommodation will remain broadly flat at around 5 million, although population growth means that their share of the total will decline gradually to 17% in 2025.

Figure 3.7. Projections for UK housing tenure, share of households



Source: PwC analysis, English Housing Survey

Already around half of 20-39 year olds are in the private rental sector and, if our tenure projections are realised, this will become a clear majority. Unless there is a reversal in affordability and housing supply trends, the average age of first-time buyers may continue to rise.

House purchases have historically also been a major factor in driving wealth accumulation of lower and middle classes. The inability of many to get on the ladder may limit this avenue to social mobility in the future. While countries like Germany and Switzerland have large private rented sectors, this is generally in the form of higher quality properties with longer term assured tenancies than in the UK, where tenants generally do not have security of tenure for more than a year and properties are not always of the highest quality. This may change in the long run if private renting becomes more mainstream in the UK, but there is little sign of this having happened over the past 10-15 years, so it is likely to take many decades in practice.

On the other hand, a large and growing segment of the market will own their homes outright, predominantly in older age groups. While these homes may eventually be passed down to descendants, this could also limit social mobility, particularly if the ability to live in highly priced areas is also linked to factors such as access to the best schools.

A full analysis of these issues would take us beyond the scope of this article, but these housing market trends may create significant challenges for policymakers to address, as discussed further in Box 3.1.

Box 3.1

How will current and planned housing policy impact tenure trends?

Government policy is an important influencer of trends in tenure and several announced and potential changes may have an impact.

Extending Right-to-Buy: Discounts given to local authority tenants to buy their homes are to be extended to tenants of housing associations. The generosity of discounts was also increased in 2012 and the maximum now stands at £77,900 outside London and £103,900 in London. While the government hopes to replace all homes sold, historically this has not been achieved; only 46% have been replaced since 2012 according to the National Housing Federation. In terms of the impact, we expect that total sales of social housing may reach 50,000 per year in the short term.

Increased inheritance tax relief for family homes: the July Budget announced a new main residence nil-rate band to be phased in from 2017 that would effectively raise the inheritance tax threshold to £1 million by 2020 for couples with a family home. This could boost house prices at the higher end of the market, particularly in London and the South East.

Impact of pension freedoms and other polices on buy-to-let: New pension freedoms introduced in April 2015 make it much easier to withdraw cash from pension pots and remove the obligation to purchase an annuity. This could cause more pensioners to invest in buy-to-let property. In reality, taxation and fees for fund withdrawal will limit these investments' appeal and few pension pots are large enough to enable people to buy a property: according to Savills only the top 7% have the necessary funds to buy a property outright. In addition, the July Budget restricted mortgage interest relief to the basic rate for buy-to-let mortgages from 2017, which will tend to dampen growth in this market.

Cuts to housing benefits and social rents: The July Budget announced cuts to the annual welfare budget of around £12 billion by 2020, including to housing benefit. In addition, social rents will be cut from 2016 onwards, which will reduce the funds that local authorities and housing associations have to build new homes. The OBR estimates a potential cumulative reduction in new social housebuilding over the next five years of around 14,000, though this is not a large effect relative to total new build levels.

Help to buy: To combat the growing hurdle posed by deposits, this scheme has enabled buyers to have much higher loan-to-value ratios, through guarantees and loans. So far, around 50,000 homes have been bought through the scheme, the majority being first-time-buyers. We expect to see the policy's recent extension to 2020 work against the projected tenure trends, supporting movement from rental to ownership. However, numbers are small in the context of the UK market, so the impact will be limited.

Planning reforms and other supply constraints: The new Conservative government has signalled its intention to reform housing planning further, building on changes introduced under the previous government. One proposed measure is to de-centralise planning, giving more powers to local councils. Planning permission for brownfield development has also been prioritised, such as converting old offices into flats. However, uncertainties remain regarding how far these measures can boost housing supply in practice. Housebuilders also point to other key supply constraints here, notably lacked of skilled labour in the construction sector, particularly if more restrictions are put on immigration.

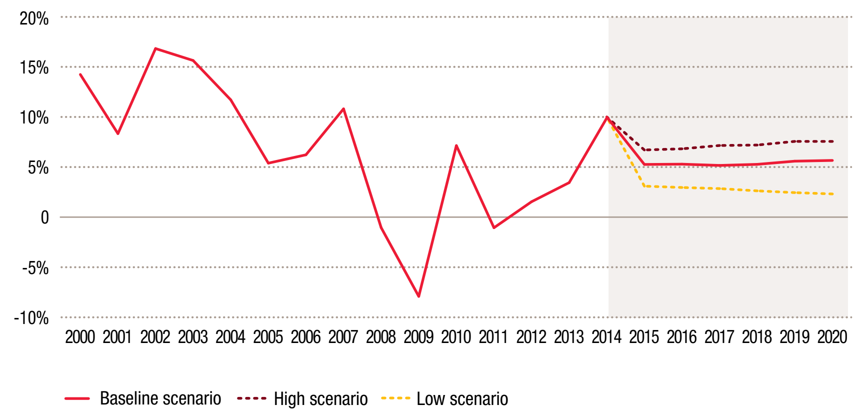
3.3 - House price prospects – UK and regional projections

In this section we present our projections for house price inflation in the UK and regional markets. We use econometric models to make our predictions. These link trends in prices to underlying economic factors and use these relationships to project how prices may evolve in the future. First published in 2006 our model uses annual earnings, housing supply, credit conditions in the market and mortgage interest rates as explanatory variables for house price trends since 1975[5].

We assume in our baseline scenario that average real earnings growth will pick up over time, reaching 2.4% per annum by 2020[6]. Credit conditions, having improved slightly last year, are expected to stabilise with banks remaining cautious and new affordability checks introduced by the FCA. Our gross mortgage lending assumption therefore sees only modest growth. We also base mortgage rate expectations on the OBR's latest projections, which assume only very gradual rises in average interest rates up to 2020. Finally, we assume that the housing stock grows gradually in each year, at a similar pace to the preceding five years.

Under this baseline scenario, UK house prices are projected to increase by 5.3% on average in nominal terms this year. Annual house price inflation is then expected to remain relatively stable before rising slightly to 5.7% in 2020. We expect house prices growth to outstrip the growth in average earnings each year, as improving credit conditions and constrained supply continue to support prices. This will put further pressure on affordability levels over time, as will the assumed gradual rise in mortgage rates.

Figure 3.8. UK house price inflation scenarios (% per annum)



Source: PwC analysis

Table 3.1: UK house price inflation scenarios (% per annum)

Year	Baseline	High	Low
2014 Actual	10.0%	10.0%	10.0%
2015	5.3%	6.7%	3.1%
2016	5.3%	6.8%	3.0%
2017 - 2020 Average	5.4%	7.4%	2.6%

Source: PwC analysis using ONS house price data

Table 3.2: UK average house price scenarios (£000s)

Year	Baseline	High	Low
2014 Actual	265	265	265
2015	279	283	271
2016	294	302	273
2020	363	401	311

Source: PwC analysis using ONS house price data

Under the baseline scenario, our analysis suggests that the average property in the UK could be worth around £279,000 in 2015, rising to around £360,000 by 2020.

As projecting house prices always involves significant uncertainties, we also consider alternative high and low scenarios, as shown in Figure 3.8 and Tables 3.1 and 3.2 above. Our model is based on long-term fundamentals and therefore excludes some short-term volatilities that are impossible to predict with any accuracy.

Our **high scenario** reflects a more buoyant macroeconomic environment. It assumes a stronger growth in credit conditions, accompanied by tighter monetary policy. Employment and earnings assumptions are also more optimistic, with real earnings growth

5 Further details are provided in the technical annex at the end of this article.
6 Based on OBR projections.

rising to around 3% in the medium term. Housing stock growth in this scenario is more constrained than the baseline.

Our **low scenario** reflects a more challenging macroeconomic environment. It assumes zero real earnings growth from 2016 onwards as inflation increases from record lows. Credit conditions remain relatively weak, which results in stagnant mortgage lending in the medium term in this scenario.

Under our high scenario price growth would reach around 7% this year, and then rise further to around 7.5% by 2020. In contrast, our low scenario would see average house price growth of only around 2.5% in 2017-2020.

Regional house price projections

We also develop illustrative house price projections for the key regions across the UK. The projections relate to the baseline scenario set out above, but it should be borne in mind that short-term uncertainties are even greater at the regional than the national level. Table 3.3 shows our projections for 2015, 2016 and 2017-2020 average house price growth across all UK regions.

Following very strong house price growth in 2014, London is projected to see growth markedly slow to around 7% on average this year, 6.7% next year and then an average of around 5.3% from 2017 to 2020. Similar patterns of slowing growth are also expected in the East of England and the South East, as affordability measures like house price to earnings are already elevated. Those regions currently with weaker growth in recent years, including Wales, the North East and Northern Ireland, are projected to see house price growth rise somewhat over time as part of a general pattern of increased convergence across UK regions.

Table 3.3: Regional house price inflation projections, baseline scenario

Region	2014	2015P	2016P	2017-2020P average	PE ratio (2020)
Wales	5.1%	2.6%	3.5%	5.0%	6.9
Scotland	4.7%	4.9%	4.5%	5.5%	7.4
Northern Ireland	138	146	155	198	6.5
North East	4.9%	2.4%	4.1%	5.3%	6.3
North West	5.4%	3.2%	5.0%	5.4%	7.0
Yorks & Humber	5.6%	3.4%	4.0%	5.2%	7.2
East Midlands	7.1%	5.9%	5.6%	5.5%	7.5
West Midlands	5.9%	3.7%	4.6%	5.5%	7.8
East	9.4%	8.8%	6.2%	5.0%	10.2
London	17.4%	5.5%	5.2%	5.3%	14.9
South East	9.9%	7.9%	6.1%	5.5%	11.5
South West	6.8%	5.6%	5.6%	5.6%	9.7
UK	10.0%	5.3%	5.3%	5.4%	9.1

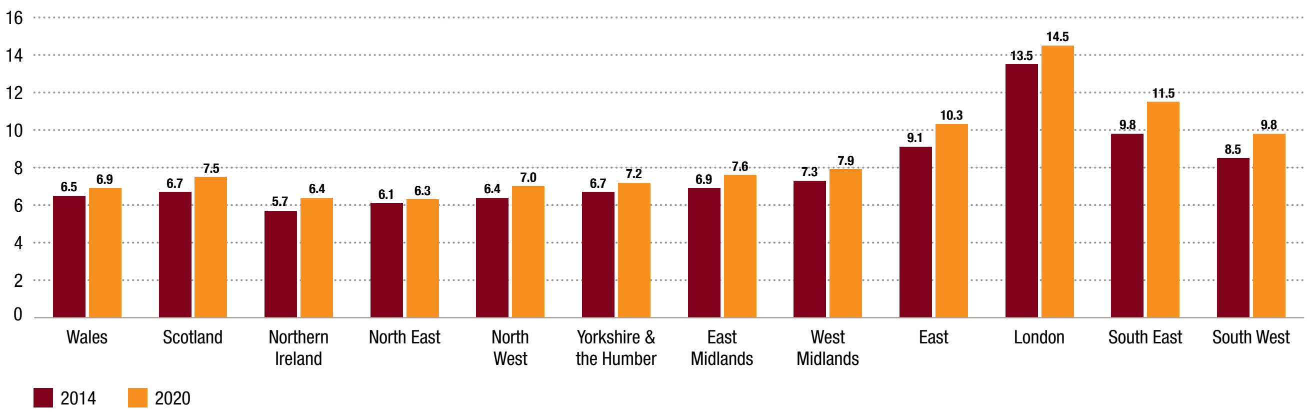
Source: ONS for 2014, PwC main scenario projection for 2015 to 2020

Table 3.4: Regional nominal house price projections in baseline scenario (£000s)

Region	2014 (actual)	2015	2016	2020
Wales	169	173	179	218
Scotland	191	200	209	259
Northern Ireland	138	146	155	198
North East	151	155	161	198
North West	171	177	186	229
Yorks & Humber	174	180	187	230
East Midlands	184	195	205	255
West Midlands	195	202	211	261
East	277	302	320	390
London	490	518	544	670
South East	327	353	375	464
South West	243	257	272	338
UK	265	279	294	363

Source: PwC analysis

Figure 3.9. Regional average house price to individual full-time earnings ratios



Source: ONS for 2014, PwC main scenario projections for 2020

The implication of these house price growth projections for affordability are shown in figure 3.9 over. We project increasing house-price to earnings ratios for all regions by 2020. In London the price to earnings ratio has now exceeded its previous peak in 2007 , but all other regions remain below previous highs.

Conclusions

House price growth is slowing down and tending to converge across UK regions. We do not expect that the double digit price growth seen in 2014 can be sustained but a more normal growth rate of just over 5% might be seen in the medium term, still implying some further rise in house price to earnings ratios as new housing supply remains constrained.

Driven by a decade of soaring house prices pre-crisis and lower loan-to-value ratios post-crisis, the value of deposits has soared, creating a barrier to first time buyers. As a result a generation of private renters has emerged and this will increasingly be the norm for the 20-39 age group. There is a rising dichotomy in the market between those own and those who rent, and increasingly between those (mostly older) households who own outright and those who rent or have a mortgage.

In the long run, if policymakers wish to reverse these trends, a large and sustained increase in affordable housing supply would be required. This could involve a range of measures including further planning reform, action to address skills shortages in the housebuilding sector and enhanced financial incentives to build more homes. But cuts to social rents announced in the Budget will tend to work against this for local authorities and housing associations, while private developers may be cautious about expanding too rapidly. So we expect housing supply shortages to persist for at least the next decade. Realistically, we would therefore see the rise in Generation Rent continuing until at least 2025.

A generation of private renters has emerged and this will increasingly be the norm for the 20-39 age group

Technical appendix
Modelling methodologies

UK house price projections

Our analysis focuses on the ONS house price indices. Data from the ONS vary from those provided by Nationwide and Halifax, though broad trends tend to be similar over time. We focus on the ONS data as they cover a larger sample size, given that Nationwide and Halifax base their indices on only their own mortgage approvals.

The PwC house price model consists of two parts: a long run equilibrium equation and a short run error correction model that indicates how house prices adjust back towards this equilibrium level.

In the long run, real house prices are driven by three key variables: real annual earnings, the ratio of the housing stock to the population ('supply') and a variable which reflects general credit conditions. Monetary values are deflated into real (inflation adjusted) terms using CPI.

In the short run, changes in real house prices are driven by: deviations from the long run equilibrium; changes in real annual earnings; changes in credit conditions; and the previous period's mortgage interest rate (cost of borrowing). The coefficients for these model variables and other summary statistics for both models are shown in the tables below.

The parameters of the model were estimated using the standard ordinary least squares (OLS) econometric technique based on annual data from 1975-2014.

Regional house price projections

The regional house price projections relate to the baseline scenario set out above, but it should be borne in mind that uncertainties are even greater at the regional than the national level, so these projections can only be considered illustrative. Our regional projections are based on a regression between house price to earnings ratios and mortgage rates. The results are then normalised back to aggregate to the UK baseline estimates.

Long run model (Cointegrating equation)

Dependent variable: real house prices	**No. of observations: 40**	
R-squared: 0.90	Coefficient	t-statistic
Earnings (real)	19.8	9.0
Supply	-1395.4	-3.7
Credit	8718.0	1.2
Constant	309657.8	2.7

Short run model

Dependent variable: change real house prices	**No. of observations: 40**	
R-squared: 0.60	Coefficient	t-statistic
L. co-integrating equation residual	-0.08	-1.2
D.Credit	20151.6	4.1
D.Earnings (real)	8.1	3.3
L.Mortgage rate	-623.6	-2.4

Note: 'D' refers to the first difference of a variable (i.e. change on previous year). 'L' refers to the lagged value of a variable in the previous year.

Tenure projections

We set out the methodology underlying each of our tenure projections below:

- Owned outright tenure is predominantly projected using demographics., namely, the relationship between owned outright tenure and the proportion of the population over 60. ONS population projections are used as the basis for the projection. We also consider the relationship between expiring mortgages and the change in owner occupied housing, particularly the impact of expiring mortgages taken out by the baby boomers cohort.
- Social tenure is projected using assumptions for the number of new social housing completions each year and the quantity of social housing sales expected per annum – making allowances for the planned extension of the right-to-buy scheme for housing association tenants.
- Drivers of mortgaged tenure were selected by analysing the statistical significance in univariate and multivariate time series models. The three strongest drivers were determined to be demographics (the proportion of people aged 60 and over relative to the proportion of people aged 20 to 39), new housing completions (measuring supply) and the loan-to-value ratio (LTVs) for first-time buyers (measuring credit conditions and affordability). Examples of other drivers considered were deposit to earnings ratios, gross mortgage lending and mortgage interest payments as a proportion of income. Elasticities between mortgaged tenure and each of the drivers were established by transforming the data into growth rates. These elasticities formed the basis for our projections, drawing upon ONS population projections and assumptions regarding future LTVs and housing completions.
- Private rental tenure is the residual term produced by the projections of the other three categories above relative to total UK household projections.

We have only carried out this analysis at UK level, as we did not have ready access to sufficiently detailed data to produce reliable estimates for regional tenure trends.

4 – Does trade hold the key to the UK services productivity puzzle?[1]

Introduction and summary

The UK economy is a highly services-oriented economy. Services make up over three-quarters of GDP and over 80% of total employment. So understanding the services sector is critical to analysing the performance of the British economy as a whole.

Recent economic debate has focussed on a "productivity puzzle" surrounding the recent growth performance of the UK and other economies. Output per person employed has not grown as strongly since the financial crisis as before. The bulk of this puzzle reflects the performance of the services sector. In the decade 1995-2005 services sector productivity grew by 2% per annum, on average. Since 2005, it has increased by an average of 0.6% per year - less than a third of the previous rate.[2]

This article analyses and seeks to explain this productivity slowdown. Three factors appear to have contributed. First, a number of highly tradeable services activities provided a boost to productivity before the financial crisis. These sectors benefited from the globalisation of the world economy, providing a temporary increase in the pre-crisis productivity trend, so productivity growth before the crisis was inflated by this one-off shift. Second, the financial and property sectors have been a serious drag on productivity since the crisis, as the pre-2007 credit boom has unwound, banks have restructured and had to deal with increased regulation. Third, public sector productivity has also been disappointing – at least according to the official GDP estimates.

Once we allow for these three factors, the core productivity rate in UK private non-financial services has been on a more consistent trend since the mid-1990s. We estimate that non-financial private sector services productivity has been growing at around 1.7% since 1995.

This analysis also highlights the potential role of trade in boosting productivity within UK services. In general, services activities are less open to trade than the production of goods. But the UK appears to have a strong comparative advantage in many tradeable services sector activities and this has contributed to a substantial trade surplus in services of around 5% of GDP – offsetting the UK's deficit in manufactured trade. Opening up overseas markets to UK services firms through new agreements or other initiatives to reduce trade barriers could be highly beneficial to the future growth of the UK economy.

The analysis in this article is developed in three sections. First, we discuss the UK productivity puzzle and the contribution of services sectors to poor UK productivity performance (Section 4.1). Second, we analyse the link between trade and productivity growth in UK services (Section 4.2). And third, we look ahead to the prospects for UK productivity growth and point to some policy conclusions from our analysis (Section 4.3).

4.1 - The productivity puzzle

Productivity growth has been sluggish in many western economies since the financial crisis. Figure 4.1 shows output per worker[3] in the G7 economies since 2005, using IMF data and forecasts. The UK's productivity growth is in the middle of the pack, roughly in line with France and ahead of Germany. Italy is the most noticeable underperformer, while the US, Canada and Japan have seen stronger productivity growth than the major European nations. However, even in the US – the best performer among the G7 – productivity growth has been just 1% per annum over the past decade. This is still disappointing in relation to the 1.5-2% productivity growth trend that major economies appeared to be able to achieve before the financial crisis.

Disappointing productivity in the services sector is at the heart of this puzzle. In the UK, services sectors make up about 78% of GDP and 83% of employment. Figure 4.2 shows that UK manufacturing productivity has risen strongly since 1995, growing on average by 2.7% a year. After a dip during the recession, manufacturing output per worker has grown by 2.3% a year between 2009 and 2014 – not quite as strongly as before the crisis, but still increasing at a respectable rate. Construction productivity has been very volatile, as we might expect, and shows little upward trend. Meanwhile, declining productivity in energy related sectors (including North Sea oil and gas) has exerted a drag on national productivity performance over the past decade. Services productivity has also been sluggish over the past decade: since 2005, it has increased at an average rate of just 0.6% per annum, compared with 2% a year average growth between the mid-90s and mid-2000s.

The services sector encompasses a very varied range of activities, which can be divided into three broad clusters. The largest cluster – accounting for 38% of total services output - is business,

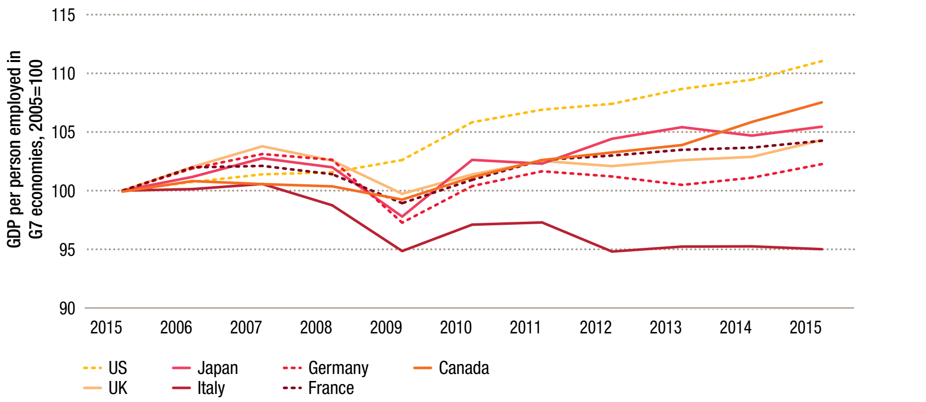
1 This article has been written by Andrew Sentance, senior economic adviser at PwC.
2 2005 is used for comparison as it is a mid-cycle year, rather than 2007 - the peak of the cycle. It is a better basis for comparison with the latest data and assessing longer-term productivity performance
3 Output per worker is used as the measure of productivity in this article. Output per hour worked is an alternative measure, but shows a similar trend.

professional and financial services, including IT and communications. Most of these services are traded internationally and contribute quite significantly to the 5% of GDP trade surplus in services on the UK balance of payments. A second cluster is a set of private services, which mainly support the functioning of local economies and link them to markets at home and abroad. These include retailing, wholesale distribution, hotels and catering, property services and transport, which make up about 36% of total services activity. The third cluster is government services, including public administration, education and health – which account for just over a quarter of services output.

Some aspects of local services and government services are tradeable. Transport includes international transport links to other countries around the world and foreign students contribute income to the UK education system. Shops, hotels and restaurants will provide services to foreign visitors as well as local residents. But it is business, professional, financial and IT/communications services which are the most tradeable – accounting for about two-thirds of UK services exports.

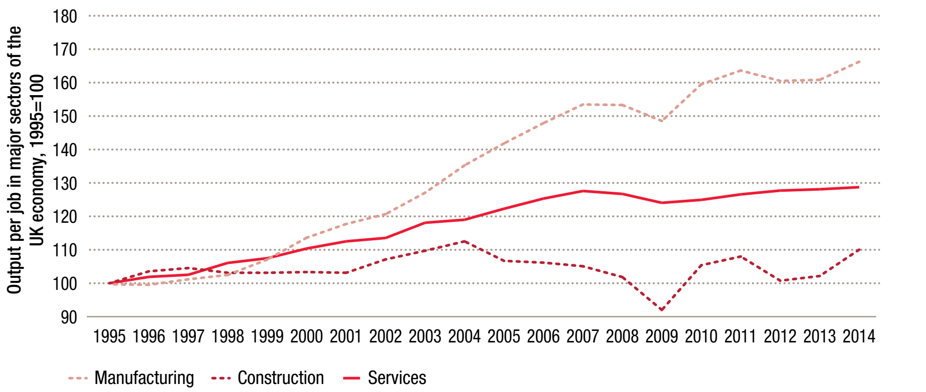
As Figure 4.3 shows, productivity growth across these three clusters has been very different since the mid-1990s. Tradeable services have achieved by far the best productivity performance, particularly in the period before the financial crisis. Local services have performed less well, and here productivity has only just recovered from the sharp drop during the recession. Meanwhile, the productivity of government services has effectively flat-lined showing little growth since the mid-1990s. This may partly reflect the difficulty of measuring productivity in the public sector, where there are not easily identifiable market prices which can be used to measure the real value of output.

Figure 4.1: G7 productivity since 2005



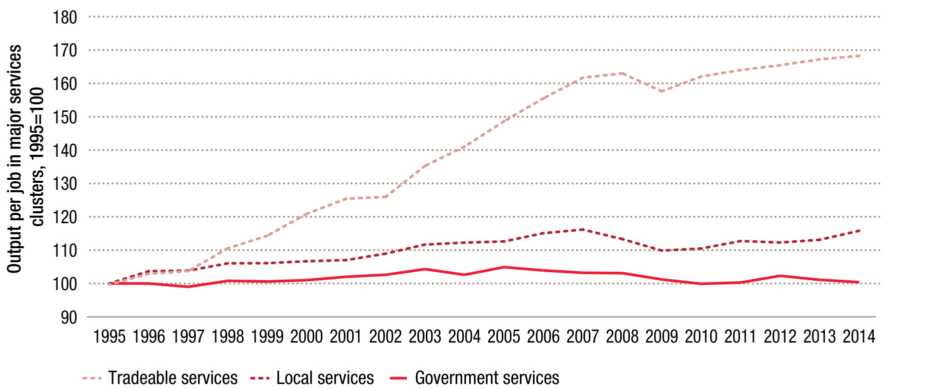
Source: IMF World Economic Outlook, April 2015

Figure 4.2: UK productivity since 1995



Source: ONS Labour Productivity Analysis, July 2015

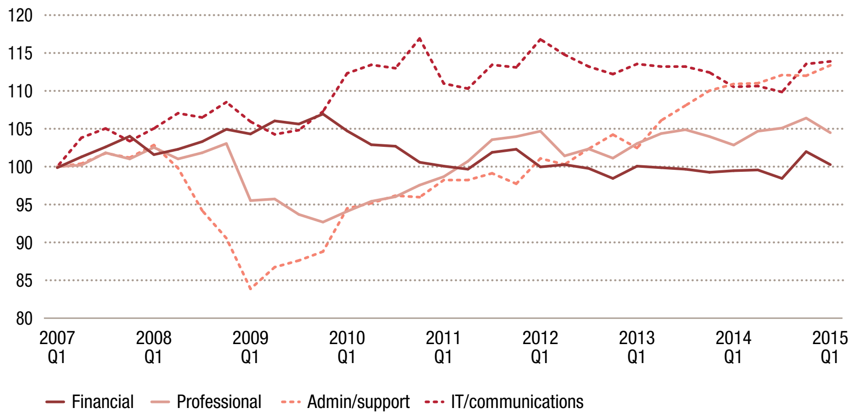
Figure 4.3: UK services productivity since 1995



Source: ONS Labour Productivity Analysis, July 2015 . See text for definitions.

across these three clusters has been very different since the mid-1990s. Tradeable services have achieved by far the best productivity performance, particularly in the period before the financial crisis. Local services have performed less well, and here productivity has only just recovered from the sharp drop during the recession. Meanwhile, the productivity of government services has effectively flat-lined showing little growth since the mid-1990s. This may partly reflect the difficulty of measuring productivity in the public sector, where there are not easily identifiable market prices which can be used to measure the real value of output.

Figure 4.4: UK services productivity since 2007



Source: ONS Labour Productivity Analysis, July 2015

Tradeable services: exceptional pre-crisis performance but now facing headwinds

How do we explain this pattern of productivity growth before, during and since the financial crisis? The superior performance in the tradeable services sectors before the financial crisis is very striking. Economists have recognised for a long time that trade can be a spur to productivity growth. This is partly because it allows greater specialisation in activities where a country or a firm has a comparative advantage – as David Ricardo argued nearly 200 years ago. It is also because access to a larger market allows firms to benefit from economies of scale, generating larger volumes of activity without increasing the number of people employed or other inputs in the same proportion. And firms which are more heavily exposed to international competition will have a stronger incentive to innovate and find efficiency improvements than businesses which are more sheltered in a domestic market. So it should be no surprise that the more tradeable services within the UK have been able to grow productivity more rapidly than other activities more dependent on local markets.

But it also appears that UK business, professional and financial services benefited from a particularly strong surge in productivity between the mid-90s and mid-2000s. Average productivity in the major UK tradeable services rose by over 4% per annum between 1995 and 2007, increasing even more rapidly than in manufacturing industry. A number of factors came together to create a particularly strong boost to productivity in these services over this period.

First, the rapid growth of the financial sector in the global credit boom allowed banks and other institutions to increase their levels of activity rapidly creating economies of scale.

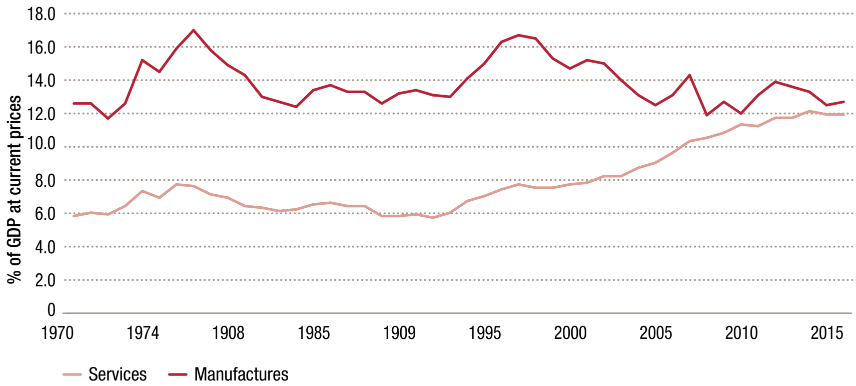
Second, overseas markets for financial, professional and business services became more accessible to UK firms from the mid-1990s onwards. This reflected the reduction in trade barriers within the Single European Market and the increasing globalisation of the world trading system under the supervision of the World Trade Organisation (WTO), which came into being at the beginning of 1995. The impact of the expansion of the global trading system to include the large populations of China, India, the former Soviet bloc and many other emerging market economies should not be underestimated. Currently, member countries of the WTO are home to around 94% of the world's population.

The third ingredient was the development of the internet and other IT and communications systems. This provided a direct productivity boost in technology-related sectors and also indirectly in business, professional and financial services, which are major users of IT and communications technology.

Since 2007, these productivity tailwinds have been less favourable and have been replaced by headwinds in some sectors. As Figure 4.4 shows, productivity has declined in the financial services industry, as the banking sector has had to make significant structural adjustments and the burden of financial regulation has increased. Productivity in a wide range of sectors took a hit following the shocks of the financial crisis and the recession and is taking a while to recover. The information and communications sector is no longer making the strong productivity gains achieved when the internet and mobile communications networks were expanding rapidly.

Looking back, we should see the decade from the mid-1990s to the mid-2000s as a rather exceptional period when productivity was boosted by the tailwinds of financial liberalisation, globalisation and technology. There has been a correction over the financial crisis, but as the economy recovers from recession, we should be able to form a picture of the New Normal for UK services productivity growth. We will return to this issue in the final section of the article. But first it helps to look more closely at UK trade performance in services, which has been a key ingredient in the productivity story described in this article.

Figure 4.5: UK exports of manufactures and services



Sources: ONS Balance of Payments Statistics; 2015 data is Q1 only

4.2 - UK trade performance in services

The UK economy is a very successful exporter of services. According to the WTO, it is the second largest exporter of commercial services behind the United States, and had a 6.3% share of world trade in 2013. That compares to the UK economy's share of less than 3% in world goods trade and a GDP of less than 4% of the world total. In other words, the UK economy punches above its economic weight in terms of trade performance in services.

Other statistics tell a similar story. UK exports of services account for 12% of GDP, much higher than other major European countries and the US. The equivalent figures for France and Germany are around 8% and for the US just 4%. In early 2015, the total value of services exports was very close to the value of manufacturing exports, as Figure 4.5 shows. By 2020, it is likely that the UK economy will be exporting more services than manufactures.

In addition, the contribution of services exports to UK GDP is higher than the headline figures suggest. Research by the OECD and WTO shows that for every £1 of UK services exports, 90-95% remains within the domestic economy, with only 5-10% boosting other economies through imports. The equivalent figures are much lower for manufactured exports, with around 70-75% being retained vs 25-30% imported. Using this value-added basis for calculation, services exports already contribute more to value-added in the UK economy than manufactures – 60% according to the OECD/WTO estimates.[4]

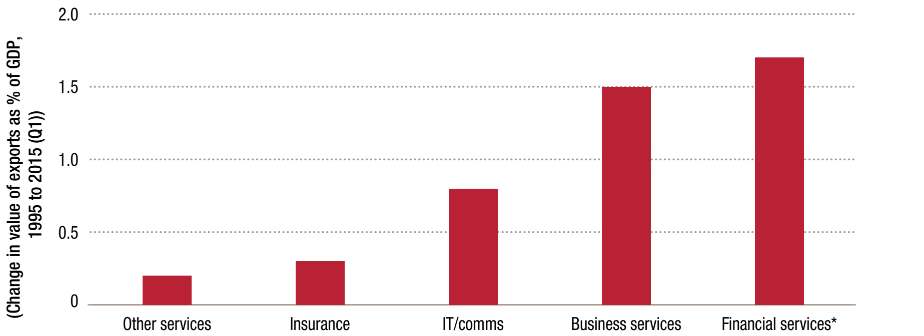
This strong contribution to GDP from services exports is, however, a relatively recent feature of the UK economy. As Figure 4.5 shows, between 1970 and 2000, the value of UK services accounted for only around 6-8% of GDP and steadily increased their contribution to 12% only from the mid-1990s onwards - the very same period in which productivity performance in UK tradeable services was so strong. This evidence reinforces the link between trade and services productivity suggested earlier in this article. And, as Figure 4.6 shows, it is the contribution from the sectors which provided such a strong productivity boost which was responsible for this increase in exports – business and professional services, financial services and IT/ communications.

Over the same period, the UK's trade surplus in services has grown from 1.5-2% of GDP in the late 1990s to 5% of GDP now. Despite fears in the aftermath of the financial crisis, the UK's trade surplus in financial services has been sustained and the surplus in business services has increased. The build-up of a substantial surplus in services trade since the mid-1990s has offset the widening deficit in UK manufacturing trade over the same period, from a deficit of around 1% of GDP to a shortfall of 4.5% of GDP.

These developments suggest that as markets have opened up in Europe and globally, the UK has been able to exploit its competitive advantage in a range of business, financial and related services, and this advantage has not been significantly eroded by the financial crisis. However, our trade performance in some sectors of manufacturing has deteriorated as producers in Asia and lower wage countries in Europe have expanded their markets at the expense of UK and other western producers. UK manufacturers have been more successful in maintaining their market share in high-technology, high-skill and leading edge sectors like aerospace and high-value engineering and the production of high quality branded goods. At the same time, the boundary

4 See "OECD Trade and Value-Added Indicators for the UK" - http://www.oecd.org/sti/ind/TiVA_UNITEDKINGDOM_MAY_2013.pdf

Figure 4.6: Contribution to rising service sector exports



Source: ONS Balance of Payments Statistics

* Excluding insurance

between "making things" and "selling services" has become increasingly blurred. UK "manufacturing firms" are now not just selling physical products but associated services in terms of after-sales servicing and expertise.

Despite the fact that a growing surplus in services has broadly offset the increased deficit in manufactures, the UK has still built up a substantial current account deficit, which has been running at around 6% of GDP. However, this large deficit has not been caused by worsening trade performance. Instead, it reflects changes in flows of income from foreign-owned businesses operating in the UK and British companies which operate abroad, with most of the shift taking place in income flows to and from the rest of the EU. Paradoxically this could be a sign of the UK's economic strength rather than weakness. By value-added, nearly 30% of UK business is foreign-owned, so the recovery in the British economy and company profitability will trigger increased flows of profits and dividends back to parent companies abroad. By contrast, disappointing performance in the Eurozone economies means that UK companies are not benefiting from a similar recovery in profits and dividends from their European subsidiaries. This situation may begin to correct as other EU economies recover, and should not necessarily be seen as grounds for longer-term concern. However, there could be longer-term implications for the balance of payments if the returns on UK investments abroad do not eventually recover.

4.3 - Productivity outlook and policy implications

The argument in this article so far is that services sector productivity growth, and hence UK productivity more generally, was boosted in the period from the mid-1990s and mid-2000s by a series of favourable tailwinds which benefited key sectors that trade internationally – business and professional services, finance and IT/communications. There was then a productivity hit in the recession and the financial crisis. But the recovery started in mid-2009 and the economy has now been growing for nearly six years. What can we say about productivity trends on the basis of the recovery so far?

Though government services make up about a quarter of total services output, the bulk of the services sector reflects the activity of private businesses. Private businesses operating in competitive markets will generally have good incentives to raise productivity, so we should expect to see a return to reasonably healthy growth of productivity as the effects of the financial crisis wear off. However, we have also seen that some sectors have experienced special factors which may be dragging down the overall growth of the services sector. One is the financial sector, which is facing a prolonged adjustment since the financial crisis and new regulatory requirements that may be holding back productivity.

Another sector which seems to be showing unusual productivity performance is property-related services (officially described as "real estate services"), where productivity has been declining on and off since 2000. This may also be associated with the impact of the financial crisis, which saw a sharp fall in the number of property transactions though in recent years there has been some recovery.[5]

Figure 4.7 shows an index of private services productivity which excludes financial and property services but covers the rest of the non-government services sector. It reflects productivity growth in the bulk of the tradeable services and local services clusters described above, which account for 78% of private services activity. What this index shows is very consistent with the story that has been described in this article so far. Over the long-term since 1995 and over the recovery so far (i.e. from 2009-2014), the productivity growth rate in these "core" private services has averaged 1.7% per annum. As we argued earlier, the boost from globalisation, technology and other one-off factors raised this growth rate before the crisis – and the core services productivity growth rate was 2.5% per annum between 1995 and 2007. But this boost unwound in the recession. Since then there has been a return to the 1.7% productivity trend.

5 See Section 3 for a more detailed discussion of housing market trends.

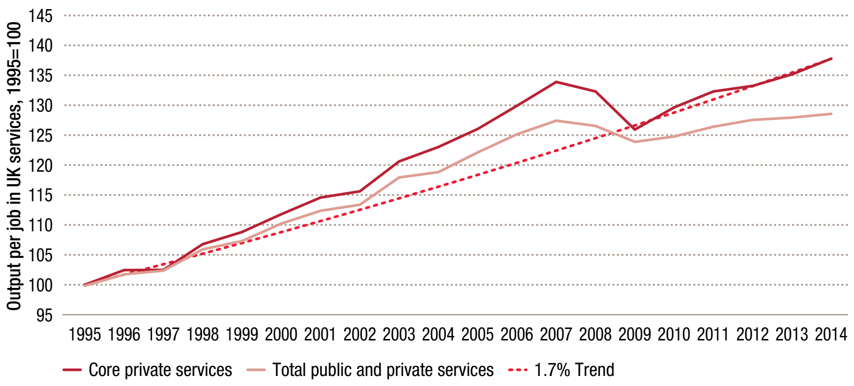
This does not mean, however that total services sector productivity can grow at this rate if financial and property services, as well as government services, continue to show very little productivity improvement. For example, with zero productivity growth in these underperforming sectors, the best that can be achieved for the services sector as a whole would be around 1% per annum, though even that would still be better than the 0.6% average productivity growth since 2005.

A more optimistic scenario would be a return to slow positive productivity growth in government services and the financial and property sectors. Productivity growth of just 1% per year in these sectors would generate an extra £4.4bn of GDP each year – building up to £22bn over 5 years, over 1% of total UK GDP. The impact on the services sector as a whole would be to raise the services productivity growth rate to around 1.4%. If manufacturing industry can sustain the 2.3% per annum average productivity growth it has achieved over the recovery so far, this would be consistent with output per worker rising by around 1.5% a year across the economy as a whole.

What can government do to boost productivity?

What levers can the government pull to release this potential for productivity improvement in the services sector and across the economy as a whole? Economists suggest policy measures to raise productivity should not take the form of direct interventions into specific sectors and industries, which was the approach of "industrial policy" in the 1960s and 1970s. Rather, they should be aimed either at eliminating barriers to growth, or at improving general market and business conditions, which can benefit a wide range of activities across the economy. The analysis above suggests a focus on five key areas of policy a number of which already

Figure 4.7: Core UK private services productivity



Source: ONS Labour Productivity Analysis, July 2015 . See text for definitions.

feature in the Chancellor's recently announced Productivity Plan.

First, seeking to open up overseas markets in key services industries where the UK has a competitive advantage. While services account for 75% of world GDP, they make up just 20% of trade across the world economy. Indeed, within the EU, services trade flows are less than 20% of the total – which suggests that the Single Market in services is not working as effectively as it should. The UK is a notable exception to this general pattern, with services accounting for over 40% of total trade.

Reducing formal and informal barriers to services trade should be a key priority for the UK government in its renegotiation with the EU and in broader global trade discussions, like the Transatlantic Trade and Investment Partnership (TTIP). This could well provide a further boost to productivity and economic growth in the business, financial and professional services where the UK is comparatively strong – just as we saw between the mid-1990s and mid-2000s. More effective trade promotion of services exports could also create new export opportunities. At present the vast majority of trade promotion is focussed on manufacturing industry, even though services exports are worth almost as much as overseas sales of manufactured goods.

Second, services industries are very people-intensive, and productivity growth relies on employees having the right skills and capabilities. University education is an important contributor to skills and expertise in the workforce and the UK has one of the highest ratios of students completing first-time university degrees in the OECD. But where the UK has underperformed in the past is in providing vocational education and training for those not going on to university. The government's current skills and training programme aims to address this issue, with the commitment to deliver 3 million apprenticeships over the lifetime of this Parliament. Delivering on this commitment and on other educations and training initiatives will be essential if UK productivity growth is not to be held back in the years ahead by skill shortages.

Third, access to efficient transport and communications infrastructure is an important ingredient for productivity growth in both services and manufacturing. Good transport links with overseas markets help strengthen trade links and efficient internal transport links support the clustering of services activities around cities, towns and universities which can make them more productive. An important issue for the UK in this context will be the delivery of additional airport capacity in the South-East of England, which has been debated for fifteen years since the Labour government issued its Future of Aviation consultation in 2000. We are still awaiting a government decision on the AirportsCommission recommendation that a new runway should be built at Heathrow as long as environmental conditions can be met.[6] The new Conservative government has ambitious plans for new road and rail links, including upgrading the transport infrastructure which supports the "Northern Powerhouse". But past experience shows that it has been easier for governments to talk about transport improvements than to build new roads and rail links. Delivering on these ambitious infrastructure plans in the years ahead will be a key challenge.

Fourth, our analysis has showed that government services appear to be an area of weak productivity growth – at least according to the official GDP figures. This may partly reflect the difficulty of measuring productivity in services which are not marketed, but it also highlights the importance of reforming public services to improve the efficiency of delivery, as part of the wider productivity growth agenda.[7]

Finally, financial services have become an area of relatively weak productivity growth after very strong y performance before the financial crisis. This probably reflects the scale of the shock to the financial system and the impact of new regulation. But it is important for regulators to ensure that the systems they are putting in place are proportionate and allow financial services firms to operate efficiently. Also, ensuring the UK remains a competitive base for financial services relative to other EU and global centres is necessary to underpin Britain's position as a major exporter of financial services, which is also crucial to sustaining productivity growth in this sector.

4.4 - Conclusion

Recent UK poor productivity performance in the UK services industries becomes less of a puzzle when we recognise that a cluster of tradeable services provided a big boost to productivity in the decade or so before the financial crisis. Though some of the tailwinds which provided that boost are no longer present, underlying private sector services productivity is now growing at 1.7% - in line with the long-run trend since the mid-1990s. With policy action to remedy UK weaknesses that hold back growth potential in skills, transport, government services and finance, there is scope for the UK's productivity performance to recover in the years ahead. Across the economy as a whole, growth of output per worker of 1.5% a year could be achievable, a great improvement on the virtually flat national productivity trend since the financial crisis.

Meanwhile, UK productivity should receive a further boost if we are successful in gaining new opportunities to expand trade in services, by opening up markets inside and outside the EU. The UK has become a very successful exporter of services – the second largest in the world - and it is quite likely that we will be selling more services overseas than manufactures by the end of this decade.

Understanding the services sector is critical to analysing the performance of the UK economy as a whole.

6 The final report of the Airports Commission chaired by Sir Howard Davies was published on 1 July 2015:https://www.gov.uk/government/organisations/airports-commission
7 A recent analysis by the Office of National Statistics shows higher productivity growth in public services since 2007. See http://www.ons.gov.uk/ons/guide-method/method-quality/specific/economy/productivity-measures/productivity-articles/comparing-public-service-productivity-estimates.pdf

Appendix A
Outlook for the global economy

Table A.1 presents our latest main scenario projections for a selection of economies across the world.

Positive but relatively modest growth is projected across the leading developed economies in 2015-16, with the UK actually estimated to have the highest G7 growth rate again this year despite this only being 2.6% in our main scenario. This reflects disappointing US growth in early 2015, which has caused us to revise down significantly our US projections for the year as a whole since March. The overall Eurozone growth rate is an improvement on recent years, but still modest in absolute terms. It is also particularly uncertain at present due to the ongoing problems faced by Greece.

Emerging market performance is projected to vary considerably, with China and India growing at around 7% this year, but with China being subject to much financial volatility recently, while Brazil and Russia are in recession. Global growth is projected to pick up in 2016, but this remains subject to considerable uncertainties at this early stage. Inflation remains relatively subdued at the global level.

These projections (including those for the UK) are updated monthly in our Global Economy Watch publication, which can be found at www.pwc.com/gew

Table A.1: Global economic prospects

	Share of world GDP	Real GDP growth (%)		Inflation (%)	
	2014 at MERs	2015p	2016p	2015p	2016p
United States	22.5%	2.3	2.7	0.2	1.8
China	13.4%	7.0	7.0	1.9	1.8
Japan	6.0%	1.1	1.7	1.4	1.5
UK	3.8%	2.6	2.4	0.3	1.7
France	3.7%	1.3	1.4	0.1	1.1
Germany	5.0%	1.7	1.9	0.2	1.8
Greece	0.3%	-1.5	0.7	-0.8	0.3
Ireland	0.3%	3.4	3.4	0.2	1.1
Italy	2.8%	0.6	1.2	-0.1	1.8
Netherlands	1.1%	1.4	1.6	1.2	1.1
Portugal	0.3%	1.5	1.7	0.1	0.8
Spain	1.8%	3.0	2.4	-0.8	1.0
Poland	0.7%	3.4	3.5	-0.1	1.7
Russia	2.4%	-5.0	-0.5	15.0	8.0
Turkey	1.0%	2.8	3.5	7.7	6.8
Australia	1.9%	2.9	2.0	2.5	2.6
India	2.7%	7.5	7.9	-2.2	3.9
Indonesia	1.1%	4.9	5.0	6.8	5.8
South Korea	1.8%	3.1	3.5	1.0	2.0
Argentina	0.7%	0.8	1.8	25.0	25.0
Brazil	3.0%	-0.9	0.7	8.0	6.0
Canada	2.3%	1.4	2.2	0.9	1.9
Mexico	1.7%	2.7	3.3	3.0	3.3
South Africa	0.5%	1.8	2.0	4.8	5.6
Nigeria	0.7%	4.0	4.5	10.5	10.0
Saudi Arabia	1.0%	2.6	3.0	2.3	3.0
World (PPP)		3.3	3.8		
World (Market Exchange Rates)	100%	2.7	3.2	1.8	2.6
Eurozone	17.4%	1.5	1.7	0.1	1.4

Source: PwC main scenario for 2015 and 2016; IMF for GDP shares in 2014 at market exchange rates (MERs).

Appendix B
UK economic trends: 1979 – 2014

Annual averages	GDP growth	Household expenditure growth	Manufacturing output growth*	Inflation (CPI**)	3 month interest rate (% annual average)	Current account balance (% of GDP)	PSNB*** (% of GDP)
1979	3.7	4.8			13.7	-0.6	4.5
1980	-2.2	0.1			16.6	0.6	4.1
1981	-0.8	0.3			13.9	1.7	3.3
1982	2.1	1.2			12.2	0.7	2.5
1983	4.2	4.4			10.1	0.3	3.3
1984	2.3	2.5			10.0	-0.5	3.6
1985	3.5	4.1			12.2	-0.2	2.8
1986	3.2	6.5			10.9	-1	2.2
1987	5.5	5.3			9.7	-1.6	1.4
1988	5.9	7.8			10.4	-3.8	-0.7
1989	2.5	4.0		5.2	13.9	-4.3	-0.7
1990	0.5	0.7		7.0	14.8	-3.3	0.7
1991	-1.2	-0.7		7.5	11.5	-1.4	2.8
1992	0.4	1.2		4.3	9.6	-1.6	6.0
1993	2.6	3.1		2.5	5.9	-1.4	7.3
1994	4.0	3.3		2.0	5.5	-0.5	6.2
1995	2.5	2.1		2.6	6.7	-0.7	5.0
1996	2.7	4.2		2.5	6.0	-0.6	3.6
1997	2.6	4.6		1.8	6.8	-0.1	1.8
1998	3.5	4.4	0.4	1.6	7.3	-0.4	-0.1
1999	3.2	5.0	0.6	1.3	5.4	-2.6	-1.2
2000	3.8	5.3	2.2	0.8	6.1	-2.4	-1.5
2001	2.7	3.7	-1.5	1.2	5.0	-2.1	-0.7
2002	2.5	4.0	-2.6	1.3	4.0	-2	1.8
2003	4.3	4.0	-0.6	1.4	3.7	-1.6	2.8
2004	2.5	3.6	1.9	1.3	4.6	-2	3.1
2005	2.8	3.0	-0.1	2.1	4.7	-1.3	3.5
2006	3.0	2.2	2.2	2.3	4.8	-2.2	2.6
2007	2.6	2.8	0.8	2.3	6.0	-2.7	2.7
2008	-0.3	-0.5	-2.9	3.6	5.5	-3.7	4.9
2009	-4.3	-3.3	-9.4	2.2	1.2	-2.8	10.3
2010	1.9	0.5	4.7	3.3	0.7	-2.6	9.1
2011	1.6	-0.1	1.8	4.5	0.9	-1.7	7.0
2012	0.7	1.5	-1.3	2.8	0.8	-3.7	7.6
2013	1.7	1.7	-0.7	2.6	0.5	-4.5	5.9
2014	3.0	2.6	3.2	1.5	0.5	-5.9	5.4
Average over economic cycles****							
1979 - 1989	2.7	3.7			12.0	-0.4	2.7
1989 - 2000	2.1	2.9	0.5	3.5	8.5	-1.5	2.9
2000 - 2007	3.1	3.7	0.2	1.5	4.7	-1.9	1.7

* After the revisions to the national accounts data, pre-1998 data is not currently available ** Pre-1997 data estimated *** Public Sector Net Borrowing (calendar years excluding public sector banks)
**** Peak-to-peak for GDP relative to trend
Sources: ONS, Bank of England

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