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Macroeconomic imbalances Country Report – United Kingdom 2015

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European Commission
Directorate-General for Economic and Financial Affairs

Macroeconomic imbalances

Country Report – United Kingdom 2015

EUROPEAN ECONOMY Occasional Papers 227

Results of in-depth reviews under Regulation (EU) No 1176/2011 on the prevention and correction of macroeconomic imbalances

The United Kingdom is experiencing *macroeconomic imbalances, which require policy action and monitoring.* In particular, risks related to the high level of household indebtedness, also linked to structural characteristics of the housing market, continue to deserve attention. The resilience of the economy and financial sector has increased. However, a shortage of housing will persist and is likely to underpin high house prices in the medium term and continue to leave the sector less resilient in the face of risks.

Excerpt of country-specific findings on the United Kingdom, COM(2015)85 final_ SWD(2015)47 final, 26.02.2015

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EXECUTIVE SUMMARY

In 2014, growth and employment in the United Kingdom (UK) were relatively unaffected by the general weakening of global activity. The economy continued to grow briskly at 2.6% in 2014 due to strong domestic demand. This was a marked improvement over growth of 1.7% in 2013. The labour market continues to perform robustly with employment expected to have grown at a rapid 1.9% in 2014, up from 1.2% in 2013. The unemployment rate continues to fall; from 7.6% in 2013 to a projected 6.3% in 2014. Inflation is on a downward trend and fell to 1.5% in 2014. This decline is expected to continue, aided by the fall in energy prices, to 1.0% in 2015.

This Country Report assesses the United Kingdom's economy against the background of the Commission's Annual Growth Survey which recommends three main pillars for the EU's economic and social policy in 2015: investment, structural reforms, and fiscal responsibility. In line with the Investment Plan for Europe, it also explores ways to maximise the impact of public resources and unlock private investment. Finally, it assesses the United Kingdom in the light of the 2015 Alert Mechanism Report, in which the Commission found it useful to further examine the persistence of imbalances or their unwinding. The main findings of the In-Depth Review contained in this Country Report are:

- **Household indebtedness continues to decline but remains high.** High levels of household indebtedness leave the household sector exposed to risks in the short and medium term, and may amplify the impact of those risks should they materialise. However, the likelihood of risks occurring is considered lower than in 2014 as the strength of the economy and resilience of the financial sector have improved.

- **The pace of house price rises has gradually slackened throughout 2014** reflecting a softening in demand and modest rises in supply. The risk of further increases in house prices, followed by a sharp correction, has subsided but medium term risks remain should increases in supply react slowly to demand. Recent policy measures, including macro-prudential regulation, should help reduce the risk posed by a possible deterioration in lending standards and help safeguard financial stability and reduce the risks to the real economy.

- **There have been a number of important recent initiatives to boost housing supply** but it will take some time for the impact to be fully felt, therefore, the supply-demand imbalance remains. The shortage of supply relative to demand is likely to underpin higher house price levels, and higher household indebtedness, in the medium term than would otherwise be the case. Risks are mainly concentrated in the South East of England. Therefore, the macroeconomic imbalance associated with high household indebtedness remains but is lower than as assessed in 2014.

The Country Report also analyses macroeconomic issues and the main findings are:

- **Fiscal consolidation in the UK focusses mainly on expenditure cuts**, accounting for approximately 80% of the measures implemented thus far. Total government expenditure as a share of GDP has been declining steadily and is estimated at 44% of GDP in 2014-15. However, weaker-than-expected tax receipts have meant that the deficit is falling more slowly than originally planned. Weak public investment levels suggest that there are trade-offs as regards consolidation choices.

- **Boosting private and public investment would help the UK increase productivity growth and improve competitiveness.** In relation to investment in infrastructure, risks related to deliverability persist, as a large share of funding is expected to come from the private sector. Furthermore, public and private research and development continue to lag behind other advanced economies.

- **As regards access to finance, falling bank credit and insufficient competition in the banking sector are considered to be the main impediments.**

- **Despite the robust performance of the labour market, there are several inter-**

related challenges in certain areas. Specifically, skills under-use and youth unemployment remain structural challenges. There has been strong employment growth, including in low-paid sectors, during the economic recovery;

- **Poverty indicators display adverse trends.** The at-risk-of-poverty or social exclusion rate has grown between 2011 and 2013, and the severe material deprivation rate has also risen between 2009 and 2013;

- **Strong employment growth has been accompanied by sluggish productivity**. Employers have expanded output by hiring additional workers without a matching increase in value added. On some measures, the UK has underspent on infrastructure relative to comparable countries which might hold productivity back.

- The reasons for the decline in export share, including the role of competitiveness, were assessed in the 2014 In-Depth Review. The external sector is no longer considered a macroeconomic imbalance that requires monitoring and policy action.

Overall, the UK has made some progress in addressing the 2014 Country-Specific Recommendations. During the past year, limited progress has been made in broadening the tax base, and fiscal consolidation remains an issue. Some progress has been made in relation to provision of infrastructure, notably the update of the government's national infrastructure plan. There has been substantial progress in providing finance to small and medium enterprises; for example, the British Business Bank has been established to provide them with alternative sources of finance. Some progress has been made in the housing sector with macro-prudential regulation being deployed by the Financial Policy Committee to manage the risks posed to the stability of the financial sector. In addition, the risks posed by the Help to Buy policy have fallen. Initiatives have been announced to boost supply. Some progress has been made in tackling youth unemployment, improving basic and vocational skills and investing in infrastructure. However, only limited progress has been made in reducing child poverty, and ensuring and improving the availability of affordable childcare.

The Country Report reveals a policy challenge stemming from the analysis of macroeconomic imbalances. In relation to housing, although the risks associated with high household indebtedness and rising house prices have fallen, the supply of housing does not match the increasing demand in the medium term.

Other challenges are:

- **The implementation of the apprenticeship reform is still ongoing.** There are still challenges in tackling youth unemployment, the education-to-work transitions, the involvement of young people in taking up work experience and vocational training opportunities.

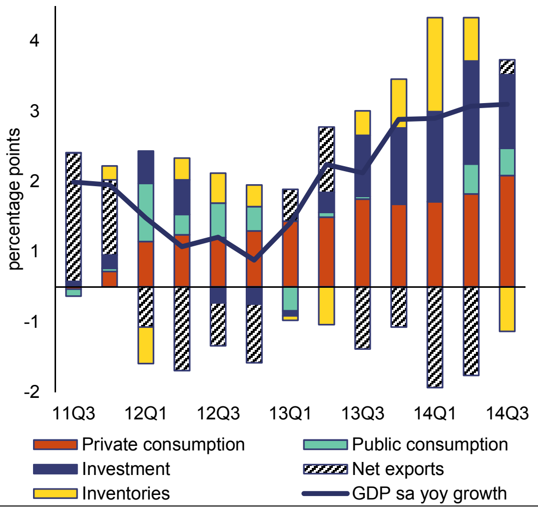
- **As regards access to finance,** the impact of policy developments, and government investigations, already underway is not yet reflected in the outcomes, especially for SMEs.

1. SCENE SETTER: ECONOMIC SITUATION AND OUTLOOK

Growth composition

The economy continued to grow briskly in 2014 at a rate of 2.6%, a marked rise from 1.7% in 2013 (see graph 1.1) and among the best in the EU and the G7. The composition of growth has become more broadly based with fixed capital formation projected to have increased by 7.4% in 2014, almost triple that of GDP. Private consumption is also expected to have increased at a solid rate of 2.3% in 2014. Overall, domestic demand is forecast to have contributed 3.0 pps. to growth but net exports worsened.

Graph 1.1: **Contributions to GDP growth**

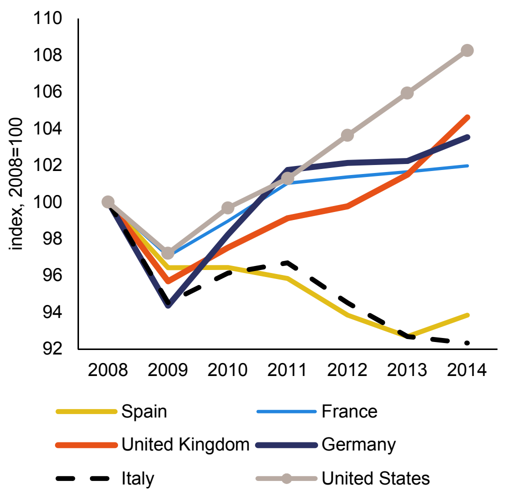


Source: Office for National Statistics

The strength of domestic demand reflects a number of factors including: continued historically low borrowing costs for households and firms resulting from exceptionally loose monetary policy, government policy initiatives that affect the housing market and a robust labour market in which demand and supply have remained strong while employment growth further boosts household consumption.

Reflecting the recent pace of economic activity, the size of the economy is now more than 3% higher than at its peak in 2008. The performance since 2008 now slightly exceeds that of France and Germany (see graph 1.2). However, the external sector has weakened with net trade expected to have detracted from growth by 0.6 pps. in 2014. This outcome reflects a decline in exports accompanied by a small rise in imports.

Graph 1.2: **Gross Domestic Product in constant prices**



Source: European Commission

Short-term outlook

Growth in 2014 is expected to be sustained at a similar pace in 2015 and 2016 at 2.6% and 2.4%, respectively. However, as was the case in 2014, growth is likely to be driven by domestic demand with net exports continuing to detract from it, albeit by less than in 2014. Although export growth is expected to rise compared to 2014, it is likely that imports will increase as well. Therefore, rebalancing toward the external sector is expected to remain limited.

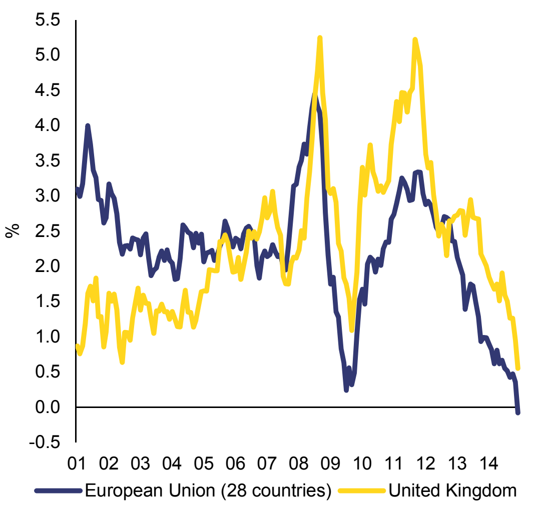
The bright outlook is supported by a number of factors. For instance, according to the latest expectations from financial markets, a tightening in monetary policy is expected to be delayed until mid-2016 and be relatively gradual. The labour market should remain robust and business investment growth should continue to outstrip that of domestic demand, reflecting increased confidence and strong balance sheets. In addition, the fall in crude oil prices from the second half of 2014 should enhance growth.

Low inflation

Inflation fell to 1.5% in 2014 (graph 1.3) from 2.6% in 2013 and is projected to fall further to

1.0% in 2015 before rising gently in 2016. Low inflation reflects a number of factors including the appreciation of sterling, subdued wage pressures in the labour market, the impact of the fall in world oil prices on retail prices and the compression of retailers' margins in the supermarket sector as the result of an intensification of competition.

Graph 1.3: **Inflation**



Source: European Commission

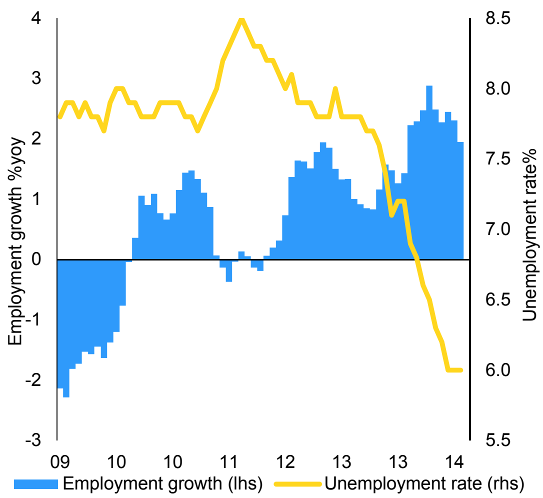
Fiscal consolidation

The government has been implementing fiscal consolidation since the election of 2010. The fiscal strategy focussed mainly on expenditure cuts with them accounting for approximately 80% of the consolidation measures. This has resulted in an estimated fall in the budget deficit to 5.3% of GDP in 2014-15 from the peak of 10.8% of GDP in 2009-10. Gross government debt continues to increase and is expected to reach 89% of GDP in 2014-15. Recently, the deficit has fallen more slowly than expected, largely due to weak tax receipts, but government spending continues to be controlled. The weakness in receipts can be partly explained by increases in income tax allowances, increased employment rates in lower paid jobs and low wage growth. The outlook for 2016-17 is for the deficit to fall to 3.4% of GDP and for the government debt rate to continue increasing to 90.5% of GDP.

Labour market

The labour market continues to perform robustly and the recent positive performance is expected to continue. Employment growth has been solid since the beginning of 2012 (see graph 1.4) and the unemployment rate has fallen since autumn 2011. The unemployment rate is estimated to fall to 5.6% in 2015.

Graph 1.4: **Employment growth and unemployment rate**



Source: Office for National Statistics

Medium-term challenges

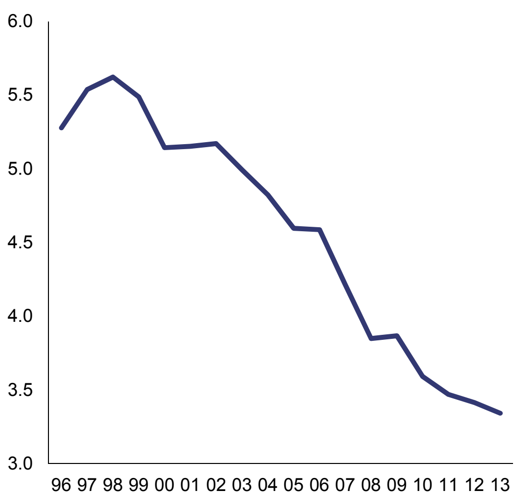
Despite the positive performance and outlook, a number of medium-term challenges remain. Overall, recent trends have been positive, as set out in section 3. However, employers continue to experience shortages of workers with high-quality vocational and technical skills and there are issues with basic skills. In particular, there remains a lack of basic skills among young people, especially early school leavers. Improvements in education and skills could boost labour productivity.

Recent developments in the household sector reduce its vulnerability to risks. In previous In-Depth Reviews, the household sector has been assessed as posing a macroeconomic imbalance. Household sector indebtedness has fallen since its peak in 2009 but remains elevated. High levels of household indebtedness leave the household sector exposed to a number of risks and may amplify the impact of those risks should they materialise with potential ramifications for the financial sector and economy (see section 2).

Export share

The export share has continued to deteriorate, although at a less marked rate than previously (graph 1.5). A sustained fall in the export share has led to concerns that medium-term external imbalances may result ([1]) and that the decline may be symptomatic of imbalances elsewhere in the economy. In particular, the decline in the export share could be reflected in a deterioration in the current-account deficit.

Graph 1.5: **Export market share in % of world exports**



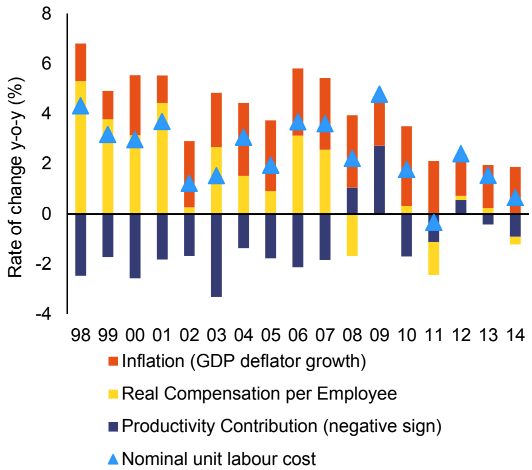
Source: European Commission

The reasons for the decline in export share over the medium term were discussed in the 2014 In-Depth Review. It is likely to be the outcome of a number of smaller factors and wider issues relating to the sectoral structure of exports and the composition of the UK's export destinations. It also needs to be interpreted in the context of the rising share of emerging markets in world trade.

Developments in competitiveness are unlikely to have significantly affected the continued deterioration in export share since 2008. International competitiveness, as measured by the inverse of the real effective exchange rate, despite having risen in 2014, remains better than in the period preceding 2008. This suggests that the bulk of the boost to competitiveness has been retained to date.

Moreover, growth in nominal unit labour costs, a key determinant of international competitiveness, was muted in 2013 and 2014, as changes in productivity and real compensation per employee have been broadly aligned. The modest growth in unit labour costs has been mostly driven by inflation (graph 1.6). Furthermore, growth in unit labour costs is expected to remain subdued as productivity gains broadly match that in wages. As a result, changes in unit labour costs are not expected to weaken competitiveness in the near term. However, as growth in exports is projected to be below that in world exports, the deterioration in export share is set to continue.

Graph 1.6: **Decomposition of rate of change of Unit Labour Costs (ULC)**



Source: European Commission

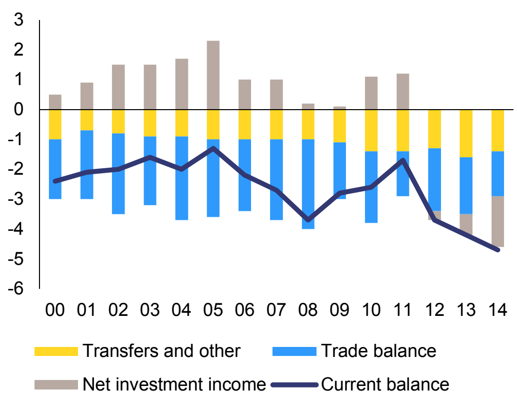
Trade balance

The current-account deficit continues to widen and rose to over 5% of GDP in Q3 2014. The deterioration in the current-account deficit since 2010 has been driven by net investment income rather than a sharp deterioration in the trade balance (graph 1.7). The deterioration may reflect a disparity in earnings on foreign (particularly euro area) assets held by UK citizens *vis-à-vis* UK assets held by foreigners. By contrast, the deficit in goods and services is forecast at 1.4% of GDP in 2014 and is broadly unchanged since 2011.

([1]) Macroeconomic Imbalances United Kingdom 2013 & 2014

The current-account deficit is projected to narrow to 3.8% and 3.3% of GDP in 2015 and 2016, respectively, driven in part by a reduction of the balance of primary income and transfers deficit. Against this backdrop, the decline in export share poses less of a short-term threat to the economy than previously envisaged.

Graph 1.7: **Current account as % of GDP**



Source: European Commission

Box 1.1: **Economic surveillance process**

The Commission's Annual Growth Survey, adopted in November 2014, started the 2015 European Semester, proposing that the EU pursue an integrated approach to economic policy built around three main pillars: boosting investment, accelerating structural reforms and pursuing responsible growth-friendly fiscal consolidation. The Annual Growth Survey also presented the process of streamlining the European Semester to increase the effectiveness of economic policy coordination at the EU level through greater accountability and by encouraging greater ownership by all actors.

In line with streamlining efforts this Country Report includes an In-Depth Review — as per Article 5 of Regulation no. 1176/2011 — to determine whether macroeconomic imbalances still exist, as announced in the Commission's Alert Mechanism Report published on November 2014.

Based on the 2014 IDR for the United Kingdom published in March 2014, the Commission concluded that the United Kingdom was experiencing macroeconomic imbalances requiring monitoring and policy action. In particular, these were developments in the areas of household debt, linked to the high levels of mortgage debt and structural characteristics of the housing market, as well as unfavourable developments in export market shares.

This Country Report includes an assessment of progress towards the implementation of the 2014 Country-Specific Recommendations adopted by the Council in July 2014. The Country-Specific Recommendations for the United Kingdom concerned finances and taxation, housing market, welfare, education, access to finance, and investment in infrastructure.

Table 1.1: **Key economic, financial, social indicators**

	2008	2009	2010	2011	2012	2013	Forecast 2014	Forecast 2015	Forecast 2016
Real GDP (y-o-y)	-0.3	-4.3	1.9	1.6	0.7	1.7	2.6	2.6	2.4
Private consumption (y-o-y)	-0.5	-3.1	0.4	0.1	1.1	1.7	2.3	2.7	2.3
Public consumption (y-o-y)	2.0	1.2	0.0	0.0	2.3	-0.3	1.5	0.6	0.4
Gross fixed capital formation (y-o-y)	-4.7	-14.4	5.9	2.3	0.7	3.4	7.4	6.9	6.3
Exports of goods and services (y-o-y)	1.6	-8.2	6.2	5.6	0.7	1.5	-1.1	2.4	3.3
Imports of goods and services (y-o-y)	-1.8	-9.8	8.7	1.0	3.1	1.4	0.8	2.9	3.4
Output gap	0.5	-4.5	-3.5	-2.8	-3.0	-2.4	-1.1	-0.1	0.6
Contribution to GDP growth:									
Domestic demand (y-o-y)	-0.8	-4.3	1.2	0.4	1.3	1.6	3.0	3.0	2.6
Inventories (y-o-y)	-0.6	-0.5	1.4	-0.1	0.1	0.2	0.2	-0.2	-0.1
Net exports (y-o-y)	0.9	0.7	-0.8	1.3	-0.8	0.0	-0.6	-0.2	-0.1
Current account balance (% of GDP), balance of payments	-3.7	-2.8	-2.6	-1.7	-3.7	-4.5	.	.	.
Trade balance (% of GDP), balance of payments	-3.0	-1.9	-2.4	-1.5	-2.1	-2.0	.	.	.
Terms of trade of goods and services (y-o-y)	-3.4	1.6	1.1	-1.2	0.4	0.3	3.4	1.3	0.5
Net international investment position (% of GDP)	5.9	-13.4	-6.0	-4.4	-14.9	-23.8	.	.	.
Net external debt (% of GDP)	37.3*	45.7*	45.6*	44.1*	36.4*	26.0*	.	.	.
Gross external debt (% of GDP)	436.4*	410.0*	407.8*	419.6*	390.6*	357.1*	.	.	.
Export performance vs advanced countries (% change over 5 years)	-14.0	-12.7	-17.1	-18.8	-11.4	-4.5	.	.	.
Export market share, goods and services (%)	3.9	4.0	3.7	3.6	3.5	3.5	.	.	.
Savings rate of households (net saving as percentage of net disposable income)	-0.8	3.5	5.5	2.9	2.3	0.3	.	.	.
Private credit flow, consolidated, (% of GDP)	9.5*	-7.3*	-.6*	-1.3*	2.1*	1.8*	.	.	.
Private sector debt, consolidated (% of GDP)	189.8*	195.6*	183.3*	179.8*	183.5*	177.5*	.	.	.
Deflated house price index (y-o-y)	-4.0	-9.6	3.1	-4.7	-0.2	1.3	.	.	.
Residential investment (% of GDP)	3.6	3.1	3.2	3.3	3.2	3.4	.	.	.
Total financial sector liabilities, non-consolidated (y-o-y)	53.2	-18.3	9.8	10.6	-3.6	-8.9	.	.	.
Tier 1 ratio1	.	.	.	.	.	.	.	.	.
Overall solvency ratio2	.	.	.	.	.	.	.	.	.
Gross total doubtful and non-performing loans (% of total debt instruments and total loans and advances)2	.	.	.	.	.	.	.	.	.
Change in employment (number of people, y-o-y)	0.7	-1.6	0.2	0.5	1.2	1.7	1.9	1.4	0.8
Unemployment rate	5.6	7.5	7.8	8.1	7.9	7.6	6.3	5.6	5.4
Long-term unemployment rate (% of active population)	1.4	1.9	2.5	2.7	2.8	2.7	.	.	.
Youth unemployment rate (% of active population in the same age group)	15.0	19.1	19.8	21.3	21.2	20.7	.	.	.
Activity rate (15-64 year-olds)	75.8	75.7	75.5	75.7	76.3	76.4	.	.	.
Young people not in employment, education or training (%)	12.1	13.3	13.7	14.3	14.0	13.3	.	.	.
People at risk of poverty or social exclusion (% of total population)	23.2	22.0	23.2	22.7	24.1	24.8	.	.	.
At-risk-of-poverty rate (% of total population)	18.7	17.3	17.1	16.2	16.0	15.9	.	.	.
Severe material deprivation rate (% of total population)	4.5	3.3	4.8	5.1	7.8	8.3	.	.	.
Number of people living in households with very low work-intensity (% of total population aged below 60)	10.4	12.7	13.2	11.5	13.0	13.2	.	.	.
GDP deflator (y-o-y)	2.9	2.0	3.2	2.1	1.7	1.8	2.2	1.4	1.5
Harmonised index of consumer prices (HICP) (y-o-y)	3.6	2.2	3.3	4.5	2.8	2.6	1.5	1.0	1.6
Nominal compensation per employee (y-o-y)	1.0	1.9	3.4	1.0	2.0	1.9	1.9	2.0	2.4
Labour productivity (real, person employed, y-o-y)	-1.2	-2.8	1.7	1.1	-0.4	0.5	.	.	.
Unit labour costs (ULC) (whole economy, y-o-y)	2.2	4.8	1.8	-0.1	2.4	1.4	1.2	0.8	0.8
Real unit labour costs (y-o-y)	-0.6	2.7	-1.4	-2.2	0.7	-0.4	-1.0	-0.6	-0.7
REER3) (ULC, y-o-y)	-14.1	-9.9	2.8	-2.0	4.9	-1.7	6.8	2.2	-0.1
REER3) (HICP, y-o-y)	-14.5	-8.3	1.7	0.7	5.4	-2.6	7.7	5.7	-0.4
Revenue and expenditure of general government on financial year basis	*2008-09*	*2009-10*	*2010-11*	*2011-12*	*2012-13*	*2013-14*	*2014-15*	*2015-16*	*2016-17*
General government balance (% of GDP)	-5.1	-10.8	-9.6	-7.6	-8.3	-5.8	-5.4	-4.6	-3.6
Structural budget balance (% of GDP)	.	.	-7.5	-5.9	-6.5	-4.4	-5.0	-4.6	-4.0
General government gross debt (% of GDP)	51.6	65.9	76.4	81.9	85.8	87.2	88.7	90.1	91.0

1 Domestic banking groups and stand-alone banks.
2 Domestic banking groups and stand-alone banks, foreign-controlled (EU and non-EU) subsidiaries and branches.
3 Real effective exchange rate
(*) Indicates BPM5 and/or ESA95
Source: European Commission; ECB

Table 1.2: **The MIP scoreboard**

			Thresholds	2008	2009	2010	2011	2012	2013
External imbalances and competitiveness	Current Account Balance (% of GDP)	3 year average	-4%/6%	-2.9	-3.1	-3.0	-2.4	-2.7	-3.2
		p.m.: level year	-	-3.7	-2.8	-2.6	-1.7	-3.7	-4.2
	Net international investment position (% of GDP)		-35%	5.9	-13.4	-6.0	-4.4	-14.9	-15.6
	Real effective exchange rate (REER) (42 industrial countries - HICP deflator)	% change (3 years)	±5% & ±11%	-11.2	-19.9	-20.4	-8.2	5.8	3.4
		p.m.: % y-o-y change	-	-12.8	-9.6	0.9	0.5	4.3	-1.5
	Export Market shares	% change (5 years)	-6%	-23.9	-20.0	-24.0	-25.9	-19.8	-11.7
		p.m.: % y-o-y change	-	-10.7	1.0	-7.4	-2.2	-1.8	-1.7
	Nominal unit labour costs (ULC)	% change (3 years)	9% & 12%	9.8	11.0	9.0	6.5	4.1	3.8
		p.m.: % y-o-y change	-	2.2	4.8	1.8	-0.1	2.4	1.5
Internal imbalances	Deflated House Prices (% y-o-y change)		6%	-4.6	-9.2	2.7	-4.2	-0.4	1.6
	Private Sector Credit Flow as % of GDP, consolidated		14%	8.8p	-4.9p	-0.3p	0.1p	3.6p	3.4p
	Private Sector Debt as % of GDP, consolidated		133%	186.1p	189.9p	177.0p	173.5p	175.8p	164.5p
	General Government Sector Debt as % of GDP		60%	51.6	65.9	76.4	81.9	85.8	87.2
	Unemployment Rate	3-year average	10%	5.4	6.1	7.0	7.8	7.9	7.9
		p.m.: level year	-	5.6	7.5	7.8	8.1	7.9	7.6
	Total Financial Sector Liabilities (% y-o-y change)		16.5%	48.3p	-17.8p	8.4p	10.6p	-4.0p	-7.4p

Flags: p: provisional
(1) Figures highlighted are those falling outside the threshold established in the European Commission's Alert Mechanism Report. For REER and ULC, the first threshold applies to euro area Member States.
(2) Figures in italics are calculated according to the old standards (ESA95/BPM5).
(3) Export market share data: total world exports are based on the fifth edition of the Balance of Payments Manual (BPM5).
Source: European Commission

2. IMBALANCES, RISKS AND ADJUSTMENT

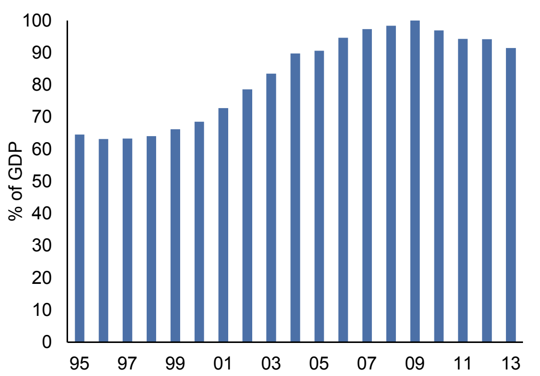
2.1. HOUSEHOLD SECTOR INDEBTEDNESS

For the fourth year in succession, a high, and possibly excessive, level of household indebtedness has been identified as potentially constituting a macroeconomic imbalance that poses risks to the UK economy ([2]). The issues analysed in the previous In-Depth Reviews remain pertinent. While household sector indebtedness continues to fall modestly it remains high and leaves the UK vulnerable to risks that could affect economic growth and financial stability.

Household sector indebtedness

Household indebtedness continues along a path of modest decline. As shown in graph 2.1.1, household sector indebtedness continues to fall modestly, by around 2 pps. in 2013, to stand at 89% of GDP, 10 pps. below its peak of 99% in 2009. However, household sector indebtedness remains at relatively historically high levels. The trend is similar when household indebtedness is calculated as a percentage of household disposable income, that is, the proportion is high but has declined since its peak in 2009.

Graph 2.1.1: **Household sector indebtedness**



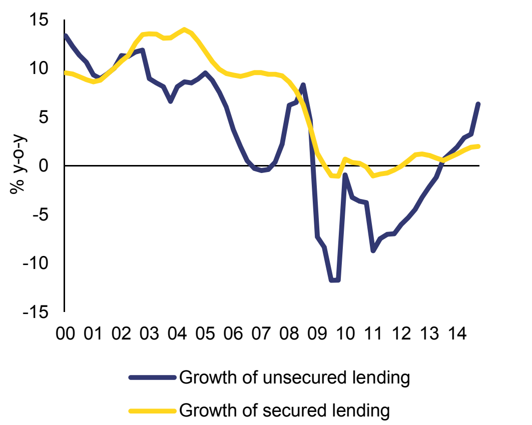
Source: European Commission

The decline in household sector indebtedness is the net effect of rising nominal GDP which has more than offset the impact of an increase in the absolute level of household indebtedness. As set out by the European Commission, deleveraging can be achieved either through active or passive means. Passive deleveraging is deleveraging that is achieved through rises in nominal GDP growth. Active deleveraging is deleveraging which is achieved through reductions in credit flows. Active deleveraging is generally seen as less desirable than passive deleveraging because of the potentially negative impact on economic growth. In this respect, the UK's experience of passive deleveraging compares positively to that of other Member States in the EU and the process of deleveraging, while limited, has been achieved with less adverse impact on the economy than may otherwise have been the case.

Credit growth

The growth in the stock of outstanding credit secured on dwellings has remained fairly constant in 2014 at around 0.1%-0.2% per month. It grew by around 2% in the year to December 2014; its highest rate since 2009. Nonetheless, growth in secured credit remains weak and well below that of the previous decade (graph 2.1.2) and below growth in nominal GDP. For the past two years, growth in unsecured credit has outstripped that in secured credit and now stands at around 10% of outstanding credit to households. Growth in unsecured credit may reflect the pick-up in households' confidence throughout 2013 and 2014.

Graph 2.1.2: **Growth in household secured and unsecrued lending**

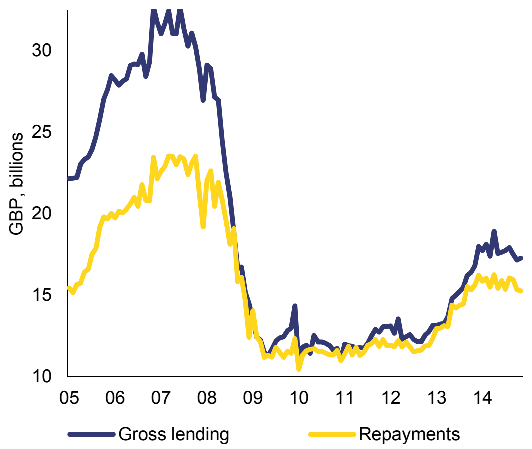


Source: Bank of England

([2]) European Commission (2014) Alert Mechanism Report (AMR) 2015, November. Although the measure in the AMR is that of total private sector indebtedness, household indebtedness accounts for around half of total indebtedness. The 2014 IDR concluded the corporate sector indebtedness did not contribute to a macroeconomic imbalance.

Consideration of the aggregate secured credit stock masks differences between the gross and net figure. Both new lending and credit repayments picked up in 2013 and 2014, although they have plateaued recently (see graph 2.1.3). Taken in isolation, credit flows indicate subdued growth in activity in the housing sector.

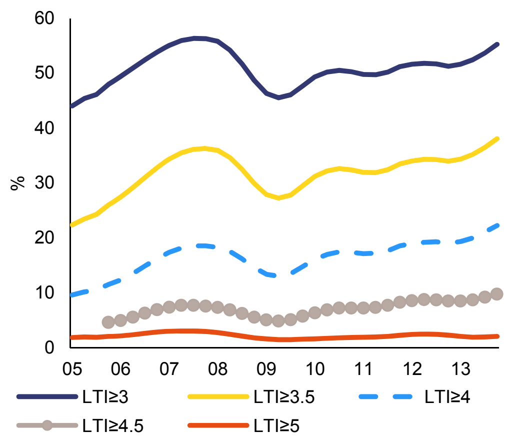
Graph 2.1.3: **Gross lending secured on dwellings and repayments**



Source: Bank of England

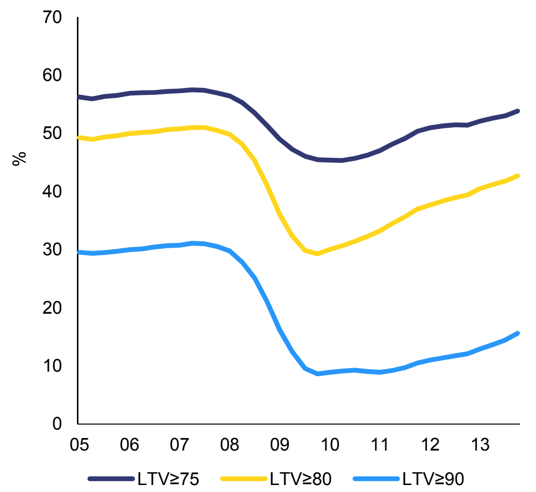
Moreover, the proportion of loans at high loan-to-income and high loan-to-value ratios are rising compared to earlier in the decade although they remain generally at, or below, peaks prior to the financial crisis (see graphs 2.1.4 and 2.1.5).

Graph 2.1.4: **Lending at various loan-to-income ratios (LTI)**



Source: Council of Mortgage Lenders, FCA Product Sales Data (PSD) and Bank of England calculations

Graph 2.1.5: **Lending at various loan-to-value ratios (LTV)**



Source: Bank of England

Outlook for household indebtedness

The outlook for household indebtedness, which has been steadily, if gently, falling since its peak in 2009 depends on the future growth of credit relative to house prices and to nominal GDP. In previous cycles, house price rises have been reflected in rising household indebtedness not least as they have considerably outstripped growth in nominal GDP. However, in the current cycle, the *size* of the impact is likely to be relatively muted because of the low rates of growth in secured credit that have accompanied the house price increases (see sub-section 2.3). In turn, this trend reflects the proportion of purchases funded by cash in the current cycle. Should nominal house price rises continue to outstrip growth in nominal GDP but new purchases be predominantly funded by credit rather than cash, then household indebtedness would be expected rise in the medium term. The pace and size of the impact depends, in part, on the rate of turnover of the housing stock. According to the UK Office for Budget Responsibility, household indebtedness is expected to start rising again and increase steadily over the remainder of this decade ([3]).

([3]) Office for Budget Responsibility (2014) Economic and fiscal outlook December

Macro-prudential regulation

Macro-prudential regulation can increase the resilience of the banking sector to shocks, for example, to the cost of borrowing and household disposable income. In mid-2014, the Financial Policy Committee (FPC) of the Bank of England announced two measures to mitigate risks associated with high household indebtedness. They recommended that: mortgage lenders should apply an 'interest rate stress test' to assess borrowers' ability to meet their mortgage obligations should interest rates rise ([4]); and mortgage lenders should limit the proportion of mortgages at loan-to-income ratios of 4.5 and above to 15% of new mortgages (effective from 1 October 2014).

Importantly, the limits on credit provision relate to the distribution of new household credit between mortgage types, that is, the risk profile of those mortgages rather than the level of new credit per se. Moreover, the limits relate to flows rather than stocks of certain loan types.

The two measures to regulate mortgage lending are likely to have only a marginal direct impact on the size of lending ([5]):

- in relation to the interest rate stress tests, evidence suggests that banks already apply stress tests of the required stringency; and
- the ceiling of 15% for mortgages at loan-to-income ratios of 4.5 is above the current proportion of 11% for new mortgages at a loan-to-income ratio of 4.5 or more – allowing mortgage lenders scope to expand such loans a little further before reaching the ceiling.

However, the indirect impact on sentiment and intentions may be more significant. The statement from the FPC on managing and mitigating risks related to loans advanced at high loan-to-income ratios (LTIs) may itself discourage such lending, regardless of the cap that has been set. Indeed, shortly prior to the FPC's announcement, one of the four major mortgage lenders in the UK already announced that it would voluntarily cap loans at high LTIs([6]).

As this is the one of the first measures taken to regulate credit flows to the housing sector, it is a cautious and carefully calibrated measure. The FPC has stated that it will monitor the impact of its actions carefully. It will remain vigilant to the need for further action should circumstance require. The FPC has provided a detailed explanation of the rationale for the macro-prudential measures and an assessment of the impact on the financial sector and real economy. An expansion of material in the public domain would assist public understanding of the choices available to, and the decisions taken, by the FPC. Additional analysis could include the benefits, costs, risks, ease of implementation, effectiveness and unintended side effects associated with alternative instruments and the circumstances in which they could be used. This would enhance understanding of what remains a new, and relatively untested, suite of public policy interventions.

Other action by regulators

In April 2014, the Financial Conduct Authority implemented the Mortgage Market Review (MMR). Lenders are now required to fully verify borrowers' incomes and assess that a mortgage is affordable given households' net income and essential expenditure, taking into account market expectations of future interest rate rises.

In addition, the EBA/ECB and the Bank of England have conducted 'stress tests' (see box 2.1.1). The banking sector is assessed, in aggregate, as resilient to the shocks that were modelled.

([4]) Specifically, mortgage lenders will be required to apply an interest rate stress test to check that borrowers could afford to service their mortgages should interest rates rise by up to 3 pps. above the rate at which the mortgage was granted – over the first five years of the mortgage.

([5]) Indeed, in its assessment of the measures, the FPC clarifies that they are unlikely to exert a direct impact on house price growth, credit growth and the distribution of loans according to LTI ratios in its central scenario for developments in the credit and housing sectors. Rather, the measures serve to guard against upside risks.

([6]) Lloyds Bank (2014) Press Notice, 20 June 2014. Lloyds announced that it would limit mortgage lending to a multiple of four times income for loans of more than GBP 500 000.

Box 2.1.1: **Banking sector resilience and the results of the 'stress test' in 2014**

Household indebtedness remains at relatively high levels. The size and composition of the banking sector's exposure to the household sector may threaten financial stability as has been recognised by the authorities. Banks' direct exposure to households ranges from around 5% to 75% of total assets for each of the eight largest banks.

The Bank of England has assessed the risks to financial stability through a rigorous stress test of the eight largest domestic banks in the UK and by modelling the impact on banks' balance sheets of a shock that has a very large and direct effect on the household sector ([1]). The Bank modelled the impact of a severe productivity shock to the UK economy, which resulted in an increase in short-term interest rates of 4 pps., a rise in the unemployment rate to 12% and a fall in house prices of 35%, each of which posed a direct and heavy shock to banks' balance sheets. As a result, the arrears rate on household mortgages rises to a little under 4.5% – a rise of around 3.5 pps. from current levels and above the previous peak in arrears in 1992 – and a third of all mortgagors enter 'negative equity'; higher than the previous peak of 10% in the early 1990s. Together, these factors lead to a rise in mortgage impairments.

However, the results of the stress test show that the banking sector proved resilient to these shocks: the aggregate core equity tier one capital ratios (CET1) fell from 10% (as at end-2013) to a low point of 7.3% (as at end-2015) but above 7% (consistent with Basel III) and 4.5% (the required 'hurdle rate' for the results of the stress tests). As a result of the tests, it was concluded that the banking sector would be able to continue to conduct its core functions in the event of a severe economic shock, although the impact on individual banks would differ and, for some, action to restore CET1 would be required. Such action to boost capital is already underway in a number of banks that were subject to the stress tests.

Overall, the UK banking system seems resilient in the face of a number of potential shocks. Actions to be undertaken by individual banks to further raise CET1 capital as required under Basel III further reduce vulnerabilities in the banking system.

([1]) Bank of England (2014) Stress testing in the UK banking system, 2014 results, December. The Bank of England's stress tests are a variant of, and related to, those overseen by the EBA for the EU banking sector conducted in 2014. The degree of stress is typically stronger in the Bank of England's tests. For example, the assumed fall in house prices by the EBA is around half that assumed by the Bank in its exercise.

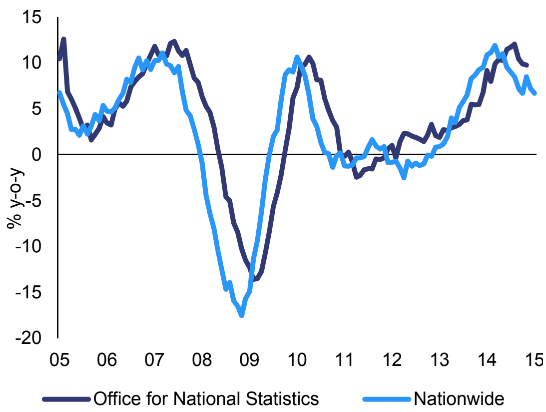
2.2. SUPPLY AND DEMAND IN THE HOUSING SECTOR

Developments in house prices have been identified as potentially symptomatic of an underlying macroeconomic imbalance and posing risks to the UK economy. In the short term, the main risk is that the recent pace of house price growth, especially in London, may suddenly cease and reverse in a disorderly manner which in turn may threaten economic growth and the resilience of the financial sector. In the medium term, a sustained high level of house prices may also result in continued high household indebtedness, leaving households vulnerable to negative shocks and which, in turn, may threaten economic growth and the resilience of the financial sector.

House prices

At the national level, house prices continue to rise and house prices are increasing from already elevated levels. Depending on the measure used, house prices are currently increasing at around 8-10% (graph 2.2.1). Moreover, the level of house prices is now above the level of the previous peak in 2008 (graph 2.2.2) although the extent of the differential depends on the measure used. In addition, in real terms, house prices are below the previous peak by 5%-10%. However, as can also be seen in the graphs, although still rising, increases in house prices have abated from the middle of 2014. After peaking at around 12% in the year to June 2014, house price growth slowed to around 7% in the year to January 2015 ([7]). However, the aggregate picture masks significant regional differences (see box 2.2.1).

Graph 2.2.1: **House price growth**



Source: Office for National Statistics, Nationwide

In the past year, house price growth has outstripped that of 'fundamental' factors influencing ([8]) house prices. As shown in graph 2.2.3, in the year to Q3/4 2014, growth has greatly exceeded that in credit secured on dwellings, nominal GDP and nominal disposable income. However, over a longer period, it is house prices in London that have greatly outstripped movements in 'fundamentals' (graph 2.2.4) more so than national house prices.

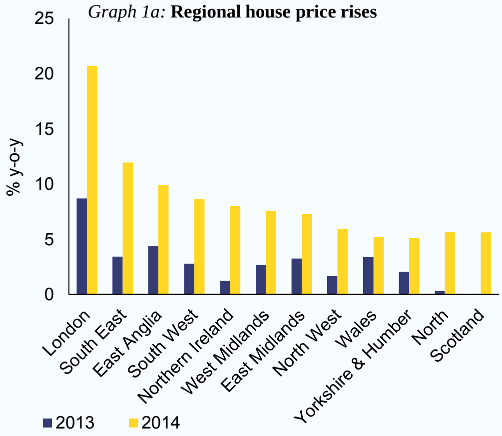
([7]) Nationwide House Price Index, 2014

([8]) Although not shown in the graph, the rate of formation of new households is also likely to influence house prices in the medium term (though less likely to be a fundamental determinant in the very short term). In turn, the rate of household formation is likely to be determined by: rates of growth of different age cohorts of the population, immigration and changes in household size.

Box 2.2.1: Developments in regional house prices and affordability

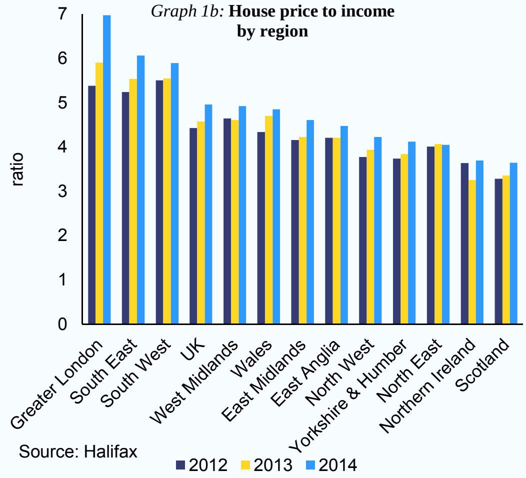
Consideration of developments at the national level masks significant variations in the conditions of regional housing markets. In 2014, house price growth in London, at around 18%, far outstripped that in the rest of the UK, which stood at around 7%. It was also considerably larger than that of growth in the next highest region, the south-east of England, which stood at 10.6%. The lowest annual growth in house prices was recorded in Wales at 1.4%. The distribution of rises in house price increases is shown in graph 1a.

Graph 1a: **Regional house price rises**



Source: Nationwide Building Society

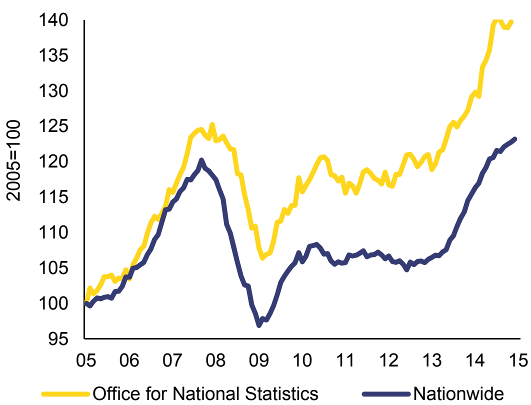
Graph 1b: **House price to income by region**



Source: Halifax

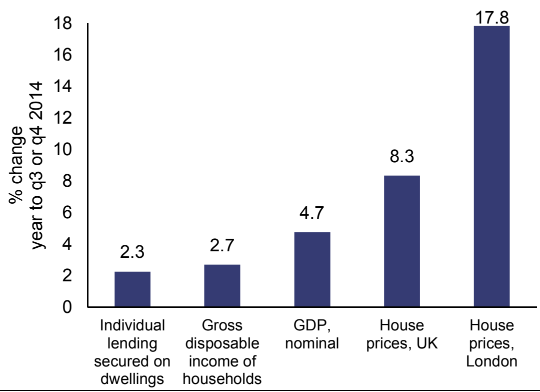
Moreover, the steep house price rises in London have occurred from a much higher base. The average house price in London is now almost double that in the next highest region of the UK (the south-east of England) and more than three times that in the least expensive part of the UK (Yorkshire and Humber). Reflecting the dispersion in price levels, among other factors, the house price-to-income ratio in London is much higher than in the rest of the UK (graph 1b), which means that affordability in London is lower than in other regions in the UK. London is the only region in which the house price-to-income ratio has returned to close to its previous peak and has risen noticeably in 2014.

Graph 2.2.2: **House price levels**



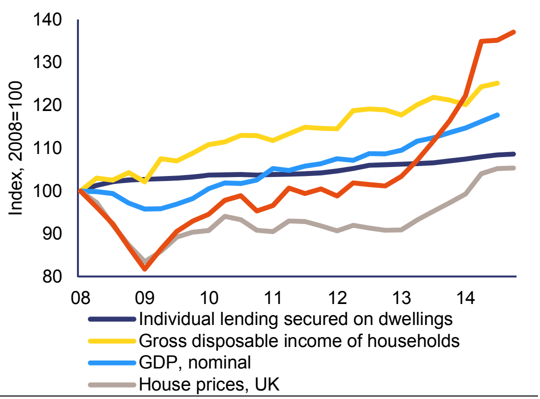
Source: Office for National Statistics; Nationwide

Graph 2.2.3: **Growth in house prices and other selected measures**



Source: Office for National Statistics; Bank of England; Nationwide Building Society

Graph 2.2.4: **Growth in house prices and other selected measures (2008=100)**

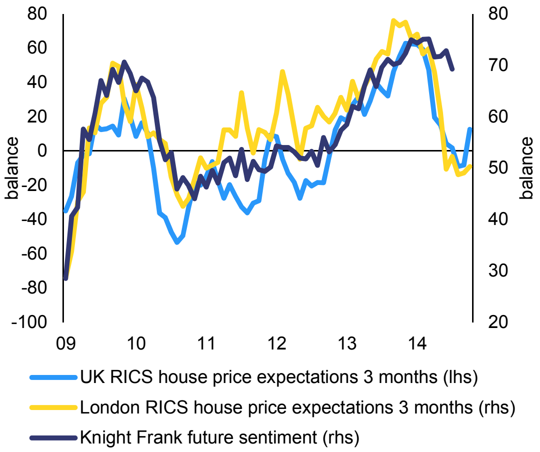


Source: Office for National Statistics; Bank of England; Nationwide Building Society

Forward indicators of house price rises

Forward indicators of future house price rises have also softened in recent months. For example, surveyors' expectations of price increases over the next three and twelve months have fallen sharply from recent peaks, as has measures of estate agents' future sentiment (graph 2.2.5) while the selling price achieved as a share of the asking price and the length of time that a property has spent on the market have risen. Moreover, the proportion of surveyors expecting a rise in house prices in the next three months, and next year, has fallen sharply from peaks in late-2013 and early-2014 both nationally and in London.

Graph 2.2.5: **Expectations of future house price rises**

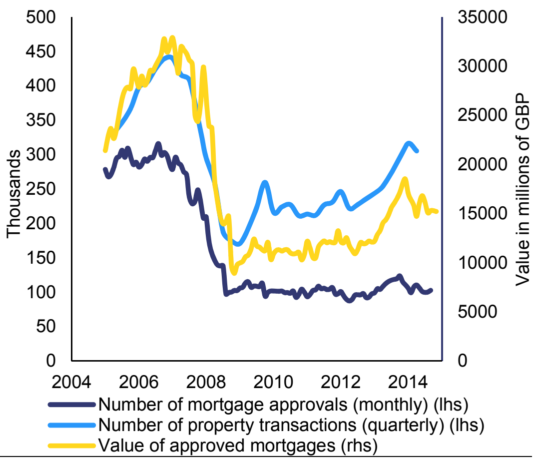


Source: RICS and Knight Frank

Demand

Indicators suggest a recent waning in demand. For instance, although property transactions have moved to levels well above those of 2009-2012, there has been a slight slowing in recent months. Also, the number and value of mortgage approvals have declined in the past few months. Since January 2014, mortgage approvals have fallen and returned to the levels of the mid-2013. Both the number of approvals for mortgages for a house purchase and the value of those mortgages have fallen (graph 2.2.6).

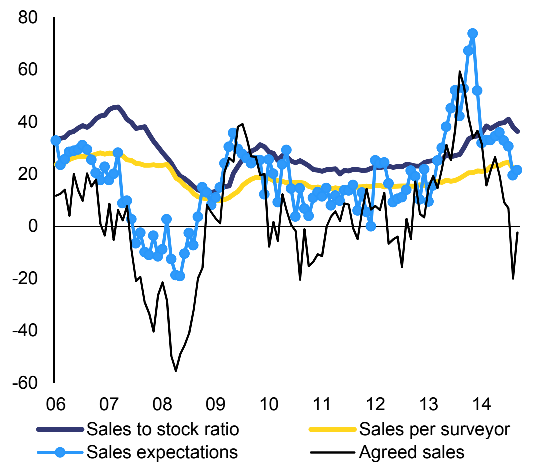
Graph 2.2.6: **Mortgage approvals and property transactions**



Source: Bank of England

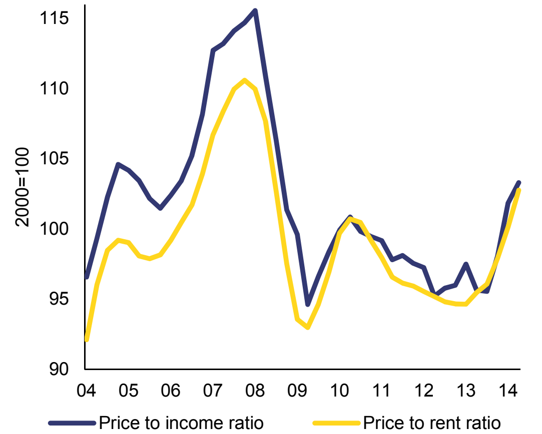
Other forward indicators of transactions indicate that demand is abating. Newly agreed sales and expected sales levels have decreased markedly (although the series are volatile) while there have been more modest falls in average sales per surveyor and stocks as a ratio of sales (graph 2.2.7).

Graph 2.2.7: **Forward indicators of sales**



Source: RICS Housing Market Survey

Graph 2.2.8: **Price to income and price to rent ratio**



Source: OECD

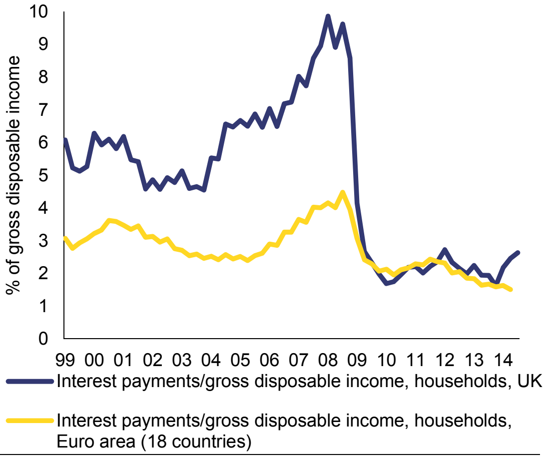
Determinants of demand – house price-to-income ratios (affordability)

Reflecting continued rises in house prices until mid-2014, house price-to-income ratios have risen (graph 2.2.8) ([9])**.** Nevertheless, house price-to-income ratios remain well below peaks of the previous decade. Although well below the previous peak, the rise in the ratio may have a negative impact on demand and may, in turn, exert downward pressure on house price growth. There are marked regional differences in the level, and trend in, house price-to-income ratios (see box 2.2.1)

([9]) In the graph, affordability is measured by the house price-to-income ratio. A rise in the ratio means that the house price has risen relative to income and affordability falls. Therefore, the lower the point in the chart, the higher is affordability.

Although interest payments have risen from historic lows (see graph 2.2.9), there has not been as marked an increase in interest payments relative to household disposable income as there has been in measures of house prices relative to income.

Graph 2.2.9: **Mortgage interest payments as a percentage of gross disposable income**



Source: European Commission

Determinants of affordability – cost of borrowing

The cost of borrowing for households with mortgages remains around historic lows. Secured lending mortgage rates across a range of mortgage types have fallen in recent months. However, the spread between mortgage rates and the bank rate remains higher than before the international economic crisis.

Financial markets expect a rise in the bank rate of 25 bpts in the middle of 2016 (as at mid-February 2015) and expectations for the pace of subsequent rises in the bank rate remain relatively muted. Moreover, the two-year swap rate, an important indicator of banks' funding costs, despite having increased over the past 18 months has, more recently, begun to decline.

Perhaps reflecting concerns related to a future increase in the cost of borrowing, or increased attractiveness of fixed rate loans more generally, households' preferences for borrowing at fixed rates have become even more marked. In the final quarter of 2014, 87% of loans advanced to households that were secured on dwellings were at a fixed rate (typically for a period of between one and five years) double that of four years earlier. 42% of all such outstanding loans are fixed rate loans, around 10 pps. higher than that of a year ago but around the same level as in 2009.

Other factors that may affect demand

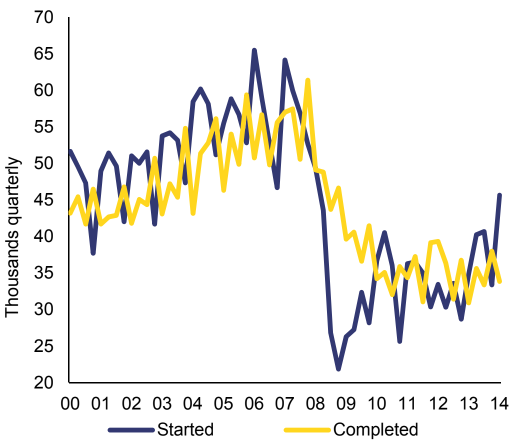
Other factors that may have affected demand include: regulatory intervention ([10]); uncertainty about prospects for the UK and world economies ([11]); statements and warnings from the Bank of England about the risks of rises in interest rates ([12]); and previously relatively rapid house price growth particularly in London.

On the other hand, recent reductions in stamp duty on the purchase of residential properties for the bulk of properties may encourage demand ([13]). Buyers that were previously deterred from entering the market may now seek to purchase a property. The impact of this development, which came into effect in December 2014, will become apparent in 2015.

New supply

The supply of new property in the housing market increased further in 2014, however, starts and completions remain below levels of the previous decade (graph 2.2.10). Overall, there has not been a large step-increase in starts and completions, which suggests that a decisive pick-up in supply in response to recent house prices rises is yet to take place. Dwelling investment has risen (graph 2.2.11) although investment is broader than new construction. The rise has been in line with that in some comparable Member States that have experienced rapid house price growth.

Graph 2.2.10: **Housing starts and completions**



Source: Department for Communities & Local Government

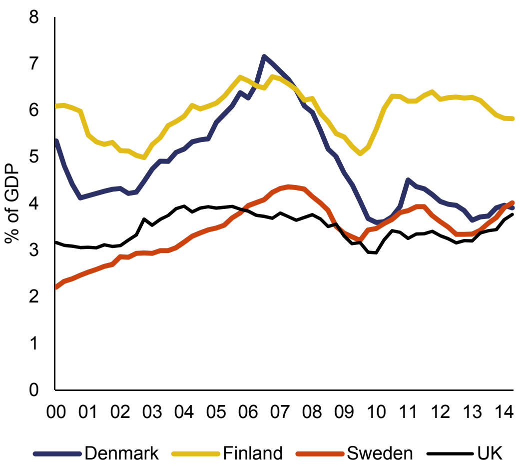
([10]) For instance, the Prudential Regulation Authority's Mortgage Market Review (MMR), which came into force in April 2014, may have played a role. The rigorous scrutiny of personal finances required under the MMR may have deterred some prospective house purchasers from entering the market. However, the main impact may have been a delay in seeking credit rather than a reduction in the number of households seeking credit so that the number of transactions may be only temporarily affected.

([11]) General uncertainty about prospects for the UK and world economies may affect households' willingness to undertake major purchase. However, according to the GfK survey (January 2015), consumer confidence increased over the year to January 2015 while both consumers' confidence regarding the outlook for the general economic situation and whether now is a good time for households to make a major purchase were both notably higher than a year earlier.

([12]) Governor of the Bank of England (2014) Mansion House Speech, June; Governor of the Bank of England (2014) Speech to the Trades Union Congress, September.

([13]) UK government (2014), Autumn Statement, December

Graph 2.2.11: **Residential investment as % of GDP**



Source: European Commission

Policy initiatives to boost supply

There have been a number of initiatives to raise supply since the 2014 In-Depth Review. Such initiatives include: support for a new 'garden city' at Ebbsfleet; a fund to provide GBP 500 million by way of loans to developers; a second 'garden city' at Bicester; the trialling of a new model for delivery of new houses at Northstowe; and plans to increase the availability of public land for housing development.

Reforms to planning policy and the planning system

Planning policy was reformed in 2012 with the advent of the National Planning Policy Framework (NPPF). Demographic and other factors that affect demand for housing are now placed at the heart of planning strategy at the local level. Local authorities are encouraged to prepare a Strategic Housing Market Assessment taking account of household and population projections, migration and demographic change. The assessment then becomes a component of the local plan which all local authorities are encouraged to prepare. The local plan includes a strategic land assessment on the availability, suitability and viability of land required to meet the identified needs, taking account of social and environmental assets that limit construction such as the 'green belt'. Local plans are used to guide planning decisions within the local authority area. Plans need to be examined by the Planning Inspectorate, and are subject to consultation, prior to adoption at the local level. A number of reforms were made to planning guidance in 2014 to increase its efficiency ([14]).

Help to Buy policy

The government's principal policy – the 'Help to Buy' scheme – to assist households in purchasing a property is fully underway. As noted in the 2014 In-Depth Review, the impact of the scheme will depend on its size. Transactions completed under Help to Buy 1 (equity loan) and Help to Buy 2 (mortgage guarantee), have been modest relative to the number of transactions and loans in the housing sector. Moreover, most transactions have been outside London and the south-east of England ([15]).

On current trends, the impact of the policy at the macroeconomic level is likely to be muted. Rather, the more significant impact is likely to be at the microeconomic level, that is, to assist households to purchase a house that would otherwise have been unable to do so because they could not have raised a deposit of the required size as, indeed, is the objective of the policy.

In the 2014 In-Depth Review, risks relating to the possibility that the Help to Buy 2 policy could raise house prices at a time when house prices were already rising rapidly were discussed. However, there seems to be little relationship between activity under Help to Buy 2 and regional house price growth ([16]). Moreover, the Bank of England is monitoring the impact of

([14]) For instance, ensuring that the principle of development needed to be established only once and increasing the threshold for the proportion of major planning decisions that are delivered within time limits.

([15]) See the 2014 In-Depth Review for an explanation Help to Buy policy. In the 2014 Budget, the government announced that the Help to Buy 1 scheme would be extended to 2020. Help to Buy 1 and Help to Buy 2 account for around 4% and 3% of completions, respectively. Help to Buy 1 started in April 2013 and Help to Buy 2 started in October 2013.

([16]) For example London accounts for only 5.5% of UK Help to Buy 2 transactions but house prices grew by 17.8% from the start of the scheme until September 2014. While the north-west accounts for 13.8% of UK Help to Buy 2 transactions, the corresponding house price growth was only 3.7%.

Help to Buy 2 and has concluded that, to date, it does not pose a threat to financial stability ([17]).

The role of property taxation

Among EU Member States, the UK raises the highest proportion of taxation from property (4.1% of GDP in 2013), although it should be noted that proportion includes taxes raised from both business and residential property. Given its relative efficiency as a source of revenue, the European Commission has argued that there is a case for Member States to raise the proportion of revenues received as a proportion of property taxation ([18]).

Residential property tax in the UK is of two main types:

- recurrent property taxes which are levied on the occupiers of residential buildings and land. Such property taxes are levied at the local level by local authorities although the proportion of revenue raised by such taxes differs for each local authority. The taxes fund the provision of local services. The tax is calculated on the value of land and buildings as at 1991; and

- taxes on transfer: the primary transfer tax is stamp duty land tax (SDLT) which is levied on residential property when legal title is transferred. It is paid by the purchaser of the property at a rate based on the transaction price ([19]).

Recent initiatives

Major reforms to the stamp duty regime were announced and implemented in December 2014 ([20]). The reforms include:

- rates of stamp duty will only apply to that part of the property price that falls within that part of the band (rather than the whole of the property price as previously);

- a new higher rate of stamp duty of 12% will apply to properties sold at GBP 1.5 million and above; and

- most purchasers of property will benefit from a reduction of stamp duty paid except for those purchasing properties with a value of more than GBP 937 500.

The reforms to the stamp duty regime are appropriate. The reforms reduce the 'step' nature of stamp duty payments under which stamp duty rises suddenly at the border between bands. Moreover, given the general inefficiency associated with transfer taxes, the overall reduction in stamp duty payments associated with the changes should increase the efficiency of the property tax system.

Impact of property taxes and the house price cycle

In relation to transfer taxes, stamp duty, by virtue of its design, varies with the house price cycle and, therefore, in principle, could dampen price fluctuations. In practice, the impact would depend on the proportion of houses that are sold in a particular period and the amount of stamp duty paid as a proportion of the property price. The Office for Budget Responsibility suggests that the overall cut in stamp duty implemented in December 2014 may result in an upward movement in house prices ([21]) although this

([17]) Governor of the Bank of England (2014) Letter to the Chancellor Assessment of Help to Buy: Mortgage Guarantee, October

([18]) European Commission (2013) Tax reforms in EU Member States 2013 European Economy 5/2013. In general, recurrent taxation of residential property is assessed as less distortionary than other forms of taxation and among the least detrimental to growth Transaction taxes are generally assessed as resulting in relatively higher distortions than recurrent property taxation because they may deter transactions and result in a 'thinning' of the market and deter labour mobility.

([19]) In addition, inheritance tax is paid when a property is transferred on the death of the owner.

([20]) In addition, following earlier announcements in 2014, in January 2015, it was confirmed that, in Scotland, reforms to the Land and Buildings Transaction Tax would proceed. Similar to the system in England, rates of transactions tax only apply to that part of the property price that falls within that part of the band (rather than the whole of the property price as previously) although the bands in Scotland are different to those in England. In February 2015, the Welsh Government began a consultation on a Land Transaction Tax (LTT) to replace stamp duty in Wales from 2018.

([21]) Office for Budget Responsibility (2014) Economic and fiscal outlook change flowed from a discretionary policy change rather than one that arose from any inherent stabilising properties of the stamp duty regime.

In relation to recurrent property taxation, the primary purpose of the council tax in the UK is to raise funds to provide local services. Recurrent property taxes can be designed to vary with the house price cycle and, in principle, dampen the cycle. The extent to which they do so depends on whether cadastral values are regularly updated and the amount of the tax paid as a proportion of the property value changes as that value changes**.** In some Member States, (e.g. Ireland) cadastral values are regularly updated (and, hence, recurrent property taxes vary with those values). However in other Member States, including the UK, recurrent property taxes are based on cadastral values at a fixed point in time and do not vary with the property price cycle.

In the UK, council tax revenues received by local authorities are set in relation to the needs of the local authority and other funding sources ([22]**)**. In addition, council tax is paid by the occupier, not by the owner of the property. It is the owner (or potential owner) of the property that is affected by changes in house prices and whose behaviour is affected should house prices changes. In many cases, the owner and occupier of the property may be the same person but, given the increasing presence of households that rent as a proportion of total households, there are many households that pay council tax that are unaffected directly by house price movements ([23]).

Therefore, it is likely to be the case that instruments other than taxation policy can be used more effectively to manage any risks to economic growth or the stability of the financial sector flowing from developments in the property price cycle. As the primary purpose of property tax is to raise revenue at the national (in the case of stamp duty) and local (in the case of recurrent property taxes) levels respectively, and, given the practical arrangements for levying the taxes, and the need to ensure stable revenue flows, they have (likely) limited impact on managing macroeconomic risks resulting from the housing sector. Rather, other instruments, in particular, macro-prudential regulation are likely to be more effective in addressing such risks (see sub-section 3.1).

([22]) Those sources can be grants from central government and revenue from business rates. For an explanation of local government funding in the UK see UK Government (2014) *A guide to the local government finance settlement 2015-16.*

([23]) Nevertheless, it is possible that the legal and economic incidences of council tax are different so that, for example, the council tax paid by the occupier is reflected in the rent paid. However, in areas characterised by a shortage of housing, particularly rental housing, it is likely that the economic incidence remains close to the legal incidence.

2.3. ASSESSMENT OF INTER-LINKAGES AND POTENTIAL IMPACTS

High levels of household indebtedness and continued rises in house prices may leave the housing sector vulnerable to a number of risks in both the short and medium term. The risks relating to, and posed by, high levels of household indebtedness and the stability of the housing market are intrinsically linked and, therefore, are assessed jointly in this sub-section.

Risk of a sudden correction in house prices

There is a risk that, after the recent rises, house prices decline in an excessive and/or disorderly manner. The impact of the risk is heightened by prevailing high household sector indebtedness, which could amplify the transmission and impact of this risk. Should house prices fall considerably and more rapidly than the value of mortgages, and depending on the size of the deposit, a household may enter 'negative equity'.

The impact of 'negative equity' on the real economy and financial stability depends on the strength of the economy. If economic growth is robust, and the labour market is strong, then it is unlikely that, in aggregate, households would be forced into a rushed sale of their house. Thus, it is unlikely that any negative equity would be realised. The impact on confidence and household expenditure would be lower than otherwise.

Nonetheless, if the economy is in recession, any realisation of negative equity could further affect confidence and growth and jeopardise financial stability. A 'forced' sale of a property could subsequently erode households' balance sheets. Moreover, default could undermine the strength of banks' balance sheets due to an increase in the proportion of non-performing loans and 'write offs' of mortgage assets.

Current developments suggest that a rapid or disorderly decline in house prices is unlikely. While house prices continue to rise, the rate of increase has been declining. There is little evidence of a dramatic shift in sentiment in the housing sector, which has caused the dampening in growth. Rather, the fall in the pace of house price growth has been modest and can be assessed, so far, as a gentle and orderly correction.

Moreover, the previous rapid house price growth took place disproportionately in London. At its peak in June 2014, house price growth in London was around double that in the rest of the UK. Therefore, the risk of a sudden correction and disorderly downward movement in house prices is largely centred on London. However, to date, the pace of decline of house price growth in London has been steady and gentle and points to an orderly connection.

The limited role of credit in fuelling the upswing in house prices may, in turn, cushion the impact of any reduction in the pace of house price growth. It would appear to be the case that a significant proportion of house purchases by value are executed by way of a cash purchase rather than by the acquisition of debt and such purchases occurred largely in London and the south-east of England ([24]). In aggregate, it is unlikely that a significant number of households could enter a situation of 'negative equity' if credit has not been used to acquire many of those dwellings initially.

Additionally, in comparison with some other Member States, the increase in housing supply in the previous decade prior to the financial crisis was relatively muted ([25]). The UK did not experience an 'overhang' of excess supply that may precipitate or exacerbate the impact of a sharp fall in house price growth.

Furthermore, in aggregate, household balance sheets seem resilient to a rapid fall in house prices. Households' real assets account for around half of households' net worth (GBP 4.4 trillion or around 250% of GDP) in 2013 ([26]). By contrast, debt secured on dwellings accounts for around one-third of the value of households' assets.

([24]) In Q4 2014, 38% of transactions were executed by cash compared with 34% in Q4 2012 and 29% in Q4 2007. There is little direct evidence on the type of households that are purchasing houses using cash. On an anecdotal basis, possibilities include inter-generational transfers within families and 'cash purchasers' from abroad who are possibly motivated by their perceptions of the UK as a 'safe haven' amid geo-political tensions. The concentration of rapid house price rises in London, particularly in inner London, may support the latter hypothesis.

([25]) European Commission (2014), Macroeconomic Imbalances Spain, Occasional papers 176, March

([26]) ONS (2013) National Balance Sheet 2014 Estimates. Average mortgage debt per household stands at GBP 83 000 compared to average household disposable income of GBP 33 000. Source: Bank of England (2014).

Moreover, households' holdings of financial assets and financial liabilities are broadly the same.

Nevertheless, strong aggregate household balance sheets may mask differences between particular types of households. In particular, there may be significant number of households that are relatively highly indebted or may face pressures in servicing their mortgages. However recent data suggest that the proportion of affected households is broadly unchanged or falling. However, there are differences between households. For example, the share of households with a high mortgage debt-to-income ratio and debt servicing ratio remains low and/or has fallen slightly since 2012 although it remains high compared to levels in the decade before the financial crisis. Furthermore, the proportion of mortgage holders reporting problems in paying for their accommodation has fallen in the past year from 19% to 14% although the share of households reporting concerns about holdings of debt generally is the same as in 2013 and relatively high at 44%. Moreover, the share of mortgage holders reporting that they had cut spending as a result of concerns about debt (around 25%) has also fallen. Overall, while the disaggregated picture raises concerns, those concerns have fallen over the past year ([27]).

In relation to the impact on financial stability, the banking sector is likely to remain stable in the face of a sudden correction in house prices. Rigorous stress tests of the resilience of the banking sector to a sizeable economic shock which entails, inter alia, a significant fall in house prices conclude that the banking sector as a whole is resilient to the impact of a very large fall in house prices.

Overall, the likelihood of this risk materialising is lower than at the 2014 In-Depth Review and the impact on the economy and financial sector should it occur is also assessed as lower.

Risk of a rise in the cost of borrowing

A rise in the cost of borrowing could lead to higher interest payments and result in a reduction in consumption, other factors held constant. Households may defer or miss mortgage repayments in times of such stress or, ultimately, default on mortgages if they are unable to reduce consumption or take action to increase labour supply in order to meet increased mortgage interest payments.

Market expectations of the first rise in the bank rate have now been delayed until the middle of 2016. As indicated by the Governor of the Bank of England, interest rates are likely to be 'gradual and limited' ([28]).

Even if interest rates rise unexpectedly, the initial impact is likely to be muted. As at the third quarter of 2014, 87% of new loans advanced to households secured on dwellings were at a fixed rate, typically for a period of between one to five years; double that of four years earlier. 40% of all such outstanding loans are fixed rate loans, 6 pps. higher than that of four years ago but around the same level as in 2009. The relatively higher proportion of outstanding mortgages at a variable rate (around two-thirds) would be of less concern if a considerable portion of these mortgages had been paid-down.

Furthermore, mortgage interest payments as a percentage of household disposable income remains low reflecting the impact of the continued low cost of borrowing which outweighs the impact of relatively high levels of indebtedness on mortgage interest payments. Therefore, in aggregate, there would appear to be at least some scope for households to absorb an increase in monthly mortgage interest payments even though growth in real household disposable income has been low since 2008.

([27]) Bank of England (2014), The potential impact of higher interest rates on the household sector: evidence from the 2014 NMG Consulting Survey, Quarterly Bulletin Q4. A high mortgage debt-to-income ratio is defined as a ratio of 3 or above. The share of households with such ratios currently stands at around 5.5% compared with around 7% in 2007. A high debt servicing ratio (DSR), which is the ratio of mortgage payments to income, is defined as at 40%. The share of households with such a DSR is slightly below 5%.

([28]) Governor of the Bank of England (2014) *Speech at the Mansion House Bankers and Merchants Dinner*, London June.

Nevertheless, some households could be particularly vulnerable to an unexpected rise in their mortgage interest payments, however small. Recent analysis shows that, if interest rates were to rise by 2 pps. and incomes rose by 10%, then the proportion of households with a high debt servicing ratio would rise from 1.3% to 1.8%. Moreover, for households that are concerned about debt, the main issue is related to the impact an interest rate rise. Survey evidence suggests that the proportion of mortgage holders that would need to take some action, if interest rates rise by 2 pps. while income remains unchanged, was 37%. However, if income rose by 10% at the same time, the proportion of mortgagors taking action would fall to 4%. Both proportions have fallen since 2013. For households taking action, around 60% reported that they would reduce borrowing while 35% reported that they would reduce saving. 23% reported that they would renegotiate their loan.

Overall, the likelihood of this risk materialising is lower than at the 2014 In-Depth Review and the impact on the economy and the financial sector, should it occur, is also assessed as lower.

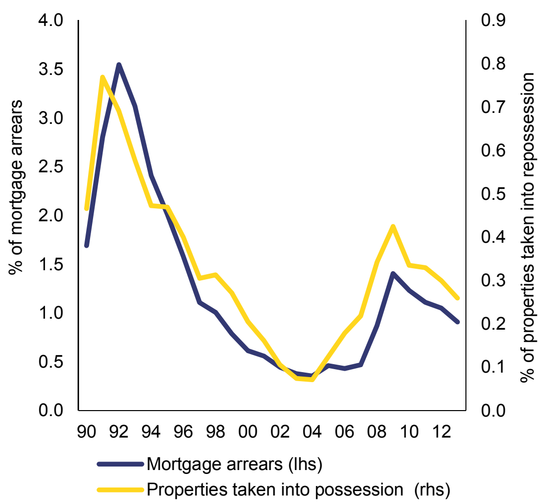
Risk of a shock to household income

An unexpected reduction in household disposable income could threaten the ability of households to service existing mortgage debt. However, GDP growth is projected to be buoyant at 2.6% and 2.4% in 2015 and 2016, respectively. Healthy GDP growth should be broadly matched by solid growth in real household disposable income as a modest rise in compensation of employees and robust employment growth underpins the rise in income.

Even if an unexpected reduction in household income eventuates, there would appear to be some scope for households to reduce savings to support consumption and continue to keep mortgage repayments at current levels. The household saving ratio is expected to rise from 6.4% in 2013 to 7.8% in 2016, leaving scope for some reversal if needed. It is a striking feature of the 2009-2010 recession – the previous occasion in which households suffered a negative income shock – that the rise in mortgage arrears and properties taken into repossession remained low and well below that of the previous recession in the early 1990s (see graph 2.3.1). Moreover, households' balance sheets are strong, raising resilience to potential shocks to disposable income.

Overall, the likelihood of this risk materialising is lower than at the 2014 In-Depth Review and the impact on the economy and the financial sector, should it occur, is also assessed as lower.

Graph 2.3.1: **Mortgage arrears and repossession rates**



Source: Department for Communities & Local Government

Medium-term risks

In the medium term, the main risk is that the continued imbalance between supply and demand underpins a higher price level relative to income than would otherwise be the case. Other factors held constant, a higher house price level would likely result in higher household indebtedness in the medium term leaving the economy and financial sector exposed to risks.

At present, there is a sizeable gap between demand and supply. It is currently projected that, in England, the number of households be formed each year between 2012 and 2021 is 220 000; double that of new supply ([29]). In the year to Q3

([29]) Department of Communities & Local Government (2013), Household Projections United Kingdom. In London, it has been estimated that the population will increase from 8.6 million to 10 million by 2030. In the ten years to 2013, an average of 20 000 houses per year were built. According to the Mayor of London's Housing Strategy (2014) 42 000 new houses per year are needed to meet future demand

2014, 120 000 new dwellings were completed; similar to the levels of the preceding three years and below the 200 000 dwellings completed in 2004. It is worth noting that the shortage of houses relative to demand reflects a complex combination of cultural, demographic and environmental factors as well as society's preferences regarding land use.

The short-term risk that house price growth reverses in a disorderly manner is not inconsistent with a medium-term risk of a high price level. Even if house price growth unwound in the short term, a medium term resumption in house price growth is still likely, in line with 'fundamental' drivers of supply and demand as house prices move to align demand and supply.

Typically, a rise in house prices resulting from demand pressures would encourage an increase in supply, thus, in time, dampening the price increase. However, in the 2014 In-Depth Review it was noted that 'the supply responsiveness to house price rises is lower than that of demand and, at 0.4, the supply elasticity is highly (price) inelastic.

Policy initiatives to address medium-term risks

Policy initiatives to address the imbalance between the supply and demand for housing in the medium term are largely aimed at increasing the supply of houses. As set out in previous In-Depth Reviews, a number of factors may inhibit the supply of land available for development in the medium term and the responsiveness of that supply to changes in house prices. These factors include: geographic constraints, the operation of the planning system and insufficient incentives to develop land. Constraints on the supply of land remain, especially in and around London. Once land is available for development, supply constraints, in particular, the supply of labour and inputs may impede builders' ability to expand construction. The evidence in this area is mixed. The shortage in the supply of bricks identified in the 2014 In-Depth Review has receded and supply is now increasing although production of concrete blocks has not stepped up. However, skill shortages in the construction sector remain ([30]).

A shortage of land with planning permission for residential development is likely to be a major cause of the supply shortage alongside fundamental geographical constraints in certain areas. The dispersion of regional house price growth outlined in section 3.1, in which rapid house price growth has occurred in London and the south-east of England but is less pronounced elsewhere, supports this assessment and suggests that the major constraint is in London([31]).

The reforms to the National Planning Policy Framework (see sub-section 2.2) have the potential to significantly change the framework under which planning decisions are taken and increase supply in the medium term. To date, around 80% of local authorities have adopted a local plan. In addition, it is worth noting that local authorities are not compelled to produce a local plan. The reforms have yet to have a large impact on supply, although this is not necessarily surprising given the medium-term focus of the reforms. Given the scale of the reforms, and the need for time for them to 'bed down', it is arguably too early to assess how such plans are working in practice. Careful monitoring of implementation and progress is underway.

It has been argued that the 'green belt' around large towns and cities, especially London, inhibits new supply ([32]). Housing development can be maximised within the green belt by fully exploiting flexibilities ([33]) within the planning guidance. It is important to strike the appropriate

(which rises to 62 000 per year if previous 'pent up' demand is included).

([30]) Construction Products Association (2014), Construction 2025 Industrial Strategy, April
KPMG/LCCI (2014) Skills to build

([31]) According to a recent survey of property and construction firms in London, 65% of such firms cited inefficiency in the planning system as a barrier to development, the second highest barrier after a shortage of suitable land for development in London. Source: London Chamber of Commerce & Industry (2014)

([32]) Cheshire, P. (2014), Turning houses into gold: don't blame the foreigners, it's we Brits who did it. Centre Piece, Spring.

([33]) For example local authorities are encouraged to use 'flexibilities…to tailor the extent of green belt land to reflect local circumstances' noting that 'there is considerable previously developed land in many green belt areas that could be put to more productive use' House of Commons Debates 6 September 2012 cc29WS

Box 2.3.1: **The 'green belt'**

Green belt land is land that is preserved as open space and typically surrounds urban areas. Such open spaces are determined and managed at the local level by local authorities and are defined by their permanence and openness. The green belt is estimated at 1.6 million hectares (or 13% of the land area of England). The purpose of the green belt is to:

- check the unrestricted sprawl of large built-up areas;
- prevent neighbouring towns merging into one another;
- assist in safeguarding the countryside from encroachment;
- preserve the setting and special character of historic towns; and
- assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

Local authorities are required to define, and enhance, open spaces within the green belt. Green belts need to be consistent with local authorities' plans for sustainable development and local authorities are required to 'assess the desirability' of ensuring that development takes place around urban areas within the green belt or beyond the boundaries of the green belt. In its assessment of an application for development, a local authority needs to ensure that 'very substantial weight' is given to 'any harm to the green belt'. Inappropriate development is, by definition, harmful to the green belt and 'should not be approved except in very special circumstances'. With some exceptions, the construction of buildings is considered to be inappropriate development. In 2014, the government's updated planning guidance noted that 'addressing unmet housing need is unlikely to outweigh the harm to the green belt…to constitute the very special circumstances justifying inappropriate development within the green belt'.

balance between the need to boost the supply of new houses while preserving the character of green belt land. It has been suggested that there is scope to use flexibilities further ([34]) and there are policies in place to encourage development on brownfields sites ([35]). Further details on the green belt can be found in box 2.3.1.

Transport linkages

Constraints on the supply of land are particularly acute in and around London. There is a case, therefore, to improve transport linkages between London and its outer suburbs, and surrounding towns and villages, particularly those located in the 'green belt'. Such transport linkages may increase the ease and viability of travelling to central London and indirectly reduce constraints resulting from the supply of land in London. Completion of 'Crossrail 2', a new underground rail line linking the outskirts of west and east London through a tunnel underneath central London should help improve transport linkages.

Moreover, investment in road and rail links beyond the 'green belt' can help ease transport into and around London from further afield. To this end, the government's plans to build a new high speed railway from London to Birmingham ('High Speed 2') (and, subsequently, in its second phase, from Leeds and Manchester to Birmingham), should not only ease capacity constraints on a key part of the rail network and encourage a regional re-allocation of economic activity, but also increase the flexibility of the workforce to choose where to live and work and reach the capital more easily on high speed rail networks. The plans for High Speed 2 are advancing and could be replicated in other high density corridors such as to the south-west of London.

([34]) London Chamber of Commerce and Industry (2014) Getting our house in order, May; Mayor of London (2014) London Housing Strategy

([35]) In the UK, local authorities are encouraged to identify brownfields sites that are appropriate for housing and can accommodate 100 units or more. Successful 'bidders' receive GBP 50 000 per bid towards the costs incurred in delivering the local development order.

3. OTHER STRUCTURAL ISSUES

3.1. TAXATION POLICY, DEBT SUSTAINABILITY AND FISCAL FRAMEWORK

Taxation

The overall tax system in the UK is relatively growth-friendly, with consumption and recurrent taxes on property accounting for 43.3% of total taxation; a share which is among the highest in the EU. At 35.4% in 2012-13, the UK's total tax burden is below the EU-28 average of 39.4%.

Table 3.1.1: **Sources of government revenue**

Tax category	2013-14 (GBP billion)	Revenue %	GDP %
Income tax	154.9	26.7	8.9
National insurance contributions (employers & employees)	107.3	18.5	6.2
Corporation tax	39.3	6.8	2.3
Property taxes	63.7	11.0	3.7
Capital taxes	7.0	1.2	0.4
VAT	120.3	20.7	6.9
Excise duty	52.9	9.1	3.1
Other taxes	34.9	6.0	2.0
Total	580.3	100.0	33.5

Source: Office for Budget Responsibility October 2014

Fiscal consolidation remains an issue for the UK. The consolidation plan to date consists of approximately 80% expenditure cuts. Recent tax reforms, while ongoing, are generally aimed at combatting tax avoidance which helps broaden the tax base in a growth-friendly manner. The government pledged to increase the proportion of tax revenue accounted for by environmental taxes in the Coalition Agreement, which has been carried out ([36]).

In terms of the direct tax base, the UK avails of high levels of tax expenditures ([37]), both in numbers and amounts, in relation to personal and corporate income taxation ([38]). In 2014-15, according to HM Revenues & Customs (HMRC), GBP 32.2 billion (EUR 43.6 billion) was claimed in tax expenditures in direct income tax alone. The UK average VAT policy gap is among the highest in the EU. The policy gap captures the revenue loss due to the various tax expenditures and was 47% between 2000 and 2012, compared to an EU average of 36%.

Next to its standard 20% VAT rate, the UK applies a reduced rate of 5%, along with a super-reduced rate of 0%. In 2013-14, VAT receipts accounted for 20.7% of government revenues. The zero-rating applies to a broad range of goods and services including many foodstuffs, books, pharmaceutical products, water supply passenger transport and the construction of new dwellings. The 5% rating applies to, among others, domestic fuel and power, energy-saving materials and certain residential renovations.

In 2013-14, the loss of revenues from the zero- and reduced-VAT rates was estimated at GBP 43.5 billion and is expected to be GBP 46.5 billion in 2014-15 (HMRC). In respect of the zero-percent rates, the UK has the option to tax goods and services previously taxed below 5% at a reduced rate ([39]). Such a policy choice would dampen any inflationary effects of an immediate move to the standard VAT rate, as well as lessen the impact on the most vulnerable in society. Many of the applied zero- and reduced-rates are sensitive as they are deemed to address social issues. Although the UK VAT compliance gap at 10% in 2012 is below EU average of 16%, there could be scope to narrow this rate ([40]). It is relevant that each 1% decrease in the compliance gap in the UK would yield around GBP 1.2 billion in revenues.

The UK has a very competitive regime for the taxation of labour income, including personal income taxation and social contributions which, at 45% of the total tax burden, is significantly lower than other large Member States. The UK also has the third lowest implicit rate of income tax on employees in the EU (25.2% of average income). Recent reforms to personal taxation have brought more people outside the scope of taxation, including the recently announced reform to

([36]) The potential for environmental fiscal reform is discussed in this paper: Aarhus University & Eunomia (2014), Study on environmental fiscal reform potential in 12 EU MS.

([37]) Tax expenditures are deviations from a benchmark tax system where no allowances, exemptions, reduced rates, deferrals or tax credits exist. These tax reliefs, which reduce the taxpayer's obligations and represent a transfer of public resources through the taxation system, may reduce its efficiency and entail distortions.

([38]) OECD (2010), Tax expenditures in OECD Countries

([39]) The UK can avail of the provisions in Article 113 of the VAT Directive, which allows a Member State to tax goods and services previously taxed below 5% at one of two reduced rates, even if such goods and services are not included in Annex III of the Directive.

([40]) European Commission (2012), Update Report to the Study to quantify and analyse the VAT Gap in the EU-27 MS increase the personal allowance to GBP 10 600 from April 2015, with full gains to higher rate taxpayers.

Personal income tax receipts, including pay-as-you-earn tax (PAYE) and tax from self-employment, have been lower than expected in recent years. The reasons for this include an increased number of jobs at the lower end of the income distribution, weak wage and productivity growth, and increases in the tax-free personal allowances.

In order to incentivise business investment, the UK stated its policy of lowering corporate income tax rates, with fewer reliefs, while maintaining the tax base in its Corporate Tax Road Map of 2010. Since 2008, the UK corporation tax rate has decreased from 28% to 20%, as of April 2015. Despite the recession, trading profits in the main sectors of the economy (industrial and commercial) have increased by 20.9% over the period 2007-08 to 2012-13, outstripping a nominal growth rate of 10.5% over the same period. Furthermore, the UK received 19% (GBP 17 billion) of the European market for foreign direct investment (FDI) ([41]), the highest in the EU with the financial sector contributing 45% of the total FDI stock invested. Nevertheless, business investment continues to be disappointing in a number of key areas: R&D at 1.05% of GDP in 2013 lags behind the EU-28 average of 1.29% and 16.4% of GDP on capital formation is below the EU average of 19.3% in 2013.

In spite of robust trading profits in the industrial and commercial sectors, overall corporation tax receipts in the UK have declined by 8.6% from GBP 45.2 billion in 2007-08 to GPB 41.3 billion in 2012-13 (HMRC). The reasons for this include the reduced corporate tax rate and also a significant decrease in non-trading income/capital gains which have decreased by 49.7% from GBP 211.1 billion in 2007-08 to GBP 106.2 billion in 2012-13. Furthermore, a number of important sectors are experiencing significant challenges. Tax receipts from the financial sector have almost halved between 2007-08 and 2012-13. Similarly, tax revenues from North Sea oil have experienced significant fluctuations in recent years with a peak of GBP 10.2 billion in 2008-09 before falling to GBP 4.7 billion in 2012-13. The cyclical nature of the oil industry, in particular the current fall in oil prices, would tend to indicate a revenue source that is uncertain going forward.

The R&D tax credit scheme is the principal instrument in the UK to encourage private sector R&D spending. It amounted to GBP 1.7 billion in 2014-15 (GBP 1.3 billion in 2013-14). A 2010 evaluation, by HMRC, of the scheme concluded that every 1 pound of tax credit, depending on the techniques, stimulates between 0.41 and 3.37 pounds of extra R&D investment. The UK has made a number of reforms including adapting the R&D tax credit scheme for large companies to be similar to the current more generous scheme for SMEs. The new above-the-line scheme allows large companies without a corporate tax liability to deduct tax credits against amounts due under PAYE and National Insurance Contributions. For a policy to remain effective, it is important to organise evaluations on a regular basis. To help assess the impact of recent reforms and include a comprehensive assessment of policy option of public support for private R&D spending, there could be a new evaluation given that the last one took place in 2010.

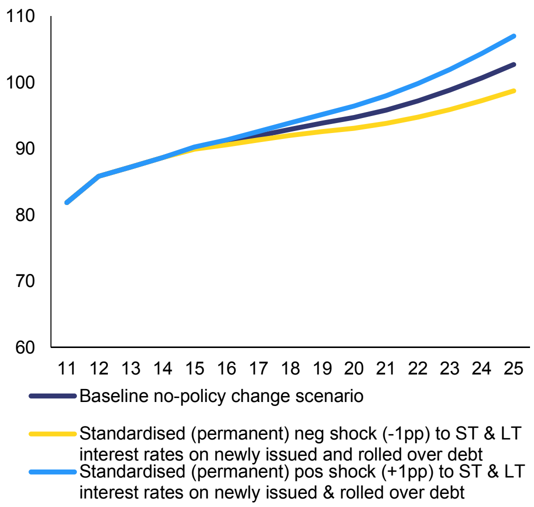
The Annual Investment Allowance (AIA) is an allowance for plant and machinery investment up to a maximum of GBP 500 000. The estimated cost in 2014-15 is GBP 2.8 billion. The allowance was doubled from April 2014 but is due to fall to GBP 25 000 in January 2016. The scheme has changed four times since 2008 and these changes could pose problems as firms require certainty for investment decisions, especially in the case of SMEs, as the allowance plays a significant role in their business plans. There is also evidence that this allowance may only benefit a certain firms by providing them with a large windfall subsidy ([42]).

Business rates are charged on most non-domestic properties such as shops, offices and factories. There are separate but similar systems in England, Scotland, Wales and Northern Ireland as

([41]) UKTI inward investment report 2013-2014

([42]) Liu L. & A. Harper (2013), Temporary increase in annual investment allowance, Oxford University Centre for Business Taxation WP 13/12 this is a devolved competence. Firms pay a proportion of the officially estimated market rent (the so-called rateable value) of the properties they occupy with tax discounts possible. The discounts provided on business rates announced at the Autumn Statement 2014 cost the exchequer approximately GBP 750 million in 2015-16. A review of the business rates structure was also announced and is to be published by the 2016 budget. Business rates comprise a large proportion of the taxes paid by companies in the UK and form a relatively stable source of tax revenue (GBP 26.9 billion in 2012-13 compared to GBP 39.3 billion in corporation tax receipts). The forthcoming review could assess issues of tax neutrality ([43]) as, in terms of investment, the current system may have a bias against property-intensive production while land that is not used for development/production is untaxed in the UK. Similarly, business rates represent a fixed cost for businesses and are not linked to their profitability.

Graph 3.1.1: **Gross government debt as %GDP**



(1) Methodology based on European Commission (2014), Assessing public debt sustainability in EU MS: A Guide, European economy, Occasional papers 200
Source: European Commission

Debt sustainability

Government debt, at 87.8% of GDP in 2013-14, has been above the Treaty reference value of 60% of GDP since 2009-10. It is expected to increase further to 90.5% of GDP in 2016-17. In the medium term, the UK appears to face significant fiscal sustainability risks, linked to the high level of government debt and the level of structural primary deficit. The ratio is expected to rise to 102.7% of GDP in 2025. In the long-term, the UK also appears to face some fiscal sustainability risks, primarily related to the projected ageing costs and the structural deficit.

The UK has taken steps to increase the state pension age to 67 between 2026 and 2028, and to 68 between 2024 and 2026. There will also be a regular review of the pension age to ensure its link with longevity. However, the budgetary impact of population ageing could pose a challenge to long-term fiscal sustainability in the UK, in particular for pensions and healthcare policies. Reducing government debt and further containing age-related expenditure growth is key in contributing to the sustainability of public finances in the long term in the UK.

Fiscal framework

The government introduced a new framework for fiscal policy setting in May 2010. The independent Office for Budget Responsibility (OBR) was set up and is tasked with producing official economic and fiscal forecasts, and with assessing the government's performance relative to its fiscal policy framework ([44]). The original Charter for Budget Responsibility in April 2011 set out the fiscal mandate of achieving a cyclically-adjusted current balance by the end of the rolling five-year forecast period and supplemented this with a debt target to have public sector net debt as a percentage of GDP falling by the fixed date of 2015-16. Both targets were met until the latter was missed by one year in December 2012. In March 2014, the Charter was updated to include an assessment of the cap on welfare spending. In its December 2014 assessment, the OBR concluded that both the fiscal mandate and welfare cap were on course to be met but the supplementary debt target continued to be missed.

The Charter was again updated in December 2014 such that the fiscal mandate is now an aim to achieve a cyclically-adjusted current balance by

([43]) Institute for Fiscal Studies (2014), Green budget, Chapter 11: Business rates

([44]) Charter for Budget Responsibility, April 2011, March 2014 & Autumn Statement 2014 the end of the third year of the rolling, 5-year forecast period and the supplementary aim is for public sector net debt as a percentage of GDP to be falling in 2016-17; one year later than in the original Charter of 2011. The welfare cap objective was unchanged.

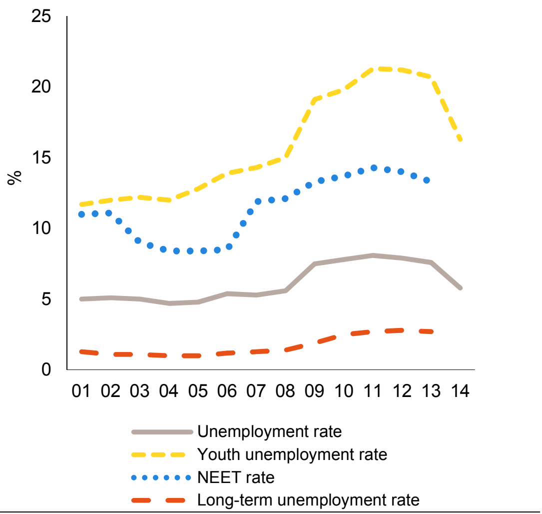
The current fiscal consolidation plans in the UK are focussed on expenditure cuts. Current government spending is split between Departmental Expenditure Limits (DEL) and Annually Managed Expenditure (AME). The cuts in the department budgets were outlined in the Spending Reviews 2010 and 2013. AME consists mainly of social security payments, debt interest payments, public-sector pensions and EU contributions. The government introduced a cap on a significant proportion of AME from 2015-16, including many welfare payments but excluding pensioner benefits and jobseekers allowance.

3.2. LABOUR MARKET, EDUCATION AND SKILLS

Labour Market

The labour market is performing well overall and is set to continue to perform strongly. Employment continues to increase; the employment rate was 73.2% in the final quarter of 2014, up from 72% in the same quarter of 2013 (age group 16-64 years). The unemployment rate has also continued to fall to 5.7% (a new seven-year low) with a further fall in the rate projected for 2015. In 2014, 4.6 million people in the UK were self-employed in their main job accounting for 15% of those in work, which is the highest percentage at any point in the past four decades. Across the EU, the UK has had the third largest percentage rise in self-employment since 2009. The share of people aged from 16 to 24 years not in education, employment or training (NEET rate) fell to 13.1% in September 2014, which is a decrease of 1.9 pps. from a year earlier ([45]). The most recent data which are comparable across the EU show a NEET rate which, at 13.3%, is still slightly above the EU average of 13% in 2013.

Graph 3.2.1: **Labour market – selected indicators**



Source: Office for National Statistics

As shown in graph 3.2.1, youth unemployment continues to follow a declining trend, which began in 2011. The youth unemployment rate, of 16.9%, from September to November 2014 was significantly lower than that of a year earlier when it was 20.1% ([46]).

Nonetheless, the UK faces several inter-related challenges in specific areas. In 2013, 20.3% of part-time employment in the UK was involuntary (38.4% for males and 14.8% for females). Also, 48% of employers reported skills under-use of their employees ([47]). Unemployment remains a structural challenge among young people. Much of the fall in youth unemployment can be attributed to the general increase in the demand for labour. The UK's Office for National Statistics (ONS) labour force data, published in November 2014, indicates that some 622 000 people self-identified as being on a zero hour contract. The ONS also estimated that, in April 2014, employers held 1.4 million contracts that do not guarantee a minimum number of hours.

There has been growth in low paid jobs during the economic recovery. The number of people earning less than two thirds of median hourly pay – equivalent to GBP 7.69 per hour (and defined as 'low pay') – increased by 250 000 last year to reach 5.2 million ([48]). The sustained high employment rate in the UK is welcome. However, there is some concern that relatively low pay rates for part of the workforce show little sign of improvement. In addition, there are low levels of wage mobility in the labour market. Recent research indicates that, of those who were low-paid a decade ago and have remained in employment for the majority of the interim period, only one in four have progressed onto higher pay levels ([49]). The strong performance of the UK labour market throughout the downturn has been accompanied by both ongoing relatively weak productivity and weak earnings growth. It would appear that the latter affects young workers to a greater extent than others ([50]).

([45]) UK Office for National Statistics

([46]) UK Office for National Statistics, age 16-24. The Eurostat measure of youth unemployment uses a different age band (age 15-24) and has a different classification of people who are not seeking work because they have already found a job which they are due to start in the future. This measure shows youth unemployment at 20.7% in 2013.

([47]) UK Commission's Employer Skills Survey (2013)

([48]) Resolution Foundation (2014), Low Pay Britain

([49]) Resolution Foundation (2014), Escape Plan Report

([50]) Institute for Fiscal Studies (2015), Earnings since the recession

Overall, the UK has achieved some progress in addressing youth unemployment challenges. While the UK has not established a Youth Guarantee as outlined in the Council Recommendation ([51]), it has expressed support for the aims of the Youth Guarantee and agrees with the broad approach as set out in the Council Recommendation. The UK continued the implementation of domestic measures such as the Work Programme and the Youth Contract, with a focus on providing apprenticeships and getting people into work. 1.6 million people joined the Work Programme ([52]), which has improved significantly since the start of the scheme; outcomes for people joining the Programme recently are now above minimum expected levels. 595 000 individual jobseekers have now entered employment via the Work Programme from its inception in June 2011 to end June 2014 ([53]). Over 150 000 young people have now found at least one job on the Work Programme ([54]). Many of these jobseekers have complex barriers to work and will never have received intensive support before. Intensive Jobcentre Plus support has been provided for 18 and 19-year-olds from minority ethnic background, and education and help for NEETs. The government also continues the Traineeship Programme in England targeting 16-24 year olds who want to work but lack the necessary skills to find either a job or an apprenticeship.

The Scottish government continues to implement the Opportunities for All initiative and has disbursed new funds to local employment partners to provide 16-17 year olds with help for transition from school to work. The government has taken steps to improve the position of those on zero hour contracts by introducing legislation to ban exclusivity clauses, which restrict the ability of workers to engage in other employment.

On the Youth Contract, the government made substantial progress in providing work experience placements and launching more and better quality apprenticeships. As a positive upshot of the continuing falling youth unemployment rate, there was a lower take-up in 2014 ([55]). The wage incentive element was withdrawn in August 2014 and the money will be re-invested in other projects targeted at young people who face the biggest challenges getting into work. Some of the innovation proposed by the UK government includes: the Intensive Activity Programme for immediate interventions with NEETs aged 18-24 years at the beginning of a benefit claim; an extension of Jobcentre Plus Pilot support to 16 and 17-year-olds who are NEET and not in receipt of an out of work benefit, which aspires to tailored support for those most at risk of becoming benefit dependent on reaching age 18 ([56]); Work Skills pilots launched in November 2014, which assists those aged 18-21 years with literacy or numeracy difficulties linked to other work or skills related activity; and the Movement to Work initiative, which is a voluntary collaboration of some of the UK's biggest employers to provide a very significant amount of vocational training and work experience opportunities for 18-24 year old NEETs.

To respond better to employer requirements for improved skills matching, the government increased the duration of apprenticeships in England to a minimum of twelve months. The government also introduced an assessment at the end of an apprenticeship to ensure higher levels of competence. Employers will also be given more responsibility for developing the standards, giving them greater control over which training providers receive funding. Similarly, the government is co-funding seven National Colleges from September 2015, new specialised institutions run by employers to deliver higher level technical skills in sectors such as high-speed rail, advanced manufacturing, wind energy and others. In June 2014, Northern Ireland also published a new strategy on apprenticeships, increasing the number and quality of higher apprenticeships available and announcing measures to increase employer engagement and improve the reputation of apprenticeships. These measures are likely to

([51]) The Council of the European Union, Council Recommendation of 22 April 2013 on establishing a Youth Guarantee (2013/C 120/01)

([52]) Department for Work & Pensions, Work Programme statistical summary: to 30 June 2014

([53]) Employment Related Services Association (2014), Work Programme performance report, September

([54]) Department for Work & Pensions, Youth Contract official statistics, August 2014

([55]) Department for Work & Pensions, Youth Contract official statistics August 2014

([56]) HMT (2014), Autumn Statement

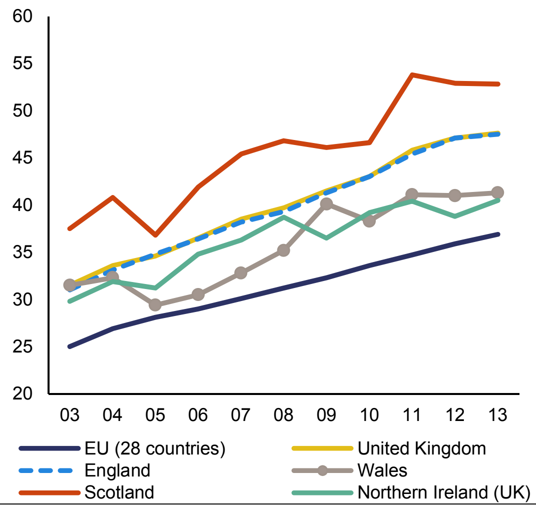
ensure more effective apprenticeships and make them more attractive to both students and employers. The increase in funding for higher apprenticeships announced in the Autumn Statement and Budget 2014 is a welcome contribution towards a rebalancing of the apprenticeship programme towards higher skills.

Challenges remain in the delivery of a response to the youth employment challenge in the UK. These challenges are implementing the apprenticeship reform and ensuring sufficient employer demand upon completion; improving education to work transitions, especially for 'hard-to-reach' NEETs including by providing support to schools to fulfil their statutory duty to offer career guidance; and involving a larger group of young people in taking up work experience and vocational training opportunities by increasing employer engagement.

Education and skills

Education and skills are areas to focus on. In the period between 2008 and 2013, the UK managed to increase the tertiary educational attainment rate from 39.7% to 47.6%, which is above the EU average of 36.9% (see graph 3.2.2). The indicator on early school leavers recorded a 2.6 pps. reduction over a three-year period, from 15.0% in 2011 to 12.4% in 2013, which is around the EU average (12%). However, UK employers continue to experience shortages of workers with higher vocational and technical skills in sectors such as construction ([57]) and large proportions of the adult population have comparatively low levels of numeracy, literacy and digital skills ([58]). Skills shortages, including in literacy, could be holding back further GDP growth in the UK ([59]). Furthermore, there is a deficit of skilled Information and communications technology (ICT) professionals. Demand is rising rapidly, but the supply is not keeping pace. In particular, graduate numbers have stagnated in recent years, as not enough young people, especially women, are being attracted to careers in ICT ([60]).

Graph 3.2.2: **Tertiary educational attainment - age group 30–34 years, %**



Source: European Commission

There is a lack of basic skills among young people, especially early school leavers and those from disadvantaged backgrounds. A relatively high proportion of young people with lower secondary education lack basic numeracy and literacy skills (see graphs 3.2.3, 3.2.4). The association between literacy and labour outcomes is greater in the UK than in other countries. When it comes to the ability of 15-year-olds to use a foreign language, England is among the lowest achievers in the EU. There is a strong association between socio-economic background and the level of basic skills as well as the overall educational attainment. A more advantaged student in the UK scores the equivalent of one year of schooling higher in mathematics than a less advantaged student. Underachievement is particularly strong

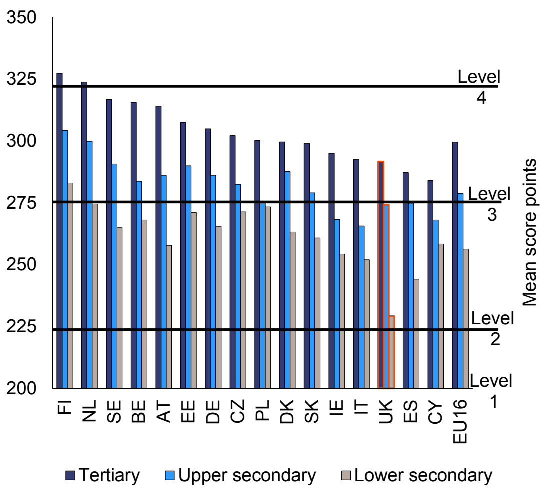
([57]) Confederation of British Industry, Changing the pace, CBI/Pearson education and skills survey 2013. Skills to Build, a joint report by KPMG and the London Chamber of Commerce and Industry (LCCI), states that unless efforts to increase the supply of construction labour are increased, major projects are at risk of falling by the wayside.

([58]) The OECD Survey of Adult Skills 2013 (PIAAC) indicates that England and Northern Ireland have some of the highest proportions of adults scoring at or below Level 1 in numeracy among the 17 participating EU countries (24.1% of 16-65 year olds or around 8.5 million people). For literacy, this proportion is 16.4% of adults or around 5.8 million people. Some 49.0% of adults in England and Northern Ireland score at or below Level 1 in problem solving in technology-rich environments.

([59]) National Literacy Trust, Trust Literacy Changes Lives 2014: A new perspective on health, employment and crime, September

([60]) European Commission & Empirica (2014), E-Skills for jobs in Europe: Measuring progress and moving ahead among the white male children from poorer households. The educational performance gap compared to that of their less-deprived white peers is larger than for any other ethnic group and the gap widens as they grow older ([61]). In addition, geographical location of poor children plays a role in their chances of achieving well at school, with London area performing significantly better than the rural and coastal areas ([62]).

Graph 3.2.3: **Literacy of recent graduates**

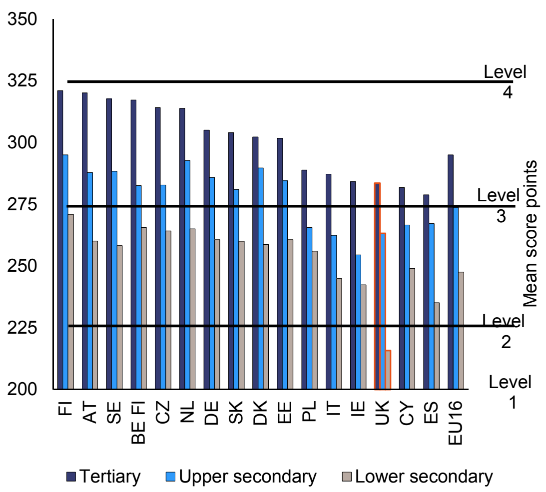


Source: Survey of Adult Skills (PIAAC)

([61]) House of Commons (2014), Education Select Committee, Underachievement in education by white working class children

([62]) Social Mobility and Child Poverty Commission, State of the Nation 2014 Report

Graph 3.2.4: **Numeracy of recent graduates**



Source: Survey of Adult Skills (PIAAC)

The government is implementing a streamlined national curriculum in England in order to improve children's competences in numeracy, language and literacy. This responds to a basic skills shortage. Implementation of the changes to the English and mathematics curriculum is expected in September 2015 and by 2016, primary schools will be tracked publicly on their record of achieving the required standards in those subjects. Coding was introduced as a compulsory subject from primary school onwards and the national curriculum now includes foreign languages for younger pupils (ages 7-11). Reformed curricula for upper secondary qualifications are being introduced in September 2015 with the assessment of English language made stricter. In addition, the UK is engaging in the European Commission's Grand Coalition initiative on digital skills. Finally, despite challenges of implementation, 16-19 study programmes which require school leavers to continue studying English and maths are another promising way of raising basic skills. Ongoing teacher workforce development is preparing the ground for full roll out of this measure as support for underachieving and disadvantaged students will gain importance in the face of these changes.

All devolved administrations are addressing the issue of low basic skills with education reforms. The Curriculum for Excellence, which puts skills for learning, life and work, including literacy and numeracy at its core, continues in its fourth year of implementation in Scotland with the new element of a benchmarking tool for monitoring pupil performance introduced in 2014. In October 2014 the Welsh government published Qualified for Life. The plan, which covers education for 3 to 19-year-olds, reinforces the Welsh government's key education priorities of raising standards in literacy and numeracy. An initiative in Northern Ireland is expected, over three years (2013-2016), to allocate additional graduate teachers to support pupils at risk of underachieving in literacy and numeracy at the end of primary school.

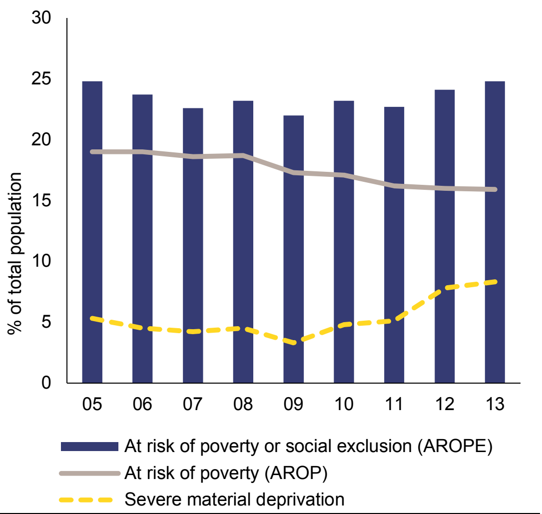
The vocational qualifications system remains relatively complex. Many qualifications in the initial and continuous vocational education and training system are not linked to occupations. They therefore do not achieve an occupational standard that employers recognise and associate with knowledge and skills applicable to a particular sector. While the UK has a firmly established set of qualifications frameworks, there is also training which is not part of these frameworks, but is instead certified by companies, charities and independent training agencies. The UK has a relatively low proportion of upper secondary students enrolled in initial vocational education and training (38.6% compared to 50.4% in the EU in 2012). In contrast with the wider EU trend, initial vocational education and training graduates in the UK have an employment rate that is 2.4 pps. lower than their counterparts from general education, and the employment advantage for this kind of qualifications compared with lower-level qualifications is less than in other EU countries. The government has published plan to reform adult vocational qualifications to simplify the qualifications regime and ensure that qualifications are recognised by employers before being approved ([63]). To increase the reputation of vocational pathways, new technical qualifications Tech Levels are being introduced from September 2014. In addition, work started on enabling vocational students to take out student loans, currently available only to higher education students. More clarity in the system will ease the transition from school to further education and lead to better recognition of qualifications by employers.

([63]) Department for Business, Innovation & Skills (2014), Policy Paper, Vocational qualification reform plan, March

3.3. SOCIAL POLICIES

Despite the positive trends in relation to labour market outcomes, social challenges persist. The at-risk-of-poverty or social exclusion rate grew from 24.1% in 2012 to 24.8% in 2013; the same rate as 2005. The rate of severe material deprivation also rose from 7.8% in 2012 to 8.3% in 2013. The rate of people living in households with very low work intensity increased slightly, from 13% in 2012 to 13.2% in 2013; the EU-28 average is 10.7%. Low income households have experienced the largest percentage reduction in their net disposable incomes after tax and benefit reforms. The severe material deprivation rate has also risen between 2009 and 2013 (see graph 3.3.1).

Graph 3.3.1: **Poverty and material deprivation**



Source: European Commission; Organisation for Economic Co-operation and Development

There are ongoing challenges in tackling the share of children in jobless households and child poverty. Despite a decreasing trend, at 15.3% (2013), the proportion of UK children living in jobless households is still one of the highest in the EU ([64]). In contrast, there is an increasing trend of children in working households living in poverty; there are 600 000 more children in working households living in absolute poverty after housing costs than in 2009-10. Two-thirds of children from poor families are not ready for school at the age of five ([65]). The 'at-risk-of-poverty or social exclusion' rate is considerably higher for people with a disability ([66]).

Childcare costs in the UK are high on an internationally comparable basis, although supply has increased recently. Costs continue to rise, with an increase of 6% between 2012 and 2013; the rate of inflation for the same period was 2.7% ([67]). There is a risk that the declining trend in the gender pay gap is reversed and the gender gap in pensions will widen as the cost and availability of childcare may constrain women's labour supply ([68]) ([69]). The gap in the share of part-time work between women (42.6% in 2013) and men (13.2% in 2013) is one of the highest in the EU. The percentage of women that are inactive or work part-time due to personal and family responsibilities (12.5%) is almost twice as high as the EU average (6.3%) in 2013. The availability of childcare is improving for pre-school children. The share of children under three in formal childcare facilities remains low.

Overall, the UK has made limited progress on the implementation of measures to address welfare reform, poverty and childcare. Recent welcome developments in social protection include the enactment of the Care Act 2014 legislation which comprehensively reforms the system of long-term care in England, introducing a cap on care costs from April 2016. The Pensions Act 2014 introduced a single-tier state pension at a flat rate set above the level of means-tested support, brought forward by eight years the state pension age to 67, and set a framework for raising it in line

([64]) EU SILC data shows EU-28 average of 11.2%. Only Ireland (17.7%) and Bulgaria (16.4%) have a higher percentage of children in jobless households.

([65]) Social Mobility and Child Poverty Commission, State of the Nation 2014 Report

([66]) 34.8% (EU SILC 2013)

([67]) Thompson S. & D. Ben-Galim, (2014), Childmind the gap: Reforming childcare to support mothers into work. This states that: "A childcare cost of around 10% of net family income appears to support high levels of maternal employment (in the UK, the figure is currently closer to 30% for full-time dual earner couples and 20% for 1.5 earner couples on median incomes)."

([68]) At 19.1% in 2012, the unadjusted gender pay gap is well above the EU-average of 16.4% and contributes to labour market inequalities. Lower work volume leads to diminished career opportunities, lower pay and earnings, lower prospective pensions and underutilisation of human capital resulting in a higher gender pay gap.

([69]) Cory and Alakeson, (2014). Research indicates that around two-thirds of mothers say the cost of childcare is an obstacle to them working more.

with life expectancy. A Child Poverty Strategy 2014-2017 was adopted in 2014 with actions centred around supporting families into work, improving living standards and raising educational attainment. As well as the childcare reforms detailed below, free school meals were made universal for 5-7 year olds from September 2014. While the Social Mobility and Child Poverty Commission praised such positive actions, it raised concerns that the Strategy does not contain agreed goals or targets, address the issue of in-work poverty or future planned welfare reductions.

In April 2015, a transferable tax allowance will be introduced for married couples and civil partners. This measure, which allows a spouse to transfer up to GBP 1 050 of any unused personal income tax allowance to their spouse, is likely to benefit certain one-earner couples, introducing small financial disincentives for a second earner to enter employment ([70]). 4 million out of 12.3 million married couples ([71]) will gain from the policy, which costs GBP 550 million annually. The reform involves structural changes: the measure re-introduces an element of joint income taxation, which was replaced by individual taxation in 1990 to eliminate gender bias ([72]). The government's equality impact assessment of the new reform concluded that 84% of gainers will be male ([73]). On the higher end of the tax spectrum it complicates the income tax system by introducing a 'cliff-edge' effect.

The roll out of Universal Credit has been somewhat hampered by setbacks and seems behind schedule, as noted by the National Audit Office amongst others. Universal Credit will streamline and simplify the benefits system and improve work incentives. While UK authorities maintain roll out will be implemented in line with original timelines, recent figures indicate that only 26 940 claimants, of an estimated 7.7m claimants, are currently on the Universal Credit system ([74]). A recent government evaluation provides an indication of some positive early results in relation to attitudes to work and job search behaviour and moving claimants into work ([75]). However, the 'test and learn' approach adopted for the roll out of Universal Credit, coupled with the fact that current recipients are relatively simple cases, mainly single people and childless couples, mean that the wider impacts are difficult to assess.

Research suggests the new provisions relating to the indexation of certain social security benefits and tax credits are having a negative impact in relation to poverty ([76]). The Welfare Benefits Up-rating Act provides that some working age benefits and tax credits are being increased by 1% per year in the period from 2013 to 2016. Pensioners have been protected by the 'triple lock' system applied to pension uprating. Research assessing the cumulative impact of the changes in taxes, benefits and services indicates that overall policy changes have been regressive with net transfers from poor to rich; couples with children, lone parents and those with the lowest incomes have had the largest percentage reduction in their net disposable incomes ([77]).

There is a growing support by employers for the living wage recommended by the Living Wage Commission in its June 2014 report. The Living Wage is an hourly rate set independently and updated annually, calculated according to the basic cost of living in the UK; employers choose to pay it on a voluntary basis. The number of accredited employers has grown from approximately 400 in September 2013 to approximately 1200 in February 2015. In 2014, the national minimum wage in the UK was increased above the rate of inflation for the first time since 2008 to GBP 6.50 for those over 21 years. The Living Wage, which is set at GBP 7.85 (GBP 9.15

([70]) Institute for Fiscal Studies (2013), The new tax break for some married couples

([71]) This includes 2.5 million (out of a total of 8.7 million) married couples with someone in work. The remaining 1.5 million gainers are mostly married pensioners. See House of Commons Library (2014), Tax, marriage and transferable allowances

([72]) IMF (1997), How tax systems treat men and women differently, Finance & Development, Volume 34, No. 1

([73]) HMRC (2014), Transferable tax allowances for married couples and civil partners, March

([74]) Department for Work and Pensions, Universal Credit: 29 Apr 2013 to 15 Jan 2015

([75]) Department for Work and Pensions (2015), Universal Credit at work

([76]) Institute for Fiscal Studies (2015), The effect of the coalition's tax and benefit changes on household incomes and work incentives

([77]) Reed, H. & J. Portes (2014), Cumulative Impact Assessment: A research report by Landman Economics and the NIESR for the Equality and Human Rights Commission. Research report 94 in London) is to further contribute to addressing in-work poverty.

To address the availability of childcare the government introduced the Childcare Business Grants scheme. The scheme, launched in April 2013, provides grants of up to GBP 500 to anyone who wants to set up a new nursery or child-minding business to help cover the costs of insurance, training, equipment and legal advice. However, there are concerns that the amount of funding is insufficient and will not cover core expenses such as equipment purchases, rent and staff salaries ([78]). The scheme initially launched with a fund of GBP 2 million which the government estimated would improve childcare availability by helping to launch up to 6 000 new childcare businesses thus helping women move back into work after having children. To date over 4900 grants have been paid and Autumn Statement 2014 announced that the scheme would be extended into 2015/16.

From 2015, under the 'tax-free childcare scheme', eligible families will receive 20% of their yearly childcare costs on fees of up to GBP 10 000 per child. This measure is expected to save a typical working family with two children under 12 years old up to GBP 4 000 a year and will have a positive gender impact by helping mainly women enter or return to the labour market after having children. In addition, childcare is not easily accessible to the disadvantaged as the current system involves restricted hours, part-payment or retrospective funding ([79]). To address this, the government has recently extended the statutory entitlement to 15 hours of free part-time pre-school nursery education during term-time for 3-4 year olds to also include 40% of two year olds in low income families.

([78]) Government Equalities Office and the Department for Culture, Media & Sport (2013), Press release, GBP 2 million grant scheme to boost childcare opens its doors.

([79]) Stewart, K. & L. Gambaro (2014), World Class: What does international evidence tell us about improving quality, access and affordability in the English childcare market?

3.4. BUSINESS ENVIRONMENT AND INFRASTRUCTURE INVESTMENT

The UK has a favourable business environment. It performs particularly well in areas such as a relative ease in paying taxes and a reliable public administration. The main challenges for doing business in the UK are ensuring that there is sufficient and high quality infrastructure and access to finance. Successfully addressing these challenges should help boost productivity growth in the medium term.

The UK has made some progress in addressing its infrastructure investment challenge. In December 2014, the National Infrastructure Plan (NIP) was updated and widened in scope and there was substantial progress in providing consistent and timely information on its implementation of the Plan. The investment pipeline includes projects up to a total of GBP 413 billion to 2020 'and beyond'. It is targeted towards the energy and transport sectors. The bulk of the funding (around 90%) set out in the NIP is for investment in transport and energy infrastructure. The focus on these sectors is desirable given their importance for productivity and growth. The NIP is regularly updated and sets the UK's objectives, strategy and priorities for infrastructure investment over a medium-term horizon and in an integrated way that is relatively detailed in its scale and scope, as well as setting out details of the progress of infrastructure projects within a coherent and consistent framework.

Infrastructure investment

On some measures, the UK has underspent on infrastructure relative to comparable countries ([80]). The cumulative effect of such underspending could result in a backlog of infrastructure provision, inefficiencies in its operation and capacity constraints ([81]). Investment in infrastructure can underpin productivity and growth in the medium term. Investment in the core structures that facilitate and support economic activity is complementary to business output, and social welfare given the importance of high quality infrastructure in daily business and household activity. For example, investment in energy infrastructure, including 'green' energy sources, can raise productivity, by ensuring that businesses have access to high quality, stable and reliable energy sources, while contributing to social welfare and reducing the production of greenhouse gases thus reducing risks associated with climate change.

Analysis on infrastructure investment gaps in the EU suggests that investment in rail and road maintenance and, to a lesser extent, in new roads has been below a structural indicator of demand for infrastructure ([82]) (see graphs 3.4.1, 3.4.2, 3.4.3 and 3.4.4). The same analysis suggests over-investment in energy production capacity but this does not take account of the need to replace older coal and oil power stations under EU ([83]) environmental legislation and the need to diversify the primary energy mix of the electricity sector, for both economic and policy reasons (such as the renewable energy target).

The scale of funding requirements raises commensurate concerns about deliverability. These concerns particularly relate to the sources of funding. Around 21% of planned investment in the pipeline is expected to be financed by the public sector, 66% by the private sector and the remainder through a mix of private and public sources. Given the UK's fiscal constraints, which limit its ability to fund large infrastructure projects directly from the budget, the reliance on private sector funding is necessary.

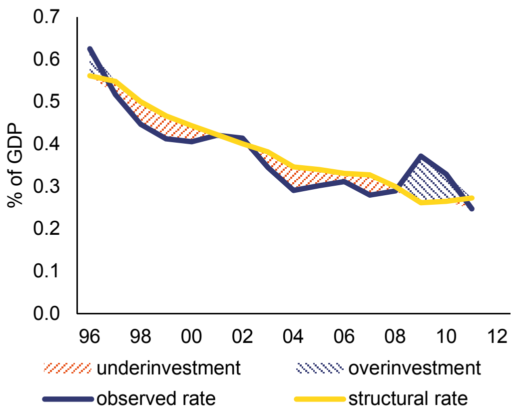
([80]) General government gross fixed capital formation as a % of GDP is typically lower than in comparable countries. A survey by the Confederation of British Industry (2014) found that, 57% of businesses expect transport infrastructure to worsen in the next five years and have seen little improvement since 2011. According to the World Economic Forum's Global Competitiveness Report (2014), which provides a subjective comparison on the quality of infrastructure, the UK ranks in the middle of 34 countries, and close to the OECD average, on the perceived quality of its infrastructure (energy, transport and communications).

([81]) Analysis reported by the OECD points to an investment need of a cumulative 3.5% of GDP by 2030. Efficiency, analysis indicates that the railway system is 20% to 40% less efficient, on average, than in the EU (see McNulty 2011, Rail value for money study). On airport capacity constraints, the UK's largest and most important airport, Heathrow, is currently running at 97% capacity and recently reported a record number of passengers using the airport.

([82]) European Commission (2014), Infrastructure in the EU: Developments and Impact on Growth, European Economy, Occasional Papers 203

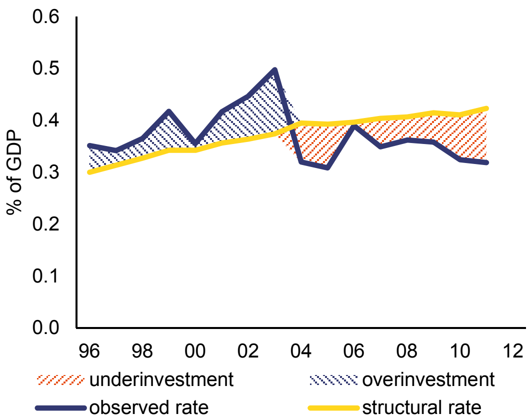
([83]) Ofgem, Electricity Capacity Assessment Report 2014

Graph 3.4.1: **Road investment**



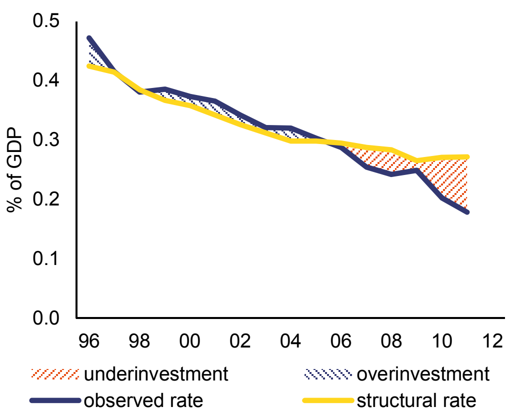
Source: European Commission

Graph 3.4.2: **Rail investment**



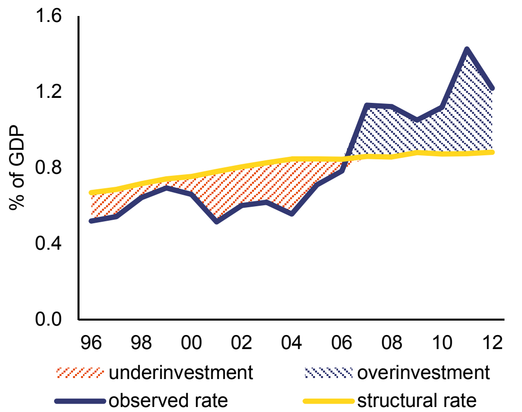
Source: European Commission

Graph 3.4.3: **Road Maintenance**



Source: European Commission

Graph 3.4.4: **Gross fixed capital formation in the energy sector**



Source: European Commission

In principle, infrastructure investment should be attractive to long-term private sector investors such as pension funds and long-term asset managers as it can offer stable and predictable returns over the long term. Therefore, the long-term horizon of the NIP is welcome. However, amounts currently committed are smaller than the contributions set out in the NIP and further reassurance is required that the scale of funds required will materialise and within the required timeframes. Long-term investors such as pension funds may be deterred by the nature of some of the risks, such as construction risk, and uncertainties involved, or the relatively fragmented nature of the sector may impede its ability to exploit economies of scale. A clear and consistent set of principles can guide the private sector's (especially pension funds') investment in infrastructure. Such a set of principles is currently under development by the OECD for the G20 and aims to provide clarity, consistency and certainty for investors.

While the policy response to the infrastructure challenge is appropriate, delivery challenges persist. In this respect, it is promising that the government provides a guarantee scheme, which is expected to operate to 2016, that provides up to GBP 40 billion of guarantees to private investors to help their ability to raise funds, and reduce the cost of such funds, for large projects. In addition, the Pensions Infrastructure Platform, a not-for-profit infrastructure fund established by pension funds which will be its main investors, was established in 2011 and aims to pool pension funds' resources into infrastructure projects ([84]).

In addition, there are developments relating to regulation. Recent initiatives include plans to streamline use of the legal system for appeals against large infrastructure projects by reforming access to judicial review ([85]). Action has also been undertaken to boost effective cooperation between regulators for different types of infrastructure provision through the formation of the UK Regulators Network.

Transport infrastructure

Consistent with the NIP, there has been progress in significant transport projects. Construction of 'Crossrail 2', a major new rail route across London, is proceeding and expected to be completed on time in 2018. Legislation for a new high-speed rail route, 'High Speed 2', which connects London and Birmingham in its first phase and onwards to Leeds and Manchester in its second phase, is awaiting parliamentary approval. Both rail routes should ease congestion and address capacity constraints. The choice of site for new airport capacity in the south-east of England is contentious. The NIP does not include additional airport capacity for the south-east of England. The case for further capacity, and the specific site of such an increase, is currently under consideration by the Airports Commission whose final report and recommendations are due by the summer of 2015.

In relation to investment in the road network, the government announced a substantial increase in funding for the national road network in December 2014. The announcement set out plans to boost the quality of the road network by investing in 84 new schemes (and 100 schemes in total) to add 1 300 new lane miles for motorways and trunk roads to ease congestion and increase connectivity between towns and cities. The investment is welcome and should help boost the quality and quantity of transport infrastructure.

In addition, improved transport linkages in the north of England are at the heart of proposals for a 'Northern Powerhouse' announced by the government in 2014, which is designed to boost regional growth in the north of England.

Energy infrastructure and capacity markets

Through the implementation of the Electricity Market Reform (EMR), the UK is demonstrating commitment to secure, affordable electricity supply and to ensuring that low carbon generation is an attractive investment opportunity. Eight renewable electricity projects were awarded contracts worth up to GBP 12 billion of private sector investment by 2020 under the Final Investment Decision Enabling for Renewables process, allocating the first Contract for Differences (CfDs) that are being introduced as part of the EMR programme. CfDs will gradually replace the renewables obligation (green) certificates as the support regime for medium and large-scale renewable energy projects, while the "feed-in tariff" scheme will be kept to support small scale renewable energy generation.

Sufficient capacity to meet peak electricity demand in the future should be met through electricity capacity market auctions. The first auction, which took place in December 2014, is expected to secure delivery of 49 GW of power generation in 2018-19. Existing power plants will provide most of this capacity through one-year contracts while only 5% of the capacity involved concerns new build and only 0.4% demand-side response arrangements. Almost half of capacity was awarded to combined cycle gas turbine plants and almost one fifth to coal and biomass based power generation.

Further investment in fossil fuel-based power generation was also announced in the NIP, including GBP 53 billion of planned infrastructure investment in the oil and gas sectors until 2018-19 in order to secure sufficient investment for the maturing UK Continental Shelf. In the longer term (beyond 2020-21), the UK plans GBP 80 billion of energy generation investment, with the technology mix to be determined on the basis of a series of factors, namely demand, affordability and progress towards decarbonisation targets.

([84]) In February 2014 the details of the PIP's first fund was announced. The PPE equity PIP Fund has been established by Danmore Capital Limited which will act as the manager of the fund. The fund has a cap of GBP 500 million.

([85]) Ministry of Justice (2014), Judicial review – proposals for further reform: the government response

Box 3.4.1: **Energy and climate change**

The UK has made progress towards its 2020 renewable energy target. The UK is committed to reaching a target of 15% of renewable energy sources in final energy consumption and a 10% share of renewable energy in the transport sector by 2020 ([1]). In 2013 the share of renewable energy in gross final energy consumption increased to 5.2%, compared with the 5.4% fixed interim target for the average of 2013 and 2014. Currently, the operational renewable power capacity in the UK amounts to over 23 GW and electricity generation from renewables in 2013 represented 15% of total electricity generation.

The UK is currently on track to meet its Europe 2020 target for greenhouse gas emissions not covered by the EU Emissions Trading Scheme (ETS). In 2013 greenhouse gas emissions were 9% lower than 2005 levels, exceeding the interim 2013 target of 8% set by the Effort Sharing Decision. Projections based on existing measures indicate that emissions from non-ETS sectors will be 19% below 2005 levels by 2020, better than the 16% target set under Europe 2020.

In 2013, final energy consumption in the UK was 136.4 million tonnes of oil equivalent (Mtoe). The UK's 2014 National Energy Efficiency Action Plan sets an energy efficiency target corresponding to a final energy consumption of 129.2 Mtoe in 2020. This consumption is estimated to correspond to an 18% final energy consumption reduction, with a strong focus on the building sector. In 2014 the UK has put in place several measures to encourage energy efficiency and renewable energy deployment in buildings, a sector which currently contributes a quarter of all UK greenhouse gas emissions. The domestic Renewable Heat Incentive (RHI) went live in 2014 to encourage homeowners to install renewable heating systems. Despite high levels of subsidy offered by RHI, financial and non-financial barriers are slowing uptake, including uncertainty over funding beyond 2016, where the RHI is due to end in 2020. The UK scheme to encourage energy efficiency upgrades in homes, Green Deal and Energy Company Obligation (ECO), also went through a number of changes in 2014 which created some uncertainty across the supply chain ([2]).The Green Deal Cashback scheme closed in June 2014 and was followed by another cashback scheme, the GPB 120 million Green Deal Home Improvement Fund, with one release of funding worth GPB 120 million during the summer and one of GPB 30 million in December. The government was forced to close both releases in a very short time following a surge of applications for vouchers.

([1]) Under Directive 2009/28/EC on the promotion of the use of energy from renewable sources.
([2]) UK Parliament (2014), Energy and Climate Change – Third Report

Further support to diversify the energy mix has come in the form of a state guarantee for Hinckley Point C nuclear power station, for which the Commission gave state aid clearance in October 2014. Moreover, the second capacity market auction, foreseen for December 2015 and covering power supply capacity for 2019–20, will allow the participation of electricity interconnectors linking the UK to other parts of Europe. In March 2014, the government introduced a cap on its carbon price support rate ([86]).

The Competition and Markets Authority (CMA) is currently investigating the market for the supply and acquisition of energy in Great Britain. The investigation follows the view of the regulator of the energy sector, Office of Gas and Electricity Markets, that "there were reasonable grounds for suspecting that features of the energy market were preventing, restricting or distorting competition". The final report is expected in November/December 2015.

([86]) The Carbon Price Support is the amount levied by the UK on fossil fuels used for electricity generation on top of the EU ETS emissions price. This measure has been introduced in 2013 with the aim of providing further incentives for investments in low-carbon electricity generation. However, it is not expected to help achieve the national greenhouse gas emissions target under Europe 2020, which refers to emissions from non-ETS sectors, nor to help achieve additional emission reductions in the EU ETS, since emissions from ETS-sectors are determined by the cap at the EU level.

Green and digital infrastructure

Investment in green infrastructure is an efficient solution for the management and prevention of floods. Whereas one of the aims of the NIP is to reduce the consequences to the environment from floods, the projects themselves to achieve this reduction should not adversely affect the environment including water resources. To this end, green infrastructure and natural water retention measures can be utilised for providing flood protection as well as other environmental, social and economic benefits which can be, in many cases, more cost-effective than 'grey' infrastructure.

The UK performs relatively well in the area of broadband provision. The government is currently meeting its own targets to provide superfast broadband (speeds above 24 megabit per second) coverage. The government's targets for the future are: to provide 90% of the UK with superfast broadband coverage by 2016; provide basic broadband (2 Mbps) for all by 2016; provide superfast broadband to 95% of the UK by 2017; and improve mobile coverage in remote areas by 2016. Also, the UK performs well on a number of the Digital Agenda indicators ([87]).

However, performance is less good on the deployment of ultrafast broadband (speeds above 100 Mbps). The UK currently has 1% of homes subscribing to such broadband ([88]). In the NIP, the UK is devoting structural funds for superfast coverage and aims to reach 95% coverage of UK premises by the end of 2017. However, there are no concrete plans in place for the achievement of the 100 Mb target and which public initiatives will be taken to financially support the roll out of these networks if the market fails to deliver the investment needed.

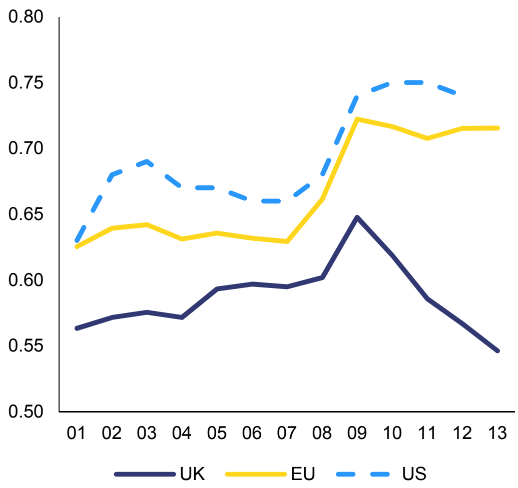
([87]) As regards the five main drivers of the digital economy, the UK ranks 6th out of 28 MS on connectivity, 4th on human capital, 10th as regards the use of internet, 17th in integration of digital technologies by business and, 12th in digital public services.

([88]) The Digital Agenda target is to have 50% of all homes subscribing to ultrafast broadband by 2020. In Sweden, the rate is 20% and in Belgium and Latvia the rate is 10%.

Research and innovation

The UK has a continued under-investment in public Research and Development (R&D) in comparison with other advanced nations in the EU and the US, as shown in graph 3.4.5 ([89]). In addition, in the past decade, private R&D investment declined from its 2001 peak of 1.13% to 1.05%, which remains below other advanced economies in the EU ([90]).

Graph 3.4.5: **Public R&D investment, as % of GDP**



Source: European Commission

While the importance of science and research has been recognised, the current budget presents a continued fall in investment in real terms for next year. The government has maintained the budget for science and innovation in nominal terms, but not in real terms. There is an investment plan for research infrastructure for the five years 2016-2021, but little clarity on the effects on the rest of the science and innovation budget. In terms of supporting private R&D investment and innovation, several measures have been adopted, though these have not been translated in increased investments yet. The British Business Bank will support the financing of businesses undertaking cutting edge innovation

([89]) Public R&D intensity in the UK reached 0.55% in 2013, declining from 0.65% in 2009, and below the EU average at 0.72% and that of countries such as Germany, France, the Netherland or the United States at 0.94%, 0.76%, 0.84% and 0.74%([89]), respectively.

([90]) In Germany, France and the Netherlands it was 1.99%, 1.44% and 1.14%, respectively in 2013.

and the network of catapults centres to translate R&D results into innovation will be strengthened. Tax credits remain the main policy instrument to support private R&D investment while other supporting schemes, such as grants, play an almost negligible role.

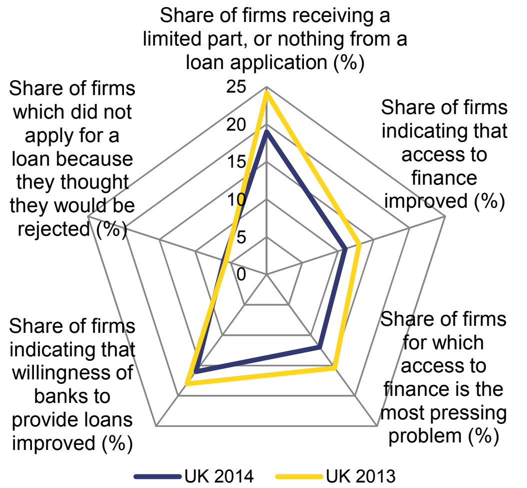
Access to finance

Access to finance has been one of the major concerns of business, in particular for small and medium-sized enterprises (SMEs), following the financial crisis. The government has taken positive and appropriate steps to improve access to finance and competition in the banking sector which should, in time, result in enhanced access to finance. In the meantime, some evidence suggests that access to finance remains constrained for SMEs.

The efficient and effective provision of finance, and on appropriate terms and conditions, to businesses with sound prospects, can support productivity and growth. Bank credit has historically been an important source of finance for businesses; however, credit available to private non-financial corporations (PFCs) continues to decline, contracting by 1% in 2014. However, the pace of decline is lower than in 2013 (of -2.1%). The decline in the supply of credit continues to be particularly pronounced for SMEs for which the supply of credit declined by -1.7% in 2014, compared with -2.4% in 2013.

Recent survey evidence on perceptions of access to finance is mixed. On the one hand, according to the European Commission's SAFE survey, on a number of measures, businesses perceive that access to finance has improved in 2014 (see graph 3.4.6). On the other hand, according to the World Economic Forum Global Competitiveness Report 2014-2015, respondents to the Report's survey rate access to finance as the greatest impediment to doing business in the UK. Moreover, according to the Bank of England's latest Credit Conditions Survey Q4 2014, the availability of credit to small businesses declined significantly in Q3 2014 and was unchanged in Q4 2014. This is the first decline in availability since Q1 2012 and it is expected to decline further in 2015. However, credit availability to medium-sized and large PFCs was expected to improve slightly. Demand for credit also fell for small businesses in Q4 2014 and is expected to fall further in early 2015, although it is expected to rise for medium-sized and large businesses. Overall, the picture is mixed. There are signs of improvement but also signs of some constraints, especially for small businesses.

Graph 3.4.6: **Measures of access to finance**



A movement towards the centre of the diagram denotes an improvement in the measure of access to finance.
Source: European Commission and European Central Bank, SAFE Survey 2013 and 2014

The government's response has been positive and appropriate but policy initiatives have yet to exert a material impact on credit supply. For example, the Funding for Lending Scheme, which provides incentives to banks and building societies to expand lending by reducing their funding costs, was extended for another year, until January 2016. Although the scheme has yet to materially boost credit supply, supply may have fallen further in its absence. There is evidence, however, that the Scheme has reduced the cost of loans to PFCs.

Other policy responses, which aim to boost access to finance through channels other than bank credit, are also welcome and appropriate. However, it is still early to assess their impact. For example, the British Business Bank ([91]) opened in

([91]) Despite its name, the British Business Bank is not a bank in the conventional sense of the term 'bank' (i.e. a privately-owned deposit taking institution. Rather, the Business Bank is a government-backed 'bank' that supports economic growth by making targeted loans to selected corporates. The bank will deploy capital to address gaps in the provision of finance for SMEs. It has been provided with late 2014 and will shortly become fully operational and is consolidating its role as an economic investment bank for business with an emphasis on supporting SMEs. It will not lend to SMEs directly but to smaller banks and providers of alternative sources of finance that specialise in SME finance and it has an advisory role to inform SMEs of alternative sources of finance available. This latter role is still in its initial phase but is likely to be increased in the future. The Bank will need to carefully manage any risks of 'adverse selection' arising from its management of provision of finance to SMEs whose applications for finance may have been previously rejected by banks. The government has committed to fund the Bank for five years. It is important to note that the Bank will need to comply with the EU state aid regime.

The scope of the British Business Bank's activities was broadened in early 2015 with the announcement of the 'Help to Grow' scheme. Under the Scheme, a pilot of GBP 100 million of funding will be made available to the Bank to provide finance to small firms with potential to grow quickly. The first loans are expected to be made from autumn 2015. The initiative is an appropriate means to provide funds to small firms that may not be otherwise able to obtain bank credit.

Increased competition in the banking sector would assist SMEs in their ability to access credit from banks other than their usual banks. Competition in the business banking sector is limited with the four largest banks in the UK accounting for 80% of the UK small business' main banking relationships ([92]). New entrants to the banking sector may face difficulties in assessing the credit-worthiness of SMEs. In addition, lending to SMEs may be affected by elevated levels of risk aversion among the main banks (perhaps reflecting the lingering impact of the financial crisis) although this should tend to diminish given the strengthening of banks' balance sheets and capital positions.

Progress has also been made in a number of other areas. In relation to the assessment of the credit-worthiness of SMEs, although credit data is shared among banks through reference to credit rating agencies (CRAs), it has been argued that the information provided by banks is insufficiently comprehensive and the operation of CRAs is impeded through the principle of reciprocity, that is, only data providers can access the data provided by others so, by definition, new credit providers are excluded. There exists, therefore, an asymmetry of information among various providers of finance to SMEs.

The government is in the process of passing the Small Business, Enterprise and Employment Bill which, amongst other provisions, will try to address unfair access to information which may be an impediment for new lending institutions from entering the market. The Bill will impose a duty on designated banks to provide specific information about their SME customers to credit reference agencies, subject to agreement of the businesses concerned. Banks will also be required to refer details of SMEs that have been rejected for loans to smaller banks and other providers of finance. As an alternative, an existing institution, such as the Bank of England, or a new central registry, could hold information on the credit-worthiness of SMEs with full access to banks and other providers of finance to SMEs. The Bank of England is currently consulting on the issue and examining whether provision of such information by a central agency equipped with necessary powers could reduce the information asymmetry and spur provision of bank finance to SMEs ([93]).

In addition, the Competition and Markets Authority (CMA) announced in 2014 that it would investigate the supply of banking services to SMEs. According to the CMA, there are 'reasonable grounds to suspect that a feature or combination of features of the market for the supply of those services in the UK that prevents,

GBP 3.9 billion (some of which is rolled over from existing programs) new capital which will be levered up through involvement of the private sector. In addition, a number of existing schemes of a debt and equity natured have been rolled into the bank.

([92]) Financial Conduct Authority, Banking services to small and medium-sized enterprises, 18 July 2014

([93]) Bank of England (2014), Should the availability of UK credit data be improved? Discussion paper, May restricts or distorts competition' ([94]). The CMA expects to publish its final report in April 2016. The CMA noted that there were low levels of entry and expansion in the sector, little movement over time in the market share of the four largest credit providers, limited transparency in the provision of complex products to customers and low levels of customers switching accounts.

([94]) Competition and Markets Authority (2013), Retail banking market investigation, June

ANNEX A
Overview Table

Commitments	Summary assessment ([95])
2014 Country specific recommendations (CSRs)	
CSR1: Reinforce the budgetary strategy, endeavouring to correct the excessive deficit in a sustainable manner in line with the Council recommendation under the Excessive Deficit Procedure. Pursue a differentiated, growth-friendly approach to fiscal tightening by prioritising capital expenditure. To assist with fiscal consolidation, consideration should be given to raising revenues through broadening the tax base. Address structural bottlenecks related to infrastructure, skills mismatches and access to finance for SMEs to boost growth in the export of both goods and services.	The UK has made **some progress** in addressing CSR1 of the Council recommendation (this overall assessment of CSR1 excludes an assessment of compliance with the Stability and Growth Pact): • some progress in prioritising capital expenditure. The government has committed to reducing current expenditure in order to increase capital spending by GBP 3 billion each year from 2015-16; • limited progress in raising revenues through broadening the tax base. However, current actions include measures on base erosion and profit shifting; tax planning and fairness measures; corporation tax accounting treatment of credit losses; bank losses restriction; self-incorporation; intangible assets; • some progress in addressing structural bottlenecks, such as the establishment of a direct lending facility.
CSR2: Increase the transparency of the use and impact of macro-prudential regulation in respect of the housing sector by the Bank of England's Financial Policy Committee. Deploy appropriate measures to respond to the rapid increases in property prices in areas that account for a substantial share of economic growth in the United Kingdom, particularly London, and mitigate risks related to high mortgage indebtedness. Monitor the Help to Buy 2 scheme and adjust it if deemed necessary. Consider reforms to the taxation of land and property including measures on the revaluation of property to alleviate distortions in the housing market. Continue efforts to increase the supply of housing.	The UK has made **some progress** in addressing CSR2 of the Council recommendation: • substantial progress in mitigating risks related to high mortgage indebtedness. through macro-prudential regulation; • substantial progress in monitor the Help to Buy 2 scheme The FPC published its first review of the Help to Buy policy in October 2014; • some progress in reforming to the taxation of land and property. The government

([95]) The following categories are used to assess progress in implementing the 2014 CSRs of the Council Recommendation: No progress: The Member State has neither announced nor adopted any measures to address the CSR. This category also applies if a Member State has commissioned a study group to evaluate possible measures. Limited progress: The Member State has announced some measures to address the CSR, but these measures appear insufficient and/or their adoption/implementation is at risk. Some progress: The Member State has announced or adopted measures to address the CSR. These measures are promising, but not all of them have been implemented yet and implementation is not certain in all cases. Substantial progress: The Member State has adopted measures, most of which have been implemented. These measures go a long way in addressing the CSR. Fully addressed: The Member State has adopted and implemented measures that address the CSR appropriately.

	announced a reform of stamp duty land tax; • some progress in increasing the supply of housing. The government introduced various initiatives in 2014 such as plans to develop new garden cities.
CSR3: Maintain commitment to the Youth Contract, especially by improving skills that meet employer needs. Ensure employer engagement by placing emphasis on addressing skills mismatches through more advanced and higher level skills provision and furthering apprenticeship offers. Reduce the number of young people with low basic skills.	The UK has made **some progress** in addressing CSR3 of the Council recommendation: • some progress in maintaining commitment to the Youth Contract, following the withdrawal of the wage incentive element The government adopted new support packages for youth including Work Skills pilots which were launched in November 2014; • some progress in addressing skills mismatches. The strengthening of vocational education and apprenticeships has continued, including increased duration of apprenticeships, introduction of assessment and the announcement of further funding for higher apprenticeships; • some progress in reducing the number of young people with low basic skills. The revised national curriculum was implemented in primary and lower secondary schools. The Welsh government published an education improvement plan for the period up to 2020.
CSR4: Continue efforts to reduce child poverty in low-income households, by ensuring that the Universal Credit and other welfare reforms deliver adequate benefits with clear work incentives and support services. Improve the availability of affordable quality childcare.	The UK has made **limited progress** in addressing CSR4 of the Council recommendation: • limited progress in reducing child poverty in low income households; • limited progress in improving the availability of affordable quality childcare.
CSR5: Continue efforts to improve the availability of bank and non-bank financing to SMEs. Ensure the effective functioning of the Business Bank and support an increased presence of challenger banks.	The UK has made **substantial progress** in addressing CSR5 of the Council recommendation: • substantial progress in improving the availability of bank and non-bank

	financing to SMEs; • substantial progress in ensuring the effective functioning of the Business Bank.
CSR6: Follow up on the National Infrastructure Plan by increasing the predictability of the planning processes as well as providing clarity on funding commitments. Ensure transparency and accountability by providing consistent and timely information on the implementation of the Plan.	The UK has made **some progress** in addressing CSR6 of the Council recommendation: • some progress in implementing the National Infrastructure Plan. The Plan was updated and widened in scope; • substantial progress in providing consistent and timely information on the implementation of the Plan. A new Major Infrastructure Tracking unit within the treasury tracks the progress of Top 40 investment.
Europe 2020 (national targets and progress)	
Employment rate target set in the 2014 NRP: None	74.8% of the population aged 20-64 was employed in 2013.
R&D target set in the 2014 NRP: None	1.86% (2009), 1.77% (2010), 1.77% (2011), 1.72% (2012), 1.63% (2013) The share of R&D spending in UK GDP is below the EU average of 2.02% and on a declining trend.
Greenhouse gas emissions, base year 1990 -National Greenhouse gas (GHG) emissions target: -16% in 2020 compared to 2005 (in non-ETS sectors)	Change in non-ETS greenhouse gas emissions between 2005 and 2013: -9%. According to the latest national projections and taking into account existing measures, the target is expected to be achieved: -19% in 2020 compared to 2005 (with a margin of 3 percentage points).
Renewable energy target set in the 2014 NRP: None 2020 Renewable energy target: 15% Share of renewable energy in all modes of transport: 10%	The UK has made progress towards achieving its renewable energy target (RES). In 2012, the share of renewable energy reached 4.2% of final energy consumption, and in 2013 this had increased to 5.2%. However, the interim target for 2013/2014 was 5.4%. Thus, there are indications that the UK might be falling behind the trajectory. Moreover, the

	timeframe to ensure the required investment is tight, and the renewable targets become progressively more demanding towards the end of the period 2005-2020. Notwithstanding the above, the regulatory framework for renewable energy sources in the UK has become more stable recently. Therefore, there are still chances that the UK could successfully meet its 15% target by 2020.
Energy efficiency: UK's 2020 EE target was lowered this year from 177.6 Mtoe to 175 Mtoe expressed in primary energy consumption (157.8 Mtoe expressed in final energy consumption).	Although primary and final energy consumption have been decreasing in 2005-2012, this trend has been reversed in the more recent years (2011-2012), for both primary and final energy consumption. In addition, UK is not on track in meeting its national energy efficiency target for both final and primary energy consumption.
Early school leaving target in the 2014 NRP: None	The early school leaving rate among 18-24 year olds in the UK has been falling from 15.0 % in 2011 and 13.5 % in 2012 to 12.4% in 2013. Despite the positive trend, this figure is still above EU average (12% in 2013). Raising the age of compulsory participation in education or training from 16 to 17 in 2013 and 18 in 2015 is expected to have a significant effect on further reducing the early school leaving rate in the UK.
Tertiary education target in the 2014 NRP: None	The tertiary attainment rate of 30-34 year olds has been on a consistently upward trend since 2000 (29 %) reaching 45.8 % in 2011; 47.1 % in 2012 and 47.6% in 2013. Regional data shows that all four devolved administrations are above the EU average of 36.9 % in 2013.
Target on the reduction of population at risk of poverty or social exclusion in number of persons in the 2014 NRP: None	The 'at risk of poverty or social exclusion rate' stood at 24.8% in 2013. This is an increase from 24.1% in 2012 (although 2012 data was subject to a break in time series).

Table B.1: **Macroeconomic indicators**

	1996-2000	2001-2005	2006-2010	2011	2012	2013	2014	2015	2016
Core indicators									
GDP growth rate	3.1	2.9	0.6	1.6	0.7	1.7	2.6	2.6	2.4
Output gap 1	0.4	0.6	-0.7	-2.8	-3.0	-2.4	-1.1	-0.1	0.6
HICP (annual % change)	1.6	1.5	2.7	4.5	2.8	2.6	1.5	1.0	1.6
Domestic demand (annual % change) 2	3.8	3.3	0.3	0.3	1.4	1.8	3.2	2.8	2.5
Unemployment rate (% of labour force) 3	6.4	4.9	6.3	8.1	7.9	7.6	6.3	5.6	5.4
Gross fixed capital formation (% of GDP)	19.3	18.3	17.4	16.1	16.2	16.5	17.1	17.9	18.5
Gross national saving (% of GDP)	17.7	16.9	14.6	14.7	12.8	12.5	13.6	14.4	15.4
General government (% of GDP)									
Net lending (+) or net borrowing (-)	-0.9	-2.4	-6.3	-7.6	-8.3	-5.8	-5.4	-4.6	-3.6
Gross debt	44.0	38.2	56.0	81.9	85.8	87.2	88.7	90.1	91.0
Net financial assets	-27.0	-21.6	-34.1	-63.1	-62.2	-61.6	n.a.	n.a.	n.a.
Total revenue	37.8	38.5	39.5	38.9	38.4	39.5	38.3	38.2	38.3
Total expenditure	38.7	40.9	45.8	46.5	46.7	45.3	43.7	42.8	42.0
of which: Interest	3.1	2.0	2.3	3.2	2.9	2.9	2.8	2.7	2.7
Corporations (% of GDP)									
Net lending (+) or net borrowing (-)	-3.8	-0.1	2.7	4.1	3.1	0.9	0.7	0.1	-0.3
Net financial assets; non-financial corporations	-163.4	-124.4	-125.6	-117.6	-123.7	-126.6	n.a.	n.a.	n.a.
Net financial assets; financial corporations	-43.5	-34.9	-14.6	10.2	-7.9	-8.3	n.a.	n.a.	n.a.
Gross capital formation	12.6	11.0	9.6	9.2	9.5	10.0	10.4	10.7	10.9
Gross operating surplus	23.5	21.5	22.0	22.0	21.6	21.8	22.9	23.8	24.1
Households and NPISH (% of GDP)									
Net lending (+) or net borrowing (-)	2.6	0.8	0.8	1.9	1.5	-0.1	0.5	0.5	0.3
Net financial assets	222.0	170.5	165.8	171.1	179.3	194.7	n.a.	n.a.	n.a.
Gross wages and salaries	43.8	44.8	43.6	41.9	41.9	41.7	41.3	41.0	40.7
Net property income	12.8	11.1	9.6	9.8	8.6	8.5	8.7	9.2	9.3
Current transfers received	21.1	20.9	21.6	23.0	23.8	23.3	23.0	22.6	22.4
Gross saving	7.1	6.3	5.5	6.0	5.6	4.5	5.1	5.3	5.4
Rest of the world (% of GDP)									
Net lending (+) or net borrowing (-)	-1.1	-1.8	-2.8	-1.6	-3.7	-4.4	-4.0	-3.8	-3.3
Net financial assets	12.4	10.7	9.1	0.6	15.6	2.8	n.a.	n.a.	n.a.
Net exports of goods and services	-0.7	-2.6	-2.5	-1.5	-2.1	-2.0	-1.4	-1.1	-1.0
Net primary income from the rest of the world	0.2	1.6	0.7	1.2	-0.3	-0.9	-1.0	-0.9	-0.7
Net capital transactions	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0
Tradable sector	44.4	40.3	36.8	35.3	35.2	35.0	n.a.	n.a.	n.a.
Non-tradable sector	45.0	49.2	53.2	53.8	53.9	54.0	n.a.	n.a.	n.a.
of which: Building and construction sector	5.1	5.9	5.8	5.7	5.4	5.4	n.a.	n.a.	n.a.

1 The output gap constitutes the gap between the actual and potential gross domestic product at 2010 market prices.
2 The indicator of domestic demand includes stocks.
3 Unemployed persons are all those who were not employed, had actively sought work and were ready to begin working immediately or within two weeks. The labour force is the total number of people employed and unemployed. The unemployment rate covers the age group 15-74.
Source: European Commission 2015 winter forecast; Commission calculations

Table B.2: **Financial market indicators**

	2009	2010	2011	2012	2013	2014
Total assets of the banking sector (% of GDP)1)	563.1	529.8	549.5	497.3	468.2	439.6
Share of assets of the five largest banks (% of total assets)	40.8	42.5	43.5	42.8	43.7	n.a.
Foreign ownership of banking system (% of total assets)	48.1	47.6	48.2	46.0	44.3	n.a.
Financial soundness indicators:						
- non-performing loans (% of total loans)2)	3.5	4.0	4.0	n.a.	n.a.	3.7
- capital adequacy ratio (%)2)	14.8	15.9	15.7	n.a.	n.a.	16.4
- return on equity (%)2)	-0.1	6.9	6.1	n.a.	n.a.	5.8
Bank loans to the private sector (year-on-year % change)1)	3.2	4.6	-1.5	2.9	-4.7	-0.4
Lending for house purchase (year-on-year % change)1)	24.1	18.0	3.9	4.4	-0.8	7.3
Loan to deposit ratio1)	110.0	106.2	104.0	102.6	99.3	96.7
Central Bank liquidity as % of liabilities	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Private debt (% of GDP)	195.4	183.0	179.5	179.1	n.a.	n.a.
Gross external debt (% of GDP)3) - public	18.3	23.7	29.3	28.4	27.9	27.3
- private	118.1	124.7	132.9	134.1	130.7	126.5
Long-term interest rate spread versus Bund (basis points)*	13.7	62.1	26.1	24.9	45.7	97.7
Credit default swap spreads for sovereign securities (5-year)*	83.3	68.0	64.8	51.2	34.9	21.8

1) Latest data November 2014.
2) Latest data Q2 2012. Figures for the United Kingdom are based on the consolidated global operations of domestically controlled banks reporting in the UK, so may not be representative of the financial soundness of the subgroup of banks that account for the bulk of retail activity in the UK.
3) Latest data Q2 2014. Monetary authorities, monetary and financial institutions are not included.
* Measured in basis points.
Source: IMF (financial soundness indicators); European Commission (long-term interest rates); World Bank (gross external debt); ECB (all other indicators).

Table B.3: **Taxation indicators**

	2002	2006	2008	2010	2011	2012
Total tax revenues (incl. actual compulsory social contributions, % of GDP)	34.8	36.1	37.1	35.0	35.8	35.4
Breakdown by economic function (% of GDP)1						
Consumption	11.5	10.8	10.6	11.1	11.9	12.0
of which:						
- VAT	6.6	6.5	6.3	6.5	7.3	7.3
- excise duties on tobacco and alcohol	1.4	1.2	1.2	1.2	1.3	1.3
- energy	2.1	1.8	1.8	2.0	1.9	1.9
- other (residual)	1.3	1.2	1.3	1.4	1.5	1.5
Labour employed	13.2	13.8	13.9	13.9	13.8	13.6
Labour non-employed	0.2	0.2	0.2	0.2	0.2	0.2
Capital and business income	5.7	6.9	6.8	5.7	5.6	5.4
Stocks of capital/wealth	4.2	4.5	5.7	4.2	4.3	4.3
p.m. Environmental taxes2	2.7	2.4	2.4	2.6	2.6	2.6
VAT efficiency3						
Actual VAT revenues as % of theoretical revenues at standard rate	47.7	47.3	45.6	45.7	45.7	45.5

1. Tax revenues are broken down by economic function, i.e. according to whether taxes are raised on consumption, labour or capital. See European Commission (2014), Taxation trends in the European Union, for a more detailed explanation.
2. This category comprises taxes on energy, transport and pollution and resources included in taxes on consumption and capital.
3. VAT efficiency is measured via the VAT revenue ratio. It is defined as the ratio between the actual VAT revenue collected and the revenue that would be raised if VAT was applied at the standard rate to all final (domestic) consumption expenditures, which is an imperfect measure of the theoretical pure VAT base. A low ratio can indicate a reduction of the tax base due to large exemptions or the application of reduced rates to a wide range of goods and services ('policy gap') or a failure to collect all tax due to e.g. fraud ('collection gap'). It should be noted that the relative scale of cross-border shopping (including trade in financial services) compared to domestic consumption also influences the value of the ratio, notably for smaller economies. For a more detailed discussion, see European Commission (2012), Tax Reforms in EU Member States, and OECD (2014), Consumption tax trends.
Source: European Commission

Table B.4: **Labour market and social indicators**

	2008	2009	2010	2011	2012	2013	2014
Employment rate (% of population aged 20-64)	75.2	73.9	73.6	73.6	74.2	74.8	76.1
Employment growth (% change from previous year)	0.8	-1.6	0.2	0.5	1.1	1.2	2.4
Employment rate of women (% of female population aged 20-64)	68.8	68.2	67.9	67.9	68.4	69.3	70.5
Employment rate of men (% of male population aged 20-64)	81.8	79.6	79.3	79.4	80.0	80.4	81.8
Employment rate of older workers (% of population aged 55-64)	58.0	57.5	57.1	56.7	58.1	59.8	60.9
Part-time employment (% of total employment, age 15 years and over)	25.3	26.1	26.9	26.8	27.2	27.0	26.9
Part-time employment of women (% of women employment, age 15 years and over)	41.8	42.5	43.3	43.1	43.3	42.7	42.6
Part-time employment of men (% of men employment, age 15 years and over)	11.3	11.8	12.6	12.7	13.3	13.3	13.1
Fixed term employment (% of employees with a fixed term contract, age 15 years and over)	5.4	5.7	6.1	6.2	6.3	6.2	6.4
Transitions from temporary to permanent employment	n.a.	n.a.	72.1	51.0	52.5	n.a.	n.a.
Unemployment rate1 (% of labour force, age group 15-74)	5.6	7.5	7.8	8.1	7.9	7.6	6.3
Long-term unemployment rate2 (% of labour force)	1.4	1.9	2.5	2.7	2.8	2.7	2.3
Youth unemployment rate (% of youth labour force aged 15-24)	15.0	19.1	19.8	21.3	21.2	20.7	17.2
Youth NEET rate (% of population aged 15-24)	12.1	13.3	13.7	14.3	14.0	13.3	n.a.
Early leavers from education and training (% of pop. aged 18-24 with at most lower sec. educ. and not in further education or training)	17.0	15.7	14.9	15.0	13.6	12.4	n.a.
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	39.7	41.5	43.0	45.8	47.1	47.6	n.a.
Formal childcare (from 1 to 29 hours; % over the population aged less than 3 years)	31.0	31.0	31.0	30.0	24.0	n.a.	n.a.
Formal childcare (30 hours or over; % over the population aged less than 3 years)	4.0	4.0	4.0	5.0	3.0	n.a.	n.a.
Labour productivity per person employed (annual % change)	-1.2	-2.8	1.7	1.1	-0.4	0.5	0.7
Hours worked per person employed (annual % change)	-1.3	-0.3	0.2	0.0	0.9	0.6	0.7
Labour productivity per hour worked (annual % change; constant prices)	0.1	-2.4	1.5	1.2	-1.3	-0.1	0.0
Compensation per employee (annual % change; constant prices)	-1.8	-0.1	0.3	-1.1	0.3	0.1	-0.3
Nominal unit labour cost growth (annual % change)	3.2	6.2	1.7	1.1	2.6	1.3	n.a.
Real unit labour cost growth (annual % change)	0.0	3.9	-1.4	-1.2	1.5	-0.4	n.a.

1 Unemployed people are all those who were not employed, but had actively sought work and were ready to begin working immediately or within two weeks. The labour force is the total number of people employed and unemployed.
2 Long-term unemployed are persons who have been unemployed for at least 12 months. Data on the unemployment rate of 2014 includes the last release by Eurostat in early February 2015.
Source: European Commission (EU Labour Force Survey and European National Accounts)

Table B.5: **Expenditure on social protection benefits (% of GDP)**

	2007	2008	2009	2010	2011	2012
Sickness/healthcare	7.7	7.8	8.7	8.4	9.0	9.3
Invalidity	1.9	2.0	2.1	2.1	2.0	1.9
Old age and survivors	10.6	11.0	12.3	12.2	12.3	12.8
Family/children	1.7	1.7	1.9	2.0	1.9	1.9
Unemployment	0.5	0.6	0.8	0.7	0.7	0.7
Housing and social exclusion n.e.c.	1.1	1.2	1.4	1.5	1.5	1.6
Total	23.8	24.6	27.5	27.1	27.6	28.4
of which: means-tested benefits	3.5	3.7	4.2	4.2	4.1	4.1

Social inclusion indicators	2008	2009	2010	2011	2012	2013
People at risk of poverty or social exclusion1 (% of total population)	23.2	22.0	23.2	22.7	24.1	24.8
Children at risk of poverty or social exclusion (% of people aged 0-17)	29.6	27.4	29.7	26.9	31.2	32.6
Elderly at risk of poverty or social exclusion (% of people aged 65+)	28.5	23.1	22.3	22.7	17.3	18.1
At-risk-of-poverty rate2 (% of total population)	18.7	17.3	17.1	16.2	16.0	15.9
Severe material deprivation rate3 (% of total population)	4.5	3.3	4.8	5.1	7.8	8.3
Proportion of people living in low work intensity households4 (% of people aged 0-59)	10.4	12.7	13.2	11.5	13.0	13.2
In-work at-risk-of-poverty rate (% of persons employed)	8.5	6.7	6.8	7.9	9.0	8.4
Impact of social transfers (excluding pensions) on reducing poverty	35.3	43.1	44.8	46.9	46.1	47.2
Poverty thresholds, expressed in national currency at constant prices5	8833.8	8196.3	8128.6	7972.3	7976.1	7922.8
Gross disposable income (households)	921444.0	954247.0	999828.0	1027025.0	1072184.0	n.a.
Relative median poverty risk gap (60% of median equivalised income, age: total)	21.0	20.6	21.4	21.3	20.9	19.6
Inequality of income distribution (S80/S20 income quintile share ratio)	5.6	5.3	5.4	5.3	5.0	4.6

1 People at risk of poverty or social exclusion (AROPE): individuals who are at risk of poverty (AROP) and/or suffering from severe material deprivation (SMD) and/or living in households with zero or very low work intensity (LWI).
2 At-risk-of-poverty rate (AROP): proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.
3 Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.
4 People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20 % of their total work-time potential in the previous 12 months.
5 For EE, CY, MT, SI and SK, thresholds in nominal values in euros; harmonised index of consumer prices (HICP) = 100 in 2006 (2007 survey refers to 2006 incomes)
6 2014 data refer to the average of the first three quarters.
Source: For expenditure for social protection benefits ESSPROS; for social inclusion EU-SILC.

Table B.6: **Product market performance and policy indicators**

	2004-08	2009	2010	2011	2012	2013	2014
Labour productivity1 in total economy (annual growth in %)	1.2	-2.9	1.8	1.2	-0.4	0.4	n.a.
Labour productivity1 in manufacturing (annual growth in %)	3.8	-2.9	7.2	2.2	-1.7	0.2	n.a.
Labour productivity1 in electricity, gas (annual growth in %)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Labour productivity1 in the construction sector (annual growth in %)	-1.5	-9.2	14.5	3.8	-6.7	1.4	n.a.
Labour productivity1 in the wholesale and retail sector (annual growth in %)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Labour productivity1 in the information and communication sector (annual growth in %)	3.7	-0.9	7.1	-2.1	1.0	-0.1	n.a.
Patent intensity in manufacturing2 (EPO patent applications divided by gross value added of the sector)	0.0	0.0	0.0	0.0	n.a.	n.a.	n.a.
Policy indicators	**2004-08**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Enforcing contracts3 (days)	404	399	399	399	437	437	437
Time to start a business3 (days)	11.3	11	12	12	12	12	6
R&D expenditure (% of GDP)	1.7	1.8	1.7	1.7	1.6	1.6	n.a.
Total public expenditure on education (% of GDP)	5.3	5.6	6.2	6.0	n.a.	n.a.	n.a.
(Index: 0=not regulated; 6=most regulated)	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**
Product market regulation4, overall	1.20	n.a.	n.a.	n.a.	n.a.	1.08	n.a.
Product market regulation4, retail	2.18	n.a.	n.a.	n.a.	n.a.	1.79	n.a.
Product market regulation4, professional services	0.72	n.a.	n.a.	n.a.	n.a.	0.72	n.a.
Product market regulation4, network industries5	0.98	0.97	0.97	0.80	0.79	0.79	n.a.

1Labour productivity is defined as gross value added (in constant prices) divided by the number of persons employed.
2 Patent data refer to applications to the European Patent Office (EPO). They are counted according to the year in which they were filed at the EPO. They are broken down according to the inventor's place of residence, using fractional counting if multiple inventors or IPC classes are provided to avoid double counting.
3 The methodologies, including the assumptions, for this indicator are presented in detail here: http://www.doingbusiness.org/methodology.
4 Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are presented in detail here: http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm
5 Aggregate OECD indicators of regulation in energy, transport and communications (ETCR).
Source: European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators)

Table B.7: **Green Growth**

Green growth performance		2003-2007	2008	2009	2010	2011	2012
Macroeconomic							
Energy intensity	kgoe / €	0.12	0.11	0.11	0.11	0.10	0.11
Carbon intensity	kg / €	0.36	0.33	0.32	0.32	0.29	0.30
Resource intensity (reciprocal of resource productivity)	kg / €	0.40	0.36	0.33	0.32	0.32	n.a.
Waste intensity	kg / €	n.a.	0.17	n.a.	0.14	n.a.	0.13
Energy balance of trade	% GDP	-0.1	-0.7	-0.4	-0.5	-1.0	-1.2
Energy weight in HICP	%	6.1	7.3	8.0	8.8	8.7	10.2
Difference between energy price change and inflation	%	8.9	14.9	4.8	-6.1	5.4	5.2
Ratio of environmental taxes to labour taxes	ratio	18.2%	17.2%	19.0%	18.7%	18.7%	19.0%
Ratio of environmental taxes to total taxes	ratio	6.9%	6.4%	7.3%	7.3%	7.1%	7.1%
Sectoral							
Industry energy intensity	kgoe / €	0.12	0.12	0.11	0.11	0.11	0.11
Share of energy-intensive industries in the economy	% GDP	9.1	8.1	7.7	7.6	7.1	n.a.
Electricity prices for medium-sized industrial users**	€ / kWh	n.a.	0.10	0.11	0.10	0.10	0.12
Gas prices for medium-sized industrial users***	€ / kWh	n.a.	0.03	0.03	0.02	0.03	0.03
Public R&D for energy	% GDP	n.a.	0.00	0.00	0.01	0.01	0.01
Public R&D for the environment	% GDP	n.a.	0.02	0.02	0.02	0.02	0.02
Recycling rate of municipal waste	ratio	34.8%	46.7%	49.8%	53.1%	58.2%	58.1%
Share of GHG emissions covered by ETS*	%	n.a.	41.2	39.3	39.2	39.2	39.8
Transport energy intensity	kgoe / €	0.71	0.69	0.75	0.76	0.76	n.a.
Transport carbon intensity	kg / €	1.64	1.58	1.72	1.74	1.72	n.a.
Security of energy supply							
Energy import dependency	%	10.6	26.2	26.3	28.3	36.2	42.2
Diversification of oil import sources	HHI	0.23	0.19	0.19	0.21	0.18	0.13
Diversification of energy mix	HHI	n.a.	0.31	0.30	0.31	0.29	0.27
Renewable energy share of energy mix	%	1.6	2.5	3.0	3.2	3.9	4.1

Country-specific notes:
2013 is not included in the table due to lack of data.
General explanation of the table items:
All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2000 prices)
Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR)
Carbon intensity: Greenhouse gas emissions (in kg CO2 equivalents) divided by GDP (in EUR)
Resource intensity: Domestic material consumption (in kg) divided by GDP (in EUR)
Waste intensity: waste (in kg) divided by GDP (in EUR)
Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP
Energy weight in HICP: the proportion of "energy" items in the consumption basket used for the construction of the HICP
Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change)
Environmental taxes over labour or total taxes: from DG TAXUD's database 'Taxation trends in the European Union'
Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2005 EUR)
Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP
Electricity and gas prices for medium-sized industrial users: consumption band 500–2000MWh and 10000–100000 GJ; figures excl. VAT.
Recycling rate of municipal waste: ratio of recycled municipal waste to total municipal waste
Public R&D for energy or for the environment: government spending on R&D (GBAORD) for these categories as % of GDP
"Proportion of GHG emissions covered by ETS: based on greenhouse gas emissions (excl LULUCF) as reported by Member States to the European
Environment Agency "
Transport energy intensity: final energy consumption of transport activity (kgoe) divided by transport industry gross value added (in 2005 EUR)
Transport carbon intensity: greenhouse gas emissions in transport activity divided by gross value added of the transport sector
Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels
Diversification of oil import sources: Herfindahl index (HHI), calculated as the sum of the squared market shares of countries of origin
Diversification of the energy mix: Herfindahl index over natural gas, total petrol products, nuclear heat, renewable energies and solid fuels
Renewable energy share of energy mix: %-share of gross inland energy consumption, expressed in tonne oil equivalents
* European Commission and European Environment Agency
** For 2007 average of S1 & S2 for DE, HR, LU, NL, FI, SE & UK. Other countries only have S2.
*** For 2007 average of S1 & S2 for HR, IT, NL, FI, SE & UK. Other countries only have S2.
Source: European Commission unless indicated otherwise; European Commission calculations

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