GLAECONOMICS

London's Economic Outlook: Autumn 2014
The GLA's medium-term planning projections

November 2014

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Contents

1. Executive summary 2
2. Introduction 5
3. Economic background: UK growth continues against a weakening international backdrop 6
4. Review of independent forecasts 29
5. The GLA Economics forecast 35
Appendix A: From SIC 2003 to SIC 2007 46
Appendix B: Explanation of terms and some sources 48
Appendix C: Glossary of acronyms 49
Appendix D: Bibliography 50

1. Executive summary

GLA Economics' twenty fifth London forecast[1] suggests that:

London's Gross Value Added (GVA) growth rate is forecast to be 4.8 per cent in 2014 with growth moderating to 3.3 per cent in 2015 and 3.1 per cent in 2016.

London is forecast to see rises in employment in 2014, 2015 and 2016.

London household income and spending are both forecast to increase over the next three years.

Table 1.1 summarises this report's forecasts and provides an average of independent forecasts.

Table 1.1: Summary of forecasts

Annual growth rates (per cent)	2013[2]	2014	2015	2016
London GVA (constant 2010 £ billion)	3.3	4.8	3.3	3.1
Consensus (average of independent forecasts)		3.7	3.1	2.8
London civilian workforce jobs	4.5	4.5	1.2	0.7
Consensus (average of independent forecasts)		3.5	1.4	1.2
London household spending (constant 2010 £ billion)	2.6	2.2	2.3	2.6
Consensus (average of independent forecasts)		3.6	3.0	2.8
London household income (constant 2010 £ billion)	-0.1	2.2	2.3	2.5
Memo: Projected UK RPI[3] (Inflation rate)	3.0	2.5	3.1	3.3
Projected UK CPI[4] (Inflation rate)	2.6	1.8	1.9	2.0

Sources: GLA Economics' Autumn 2014 forecast and consensus calculated by GLA Economics

Since the publication of London's Economic Outlook (LEO) Spring 2014, the economic environment in the UK and London has remained robust with the majority of data suggesting that London's economy continues to grow strongly; while most surveys also indicate that London is growing faster than the rest of the UK. For example, for businesses at the UK level, confidence[5] and credit conditions[6] remain unchanged and investment intentions are "consistent with moderate growth in capital spending"[7], while consumer confidence in London has recently hit levels not seen since before the recession[8]. However, secured lending to households at the UK level has recently declined as the appetite for risk and "lenders' expectations about house

[1] The forecast is based on an in-house model built by Volterra Consulting Limited.
[2] All historic data for London GVA, workforce jobs, household spending and household income is from Experian Economics.
[3] RPI = Retail Price Index. Although not part of the GLA Economics forecast for London, for reader information HM Treasury Consensus Forecast, September 2014 of the UK RPI inflation rate are reported.
[4] CPI = Consumer Price Index. Although not part of the GLA Economics forecast for London, for reader information HM Treasury Consensus Forecast, September 2014 of the UK CPI inflation rate are reported. Since December 2003 the Bank of England's symmetrical inflation target has been annual CPI inflation at 2 per cent.
[5] British Chambers of Commerce, 'Quarterly Economic survey', 3rd Quarter 2014.
[6] Bank of England, 'Credit Conditions Survey – Survey Results 2014 Q3', 7 October 2014.
[7] Bank of England, 'Agents' summary of business conditions October 2014', 22 October 2014.
[8] GLA Economics, 'London's Economy Today: Issue 142', June 2014.

prices" has changed[9] which in part may reflect recent Bank of England actions such as ongoing plans to cap riskier mortgage lending[10].

The UK as a whole continues to grow strongly, reducing the amount of spare capacity in the economy. The Bank of England observed in its August Inflation Report that "the degree of slack has narrowed somewhat, and the central estimate is now broadly in the region of 1 per cent of GDP. In the central view, the remaining spare capacity in the economy is fully absorbed towards the end of the forecast period [in 2017]"[11], a view on slack which it reiterated in its November report[12]. Employment growth in London has remained very, and surprisingly, strong so far this year after having also experienced strong growth in the couple of years prior to 2014. However, household incomes remain under pressure and may remain so for a few years to come[13], even though the recent declines in unemployment and inflation should provide some support to the economy. As inflation has remained below the Bank of England's central symmetrical target for all of 2014 so far (and is expected to stay relatively low for a time to come), and as it is likely that it will take some time yet for wage growth to pick up, the Bank may be under slightly less pressure to tighten monetary policy compared to what was expected when our last forecast was published in May 2014[14].

Downside risks to the economy stand at a slightly higher level than those seen in May, however an economic shock due to the structural problems within the Eurozone, arguably, still remains the most significant cause for concern. Concerns have also been expressed about the continued size of global debt with the Geneva Report observing that there is a "poisonous combination of high and rising global debt and slowing nominal GDP, driven by both slowing real growth and falling inflation"[15].

Still, outside the Eurozone, and despite the conflicts in Ukraine and the Middle East and the Ebola crisis in West Africa, the international economic environment shows signs of resilience. There is evidence of continued growth in a number of countries as shown by the US being able to finish the tapering of its quantitative easing (QE)[16] as its economy rebounded after the negative growth in the first quarter of 2014 with strong growth in the second and third quarters of the year. However, growth in a number of emerging market economies has continued to slow through 2014 so far, in part due to the beginning of normalisation in US monetary policy, while forecasts for 2015 have also been downgraded[17] and concerns have mounted that the debt situation in China may lead to a slowdown in its economy[18].

On the whole the prospects for the UK economy in the next year or so remain positive, with most forecasts expecting the strong growth of the UK economy so far this year to carry on into 2015 although at a more moderate pace. This recent strong growth has led to a reduction in the amount of spare capacity in the economy, which is likely to continue. While there remains a

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[9] Bank of England, 'Credit Conditions Survey – Survey Results 2014 Q3', 7 October 2014.
[10] Bank of England, 'News Release - Financial Policy Committee statement from its policy meeting, 26 September 2014', 2 October 2014.
[11] Bank of England, 'Inflation Report, August 2014', 13 August 2014.
[12] Bank of England, 'Inflation Report, November 2014', 12 November 2014.
[13] EY Item Club, 'Special report on consumer spending', September 2014.
[14] Haldane, A. G., 'Twin peaks', Bank of England, 17 October 2014.
[15] Centre for Economic Policy Research, 'Deleveraging? What Deleveraging? The 16th Geneva Report on the World Economy', International Centre for Monetary and Banking Studies, 29 September 2014.
[16] The Financial Times, 'Fed's grand experiment draws to a close', 29 October 2014.
[17] The IMF, 'World Economic Outlook: Legacies, Clouds, Uncertainties', October 2014.
[18] The Economist, 'Chinese debt: The great hole in China', 18 October 2014.

debate about the size of spare capacity in the economy with some commentators feeling it is larger[19] than others, concerns have been expressed about the potential negative effects of a long period of loose monetary policy[20]. Further, given that we remain in a period of historically very loose monetary policy it is likely that this period of extraordinarily accommodating monetary policy in the UK will begin to be slowly reined in over the coming years. However, the expected timing of the first interest rate rise may be slightly later than the majority of forecasters expected over the summer. Tighter monetary policy over the later years of the forecast period (although rising marginally later than expected in the Spring 2014 LEO and likely rising to a lower level than has been the historical norm) should act to slightly moderate economic growth in those years. Further, the ongoing government's fiscal retrenchment over the forecast period will also act as a drag on economic growth as the stimulus provided by a still large fiscal deficit is gradually removed. Long-term sustained economic growth will most likely have to be driven by net trade and private sector investment with there being some evidence that the UK's economy is now growing on a more balanced track[21]. To summarise the overall prospects for London over the short to medium-term continue to remain optimistic despite some risks, especially around the problems in the Eurozone economy and the knock-on effects these could have. However households, whose real incomes have fallen in recent years, may still take some time to feel the full benefits of this likely robust economic growth over the next year or so.

[19] Bank of England, 'Inflation Report', August 2014.
[20] Bank for International Settlements, '84th Annual Report: 1 April 2013 – 31 March 2014', 29 June 2014.
[21] The IMF, 'World Economic Outlook: Legacies, Clouds, Uncertainties', October 2014.

2. Introduction

The autumn 2014 edition of *London's Economic Outlook* (LEO) is GLA Economics' twenty fifth London forecast. The forecasts are issued every six months to assist those preparing planning projections for London in the medium term. The report contains the following:

- An overview of recent economic conditions in London, the UK and the world economies with analysis of important events, trends and risks to short and medium-term growth (Section 3).
- The 'consensus forecast' – a review of independent forecasts indicating the range of views about London's economy and the possible upside and downside risk (Section 4). In this document, 'consensus forecast' refers to the average of the independent forecasters listed under Section 2.1.
- The GLA Economics forecast for output, employment, household expenditure and household income in London (Section 5).

2.1 Note on the forecast

Any economic forecast is what the forecaster views as the economy's most likely future path and as such is inherently uncertain. Both model and data uncertainty as well as unpredictable events contribute to the potential for forecast error. GLA Economics' forecast is based on an in-house model built by Volterra Consulting Limited. GLA Economics' review of independent forecasts provides an overview of the range of alternative opinions. Independent forecasts are supplied to the GLA for the main macroeconomic variables by the following organisations:

- Cambridge Econometrics (CE)
- The Centre for Economic and Business Research (CEBR)[22]
- Experian Economics (EE)
- Oxford Economics (OE)

Only the most likely outcomes, which the different forecasting organisations provide, are recorded. Each forecaster may also prepare scenarios they consider less likely but these are not shown here. The low and high forecasts combine the lowest and highest forecasts respectively taken from each year separately and which, may therefore, come from different forecasters. High and low estimates therefore may not represent the view of any one forecaster over the whole of the forecast period.

Economic forecasting is not a precise science. These projections provide an indication of what is, in GLA Economics' view, most *likely* to happen, not what will *definitely* happen.

[22] CEBR does not provide a forecast for employment in the sectors of the London economy or for household expenditure in London.

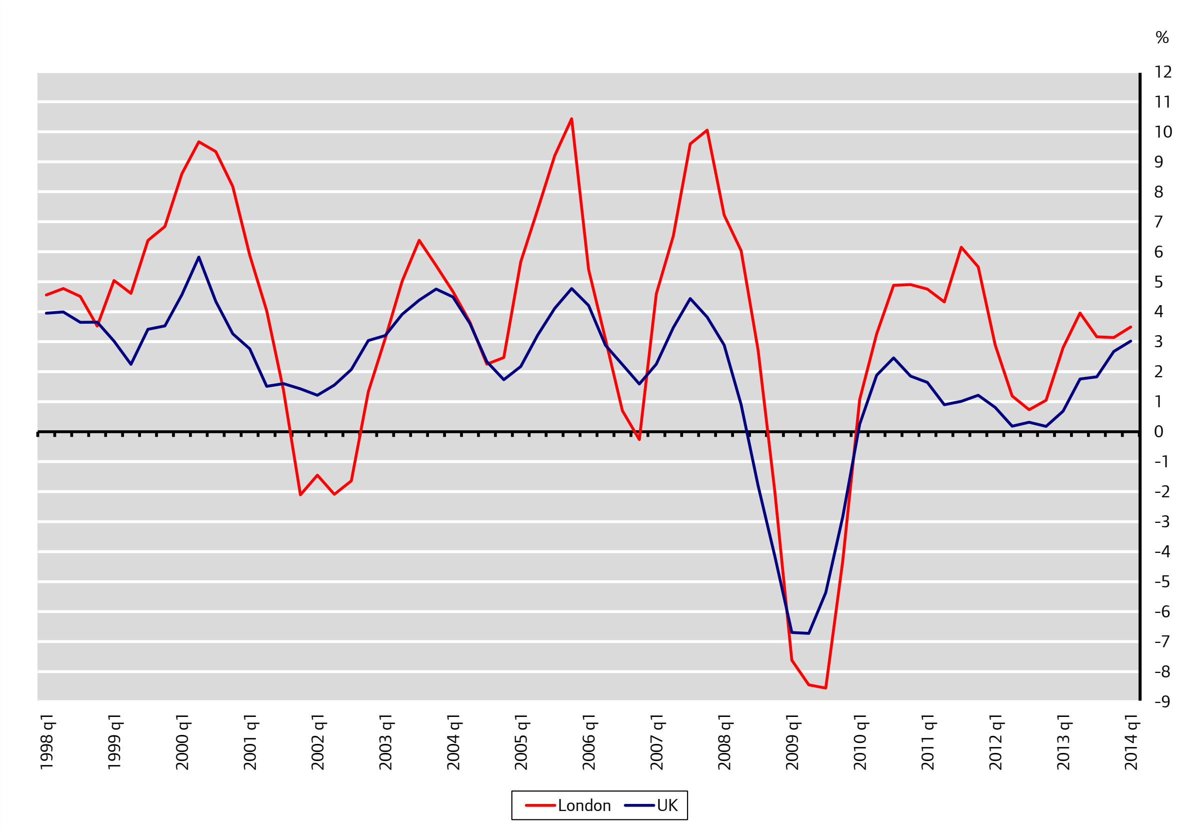
3. Economic background: UK growth continues against a weakening international backdrop

This section provides an overview of recent developments in the London, UK and world economies.

3.1 The London economy

London's annual growth in output stood at 3.5 per cent in the first quarter of 2014 compared to 3.0 per cent in the UK (see Figure 3.1). London's economic expansion continues with economic indicators continuing to suggest that the London economy is growing more strongly than the UK so far in 2014.

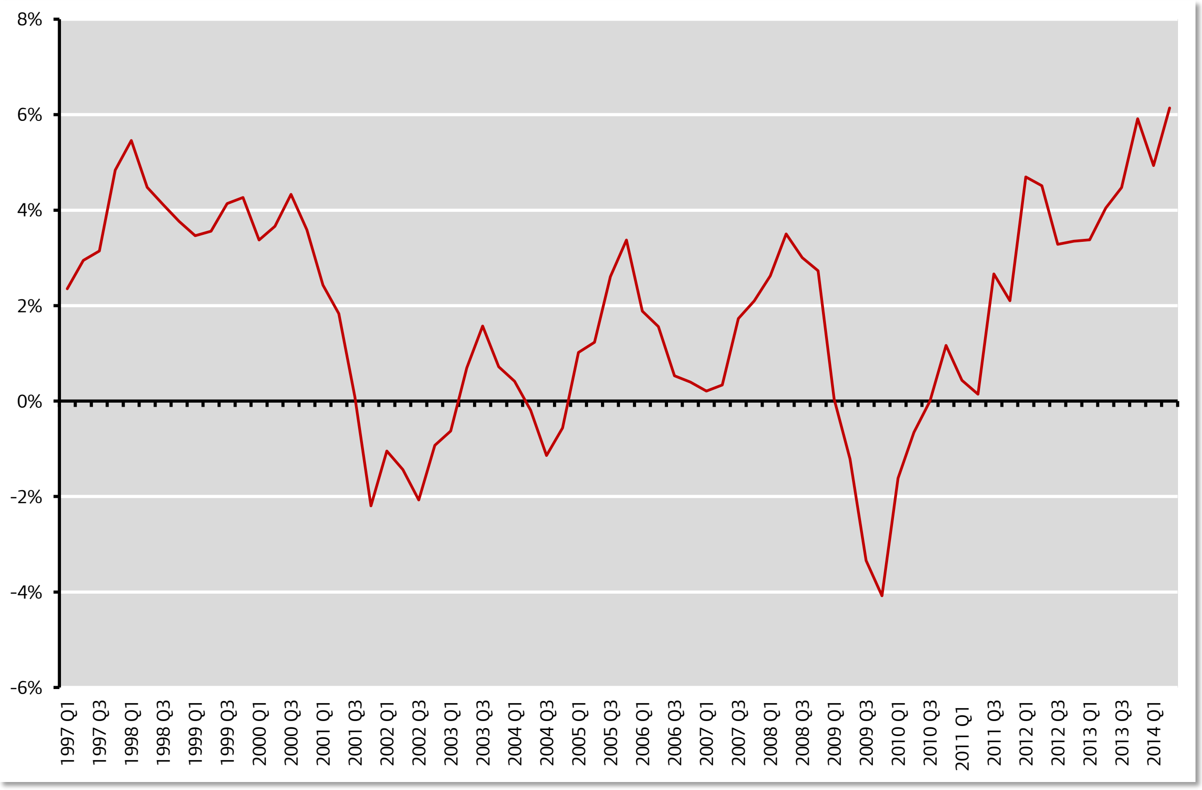
Figure 3.1: Output growth – London and UK
Real GVA, annual % change, last data point is Q1 2014



Source: Experian Economics

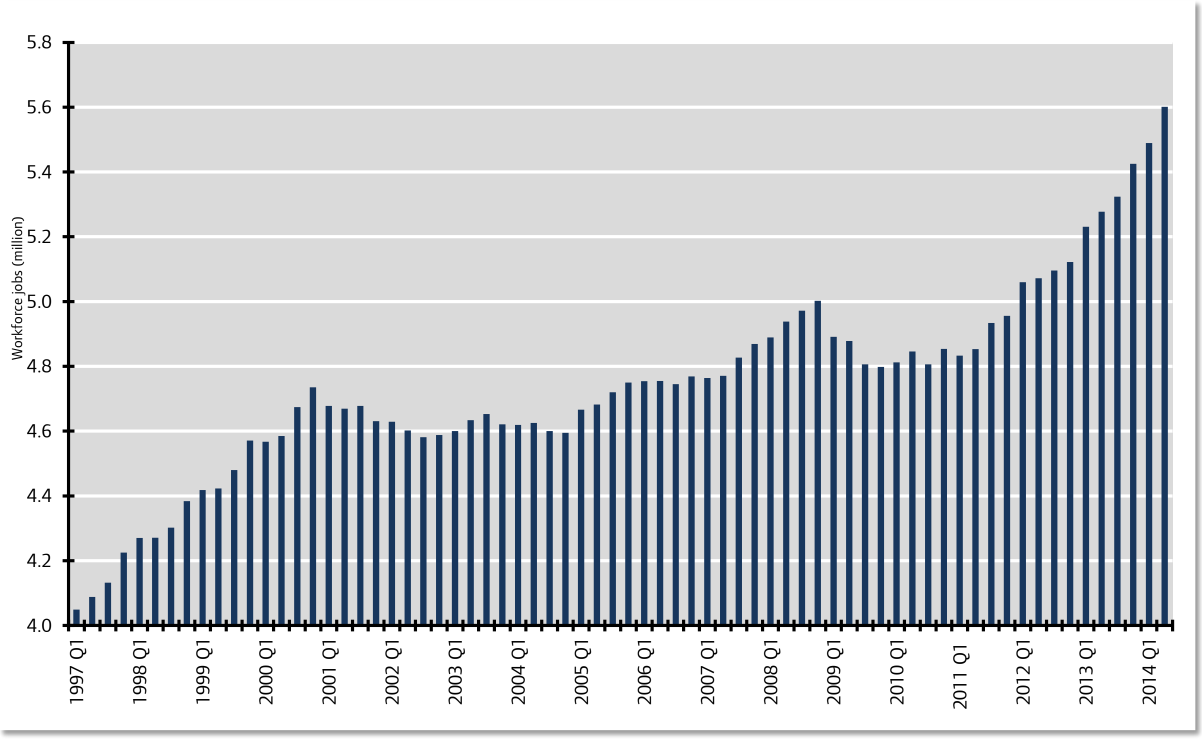
Annual employment growth in London remained very strong in Q2 2014 at 6.1 per cent (see Figure 3.2). The total number of workforce jobs in London was just over 5.6 million in Q2 2014 (see Figure 3.3). Correspondingly, London's employment rate (i.e. the proportion of London's resident working-age population in employment) is at its highest rate since at least 1992. In the period July-September 2014 the employment rate stood at 72.3 per cent (73.0 per cent in the UK), an increase of 0.4 percentage points on the previous quarter and a 2.5 percentage point increase on the year. London's ILO unemployment rate also continues to fall with it standing at 6.3 per cent in the three months to September 2014– its lowest rate since early 2007 (the rate in the UK stood at 6.0 per cent). This is down 1.0 percentage point on the previous quarter and down 2.7 percentage points on the year.

Figure 3.2: London civilian workforce jobs (annual percentage change)
Last data point is Q2 2014



Source: Office for National Statistics

Figure 3.3: London civilian workforce jobs (level)
Last data point is Q2 2014

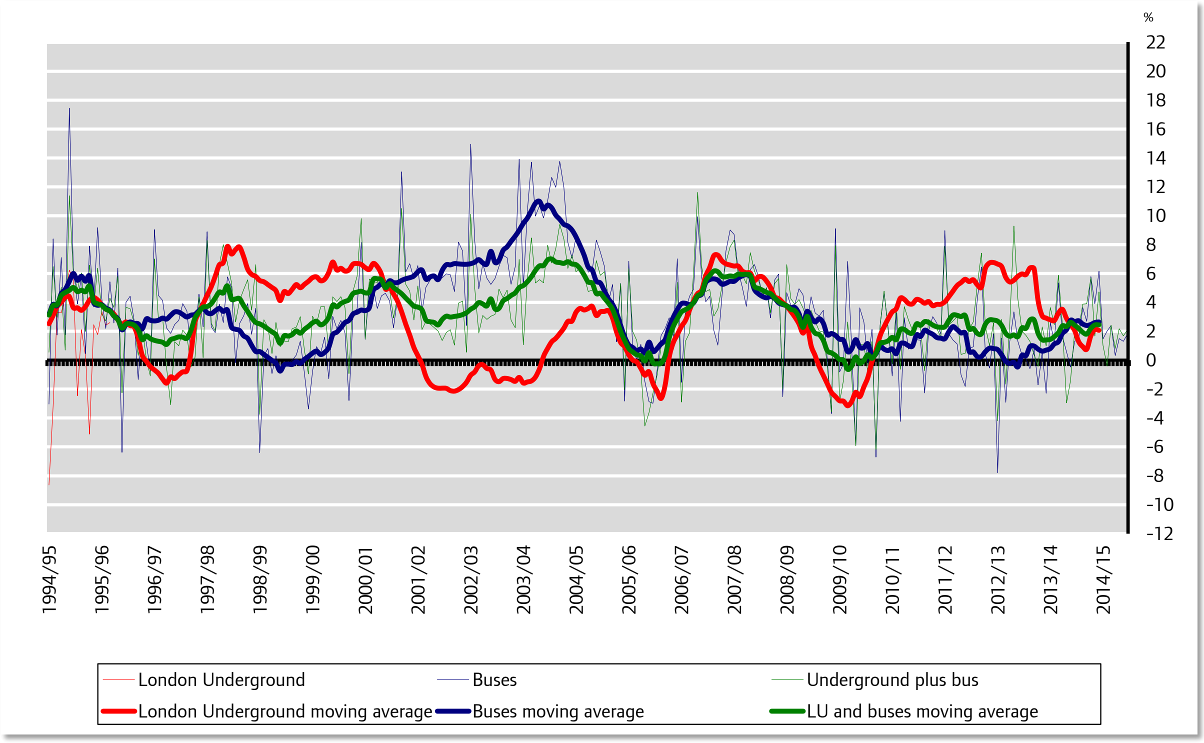


Source: Office for National Statistics

Public transport usage is a useful and timely indicator of economic activity in London. Figure 3.4 shows that there is positive annual growth in both the moving average of bus travel and underground usage. Annual growth in underground usage is currently just weaker than that for bus travel, but has picked up slightly since the impact of the Olympics travel numbers moved out of the indicator.

Figure 3.4: London public transport usage

Annual % change in passengers using London Underground and buses (adjusted for odd days). Last data point is the 28-day period ending 11/10/14

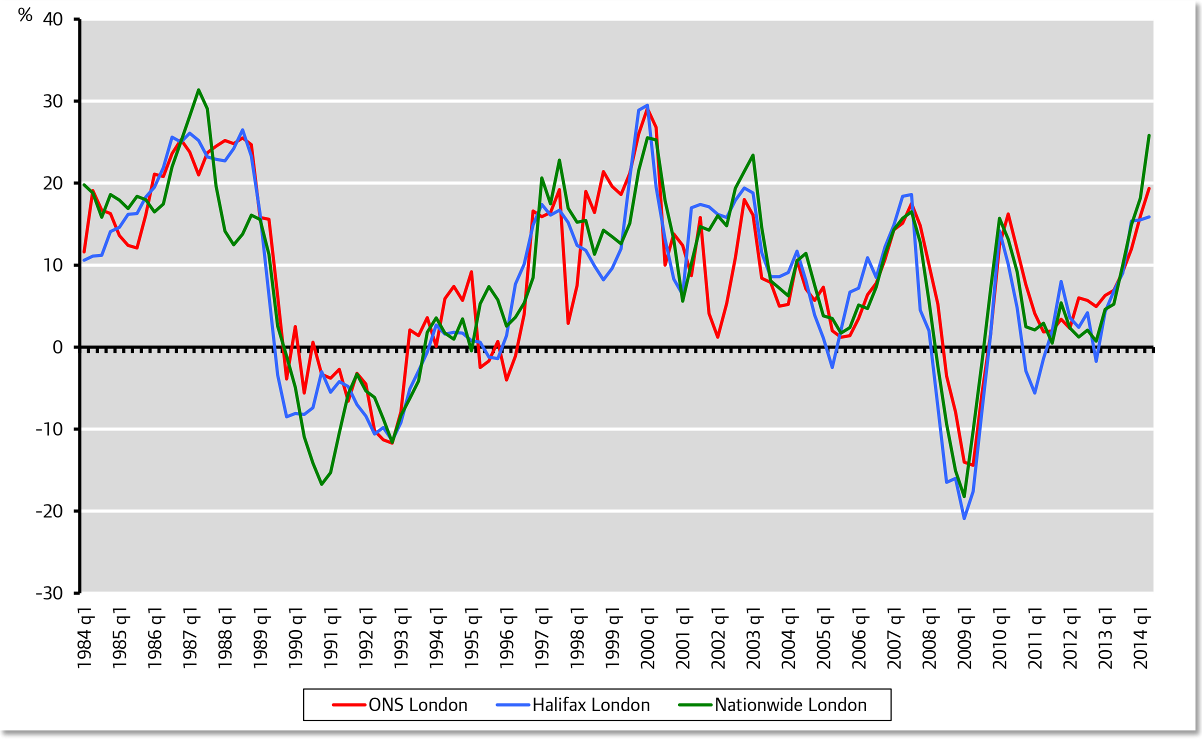


Source: Transport for London

Annual house prices in London, as reported by the ONS and Nationwide, have been increasing since the final quarter of 2009; the Halifax measure has however shown periods of negative annual growth between Q4 2010 to Q2 2011 and Q4 2012. Since then, and especially since the end of 2013 and into the first few months of 2014 house price growth on all three measures was very strong. This led to growing concerns about the sustainability of the growth[23], however in recent months there has been mounting evidence of a slowdown in London's property market as indicated by the results of the Royal Institution of Chartered Surveyors survey of chartered surveyors in London since the middle of this year showing a net balance of surveyors expecting declines in house prices in the next three months. Annual house price inflation in London as measured by the Halifax, Nationwide, and the ONS was positive and increasing, with all indicators suggesting that annual house price inflation in London in Q2 2014 was over 15 per cent (see Figure 3.5).

[23] OECD, 'Economic Outlook', 6 May 2014.

Figure 3.5: House price inflation in London
Annual % change, last data point is Q2 2014



Sources: ONS, Halifax house price index, Nationwide

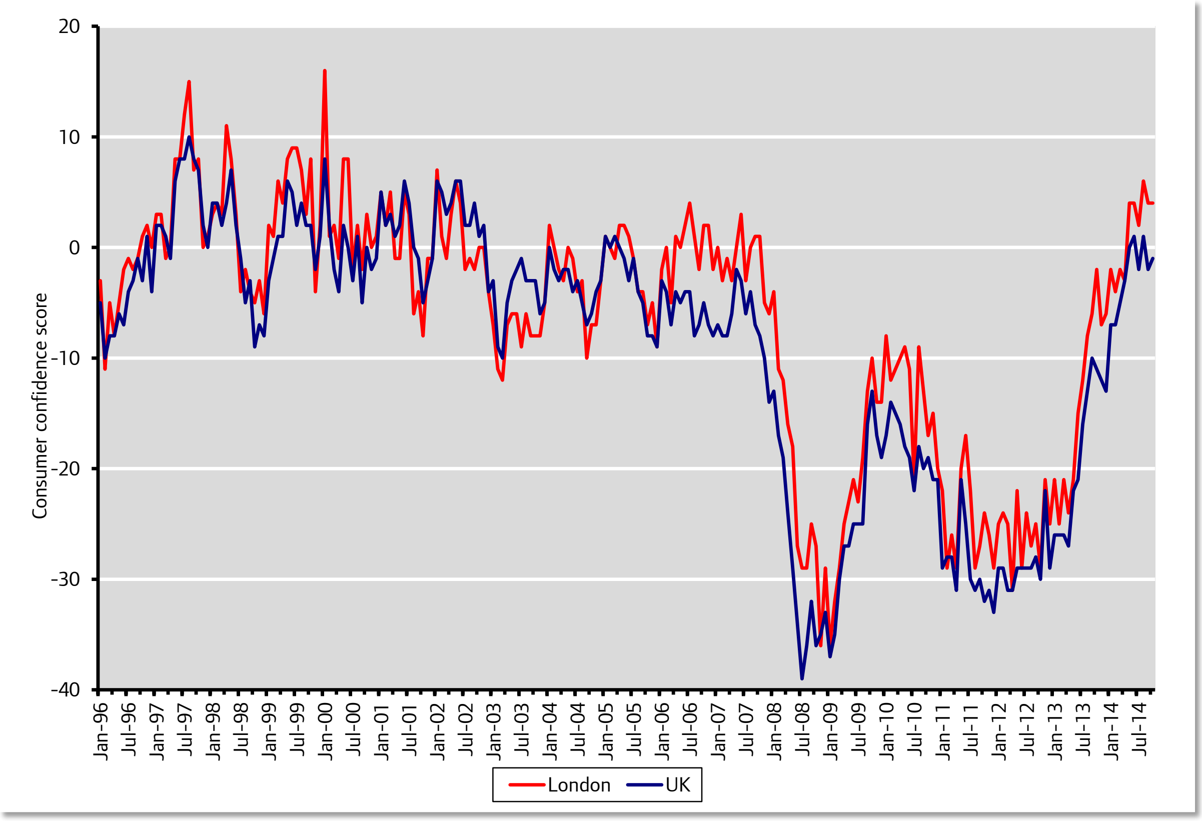
Knight Frank's Q3 'Central London Quarterly' for commercial property showed that "the third quarter saw particularly strong occupier activity across Central London. Take-up totalled 4.6 m sq ft, the highest since 2007 and 45 per cent above the long-term average. The West End had a solid quarter, with take-up 15 per cent higher than average, albeit down 6 per cent on a quarter-on-quarter basis. However, it was in the City, where leasing activity was 73 per cent higher than average, that the bulk of take-up was concentrated". Meanwhile "availability in Central London fell for the sixth consecutive quarter and now totals 14.4 m sq ft, reflecting a vacancy rate of 6.2 per cent. There is now more than 10.0 m sq ft less space available to lease than at the low-point of the cycle back in 2009, with the majority of the fall attributable to the erosion of the supply of second-hand space. Supply is particularly tight in the West End, where the vacancy rate is just 4.5 per cent". While, "investment turnover in the third quarter rose by 8 per cent to £4.4 bn, well above the long-term average of £3.1 bn. The profile of investor demand was similar to the previous quarter, with overseas investors accounting for 74 per cent of turnover. In particular, foreign money dominated the market for large lot sizes, while domestic investors focused on assets priced at less than £100 m. With an improving economy and further rental growth expected, overseas buyers continue to target London. This is likely to continue into and beyond the final quarter"[24].

GfK NOP's regional consumer confidence index (Figure 3.6) shows that consumer confidence in London improved significantly in 2013 and turned positive in the middle of 2014 for London with it having regained the levels seen before the 2008/09 recession. Since the publication of the Spring 2014 LEO consumer confidence has been positive in London and positive for some but not all months in the UK, with it being higher in October in London compared to in the UK

[24] Knight Frank, Central London Quarterly - Offices, Q3 2014.

as a whole. The index reflects people's views on their financial position and the general economic situation over the past year and their expectations for the next 12 months.

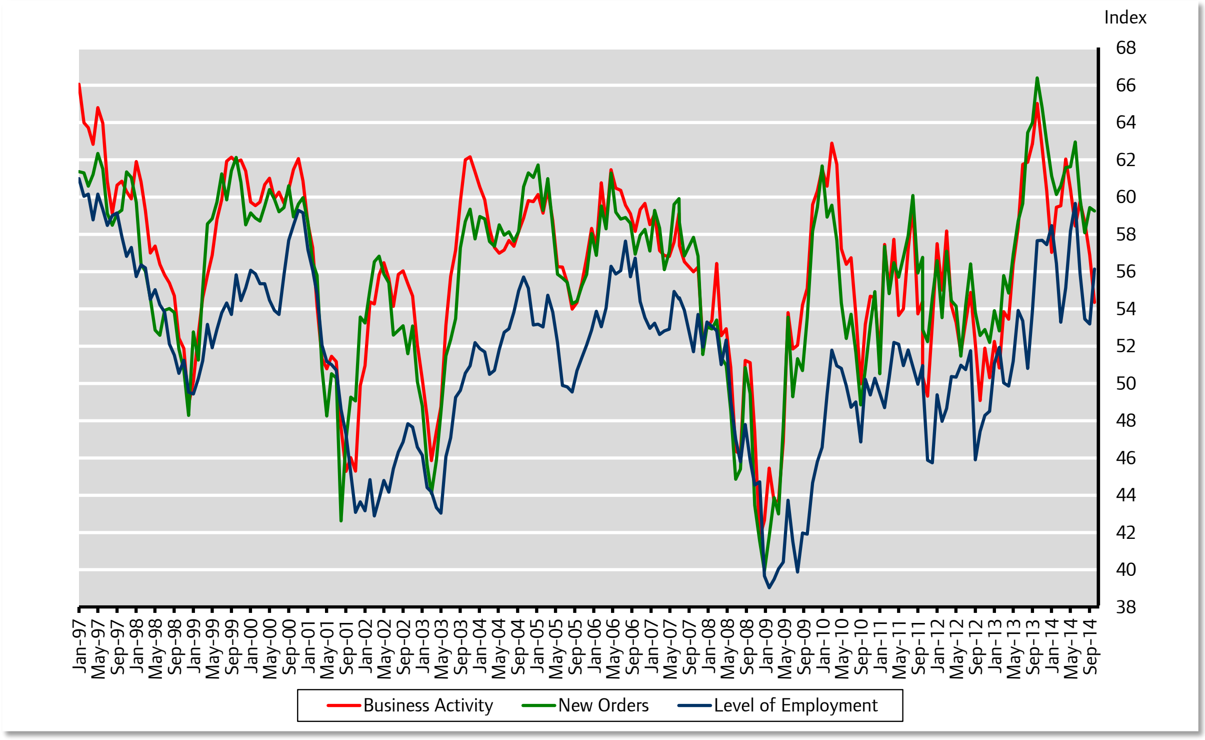
Figure 3.6: GfK NOP's regional consumer confidence index
Consumer confidence score, last data point is October 2014



Sources: GfK NOP on behalf of the European Commission

The Purchasing Manager's Index (PMI) business survey indicates that business activity has been expanding since May 2009 (apart from the months of August 2010, November 2011 and October 2012) and new orders are also increasing. Employment in London firms, after falling in April 2013, has been rising consistently since then (see Figure 3.7).

Figure 3.7: Recent survey evidence on London's economic climate
Purchasing Manager's Index (PMI) survey, last data point October 2014
Seasonally adjusted index (above 50 indicates increase, below 50 indicates decrease)



Sources: Markit Economics

3.2 The UK economy

The Office for National Statistics (ONS) estimates that the UK economy continued to grow in the third quarter of 2014. Having grown by 0.9 per cent in Q2 2014, output rose by 0.7 per cent in Q3 2014, the seventh consecutive quarter of rising UK output. UK output was 3.0 per cent higher in Q3 2014 than in Q3 2013. After revisions to the national accounts to ensure they were in line with new international standards, GDP surpassed its pre-recession peak in Q3 2013 and is now 3.4 per cent above its peak of Q1 2008 (from the peak in Q1 2008 to the trough in Q2 2009, GDP decreased by 6.0 per cent)[25]. The International Monetary Fund (IMF) now forecasts that the UK economy will grow by 3.2 per cent in 2014 and by 2.7 per cent in 2015[26]. UK unemployment has also continued to fall faster than was generally expected, with ILO unemployment standing at 6.0 per cent in the three months to September 2014 (the lowest level since 2008 and down 1.7 per cent on a year earlier)[27]. Table 3.1 shows a summary of forecasts for the UK economy.

[25] Office for National Statistics, 'Gross Domestic Product Preliminary Estimate of GDP, Q3 2014', 24 October 2014.
[26] The IMF, 'World Economic Outlook: Legacies, Clouds, Uncertainties', October 2014.
[27] Office for National Statistics, 'Statistical Bulletin: UK Labour Market, November 2014', 12 November 2014.

Table 3.1: Office for Budget Responsibility and HM Treasury consensus forecasts for the UK economy
Annual % change, unless otherwise indicated

	Average of Independent Forecasters		Budget March 2014	
	2014	2015	2014	2015
GDP growth (per cent)	3.1	2.6	2.7	2.3
Claimant unemployment (mn)	1.0	0.9	1.20	1.13
Current account (£bn)	-70.9	-64.9	-	-
PSNB (2014-15, 2015-16: £bn)	91.8	75.0	95.5[28]	75.2

Note: mn = million, bn = billion
Sources: HM Treasury Comparison of Independent Forecasts, October 2014.
Office for Budget Responsibility, Economic and fiscal outlook, March 2014.

As can be seen in Table 3.2 annual growth was positive in Q3 2014 in all sectors except mining & quarrying inc. oil & gas extraction. Electricity gas and water supply, and business services and finance experienced strong annual growth. It is probable that the economy will continue this robust performance into the final quarter of 2014 and into 2015.

Table 3.2: Recent growth in broad industrial sectors of the UK economy
Annual % change

	2013				2014		
Industrial sectors	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**
Agriculture, forestry, and fishing	-6.3%	-4.1%	-3.3%	-2.6%	2.1%	1.4%	0.9%
Mining & quarrying inc oil & gas extraction	-9.2%	-3.7%	-1.7%	5.3%	4.1%	1.4%	-1.9%
Manufacturing	-2.2%	-0.2%	-0.1%	2.3%	4.0%	3.7%	3.4%
Electricity gas and water supply	9.5%	-1.0%	-3.1%	-4.3%	-11.2%	-6.6%	5.0%
Construction	-5.0%	0.9%	5.5%	4.9%	7.6%	5.7%	3.0%
Distribution hotels and catering	2.5%	4.0%	3.3%	4.5%	4.9%	4.4%	3.8%
Transport, storage and communication	0.8%	1.6%	1.6%	1.7%	0.7%	2.5%	3.7%
Business services and finance	2.1%	2.1%	2.2%	2.9%	3.4%	4.2%	4.3%
Government and other services	0.7%	0.4%	-0.5%	1.0%	1.1%	1.5%	1.4%

Source: Office for National Statistics (as of 12 November 2014)

Table 3.3 shows that household annual spending growth was positive throughout the sample period, while all other measures of expenditure turned positive in Q2 2013. Investment fell heavily during the 2008/09 recession but has remained strong since the second half of 2013. Looking forward, investment is likely to remain positive.

[28] The PSNB forecast from the OBR excludes "APF transfers".

Table 3.3: UK domestic expenditure growth
Annual % change

	2012	2013				2014	
Expenditure	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**
Households	1.7%	1.7%	1.5%	1.8%	1.5%	1.7%	2.1%
Non-profit institutions	-7.4%	-2.4%	1.0%	2.2%	5.0%	2.7%	0.7%
General Government	1.7%	-2.0%	1.8%	1.7%	1.5%	1.5%	1.2%
Gross fixed capital formation	-1.5%	-0.6%	1.5%	5.3%	6.6%	8.3%	9.1%

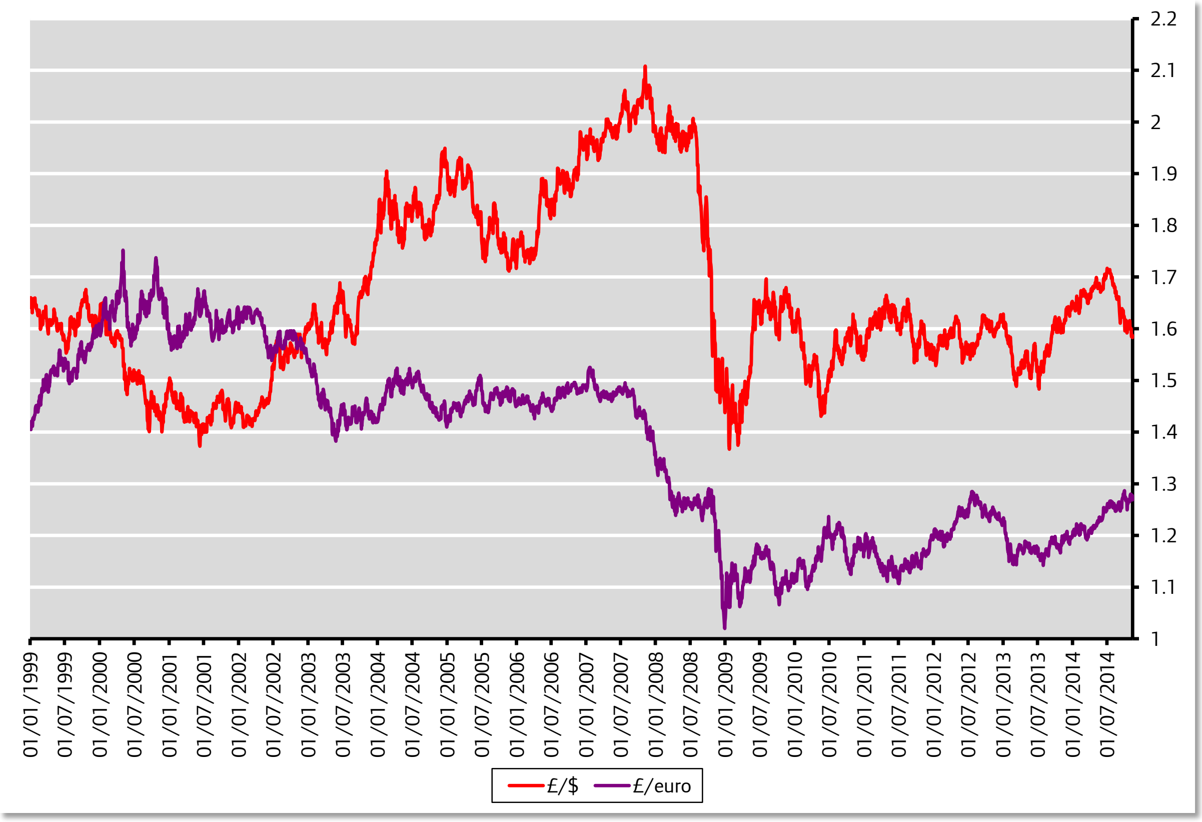
Source: Office for National Statistics (as of 12 November 2014)

Inflation has remained below the Bank of England's central symmetrical target of 2 per cent since the Spring 2014 LEO and throughout 2014 as a whole, with annual Consumer Price Index (CPI) inflation standing at 1.2 per cent in September, down from 1.5 per cent in August[29]. Meanwhile annual Retail Price Index (RPI) inflation stood at 2.3 per cent in September, down slightly from 2.4 per cent in August. While looking forward and as indicated by the central forecast in the Bank of England's November Inflation Report[30] it is expected that CPI inflation will remain moderate for the next year or so and could even fall below 1 per cent in the coming months. Still despite the recent moderation in inflation real wages have remained under pressure (see Box 3.1) and may remain so for a while yet[31].

Against the dollar sterling has lost some but not all of the appreciation that started in the middle of 2013 and it still remains well below the heights it reached in 2007 (see Figure 3.8). With respect to the euro, sterling has been more stable although there has been a gradual appreciation since the middle of 2013. The general slow appreciation of sterling may remove some of the support to exporters, tourism and import substitution that occurred with the 2007 depreciation.

29 Office for National Statistics, 'Statistical Bulletin: Consumer Price Inflation, September 2014', 14 October 2014.
30 Bank of England, 'Inflation Report, November 2014', 12 November 2014.
31 EY Item Club, 'Special report on consumer spending', September 2014.

Figure 3.8: £ to $ and £ to euro exchange rates
Last data point is 12/11/14

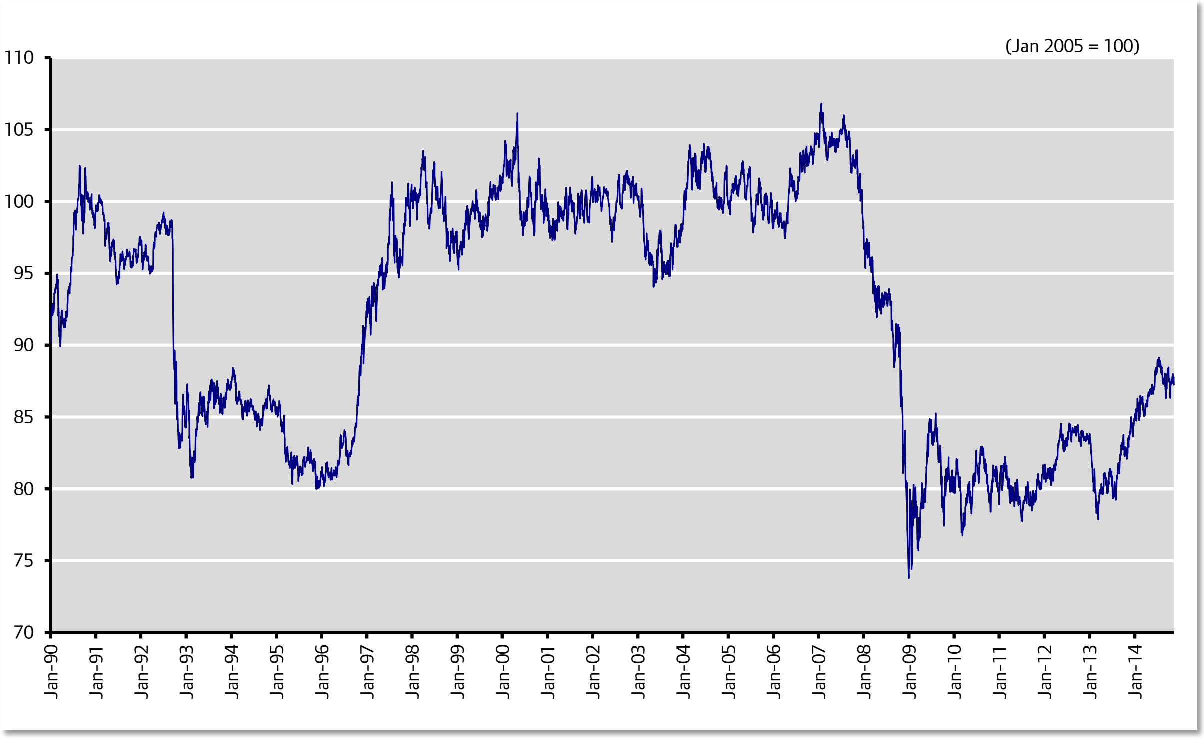


Source: Bank of England

Sterling's depreciation from the heights seen during 1998 to 2007 and its recent general appreciation is illustrated by its effective exchange rate index (EERI)[32] (see Figure 3.9). Since the fall of approximately 30 per cent from its peak in early 2007 up to January 2009, sterling has fluctuated but has risen since early 2013 by over 10 per cent as evidence of the UK economic recovery mounted. The strengthening of sterling may reduce the support to the UK export sector and therefore the UK economy as a whole that was provided by its depreciation during the recession.

[32] The Sterling Effective Exchange Rate Index measures the overall change in the trade-weighted exchange value of sterling. It is designed to measure changes in the price competitiveness of traded goods and services and so the weights reflect trade flows in goods and services.

Figure 3.9: Sterling EERI rate
Last data point is 12/11/14



Source: Bank of England

Box 3.1: Low real wage growth in the UK

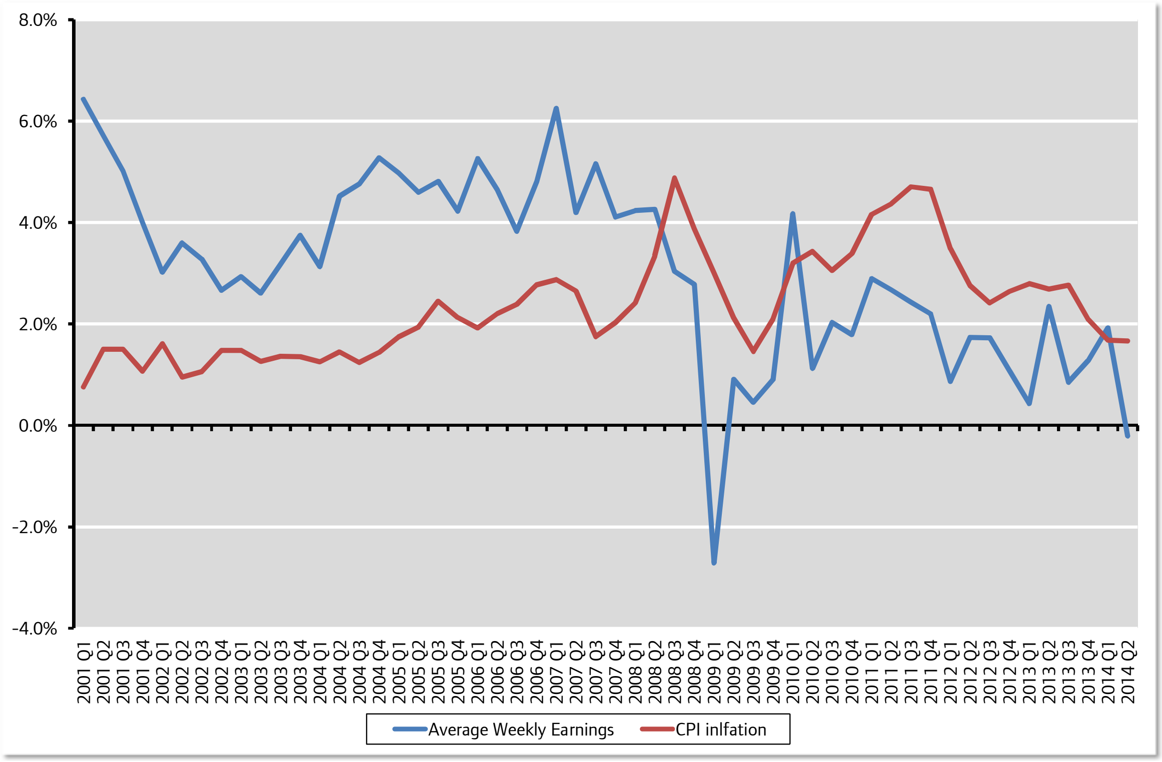
Real wages in the UK have displayed a downward trend since the start of the financial crisis, and have fallen continuously since 2010 as measured by Average Weekly Earnings (AWE), with the UK experiencing the longest period of wage stagnation since records began in 1855[33]. The trend in falling real wages is evident over different wage and earnings measures across the UK[34]. This trend has persisted even while economic conditions have improved considerably; with unemployment in the UK falling to 6.0 per cent in the three months to September 2014 and economic output increasing by 0.7 per cent in Q3 2014.

This analysis looks at some of the existing evidence of weak real wage growth for London, how the situation in the Capital compares with the rest of the UK and highlights some of the potential factors behind these trends in real wages.

Figure 3.10 shows nominal wage growth in the UK as measured by average weekly earnings. The trend in wages is shown in the context of the cost of living as measured by CPI inflation. In the run up to the financial crisis inflation and wages were closely correlated with earnings growth exceeding CPI inflation for most of the period. However, since Q3 2008 CPI inflation has consistently exceeded wage growth and, in Q2 2014, real average weekly earnings as measured by total weekly pay across the whole economy were 10 per cent lower than the pre-recession peak in Q1 2008[35] (in 2013 constant prices).

[33] The Economist, 'Real wages: What recovery?', 25 October 2014.
[34] Office for National Statistics, 'An Examination of Falling Real Wages, 2010-2013', January 2014.
[35] Real wages were deflated using the Consumer Price Index.

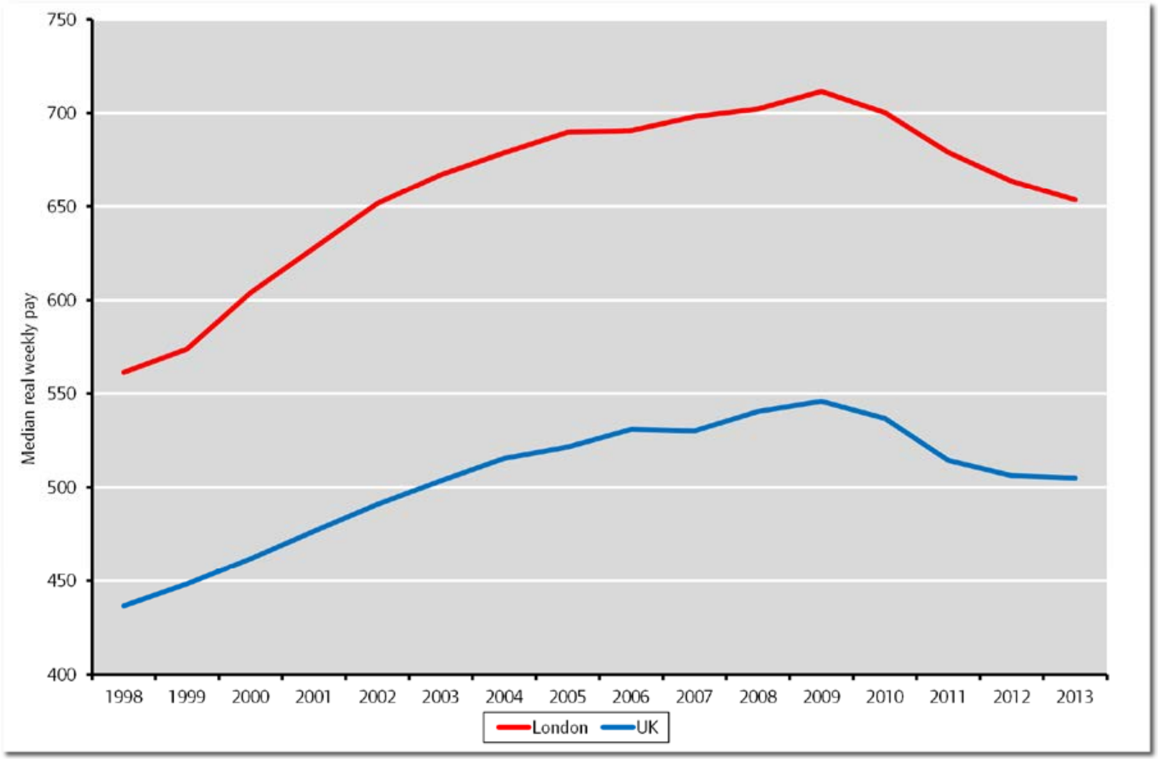
Figure 3.10: Average weekly earnings in the UK and inflation



Source: ONS

London is not isolated from these trends. Data from the Annual Survey of Hours and Earnings (ASHE) enables a comparison between London and the UK (although not as timely as the average weekly earnings measure, ASHE is widely considered to be the most reliable indicator of earnings). Figure 3.11 shows real wages in London and the UK as measured by median weekly real pay. In London, the real wage in 2013 was 8.2 per cent lower than in 2009 compared to 7.5 per cent for the UK as a whole. To put this into context, these falls in wages since 2009 imply that real wages in London in 2013 were broadly at the level seen in 2002 when weekly pay is deflated by CPI inflation.

Figure 3.11: Real wages in London and the UK



Source: ASHE

A caveat to these findings is the exclusion of the self-employed from ASHE data; given the increasing importance of self-employed jobs, especially since the recent financial crisis, this means that this analysis provides only a partial picture of the recent trends in pay. Thus for example, ONS research into changes in real earnings suggest that median real income from self-employment between 2007/08 and 2010/11 in the UK fell by 16 per cent, while in London the fall was a third, albeit from a higher starting point[36]. Therefore, trends displayed by ASHE data may well underestimate the extent of weakness in real pay in recent times.

Recently published ONS analysis on real wages[37] focuses on three potential factors that are likely to have contributed to weak earnings growth: changes in the hours worked, changes in productivity and the composition of the workforce. At the beginning of the downturn declining domestic demand led to a fall in weekly hours worked which put downward pressure on weekly earnings. The number of hours worked was also affected by the distribution of people in full and part-time work. Between January 2000 and December 2008, on average, of the working-age population, 74.5 per cent of people were in full-time employment[38] compared to 73.0 per cent during the period between January 2009 and November 2013. This change in the composition of the workforce may have had additional negative impacts on real wages. It has also been argued that stagnation in the consumption wage[39], also known as the real wage that the worker receives, compared to the product wage[40], the wage rate in terms of output and the measure

[36] ONS, 'Changes in real earnings in the UK and London, 2002 to 2012', February 2013.
[37] Office for National Statistics, 'An Examination of Falling Real Wages, 2010-2013', January 2014.
[38] Ibid.
[39] The consumption wage is calculated by deflating the nominal wage divided by the price of goods.
[40] The product wage is the wage rate in terms of output and is calculated by dividing the nominal wage by the price of output.

that firms base their decisions to employ staff, may in part be driving a wedge between productivity and real earnings since 2010. Strong labour market performance since the recession is likely to be a by-product of this phenomenon. In addition, it has been suggested that other costs pressures on the firm may have played a contributing factor towards the weak real wage performance in recent years. For example, in a recent research paper featured in the National Institute Economic Review issue on 'Financial Crisis and Economic Performance'[41] it was argued that typical British workers' wages are no longer keeping up with productivity gains made in the economy as a higher proportion of total employee compensation is required to support pensions.

To conclude, while the economic performance of the UK has been resilient with unemployment falling to 6.0 per cent (6.3 per cent in London) and the recent revisions to GDP implying that the economy is now approximately 3.4 per cent larger than prior to the recession, real earnings have failed to keep up. The growth in the supply of workers combined with a pool of part-time workers many of whom might easily switch to full-time work may have, in part, reduced the pressure on real earnings to rise. Skills shortages when they occur, and which are a key sign of a tightening labour market, will be one of the factors that are likely to eventually push up real wages but this effect is likely to be varied over different sectors of the economy. Still, even given recent signs of a slight uptick[42], and prospects for low inflation, it is likely to take some time for real wages to regain previous levels; indeed a recent EY Item Club special report suggested that, "real take-home pay will still be lower than 2008 levels across all income groups" in 2017[43].

3.3 The world economy

In October the IMF again downgraded their forecast for the world economy this year and next with it now forecast to expand by 3.3 per cent in 2014 and by 3.8 per cent in 2015[44]. Their forecasts for developed economies were however more mixed, with the US economy forecast to grow by 2.2 per cent in 2014 (a 0.5 per cent upgrade on its previous forecast) and then by 3.1 per cent in 2015[45] (unchanged from its previous forecast). The Eurozone is forecast to grow by 0.8 per cent in 2014 and by 1.3 per cent in 2015[46], both downgrades on the previous forecast.

In their latest World Economic Outlook the IMF notes that "the world economy is in the middle of a balancing act. On the one hand, countries must address the legacies of the global financial crisis, ranging from debt overhangs to high unemployment. On the other, they face a cloudy future. Potential growth rates are being revised downward, and these worsened prospects are in turn affecting confidence, demand, and growth today"[47]. They therefore observe that there is a divergence in the growth paths of advanced economies, as "the United States and the United Kingdom in particular are leaving the crisis behind and achieving decent growth—though even for those two countries, potential growth is now lower than in the early 2000s. Japan is growing, but high public debt inherited from the past and very low potential growth create major macroeconomic and fiscal challenges. Growth nearly stalled earlier this year in the euro area, even in the core. Although this partly reflects temporary factors, the recovery has been

[41] Gregg, P. et al., 'The Squeeze On Real Wages – And What it Might Take to End It', February 2014.
[42] Office for National Statistics, 'UK Labour Market, November 2014', 12 November 2014.
[43] EY Item Club, 'Special report on consumer spending', September 2014.
[44] The IMF, 'World Economic Outlook: Legacies, Clouds, Uncertainties', October 2014.
[45] Ibid.
[46] Ibid.
[47] Ibid.

slowed by the crisis legacies, primarily in the south, and by low potential growth nearly everywhere"[48]. With respect to emerging market economies the IMF notes that "lower potential growth is the dominating factor. For these economies as a whole, potential growth is now forecast to be 1.5 percent lower than in 2011"[49]. In terms of risks to the global economy they argue that there are three clear downside risks: firstly, that low interest rates have led to a search for yield and "financial markets may be too complacent about the future"; secondly, ongoing geopolitical risks such as the Ukraine crisis and turmoil in the Middle East; and thirdly, "that the recovery in the euro area could stall, that demand could weaken further, and that low inflation could turn into deflation"[50].

In its Global Financial Stability Report the IMF observed that "six years after the start of the crisis, the global economic recovery continues to rely heavily on accommodative monetary policies in advanced economies to support demand, encourage corporate investment, and facilitate balance sheet repair. Monetary accommodation remains critical in supporting the economy by encouraging economic risk taking in advanced economies, in the form of increased real spending by households and greater willingness to invest and hire by businesses. However, prolonged monetary ease may also encourage excessive financial risk taking, in the form of increased portfolio allocations to riskier assets and increased willingness to leverage balance sheets"[51]. They further note that "capital markets have become more significant providers of credit since the crisis, shifting the locus of risks to the shadow banking system"[52]. This "combination of asset concentration, extended portfolio positions and valuations, flight prone investors, and vulnerable liquidity structures have increased the sensitivity of key credit markets, increasing market and liquidity risks. Emerging markets are more vulnerable to shocks from advanced economies, as they now absorb a much larger share of the outward portfolio investment from advanced economies. A consequence of these stronger links is the increased synchronization of asset price movements and volatilities. These structural changes in credit markets, together with the expected normalization of monetary policy in the United States, have raised market and liquidity risks in ways that could compromise financial stability if left unaddressed. The increased sensitivity of credit markets could make the exit process more volatile, potentially undermining the ability of the financial system to support the recovery"[53].

The **US** economy after sharply contracting in the first quarter of 2014, in part due to adverse weather conditions, has resumed growing, with output increasing by an annualized rate of 3.5 per cent in Q3 2014[54], after increasing by an annualised rate of 4.6 per cent in Q2 2014. US consumer confidence rebounded in October after declining in September[55], and the US economy continues to create jobs with it adding 214,000 jobs in October[56]. US unemployment now stands at 5.8 per cent, a six year low[57]. The stock market has however experienced recent volatility on the back of concerns about the global economy. Interest rates remain at a target

[48] Ibid.
[49] Ibid.
[50] Ibid.
[51] The IMF, 'Global Financial Stability Report: Risk Taking, Liquidity, and Shadow Banking: Curbing Excess While Promoting Growth', October 2014.
[52] Ibid.
[53] Ibid.
[54] Bureau of Economic Analysis, 'National Income and Product Accounts: Gross Domestic Product: Third Quarter 2014 (advance estimate)', 30 October 2014.
[55] The Conference Board, 'Consumer Confidence Survey: The Conference Board Consumer Confidence Index® Rebounds', 28 October 2014.
[56] Bureau of Labor Statistics, 'Economic News Release: Employment Situation Summary', 7 November 2014.
[57] BBC, 'US unemployment falls again in October', 7 November 2014.

rate of between 0 to 0.25 per cent but the tapering of the Federal Reserve's bond buying scheme which began in January has now ended with no further asset purchases envisaged. The preponderance of evidence points to a continued modest US expansion as shown by the October 2014 Beige Book from the Federal Reserve stating that "reports from the twelve Federal Reserve Districts generally described modest to moderate economic growth"[58].

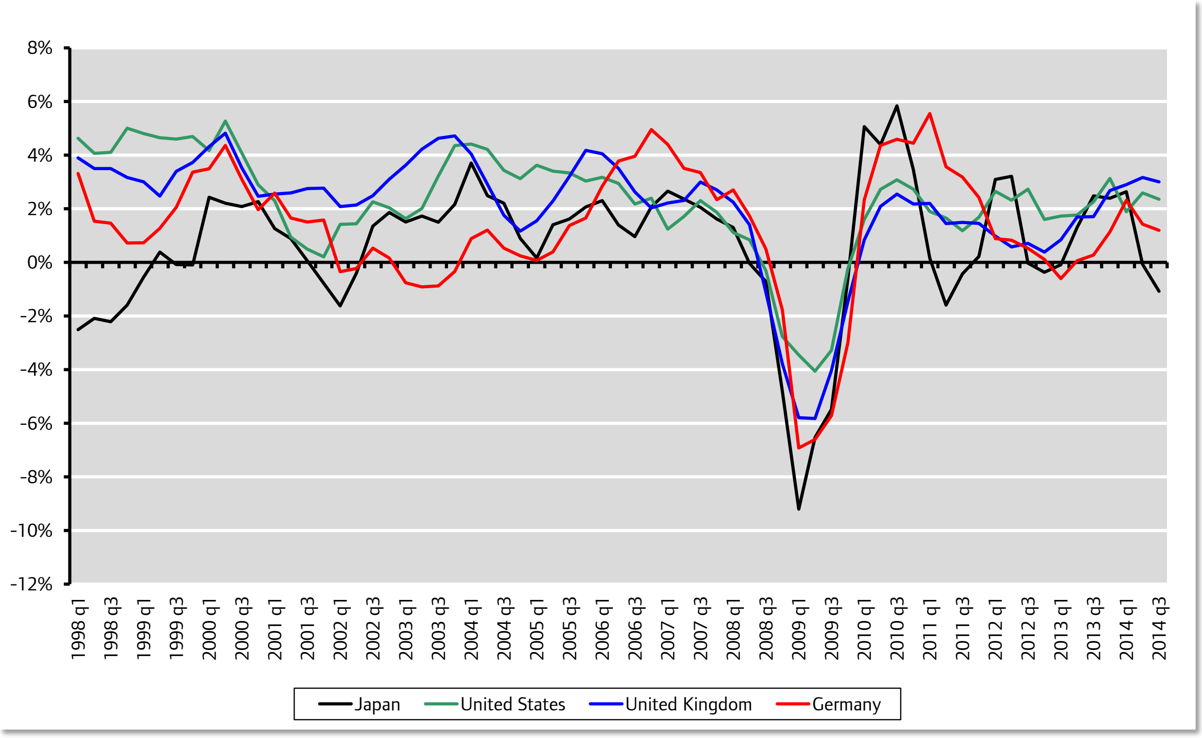
The **Eurozone** economy remains weak with significant structural problems; output in the Eurozone grew by only 0.2 per cent in Q3 2014 after growing by 0.1 per cent in Q2 2014. Member states saw a mixed picture with for instance Spain's economy growing by 0.5 per cent in Q3 2014 and France saw 0.3 per cent growth in Q3 2014 after output fell by 0.1 per cent in Q2 2014 and was stagnant in Q1 2014. Germany avoided recession with output growing by 0.1 per cent in Q3 2014 after declining by 0.1 per cent in Q2 2014, however Italy re-entered recession with output declining by 0.1 per cent in Q3 2014 after falling by 0.2 per cent in Q2 2014[59]. Most economic indicators show very weak growth in the Eurozone, while the sovereign debt crisis in the Eurozone has yet to be fully resolved. There therefore remains a risk of the reoccurrence of the Eurozone crisis, which would act as even more of a drag on global economic growth compared to the dampening effect the current weakness in the Eurozone is having. However the IMF is forecasting a recovery within the Eurozone although it argues that the "prospects are uneven across countries—not just between the economies most severely affected by the crisis and the rest, but also within those groups"[60]. Inflation is currently very low in the Eurozone (see Box 3.2) and concerns remain that it may experience a deflationary period, while so far significant policy action to address this issue has been lacking. The risk from deflation is particularly worrying for the Eurozone given the impact it has on the 'real value' of sovereign debt (which are at high levels in some countries). Eurozone unemployment remains very high, but has fallen back slightly from its peak in 2013, with it standing at 11.5 per cent in September 2014. However it remains very elevated (if again reduced from its peak) in some countries with it standing at 24.0 per cent in Spain in September and 26.4 per cent in Greece in July[61].

Japan's economy, after growing quickly in the first quarter of 2014, fell back into recession in the third quarter of 2014 (its fourth recession since the Lehman crisis)[62], with the economy contracting by an annualised rate of 7.3 per cent in the second quarter of 2014 (the biggest fall since the March 2011 earthquake and tsunami)[63] and by 1.6 per cent in the third quarter of 2014; this pattern of growth could partly be explained by the continuing impact of the rise in the sales tax in April. However, in counter point to this, results from the Bank of Japan's Tankan survey of business sentiment showed that business sentiment unexpectedly improved in the three months ending in September[64]. Japanese inflation was low in October with, after adjusting for the increase in sales tax, the core consumer price index standing at 1.0 per cent[65], and survey evidence indicating that companies expect the Bank of Japan to undershoot its 2 per cent inflation target[66]. In response to this situation the Bank of Japan increased its monetary

[58] The Federal Reserve Board, 'The Beige Book: Summary of Commentary on Current Economic Conditions by Federal Reserve District', 15 October 2014.
[59] Eurostat, 'News release euro-indicators: Flash estimate for the third quarter of 2014', 14 November 2014.
[60] The IMF, 'World Economic Outlook: Legacies, Clouds, Uncertainties', October 2014.
[61] Eurostat, 'News release euro-indicators September 2014: Euro area unemployment rate at 11.5%', 31 October 2014.
[62] The Financial Times, 'Sales tax tips Japan back into recession', 17 November 2014.
[63] BBC, 'Japan's economy makes surprise fall into recession', 17 November 2014.
[64] Wall Street Journal, 'BOJ Tankan: Japan Corporate Sentiment Improves', 1 October 2014.
[65] The Wall Street Journal, 'Japan's Inflation, Job Creation Slowdown a Blow to Abenomics', 30 October 2014.
[66] Wall Street Journal, 'BOJ Doesn't Sway Japan Inc.'s Inflation View', 1 October 2014.

easing programme in October[67]. The IMF's latest forecast for Japan's economy is that it will grow by 0.9 per cent in 2014 and by 0.8 per cent in 2015[68].

Figure 3.12: GDP growth in selected industrialised countries
Real GDP, annual % change, last data point is Q3 2014



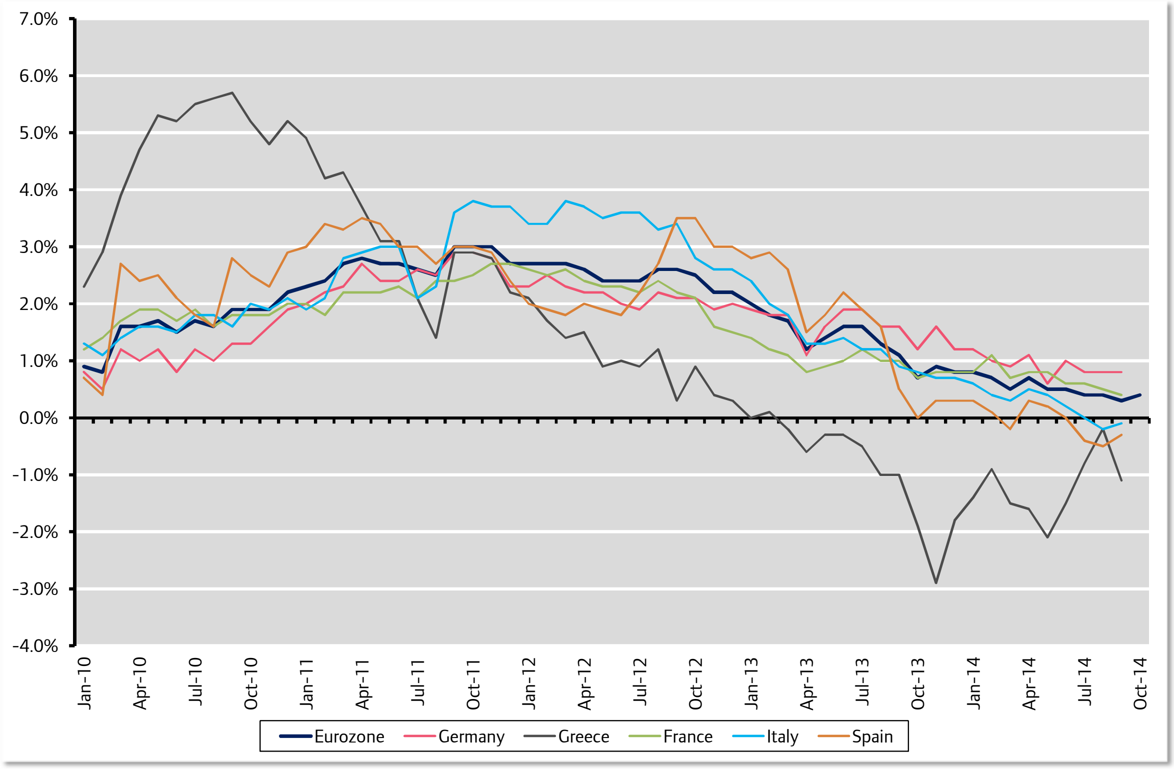
Source: OECD

Box 3.2: Concerns about low inflation in the Eurozone

The European Central Bank (ECB) is mandated to maintain price stability, which is interpreted as keeping the Eurozone inflation rate below, but close to, 2 per cent over the medium term[69]. However, slowing inflation in the Eurozone in 2014 has demonstrated that this target is far from being achieved (see Figure 3.13). The latest estimate indicates that the annual inflation rate in the Eurozone was 0.4 per cent in October 2014, up from 0.3 per cent in September 2014, which was the lowest rate since October 2009[70]. The IMF expects inflation in the Eurozone to remain around the 0.5 per cent level in 2014 before rising to 0.9 per cent in 2015, while the ECB forecast in Q3 2014 inflation of 0.7 per cent in 2014 (down from a forecast in Q2 2014 of 0.9 per cent) and of 1.2 per cent in 2015 (down from the 1.3 per cent expected in Q2 2014)[71].

[67] The Financial Times, 'BoJ stuns investors by expanding monetary easing programme', 31 October 2014.
[68] The IMF, 'World Economic Outlook: Legacies, Clouds, Uncertainties', October 2014.
[69] European Central Bank, 'The Monetary Policy of The ECB', May 2011.
[70] Eurostat, 'Euro area annual inflation up to 0.4%', 31 October 2014.
[71] European Central Bank, 'ECB Survey of Professional Forecasters', October 2014.

Figure 3.13: Monthly inflation in the Eurozone and selected member countries (annual percentage change)

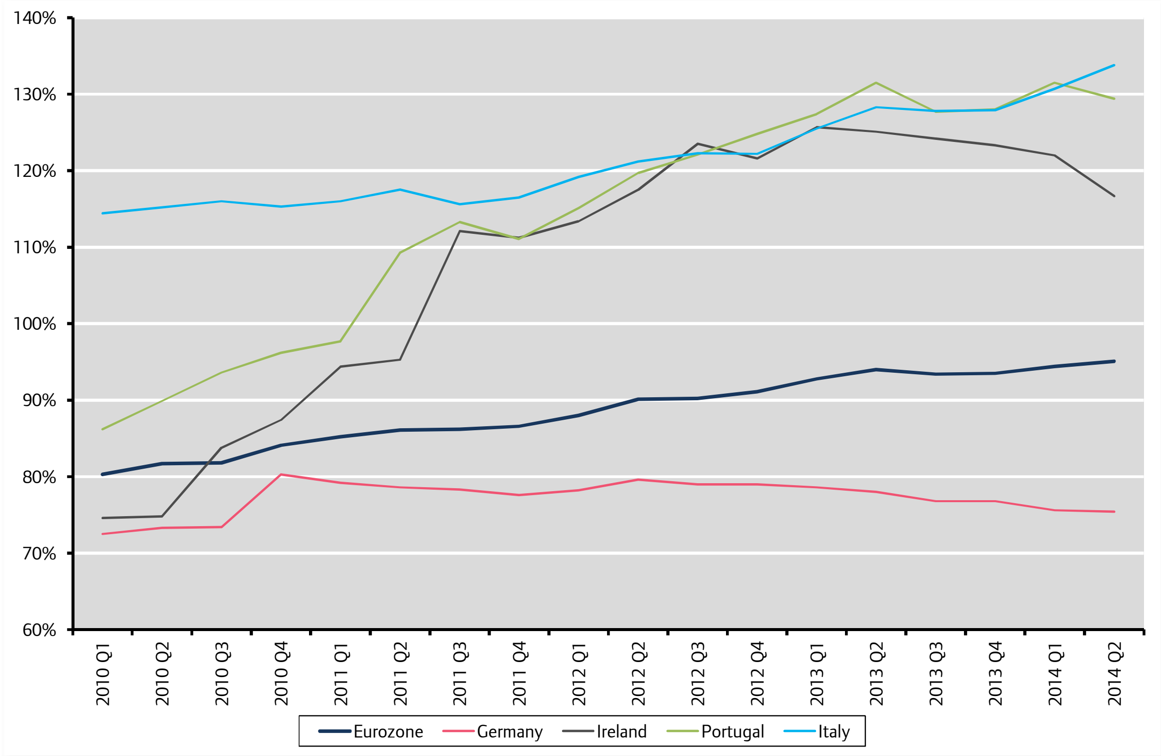


Source: Eurostat

The slowing rate of inflation in the Eurozone causes concern as it raises the spectre of deflation which would increase the real value of debt. This is particularly pertinent for Italy, Spain and Greece which are already experiencing deflation. This phenomenon, in conjunction with the recent slow and/or negative growth in Eurozone countries, raises worries around whether all member governments will be able to service their debts.

Eurostat data shows that the total sovereign debt of the Eurozone countries has been growing steadily since the financial crisis and stood at 95.1 per cent of GDP in the second quarter of 2014. However, the levels of government debt as a per cent of GDP are uneven among Eurozone members (see Figure 3.14). While Germany has managed to keep its sovereign debt below the peak of 80.3 per cent of GDP it hit in Q3 2010 and to lower it gradually to 75.6 per cent by Q2 2014, Italy experienced a 19.4 percentage point increase over the same period, with debt levels standing at 133.8 per cent of GDP in Q2 2014. In the so-called Euro periphery the situation was even worse. Ireland's debt to GDP ratio increased by 42.1 percentage points between Q1 2010 and Q2 2014, when it stood at 116.7 per cent, an increase second only to Portugal, whose debt rose by 43.2 percentage points over the same period. Data on Greece's debt to GDP levels are not as timely, but the latest available data showed that the country had the highest level in the EU in Q1 2014 at 174.1 per cent, up from 160.6 per cent in the same quarter of the previous year. Servicing large and growing public debts might become difficult for Eurozone countries should the yields (i.e. their interest rate) on sovereign bonds rise in the future. Further, it should be noted that the effects of a prolonged period of deflation on the real value of already-large sovereign debts might reasonably have even more severe consequences if economic growth - one of the ways to possibly reduce the size of the debt to GDP ratio- remains weak in the Eurozone.

Figure 3.14: Government debt as percentage of GDP in the Eurozone and selected member countries



Source: Eurostat

The possibility that the Eurozone could be heading towards a period of deflation has repeatedly generated comparisons with the case of Japan, which has suffered from long-lasting but moderate deflation since the late 1990s. According to GLA Economics calculations, between Q2 1998 and Q1 2014, Japan's debt to GDP ratio was on average higher in each quarter than it would have been assuming an inflation rate of 2.0 per cent[72].

Given the persistence of deflation in Japan, it could well be difficult for the Eurozone to escape a deflationary period. In order to avoid this, the ECB has recently announced that it will start to buy covered bonds issued by Eurozone credit institutions in an attempt to revive lending and growth across Europe[73]. However, it is unclear whether this measure could successfully stimulate growth, as a great number of factors are beyond the scope of the ECB's monetary policy and it is arguable that buying sovereign debt may be of more use to some highly indebted Eurozone countries than the currently announced ECB programme.

In work undertaken by the Bank of Japan in examining its history of chronic deflation a number of issues have been highlighted which worryingly resemble the current situation in the Eurozone. Specifically, the Bank of Japan argues that the long period of deflation was due to "a combination of factors: a series of large negative demand shocks, the increase in cheap imports from overseas, the low-price strategies of firms and the increased preference among households

[72] The Bank of Japan has announced that it will pursue a 2.0 per cent annual inflation target in early 2013.
[73] European Central Bank, 'ECB announces details of its new Covered Bond Purchase Programme (CBPP)', 2 October 2014.

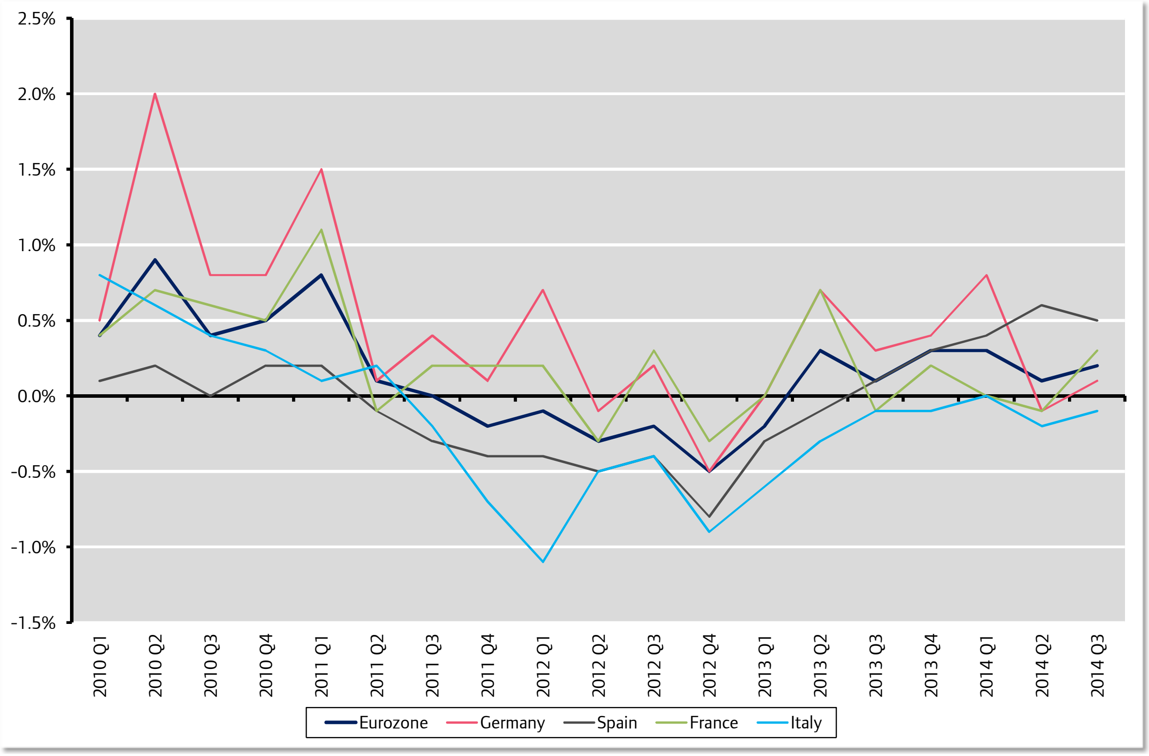
for low prices" and an aging population that tends to consume less[74]. However, the Eurozone and Japan situations are not as similar as they might first look.

First, low inflation is not an isolated case for the Eurozone as it was for Japan in the late 1990s: China and the US are experiencing slowing inflation rates as well and weak foreign demand has detrimental effects on Europe's prospects. Second, the share of foreign ownership of Eurozone members' national debts is significantly higher than Japan's , therefore, due to the greater exposure to global financial trends, the process of refinancing the debt comprises a higher risk in the Eurozone than it did, and currently does, in Japan. In this regard, the European Commission recently published a study on the sustainability of public debt, and it identified two safety-thresholds of 49.0 per cent of public debt held by non-residents and of 29.8 per cent of public debt in a foreign currency[75]. Currently, 11 out of 18 countries in the Eurozone have shares of government debt held by non-residents higher than this safety-threshold, although none exceeds the threshold on debt in a foreign currency. Third, before experiencing deflation, and partly during the deflationary period, Japan maintained relatively sustained economic growth.

Europe's economic growth prospects have also almost unanimously been revised downwards in the last few months. The European Commission, the IMF and the OECD have all lowered their projections for economic growth for the Eurozone in 2014 to 0.8 per cent, from 1.2 per cent in spring[76, 77,78]. After experiencing a mixed start to the year (see Figure 3.15), expected growth for 2014 is uneven among EU members. The IMF reports that Germany and Spain, at 1.4 per cent and 1.3 per cent respectively, show stronger prospects than France, whose forecast for 2014 was lowered to 0.4 per cent in October from 1.0 per cent in April after its growth rate decreased by 0.1 per cent in the second quarter and grew 0.3 per cent in the third quarter of 2014. Italy, which reported a 0.1 per cent reduction in GDP in Q3 2014, following a 0.2 per cent fall in the previous quarter, is now not expected to achieve positive growth until 2015. Moreover, Standard and Poor's has lowered its outlook on France's long-term sovereign debt rating to negative[79]. However, despite the IMF forecast, particular concern is centred on Germany. With the economy experiencing a 0.2 per cent fall in the second quarter of 2014 and data from its Federal Statistical Office showing exports in August falling 5.8 per cent from the previous month (the biggest drop since January 2009) it appears that, with no sign of a global recovery, Germany's sensitivity to foreign demand might affect its economic performance over the medium term[80].

[74] Bank of Japan, 'Chronic Deflation in Japan', July 2012.
[75] European Commission, 'Assessing Public Debit Sustainability in EU member states', September 2014.
[76] European Commission, 'European Economic Forecast, Autumn 2014', November 2014.
[77] The IMF, 'World Economic Outlook: Legacies, Clouds, Uncertainties', October 2014.
[78] OECD, 'Economic Outlook, Analysis and forecasts', September 2014.
[79] Standard & Poor's, 'France Outlook Revised To Negative; 'AA/A-1+' Ratings Affirmed', 10 October 2014.
[80] The Financial Times, 'Germany's weak point is its reliance on exports', 12 October 2014.

Figure 3.15: Real GDP growth rates in the Eurozone and selected member countries
Quarter on quarter percentage change



Source: Eurostat

Looking at the causes for this stagnant growth in the Eurozone it is unclear whether it derives from weak credit supply or from the demand side, with firms unwilling to take on debt in light of uncertain growth expectations and infrastructure investment[81]. However, recent publications from the ECB and the European Banking Agency (EBA) have partially weakened the argument that the banking system is posing a constraint to growth in the Eurozone

The October bank lending survey from the ECB reported that, as well as a net easing of credit standards, demand for loans increased across all loan categories in the third quarter of 2014[82]. This survey result followed the publication of the ECB and EBA's assessments of the financial health of European banks. Thus the ECB released in late October the results of its 'comprehensive assessment' of 130 credit institutions, which accounted for 81.6 per cent of all Eurozone assets, in preparation for it assuming banking supervision tasks in November[83]. In this it identified capital shortfalls for 25 banks, totalling €25 billion[84]. Alongside the ECB, the EBA published in October the results of the 2014 EU-wide 'stress test', aimed at assessing the resilience of EU banks to adverse economic developments, and found 24 banks that failed to meet its criteria as of the end of 2013, but reported that, at present, only 14 banks (all in the Eurozone) still need to raise capital[85]. The objective of the assessments was to determine and

[81] The Financial Times, 'Bank stress tests fail to tackle deflation spectre', 27 October 2014.
[82] European Central Bank, 'The Euro Area Bank Lending Survey', October 2014.
[83] As part of the 'Single Supervisory Mechanism', the ECB will operate alongside competent national authorities to ensure safety and soundness of the European banking system and to increase the financial integration and stability in Europe, European Union, 'Council Regulation No 1024/2013, October 2013.
[84] European Central Bank, 'Aggregate Report on the Comprehensive Assessment', October 2014.
[85] European Banking Agency, 'Results of 2014 EU-wide stress test', October 2014.

ensure data transparency and comparability between the members of the emerging European Banking Union. Nonetheless, some criticism has been made of the tests being insufficient due to a flawed methodology in assessing risk[86]. Moreover, both test scenarios were developed assuming an inflation rate in the Eurozone of 1 per cent in 2014 and disregarding the present risk of deflation that stagnant domestic and slowing foreign demand are bringing to the EU. This aspect is particularly critical as, of the 14 banks still needing to raise capital, nine are located in countries that are experiencing deflation (Italy, Greece, Slovenia and Cyprus) and four in countries where inflation is currently lower than 0.5 per cent (Belgium, Ireland and Portugal).

The implications of the conjunction of low inflation, slow growth and large public debts in economies that are already experiencing high unemployment rates (youth unemployment was as high as 53.7 per cent in Spain in September 2014, when the Eurozone average was 23.3 per cent) far exceed the boundaries of the Eurozone. In fact, while the Eurozone is the UK's biggest trading partner, the EU is the biggest trading partner for a great number of countries (such as Brazil, China, Russia and Turkey), the second biggest for Canada and it is the third biggest for Australia, Mexico and the US[87]. Thus, the future economic outlook for the UK and other global economic actors depends significantly on the performance of the Eurozone and on the European Union's future reforms. Furthermore, it must be noted that the current weak economic recovery and the risk of deflation in the Eurozone pose a serious threat to London's economic growth prospects, despite the benevolent forecasts outlined elsewhere in this report.

3.4 Emerging market economies

Emerging Market Economies showed evidence of a continued slowdown in a number, but not all, economies into the second half of 2014. Thus the IMF observed in October that "among emerging market and developing economies, growth in China picked up in the second quarter, responding to the measures deployed to boost activity after a weaker-than-expected first-quarter outturn. However, domestic demand remained weak in a few major economies, notably in Latin America. Geopolitical tensions related to the Russia-Ukraine situation and the Middle East dampened activity in those regions, but with limited broader spill overs so far"[88]. The IMF downgraded their forecast for growth in emerging and developing economies with it now expected to be 4.4 per cent in 2014 and 5.0 per cent in 2015[89].

Of the major emerging markets **China's** economy slowed in the third quarter of 2014 when it grew at an annualised rate of 7.3 per cent, down from 7.5 per cent in the second quarter of 2014 and a more than five year low[90]. However, concerns that were mounting in the first half of the year that Chinese economic growth may significantly slow in 2014 have so far not occurred, although concerns have been expressed about the debt situation in China[91]. Chinese inflation remains subdued standing at 1.5 per cent in September; with inflation standing well below the Government's target of 3.5 per cent this should provide scope for policy changes to stimulate the economy if this is required[92]. In October the IMF forecast that the Chinese economy will grow by 7.4 per cent in 2014 and 7.1 per cent in 2015[93], while the Asian Development Bank

[86] The Economist, 'Stress relief', 1 November 2014.
[87] European Commission, 'Client and supplier countries of the EU28 in merchandise trade value', September 2014.
[88] The IMF, 'World Economic Outlook: Legacies, Clouds, Uncertainties', October 2014.
[89] Ibid.
[90] BBC, 'China's economic growth slows to more than five-year low', 21 October 2014.
[91] The Economist, 'Chinese debt: The great hole in China', 18 October 2014.
[92] BBC, 'China inflation slows to near five-year low', 15 October 2014.
[93] The IMF, 'World Economic Outlook: Legacies, Clouds, Uncertainties', October 2014.

(ADB) forecasts Chinese growth of 7.5 per cent in 2014 and 7.4 per cent in 2015[94]. **India's** economy grew by 5.7 per cent in the quarter to June 2014, after having experienced sub 5 per cent growth in previous quarters[95]. Meanwhile inflation has moderated compared to the levels seen earlier in the year and the government has begun a number of economic reforms that may stimulate growth. The IMF forecasts Indian growth will be 5.6 per cent in 2014 and 6.4 per cent in 2015[96], while the ADB forecasts growth of 5.5 per cent in 2014 and 6.3 per cent in 2015[97]. **Russia's** economic growth slowed in the first half of 2014 with it growing at an annualised rate of just 0.8 per cent in Q2 2014 down from 0.9 per cent in Q1 2014 in part due to an uncertain investment environment and restrictive credit conditions as a result of sanctions[98]. Continuing events in Ukraine and the sanctions against Russia that these have triggered are likely to drag this slowdown out into the rest of 2014 and beyond. While, if the decline in the oil price seen in October was to continue or even steepen this could act to further dampen Russian growth. The IMF has significantly revised down its forecast for the Russian economy since the Spring 2014 LEO with it now forecast to grow by just 0.2 per cent in 2014 and by 0.5 per cent in 2015[99], while the World Bank's baseline scenario forecasts growth of 0.5 per cent in 2014, 0.3 per cent in 2015 and 0.4 per cent in 2016[100].

3.5 Risks to the world economy

There remain plenty of opportunities for shocks to hit the global economy, such as a worsening of the troubles in Ukraine and the Middle East or the problems with Ebola in West Africa. Arguably, the largest risk to the London economy remains the problems in the Eurozone. This risk is likely to remain until necessary policy initiatives to ease financial stress and other structural problems in the Eurozone are implemented. The possibility of a restructuring of sovereign debt by countries within the Eurozone, or in the worst case scenario a disorderly default on that debt, and the damage this would do to the global financial system and to business confidence is still a significant risk to the world economy.

Further, the risk of low or even negative inflation in the Eurozone has become more evident as 2014 has progressed. If low inflation continues or becomes deflation, this could de-anchor inflation expectations. Falling prices increases the burden of debt both for the individual and worryingly, given the high debt to GDP ratios in a number of Eurozone countries, for the state while also raising the real interest rate level. If this were to occur it is possible that deeper worries about the Eurozone economy could resurface and would most likely suppress growth in the Eurozone to an even greater degree than is currently the case.

The 'treatment' prescribed for much of the period since the financial crisis in many developed countries has been an unprecedented loosening of monetary policy. While this policy has provided significant support to economies over the period, it also introduces the risk that such policies may be tightened too late or might even encourage risk taking behaviour that could damage the long-run strength of the economy[101]. As a result, many have been arguing that the current

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94 Asian Development Bank, 'Asian Development Outlook 2014 Update: Asia in Global Value Chains', September 2014.
95 Reuters, 'POLL-India's growth pace to pick up as reforms draw investment', 24 October 2014.
96 The IMF, 'World Economic Outlook: Legacies, Clouds, Uncertainties', October 2014.
97 Asian Development Bank, 'Asian Development Outlook 2014 Update: Asia in Global Value Chains', September 2014.
98 The World Bank, 'Russian Economic Report 32: Policy Uncertainty Clouds Medium-Term Prospects', September 2014.
99 The IMF, 'World Economic Outlook: Legacies, Clouds, Uncertainties', October 2014.
100 The World Bank, 'Russian Economic Report 32: Policy Uncertainty Clouds Medium-Term Prospects', September 2014.
101 Bank for International Settlements, '84th Annual Report: 1 April 2013 – 31 March 2014', 29 June 2014.

accommodative stance of monetary policy in many countries could represent a longer-term risk to the global economy.

The prospects for emerging market economies have generally continued to weaken over 2014[102], with the possibility of further disruption occurring to them as the process of normalising monetary policy in some developed economies continues. A risk could be if a severe slowdown in any one emerging market economy, for instance due to a property crash in China, contagiously spreads to other ones.

Against these downside risks there are some upside risks that mean that global growth might turn out stronger than is currently expected. For instance, while confidence in key advanced economies such as the Eurozone remains weak, in other economies such as the US it continues to improve. On balance it is likely that growth in advanced economies will improve into 2015 and could be faster than many currently expect if business investment accelerates due to improved business sentiment, easier access to credit to businesses and healthy corporate balance sheets[103]. Further, even though some other central banks are likely at some point to tighten their monetary policies, as has already begun to happen with the US ending its asset purchase programme in October, monetary policies of most central banks in the developed world are likely to remain very accommodating or may even be further relaxed[104] for some time to come. Thus even when monetary tightening does occur it is likely to take quite a while to return to more normal historic levels and should therefore provide support to the global economy for a time to come.

3.6 Conclusion

Downside risks to the London economy have increased slightly since the Spring 2014 LEO in part due to incomplete reforms in the Eurozone in addition to concerns about potential deflation in some key trading partner countries, a continued slowing in several emerging market economies, and continuing political and other uncertainties in a number of countries. Moreover, the UK public finance consolidation, which is likely to continue after the 2015 General Election, is also likely to act as a drag on growth. Still, UK inflation remains below the Bank of England's central symmetrical target and as employment tightens real wage growth should begin to pick up which will ease the pressure on household finances. There also appears to be evidence that the UK's economic growth has become more sustainable and balanced with improving private sector investment although net exports still remains an issue. London's economy is expected to grow quite strongly over 2014-16 with above trend growth in all years of the forecast. Employment is also expected to rise at a fast pace in 2014 before moderating somewhat by 2016.

[102] The IMF, 'World Economic Outlook: Legacies, Clouds, Uncertainties', October 2014.
[103] Ibid.
[104] Riksbank, 'Repo rate cut to zero per cent', 28 October 2014.

4. Review of independent forecasts

What the forecasts provide

In Chapter 5, GLA Economics' forecast of four economic indicators is provided: workforce jobs, real output, private consumption (household expenditure) and household income in London. In this chapter the consensus view as of 6 November 2014 on the first three of these indicators is summarised[105], drawing on forecasts from outside (independent) organisations[106]. Both annual growth rates and 'standardised' absolute levels are reported. All the data is in real terms (constant prices). The source for all historic data in the following tables and charts is EE.

Additionally, both the consensus[107] and GLA Economics' own forecasts provide predictions of employment and output growth in six broad sectors:

- manufacturing
- construction
- transportation and storage
- distribution[108], accommodation and food service activities
- finance[109] and business services[110]
- other (public & private) services[111].

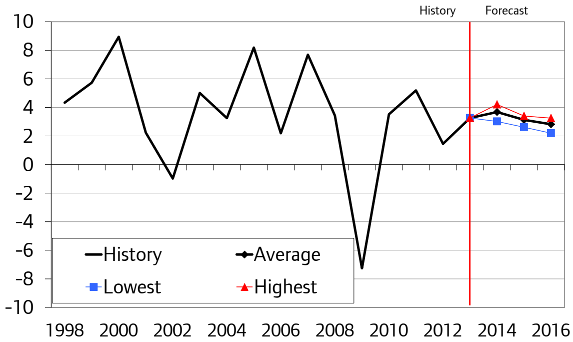
It should be noted, that since our Spring 2012 forecast GLA Economics has been using the new Standard Industrial Classification (SIC 2007), which is explained in more detail in Appendix A.

[105] The consensus forecast for GVA and employment is based on the latest available forecast from CE, CEBR, EE and OE, while the consensus forecast for household expenditure is based on the latest available forecast from CE, EE and OE only.
[106] Most forecasters do not yet provide forecasts of household income.
[107] The consensus GVA forecast for the six broad sectors is based on the latest available forecast from CE, CEBR, EE and OE for GVA but the consensus employment forecast for the six broad sectors is based on the latest available forecast from CE, EE and OE only.
[108] Distribution is made from the summation of Wholesale and Retail (see Appendix A).
[109] This is defined as Financial and insurance activities in Appendix A.
[110] Business services is made from the summation of Information and Communication, Professional, scientific and technical services and real estate, and Administrative and support service activities (see Appendix A).
[111] This is made from the summation of Public admin and defence, Education, Health, Arts, entertainment and recreation and Other services (see Appendix A).

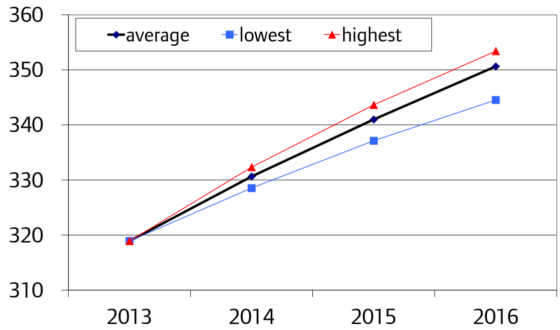
Output
(London GVA, constant prices (base year 2010), £ billion)

The consensus (mean average view) is for real output growth to be 3.7 per cent in 2014, easing to 3.1 per cent in 2015 and 2.8 per cent in 2016.

Annual growth (per cent)



Level (constant year 2010, £ billion)



Annual growth (per cent)					Level (constant year 2010, £ billion)			
	2014	2015	2016			2014	2015	2016
Average	3.7	3.1	2.8		Average	331	341	351
Lowest	3.0	2.6	2.2		Lowest	329	337	345
Highest	4.2	3.4	3.2		Highest	332	344	353

History: Annual growth (per cent)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
4.3	5.7	8.9	2.2	-1.0	5.0	3.3	8.2	2.2	7.7	3.4	-7.3	3.5	5.2	1.5	3.3

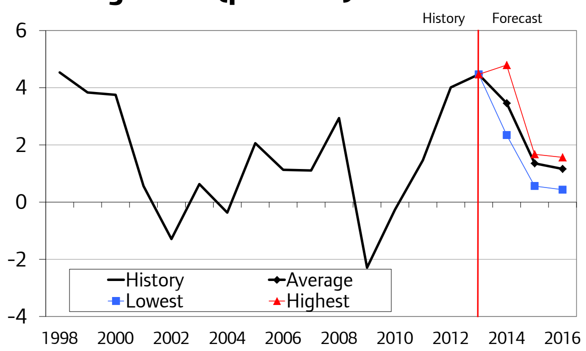
History: Level (constant year 2010, £ billion)

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
185.6	193.6	204.7	223.0	228.0	225.8	237.1	244.8	264.9	270.7	291.5	301.5	279.6	289.4	304.4	308.8	318.9

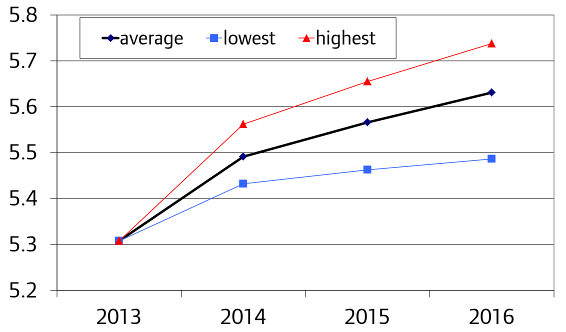
Employment
(London workforce jobs)

The consensus view is for the number of workplace jobs to increase by 3.5 per cent in 2014, by 1.4 per cent in 2015 and 1.2 per cent in 2016.

Annual growth (per cent)



Level (millions)



Annual growth (per cent)					Level (millions)			
	2014	2015	2016			2014	2015	2016
Average	3.5	1.4	1.2		Average	5.49	5.57	5.63
Lowest	2.3	0.6	0.4		Lowest	5.43	5.46	5.49
Highest	4.8	1.7	1.6		Highest	5.56	5.66	5.74

History: Annual growth (per cent)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
4.6	3.7	3.8	0.6	-1.3	0.7	-0.4	2.0	1.3	1.1	2.9	-2.2	-0.4	1.5	4.1	4.5

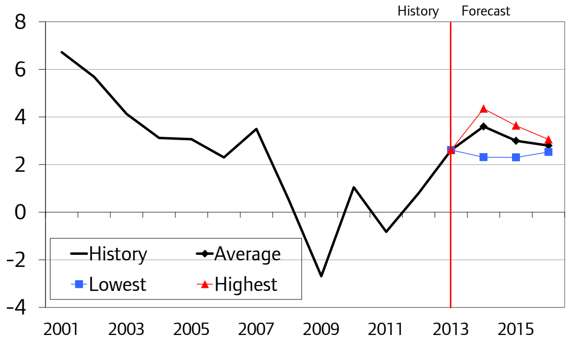
History: Level (millions)

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
4.10	4.29	4.45	4.62	4.65	4.59	4.62	4.60	4.69	4.75	4.80	4.94	4.83	4.81	4.88	5.08	5.31

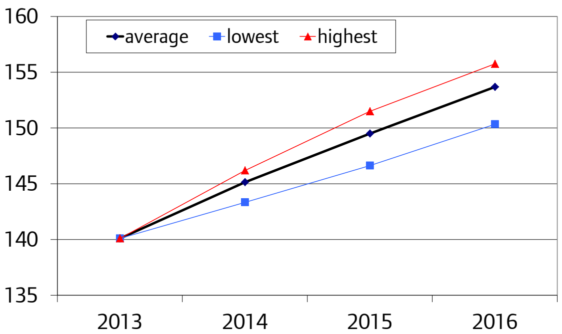
Household expenditure
(London household spending, constant year 2010, £ billion)

The consensus view is for positive household expenditure growth of 3.6 per cent in 2014, 3.0 per cent in 2015 and 2.8 per cent in 2016.

Annual growth (per cent)



Level (constant year 2010 £ billion)



Annual growth (per cent)					Level (constant year 2010, £ billion)			
	2014	2015	2016			2014	2015	2016
Average	3.6	3.0	2.8		Average	145	149	154
Lowest	2.3	2.3	2.5		Lowest	143	147	150
Highest	4.3	3.6	3.1		Highest	146	151	156

History: Annual growth (per cent)

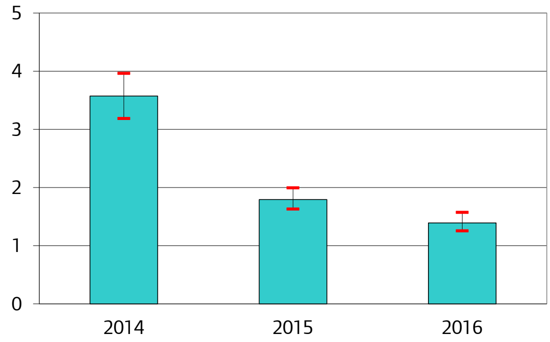
2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6.7	5.7	4.1	3.1	3.1	2.3	3.5	0.5	-2.7	1.0	-0.8	0.8	2.6

History: Level (constant year 2010, £ billion)

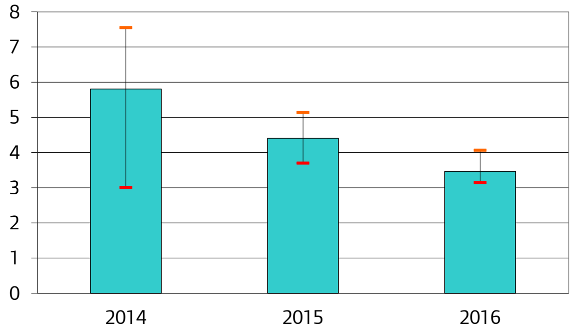
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
104.6	111.6	117.9	122.8	126.6	130.5	133.5	138.2	138.9	135.2	136.6	135.4	136.5	140.1

Output growth by sector (per cent annual change)
As the economic expansion continues it is expected that there will be positive output growth in all sectors.

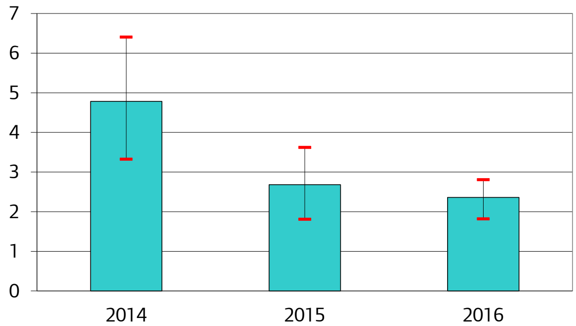
Manufacturing



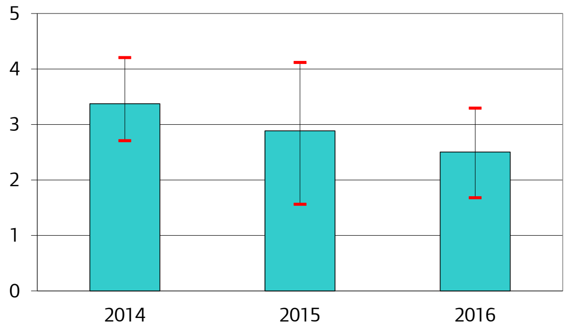
Construction



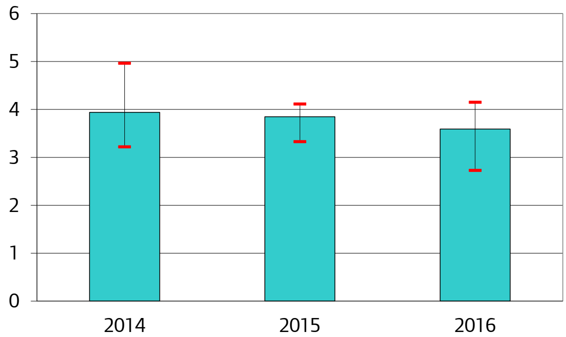
Distribution, accommodation and food service activities



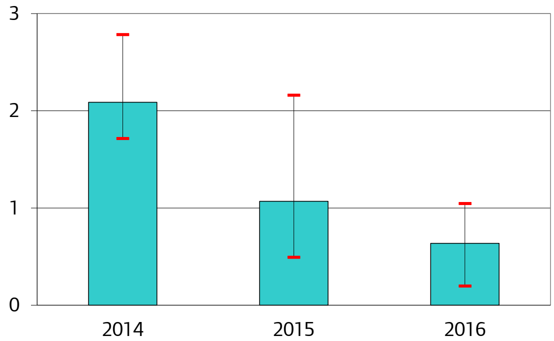
Transportation and storage



Finance and business



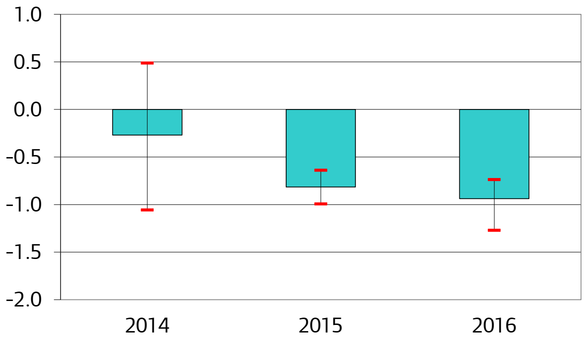
Other (public & private) services



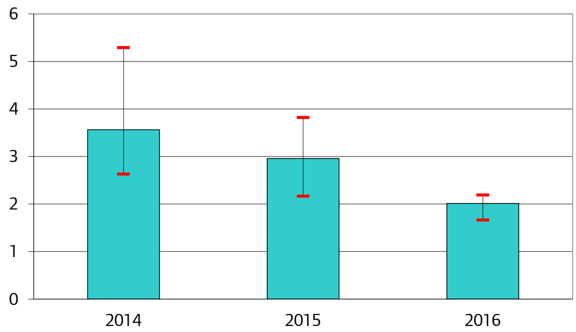
		2014	2015	2016			2014	2015	2016
Manufacturing	*Average*	3.6	1.8	1.4	**Construction**	*Average*	5.8	4.4	3.5
	Lowest	3.2	1.6	1.3		*Lowest*	3.0	3.7	3.1
	Highest	4.0	2.0	1.6		*Highest*	7.5	5.1	4.1
Distribution, accommodation and food service activities	*Average*	4.8	2.7	2.4	**Transportation and storage**	*Average*	3.4	2.9	2.5
	Lowest	3.3	1.8	1.8		*Lowest*	2.7	1.6	1.7
	Highest	6.4	3.6	2.8		*Highest*	4.2	4.1	3.3
Finance and business	*Average*	3.9	3.8	3.6	**Other (public & private) services**	*Average*	2.1	1.1	0.6
	Lowest	3.2	3.3	2.7		*Lowest*	1.7	0.5	0.2
	Highest	5.0	4.1	4.1		*Highest*	2.8	2.2	1.0

Employment growth by sector (per cent annual change)
Forecast employment growth is positive for all sectors, excluding the manufacturing sector, where employment is expected to fall for all years in the forecast period and other (public & private) services which is expected to decline in 2015 and 2016.

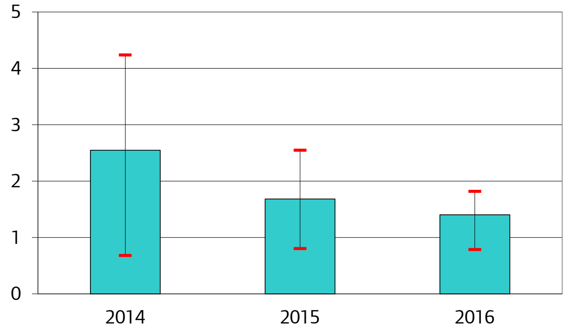
Manufacturing



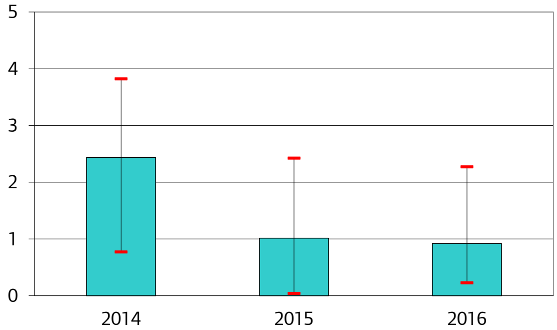
Construction



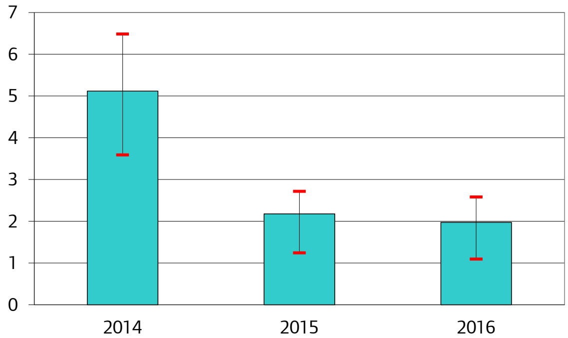
Distribution, accommodation and food service activities



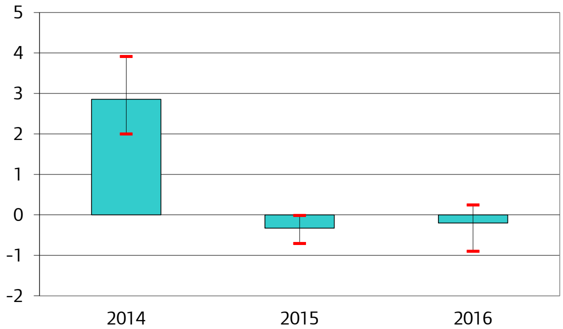
Transportation and storage



Finance and business



Other (public & private) services



		2014	2015	2016			2014	2015	2016
Manufacturing	*Average*	-0.3	-0.8	-0.9	**Construction**	*Average*	3.6	3.0	2.0
	Lowest	-1.1	-1.0	-1.3		*Lowest*	2.6	2.2	1.7
	Highest	0.5	-0.6	-0.7		*Highest*	5.3	3.8	2.2
Distribution, accommodation and food service activities	*Average*	2.5	1.7	1.4	**Transportation and storage**	*Average*	2.4	1.0	0.9
	Lowest	0.7	0.8	0.8		*Lowest*	0.8	0.0	0.2
	Highest	4.2	2.5	1.8		*Highest*	3.8	2.4	2.3
Finance and business	*Average*	5.1	2.2	2.0	**Other (public & private) services**	*Average*	2.9	-0.3	-0.2
	Lowest	3.6	1.2	1.1		*Lowest*	2.0	-0.7	-0.9
	Highest	6.5	2.7	2.6		*Highest*	3.9	0.0	0.2

5. The GLA Economics forecast

It is necessary to distinguish carefully between the GLA's long-term employment projections and this forecast, which contains the GLA's medium-term planning projections. Trend projections, by definition, do not incorporate cyclical variations. The actual course of output and employment will vary around this trend. Trend projections are essential for planning to provide capacity (such as office space, housing and transport) to accommodate the needs of the economy throughout and at the peak of the cycle, not just at its low points. For business planning (for example the likely course of revenue), estimates of actual numbers of jobs and actual output at any point in time are required. The medium-term planning projections provide these estimates. As time progresses and more data become available, it becomes possible to identify turning points in the data; whether underlying trends are continuing or new trends are being established. The source for all historic data in the following tables and charts is EE.

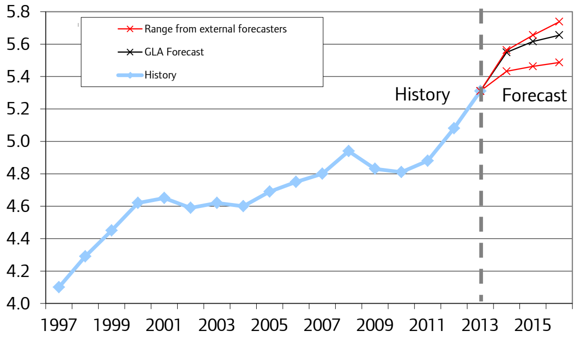
5.1 Results

Following the resumption of positive growth in 2010, output is expected to continue to rise between 2014 and 2016. Employment growth is forecast to slow after 2014.

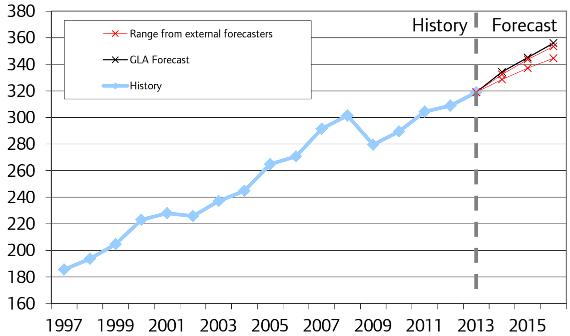
Household spending is expected to continue to grow between 2014 and 2016. Household income growth is also expected to be positive over the forecast period.

Figure 5.1: Trend and forecast employment and output

Employment (millions of workforce jobs)



Output (constant year 2010, £ billion)



Source: EE for historic data and GLA Economics' calculations for forecast

Table 5.1: Forecast and historical growth rates

(Annual % change)

	2008	2009	2010	2011	2012	2013	2014	2015	2016
GVA	3.4	-7.3	3.5	5.2	1.5	3.3	4.8	3.3	3.1
Workforce jobs	2.9	-2.2	-0.4	1.5	4.1	4.5	4.5	1.2	0.7
Household spending	0.5	-2.7	1	-0.8	0.8	2.6	2.2	2.3	2.6
Household income	1.8	1.9	1.4	-0.8	2.9	-0.1	2.2	2.3	2.5

Table 5.2: Forecast and historical levels

(constant year 2010, £ billion except jobs)

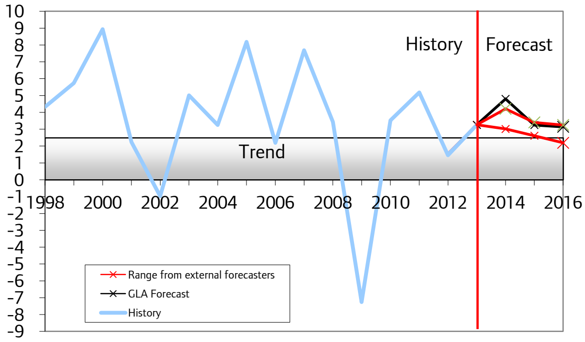
	2008	2009	2010	2011	2012	2013	2014	2015	2016
GVA	301.5	279.6	289.4	304.4	308.8	318.9	334.2	345.1	355.9
Workforce jobs (millions)	4.94	4.83	4.81	4.88	5.08	5.31	5.55	5.62	5.65
Household spending	138.9	135.2	136.6	135.4	136.5	140.1	143.2	146.4	150.2
Household income	158.1	161.1	163.4	162.1	166.8	166.5	170.2	174.1	178.5

Output
(London GVA, constant year 2010, £ billion)

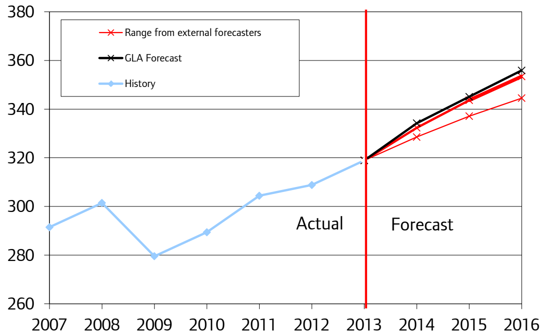
London's real GVA is forecast to grow between 2014 and 2016. Forecast growth rates are 4.8 per cent in 2014, 3.3 per cent in 2015 and 3.1 per cent in 2016.

The GLA Economics' forecast is more optimistic than the consensus average forecast over 2014-2016.

Annual growth (per cent)



Level (constant year 2010, £ billion)



Growth (annual per cent)					Level (constant year 2010, £ billion)				
	2013	2014	2015	2016		2013	2014	2015	2016
GLA	3.3	4.8	3.3	3.1	GLA	319	334	345	356
Consensus		3.7	3.1	2.8	Consensus		331	341	351

History: Annual growth (per cent)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
4.3	5.7	8.9	2.2	-1.0	5.0	3.3	8.2	2.2	7.7	3.4	-7.3	3.5	5.2	1.5	3.3

History: Level (constant year 2010, £ billion)

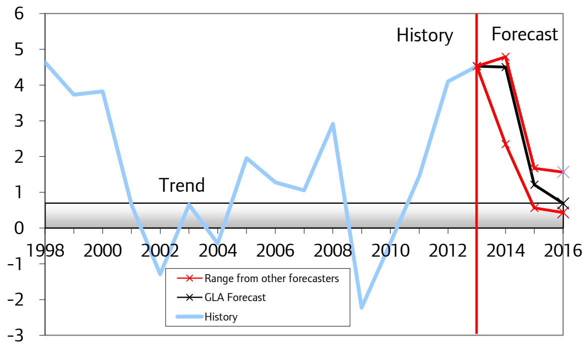
1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
185.6	193.6	204.7	223.0	228.0	225.8	237.1	244.8	264.9	270.7	291.5	301.5	279.6	289.4	304.4	308.8	318.9

Employment
(London workforce jobs)

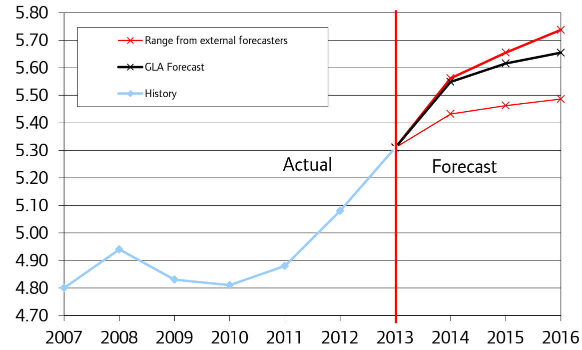
London's employment is forecast to rise between 2014 and 2016.

GLA Economics' forecast for employment growth is higher than the consensus average forecast in 2014 but more pessimistic for 2015-2016.

Annual growth (per cent)



Level (millions of workforce jobs)



Growth (annual per cent)						Level (millions of workforce jobs)				
	2013	2014	2015	2016			2013	2014	2015	2016
GLA	4.5	4.5	1.2	0.7		GLA	5.31	5.55	5.62	5.65
Consensus		3.5	1.4	1.2		Consensus		5.49	5.57	5.63

History: Annual growth (per cent)

1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
4.6	3.7	3.8	0.6	-1.3	0.7	-0.4	2.0	1.3	1.1	2.9	-2.2	-0.4	1.5	4.1	4.5

History: Level (millions)

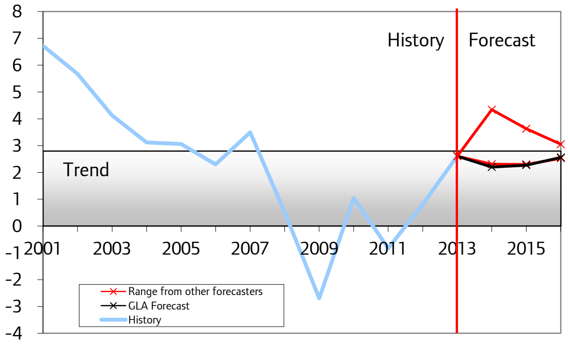
1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
4.10	4.29	4.45	4.62	4.65	4.59	4.62	4.60	4.69	4.75	4.80	4.94	4.83	4.81	4.88	5.08	5.31

Household expenditure
(London household spending, constant year 2010, £ billion)

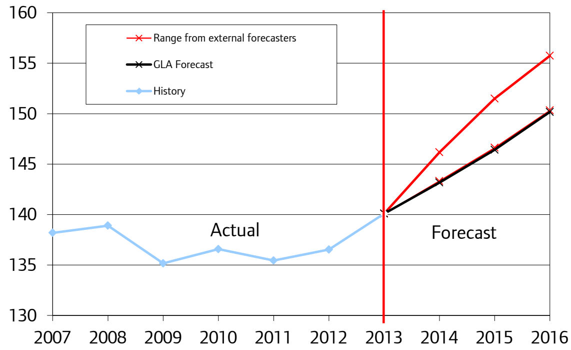
Growth in London's household spending is forecast to be positive over the forecast period.

GLA Economics' household spending growth forecast is lower than the consensus average over the forecast period.

Annual growth (per cent)



Level (constant year 2010, £ billion)



Growth (annual per cent)						Level (constant year 2010, £ billion)				
	2013	2014	2015	2016			2013	2014	2015	2016
GLA	2.6	2.2	2.3	2.6		GLA	140	143	146	150
Consensus		3.6	3.0	2.8		Consensus		145	149	154

History: Annual growth (per cent)

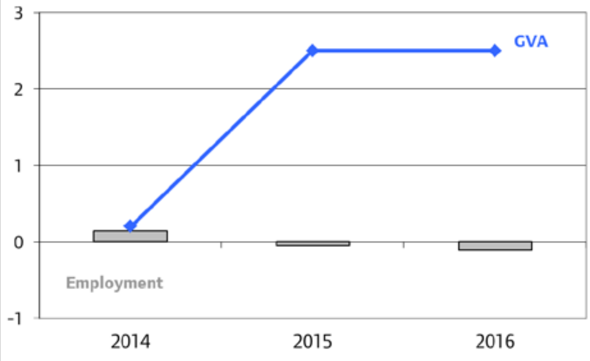
2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6.7	5.7	4.1	3.1	3.1	2.3	3.5	0.5	-2.7	1.0	-0.8	0.8	2.6

History: Level (constant year 2010, £ billion)

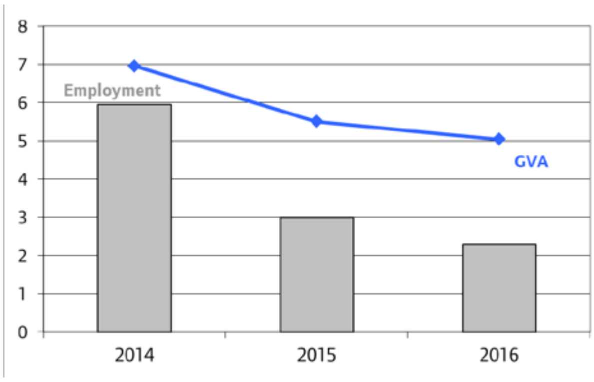
2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
104.6	111.6	117.9	122.8	126.6	130.5	133.5	138.2	138.9	135.2	136.6	135.4	136.5	140.1

Output and employment growth by sector (per cent annual change)

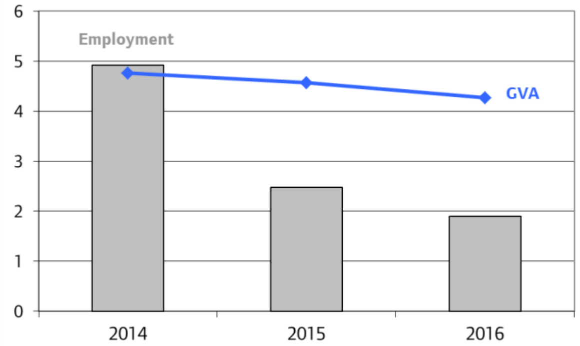
Financial services



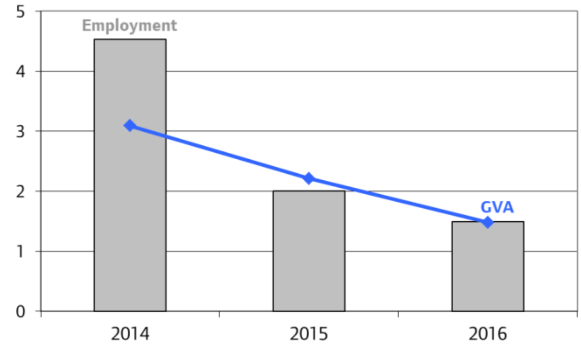
Business services



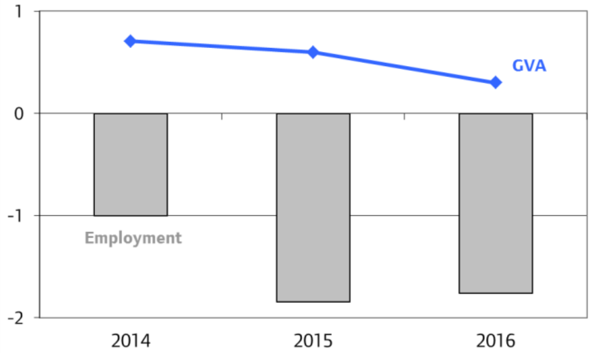
Finance and business (combined)



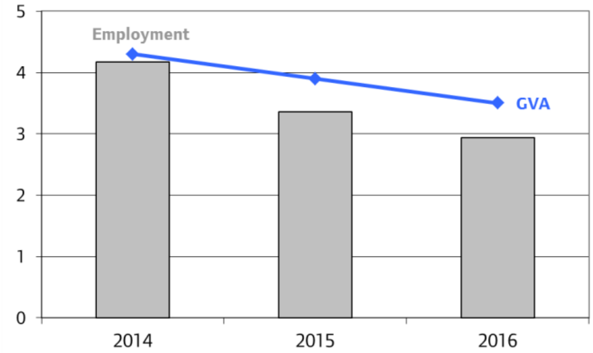
Distribution, accommodation and food service activities



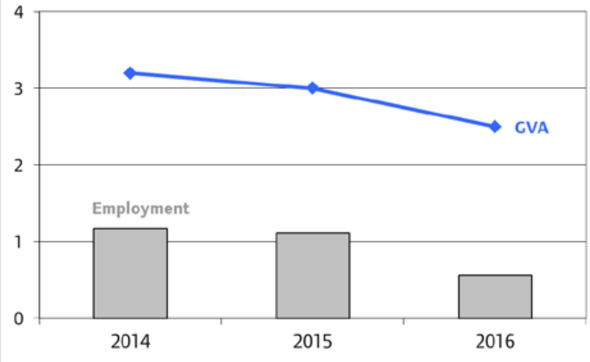
Manufacturing



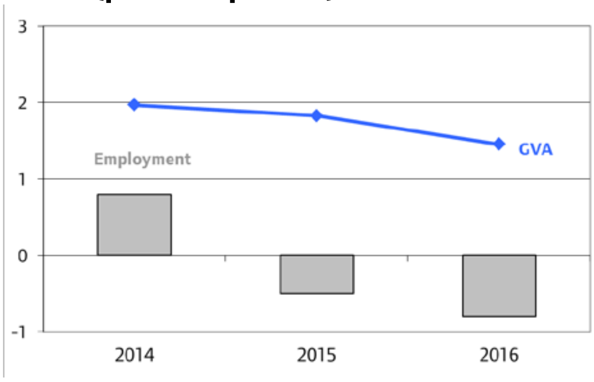
Construction



Transportation and storage



Other (public & private) services



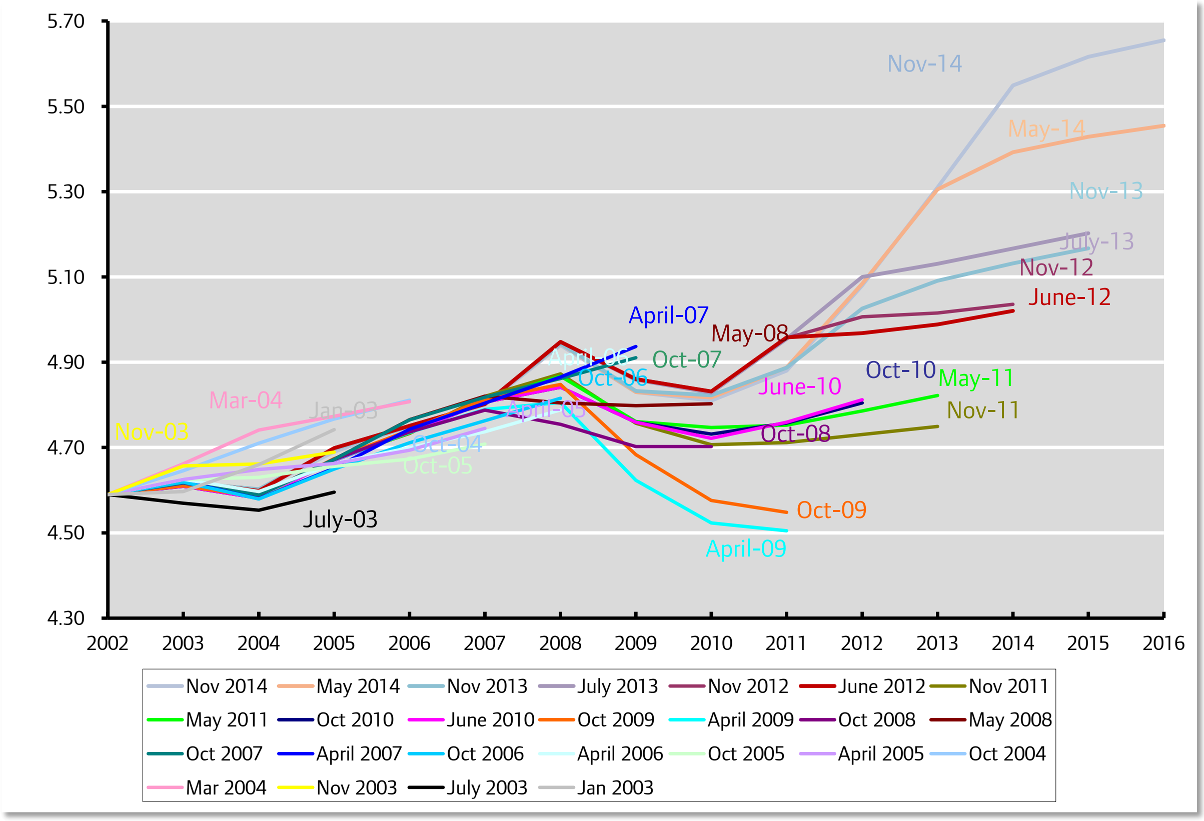
Output and employment growth by sector (per cent annual change)

	2014	2015	2016
Financial services			
Output	0.2	2.5	2.5
Employment	0.1	0.0	-0.1
Business services			
Output	7.0	5.5	5.0
Employment	6.0	3.0	2.3
Financial and business services combined			
Output	4.8	4.6	4.2
Employment	4.9	2.5	1.9
Distribution, accommodation and food service activities			
Output	3.1	2.2	1.5
Employment	4.5	2.0	1.5
Transportation and storage			
Output	3.2	3.0	2.5
Employment	1.2	1.1	0.6
Other (public & private) services			
Output	2.0	1.8	1.5
Employment	0.8	-0.5	-0.8
Manufacturing			
Output	0.7	0.6	0.3
Employment	-1.0	-1.8	-1.8
Construction			
Output	4.3	3.9	3.5
Employment	4.2	3.4	2.9
(Memo: non-manufacturing)			
Output	4.9	3.3	3.2
Employment	4.6	1.3	0.7

5.2 Comparison with previous forecasts

This section compares the current forecast with previous forecasts in this series. Since the base years for the forecasts change and the base data is continuously revised, the forecasts have been rebased into a common base year for the comparison in Figures 5.2 and 5.3. The most recent forecast for London's workforce jobs growth and output growth is higher than in the May 2014 forecast.

Figure 5.2: Employment – latest forecast growth rates compared with previous forecasts
(millions of workforce jobs)

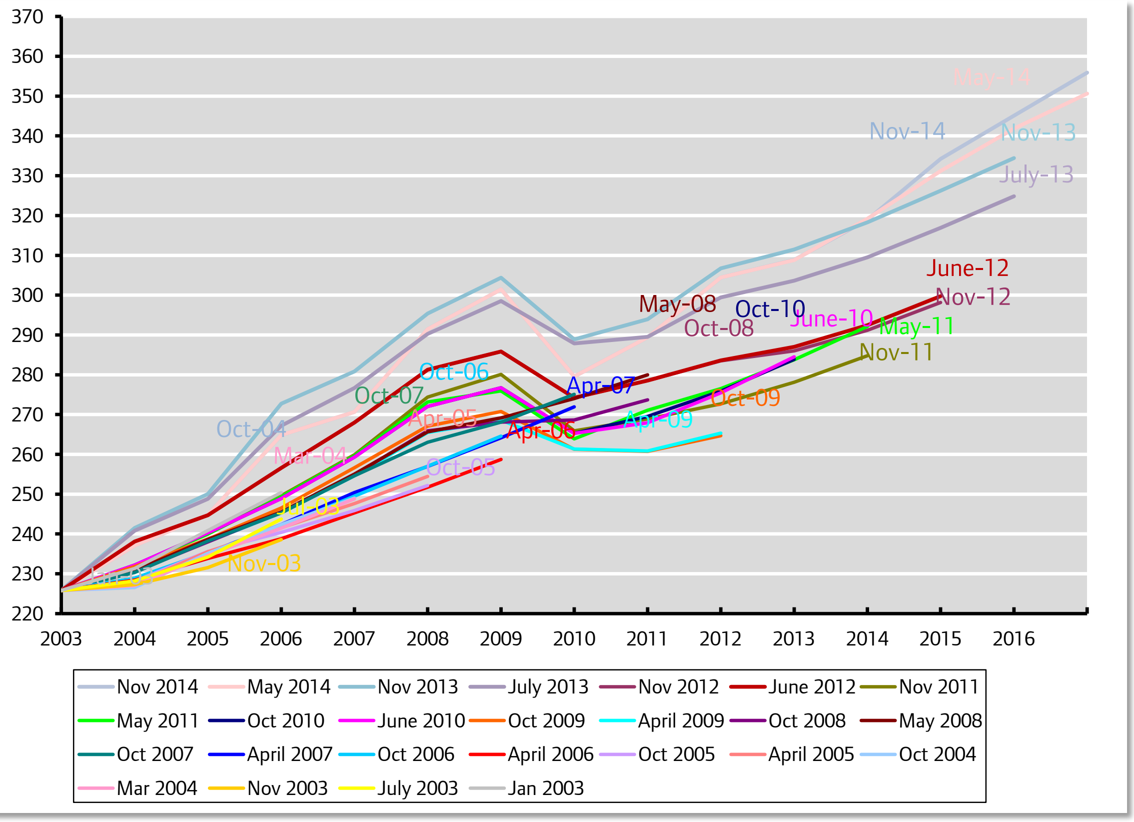


Source: Various London's Economic Outlooks

Table 5.3: Comparisons with previous published forecasts
(London workforce jobs, per cent annual growth)

Forecast	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Nov 2014	**0.7%**	**-0.4%**	**2.0%**	**1.3%**	**1.1%**	**2.9%**	**-2.2%**	**-0.4%**	**1.5%**	**4.1%**	**4.5%**	**4.5%**	**1.2%**	**0.7%**
May 2014												1.6%	0.7%	0.5%
Nov 2013											1.3%	0.8%	0.7%	
July 2013											0.6%	0.7%	0.7%	
Nov 2012										1.0%	0.2%	0.4%		
June 2012										0.2%	0.4%	0.6%		
Nov 2011									0.1%	0.4%	0.4%			
May 2011									0.1%	0.7%	0.8%			
Oct 2010								-0.6%	0.6%	1.0%				
June 2010								-0.8%	0.8%	1.1%				
Oct 2009							-3.4%	-2.3%	-0.6%					
April 2009							-3.8%	-2.2%	-0.4%					
Oct 2008						-0.7%	-1.1%	0.0%						
May 2008						-0.3%	-0.1%	0.1%						
Oct 2007					1.2%	0.9%	1.0%							
April 2007					1.2%	1.4%	1.5%							
Oct 2006				1.3%	1.1%	1.1%								
April 2006				0.8%	0.8%	1.1%								
Oct 2005			0.6%	0.4%	0.8%									
April 2005			0.3%	0.7%	1.1%									
Oct 2004		1.4%	1.2%	0.9%										
Mar 2004		1.7%	0.7%	0.7%										
Nov 2003	1.5%	0.1%	0.6%											
July 2003	-0.5%	-0.4%	0.9%											
Jan 2003	0.2%	1.4%	1.8%											

Figure 5.3: Output – latest forecast growth rates compared with previous forecasts
(constant year 2010, £ billion)



Source: Various London's Economic Outlooks

Table 5.4: Comparisons with previous published forecasts
(London GVA, per cent annual growth)

Forecast	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Nov 2014	**5.0%**	**3.3%**	**8.2%**	**2.2%**	**7.7%**	**3.4%**	**-7.3%**	**3.5%**	**5.2%**	**1.5%**	**3.3%**	**4.8%**	**3.3%**	**3.1%**
May 2014												3.8%	3.2%	2.6%
Nov 2013											2.2%	2.5%	2.5%	
July 2013											1.9%	2.4%	2.5%	
Nov 2012										0.9%	1.8%	2.4%		
June 2012										1.2%	1.9%	2.5%		
Nov 2011									1.4%	2.0%	2.4%			
May 2011									2.0%	2.6%	2.9%			
Oct 2010								1.6%	2.4%	2.9%				
June 2010								1.0%	2.8%	3.3%				
Oct 2009							-3.5%	-0.2%	1.5%					
April 2009							-2.7%	-0.2%	1.7%					
Oct 2008						0.8%	0.2%	1.9%						
May 2008						1.3%	1.8%	2.2%						
Oct 2007					3.3%	2.0%	2.6%							
April 2007					2.6%	2.8%	3.0%							
Oct 2006				3.1%	3.0%	3.0%								
April 2006				2.7%	2.6%	2.8%								
Oct 2005			2.0%	2.3%	2.6%									
April 2005			2.6%	2.5%	2.7%									
Oct 2004		3.8%	3.1%	2.7%										
Mar 2004		3.3%	2.9%	3.0%										
Nov 2003	0.7%	1.9%	3.0%											
July 2003	1.1%	2.6%	4.1%											
Jan 2003	2.4%	4.1%	4.0%											

Appendix A: From SIC 2003 to SIC 2007[112]

Before the Spring 2012 LEO GLA Economics used a 12-sector breakdown of the economy in our long-run employment projections – see Table A1. However, the switch over to SIC 2007 allows us both to use sector categories which are more relevant to London and to use a 'higher resolution' of sectors: we now use 16 sectors in our long-run employment projections. The main innovations in SIC 2007 were the new section J, "Information and Communication" and the breakdown of "Business Services" into three categories that are highly relevant to London.

Table A1 shows the broad level mapping of the SIC 2003 categories used in Working Paper 38: 'Employment projections for London by sector and trend-based projections by borough' (November 2009), into the SIC 2007 categories we use now.

Table A1: GLA SIC categories

SIC 2007 GLA Sectors	SIC 2003 GLA Sectors
Primary & utilities	Primary & utilities
Manufacturing	Manufacturing
Construction	Construction
Wholesale	Wholesale
Retail	Retail
Transportation and Storage	Transport & communications
Accommodation and food service activities	Hotels & restaurants
Financial and insurance activities	Financial services
Information and Communication	Business services
Professional, scientific and technical services and real estate	
Administrative and support service activities	
Public Admin and defence	Public Admin
Education	Health & education
Health	
Arts, entertainment and recreation	
Other services	Other services

Most of the new categories introduced by SIC 2007 relate to service activities. This is significant for London as many of its jobs are service sector based. For example Real Estate and Professional and Administrative Service activities have almost three times as many divisions under SIC 2007. Business activities (Section K under SIC 2003), which make up a large proportion of London's employee jobs, has moved to several areas in SIC 2007 including Sections L (Real Estate Activities), M (Professional, Scientific and Technical Activities) and N (Administrative and Support Services Activities). Section M includes legal and accounting activities, head office activities, management consultancy, architectural and engineering activities, scientific research and development, advertising and market research, other professional, scientific and technical activities and veterinary activities.

[112] GLA Economics, 'Employment projections for London by sector and trend-based projections by borough', Working Paper 51, December 2011.

Some of the business activities from Section K of SIC 2003 have also moved to Sections S (Other service activities) and J (Information and communication) in SIC 2007. Section J in SIC 2007 also includes publishing, film, broadcasting and news agencies in addition to telecoms and computer related activities. The sale of fuel is now considered a retail activity (in SIC 2003 it was part of motor trade), and recycling has moved from manufacturing to water supply and sewerage and waste management.

Appendix B: Explanation of terms and some sources

Definitions, differences, and revisions

Forecasting organisations use varying definitions of the regional indicators they supply. It is therefore not always possible to assign a completely consistent meaning to the terms used.

Throughout this report, as far as is compatible with the individual definitions applied by the forecasters, 'employment' refers to 'workforce employment' as defined in, the ONS publication *Labour Market Trends*. *London's Economic Outlook: December 2003* and *The GLA's Workforce Employment Series* provide a more detailed explanation of this term.

Forecasters' definitions are broadly compatible with this but in some cases differences arise from the treatment of small items such as participants in government training schemes or the armed forces. The GLA uses civilian workforce employment throughout.

Output refers to GVA, a term introduced by the 1995 revision of the European System of Accounts (ESA95). Some forecasters still estimate GDP, which differs slightly from GVA. Imputed rental income from the ownership of property is included in some cases but not in others. GLA Economics' *London's Economic Outlook: December 2003* provides a more detailed explanation of this term.

Estimates of nominal regional GVA are available up to 2012 from the ONS. So far only experimental official estimates of real regional GVA are available because of the difficulties in producing authoritative regional price deflators, although the ONS has produced regional price indexes for the year 2010[113]. Most regional forecasters supply their own estimates of London's real GVA. The real London GVA figures used in this GLA Economics' forecast are supplied by EE.

GVA estimates are less reliable than employment estimates because there is no independent source of information from which to judge the size of total sales by London-based agents. ONS estimates are calculated by the factor incomes method, beginning from wages paid to people with workforce jobs located in London. Profits are imputed on the basis of these earnings estimates from knowledge of national sectors of employment. Most regional forecasters adopt a variant of this technique.

Consumption refers to private consumption, otherwise known as household expenditure; in some cases the expenditure of non-profit organisations is included and in other cases it is not.

[113] Office for National Statistics, 'UK Relative Regional Consumer Price Levels for Goods and Services for 2010', 12 July 2011.

Appendix C: Glossary of acronyms

ADB	Asian Development Bank
bn	Billion
CE	Cambridge Econometrics
CEBR	The Centre for Economic and Business Research
CIPS	The Chartered Institute of Purchasing and Supply
CPI	Consumer Price Index
DCLG	Department for Communities and Local Government
ECB	European Central Bank
EE	Experian Economics
EERI	Effective Exchange Rate Index
EFSF	European Financial Stability Facility
EU	European Union
FT	Financial Times
GDP	Gross Domestic Product
GLA	Greater London Authority
GVA	Gross Value Added
GDP	Gross Domestic Product
HM Treasury	Her Majesty's Treasury
IFS	The Institute for Fiscal Studies
ILO	International Labour Organisation
IMF	International Monetary Fund
LEO	London's Economic Outlook
LFS	Labour Force Survey
LHS	Left Hand Scale
mn	Million
MPC	Monetary Policy Committee
OE	Oxford Economics
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics
OPEC	Organisation of Petroleum Exporting Countries
PMI	Purchasing Managers' Index
Q2	Second Quarter
QE	Quantitative Easing
RHS	Right Hand Scale
RPIX	Retail Price Index (excluding mortgage interest payments)
RPI	Retail Price Index
TfL	Transport for London

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