# 2 Forecasts of the Scottish economy

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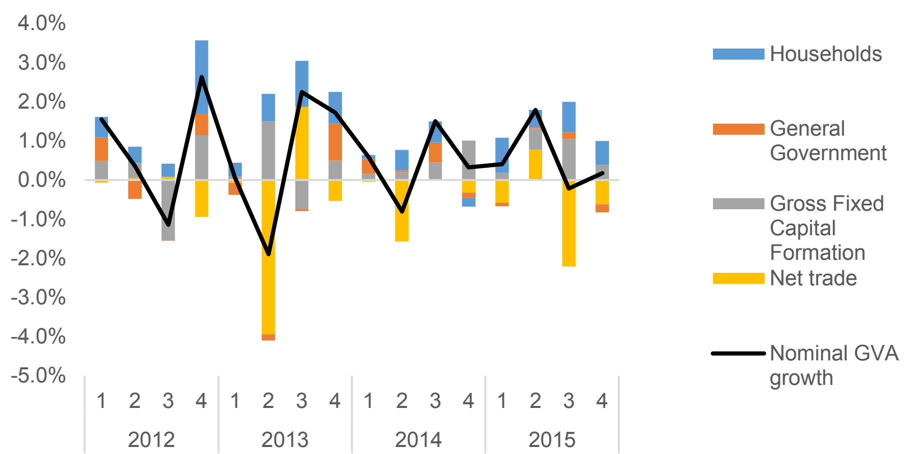
Abstract

Growth in Scotland continues to be weak, with survey indicators suggesting that the first half of 2016 has seen a period of subdued activity. Growth slowed during the second half of 2015, with the third quarter seeing a decline in GDP in Scotland, although growth was positive (1.9%) over the year as a whole. While the global environment continues to look particularly muted – with exports likely to slow further from already insipid levels, as global trade growth remains muted – the domestic drivers of Scottish economic growth through 2015 and the first half of 2016, specifically investment and household spending, appear to be weaker in Scotland than across the UK as a whole. We have therefore revised down our growth forecasts for 2016, 2017 and 2018, with an associated worsening of the Scottish labour market expected over this period.

**Households**

**Figure 1:** Contribution to nominal quarterly growth, Scotland, 2012q1 to 2015q4, % points q-on-q



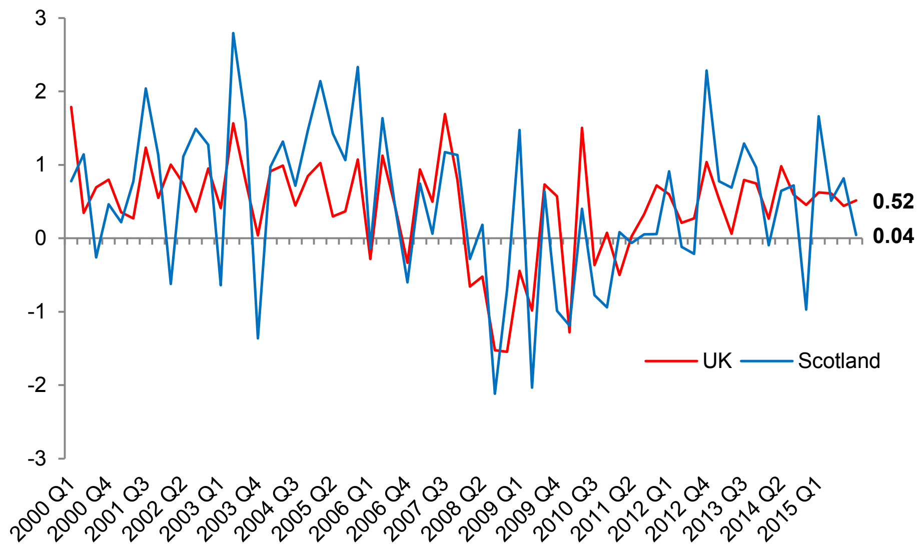

***Sources:*** *Scottish National Accounts Project (SNAP) data (Scottish Government) and Fraser of Allander Institute (FAI) calculations. The columns shows the percentage point contribution of each element to quarterly Scottish (nominal) GVA growth, while the solid black line shows nominal GVA growth for Scotland for each quarter, e.g. in Q3 2015, household and government and Gross Fixed Capital Formation (GFCF), i.e. investment, contributed positively to (nominal) growth in that quarter, while net trade contributed negatively.*

Figure 1 shows the contribution of each expenditure component to nominal growth in the Scottish economy over each quarter of the last four years. Three things are particularly striking. First, the negative contribution made by net trade over this period, with only two quarters in the last three years where trade contributed positively to Scottish growth (Q3 2013 and Q2 2015). For growth to be transformed, the performance of Scottish exports needs to be addressed. Second, investment (Gross Fixed Capital

Formation) has contributed positively in each quarter since the third quarter of 2013. The final quarter of 2014 for example, saw positive nominal growth which was exclusively due to investment growth expenditure according to this data. (Real growth was also positive in this quarter). The contribution of investment through 2015 in offsetting potentially lower growth rates for Scotland is also clear. Third, Scottish households expenditure continues to be driving a major portion of Scotland's recent economic performance.

With this context in mind trends in Scottish household expenditures become important for Scottish growth. The latest results of the Retail Sales Index for Scotland suggest that Scottish household spending in the first quarter of 2016 grew in real terms by 0.1%, while in the same period it grew by 0.3% in the UK. This weaker spending growth would be consistent with a worsening of the Scottish labour market compared to the UK over the same period. We will return to this later.

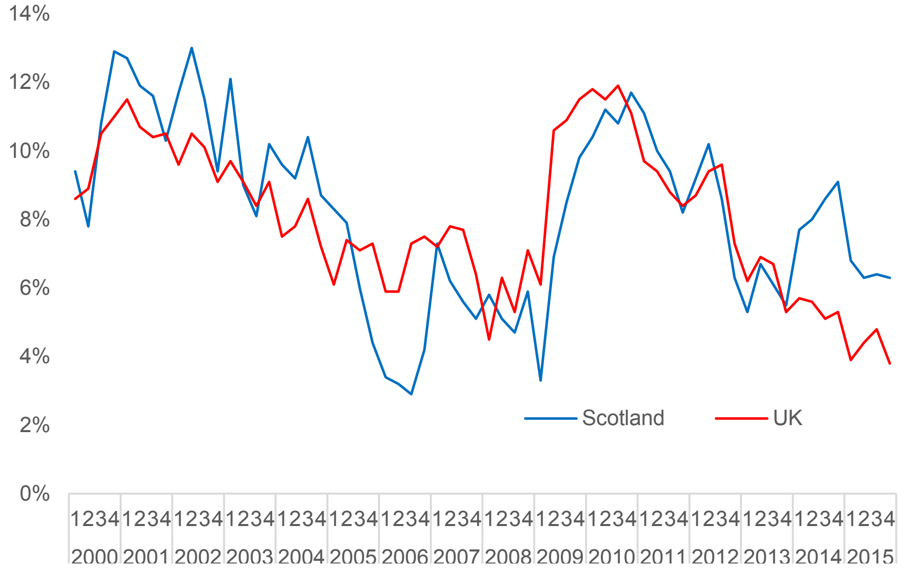
**Figure 2:** Household real consumption spending growth, Scotland and UK, 2000q1 to 2015q4, % q-on-q




***Sources:*** *Scottish National Accounts Project (SNAP) data (Scottish Government) and UK Quarterly National Accounts (National Statistics) and FAI calculations.*

Figure 2 shows the growth in quarterly real household spending for both Scotland and the UK, as calculated from official figures produced separately by the ONS and Scottish Government. This shows that the growth in household spending in Scotland typically coincides with that of the UK as a whole, but can be more volatile. The latest quarter for which data are available (Q4 of 2015) suggests that growth of household spending was only 0.04% in Scotland, and 0.52% in the UK. Figure 3 shows the household savings rate in both Scotland and the UK. What is evident is firstly the rapid reduction in the savings rate in Scotland between the end of 2014 and start of 2015 – which then saw household spending support growth through 2015 (Figure 1) – and second, its relative stability since then. Third, the Scottish savings rate is roughly two percentage points higher than for the UK as a whole. This suggests that, other things being equal, Scottish households have a lower average propensity to spend and likely a lower marginal propensity to spend. Further, this higher savings rate is one reason why the positive consequences of lower energy prices from the rapid reduction in the price of oil at the end of 2014 and start of 2015 did not translate into more positive household spending and therefore overall economic growth through 2015.

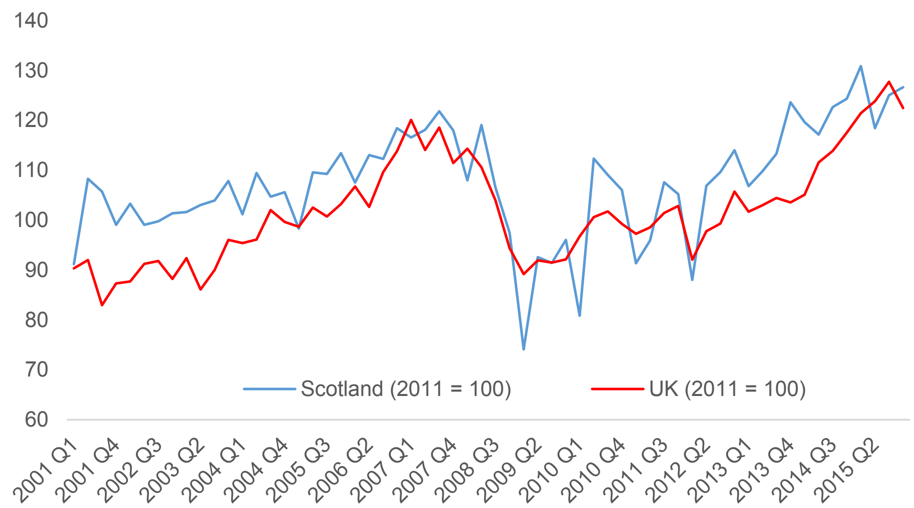
**Figure 3:** Household savings ratio, Scotland and UK, 2000q1 to 2016q4, %




***Sources:*** *Scottish National Accounts Project (SNAP) data (Scottish Government) and UK Quarterly National Accounts (National Statistics) and FAI calculations*.

**Investment**

**Figure 4:** Real gross fixed capital formation, Scotland and the UK, 2010q1 to 2015q4




***Sources:*** Scottish National Accounts Project (SNAP) data (Scottish Government) and UK Quarterly National Accounts (National Statistics) and FAI calculations.

Figure 4 shows the recent developments in investment in both Scotland and the UK, which are again calculated from official figures produced separately by the ONS and Scottish Government. They show that under these revised data, that the level of investment relative to its 2011 level is broadly similar between Scotland and the UK. Currently, the level of investment is around 22% (UK) and 26% (Scotland) above their 2011 levels. What is also evident is that the Scottish level of investment recovered more quickly than in the UK – through 2012 and 2013, for instance, the "gap" between the two reached as much as 15 percentage points (although the Scottish series is again more volatile than that for the UK). Investment levels in Scotland and the UK appear to have converged in the last year, suggesting a slowing of investment spending in Scotland compared the UK as a whole.

**Trade**

The most recent data on Scottish manufacturing exports to the rest of the world were released on the 20th April 2016 ("Index of Manufactured Exports"). These showed that in the final quarter of 2015, exports to the rest of the world *fell* by 1.5%: the second consecutive quarter when Scottish (manufacturing) exports (to the rest of the world) fell in real terms. There were particularly pronounced falls in exports of Drink – down 5.2% - as well as in Electrical and Instrument Engineering (down 3.5%).

Table 1 shows the forecasts for growth in key global markets for Scottish products through 2016 and 2017. The export markets used here differ from those used in our March 2016 Commentary. They have been selected on the basis of the 'ultimate' export destinations for Scottish goods, as identified in additional questions now included in the Global Connections Survey (GCS) - rather than by the countries noted in GCS as the 'first destinations' for Scottish goods and services. The latter measure identifies countries that are not necessarily the final destination market, and so is likely to overstate the role of markets through which Scottish exports merely transit (e.g. the Netherlands registers as Scotland's largest EU market on the GCS ranking, while on our preferred measure it is not even in the top ten). Table 1 identifies the top seven "future export destinations" as reported in GCS.

The latest forecasts for Scotland's key international markets have been revised down over the last few months. Table 1 shows that the OECD have revised down their forecasts for the USA (down 0.7 percentage points), Norway (down 0.5 percentage points) and the UK (also down 0.7 percentage points). Growth in the US, has been undercut by weak domestic demand, while many emerging economies – in particular oil producers – have seen reductions in growth. Global trade – a good barometer of growth in economic activity more generally – remains subdued and is only expected to increase slightly, and continues to grow more slowly than GDP growth. This is partly driven by an increasing on-shoring of value chains in production – particularly by China – which could limit both trade growth, as well as lower innovations from learning from exporting firms, and may have a disproportionate effect on exporting firms from smaller countries who rely upon selling externally for their growth. The OECD's most recent Economic Outlook talked about the need for "comprehensive national policies, incorporating more proactive fiscal prioritisation and revived structural ambition". The recovery through 2017 appears more uncertain, and growth in key Scottish export markets – such as the UK as a whole – have been revised further down for that period.

**Table 1:** Economic growth forecasts for 2016 and 2017 for Scotland's key export destinations, including UK, Japan and the Euro area, % p.a.

| | 2016 | | | | 2017 | | |
|---|---|---|---|---|---|---|---|
| | Rank (2014 exports[1]) | IMF (April 2016) | OECD (June 2016) | Revision since Dec '15 | IMF (April 2016) | OECD (June 2016) | Revision since Dec '15 |
| USA | 1 | 2.4 | 1.8 | -0.7 | 2.5 | 2.2 | -0.2 |
| China | 13 | 6.5 | 6.5 | 0.0 | 6.2 | 6.2 | 0.0 |
| Germany | 4 | 1.5 | 1.6 | -0.2 | 1.6 | 1.7 | -0.3 |
| France | 3 | 1.1 | 1.4 | +0.1 | 1.3 | 1.5 | -0.1 |
| Australia | 15 | 2.5 | 2.6 | 0.0 | 3.0 | 2.9 | -0.1 |
| Norway | 5 | 1.0 | 0.6 | -0.5 | 1.5 | 1.3 | -0.6 |
| Canada | 16 | 1.5 | 1.7 | +0.3 | 1.9 | 2.2 | +0.1 |
| United Kingdom | - | 1.9 | 1.7 | -0.7 | 2.2 | 2.0 | -0.3 |
| Japan | 20 | 0.5 | 0.7 | -0.3 | -0.1 | 0.4 | -0.4 |
| Euro area | - | 1.5 | 1.6 | -0.2 | 1.6 | 1.7 | -0.2 |

***Sources:*** World Economic Outlook Update (International Monetary Fund, IMF, April 2016) and Economic Outlook (Organisation for Economic Cooperation and Development, OECD, June 2016) *Notes*: [1] = Sourced from Export Statistics Scotland. "-" indicates that a country is not listed as a destination for international exports from Scotland.

**Forecasts for the Scottish economy: in detail**

In this section we look at the likely impacts on both the domestic and external economic environment for Scotland over the years 2016, 2017 and 2018. This is the first time that we have forecast for 2018.

We noted earlier that both net trade and government spending contributed negatively to nominal growth in the final quarter of 2015, with growth supported by household spending and investment (GFCF). Both of these two elements however were down between the third and fourth quarters of 2015. Additionally, the range of surveys for Scottish economy activity suggest an ongoing weakness in business investment intentions. *For this reason, we have revised down our forecast for the growth of investment through 2016 and 2017.* It is plausible that some of the reductions in expected business investment could be driven by fears of uncertainty over a vote in favour of "Brexit" in the EU referendum on the 23rd of June 2016. What is more surprising perhaps is the broad evidence for reductions in investment, across most sectors, and most firm sizes, where one might expect a more heterogeneous picture. This perhaps suggests that there are more systemic weaknesses to the economic picture than those to be resolved by the outcome of the EU referendum.

We continue to produce forecasts and update them on a monthly basis at www.nowcastingscotland.com in an attempt to "nowcast" economic growth currently (and *in advance* of official measures, which are produced with a significant lag). The latest nowcasts estimate growth in the first and second quarters of 2016 to be 0.28% and 0.36% respectively. Both are only slightly up from the growth seen in the final quarter of 2015 (0.22%), and well below the growth rates seen in 2014. Our nowcasts appear to offer little evidence for optimism for anything approaching trend growth for the Scottish economy through the first half of 2016.

The Scottish economy continues to be impacted by the continuing lower price of oil (and the knock-on effect across the UK economy, and the disproportionate impact upon Scotland). Prices have risen above $50/barrel in the last few weeks, and up from the $35/barrel seen during January 2016. This will however have no immediate impact on exploration and production drilling work, as such decisions take time to lead to visible signs of orders and investment. DECC figures report that in the final quarter of 2015 only a single exploration well was drilled in the UK continental shelf (UKCS), alongside 20 development wells – the second lowest number of wells drilled since the quarterly series began in 1998. Evidence from a number of business surveys of firms with activity in the UKCS suggest that continued redundancies are expected across the sector. Shell's recent announcement of (a further) 475 jobs losses from its UK and Ireland workforce (and reductions by other firms across the sector) points to a sector where confidence remains at historically weak levels.

Latest forecasts for key international markets have been revised down over the last few months – as noted earlier – the IMF predict that the global economy is now expected to grow by 3.2% in 2016, down by 0.2% from its January 2016 forecast. In part this reflects continued slowdown in the Chinese economy, which – along with market specific factors – is continuing to depress commodity prices. They point to a general weakness in investment and trade and rising political factors that are impacting on uncertainty, which is expected to depress activity through the rest of this year. On the IMF's forecasts, global growth is expected to increase in 2017 by 3.5%, particularly driven by an increase in emerging and developing economies. *The lower rate of global growth, in particular in Scotland's main export markets, which are largely developed economies cause us to revise down our forecast for the rate of export growth through this year and next.*

Household spending has positively contributed to Scotland's recent economic performance. The latest evidence suggests that conditions in the Scottish labour market overall have worsened through the end of 2015 and the start of 2016, and that Scotland is diverging from the UK as a whole. The unemployment rate in Scotland increased in the first quarter of the year, while it was broadly unchanged across the UK as a whole. The unemployment rate in Scotland in the first quarter of 2016 was 6.2%, more than one percentage point above the unemployment rate for the UK in the same period (5.1%). At the same time, the region of the UK with the largest fall in the employment rate was Scotland, down to 73.1% (UK overall was 74.2%). The number of people in work fell by 53,000 in the final quarter of 2015 while the number unemployed rose by 8,000. *For these reasons we have slightly revised down our forecasts for household spending growth during 2016 and 2017.*

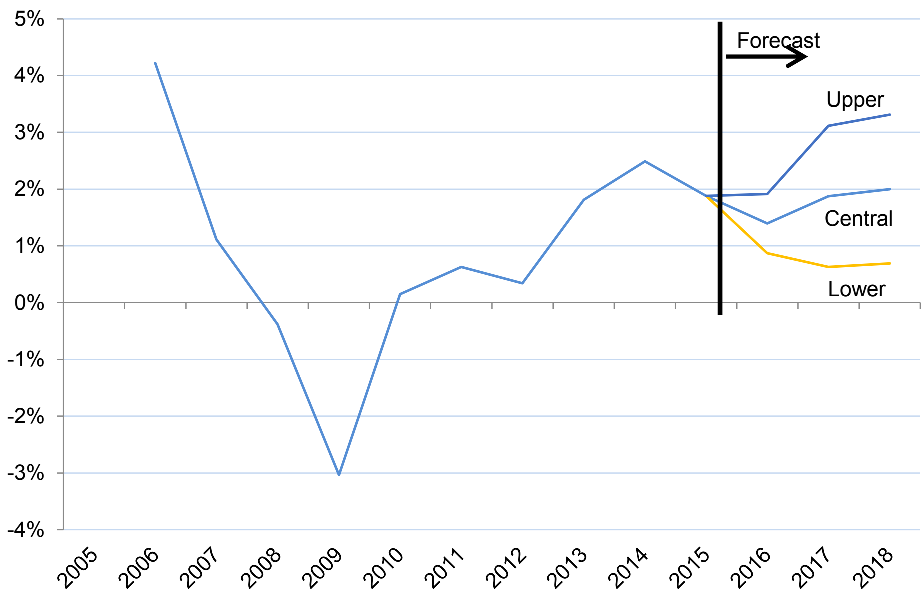
**Fraser of Allander Institute forecasts: 2016, 2017 and 2018**

In this section we forecast year-on-year real growth in Scotland's key economic and labour market variables and do so for all variables for 2016, 2017 and – for the first time –2018. Our forecasts cover Scotland's Gross Value Added (GVA), employee jobs and ILO unemployment. The model used is multi-sectoral, and where useful, results are reported to broad sectoral categories.

We begin with the forecasts for GVA growth in the Scottish economy. The growth performance of Scotland between 2010 and 2015 and our forecasts for the period to 2018 are shown in Figure 5. We note that the outturn data for the final quarter of 2015 confirmed growth of 1.9% for last year, the same as our forecasts for growth in that year from both our March 2016 and November 2015 commentaries. Incidentally, this 1.9% growth rate was forecast the very first time that we forecast growth for 2015, in our March 2013 Commentary forecast. Figure 5 also includes our upper and lower forecasts of growth. As previously, the range around the central forecast is based on our past forecast accuracy of the first release of growth data for the year.

Based on FAI forecasts between 2000 and 2015, the mean absolute error of forecasts (i.e. the difference between the rate forecast and the outturn rate from official sources) made around June and growth in that year (i.e. 2016 in this forecast) is 0.52 percentage points. The mean absolute errors of forecast errors made in summer for the year ahead (i.e. our current forecast for 2017) are 1.24 percentage points. This gives the range for the upper and lower bands in 2016 and 2017. While our past forecast error for the year subsequent to the following year (i.e. made now for the calendar year 2018) forecast horizon is 1.31 percentage points. This is used to give the range around our central forecast for GVA growth in 2018.

**Figure 5:** FAI Forecasts of annual real GVA (%) growth for Scotland, 2010 to 2018




***Sources:*** © Fraser of Allander Institute, June 2016

Relative to our March 2016 forecasts, we have now revised *down* our short-term forecasts for growth in the Scottish economy. Our central forecast for GVA growth in 2016 is now 1.4% (i.e. a downward revision of 0.5 percentage points) and largely driven by slow investment growth, weak survey results suggesting a contraction of domestic investment activity and worsening export performance over the rest of 2016. Our forecast for 2017 has been revised down from 2.2% to 1.9%, due to a further weakening of both local (i.e. Scottish and rest of the UK "domestic" demand) and a further worsening of the global growth picture over the last four months. Our first forecast for growth in 2018 is that the Scottish economy will grow by 2.0%. Thus, in the coming three years, we forecast growth in Scotland to not exceed its pre-recession trend growth rate.

For comparison purposes, in March of 2016, the UK's Office for Budgetary Responsibility (OBR) forecast UK growth in 2016 of 2.0%, while in May 2016 the median of independent forecasts for the UK in 2016 - made in the last three months - was for growth of 1.9%. The OBR's forecast for growth in 2017 is 2.2%, while the median of new forecasts for that year is 2.2%.

In addition to the aggregate growth forecasts in our central scenario, Table 3 presents our forecasts for GVA growth in 2016, 2017 and 2018 for three broad sectoral groupings within the Scottish economy: "Production", "Construction" and "Services".

**Table 3:** FAI Forecast Scottish GVA growth (%) by sector, 2016 to 2018

| | 2016 | 2017 | 2018 |
|---|---|---|---|
| **GVA** | **1.4** | **1.9** | **2.0** |
| Production | 1.8 | 2.1 | 2.2 |
| Construction | 0.7 | 1.1 | 1.2 |
| Services | 1.3 | 1.8 | 1.9 |

***Source:*** © Fraser of Allander Institute, June 2016

**Employment and unemployment**

Detailed commentary on recent developments in the Scottish labour markets can be found in the Overview of the Scottish Labour Market section of this *Commentary.* Here we present our forecasts for the number of employee jobs in the Scottish economy. We forecast the number, sectoral breakdown and percentage changes in employee jobs at the end of 2016, 2017 and 2018 respectively, as well as the ILO measure of unemployment over the same period.

The most up to date employee jobs series for Scotland shows that there were 2,417,000 employee jobs in Scotland in the final quarter of 2015, an increase of 30,000 jobs from the end of 2015. The rate of jobs growth has slowed over the years since 2013: with 66,000 and 40,000 employee jobs added in 2013 and 2014 respectively.

Our new forecasts for employee jobs are shown in Table 4, alongside a sectoral breakdown of employee job numbers. The number of total employee jobs is forecast to increase in each year, however the number of jobs forecast to be added in 2016, 2017 and 2018 have been revised down slightly since our March 2016 forecasts. The number of jobs at the end of 2016 is forecast to be 2,445,650, an increase of 1.2% during 2016. Our new forecast is that the Scottish economy will add 28,650 jobs in 2016, down by around 8,000 from our March 2016 forecast. Thus, we forecast a continuation of the slowing rate of absolute jobs growth - seen since 2013 – to continue through to 2016. Jobs growth is forecasted to increase in 2017, with a net addition of 39,450 jobs. The net change in employee jobs over the next three years, consistent with our upper, central and lower forecasts, is shown in Table 5.

**Table 4:** FAI Forecasts of Scottish employee jobs ('000s, except where stated) and net change in employee jobs in central forecast, 2016 to 2018

| | 2016 | 2017 | 2018 |
|---|---|---|---|
| Total forecast employee jobs, Dec | 2,445,650 | 2,485,100 | 2,532,500 |
| **Net forecast annual change (jobs)** | **28,650** | **39,450** | **47,400** |
| % change from previous year | 1.2 | 1.6 | 1.9 |
| | | | |
| Agriculture (jobs, 000s) | 26 | 27 | 28 |
| Annual change | -350 | 350 | 1,800 |
| Production (jobs, 000s) | 262 | 267 | 272 |
| Annual change | 3,650 | 4,650 | 5,350 |
| Construction (jobs, 000s) | 141 | 143 | 145 |
| Annual change | 1,050 | 1,650 | 2,000 |
| Services (jobs, 000s) | 2,016 | 2,049 | 2,087 |
| Annual change | 21,800 | 32,850 | 38,250 |

*Note: Absolute job numbers are rounded to the nearest 50.*
***Source:** © Fraser of Allander Institute, June 2016*
Scottish unemployment rate since 2006 as well as our ILO unemployment rate forecasts under the central, upper and lower scenarios to 2017.

**Table 5:** FAI Forecast Scottish net annual change in employee jobs in central, upper and lower forecast, 2016 to 2018

| | 2016 | 2017 | 2018 |
|---|---|---|---|
| Upper | 37,950 | 67,550 | 79,200 |
| **Central** | **28,650** | **39,450** | **47,379** |

| | | | |
|---|---|---|---|
| Lower | 19,400 | 10,200 | 16,400 |

*Note: Absolute job numbers are rounded to the nearest 50.*
*Source: © Fraser of Allander Institute, June 2016*

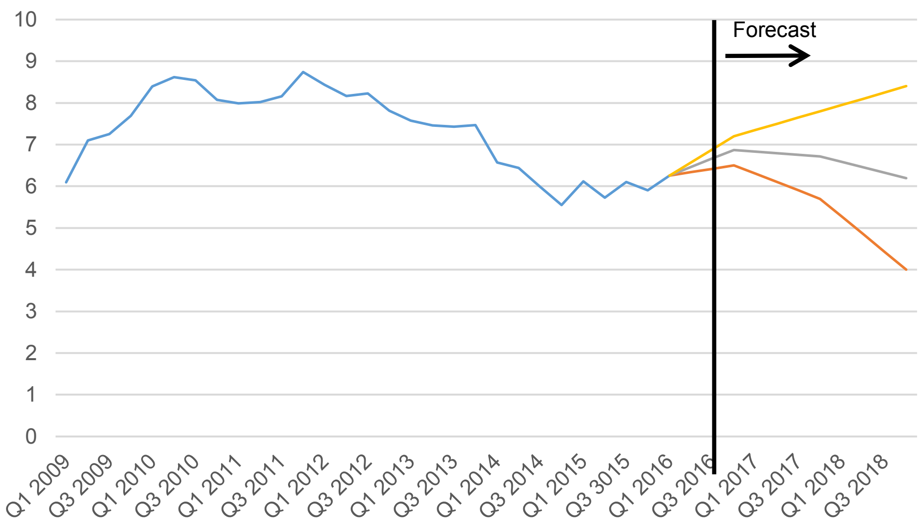
We present our forecasts for unemployment at the end of 2016, 2017 and 2018 in our central scenario in Table 6. In line with the forecasts produced since June 2013, we report the forecast number (and rate) of those unemployed using the International Labour Organisation (ILO) definition. This is preferred to the claimant count measure as it gives a more complete picture of the extent of labour resources available for work but unable to find work, and so is a better measures of the level of spare capacity in the Scottish labour market.

**Table 6:** FAI Forecast of Scottish unemployment in central forecasts, 2016 to 2018

| | 2016 | 2017 | 2018 |
|---|---|---|---|
| ILO unemployment (numbers) | 183,850 | 181,050 | 168,050 |
| **Rate (%)[1]** | **6.9** | **6.7** | **6.2** |

*Source: © Fraser of Allander Institute, June 2016*
*Note: Absolute numbers are rounded to the nearest 50. [1] = Rate calculated as total ILO unemployment divided by total of economically active population aged 16 and over. The most recent labour market statistics are detailed in the Labour Market section.*

**Figure 5:** Scottish ILO unemployment rate, 2009 to 2018 including forecasts from 2016




***Sources:*** ONS and Fraser of Allander Institute forecasts, June 2016

In March 2016 we forecast that the unemployment rate would fall slightly to 5.7% (from its 2015 value of 5.8%) by the end of 2016, with a level of unemployment of 153,350. The clear worsening of many labour market indicators over the last four months, the continued weak survey evidence for a rebounding economic recovery and the revision downwards of growth performance of Scotland in 2016 cause us to revise up our forecasts for unemployment in both levels and rates. Our latest forecasts for the unemployment rate in Scotland for the end of 2016 is now 6.9%, with our forecast for this to fall to 6.7% and then 6.2% by the end of 2017 and 2018 respectively. Figure 5 shows the trajectory of the ILO.

Dr Grant Allan
10 June 2016

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