The Fraser of Allander Institute is Scotland’s leading economic research institute with over 40 years of experience researching, analysing and commentating on the Scottish economy. It is widely regarded as Scotland’s expert authority on economic policy issues.

The ‘Fraser’ undertakes a unique blend of cutting-edge academic research, alongside applied commissioned economic consultancy in partnership with business, local and national government and the third sector.

The Fraser of Allander has a unique mix of staff expertise, experiences and backgrounds that enables it to bring together cutting-edge economic methods and techniques with practical policy solutions and business strategies.

For over 40 years, The Fraser of Allander Institute Economic Commentary has been the leading publication on the Scottish economy providing authoritative and independent analysis of the Scottish economy.

The Fraser of Allander Institute is a research institute of the Department of Economics and is part of Strathclyde Business School, Scotland’s leading business school.
At a glance

- There remains a high degree of uncertainty around near-term forecasts for Scotland’s economy in the light of the EU referendum outcome.

- On balance, we continue to forecast a weak outlook with growth below trend to 2019. This is on the back of continued growth in the 2nd half of 2016, albeit at a slow pace. We expect the economy to have grown by around 1% this year, well below the UK.

- But the UK economy has held up well since June and this momentum is likely to spill-over into 2017 allowing us to make a welcome upward revision to our Scottish outlook. Moreover the fall in Sterling, Bank of England stimulus, signs that the UK will press for a transition and not a ‘cliff-edge’ when leaving the Single Market, and a slightly less pessimistic environment for the North Sea, have all helped to improve the near-term outlook relative to our July forecasts.

- However, these effects will only partially mitigate – rather than fully offset – the challenges posed by Brexit. Consumption and investment growth are likely to slow significantly in 2017 and 2018 relative to our pre-referendum forecasts. Unemployment will be higher and earnings will be lower with working households feeling the pinch.

- Our central forecast is for growth of 1.1% in 2017, 1.3% in 2018 and 1.6% in 2019 – a revision of around +0.15 % points per quarter for 2017. However, these could change materially under different circumstances. During these uncertain times we recommend that just as much focus is given to the full range of estimates that underpin this outlook as to any specific estimates.
Summary

The Scottish economy returned to growth during the second quarter of 2016, and most indicators suggest that growth has continued – albeit at a relatively slow pace – through the remainder of the year.

Employment in Scotland remains close to record levels.

However, Scotland continues to lag the UK with Scotland’s recent growth rate just 1/3 of that in the UK. We expect Scotland to have grown by around 1% this year, broadly in line with our July forecast.

Whilst unemployment has fallen sharply recently, this appears to stem, not from people finding work, but from people exiting the labour force.

With new tax powers coming on-stream in April, it is vital that the gap with the UK is closed.

Overall, the UK economy has held up well since the EU referendum. There are a number of reasons for this.

Firstly, stronger than expected growth in early 2016 has helped propel the economy through the summer and autumn uncertainty.

Secondly, sentiment was boosted by the larger than anticipated stimulus from the Bank of England – which included a further cut in interest rates.

Thirdly, the value of Sterling has fallen sharply. In the short-term, this is supporting exporters and boosting overseas income, but at the cost of higher inflation.

Fourthly and arguably most importantly, the immediate risk during July and August was a sharp loss of confidence. After an uncertain start, the UK Government – supported by the Bank of England – has acted swiftly to counter any threats to overall macroeconomic stability. Moreover, the signals that the government will seek a transition rather than a ‘cliff-edge’ exit from the Single Market has allowed businesses to press on with day-to-day activities.

But earnings are down and productivity remains dire. The public finances have been hit with additional borrowing of £120bn now forecast by 2020-21.

The outlook for the North Sea is marginally more positive than in July. Tentative signs of a stabilisation in confidence, coupled with a rise in the oil price from its early 2016 low, offer a glimmer of hope for 2017.

It should be noted that, while the recent positive developments in the UK economy are to be welcomed, they will only partially mitigate – rather than fully offset – the challenges of Brexit.

Brexit poses questions about the fundamental structure of our economy and these will take time to emerge and feed through to the hard economic data.

Our expectation is that growth will remain below trend through the forecast period.

Our central forecast is for growth of 1.1% in 2017, 1.3% in 2018 and 1.6% in 2019. Unemployment is likely to rise in 2017 and earnings growth will remain weak.

But there remains a considerable degree of uncertainty around forecasts in the current climate. If, for example, the process for triggering Article 50 is delayed or there is a hit to economic confidence, then this could have a material impact on the outlook.
**Outlook and Appraisal**

The Scottish economy returned to growth in Q2 2016 and growth is expected to have been sustained through the year. But annual growth in the twelve months to June of just 0.7% (vs. 2.2% for the UK) remains disappointing. Economic prospects remain highly uncertain as the UK prepares to negotiate to leave the EU.

**Table 1:** Scottish GDP growth (%) by sector, Q2 2016

<table>
<thead>
<tr>
<th></th>
<th>GDP</th>
<th>Agriculture</th>
<th>Production</th>
<th>Construction</th>
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<tr>
<td>Quarterly Growth</td>
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<tr>
<td>Annual Growth</td>
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</tbody>
</table>

Source: Scottish Government

**Table 2:** UK labour market, Jul-Sep 2016

<table>
<thead>
<tr>
<th></th>
<th>Employment (16-64)</th>
<th>Unemployment (16+)</th>
<th>Inactivity (16-64)</th>
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<td>73.6%</td>
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<tr>
<td>England</td>
<td>74.8%</td>
<td>4.8%</td>
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<td>Wales</td>
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<td>N. Ire</td>
<td>69.9%</td>
<td>5.6%</td>
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<tr>
<td>UK</td>
<td>74.5%</td>
<td>4.8%</td>
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Source: ONS, LFS

**Introduction**

The Scottish economy grew by +0.4% in Q2 2016 up from -0.0% in Q1. Most indicators suggest that this growth has continued – albeit at a relatively slow pace – through the 2nd half of the year.

Despite the ongoing challenges in the oil and gas sector, employment in Scotland remains close to record levels. Overall, the Scottish economy has been relatively resilient to recent headwinds.

However, there are challenges. Scotland’s growth rate lags the rest of the UK, whilst the recent fall in unemployment stems, not from people finding work, but from people exiting the labour force.

The UK economy has held up well since the EU referendum. A number of factors explain this resilience, including the larger than expected drop in the value of Sterling boosting exports and a bold stimulus package from the Bank of England.

At the same time, the UK economy appears to have had greater momentum in the first half of 2016 than initial data suggested. This has helped support growth through a summer and autumn of uncertainty. There has also been a marked drop-off in UK political instability of late.

However, employment growth has eased, productivity and earnings remain weak and inflation has picked up.

Most forecasters have revised down their expectations for UK growth in 2017 and 2018, albeit the average of these forecasts has risen a little since the summer and the range of predicted outcomes has narrowed. This, in turn, has an impact on our own forecasts for Scotland.
The global economy

The UK is on track to be the fastest growing G7 economy in 2016 – although it is expected to slow relative to its competitors in 2017 and 2018.

US growth is expected to pick-up, even prior to factoring in any stimulus package from President-elect Trump.

Having recovered from its weakness in 2013, Euro Area growth has been steady over the past two years (although growth remains weak by historical standards). Political and economic stability concerns remain including ongoing questions over some EU banks, nowhere more so than in Italy.

Unemployment remains high – 10% in the Euro Area – and without major reform it is difficult to see how this will fall significantly in the next few years.

Overall, global economic conditions remain finely balanced. The IMF believes that a complex mix of economic realignment, structural challenges and new shocks will lead to subdued growth, and increased uncertainty, in the short-term.

The risks are judged to lie to the downside, largely due to ongoing vulnerabilities in emerging economies.

Over the past few years, growth in China has slowed from around 10% to closer to 6.5%.

Toward the end of 2015, there had been concerns of a hard landing. Those fears have diminished somewhat, although growth continues to depend upon rising levels of credit which poses a risk to medium-term sustainability.

Global inflation remains relatively subdued following the fall in oil prices in 2014–15.

Following two years of over-supply, the world’s leading oil producers have finally responded with plans to cut production to put a $50-a-barrel floor under the price of oil and push it towards $60.

Prospects to go much above seem remote, particularly with continued efficiency improvements in US shale operations. Even then, a price of $60 is a much more attractive proposition for Scotland’s North Sea producers than the low of below $30 in January 2016.
The UK economy

The UK economy – and consumer spending in particular – has held up remarkably well following the EU referendum.

Most forecasters, including the Bank of England, predicted that demand would slow materially during the 2nd half of 2016, although there was admittedly considerable uncertainty around such a judgement.

Initially, survey indicators of economic activity fell markedly to levels consistent with a sharp fall in output. They have however, re-bounded strongly.

Measures of uncertainty also spiked after the referendum, and such uncertainty had been expected to remain elevated in the near term. But they too have returned to more normal levels.

Since then, any slowdown in growth has been less severe than those indicators initially suggested. The UK economy grew by 0.5% in Q3 2016, in line with the OBR’s March forecast but down from 0.7% in Q2.

On balance the UK economy is expected to come in close to pre-referendum expectations for overall growth in 2016.

The slowing in Q3 mainly reflected falls in manufacturing and construction, although services also grew more slowly. In part, this is likely to have reflected a weakening in commercial real estate with consumer-facing services strengthening further.

Indeed, the key driver of growth in the UK economy during 2016 – as in the past two years – has been in household spending. This had been projected to ease in 2016, but the data for the 2nd half of 2016 – including leading indicators such as new car registrations and retail sales – suggest that growth has remained robust.

There is growing evidence that investment intentions have slowed. A result supported by surveys from the CBI and Bank of England agents.
There is little evidence of Brexit-induced uncertainty depressing day-to-day spending thus far. Part of the reason has been ongoing growth in house prices – particularly in London and the South East – which has helped to support household spending.

Households had also been benefiting from improving real earnings boosted by relatively low inflation at the start of the year.

But this is likely to change in the months ahead with inflation to increase sharply as import prices rise. Since the referendum, the value of the pound has fallen significantly – and is now around 15% lower than where it started 2016.

This has helped to boost exports and returns on financial markets (with overseas earnings benefiting from the lower value of the pound).

However a sharp depreciation is a double-edged sword. By lowering real earnings, higher inflation will erode living standards and hit household spending hard over the next couple of years.

The UK economic outlook

As highlighted above, most forecasters have revised down their predictions for the UK economy for 2017 and 2018. However, there remains considerable debate over the scale of the slowdown, the timing of any Brexit-impacts and the extent of the risks involved.

This, as the OBR took great pains to point out in their Economic & Fiscal Outlook, stems from forecasters being ‘little the wiser’ with regard to the UK Government’s negotiating strategy for the terms of exiting the EU.

Based on this uncertainty, most forecasters have had to make a number of important judgement calls. The most important of which is when the UK will actually trigger Article 50.
As we highlighted in our July 2016 Economic Commentary, it is important to distinguish between the short-term and the long-term (more structural) implications of Brexit.

Most economists predict that once the UK has left the EU, it will face a more challenging environment for trade, labour mobility and investment as we become less integrated with our largest trading partner.

Productivity – the key to long-term prosperity – may also be weaker if leaving the Single Market reduces competition, skilled migration, inward investment and financial integration.

There will however, be opportunities. Businesses will find new markets and sectors to operate in and policy may change.

The short-run dynamics are more complex and uncertain. Businesses will not – and cannot – adjust their plans overnight. They may put off major decisions until the final settlement is known, but day-to-day domestic trends in demand are likely to be of more immediate significance.

In looking at the near-term outlook, most economists predict that on balance, growth will slow in 2017 and 2018.

Higher levels of uncertainty are likely to lead to some investment being postponed or cancelled. At the same time, the fall in Sterling – Chart 8 – will feed through to higher inflation which will in turn impact real earnings and household spending.

Against this, Sterling’s depreciation will help exporters and sectors such as tourism, although it will have a negative impact on those more dependent on supply chain imports. The stimulus from the Bank of England will continue to support the economy in the near term – with no real prospect of an interest rate rise soon – whilst the pace of fiscal consolidation has also eased slightly.

However, the OBR still predict that the UK economy will be around £30 billion smaller in 2020 than they forecast back in March.
The OBR are however, slightly more optimistic than most forecasters, including the Bank of England. And both are more optimistic than the average of independent forecasters.

In particular, the OBR predict near trend growth of 2.1% in 2019 following a bounce back in activity – something that the Bank is less certain of.

In the medium to long term, the most important driver of growth and living standards is what happens to potential output. This is the estimated level of activity that the economy can produce without rising inflation. The key (but also uncertain) driver of potential output is productivity.

Needless to say, there is greater uncertainty than usual around the judgements for the path of potential output post-Brexit.

To the extent that any slowdown is not just a normal cyclical change but also a hit to potential output – i.e. from lower investment, reduced migration etc. – the weaker the economy will be in the long-run.

The UK’s poor productivity performance cannot be traced just to Brexit. Indeed it’s been a consistent feature since 2008. The reasons however, remain a source of heated debate.

Since 2010, the OBR has consistently predicted that the UK economy will return to its long-term trend productivity growth rate in time. But each year this has failed to materialise.

Weak productivity is the key reason earnings have performed so poorly in recent years, and why tax revenues have been below forecast.

With poor productivity growth and rising inflation, most forecasts for earnings are dismal. The Institute for Fiscal Studies predict that earnings will not recover to 2008 levels until 2020 at the earliest.

Coupled with uncertain prospects for employment and a freeze in many working-age benefits, the outlook for many households will be challenging with real income rising just 0.1% points in 2017.
The autumn statement

The combination of a near-term economic slowdown and a permanent hit to productivity has led most economists to predict a weakening in the UK public finances over the next few years.

In November’s Autumn Statement, the new Chancellor outlined revised forecasts for the public finances which included over £120 billion of additional borrowing to 2020-21.

The biggest driver – around 50% - of this increase can be attributed to the weaker economic outlook from Brexit. However, it also includes substantial revisions to receipts, particularly in 2016-17 and 2017-18, in the light of poorer tax revenues more generally.

The Statement included a stimulus of around £9 billion by 2020-21 – compared to March’s Budget – with a particular focus on productivity.

The Chancellor is now no longer on track to meet his predecessor’s goal of running a fiscal surplus by 2019-20. Indeed, instead of a fiscal surplus of £10 billion in 2019-20, the OBR now forecast that the UK will be running a deficit of £20 billion.

In response, the Chancellor opted neither for a large stimulus nor more austerity (at least for now) and chose instead to abandon the fiscal rules. 10 of the UK’s 12 fiscal rules since 1997 have now either been broken or abandoned.

The new looser ‘fiscal mandate’ is to run a cyclically adjusted deficit of less than 2% of GDP by 2020-21. Based on current forecasts rather than be seen as a tight constraint on borrowing, it is more akin to an upper limit – with around £26 billion spare in case the outlook deteriorates.

Much of the recent debate has centred upon the scale of public debt – at nearly 90% of GDP. Of perhaps greater concern, and much less discussed, is the recent return to growing levels of private sector debt. Indebtedness of this scale – particularly amongst households – has the potential to pose long-term structural challenges, particularly if earnings remain weak.
The autumn statement and Scotland

This year’s Autumn Statement had important implications for the Scottish Government’s Budget – and sets the scene for the Finance Secretary’s statement on the 15th December.

Under the new fiscal framework, the Scottish budget now depends upon a complex mix of grant from Westminster and devolved tax revenues.

Prior to the Autumn Statement, there was considerable uncertainty as to what the Chancellor may choose to do to departmental spending across the UK – and therefore what this may mean for the Scottish block grant.

In the end, he chose to largely follow the plans of his predecessor George Osborne – which implies a cut to Scotland’s Block Grant of around 3.3% between 2016-17 and 2020-21.

The exact size of Scotland’s Budget will now also depend upon how well Scottish tax revenues perform. As Chart 16 highlights, if Scotland’s tax revenues grow more quickly than in the rest of the UK – as they have done on average since devolution – the Budget will be larger than it would have been without tax devolution (and vice versa).

Scotland’s Budget outlook will of course also depend upon the tax policy choices of the government – which based on the SNP manifesto amount to around £200 million by 2020-21 on devolved taxes on top of £100 million from changing council tax bands.

Far greater are the government’s spending plans. Taking just pre-announced commitments in health, police and childcare for example, implies real-terms cuts of between 10-13% by 2020-21 for ‘unprotected areas’.

The Chancellor did announce a further boost to capital investment – a cumulative £800 million of new consequentials between 2016-17 and 2020-21. Coupled with Scotland’s new borrowing powers of £450 million per annum, Scotland’s capital budget could be back above 2010-11 levels for the first time by 2020-21.
Recent Scottish economy data

The most recent official data on the Scottish economy covers the period to June 2016.

It shows that the Scottish economy returned to growth – with output up 0.4% in Q2, an improvement on the -0.0% in Q1.

Underlying growth is likely to have been stronger. Longannet power-station closed in March and reduced output by approximately 0.2%.

However, the gap between Scotland and the UK continues.

Manufacturing grew 0.8% over the quarter but remains down 3.6% over the year and over 5% since early 2015. The sectors most directly tied to the downturn in the North Sea remain weak.

Construction continues to return to more normal levels. As we highlighted in July, according to the official statistics, construction grew by 35% between Q2 2013 and Q2 2015. Setting aside any concerns about the data, growth of this scale cannot continue indefinitely. Unsurprisingly construction fell 3.0% in Q1 and 1.9% in Q2.

Thirdly, the all-important services sector continued to grow and was the key driver of the change in output. Q2’s figure of 0.5% comes on the back of growth of 0.5% in Q1 2016.

Finally, on closer inspection, we find that – in addition to Longannet – two sectors had a disproportionate impact on the quarterly results.

Firstly, the Professional, Scientific, Administrative & Support Services sector grew 3.6% in the quarter.

Secondly, there was a (huge) 7% increase in the output of the Water Supply & Waste Management sector in Q2. This is a very small component of the overall economy (just 1.3% of total output) so normally changes here have little impact on the overall rate of growth.
But on this occasion and taken together, these two sectors contributed around 0.5% to the overall growth rate of the whole Scottish economy – so in effect, without these volatile sectors, growth would have been virtually flat (or negative) once again.

The Quarterly National Accounts for Scotland publication shows that investment (Gross Fixed Capital Formation) was the main contributor to Q2 growth - up 5.2% in nominal terms from the first three months of the years. As Chart 22 shows, investment in Scotland had been lagging behind the rest of the UK recently, but has been growing more quickly in recent months.

Whilst the contribution from net trade was positive during the quarter, this was only the second time in the last six quarters where it boosted rather than contracted output. Manufacturing exports are down 5% on the year.

Overall, Scotland’s declining export performance is of considerable concern and a key challenge for policymakers.

Growth in household spending remains – on balance – the most consistent driver of growth in the Scottish economy.

Interestingly, Scotland’s estimated saving ratio remains much lower than for the UK. If this reflects some households using up savings in order to support consumption, and this is before inflation increases and employment prospects become more uncertain, then it may not bode well for future growth prospects. How this interacts with current relatively high levels of household indebtedness will be worth watching.
The Scottish labour market

Our new report – *Scottish Labour Market Trends* – aims to provide a detailed quarterly discussion of developments in the Scottish labour market.

This highlighted that on most headline indicators, Scotland’s labour market continues to perform relatively well in what continues to be a challenging economic environment.

Scotland’s unemployment rate (4.7%) is once again lower than that for the UK (4.8%).

Although it has slipped back slightly over the past 18 months, employment in Scotland remains close to record highs.

However, some of these more positive statistics hide a number of more challenging trends. In particular, the recent sharp fall in unemployment appears to stem, not from people finding work, but from people leaving the labour force.

Indeed, whilst unemployment has fallen by 38,000 over the year, employment actually fell by 12,000 (both 16+). At the same time, inactivity increased by around 54,000 (16-64).

Inactivity rates had been relatively stable since the end of 2012, but they have increased over the past 18 months.

Women account for much of the rise. The increase in female inactivity of over 50,000 (16-64) coincides with falling unemployment (-19,000) and employment (-32,000) (both 16+) over the past 18 months. This could, in part, be driven by a reversion to trend. Female inactivity had been falling up until the start of 2015.

Interestingly, a similar result is evident in the rate of underemployment in Scotland.

Underemployment in this context refers to the proportion of people, in work, who would like to work longer hours than they currently do at the same rate of pay. Whilst it has fallen back to 2011-12 levels, underemployment remains much higher than before the 2008-09 financial crisis.
A feature of recent years has been an increasing more to part-time employment. Indeed over the past decade, over two thirds of the growth in total employment has been in part-time work.

Of those in part-time work, around 1 in 7 indicate that the key reason that they took such work is that they cannot find full-time work (up from 1 in 10 a decade ago).

Concerns about the number of people in temporary work have gained attention in recent months. 1 in 3 temporary workers currently say that the main reason they are in such employment is because they cannot find permanent work, up from 1 in 4 a decade ago.

Moreover, not only is the share of employment that is full-time lower than its pre-financial crisis average, mean hours worked are also lower.

Taken together, these indicators suggest that the rapid rise in employment, which has been a key feature of the Scottish labour market in recent times, may be masking underlying challenges in terms of the type of employment being created.

Productivity in Scotland has barely improved since 2010 – although it has fared slightly better than the UK as a whole.

The precise causes of this ‘productivity puzzle’ remain a mystery, although there have been plenty of explanations proposed – including low levels of investment in the public and private sectors, limited investment in R&D and innovation, poor access to finance, inhibited ‘creative destruction’ processes as a result of financial sector restructuring, and the nature of recent technological developments.

If Scotland is to meet the challenges of Brexit, then tackling this relatively weak performance – and its drivers such as a lower propensity to export and internationalise, poor levels of investment, lower innovation etc. – will be key.
**Outlook**

As in the UK, Scotland’s immediate economic outlook will largely be shaped by the prospects for household spending.

In general, there has been a gradual easing in levels of consumer confidence in Scotland. The market research GfK index (where 0 = balance) was -9 in November, implying consumers are pessimistic about the outlook.

Unsurprisingly, the prospects for higher inflation are beginning to weigh on people’s minds with an increasing number of consumers expecting prices to rise rapidly through the course of 2017.

A useful ‘soft-indicator’ for labour market conditions is the IHS Markit Jobs Report. August and September were strong months – and better than the UK – but October saw falls in both permanent and temporary posts.

Wider business surveys also paint a mixed picture.

The IHS Markit PMI for Scotland has been relatively weak since mid-2015. It indicated that output contracted marginally in July and August, but bounced back in September - driven by the sharpest increase in new business intakes since August 2015 – before slipping a little in October.

Overall, the PMI has showed a weaker economic performance in Scotland than for the UK as a whole even before the EU referendum.

The latest RBS Scottish Business Monitor for Q3 2016 did contain some evidence of resilience in the Scottish economy over the summer – fuelled by a boost in tourism.

33% of firms reported an increase in the volume of business, compared to 30% who witnessed a fall. A similar split was found in terms of expectations for the next six months.

The North East continues to lag Scotland as a whole with 40% of respondents reporting falling in business activity.
Similar results were found in the latest Scottish Chambers of Commerce survey – with relatively fragile levels of performance and optimism in most sectors.

To make better sense of all this, and to provide an up to date assessment of the performance of the Scottish economy, we produce a monthly ‘nowcast’ of quarterly growth: www.fraserofallander.org.

In estimating our nowcasts, we make use of a wide variety of different data sources, including the latest business surveys and up-to-date information on Scotland’s labour market and other indicators.

On balance, our nowcasts suggest that going on the available suite of current evidence, the Scottish economy has continued to grow at a relatively stable (but slow) pace through the second half of 2016. Combined with published data for the first six months of the year, this points to growth of around 1% for the year as whole.

As in recent Fraser Economic Commentaries, the outlook for Scotland will depend markedly upon the prospects for the oil and gas sector.

We are now entering the third year of the current low oil price cycle. Investment has fallen around 40% from its 2014 peak and exploration levels remain low, with only six exploration wells spudded so far this year. Oil and Gas UK estimates that the sector is now supporting around 120,000 fewer jobs across the UK supply chain than it did just two years ago.

There are some signs however, that the restructuring in the sector may have helped mitigate – at least in part – recent declines.

Business confidence remains negative but has stabilised relative to recent record lows.

Our judgement is that the outlook for the North Sea is slightly more positive – or at least less negative – than in July and this provides a modest positive uplift to our forecasts for the overall Scottish economy since July.
Outlook for Scottish tax revenues

A number of tax revenues and powers are in the process of being transferred to the Scottish Parliament.

Most notably, revenues from Non-Savings Non-Dividend income tax is being devolved in time for April 2017, together with the ability to vary rates and thresholds.

Under the new fiscal framework, the size of the Scottish budget will now depend on how well Scottish devolved taxes per head fair relative to their equivalent counterparts in the rest of the UK (rUK). If they grow at the same rate, the Scottish budget will be no better or worse off than it would have been without tax devolution.

However, even small differences in relative tax growth could equate to large budgetary effects over the course of several years. For example, if per capita Scottish tax revenues grew just 0.35 percentage points more slowly than in the rUK per annum, this could leave the Scottish budget smaller by £250m in 2020 relative to what would have been the case under Barnett.

Output per head provides a useful proxy for relative performance but the key drivers of income tax revenues will be the employment rate and growth in wages.

As highlighted previously, Scotland’s employment has been weaker than for the UK as a whole over the past 12 months.

During the past two years, the median wage of Scottish workers has also grown more slowly than the median wage of rUK workers.

What is arguably more important than median wages for income tax revenues is the wage growth of higher income earners, as they contribute a disproportionate amount of income tax.

Here, between 2015 and 2016 wage growth at the 90th percentile in Scotland grew at half the rate of the 90th percentile in rUK (1.3% v. 2.7% respectively).
One explanation is the downturn in the offshore economy. Median wages declined by 5% in Aberdeen and 4% in Aberdeenshire between 2015 and 2016. In the latest FAI/AGCC survey, the median average change in pay in the last year within the sector was -4.5%. The first time in the history of the survey that firms reported an average pay reduction.

It remains to be seen whether these recent trends of relatively slower growth in Scottish employment and wages continue. If they do, the Scottish economy will do well to match the rUK in terms of revenue growth per capita for devolved and assigned taxes. The Scottish Government is due to publish forecasts for tax revenues in its Draft Budget on 15th December.

The Scottish Government may also choose to change tax policy. Two major policies have been announced for next year –

i) to freeze the higher rate threshold in real terms and then increase it by no more than inflation until 2021-22; and,

ii) to alter the multipliers on council bands E-H, raising around £100m for education attainment.

The policy to freeze the higher rate threshold (the rate at which people start paying tax at 40p) amounts to a tax rise for Scottish higher rate taxpayers relative to their rUK counterparts. The Scottish Government had estimated that the policy would raise around £130 million next year, but higher inflation is likely to reduce that revenue to around £100 million – assuming CPI is used.

A quirk of the policy is that higher rate taxpayers in Scotland will face a combined income tax and National Insurance marginal tax rate of 52% on income between the Scottish and rUK high rate thresholds (i.e. between approx. £43,500 and £45,000). This is because the upper earnings limit for national insurance (which remains reserved to Westminster) drops from 12% to 2% when earnings move into the (rUK) higher income tax threshold.
Table 13: Latest growth forecasts for the UK economy

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<td>2.1</td>
</tr>
<tr>
<td>NIESR</td>
<td>1.4</td>
<td>2.2</td>
<td>2.3</td>
</tr>
<tr>
<td>European Commission</td>
<td>1.0</td>
<td>1.2</td>
<td>n/a</td>
</tr>
<tr>
<td>IMF</td>
<td>1.1</td>
<td>1.7</td>
<td>1.8</td>
</tr>
<tr>
<td>Oxford Economics</td>
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<td>1.2</td>
<td>1.5</td>
</tr>
<tr>
<td>ITEM Club</td>
<td>0.8</td>
<td>1.4</td>
<td>1.6</td>
</tr>
<tr>
<td>CBI</td>
<td>1.3</td>
<td>1.1</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Source: HM Treasury

Table 14: FAI forecast Scottish GVA growth (%) 2016 to 2019

<table>
<thead>
<tr>
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<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
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<tr>
<td>Production</td>
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<td>1.0</td>
<td>1.1</td>
<td>1.2</td>
<td>1.5</td>
</tr>
</tbody>
</table>

Source: Fraser of Allander Institute

Chart 38: Growth to remain below trend through forecast

Source: Fraser of Allander Institute

* Actual data to 2015, central forecast with forecast uncertainty for 2016 – 2019

Uncertainty bands sourced from accuracy of past forecasts

Our forecasts

Forecasting short-term growth in an uncertain environment is always a challenge. The aftermath of the EU referendum is a perfect example – and there is a divergence of opinion over the outlook.

As in past Commentaries, we report a central forecast but use estimated uncertainty bands to set out a likely range within which we predict Scottish GDP will lie. In our view, and in the current uncertain climate, it is this range that should be the central focus of discussion rather than specific point estimates.

In other words, it is entirely possible that the Scottish economy could grow close to its trend of 2% in 2017 and 2018 – as Chart 38 highlights – but our assessment is that the probability of that happening is lower than for our central projection.

The greatest judgement call concerns the timing of any Brexit induced impacts. At the time of writing, there are significant uncertainties not only in terms of the negotiated settlement but the extent of any transitional deal or when Article 50 is triggered.

Given the data this year so far, coupled with our emerging nowcasts, we have kept our forecast for 2016 relatively constant – up +0.1% to 1.0%.

The next 3 years – 2017, 2018 & 2019

Our central forecast is for growth to remain at broadly the same pace in 2017 – with growth of 1.1% (up on our July forecast of 0.5%). This is a revision of around +0.15% per quarter.

This, in part, reflects our expectation that the strength of the UK economy over the past year – and better forecast outlook – will exert a positive influence in the near term. We are also slightly less pessimistic in terms of the outlook for the North Sea than in July and believe that August’s innovative funding scheme from the Bank of England will support lending into next year.

The prospects for a transition rather than ‘cliff-edge’ Brexit also leads us – on balance – to predict a slightly better outlook for 2017 and 2018.
These upward revisions need to be put in context. Our pre-referendum forecasts were for growth in 2017 and 2018 of 1.9% and 2.0% respectively.

Our revised growth projections remain well below these levels. Compared to trend growth rates, annual growth of 1-1½% is equivalent to a loss of around £5 billion by the end of 2019.

Growth across all sectors is likely to be relatively fragile. And output in particular quarters could be close to 0 – making a short technical recession possible. Construction will be particularly weak, in part due to its continued return to trend following strong growth in 2014-15.

On the components of demand, we expect the short-term uncertainty, financial instability, higher risk premiums and challenges in the housing market, to hit investment over the next three years. Consumption will likely start to weaken next year as higher inflation, combined with low earnings growth, feeds through to household spending.

Net exports will continue to benefit from the depreciation in the pound as will sectors such as tourism (though retail could be hit hard). Whether Scottish exporters are in the position of being able to take advantage of this competitive boost is open to question.

We expect unemployment to rise gradually toward 6%. There remains a degree of volatility in the labour market data which may materially impact on these forecasts.

Back in July we forecast unemployment could rise to 6.5% in 2016. Instead it stands at 4.7%. But this fall in unemployment is not from people finding work but from people moving into inactivity.

As discussed in our Labour Market Trends report, if the sharp rise in inactivity had instead translated into higher unemployment, for the same level of employment, Scotland’s unemployment rate would now be around 6.3% - close to our July forecast.

To the extent that any of this rise in inactivity is reversed Scotland’s unemployment rate could rise much more sharply than predicted.
**Policy context**

Later on this week, Scotland’s new Finance Minister will set out his first Draft Budget – the first with Scotland’s new income tax powers.

This follows major policy interventions by both the Bank of England and the UK Government.

The Bank’s stimulus in August - which included a cut in interest rates, further Quantitative Easing and a scheme to boost cheap funding for businesses and households – was bolder than many had anticipated. It is likely that the Bank is near its limits in terms of the support it can provide, particularly with the likelihood of a sharp rise in inflation in the coming months.

In last month’s Autumn Statement, the UK Government chose neither to inject a major stimulus into the economy nor to increase the pace of austerity.

The Chancellor’s focus instead centred upon longer-term policies to boost productivity – including a new National Productivity Investment Fund which aims to add £23 billion of spending to housing, roads, digital infrastructure, and science and technology by 2021-22. The intention is to achieve a ‘step-change’ in productivity. Whether it is possible to achieve a step-change with investment equivalent to 0.25% of GDP remains to be seen.

The Scottish Government is likely to be under pressure to announce similar productivity enhancing initiatives in its Budget, particularly in the light of the weaker growth performance in Scotland over the past year.

But the Finance Secretary has little room to spare. As discussed in our *Scotland’s Budget: 2016* report, major spending pressures in areas such as health, childcare and the public sector pay bill will constrain the resources at his disposal to boost the economy. Furthermore, recent challenges in education standards may mean that any money that can be freed up is targeted here rather than elsewhere.

The Scottish Government’s £500 million Growth Fund does provide an opportunity to support new private investment and the Budget should set out further detail on how it will operate. The reclassification of a number of major infrastructure projects – including the Aberdeen Western Periphery Route – as being ‘on balance sheet’ will however, hit levels of capital investment compared to original plans.

Overall, the Scottish Government is unlikely to announce any major departures from existing policies. With that in mind, it is absolutely vital that the government set out its multi-year spending plans as soon as possible. It is simply not credible to continue to rely on one-year settlements.

Which brings us to Brexit.

Much of the debate, thus far, has understandably been on quantifying the potential scale of the challenge. Our own modelling – which accounts for exports and imports changing and supply chain effects through the rest of the UK – estimates that output will be lower in the long-run.

Trade opens up businesses to new opportunities for exporting and investment; labour mobility boosts labour supply helping to increase productivity and address demographic challenges in countries – such as Scotland – with an ageing population; competition helps efficiency, product specialisation and growth; and financial integration deepens and broaden capital markets.

Where policy can now have an influence is on the scale of any impact, which, in turn, depends crucially upon the terms of the exit deal and what both the Scottish and UK Governments do to address the challenges that will then follow.

As we move closer to the UK’s exit from the EU therefore, it is essential that discussions now focus on the practicalities of what Brexit might mean for businesses, sectors and individuals.
In our view, this should include –

i. Understanding the trade-offs from the specific terms of the negotiated exit from the EU;

ii. Identifying the sectors and areas of the economy – e.g. international investment, the labour market, regional growth etc. – most likely to be impacted by Brexit;

iii. The policy opportunities that may open up – both at the Scottish and UK level – from no longer being bound by EU commitments and obligations; and,

iv. Reassessing existing policy priorities and commitments, and crucially the delivery of the government’s Economic Strategy, in a world where Scotland is no longer part of the EU.

None of this will be easy. And even with strong policy responses and a good outcome in the negotiations, the economy will still face headwinds.

Whilst it is understandable that the debate thus far has focussed on the scale of the impact of Brexit, the political fall-out from the referendum campaign, and the potential constitutional implications both in Scotland and the UK, it is critically important that our policymakers now move quickly to find solutions and develop strategies to respond to the challenges (and new possibilities) that Brexit presents.

Here lies an opportunity, albeit one created out of difficulty rather than success. Many of the challenges that Scotland will face in a world where the economic environment will – as a result of Brexit – be more growth-inhibiting rather than growth-supporting – have been around for decades.

We know that we must improve Scotland’s export performance, boost levels of innovation in our economy (both in R&D and also in work environments), re-balance the industrial structure of our economy, focus on long-term value added rather than short-term profit, provide greater opportunities for all of Scotland to benefit from growth, and build an economy that tackles poverty and poor quality work.

Brexit will not make any of this easier, far from it. But with the right ambition and focus within policy circles there is an opportunity to use the challenge thrown down by Brexit to take a fresh look and, perhaps undertake a more honest assessment, at how best to address Scotland’s longer term economic challenges (and to take advantage of new opportunities that will emerge) in the years ahead.

For regular analysis on the Scottish economy and public finances please see our blog:

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