

1 Outlook and appraisal

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Overview

Growth in the Scottish economy in the 2nd and 3rd quarters of last year almost halted, with an outturn of 0.1% in each quarter. The main reason for the slowdown is the low price of oil, which appears to be having a pervasive net negative effect on Scotland's economic growth leading to a widening of the gap between growth in Scotland and growth in the UK. On the latest data, the Scottish economy has now enjoyed positive growth for the last 12 quarters (since 2012q3) while in the UK the sustained recovery period has been slightly shorter at 11 quarters from 2012q4. However, the UK recovery from the Great Recession has overall been stronger than in Scotland. UK GDP (ex oil & gas) now stands 7.1% above the pre-recession peak compared to only 3.1% in Scotland.

The pattern of growth between Scotland and the UK again differed in the third quarter, but the divergence was probably less than in some earlier quarters. In the UK, the service sector was again by far the main driver of the overall growth rate. In Scotland the service sector was also the main driver of growth, while the construction sector, which was the main driver of Scottish growth in the second quarter, still continued to contribute positively but by only a small amount as the growth in infrastructure spending and house building slowed down. In contrast, the sector's contribution to UK growth was again negative. The production sector continued the pattern begun in the second quarter of contributing negatively to growth in Scotland while making neither a positive or negative contribution to growth in the UK. Within production, manufacturing in the UK made no contribution to growth, while in Scotland making a small negative contribution, a continuation of the performance in the second quarter but a reversal of the earlier pattern. In Scotland electricity & gas also made a negative contribution to growth, with the other production sub-sectors were flat lining.. The production sub-sectors in the UK all made a zero contribution to growth.

Despite the stronger performance of the service sector in Scotland, financial services activity continued to weaken with the prospect of recovery to pre-recession levels of activity now looking less and less likely. The weakness of financial services and the negative impact of the low price of oil on business services were not, however, sufficient to halt the growth of business and financial services overall, which still grew by 0.3% in the 3rd quarter and by 1.4% over the year.

The weakness in Scotland's GDP growth has not yet impacted overmuch on the labour market. In the quarter to December 2015 employment rose by 22,000 (0.8%) to 2,636,000 while unemployment fell by 5,000 (-2.8%) to 162,000 with the rate falling to 5.8%. Yet, the jobs recovery remains weaker than in the UK as a whole. By the end of the third quarter, Scottish jobs as reported in the LFS household surveys were 3.2% above the pre-recession peak, while UK jobs were 5.7% above peak.

In January of this year there was significant turbulence in global financial markets with a flight away from stocks and shares into government bonds as confidence in the 'real' economy diminished. This was presumably a belated reaction to the slowdown in China's economy, weakening in US growth in the 4th quarter of 2015 and further falls in the price of oil indicating a lack of demand relative to supply. But the

fundamentals in the global economy were little changed from when we last reported in November. However, the financial turbulence itself may have a dampening effect on economic activity as companies find it more difficult to raise external finance for investment.

Going forward, the main positive influences on Scotland's economic growth are: domestic demand is still growing; domestic inflation is close to zero; nominal earnings/income growth is picking up slowly and so boosting real income; interest rates remain low and household demand is boosted by some pick up in wages and earnings; and external demand for goods and services is being boosted by the continued resilience of the US economy and a gradual pick up in growth in the Eurozone as the risks of deflation appear to recede.

The main threats to Scotland's economic growth are: the low price of oil, which producing a negative effect on Scottish growth, with the negative supply effect outweighing a positive demand effect. This negative effect is being sustained as the longer than expected delay in the recovery of oil prices is dampening overall investment expenditure; growth remains unbalanced with household spending the key driver fuelled largely by rising household debt which appears unsustainable; net trade (exports minus imports) continues to be strongly negative, exacerbated by slowdown in China and 'policy normalisation' in United States; fiscal austerity continues in the UK, although the tightness of fiscal policy was loosened in the Autumn Statement after favourable OBR tax revenue forecasts. The risk is that the UK Government fails to meet its fiscal targets as tax revenues do not meet expectations and so the government re-intensifies austerity in order to attain its targets. Indeed, the Chancellor on his recent visit to China has suggested that he may need to tighten the fiscal stance in his Budget as tax revenues remain weak with growth of GDP now projected to be lower. If he indeed does so, we believe that it would be a mistake serving to worsen the slowdown in growth and tax revenues. Finally, the referendum on the UK's membership of the EU announced for June 23 2016 increases uncertainty significantly in the short term, which is likely to have a negative effect on investment, as plans are postponed until the outcome is clearer.

It is our view that the risks confronting the Scottish and UK economies are heavily skewed to the downside and with a sustained low price of oil downside risks are even greater for the Scottish economy. It is against this background that we have prepared our latest forecasts of the Scottish economy.

On GDP, our forecast for 2015 – for which we do not have official 4th quarter data until April 2106 - is 1.9%, which is exactly the same as our forecast in November 2015. For 2016, we have revised *down* our forecast from 2.2% in November to 1.9%. This is mainly driven by apparently slowing income growth, a weakening of previously strong domestic investment growth, and an extension of the expected period in which a low price of oil is likely to be sustained. On our central forecast, we are forecasting a pick up in the rate of growth in 2017 as the economy rides out the challenges of 2016 and the price of oil in particular begins to rise to more favourable levels. But at 2.2% our forecast of 2017 remains *below* our November forecast of 2.5%.

On employment, the number of employee jobs is forecast to increase in each year, and the number of jobs added in 2015, 2016 and 2017 has been revised *down* since our November 2015 forecast. The number of jobs at the end of 2015 is now forecast to be 2,415,200, an increase of 1.3% during 2015. Our new central forecast is that the Scottish economy will add 36,800 jobs in 2016, down by around 9,000 from our

November forecast, with a net of 46,850 jobs added in 2017, down by almost 8,000 from our November forecast.

On unemployment, we forecast in November that the rate would fall to 6.2% by the end of 2015, with a level of unemployment of 169,150. The recent labour market data indicate that the ILO unemployment rate in the final quarter was 5.8%, with a level of 162,000. Our latest forecasts for the unemployment rate in Scotland for the end of 2016 and 2017 are 5.7% and 4.8% and for numbers 153,350 and 159,850, respectively.

In this Outlook & Appraisal we continue to consider the long-term challenges facing the Scottish economy against a background of new and revised data on past economic growth. A consideration of policy issues on growth has been set aside for another time to allow a discussion of the potential consequences for the Scottish economy if the UK were to leave the EU – ‘Brexit’ – following the forthcoming referendum on 23 June 2016.

Scottish Government’s statisticians have now compiled a time series of Scottish GDP under the European System of Accounts (ESA) 2010 where previously the data as used in the November Commentary was based on the old ESA 1995 system. Analysing these new data leads us to conclude that Scotland’s growth performance over the long-run has been weaker than the UK with GDP per head growth evened out by falling and/or slower population growth in Scotland, with some of that weaker population growth reflecting the relative performance of the Scottish economy. The difference is small but not necessarily trivial: approximately, with 2.4% p.a. growth, GDP would double in 30 years compared to 34 years with 2.1% p.a. growth. Scotland’s growth rate could be increased by faster population growth but this, even if it were achieved for a while, would be unlikely to be sustainable. Moreover, growth due to a rising population per se would be unlikely to raise GDP per head. For that we must improve our competitiveness by improving our productivity performance.

The latest data on Scotland’s labour productivity performance shows it to be rising both absolutely and relative to UK but to still be about 2.4% below the UK. Academic research suggests that overall – i.e. ‘Total Factor’ – productivity in Scotland is much lower than rest of UK. In the absence of faster population growth, Scotland can only sustain an improved growth rate by raising its competitiveness.

Our analysis of the implications of Brexit for the Scottish economy leads us to conclude that it is difficult to imagine that it would help improve Scotland’s competitive position with respect to our trade with the EU. The decline in electronics production and the erosion of Scotland’s manufacturing base has meant that Scotland has struggled to maintain its penetration of EU markets even on the favourable trading terms obtained through membership. It beggars belief that any post BREXIT trading relationship with the EU would be better than current arrangements. The best we could hope for is a free trade area but there is no guarantee that that would be given to us. The likelihood would be that trading arrangements would be less favourable than in the EU. So, not only would actual and potential Scottish exporters have to overcome their weaker competitive position due to lower labour and total factor productivity they would face the additional hurdle of less favourable trading arrangements. Moreover, Brexit might worsen Scottish productivity growth particularly via the negative effects on trade, inward investment and financial integration.

Membership of the EU is found by several academic studies to have contributed positively to trade flows between member states, when the size of these countries and the distance between them is controlled for. Moreover, this 'trade creation' benefit is shown to be greater than the 'trade diversion' cost of trade being diverted away from other non-EU countries.

On Foreign Direct Investment (FDI), since the establishment of the Single Market on 1 January 1993, inward FDI stocks have increased faster in both the UK and EU (as a percentage of GDP) than in the US and the rest of the world. Over that same period, the UK has, on average, remained the top recipient of FDI inflows into the EU. By 2013, the EU accounted for around 50% of the stock of UK inward FDI, compared with 27% from the US and 7% from Asia. Scotland has benefited considerably from these flows and in recent years has been the top UK destination for FDI both from the EU and from outside the EU. It cannot be simply assumed that these flows would continue unaffected by BREXIT, when much EU and non-EU sourced FDI comes to Britain and Scotland in order to service the EU market and research cites this as a key reason for such investment.

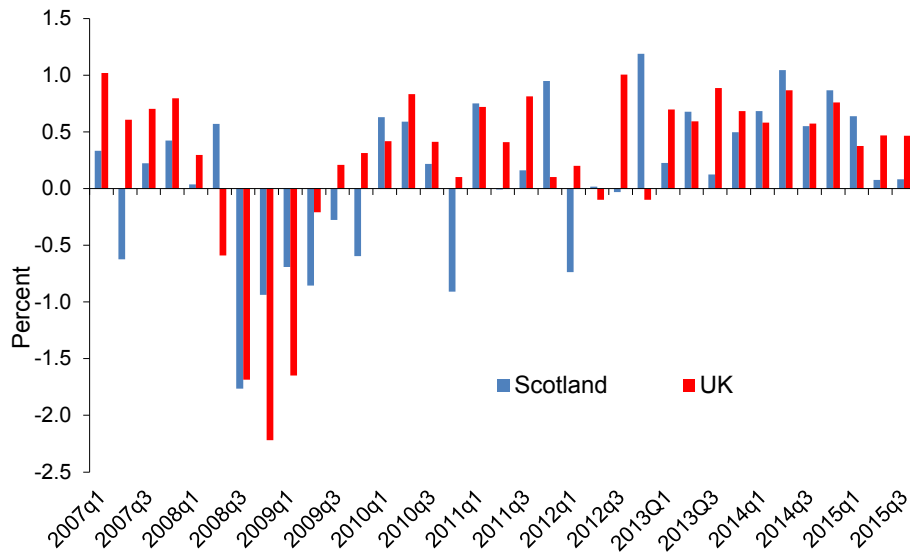
There are several academic studies that seek to identify the impact of Brexit on the UK economy. One key study in 2014, by the Centre of Economic Policy (CEP) at the London School of Economics, estimated that UK GDP would be reduced by up to 9.5% of GDP in a world where the UK cannot negotiate favourable trade terms with the EU. However, under a more optimistic scenario, in which the UK secures a free trade agreement with the EU, CEP estimates the losses to be around 2.2% of GDP. The static trade welfare effects of Brexit – i.e. the loss of trade creation benefits - are estimated by CEP to range from 1.1% to 3.1% of GDP. However, once the estimated dynamic losses of Brexit on productivity growth through reduced competition and reduced technological innovation linked to lower FDI inflows and reduced financial integration, CEP's estimates of loss rise to 2.2% to 9.5%. The harmful dynamic effects on productivity growth of Brexit are stressed by other academics who highlight the importance of intra-industry trade within the EU, which generates gains to productivity driven by increased competition and technological innovation engendered by such trade.

Scottish voters in the referendum on June 23rd should not lightly dismiss this warning about the consequences of Brexit for productivity growth in view of the already weak performance of Scottish productivity highlighted in this Commentary.

Recent GDP performance

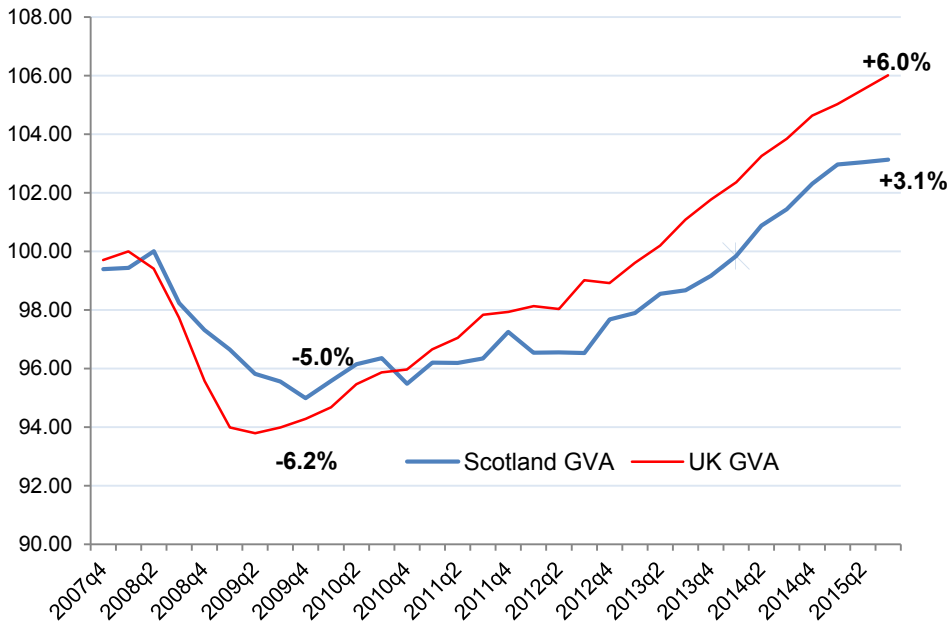
The latest Scottish GDP data are for the third quarter of last year (2015q3). The chained volume measure of GDP rose by 0.1% in Scotland in the quarter, while UK GDP rose by 0.4%. Over the year – four quarters on four quarters – Scottish growth was slightly stronger than UK growth at 2.5% compared to 2.4%. However, the marked weakening of Scottish growth from the second quarter of last year means that the growth between the third quarter of 2015 and the third quarter of 2014 of 1.7% is, in present circumstances, a better indication of annual Scottish growth. The four-quarter on four-quarter average for the final quarter of 2015 is likely to be closer to 1.7% than 2.5% due to the slow down. The Scottish and UK quarterly growth rates back to 2007q1 are presented in Figure 1.

Figure 1: Scottish and UK quarterly GDP growth, 2007q1 - 2015q3



Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and Fraser of Allander Institute (FAI) calculations

Figure 2a: GDP in recession and recovery Scotland and UK to 2015q3 (Relative to pre-recession peak)



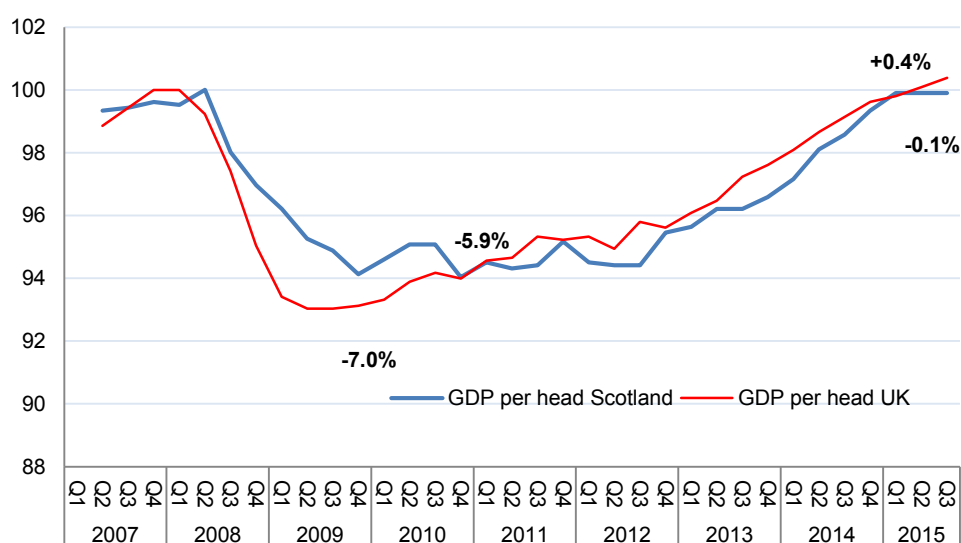
Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

On the latest data, the Scottish economy has now enjoyed positive growth for the last 12 quarters (since 2012q3) while in the UK the sustained recovery period has been slightly shorter at 11 quarters from

2012q4. However, the UK recovery from the Great Recession has overall been almost twice as strong as that in Scotland as is shown in Figure 2a.

By the third quarter, Scottish GDP was 3.1% above the pre-recession peak while UK GDP was 6.0% above its peak. So, in view of the greater depth of recession in the UK, with GDP falling by -6.2% compared to a drop of -5% in Scotland, it seems clear that the UK has enjoyed a considerably stronger recovery than Scotland even though the recovery has been weaker than from any previous recession over the previous 80 years. And the data reveal that growth from the trough of the recession to the third quarter of this year amounts to 8.6% in Scotland and 13.0% in the UK.

Figure 2b: GDP per head Scotland and UK recession and recovery to 2015q3

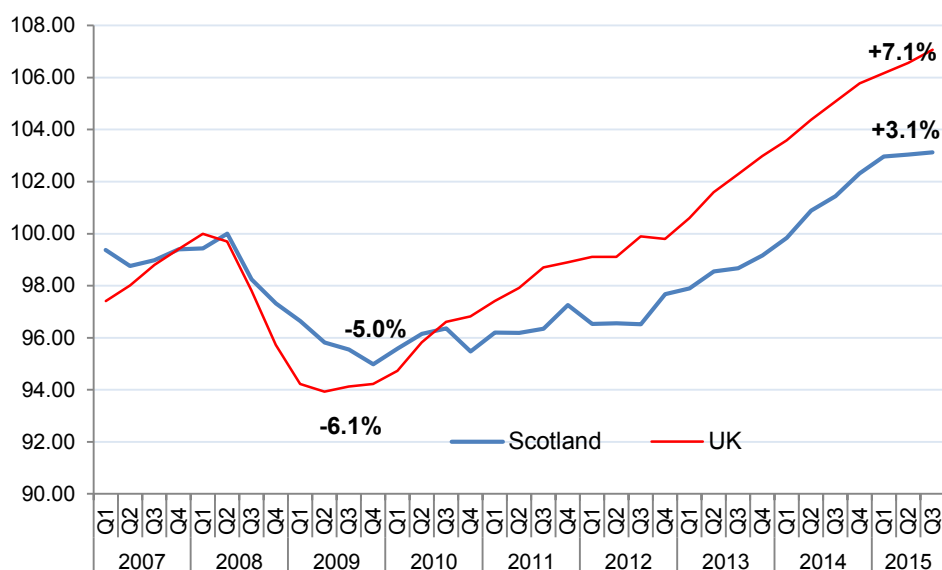


Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

As noted in previous Commentaries, Scottish Government statisticians are now producing GDP per head data, which in many ways is a better measure of the prosperity of people in Scotland. In addition, recent years have seen high inward migration into the UK and Scotland, so in assessing the performance of the economy of over time we really need to control for changing population. Data for recession and recovery in GDP per head in Scotland and the UK are presented in Figure 2b.

In the third quarter UK GDP per head stood at +0.4% above its pre-recession peak. The position is worse for Scotland with GDP per head in 2015q3 -0.1% below pre-recession peak. These data underline the continuing weakness of the recovery in both the UK and Scotland.

Returning to the overall GDP data we need to allow for the complicating factor of oil and gas production, which for offshore production is included in the UK GDP data but not in the Scottish data. Removing oil and gas production from UK GDP data gives us Figure 3.

Figure 3: GDP (ex oil & gas) recession and recovery to 2015q3

Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

When oil and gas production is removed, we find again that the gap in the strength of the recovery continues to be wider in the UK's favour. UK GDP (ex oil & gas) stands 7.1% above the pre-recession peak compared to 3.1% in Scotland. The long period of weak UKCS oil and gas production has slowed the recovery of UK GDP from recession. So, UK GDP - ex oil & gas - has had an even stronger recovery from recession than Scottish GDP. Scottish GDP has recovered by 8.6% since the trough of recession while UK GDP - ex oil & gas - has recovered by 14.0% from its trough by 2015q3, compared to 13.0% when oil and gas output is included. In the latest quarter, UK GDP ex oil and gas rose by 0.5% - more than the 0.4% reported when oil & gas is included - and by 2.3% over the year, four quarters on four quarters.

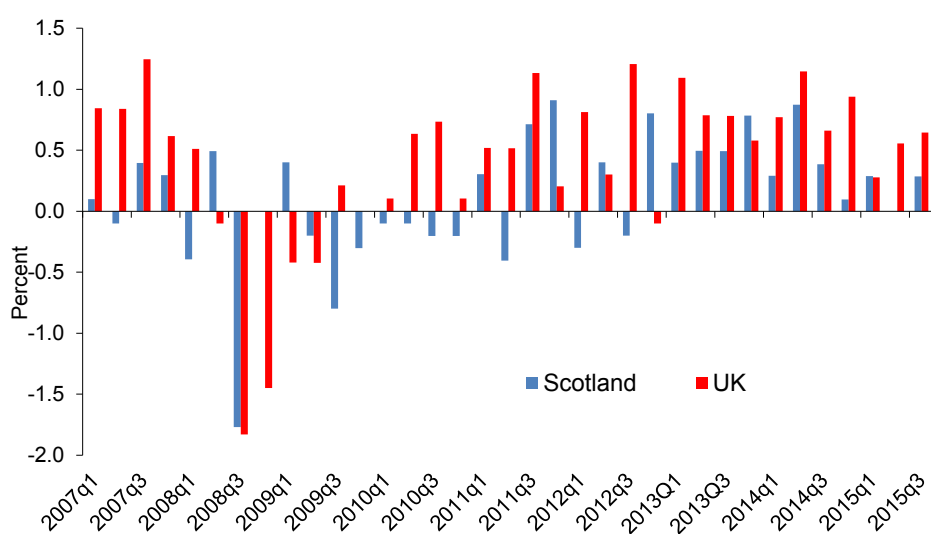
Sectoral Components of GVA growth

Turning now to individual sectors of the economy, we see that the pattern of growth between Scotland and the UK again differed in the third quarter, but the divergence was probably less than in some earlier quarters. In the UK, the service sector was again by far the main driver of the overall growth rate of 0.4% by contributing growth of +0.5% points. In Scotland the service sector was also the main driver of growth contributing +0.2% points. The construction sector, which was the main driver of Scottish growth in the second quarter still continued to contribute positively but by only +0.1% in the third quarter, while the sector's contribution to UK growth was again negative at -0.1% points. The production sector continued the pattern begun in the second quarter of contributing negatively to growth in Scotland - by -0.2% in the third quarter - while making neither a positive or negative contribution to growth in the UK. Within production, manufacturing in the UK made no contribution to growth, while making a negative contribution -0.1% points in Scotland, a continuation of the performance in the second quarter but a reversal of the

earlier pattern. In Scotland electricity & gas also made a negative contribution to growth of -0.1% points, with the other production sub-sectors neither providing a positive or negative contribution to Scottish growth. The production sub-sectors in the UK all made a zero contribution to growth. These data provide evidence that the ‘march of the makers’ and the desire of the UK Government to ‘rebalance’ the UK economy away from an over-reliance on services towards manufacturing has not, as yet, been forthcoming.

Service sector

Figure 4: Scottish and UK Services GVA Growth 2007q1 to 2015q3



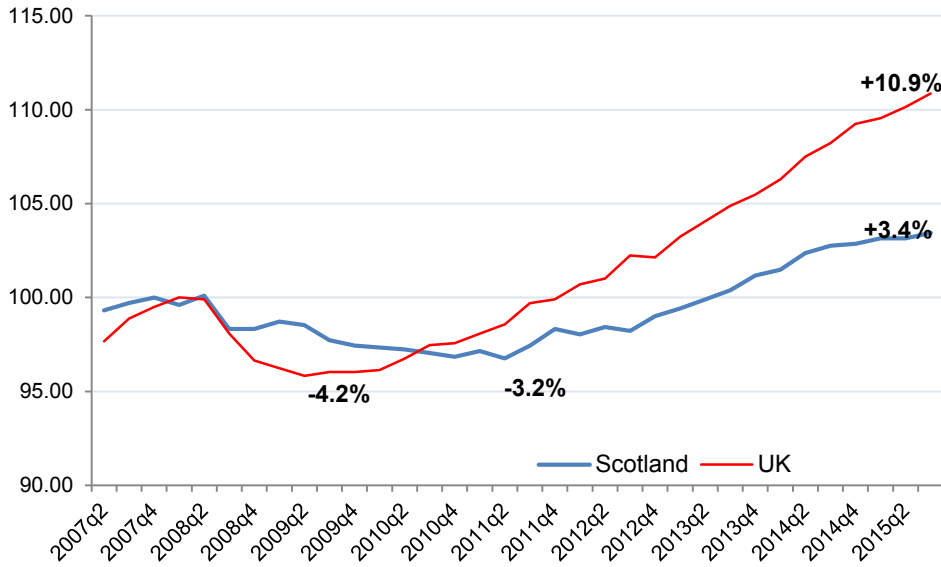
Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

The Scottish service sector, which on 2012 weights accounts for 75% of GDP in Scotland and 78% in the UK, grew by 0.3% in Scotland in the third quarter and produced 1.2% growth over the year – four quarter on four quarter. In contrast, UK services output registered positive growth of 0.6% in the quarter - see Figure 4 – and 2.9% over the year.

The state of the recovery in Scottish and UK services is presented in Figure 5. After experiencing a shallower but more drawn out recession in Scotland of -3.2% compared to -4.2% in the UK, output in the sector stood at 3.4% above its pre-recession peak by the third quarter of last year very significantly less than the 10.9% above peak achieved in the UK.

Continuing weaker service sector growth in the third quarter in Scotland meant that the gap between the scale of the recoveries widened further in favour of the UK to +7.5% points. As noted in the previous Commentary, the effect of the slowdown in the oil & gas industry due to the low price of oil is affecting the service sector in Scotland much more than the UK, because of the concentration of the oil-services supply chain in Scotland. And that effect continued into the third quarter.

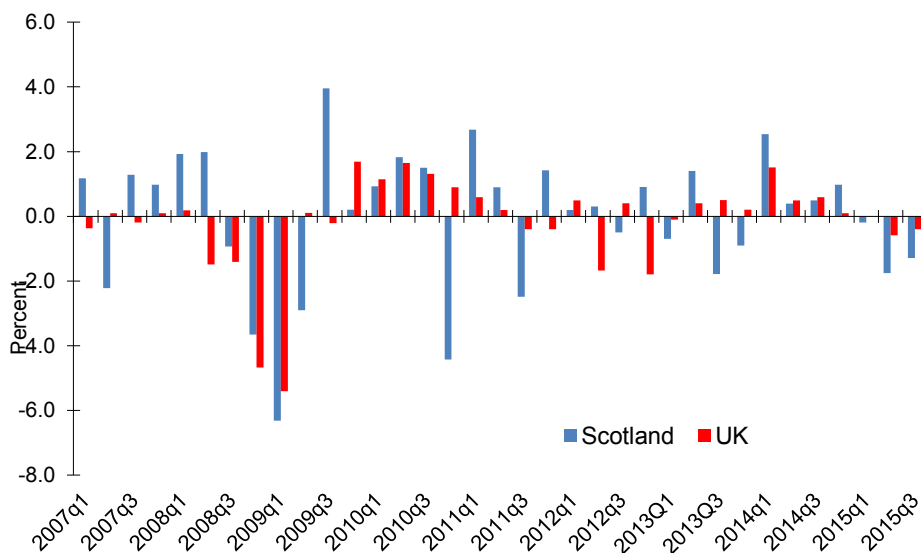
Figure 5: Services GVA in recession and recovery Scotland and UK to 2015q3



Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015 and FAI calculations

Production / Manufacturing sector

Figure 6: Scottish and UK Manufacturing GVA Growth at constant basic prices 2007q1 to 2015q3



Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

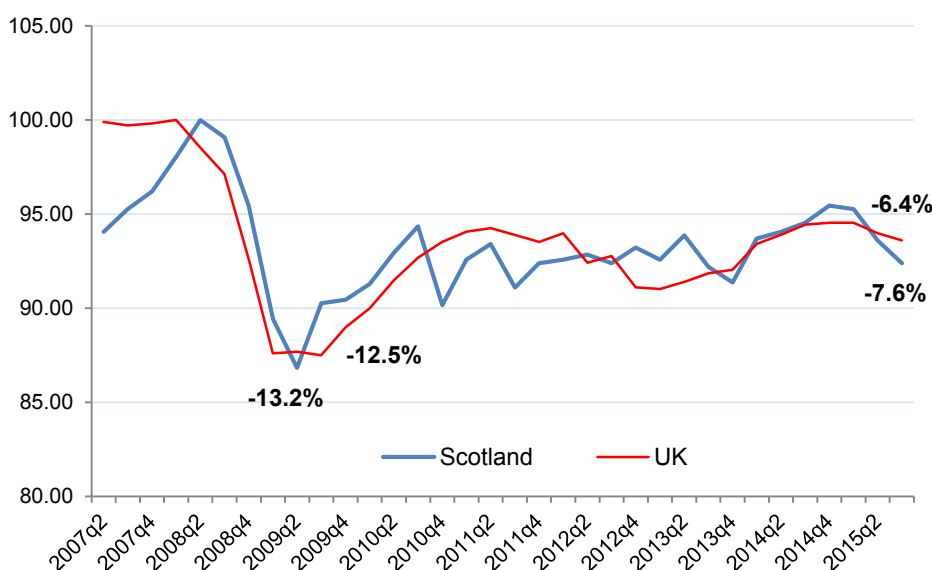
The production sector in Scotland contracted by -1.0% in the quarter but grew by 1.5% over the year. Despite the slowdown in the past two quarters, the sector has been a key driver of Scotland’s recovery

growing by 9.6% since the trough of the recession compared to 8.6% for the economy as a whole. This contrasts with the growth of 6.2% in the Scottish service sector since the trough of the recession. In the UK, despite the stronger performance in the second and third quarters, the production sector remains a drag on the recovery with growth of 2.6% to 2015q3 since the trough of the recession compared to the 13.0% growth of overall GDP. Scottish production output fell in the third quarter by -1.0% while UK production output grew slightly by 0.2%. Over the year - four quarters on four quarters – Scottish production GVA rose by 1.5%, while UK production output rose by 1.2%.

Within production, Mining & quarrying GVA grew by 1.3% in the third quarter and rose by 2.6% over the year (UK mining & quarrying rose by 2.6% and 3.8%, respectively). Electricity & gas supply GVA contracted by -3.7% in the third quarter but rose by 0.6% over the year (UK electricity & gas supply 1% and 0.3%, respectively). In the third quarter, GVA in Scottish manufacturing again fell by -1.3% but rose by 0.8% over the year, while UK manufacturing output contracted by -0.4% in the quarter rising by 0.8% over the year. Figure 6 charts the quarterly percentage changes in GVA in Scottish and UK manufacturing.

Figure 7 shows the impact of the latest data on the manufacturing sector's recovery from recession.

Figure 7: Manufacturing GVA in recession and recovery Scotland to 2015q3



Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

By the third quarter of last year Scottish manufacturing GVA was -7.6% below its pre-recession peak, compared to -6.4% for manufacturing in the UK. The latest figures confirm that the sustained recovery enjoyed by UK manufacturing since the first quarter of 2013 and in Scottish manufacturing since the fourth quarter of 2013 has clearly come to an end. It is a matter of deep concern that the level of manufacturing output in both Scotland and the UK as a whole is lower than the level it was at in the third quarter of 2010. Trend growth has been zero over the past 5 years.

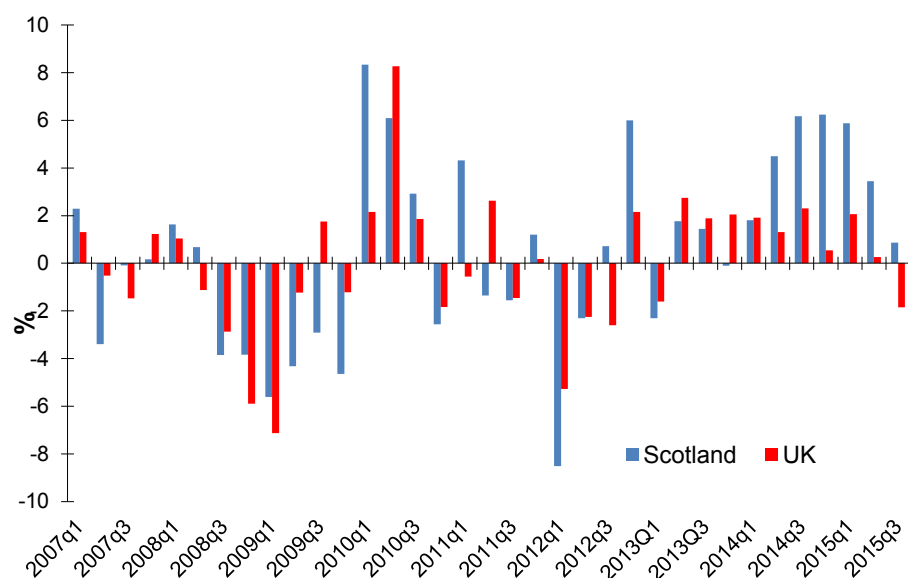
Within manufacturing, only three of the seven principal sectors experienced growth in the third quarter: clothing & leather products (accounting for 4% of manufacturing GVA) grew 2.5% in the quarter but contracted by -4.0% over the year; food & drink (accounting for 27% of manufacturing GVA) grew by 2.7% in the quarter and by 4.1% over the year; and computer, electrical and optical products (electronics) (accounting for 10% of manufacturing GVA), grew by 1.2% in the quarter and by 6.0% over the year.

However, that growth performance was offset by the four manufacturing sub-sectors that contracted in the quarter: metals, metal products & machinery n.e.c. (accounting for 17% of manufacturing GVA) contracted by -8.4% in the quarter and by -9.4% over the year; transport equipment (accounting for 7% of manufacturing GVA) contracted by -1.5% in the quarter but grew by 4.6% over the year; other manufacturing industries, repair & installation (accounting for 24% of manufacturing GVA) which contracted by -1.6% in the quarter and by -0.3% over the year; and refined petroleum, chemical & pharmaceutical products (accounting for 13% of manufacturing GVA) which contracted by -3.7% in the quarter but grew by 5.9% over the year.

Construction sector

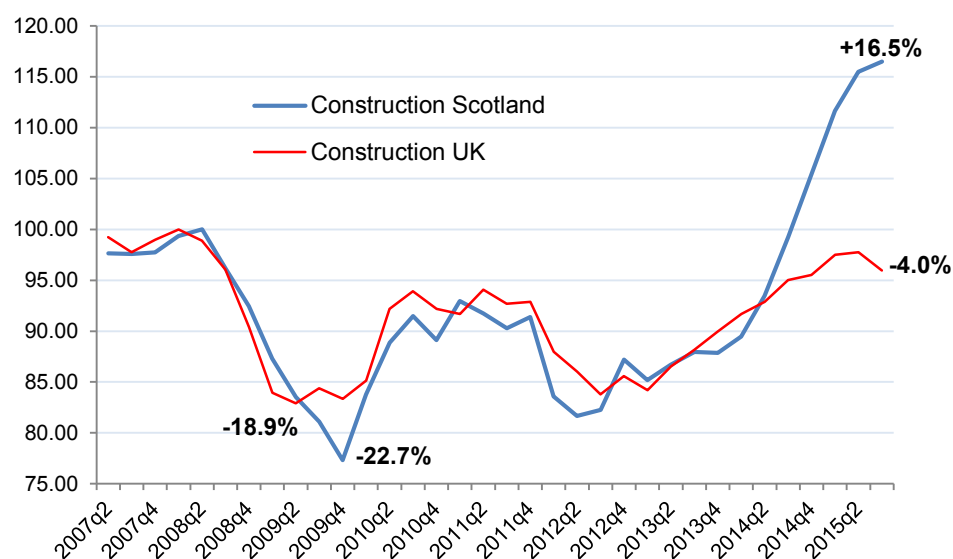
Turning now to construction, the latest data are presented in Figure 8.

Figure 8: Scottish & UK Construction GVA Volume Growth 2007q1 - 2015q3



Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

Scottish construction GVA grew again in 2015q3 but at 0.9% much more weakly than the 3.4% recorded in the previous quarter and average growth of 4.7% in the earlier 4 quarters. Over the year the sector grew by a remarkable 21.3%. The UK construction sector contracted by -1.9% in the third quarter but grew by 4.7% over the year. Figure 9 shows the recession and recovery performance of both the Scottish and UK construction sectors.

Figure 9: Construction, Recession and Recovery to 2015q3

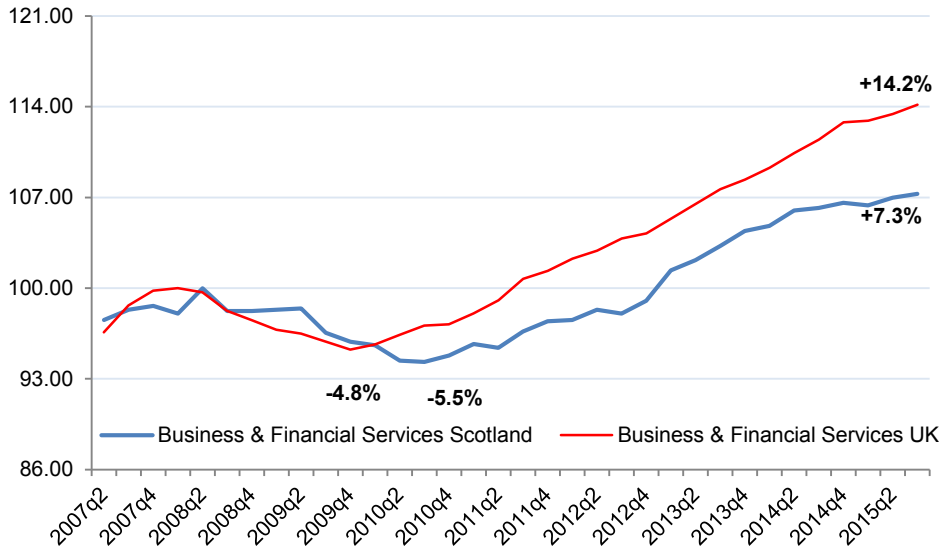
Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

Figure 9 shows how Scottish construction activity has surged since the final quarter of 2013 but the chart also suggests given the latest data that that surge is coming to an end. The chart shows that by the 2015q3 Scottish construction had moved to 16.5% above its pre-recession peak compared to UK construction, which was -4.0% below its pre-recession level. We noted in the previous Commentary, that the surge in Scottish construction output could be almost wholly explained by a surge in spending on infrastructure, which almost quadrupled between 2012q1 and 2015q2. The rise in infrastructure spending appeared to be driven by increased public spending on infrastructure by the Scottish government, with spending on the new Queensferry Crossing of the Forth, the Borders Rail link and motorway spending likely to be major elements. But it is clear from ONS data on output in the construction industry that the rate of growth of infrastructure spending slowed in the third quarter of last year, with growth over the year to 2015q3 – quarter on quarter – slowing to 53%, compared to 87% in the year to 2015q2. It is worth noting that the growth of other components of construction output such as public and private house building and other public construction also slowed.

Components of private services sector growth

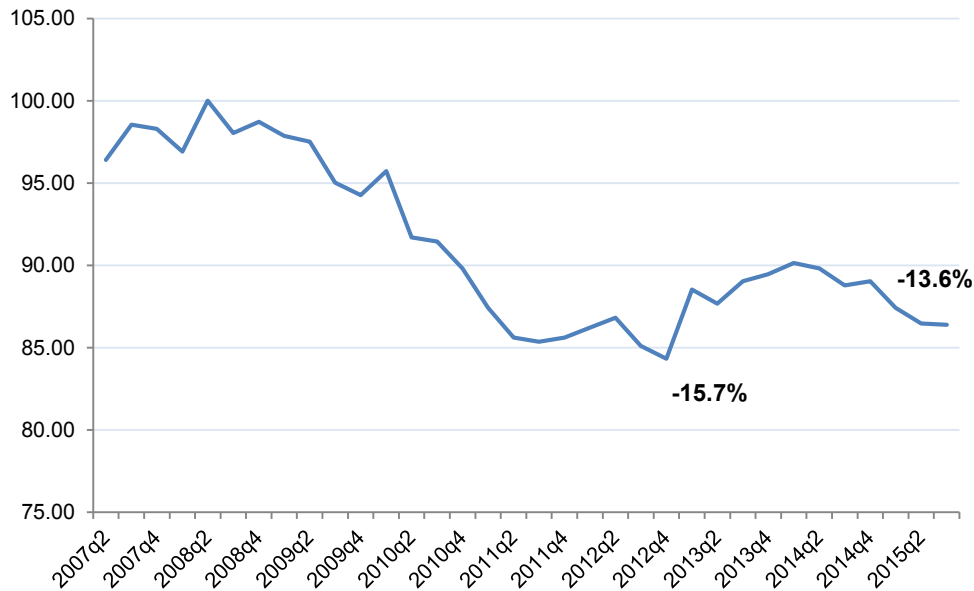
Within services, two of the three principal sub-sectors in the private sector posted positive growth in the third quarter: business and financial services and distribution, hotels and catering. Business and financial services grew by 0.3% in the quarter and grew by 1.4% over the year, compared respectively, to growth of 0.6% and 3.1% in the UK. Figure 10 shows the growth of the sector in Scotland and UK during the recession and recovery.

Figure 10: Business & Financial Services Scotland and UK: Recession and Recovery to 2015q3



Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

Figure 11: Financial Services in Scotland, Recession and Recovery 2007q2 to 2015q3



Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

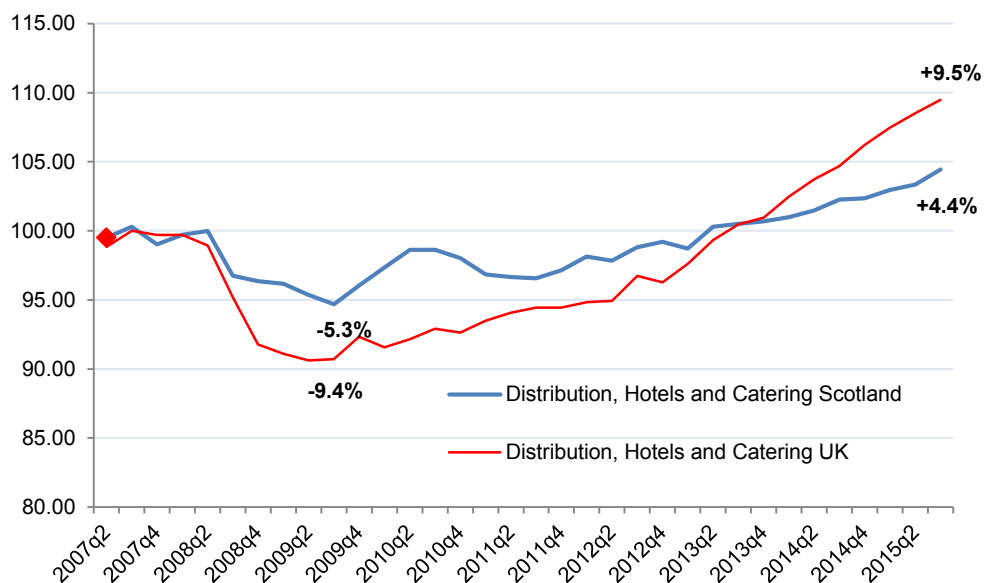
By the third quarter, business and financial services output or GVA had moved to +7.3% above its pre-recession peak in Scotland compared to +14.2% in the UK. While the sector in Scotland clearly lags its UK counterpart, the recovery in the sector appears to have picked up again after stagnating since the middle of 2014. However, we noted in the previous Commentary the effect of the low oil price on activity in oil and

gas support firms, which are classified to business services. So, this factor could be a drag on recovery in the sector for some time. In addition, the aggregate GVA data for business and financial services in Scotland have recently masked significant weakness in the performance of financial services. Figure 11 shows what has been happening to financial services since peak output in the second quarter of 2008.

By the third quarter of this year GVA in the sector was -13.6% below the pre-recession peak compared to the trough of -15.7% in 2012q4. There must now be a strong presupposition that the scale of the financial services sector in Scotland might never return to the levels seen before the Great Recession.

The second of the two principal sub-sectors in private services displaying positive growth in the second quarter was distribution, hotels and catering (accounting for 18% of services sector output in Scotland), where output rose by 1.0% in the quarter and by 1.9% over the year. In the UK, the sector grew by 0.9% in the quarter and by 4.8% over the year. Figure 12 shows the performance of the sector during recession and recovery.

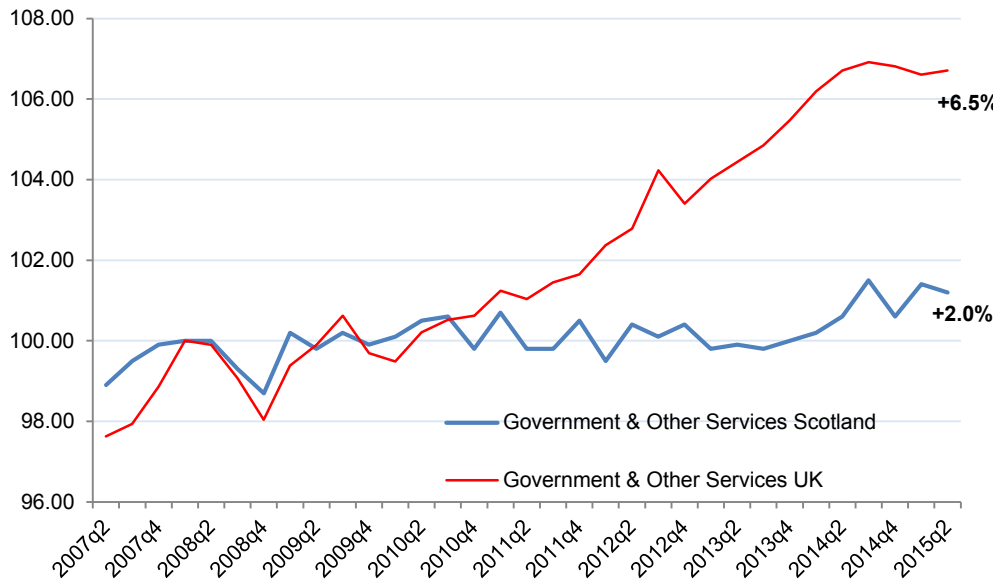
Figure 12: Distribution, Hotels & Catering: Recession and Recovery to 2015q3



Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

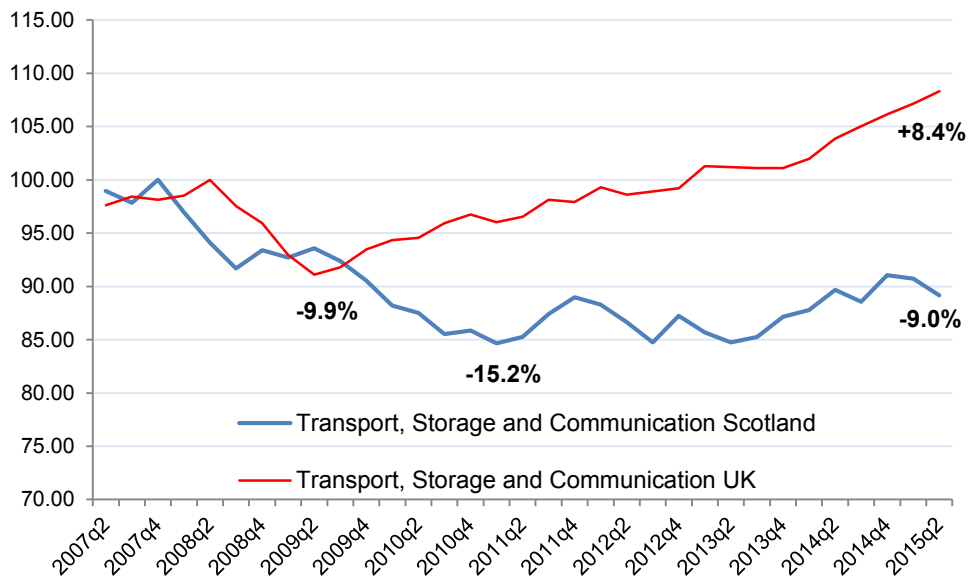
Figure 12 reveals that by the third quarter the sector in the UK was +9.5% above its peak, while the sector in Scotland continued to do much worse at only +4.4% above peak. The scale of the recession in the sector in Scotland was at -5.3% much less than the loss of output in the sector in the UK, which amounted to -9.4%. The track of the recovery in the sector picked up in the UK from 2012q4 but continued at much the same slow pace in Scotland, with the level of GVA in the sector in the UK relative to the pre-recession peak overtaking Scotland in the final three months of 2013.

Figure 13: Government & Other Services: Recession and Recovery to 2015q2



Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

Figure 14: Transport, Storage & Communication: Recession & Recovery to 2015q2



Source: Scottish Government GROSS DOMESTIC PRODUCT 3rd QUARTER 2015, and FAI calculations

Output in Government & Other Services in Scotland in the second quarter fell slightly by -0.1% compared to a rise of 0.2% the UK. Over the year, output in the public sector grew by 0.5% in Scotland and by 0.4% in the UK. Figure 13 shows the performance of GVA in the sector in recession and recovery.

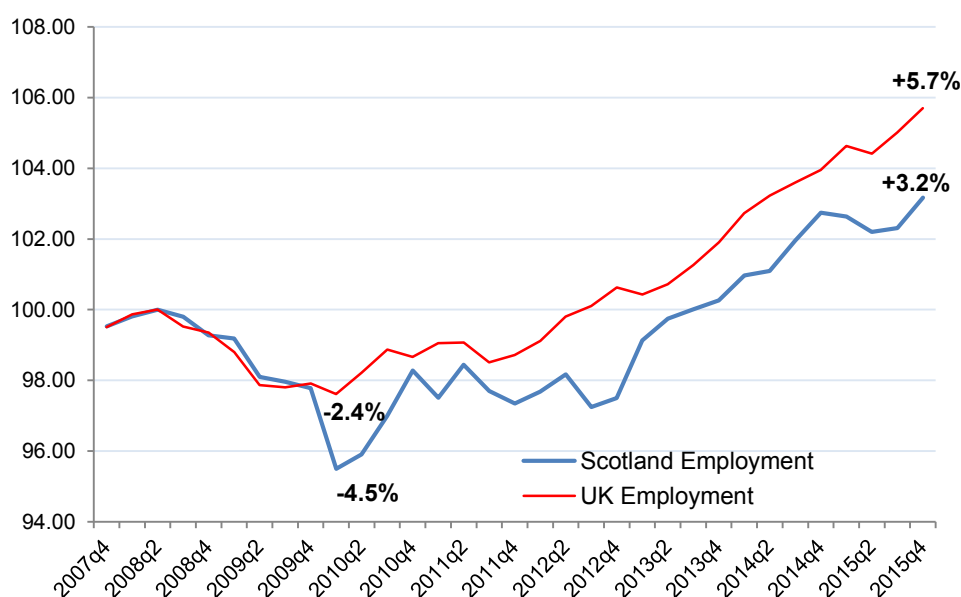
By the second quarter GVA in the sector in the UK was 6.9% above the pre-recession peak, which, as noted many times in previous *Commentaries*, is difficult to understand at a time of fiscal consolidation, whereas output in the sector in Scotland was 1.2% above its pre-recession peak.

Finally, Figure 14 highlights the performance of transport, storage & communication in Scotland and UK in recession and recovery. The sector accounts for nearly 8% of total GVA and about 10% of service sector output.

The transport, storage & communication sector contracted by -0.1% in Scotland in 2015q3 but grew by 1.0% in the UK. Over the year, growth was 1.9% in Scotland and 4.6% in the UK. Figure 14 indicates that the recession was stronger and much more drawn out in the Scottish sector with output falling by -15.2% compared -9.9% in the UK. Thereafter, the Scottish sector has largely stagnated but that has not been the case in the UK. By the end of the third quarter GVA in the Scottish sector was -11.0% below its pre-recession peak compared to +9.4% above in the UK, a huge difference in the performance of the sector between Scotland and the UK.

The Labour Market

Figure 15: Total Employment: Scotland and UK Pre-recession peak to 2015q4



Source, ONS Regional Labour Statistics and FAI calculations

The latest labour market data for October – December 2015 (see *Scottish Labour Market* section below) were much more robust than the previous quarter and provided little indication that the recovery is faltering. In the quarter to December 2015 employment rose by 22,000 (0.8%) to 2,636,000 while unemployment fell by 5,000 (-2.8%) to 162,000 with the rate falling to 5.8%. In the UK, employment rose, with 205,000 jobs created or an increase of 0.7%, while unemployment again fell by -60,000 (-3.4%) with

the rate remaining unchanged at 5.1%. Over the year, Scottish jobs rose by 11,000, a rise of 0.4%, while UK jobs rose 521,000, or 1.7%. Unemployment in Scotland rose by 13,000 over the year, or 8.6%, while in the UK unemployment continued to fall by -172,000, or -9.2%. The numbers inactive fell in Scotland in the quarter by -13,000 or -0.8%, compared to a fall in the UK of -65,000 or -0.3%. Over the year, inactive numbers fell by -6,000 (-0.4%) in Scotland and by -20,000, or -0.1% in the UK.

Figure 15 shows the performance of employment in Scotland and the UK during recession and recovery to 2015q3.

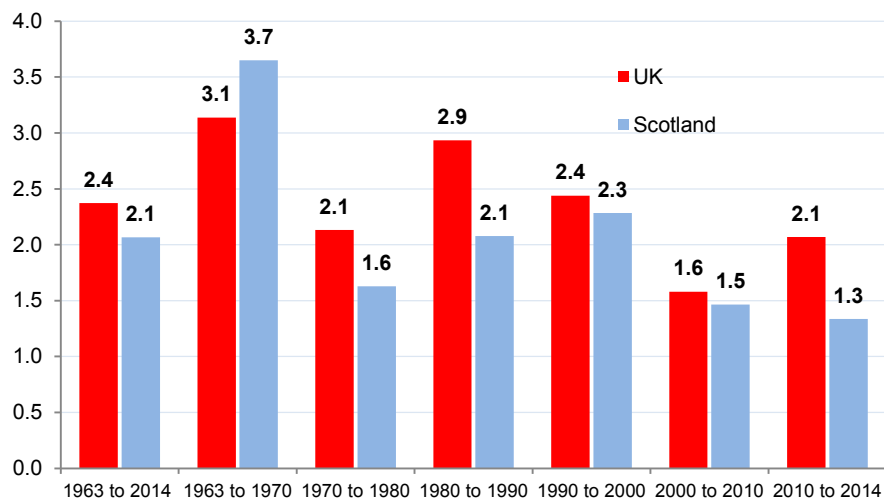
By the end of the third quarter, Scottish jobs as reported in the LFS household surveys were 3.2% *above* the pre-recession peak, while UK jobs were 5.7% above peak. So, the latest data show that the recovery in the labour market has picked up again after slowing in the previous quarter, while the recovery remains stronger in the UK.

Challenges facing the Scottish economy

In the previous two Commentaries (Vol 39, No. 1 and No. 2) we began to consider the challenges facing the Scottish economy. The July *Commentary* focused on the short-term capacity utilisation issue. In the November *Commentary* we focused on the more long-term capacity growth question. Specifically, we asked first, how is Scotland performing over the long-term in terms of growth performance against the UK? Then secondly, asked if Scotland is to raise its long-term growth performance how well equipped is the economy to do that - a question about Scotland's economic competitiveness. The evidence showed that Scotland's GDP growth rate over the past 50 years was much the same as that of the UK and indeed growth of GDP per head was somewhat better. However, there were signs of weakness. There was evidence of weaker productivity growth in Scotland, especially total factor productivity and Scotland's export performance was a cause for concern, with evidence of long-term decline. We suggested that in the next Commentary i.e. *this* Commentary, we would consider some of the policy issues that arose from this analysis. The issues that needed to be considered included: how to raise overall exports to help drive GDP growth?; how to build on the importance of the rest of UK market by selling more manufacturing products there as well as to the rest of the world?; and, how to raise service sector exports to the rest of the world? However, since then there have been two developments that mean we must postpone this important policy discussion to another time. The first is that Scottish Government has published new data on Scotland's long-term growth performance and recent productivity performance, which we consider below. Secondly, the decision of the UK Government to hold a referendum on 23 June 2016 on whether Britain should stay in, or leave, the EU is of such fundamental importance to the Scottish economy, that it is something that we must consider now.

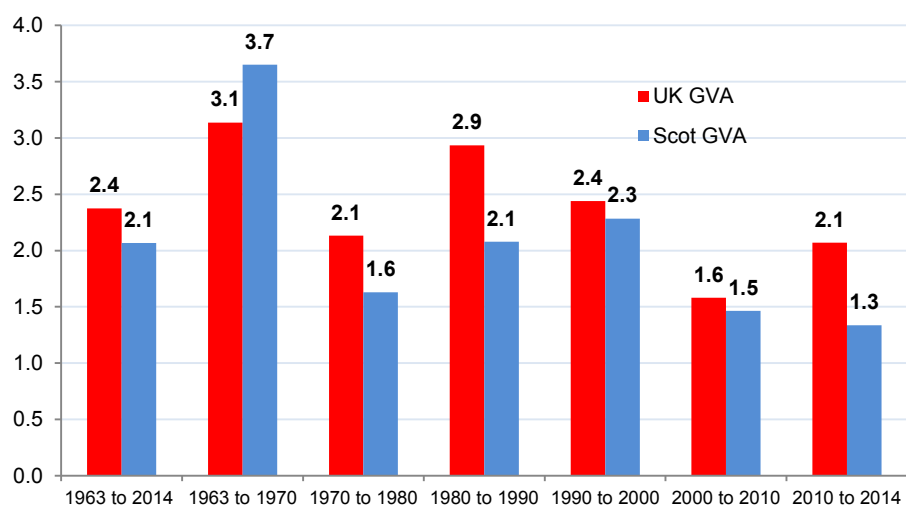
Scotland's long-term growth and productivity, 1963 to present

Figure 16: UK and Scottish GVA Growth 1963 – 2014 (Percent per annum)



Source: For Scotland is Scottish Government GVA series and for UK series is ONS <http://www.ons.gov.uk/ons/datasets-and-tables/data-selector.html?cid=YBFR&dataset=pn2&table-id=L>

Figure 17: UK and Scottish GVA per head growth 1963-2014 (Percent per annum)



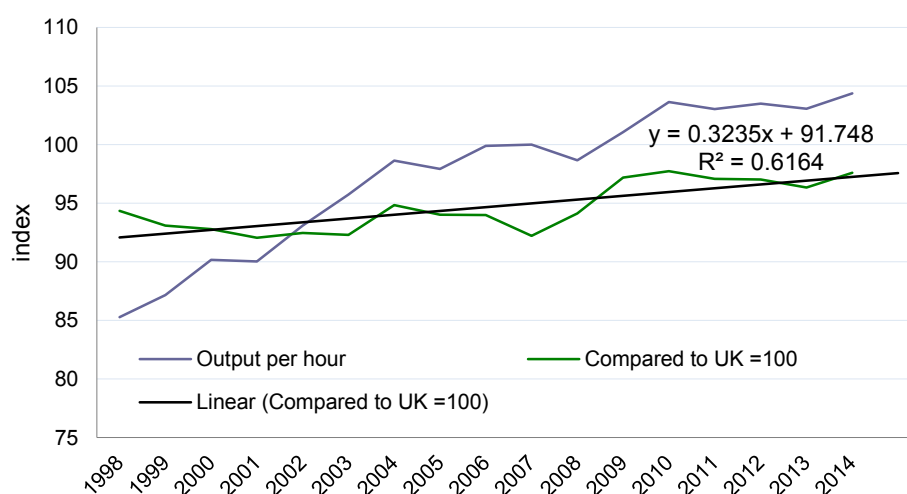
Source: For Scotland is Scottish Government GVA series and for UK series is ONS <http://www.ons.gov.uk/ons/datasets-and-tables/data-selector.html?cid=YBFR&dataset=pn2&table-id=L>

Scottish Government statisticians have now compiled a time series of Scottish GDP under the European System of Accounts (ESA) 2010 back to 1998 and then used a 'back casting' method to revise it back to 1963. In the previous Commentary the analysis of long-run growth was based on Scottish GDP data computed under ESA 1995 – for a consideration of what was involved in moving from ESA 1995 to ESA 2010 see our July 2015 Commentary (Vol 39, No. 1). Figures 16 and 17 present the newly published data on UK and Scottish GVA/GDP growth and growth per head over the period 1963-2014, as revised under the new ESA 2010 methodology.

Figure 16 charts the absolute growth of Scottish and UK GDP – GVA at basic prices – for several time periods between 1963 and 2014, while Figure 17 allows for population movements such as net births and deaths and migration and charts GDP per head for the same periods. The main conclusions are:

- Scottish 'trend' GDP growth of 2.1% p.a. over the last 50 years is lower than UK growth of 2.4% p.a. (under the former ESA 1995, Scotland's 'trend' GDP growth rate over last 50 years was *identical* to UK growth, at 2.3% p.a.)
- Scottish 'trend' GDP per head growth over last 50 years is 2.0% p.a., the same as in the UK as a whole (under the former ESA 1995, Scotland's 'trend' GDP per head growth rate was 2.2% p.a., *faster* than UK's 2% p.a. – due to falling or slower population growth in Scotland).
- Overall Scottish growth has been consistently weaker than UK growth since the 1970s, but up until the recent recovery the gap seems to have been narrowing.
- After weakness in the 1970s and '80s, GDP per head growth was stronger in Scotland relative to UK, until the recent recovery.

Figure 18: Whole economy output per hour: Scotland and compared to UK 1998-2014



Source: ONS Labour Productivity 2014 Q3 and Scottish Government Labour Productivity January 2016.

So, we must conclude that Scotland's growth performance over the long-run has been weaker than the UK with GDP per head growth evened out by falling and/or slower population growth in Scotland, with some of that weaker population growth reflecting the weaker relative strength of the Scottish economy. Though the difference is small, it is not necessarily trivial: approximately, with 2.4% p.a. growth in GDP would double in 30 years compared to 34 years with 2.1% p.a. growth. Scotland's growth rate could be increased by faster population growth but this, even if it were achieved for a period, would be unlikely to be sustainable. Moreover, growth due to a rising population would be unlikely to raise GDP per head. For that we must improve our competitiveness, via increasing our productivity performance.

Turning now to productivity. New data for labour productivity from the Scottish Government were published towards the end of January 2016. Specifically this provides information on 'whole economy output per hour worked' in Scotland and UK up to and including 2014. This is presented in Figure 18.

The key conclusions to be drawn from Figure 18 are:

- Labour productivity has risen absolutely in Scotland by 22% between 1998 and 2014.
- Despite this growth it fell behind the UK, which had faster growth to 2007, before the Great Recession.
- Scotland's relativity improved during and after the Great Recession, with the UK experiencing a greater deterioration in productivity - hence the post-recession 'productivity puzzle' is much more of a UK than Scottish phenomenon.

So, while Scottish labour productivity is growing, it is weaker than in the UK; -2.4% below. Yet, if the trend growth in the Scottish /UK relativity - shown on the chart - continues, Scotland would match UK labour productivity in 2021. The problem with this trend estimate is that it is influenced by large cyclical fluctuations that are likely to obscure the 'true' long-term trend. Moreover, we noted in the previous Commentary the research evidence¹ from Professor Richard Harris and Dr. John Moffat that Total Factor Productivity (TFP) - where one estimates the productivity of all factors: labour, capital and land - is significantly lower in Scotland than in the UK. They find that overall, the 'gap' between Scotland and rest of UK was around 11% across all sectors in 2012 (and 22% below the leading UK region).

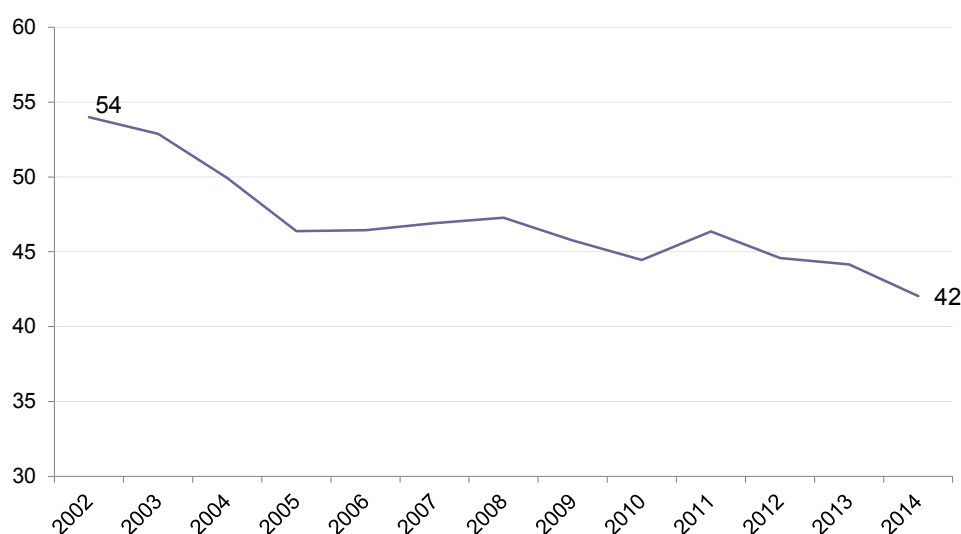
We suggested in the previous Commentary that Scotland was weak in varying degrees on all of the key determinants of competitiveness: in innovation/R&D; exporting (especially for a small open economy); skills; investment, and enterprise.

In particular, Scotland's export base has eroded over the past 15 years following the demise of electronics ('Silicon Glen'), and is being further eroded by the decline in financial services activity - and it will also be affected by the ongoing decline in the volume and value of oil production. In turn, Scotland has become

¹ (2014) *Scottish Productivity: implications post-2016*, by Richard Harris and John Moffat
<http://www.broadgatemainland.com/client-news/scottish-productivity-lags-11-behind-uk-research-durham-university-business-school>

more dependent on exports to UK, with the real value of international exports growing at 0.1% p.a. since 2002, very much slower than GDP growth. Moreover, as Figure 19 shows, we are losing out in EU markets with the share of Scottish international exports going to the EU *falling* from 54% to 42% between 2002 and 2014. According to the latest Export Statistics Scotland 2014, published in January 2016, Scotland's international exports grew in nominal terms by 2.6% p.a. between 2002 and 2014. In contrast, Scotland's exports to the EU grew by only 0.5% p.a. in nominal terms over the same period. Changes in Scotland's export performance are analysed further in the *Forecasts of the Scottish Economy* section below.

Figure 19: European Union 28 - % share of Scottish international exports 2002 – 2014



Source: Exports Statistics Scotland 2014 <http://www.gov.scot/Resource/0049/00493251.pdf>

BREXIT and the Scottish Economy

If the British people vote to leave the EU in the forthcoming referendum on 23 June 2016 it is difficult to imagine that this would help to improve Scotland's competitive position with respect to our trade with the EU. The decline in electronics production and the erosion of Scotland's manufacturing base has meant that Scotland has struggled to maintain its penetration of EU markets even on the favourable trading terms obtained through EU membership. It beggars belief that any post BREXIT trading relationship with the EU would be better than current arrangements. The best we could hope for is a free trade area but there is no guarantee that that would be given to us. The likelihood would be that trading arrangements would be less favourable than in the EU. So, not only would actual and potential Scottish exporters have to overcome their weaker competitive position due to lower labour and total factor productivity they would face the additional hurdle of less favourable trading arrangements. Moreover, Brexit might worsen Scottish productivity growth as we note below.

Despite the drop off in Scotland's trade with the EU over the past 12 years, we still conduct 42% of our trade with other members much the same as the 44% of UK exports that go to the EU. Membership of the

EU has led to a deeper integration between the Scottish and rest of the UK economies and the other economies of the EU. This integration not only embraces trade but also foreign direct investment (FDI), technology and knowledge transfer, the migration of skilled labour and flows of financial capital.

The Bank of England's October 2015 publication *EU membership and the Bank of England* shows that trade intensity - the total amount of trade in goods and services relative to the overall size of the economy - has increased significantly since the UK joined the EU. In 1973, the value of UK imports and exports were together worth around 40% of UK GDP, but by 2014 they were worth close to 60% of GDP. Membership of the EU is found by several studies to have contributed positively to trade flows between member states, when the size of these countries and the distance between them is controlled for. Moreover, this 'trade creation' benefit is shown to be greater than the 'trade diversion' cost of trade being diverted away from other non-EU countries.

On FDI, the Bank's paper points out that since the establishment of the single market on 1 January 1993, inward FDI stocks have increased faster in both the UK and EU (as a percentage of GDP) than in the US and the rest of the world. Over that same period, the UK has, on average, remained the top recipient of FDI inflows into the EU. By 2013, the EU accounted for around 50% of the stock of UK inward FDI, compared with 27% from the US and 7% from Asia. Scotland has benefited considerably from these flows and in recent years has been the top UK destination for FDI both from the EU and from outside the EU. It cannot be simply assumed that these flows would continue unaffected by BREXIT, when much EU and non-EU sourced FDI comes to Britain and Scotland to service the EU market and research cites this as a key reason for such investment.²

The Bank's paper highlights studies, some of varying academic provenance, which seek to estimate the costs and benefits to the UK of Brexit. In the Bank's words:

“These studies, which take different approaches, estimate that, if the UK were to leave the EU, annual GDP could be anywhere from 9.5% lower to 1.6% higher (or equivalently, implicitly estimate that the net benefit of EU membership is between -1.6% to + 9.5% of GDP). The wide range around these estimates reflects the uncertainty around the UK's future relationship with the EU following exit.” (p. 85)

The Bank cites particularly the recent (2014) study³ by the Centre of Economic Policy (CEP) at the London School of Economics, which estimated that UK GDP would be reduced by up to 9.5% of GDP in a world where the UK cannot negotiate favourable trade terms with the EU. However, under a more optimistic scenario, in which the UK secures a free trade agreement with the EU, CEP estimates the losses to be around 2.2% of GDP. The static trade welfare effects of Brexit – i.e. the loss of trade creation benefits - are estimated by CEP to range from 1.1% to 3.1% of GDP. However, once the estimated dynamic losses of Brexit on productivity growth through reduced competition and reduced technological innovation linked to lower FDI inflows and reduced financial integration, CEP's estimates of loss rise to 2.2% to 9.5%. The

² Ernst & Young's 2015 'UK attractiveness survey' suggested that as many as 72% of investors considered access to the European single market as important to the UK's attractiveness as a destination for foreign direct investment.

³ Ottaviano, G I P, J P Pessoa, T Sampson and J Van Reenen (2014) "Brexit or fixit? The trade and welfare effects of leaving the EU," CEP/LSE, CEPPA016.

harmful dynamic effects on productivity growth of Brexit are stressed by Campos and Coricelli (2015)⁴ who highlight the importance of *intra*-industry trade within the EU, which they argue:

“... generates gains that are basically driven by increased competition and technological innovation. One expects the impact of the latter on UK productivity growth to be more substantial and longer-lasting.”

Scottish voters in the referendum on June 23rd should not lightly dismiss this warning about the consequences of Brexit for productivity growth in view of the already weak Scottish productivity performance highlighted above.

Forecasts

Background

The latest data offer a mixed picture on the performance of the Scottish and UK economies. With two quarters of growth at 0.1% in each quarter, Scottish GDP growth has slowed considerably, although Scotland's employment performance has been more robust. This has not been the case for GDP growth in the UK where 2nd and 3rd quarter growth in 2015 was 0.6% and 0.4%, respectively. The second estimate for UK GDP growth in the 4th quarter of last year, published on 25th February 2016, was, at 0.5%, unchanged from the preliminary estimate. It cannot be said from these data that UK GDP growth is slowing overmuch, although there has been a weakening in growth compared to 2014. But it must be noted that the 0.5% growth achieved by the UK in the fourth quarter was faster than in Germany (0.3%), France (0.2%), the EU as a whole (0.3%), the US (0.2%), Japan (-0.4%) and the G7 countries combined (0.1%).

We do not yet have outturn data for the fourth quarter 2015 in Scotland but extrapolating from the third quarter what seems to be happening is that domestic demand is still driving growth in Scotland – see *Forecasts of the Scottish Economy* section below. In particular in the first two quarters of 2015 household demand and fixed investment were the main drivers of growth. However, in the third quarter the impetus from fixed investment fell away, mirroring the slowdown in infrastructure spending and construction activity noted above. And also the continuation of the low price of oil may be affecting onshore investment in the oil service industry and related activities. In contrast, the contribution to growth of general government expenditure has increased, while the effect on growth of net trade (export minus imports) remained resolutely negative. The ONS Release *Second Estimate of GDP: Quarter 4 (Oct to Dec) 2015* provides detail on the expenditure component contribution to UK growth. The picture is broadly similar to Scotland in the third quarter and broadly similar in the fourth quarter to the third quarter. So, we must conclude that in the fourth quarter household demand will continue to drive growth with the stimulus from fixed investment weakening and net trade continuing to have a negative effect.

⁴ “Some unpleasant Brexit econometrics”, Vox CEPR's Policy Portal <http://www.voxeu.org/article/some-unpleasant-brexiteconometrics>

The Scottish Chambers' *Quarterly Economic Indicator* for the 4th quarter 2015⁵, shows construction and manufacturing activity remaining strong – although note that the official outturn data show that manufacturing GVA in Scotland contracted in both the 2nd and 3rd quarters. The Chambers' survey also reports a further weakening in activity in business and financial services, which they link to the fall and continuation of the low price of oil, and in a decline in retail and wholesale activity. The latter may be an indication that household demand in Scotland weakened in the 4th quarter.

Finally, as the *Forecasts of the Scottish Economy* section of this Commentary notes from ongoing Fraser of Allander Institute research, "Nowcasts" of the Scottish economy indicate that Scottish growth remained positive in the 4th quarter, although down from earlier 'Nowcasts.' As well as suggesting the slowing of growth through 2015 for Scotland, the Nowcasts are consistent with a slower rate of growth in Scotland compared to the UK as a whole.

In January of this year there was significant turbulence in global financial markets with a flight away from stocks and shares into government bonds as confidence in the 'real' economy diminished. This was presumably a belated reaction to the slowdown in China's economy, weakening in US growth in the 4th quarter of last year and further falls in the price of oil indicating a lack of demand relative to supply. But the fundamentals in the global economy were little changed from when we last reported in November. However, the financial turbulence itself may have a dampening effect on economic activity as companies find it more difficult to raise external finance for investment. Going forward the main positive and negative influences and risks on Scotland's economic growth are:

The positives:

- Domestic demand is still growing helped by the income effect of a low price of oil but may be beginning to slow as investment especially public infrastructure investment growth tails off.
- Domestic inflation is close to zero, below nominal earnings/income growth, which is picking up slowly and so boosting real income;
- Interest rates remain low and household demand boosted by some pick up in wages and earnings.
- External demand for goods and services is being boosted by: the continued resilience of the US economy – despite the slowdown in US growth in the 4th quarter (and US growth was greater than UK growth in 2015 overall); and a gradual pick up in growth in the Eurozone as the risks of deflation appear to recede.

The negatives:

- The low price of oil appears to be having a negative effect on Scottish growth, with negative supply effect outweighing positive demand effect. This negative effect is being sustained as the longer than expected delay in the recovery of oil prices is dampening overall investment expenditure.

⁵ <http://www.scottishchambers.org.uk/userfiles/files/Report%20-%20SCC%20Quarterly%20Economic%20Indicator-%20Q4%202015.pdf>

- Growth remains unbalanced with household spending the key driver fuelled largely by rising household debt. Household net assets are also high so there is a debate about the significance to demand of rising debt. Our view is that growth in household spending financed by rising debt is unsustainable even when household net asset position is strong. This is because different households hold debt from those that hold assets, and indebted households are poorer. In addition, assets are less liquid and so spending may be cut back more readily if debt is perceived to be too high.
- Net trade continues to be strongly negative with export demand threatened by the high level of sterling – although note the recent fall – slowdown in China and ‘policy normalisation’ in United States.
- Fiscal austerity continues in the UK, although the tightness of fiscal policy is being loosened. NIESR notes that “ ... November’s Autumn Statement / Comprehensive Spending Review built on the Summer Budget presented a further loosening of fiscal policy. Significant increases in government consumption are planned, made possible largely by changes to assumptions underpinning the OBR’s macroeconomic forecasts.” The risk is that the Government fails to meet its fiscal targets as tax revenues do not meet expectations and so the government re-intensifies austerity in order to attain its targets. This appears to be about to happen in the forthcoming Budget as signalled by the Chancellor’s comments in China. If so, this would, in our view, be a major mistake. A fiscal tightening when growth is slowing is likely to slow growth further and reduce the tax revenues that the Chancellor desires to meet his fiscal targets. As Oxford’s Professor Simon Wren Lewis has recently pointed out “... We can see that the amount of projected fiscal tightening (the change in the deficit) is far greater in the UK than elsewhere. Only one country currently in deficit is aiming for a surplus, and that is the UK. ...It is very hard to find any respected institution or economist that will back going for overall surplus and keeping public investment low.”⁶
- The referendum on the UK’s membership of the EU announced for 23 June 2016 increases uncertainty significantly in the short term, which is likely to have a negative effect on investment as plans are postponed until the outcome is clear. Then, if UK voters do vote to leave the EU, this short term negative impact on investment and growth will carry over into the long term

It is our view that the risks confronting the Scottish and UK economies are heavily skewed to the downside and with a sustained low price of oil downside risks are even greater for the Scottish economy. It is against this background that we have prepared our latest forecasts of the Scottish economy.

⁶ <http://mainlymacro.blogspot.co.uk/2016/02/the-austerity-winds-have-changed.html>

GVA Forecasts

For our latest GVA forecasts we continue the presentational procedure adopted in previous Commentaries. We present only a central forecast but use estimated forecast errors to establish the likely range within which the true first estimate of the growth of Scottish GVA will lie.

Table 1: Fraser of Allander Institute Forecasts of Scottish GVA growth, 2015-2017

GVA Growth (% per annum)	2015	2016	2017
Central forecast	1.9	1.9	2.2
<i>November forecast</i>	1.9	2.2	2.5
UK actual for 2015 and mean independent new forecasts for 2016 and 2017 (February)	2.2	2.1	2.2
Mean Absolute Error % points	+/- 0.16	+/- 0.64	+/- 1.37

Source: Fraser of Allander Institute forecasts, February 2016 ©

Table 1 presents our forecasts for Scottish GVA - GDP at basic prices - for 2015 to 2017. The forecasts are presented in more detail in the *Forecasts of the Scottish Economy* section of this Commentary⁷.

Table 1 shows that our GDP forecast for 2015 is 1.9%, which is identical to our forecast in November 2015. For 2016, we revised down our forecast from 2.2% in November to 1.9%. This is mainly driven by apparently slowing income growth, a weakening of previously strong domestic investment growth, and an extension of the expected period over which a low price of oil is likely to be sustained. On our central forecast, we are forecasting a pick up in the rate of growth in 2017 as the economy rides out the challenges of 2016 and the price of oil in particular begins to rise to more favourable levels. But at 2.2% our forecast of 2017 remains below our November forecast of 2.5%.

Table 1, also compares our GVA forecasts with the median of latest independent forecasts for the UK as published by the UK Treasury in February 2016. These show that we expect Scottish growth to be weaker than in the UK in both 2016 and 2017 as we expect it will have been in 2015. So, we are now forecasting growth of 1.9% in 2015, 1.9% in 2016 and 2.2% in 2017. Given our previous forecast errors the lower and upper bounds for growth in 2015 are expected to be 1.7% and 2.1%; for 2016, 1.3% to 2.5%, and for 2017, 0.8% to 3.6%.

⁷ As that section notes: "It may seem paradoxical to still be forecasting 2015 over two months into 2016, however we do not yet have a first estimate of the performance of the Scottish over the final quarter of the year just past, by which point we will have the first full picture of the economic growth in that year."

Construction is the major sector exhibiting the fastest growth in 2015, 2016 and 2017 and especially in 2015 with predictions of 6.0% in 2015, 2.8% in 2016, and 2.8% in 2017. Growth of production is forecast to be 0.7% in 2015, 1.0% in 2016 and 1.0% in 2017, reflecting continued expected weakness in manufacturing exports and growth. Service sector growth is projected to be 1.6% in 2015, 2.0% in 2016, and 2.0% in 2017.

Employment Forecasts

Table 2 presents our forecasts for net employee jobs for the years 2015 to 2017 in terms of a central and upper and lower forecast. Note that in forecasting employee jobs we are not forecasting self-employment, which has been an important component of the recent jobs recovery (refer Scottish Labour Market section of this Commentary). Moreover, employee jobs can differ from the self-reported employment in the monthly Labour Force Survey.

The number of total employee jobs is forecast to increase in each year, and the number of jobs added in 2015, 2016 and 2017 has been revised down slightly since our November 2015 forecast. The number of jobs at the end of 2015 is now forecast to be 2,415,200, an increase of 1.3% during 2015. Our new central forecast is that the Scottish economy will add 36,800 jobs in 2016, down by around 9,000 from our November forecast, with a net of 46,850 jobs added in 2017, down by almost 8,000 from our November forecast.

Table 2: Forecast Scottish Net Jobs Growth in Three Scenarios, 2015-2017

	2015	2016	2017
Upper	35,650	50,700	79,400
<i>November forecast</i>	<i>54,950</i>	<i>65,500</i>	<i>88,800.</i>
Central	31,200	36,800	46,850
<i>November forecast</i>	<i>49,400</i>	<i>45,000</i>	<i>54,650.</i>
Lower	26,850	24,250	31,200
<i>November forecast</i>	<i>43,800</i>	<i>24,450</i>	<i>20,500</i>

Source: Fraser of Allander Institute forecasts, February 2016 ©

This year, we expect 30,550 service sector jobs to be created, with around 4,800 added in production, and a reduction of -50 in agriculture. Construction jobs are now forecast to rise this year by 1,500. In 2017, the bulk of the jobs created are again expected to be in the service sector with an additional 38,800 jobs forecast, while 5,450 are added in production, 650 in agriculture and 2,000 in construction.

Unemployment Forecasts

The key unemployment forecasts are summarised in Table 3 below.

Table 3: Forecasts ILO unemployment, 2015-2017

	2015	2016	2017
<i>ILO unemployment</i>			
Rate (ILO un/TEA 16+)	5.8%	5.7%	4.8%
<i>November forecast</i>	6.2%	5.7%	4.6%
Numbers	162,000	153,350	159,850

Source: Fraser of Allander Institute forecasts, February 2016 ©

The ILO rate is our preferred measure since it identifies those workers who are out of a job and are looking for work, whereas the claimant count simply records the unemployed who are in receipt of unemployment benefit. In November 2015 we forecast that the unemployment rate would fall to 6.2% by the end of 2015, with a level of unemployment of 169,150. The recent labour market data indicate that the ILO unemployment rate in the final quarter was 5.8%, with a level of 162,000. Our latest forecasts for the unemployment rate in Scotland for the end of 2016 and 2017 are 5.7% and 4.8% and for numbers 153,350 and 159,850, respectively.

Brian Ashcroft
26 February 2016