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1 Outlook and appraisal

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Overview

Growth in both the Scottish and UK economies is slowing and in the second quarter a gap opened up between Scotland and the UK. The chained volume measure of GDP rose by 0.1% in Scotland in the quarter, while UK GDP rose by 0.7%. The latest Scottish data contain considerable revisions from the previously published data, and one worry is whether the growth gap is genuine or will be revised away in subsequent quarters. However, despite what some prominent commentators have said about the latest GDP data providing a different picture from other Scottish data, we think that the data do tend to show an absolute and relative – to the UK – slowdown in the growth of the Scottish economy. Growth in the UK economy is slowing too. The preliminary estimate for UK GDP in the third quarter was 0.5%, with growth weakening from the 0.7% attained in the second quarter. Growth in the world economy is also forecast by the IMF to be weaker this year than last but is expected to pick up again next year.

The latest data also show that the recovery in the labour market is slowing in both Scotland and the UK, while the recovery remains stronger in the UK. In the quarter to August 2015, employment in Scotland fell by -6,000 (-0.6%) to 2,610,000 while unemployment rose again by 18,000 (0.6%) to 170,000 with the rate rising to 6.1%. In both the jobs market and in output the recovery has been stronger in the UK than in Scotland. On jobs, employment was 2.2% above the pre-recession peak in Scotland at the end of the second quarter, while UK jobs were 4.4% higher than the peak. On output, by the second quarter, Scottish GDP was 3% above the pre-recession peak while UK GDP (ex oil & gas) was more than double (6.9%) above its peak. And in terms of GDP per head, which in many ways is a better measure of the prosperity of people, in the second quarter UK GDP per head stood at +0.6% above its pre-recession peak - after nearly 6 years – while the position in Scotland is that it is worse with GDP per head in 2015q2 -0.3% below pre-recession peak.

What seems to be happening is that domestic demand is still driving growth in Scotland and UK. But in Scotland it is the construction sector that is providing the main impetus with public spending on infrastructure underpinning growth. In the UK in contrast, the service sector is the main driver with construction weakening. In Scotland, weakness in the service sector has been affected by the onshore implications of the fall in the price of oil hitting business services in particular as well as mining and quarrying. Manufacturing growth is weak in both Scotland and the UK and seems to be a reflection of weakening external demand for UK exports reinforced by the strength of sterling, the current crisis in the UK steel industry being a sad case in point.

Domestic demand in Scotland and the UK continues to be boosted by: low inflation; net immigration into the UK; low interest rates; and some pick up in wages and earnings. To be set against these positive influences are actual and potential threats to the growth of domestic demand: further planned austerity by the UK Conservative Government exemplified by the planned cuts to tax credits; and the continuing
high levels of household debt, which for some households paying a variable interest rate will become an increasing burden if rates rise in the near future.

*External demand* for Scottish and UK goods and services are being boosted by: the continued resilience of the US economy; a gradual pick up in growth in the Eurozone as the risks of deflation appear to recede while the problems of Greece are, for the short term at least, resolved; and the world economy is forecast by the IMF to grow by 3.1% this year and by 3.6% in 2016. To be set against these positive influences are a number of actual and potential threats to the growth of external demand: the high sterling exchange rate against the Euro, which appears to have been boosted by the short-term market expectation of an imminent increase in UK interest rates; the IMF’s forecast for global growth in 2015 and 2016 represents a markdown from the 3.4% achieved in 2014; China’s transformation from dependency on high domestic investment, forced saving and a disproportionate reliance on external demand to a greater reliance on household consumption and associated structural reforms will lead to slower growth; the effect of what the IMF calls ‘policy normalisation’ of monetary policy in the United States as interest rates begin to rise is expected to have global repercussions, which will serve to slow growth especially in emerging markets.

It is against this background that we have prepared our latest forecasts.

Our GDP forecast for 2015 is 2.01.9%, which is a significant revision down from our forecast of 2.5% in June of this year due to the evidence of a slower than expected rate of growth in the second and third quarters of the year. For 2016, we have also revised down our forecast to 2.2% from 2.3% in June, in recognition that the slow down in the rate of recovery will continue into 2016 as exporting continues to be difficult due to the high pound sterling and because of the lingering effects on Scottish onshore activity of the low price of oil. 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. We have therefore raised our forecast for 2017 to 2.5% from 2.3% in our June forecast.

The number of total employee jobs is forecast to continue to increase in each year, and at a faster rate than that seen during 2014 (although not as strongly as in 2013). Our forecast for the number of jobs added in 2015 has been revised down since June’s forecast, from 51,250 to 49,400. The number of jobs at the end of 2015 is now forecast to be 2,433,400, an increase of 2.1% on 2014 (the same percentage growth forecast as in June’s Commentary). Our current central forecast is that the Scottish economy will add 45,000 jobs in 2016, down by 4,600 from our June forecast, while we forecast the addition of 54,650 jobs in 2017, an increase of nearly 3,000 on our June forecast.

On unemployment, the most recent figures show that unemployment rose again by 18,000 (0.6%) to 170,000 with the rate rising to 6.1%. Unemployment in Scotland rose by 19,000 over the year, or 0.7%. Given the small revisions to the growth in employee jobs over the next two years in our latest forecasts, there are only small revisions to the levels and rates from our earlier forecasts. Despite the recent increases, the improvement in the labour market is forecast to continue with unemployment rates and numbers falling to end 2017. Our projection for unemployment on the ILO measure at the end of 2015 is 6.2%, falling further to 5.7% by the end of 2016, and 4.6% by end 2017.
In this Outlook & Appraisal we also continue our consideration of the medium to long-term challenges facing the Scottish economy. Specifically, we ask first, how are we doing over the long-term in terms of growth performance against the UK? Secondly, we ask if Scotland is to raise its long-term growth performance how well equipped is the economy to do that? And that is a question about Scotland’s economic competitiveness.

On long-term growth performance, the main conclusions are: Scottish ‘trend’ GDP growth over last 50 years is identical to UK growth rate at 2.3% p.a. and Scottish ‘trend’ GDP per head growth over last 50 years is 2.2% p.a. faster than UK’s 2% p.a. – due to falling or lower population growth in Scotland. So, while in comparison with the UK and indeed many other small and large countries, Scotland’s economic performance is ‘not too bad’, we note that there has been a relative weakening of the Scottish economy since 2010. It follows, that if Scotland is to prevent a further deterioration in performance compared to the UK and secure a sustained increase in its overall growth rate the Scottish economy will have to raise its level of competitiveness.

On raising competitiveness, we show that Scottish labour productivity while growing, is weaker than in the UK. We cite recent research evidence from Durham University’s Professor Richard Harris and Dr. John Moffat that Total Factor Productivity (TFP) - the productivity of all factors: labour, capital and land – is also lower in Scotland than UK. They find that on average Scotland has had significantly lower productivity compared to the rest of the UK since the end of the 1990s. Overall, the ‘gap’ was around 11% across all sectors in 2012 (and 22% below the leading UK region i.e. London and the South East). There is an academic and policy consensus that we get stronger productivity growth through improvements in: innovation/R&D; exporting (especially in small open economies); skills; investment, and enterprise. Scotland is shown to be weak to varying degrees on all of these determinants of competitiveness. We look particularly at export performance and find that there has been a long-term decline – since the early 2000’s - in manufacturing exports abroad. This has affected the performance of Scotland’s overall exports to the rest of the world. In addition, there is clear evidence of the growing importance to the Scottish economy of exports to the rest of the UK, which peaked at 68% of total value of Scottish exports prior to the recession. Exports to rest of UK are heavily dominated by service sector exports and financial services in particular. Their importance dipped during and immediately after the Great Recession to 2012 with the contraction of financial services activity but it has since picked up again. Another pointer is that exports to the rest of UK track GDP much better than do exports to the rest of the world. This in part reflects the scale of rest of the UK exports to both GDP and total Scottish exports.

In the next Commentary we shall consider some of the policy issues that arise from this analysis. The issues that need to be considered include: 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.

Recent GDP performance

The latest Scottish GDP data are for the second quarter of this year (2015q2). The chained volume measure of GDP rose by 0.1% in Scotland in the quarter, while UK GDP rose by 0.7%. Over the year –
four quarters on four quarters – Scottish and UK growth was identical at 2.7%. The Scottish and UK quarterly growth rates back to 2007q1 are presented in Figure 1.

![Figure 1: Scottish and UK quarterly GDP growth, 2007q1 - 2015q2](image)

Source: Scottish Government Gross Domestic Product 2nd Quarter 2015, and Fraser of Allander Institute (FAI) calculations

The latest data contain considerable revisions from the previously published data, with overall growth lowered by -0.1% points in 2015q1 and raised by 0.1% in 2014q4. And across sectors, production output in 2015q1 is revised down by -0.3% points, which appears to be mainly due to mining and quarrying, while construction output is revised up by 0.1% and is subject to detailed, sizable revisions going back to the fourth quarter of 2012, and agriculture, forestry and fishing is revised up by 0.1%. Output in the service sector is unrevised on 2015q1 but is subject to upward revisions for the final three quarters of 2014 and downward revision in 2014q1. We are concerned about these revisions but are assured by Scottish Government statisticians that they do not reflect ‘errors’ but reflect updated survey returns from companies and changes in the seasonal adjustment factors after re-estimation to accommodate the latest data. The worry is whether the gap that has opened up between Scottish and UK performance in the second quarter of this year is real or will be revised away in subsequent quarters. However, despite what some prominent commentators have said about the latest GDP data providing a different picture from other Scottish data, we think that the data do tend to show an absolute and relative – to the UK – slowdown in the growth of the Scottish economy.

On the revised data, the Scottish economy has now enjoyed positive growth for the last 12 quarters (since 2012q2) while in the UK the sustained recovery period has been slightly shorter at 10 quarters from 2013q1. However, the UK recovery from the Great Recession has overall been stronger than in Scotland as is shown in Figure 2a.
By the second quarter, Scottish GDP was 3% above the pre-recession peak while UK GDP was 5.8% 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 significantly (much?) 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 second quarter of this year amounts to 8.4% in Scotland and -12.8% in the UK.

The 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.

Figure 2b really puts the ‘recovery’ into perspective. In the second quarter UK GDP per head stood at +0.6% above its pre-recession peak – and that after nearly 6 years! The position is worse for Scotland with GDP per head in 2015q2 -0.3% below pre-recession peak. As Oxford University’s Professor Simon Wren Lewis notes in discussing the UK recovery “… average growth in GDP per head between 1955 and 2008 was about 2.25%. Any recovery from such a deep recession should have seen growth rates well in excess of this. Instead the revised data give us 1.1% growth in 2011, 0.5% in 2012, 1.5% in 2013.
Only by 2014 had we got near the long-term average growth rate. This is still an absolutely terrible performance for a recovery. 

**Figure 2b: GDP per head Scotland and UK in recession and recovery to 2015q2**

Returning to the overall GDP data we need in comparing Scotland and the UK, as noted in previous Commentaries, 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

When oil and gas production is removed, we find that the gap in the strength of the recovery continues to be wider in the UK’s favour. UK GDP (ex oil & gas) stands 6.9% above the pre-recession peak compared to 3.0% 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 8.4% since the trough of recession while UK GDP - ex oil & gas – has recovered by 13.8% from its trough by 2015q2, compared to 12.8% when oil and gas output is included. In the latest quarter, UK GDP ex oil and gas rose by 0.5% - less than the 0.7% when oil & gas is included, suggesting a pickup in offshore activity - and by 2.7% over the year – four quarters on four quarters.

[http://mainlymacro.blogspot.co.uk/2015/10/following-publication-of-revised-gdp.html](http://mainlymacro.blogspot.co.uk/2015/10/following-publication-of-revised-gdp.html)
Turning now to individual sectors of the economy, we see that again the pattern of growth between Scotland and the UK differed considerably in the second quarter but with some subtle differences from earlier quarters. In the UK, the service sector was again by far the main driver of the overall growth rate of 0.7% by contributing growth of +0.5% points. In Scotland the service sector made no contribution to growth at all. In contrast, the principal driver of the overall growth rate in Scotland of 0.1% was again the construction sector contributing +0.2% points while the sector in the UK contributed 0.1% points to the much larger overall growth. In addition, and unusually, the production sector contributed negatively to growth in Scotland by -0.1% while making a positive contribution to growth in the UK of +0.1%. Within production, manufacturing in the UK made no contribution to growth, while making a negative contribution -0.1% points in Scotland, again something of a reversal of the earlier pattern. In Scotland mining & quarrying also made a negative contribution to growth of -0.1% points, with electricity & gas the only production sub-sector providing a positive contribution to growth of +0.1%. The production sub-sectors in the UK other than mining & quarrying all made a zero contribution to growth.

Service sector

The Scottish service sector, which - on 2012 weights - accounts for 75% of GDP in Scotland and 78% in the UK, exhibited zero growth in Scotland in the second quarter and produced 1.6% growth over the
year. UK services output registered positive growth of 0.6% in the quarter – see Figure 4 – and 3.1% over the year.

**Figure 4: Scottish and UK services GVA growth 2007q1 to 2015q2**

![Graph showing Scottish and UK services GVA growth 2007q1 to 2015q2](source: Scottish Government Gross Domestic Product 2nd Quarter 2015, and FAI calculations)

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 the
sector stood at 3.3% above its pre-recession peak by the second quarter of this year significantly less than the 10.3% above peak achieved in the UK.

Flat service sector growth in the second quarter in Scotland meant that the gap between the size of the recovery widened in favour of the UK to +7% points. As noted below, the effect of the slowdown in the oil & gas industry due to the low price of oil is also affecting the service sector in Scotland much more than the UK, for obvious reasons. And that is one contributory factor to Scotland’s weaker service sector performance recorded here.

**Production / Manufacturing sector**

![Figure 6: Scottish and UK manufacturing GVA growth at constant basic prices 2007q1 to 2015q2](Image)

Source: Scottish Government Gross Domestic Product 2nd Quarter 2015, and FAI calculations

The production sector in Scotland failed to boost Scottish growth in the second quarter contracting by -0.1% in the quarter but growing by 1.9% over the year. Yet, overall the sector has been a key driver of Scotland’s recovery growing by 10.8% since the trough of the recession compared to 8.4% for the economy as a whole. This contrasts with the growth of 6% in the Scottish service sector since the trough of the recession. In the UK, despite the stronger performance in the second quarter, the sector remains a drag on the recovery with growth of 2.2% to 2015q2 since the trough of the recession compared to the 12.8% growth of overall GDP. Scottish production output fell in the second quarter by -0.8% while UK production output grew by 0.6%. Over the year - four quarters on four quarters – Scottish production GVA rose by 1.9%, twice that of the UK where production output rose by 1%.

Within production, Mining & quarrying GVA contracted by -3.3% in the second quarter and rose by 4.3% over the year (UK mining & quarrying rose by 7.5% and -0.5%, respectively). Electricity & gas supply
GVA rose by 2.4% in the second quarter but fell by -2.9% over the year (UK electricity & gas supply -3% and 0.2%, respectively). In the second quarter, GVA in Scottish manufacturing fell by -1.1% but rose by 2% over the year, while UK manufacturing output contracted by -0.5% in the quarter rising by 1.6% 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.

We noted in the June Commentary (Vol. 39, No.1) that under the new ESA2010 data system the recovery in manufacturing was now weaker in Scotland than in the UK compared to the situation under the ESA 1995 data system. The latest data revisions in both the UK and Scotland have served to narrow the gap in favour of Scotland. However, manufacturing weakened in both Scotland and the UK after the fourth quarter last year and the slowdown was greater in Scottish manufacturing. By the second quarter of this year Scottish manufacturing GVA was -6.3% below its pre-recession peak, compared to -6.0% for manufacturing in the UK. 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 deeply worrying that the level of manufacturing output in both Scotland and the UK as a whole is now below the level it was in the third quarter of 2010!

Within manufacturing, only three of the seven principal sectors experienced growth in the fourth quarter: clothing & leather products (accounting for 4% of manufacturing GVA) which grew 7.1% in the quarter but contracted by -5.8% over the year; refined petroleum, chemical & pharmaceutical products (accounting for 13% of manufacturing GVA) which grew by 0.5% in the quarter and by 5.1% over the year; and transport equipment (accounting for 6% of manufacturing GVA) which grew by 1.2% in the

Figure 7: Manufacturing GVA in Scotland and UK in recession and recovery to 2015q2

Source: Scottish Government Gross Domestic Product 2nd Quarter 2015, and FAI calculations
quarter and by 0.1% over the year; and computer, electrical and optical products (electronics) (accounting for 10% of manufacturing GVA), grew by 3.7% in the quarter and by 6.5% over the year.

However, that growth performance was offset by the four manufacturing sub-sectors that contracted in the quarter: food & drink (accounting for 27% of manufacturing GVA) grew by -0.0% in the quarter but grew by 3.6% over the year; metals, metal products & machinery n.e.c. (accounting for 17% of manufacturing GVA) contracted by -5.4% in the quarter and by -3.5% over the year; transport equipment (accounting for 7% of manufacturing GVA) contracted by -6.7% in the quarter but grew by 3.8% over the year; and other manufacturing industries, repair & installation (accounting for 24% of manufacturing GVA) which contracted by -1.9% in the quarter but grew by 1.9% 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 - 2015q2**

Scottish construction GVA grew quite strongly in 2015q2 by 3.5% following growth of 2.8% in the first quarter. The sector has exhibited strong growth for the past six quarters. Over the year the sector grew by a staggering 18.7%. As noted above it was again the principal driver of growth in Scotland. The UK construction sector grew by 1.3% in the second quarter and by 6.3% over the year. Figure 9 shows the recession and recovery performance of both the Scottish and UK construction sectors.
**Figure 9a: Construction Scotland and UK in recession and recovery to 2015q2**

Source: Scottish Government Gross Domestic Product 2nd Quarter 2015, and FAI calculations

**Figure 9b: Infrastructure and other new construction output in Scotland 2012q1 =100**

Source: ONS: Output in the Construction Industry August 2015 and FAI calculations
Figure 9a highlights how Scottish construction activity has surged since the final quarter of 2013. The chart shows that by the 2015q2 Scottish construction had moved to 13% above its pre-recession peak compared to UK construction, which was -2.3% below its pre-recession level. There has clearly been a major positive change in the performance of the Scottish construction industry compared to its UK counterpart since the first quarter of 2014. Figure 9b reveals why.

What Figure 9b reveals is that the surge in Scottish construction output is almost wholly explained by a surge in spending on infrastructure, which almost quadrupled between 2012q1 and 2015q2. Other construction activity, however, rose by less than half over the same period. The data are in current prices and not seasonally adjusted but the surge in infrastructure spend cannot be explained away by inflation and/or seasonal factors. The surge is real and appears to be driven by increased public spending on infrastructure by the Scottish government, with spending on the new Forth road bridge crossing (and Borders Rail link etc.) likely to be a major element in this.

**Components of private services sector growth**

Within services, two of the three principal sub-sectors in the private sector displayed positive growth in the fourth quarter: business and financial services and distribution, hotels and catering. Business and financial services grew by 0.2% in the quarter and grew by 1.7% over the year, compared respectively, to growth of 0.5% and 3.6% 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 in recession and recovery to 2015q2**

Source: Scottish Government Gross Domestic Product 2nd Quarter 2015, and FAI calculations
By the second quarter, output or GVA in the sector had moved to +6.6% above its pre-recession peak in Scotland compared to +13.7% in the UK and the recovery in the sector in Scotland clearly appears to have stagnated in the last three quarters. One key contributory factor to this stagnation may well be the effect of the low oil price on activity in oil and gas support firms, which are classified to business services. And another factor, as noted in previous Commentaries, is that the aggregate GVA data for business and financial services in Scotland have recently masked significant differences between the performances of financial services on the one hand and business services on the other. Figure 11 shows what has been happening to financial services since peak output in the second quarter of 2007.

![Figure 11: Financial services in Scotland in recession and recovery 2007q2 to 2015q2](source: Scottish Government Gross Domestic Product 2nd Quarter 2015, and FAI calculations)

By the second quarter of this year GVA in the sector was -13.4% below the pre-recession peak compared to the trough of -15.5% in 2012q4. It is quite clear from these data that the belated recovery in the sector, which did not really start until late 2012 has largely petered out. 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 0.3% in the quarter and by 1.8% over the year. In the UK, the sector grew by 1.1% in the quarter and by 4.7% over the year. Figure 12 shows the performance of the sector during recession and recovery.
Figure 12: Distribution, hotels & catering in recession and recovery to 2015q2

Source: Scottish Government Gross Domestic Product 2nd Quarter 2015, and FAI calculations

Figure 13: Government & other services in recession and recovery to 2015q2

Source: Scottish Government Gross Domestic Product 2nd Quarter 2015, and FAI calculations

Figure 12 reveals that by the second quarter the sector in the UK was +8.5% above its peak, while the sector in Scotland continued to do much worse at only +3.6% 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.

Output in Government & Other Services in Scotland in the second quarter fell slightly by -0.1% compared to a slight rise of 0.1% the UK. Over the year, output in the public sector grew by 1.3% in Scotland and by 0.7% 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 6.5% above the pre-recession peak, which as we have noted in many earlier Commentaries is difficult to understand at a time of fiscal consolidation, whereas output in the sector in Scotland was 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.

**Figure 14: Transport, storage & communication in recession & recovery to 2015q2**

The sector contracted by -0.9% in Scotland in 2015q2 but grew by 1.4% in the UK. Over the year, growth was 2.3% in Scotland and 4.5% in the UK. Figure 14 makes clear 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 second quarter GVA in the Scottish sector was -9.0% below its pre-recession peak compared to +8.9% above in the UK, a dramatic difference in the performance of the sector between Scotland and the UK.

**The Labour Market**

The latest labour market data for June – August 2015 (see Scottish Labour Market section below) provides further evidence that the recovery is faltering. In the quarter to August 2015 employment fell by -6,000 (-0.6%) to 2,610,000 while unemployment rose again by 18,000 (0.6%) to 170,000 with the rate rising to 6.1%. In the UK, employment rose, with 140,000 jobs created or an increase of 0.2%, while unemployment again fell by -79,000 (-0.3%) to a rate of 5.4%. Over the year, Scottish jobs fell by -1,000, a fall of -0.2%, while UK jobs rose 359,000, or 0.6%. Unemployment in Scotland rose by 19,000 over the year, or 0.7%, while in the UK unemployment also continued to fall by -198,000, or -0.6%. The numbers inactive rose in Scotland in the quarter by 2,000 or 0.1%, compared to a fall in the UK of -4,000. Over the year, inactive numbers fell by -10,000 (-0.3%) in Scotland and by -13,000, or -0.1% in the UK. Figure 15 shows the performance of employment in Scotland and the UK during recession and recovery to 2015q2.

**Figure 15: Total employment: Scotland and UK pre-recession peak to 2015q2**

By the end of the second quarter, Scottish jobs as reported in the LFS household surveys were 2.2% above the pre-recession peak, while UK jobs were 4.4% above peak. So, the latest data show the
recovery in the labour market is slowing in both Scotland and the UK, while the recovery remains stronger in the UK.

Challenges facing the Scottish economy

In the previous Commentary (Vol 39, No. 1) we began to consider the challenges facing the Scottish economy. We suggested that one way of to organise thoughts about challenges is to separate them into shorter-term and longer-term issues, that is distinguishing between capacity utilisation and capacity growth. In the former, the focus is on the issue of current or short-term demand deficiency, while the capacity growth question is essentially about longer-term supply and its impact on competitiveness. The July Commentary focused on the short-term capacity utilisation issue. In the present Commentary and subsequent Commentaries we focus on the more long-term capacity growth question. Specifically, in this Commentary we ask first, how are we doing over the long-term in terms of growth performance against the UK? Then secondly, we ask if Scotland is to raise its long-term growth performance how well equipped is the economy to do that? And that is a question about Scotland’s economic competitiveness.

How are we doing?

The short answer is not too badly as Figures 16 and 17 reveal.

Figure 16: UK and Scottish GVA growth 1963-2013 and various periods (percent p.a.)

Source: For Scotland - Scottish Government GVA series; for the UK series is ONS
Figure 17: UK and Scottish GVA growth per head 1963-2013 and various periods (percent p.a.)

Source: For Scotland - Scottish Government GVA series; for the UK series is ONS

Figure 16 charts the absolute growth of Scottish and UK GDP – GVA at basic prices – for several periods between 1963 and 2013, 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:

- Scotland’s ‘trend’ GDP growth rate over last 50 years is identical to UK growth at 2.3% p.a.
- Scotland’s ‘trend’ GDP per head growth rate over last 50 years is 2.2% p.a. faster than UK’s 2% p.a. – due to falling or slower population growth in Scotland
- It is interesting to see stronger Scottish growth in the 1990’s and 2000’s – in the 2000’s in part due to Scotland’s weaker recession.
- It is a little worrying that the recovery since 2010 is weaker in Scotland on both measures – GDP and GDP per head; plus a
- Data health warning: data is as compiled under ESA 1995: the outturn may be different under the new ESA 2010 data.

So, while in comparison with the UK and indeed many other small and large countries, Scotland’s economic performance can be rated as ‘not too bad’, we note the relative weakening of the Scottish economy since 2010. If Scotland is to prevent a further deterioration in its performance compared to the UK and secure a sustained increase in the growth rate overall the economy it will have to raise its competitiveness.
How competitive is the Scottish economy?

For countries and regions the key to competitiveness is productivity. Increases in productivity, allow higher wages, while lowering / reducing the growth of unit costs and product prices. Clearly, competitiveness is about more than costs and prices; the quality of a product/ service and its innovativeness also need to be taken into account. Data from the Scottish Government published at the end of June provide information on whole economy output per hour worked in Scotland and UK. This is outlined in Figure 18.

### Figure 18: Whole economy output per hour: Scotland and Scotland compared to UK 1998-2013

![Graph showing whole economy output per hour: Scotland and Scotland compared to UK 1998-2013](source: ONS Labour Productivity 2014 Q3 and Scottish Government Labour Productivity June 2015.)

The key conclusions to be drawn from Figure 18 are:

- Labour productivity has risen absolutely in Scotland by 21% between 1998 and 2013
- 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 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. (The signed piece Scotland’s productivity performance: latest data and insights by Kenny Richmond and Jennifer Turnbull, published in this edition of the Commentary, offers some explanation for the weakening in Scotland’s productivity performance post-recession).
So, Scottish labour productivity, while growing, is weaker than in the UK. Moreover, there is research evidence\(^2\) from Durham University’s 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 also lower in Scotland than in the UK. Specifically, by estimating econometrically the productivity for each plant operating in manufacturing and services in Great Britain between 1997-2012, they find that “on average Scotland has had significantly lower productivity compared to the ‘… rest of the UK’ since the end of the 1990s. Overall, the ‘gap’ was around 11% across all sectors in 2012 (and 22% below the leading UK region).” Furthermore, they find that “…the ‘gap’ was particularly noticeable in the service sector; indeed there is some evidence Scotland performs slightly better than the ‘rest of the UK’ in manufacturing. But given the relative size of the manufacturing and services sector, the overall outcome was a lower level of TFP in Scottish plants.”

Why should this be?

There is an academic and policy consensus that we get stronger productivity growth through improvements in: innovation/R&D; exporting (especially in small open economies); skills; investment; and in enterprise. Harris and Moffat find, drawing from evidence in the UK Government’s 2011 Community Innovation Survey that out of the 12 UK regions,

- For innovation, Scotland had the third lowest percentage of manufacturing establishments innovating (either product or process innovation), and second lowest for services.

- For undertaking R&D, Scotland was second lowest of the 12 for manufacturing but third highest for services.

- For exporting, Scotland had the lowest percentage of establishments involved during 2008-10 in both manufacturing and services.

- For R&D intensity, spending on R&D per unit-of-sales was less than half of that of the ‘rest of the UK’

Further to this we can add evidence on entrepreneurship, which is found to be weak in Scotland. In the Global Entrepreneurship Monitor (GEM) Scotland's rate of total early stage entrepreneurial activity, was among lowest of 20 developed countries. Further, new firm VAT registration data show that the rate has been consistently below Scotland’s population share of circa 8.3% over the last thirty years. The latest data indicate a slight upward trend since the trough of the recession in 2009 and a trend rise in the Scottish share of UK VAT registrations since 2004, which peaked in 2010 at 6.60% but has fallen since to 6.45% in 2012.

On exporting, it is difficult to obtain a proper appreciation of long-run trends because the main data source the annual Global Connections Survey presents the data in nominal terms. There are no volume

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\(^2\) (2014) Scottish Productivity: implications post-2016, by Richard Harris and John Moffat
estimates for total exports nor for the important service sector. We have volume data for international manufacturing exports – sales outside the UK. These data show a long-term decline in activity after the peak exports generated by the electronics industry in the late 1990s as Figure 19 indicates.

**Figure 19: Scottish manufacturing export volumes 1999q1 to 2015q2 seasonally adjusted - 2006q1 = 100**

![Graph showing Scottish manufacturing export volumes 1999q1 to 2015q2 seasonally adjusted with GDP Recession highlighted.](source: Scottish Government Index of manufacturing exports 2015q2)

Figure 20 shows the track of real exports – based on FAI calculations – to the rest of the UK and the rest of the world compared to real GDP.

Figure 20 makes clear that the decline in manufacturing exports abroad as shown in Figure 19 is reflected in the performance of overall exports to the rest of the world. In addition, it also highlights the growing importance of exports to the rest of the UK (rUK) over the same period, 1998 and 2014. Though the importance of rUK dipped during and immediately after the Great Recession to 2012, it has since picked up. Another pointer is that exports to the rest of UK track GDP much better than do exports to the rest of the world. This in part reflects the scale of rest of the UK exports to both GDP and total Scottish exports.

Figure 21 uses *Global Connections Survey* data to illustrate this.
Figure 20: Scottish GDP and exports, by volume 1998 – 2014 (2012 =100)

Source: Scottish Government GDP index 2015q1, Quarterly National Accounts Scotland 2015 Quarter 1 and FAI calculations

Figure 21: Manufacturing and Rest of UK exports as share of total Scottish exports, 2002 - 2013

Source: Scottish Global Connections Survey 2013 (published January 2015)
The rest of the UK is by far the most important "export" market to Scotland accounting for around two-thirds of exports. Moreover, while there are some differences between the GlobalConnections data and the Scottish Government’s quarterly accounts data, that share has risen since the late 1990s and, except during the recession and its aftermath, appears to be continuing to increase after 2013. This analysis raises several issues for policy:

- How can Scottish economy raise its 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?
- How to raise service sector exports to the rest of the world.

In the next Commentary we shall consider some of the policy issues that need to be addressed in raising productivity in general and exports in particular.

**Forecasts**

**Background**

The latest data confirm our judgement in June 2015 that while the recovery was delivering strong and above trend growth in Scotland and the UK there were some indications that growth was starting to slow down. Later data appear to confirm that judgement. The preliminary estimate for UK GDP in the third quarter of this year, that is up to end-September 2015, indicate growth of 0.5% over 2015q2. Growth therefore weakened from the 0.7% attained in the second quarter but was a little stronger than growth of 0.4% recorded for the first quarter of this year. The preliminary estimate covers less than half of the economy using the output method, so there is a strong chance that it could be revised although revisions do tend to be small between the preliminary and third estimates of GDP. In the preliminary estimate for the third quarter in the UK, the service sector grew reasonably strongly in the quarter at 0.7%, manufacturing output contracted by -0.3% and construction activity fell by -2.2%.

We do not yet have outturn data for the third quarter in Scotland but extrapolating from the second quarter what seems to be happening is that domestic demand is still driving growth in Scotland and UK. But in Scotland it is the construction sector that is providing the main impetus with public spending on infrastructure underpinning growth. In the UK in contrast, the service sector is the main driver with construction weakening. In Scotland, weakness in the service sector has been affected by the onshore implications of the fall in the price of oil hitting business services in particular as well as mining and quarrying. Manufacturing growth is weak in both Scotland and the UK and seems to be a reflection of weakening external demand for UK exports reinforced by the strength of sterling, the current crisis in the UK steel industry being a sad case in point.

Domestic demand in Scotland and the UK continues to be boosted by
low inflation, helped by the fall in the price of oil and some other commodity prices, with the fall in the oil price being key, further boosted by the low price of imports due to the strength of sterling,

net immigration into the UK

low interest rates, and

some pick up in earnings.

However, actual and potential negative influences on the growth of domestic demand include

- further planned austerity by the UK Conservative Government, currently exemplified by the planned cuts to tax credits, and

- the continuing high levels of household debt, which for some households paying a variable interest rate will become an increasing burden if rates rise in the near future, There is a strong chance that the US Federal Reserve will raise interest rates in December and the Bank of England could follow suit early in 2016, although it is to be hoped that with the fragility of the UK recovery becoming more evident the Bank will hold its fire.

External demand for Scottish and UK goods and services are being boosted by

- the continued resilience of the US economy, although latest data show that growth slowed to an annual rate of 1.5% in the third quarter, down from 3.9% in the second quarter, but this in turn was strongly influenced by a slowdown in inventory production, which masked a 3% growth in domestic demand

- a gradual pickup in growth in the Eurozone as the risks of deflation appear to recede while the problems of Greece seem to have been, for the short term at least, resolved,

- and the world economy is forecast by the IMF to grow by 3.1% this year and by 3.6% in 2016.

Actual and potential negative influences on the growth of external demand include

- the high sterling exchange rate against the Euro, which appears to have been boosted by the short-term market expectation of an imminent increase in UK interest rates when, given continuing current account deficits of 5% and more, the long-run expectation would be for the equilibrium rate of sterling against the Euro to be much lower

- the IMF’s forecast for global growth in 2015 and 2016 despite remaining fairly high represents a markdown from the 3.4% achieved in 2014,

- the IMF in its latest World Economic Outlook published in October 2015 notes that there are three major challenges confronting the global economy and its medium term growth:
China’s transformation from dependency on high domestic investment, forced saving and a disproportionate reliance on external demand to a greater reliance on household consumption and associated structural reforms will lead to slower growth: the IMF predicts that growth in China is expected to decline to 6.8% this year and 6.3% in 2016.

- The fall in commodity prices and in the prices of basic products such as steel are in part the consequence of the slowdown in Chinese growth, either directly or through policy responses inducing possible dumping.
- The effect of what the IMF calls ‘policy normalisation’ of monetary policy in the United States as interest rates begin to rise is expected to have global repercussions, which will serve to slow growth especially in emerging markets.

Turning now to the most recent data on Scotland. The latest Scottish Chambers Business Survey suggests that growth slowed in the third quarter despite positive seasonal influences from tourism and construction activity, with both output and investment, remaining strong. However, in construction there was a hint of a slowing in public investment suggesting the boost given by public infrastructure investment projects to construction output and overall growth may be beginning to weaken. Slower growth was experienced among the Manufacturing, Retail & Wholesales and Financial & Business Service sectors, with investment activity also declining. The Survey also reveals the impact that the low global market price for Brent crude oil is continuing to have on the Scottish economy, with the performance of oil and gas service businesses dampening results in the Financial and Business Services sector.

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 reveal a slight slowing in Scottish growth continuing during the first three quarters of 2015. 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.

It is against this background that we have prepared or latest forecasts of the Scottish economy.

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 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 Commentary.

Table 1 shows that our GDP forecast for 2015 is 1.9%, which is a significant revision down from our forecast of 2.5% in June 2015. The downward revision is largely due to the evidence of a slower than expected rate of growth in the second quarter and the most recent evidence of a further slowing of the
recovery in the third quarter. For 2016, we have also revised down our forecast to 2.2% from 2.3% in June, in recognition that the slowdown in the rate of recovery will continue into 2016 as exporting continues to be difficult due to the high pound sterling and because of the lingering effects on Scottish onshore activity of the low price of oil. 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. We have therefore raised our forecast for 2017 to 2.5% from 2.3% in our June forecast.

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

<table>
<thead>
<tr>
<th>GVA Growth (% per annum)</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central forecast</td>
<td>1.9</td>
<td>2.2</td>
<td>2.5</td>
</tr>
<tr>
<td>UK mean independent</td>
<td>2.5</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>new forecasts (October)</td>
<td>2.5</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>Mean Absolute Error % points</td>
<td>+/-0.28</td>
<td>+/-0.8</td>
<td>+/-1.37</td>
</tr>
</tbody>
</table>

Source: Fraser of Allander Institute forecasts, November 2015 ©

Table 1, also compares our GVA forecasts with the median of latest independent forecasts for the UK as published by the UK Treasury in October 2015. These show that we expect Scottish growth to be weaker than in the UK in both 2015 and 2016; that despite the boost to growth provided by public infrastructure investment plus the weakness in services - especially business services - and in manufacturing. So, we are now forecasting growth of 1.9% in 2015, 2.2% in 2016 and 2.5% in 2017. Given our previous forecast errors the lower and upper bounds for growth in 2015 are expected to be 1.6 % and 2.2%; for 2016, 1.4% to 3.0%, and for 2017, 1.1% to 3.9%.

The construction sector continues to be the major sector forecasting the fastest growth in 2015 (6.0%) and in 2016 (3.2%) – though it wanes in 2017 (1.4%). Growth of production is forecast to be 0.7% in 2015, 2.2% in 2016 and rises to 2.7% in 2017. Service sector growth is projected to be 1.6% in 2015, 2.0% in 2016, and 2.4% 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 continue to increase in each year, and at a faster rate than that seen during 2014 (although not as strongly as in 2013). Our forecast for the number of jobs added in 2015 has been revised down since June’s forecast, from 51,250 to 49,400. The number of jobs
at the end of 2015 is now forecast to be 2,433,400, an increase of 2.1% on 2014 (the same percentage growth forecast in June’s Commentary). Our current central forecast is that the Scottish economy will add 45,000 jobs in 2016, down by 4,600 from our June forecast, while we forecast the addition of 54,650 jobs in 2017, an increase of nearly 3,000 on our June forecast. This year, we expect 28,200 service sector jobs to be created, with around 5,600 added in production, and growth of 500 in agriculture. Construction jobs are now forecast to rise this year by 15,052, reflecting the surge in activity in the sector. In 2016, the bulk of the jobs created are again expected to be in the service sector with an additional 37,100 jobs forecast, while 5,200 are added in production, 800 in agriculture and 1,873 in construction. In 2017, job creation in the service sector is projected to be even stronger at 45,650 jobs, with production adding 5,800, agriculture 850, and construction 2,365.

Table 2: Fraser of Allander Institute forecast Scottish net jobs growth in three scenarios, 2015-2017

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper</td>
<td>54,950</td>
<td>65,500</td>
<td>88,800</td>
</tr>
<tr>
<td>June forecast</td>
<td>62,100</td>
<td>72,650</td>
<td>80,600.</td>
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<tr>
<td>Central</td>
<td>49,400</td>
<td>45,000</td>
<td>54,650</td>
</tr>
<tr>
<td>June forecast</td>
<td>51,250</td>
<td>49,600</td>
<td>51,700.</td>
</tr>
<tr>
<td>Lower</td>
<td>43,800</td>
<td>24,450</td>
<td>20,500</td>
</tr>
<tr>
<td>June forecast</td>
<td>40,400</td>
<td>26,550</td>
<td>22,800</td>
</tr>
</tbody>
</table>

Source: Fraser of Allander Institute forecasts, November 2015 ©

Unemployment Forecasts

The key unemployment forecasts are summarised in Table 3 below.

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. The most recent figures (published on 14th October 2015) show that unemployment rose again by 18,000 (0.6%) to 170,000 with the rate rising to 6.1%. Unemployment in Scotland rose by 19,000 over the year, or 0.7%. Given the small revisions to the growth in employee jobs over the next two years in our latest forecasts, there are only small revisions to the levels and rates from our earlier forecasts. Yet, the improvement in the labour market is forecast to continue with unemployment rates and numbers falling to end 2017 – though our new projections for the ILO unemployment rate are higher for each year to 2017 than as we forecast in June 2015. Our projection for unemployment on the ILO measure at the end of 2015 is 6.2%, falling further to 5.7% by the end of 2016, and 4.6% by end 2017.
Table 3: Fraser of Allander Institute forecasts ILO unemployment, 2015-2017

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate (ILO un/TEA 16+)</td>
<td>6.2%</td>
<td>5.7%</td>
<td>4.6%</td>
</tr>
<tr>
<td>June forecast</td>
<td>5.1%</td>
<td>4.5%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Number</td>
<td>169,150</td>
<td>155,450</td>
<td>118,400</td>
</tr>
</tbody>
</table>

Source: Fraser of Allander Institute forecasts, November 2015 ©

Brian Ashcroft
1 November 2015