

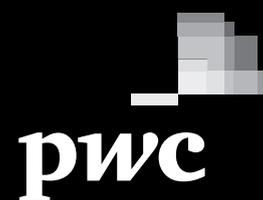


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Business
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**Opinions expressed in the policy section and
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Announcement: digitisation of historical issues of the Fraser Economic Commentary

The Fraser of Allander Economic Commentary (formerly known as the Quarterly Economic Commentary) has been published digitally since 2001. The Commentary, however, has an archive stretching back to 1975 and, unlike many journals today, much of this archive still remains in hardcopy only, thereby restricting its accessibility over the Internet.

In 2015 the Commentary will celebrate its 40th year of publication. To celebrate this milestone it is the intention of the Fraser of Allander Institute that all historic issues of the Commentary be digitised and made accessible via the Institute's website and an associated digital repository. These digitised articles will form an important part of the anniversary celebrations whilst simultaneously widening public access to a significant scholarly resource.

Those who have contributed articles to the Commentary over the years may be notified directly about this digitisation activity over coming months; however, owing to difficulties sourcing contact details for historical authors, it may not be possible to contact everyone. If you have not been contacted and are the author of an article(s) that you do not wish to be included in this digitisation activity, please contact openaccesspublications@strath.ac.uk with details of the article(s) in question. To ensure that digitisation can be completed by the anniversary date we would request that all such articles are registered at the above noted email address by Friday 29th August 2014. The Fraser of Allander Institute would also like to take this opportunity to apologise in advance to those authors whom we have been unable to notify and whose work is subsequently digitised.

General queries concerning the planned digitisation work can also be directed to openaccesspublications@strath.ac.uk.

Fraser of Allander Institute

Department of Economics
University of Strathclyde
Sir William Duncan Building
130 Rottenrow
Glasgow G4 0GE

t: +44 (0) 141 548 3958
f: +44 (0) 141 548 5776
e: fraser@strath.ac.uk
w: <http://www.strath.ac.uk/fraser/>

The Scottish economy

1 Outlook and appraisal

Brian Ashcroft, Economics Editor, Fraser of Allander Institute

Overview

The Scottish economy is now enjoying a strong recovery, which is, however, subject to the risks of: a continuing unbalanced recovery; falling real wages; booming house prices in the London housing market, and deflation in the Eurozone.

In 2013 Scottish GDP grew at 1.6% a little less than the 1.7% outturn in the UK. This suggests that without the loss of output due to the dispute at Grangemouth in October 2013, Scottish growth would have equalled that of the UK. Positive growth has now been recorded for the Scottish economy in the previous 7 quarters. But to reiterate our previous warnings: the recovery continues to be considerably weaker than that of any recession in the last 70 to 80 years (i.e since the 1930's). In the fourth quarter, GDP in Scotland was -0.9% below its pre-recession peak, whereas UK GDP stood at -1.4% below its pre-recession peak of more than 5 years ago. However, due to the greater fall in UK output during the recession, recovery from the recession has been stronger in the UK.

At the sectoral level, Scottish services have now finally attained and surpassed – slightly – their pre-recession peak while UK services attained their pre-recession peak in the Q3 2013. Production and manufacturing in Scotland has tended to outperform their UK counterparts during the recovery, but in the fourth quarter both were weaker in Scotland. While this was principally due to the production lost owing to the Grangemouth shutdown, the performance of Scottish manufacturing was weak across the board. Construction activity weakened in the final quarter of last year and still remains around 13% below its pre-recession peak in both Scotland and the UK, with the sector in the UK now doing a little better than north of the border. Business and financial services taken together have posted strong growth over the year, though it has slowed a little in the final quarter. Nevertheless, the sector in both the UK and Scotland has now moved to +2% above its pre-recession peak. Nevertheless, financial services taken on its own remains weak with output falling in the final quarter of the year to stand just above -12% below its pre-recession peak. Output in Distribution, hotels & catering now stands at more than 1% above its pre-recession peak compared to -2.6% below in the UK, however the recession in the sector in the UK was much deeper. Finally the Transport, Storage & Communication sector in Scotland remains weak both absolutely and relatively and stands at -6.5% below its pre-recession peak compared to -3.4% in the UK.

The latest labour market data reveal a recovery in the Scottish and UK labour markets, which is almost unprecedented. The ILO unemployment rate now stands at 6.6% the same as in the UK, while the employment rate for the 16 to 64 age range is 70%. However, there continues to be plenty of slack for growth in the Scottish labour market despite the current strong jobs recovery: the ratio of employment to working population is -2.8% below its pre-recession peak, and it is clear that growth in employment is

still being sustained by the growth of part-time work and the self-employment. Moreover, there are still a large number of part-time workers who are seeking and cannot find a full-time job.

There are four potential risks to a sustained recovery of the Scottish economy:

- a failure to achieve a balanced recovery (as between household consumption, business investment and export growth)
- weak or no growth in real wages
- an overheated housing market, especially in London and the South East of England and its potential impact on UK interest rates
- the risk of deflation in the Eurozone.

The evidence suggests that the UK and Scotland are still a long way off from a balanced recovery. Investment does seem to be picking up and it is to be hoped that this will continue, because the prospects of a marked improvement in the net trade position with sterling high and the European economies weak, does not augur well. And while household spending is currently strong, its underlying determinants appear weak.

A key reason for concern about the sustainability of household spending is that debt levels to income remain high and real wages are falling! Real wage growth needs to move into positive territory for the prospects of a *sustained* growth in UK household spending to be certain. One critical factor here is whether labour productivity can begin to grow strongly. Without a step-change in the rate of growth of productivity the likelihood is that the recovery - as the economy begins to approach capacity - will see rising nominal wages but little increase in real wages as the growth of product prices matches that of nominal wage growth. Yet, data suggest that real Scottish wage growth become positive in 2013 whilst UK growth has remained negative for the past three years. This could be due to a faster growth in labour productivity in Scotland than in the UK, but we have no up-to-date data on labour productivity on this matter. Nevertheless, the recent recovery in UK jobs growth has been faster than in Scotland whereas GDP growth has been more similar suggesting faster productivity growth here. So, on this basis, the prospects for Scottish household spending might be a little rosier than in the UK.

Arguably the biggest threat to the recovery in both Scotland and the UK comes from the housing market. House prices are rising at an annual rate of 8% in the UK but by 17% in London. Scotland's house prices were largely flat over the year to March 2014 with growth of only 0.8%. We believe there is a strong case for the Bank of England to exercise its currently limited macro-prudential policy powers through its new Financial Policy Committee by seeking to curb high loan to income ratios. The Bank of England should not seek to raise interest rates largely on this account. Rising house prices are essentially a London and South East England phenomenon. In Scotland, house prices are hardly rising overall. So, it would seem inappropriate for the recovery to be dampened right across the UK for what is clearly a local or regional issue centered on London.

The final obstacle to recovery is the risk of deflation in the Eurozone, with prices poised to begin falling, the Eurozone risks a decade or more of Japanese-style stagnation. This would lower demand for

imports and limit foreign investment and would be very damaging to any export recovery in both Scotland and the rest of the UK.

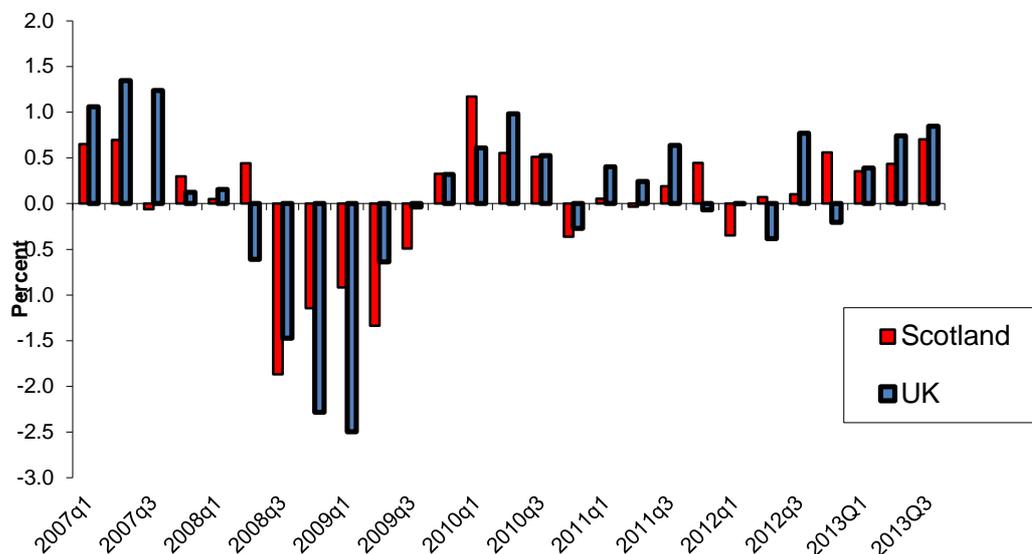
Against this background we are now forecasting growth in Scottish GDP of 2.5% in 2014, 2.2% in 2015, and 2.4% in 2016. This represents a slight increase for 2014 and a slight decrease for 2015 over our March 2014 forecast. Given our previous forecast errors the lower and upper bounds for growth in 2014 are expected to be 2.1% and 2.9%, for 2015, 1.7% to 2.7%, and for 2016, 1.3% to 3.5%.

Production and manufacturing continue to be the major sectors exhibiting the fastest growth in 2014, 2015 and 2016. Our forecasts for employee job creation are broadly similar to our March 2014 forecasts, with a slight upward revision for 2014 and small downward adjustment for 2015. On the central forecast, we are now forecasting that net jobs will increase by 43,100 in 2014, 42,900 in 2015 and 58,150 in 2016. Our projection for unemployment on the ILO measure at the end of 2014 is now 173,150 (6.4%). By the end of 2015, unemployment is now forecast to be 168,150 (6.2%) falling further to 157,200 (5.8%) by the end of 2016 as growth in the economy strengthens over 2015.

Recent GDP performance

The latest Scottish GDP data for Q4 2013 show that Scottish GDP rose by 0.2% in the quarter, significantly less than the 0.7% rise in the UK, see Figure 1.

Figure 1: Scottish and UK quarterly GDP growth, 2007q1 – 2013q4



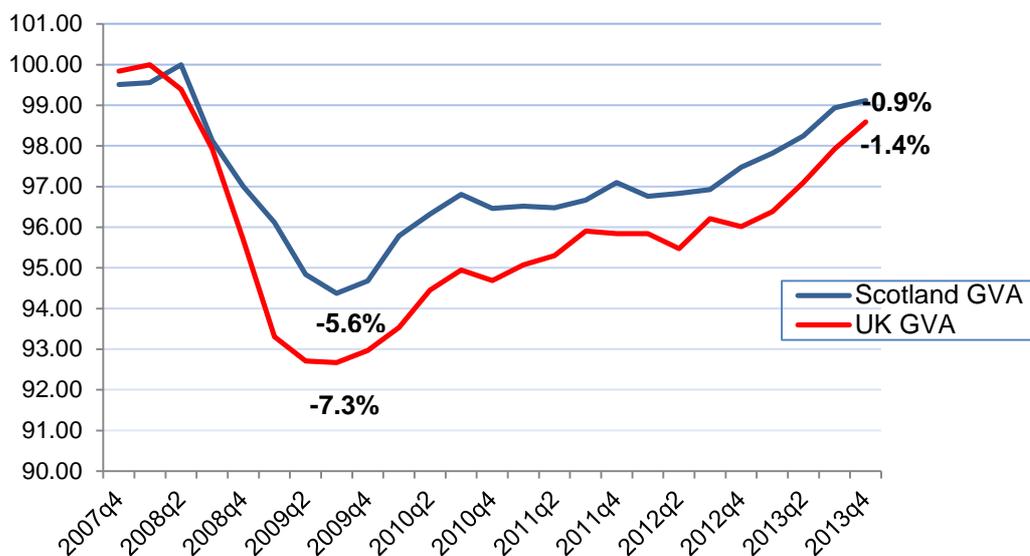
Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013 and Fraser of Allander Institute calculations

However, the weakness of the Scottish economy compared to the UK during the quarter is more apparent than real. GDP in the Scottish economy was clearly affected by the dispute that shut down the Grangemouth refinery. Scottish Government statisticians estimate that this amounted to a direct loss of

-0.2% of GDP in the quarter, a calculation with which we agree. Moreover, there will in addition be further secondary effects on suppliers of the shutdown and loss of spending from income, which using the Scottish Input-Output tables is likely to have almost doubled the effect on GDP. Hence, we can conclude that the Grangemouth dispute was responsible for reducing GDP by about -0.4% in the Q4 2013, suggesting that the implicit growth of the Scottish economy in the quarter was about 0.6%, close to but a little less than UK GDP growth at 0.7%. This will of course also mean that the resolution of the dispute and the resumption of production in the Q1 2014 will mean that the GDP figure for the quarter – to be published in the third week of July 2014 - will inflate the true growth performance of the Scottish economy in Q1 2014.

Over the year to the fourth quarter - four quarters on the previous four quarters - Scottish GDP grew at 1.6% a little less than the 1.7% outturn in the UK, suggesting that without the loss of output due to Grangemouth annual performance would have been no worse than in the UK. These data continue to offer further evidence of a strengthening recovery. Positive growth has now been recorded for the Scottish economy in the previous 7 quarters. But to reiterate our previous warnings: the recovery continues to be considerably weaker than from any recession in the last 70 to 80 years. The effect of the latest data on Scotland and the UK's recovery from recession is shown in Figure 2.

Figure 2: GVA in recession and recovery, Scotland and UK to 2013q4 (relative to pre-recession peak)

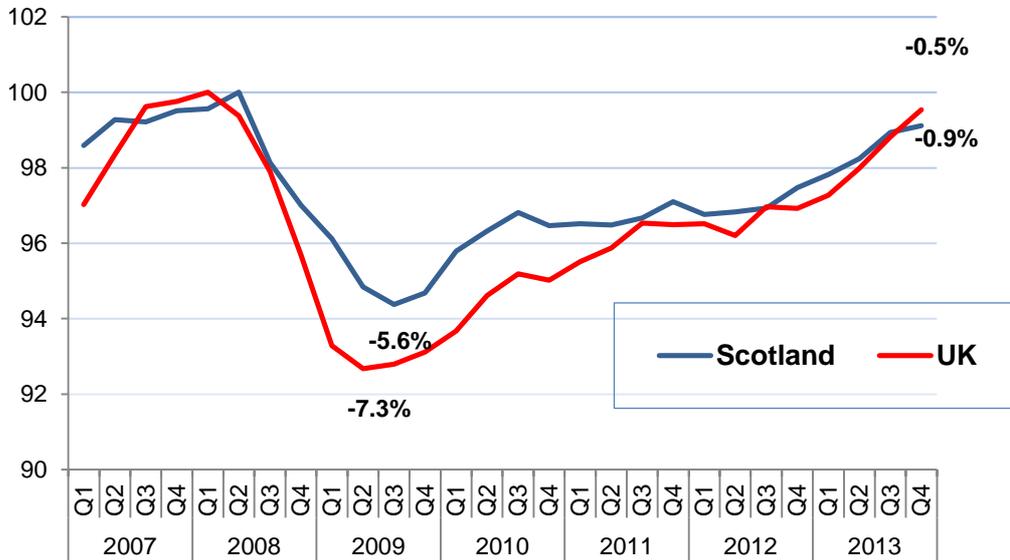


Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013, ONS and Fraser of Allander Institute calculations

In the fourth quarter, GDP in Scotland was -0.9% below its pre-recession peak, whereas UK GDP stood at -1.4% below its pre-recession peak of more than 5 years ago. While the scale of the recession was greater in the UK: a drop of -7.3% in GDP compared to a fall of -5.6% in Scotland, the overall strength of the recovery has been stronger in the UK than in Scotland. Hence, UK GDP has grown by 6.34% from the trough of the recession compared to 5.02% in Scotland. However, as noted in previous *Commentaries* there is the complicating factor of oil and gas production - offshore production - which is

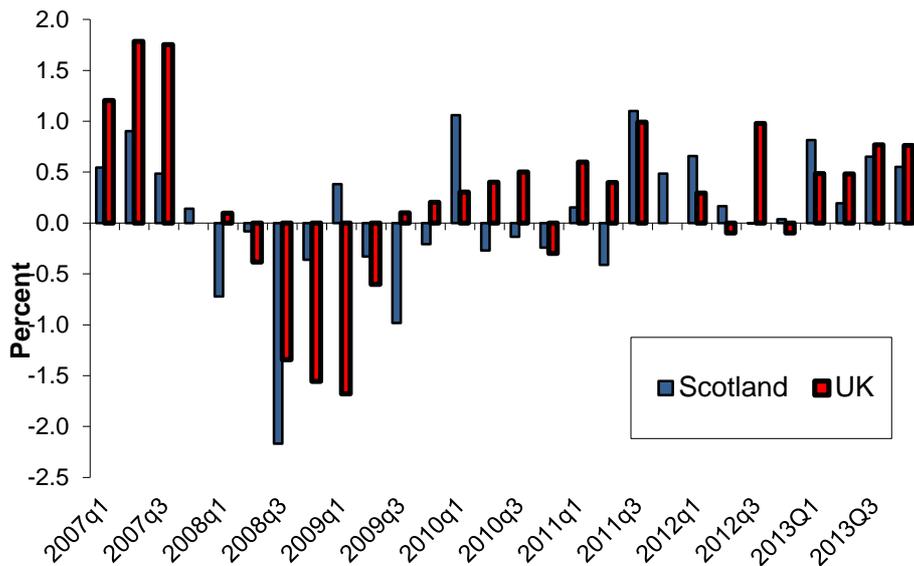
included in the UK GDP data but not in the Scottish data. Removing oil and gas production gives us Figure 3.

Figure 3: GVA ex oil & gas in recession and recovery to 2013q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013, ONS and Fraser of Allander Institute calculations

Figure 4: Scottish and UK services GVA Growth 2007q1 to 2013q4



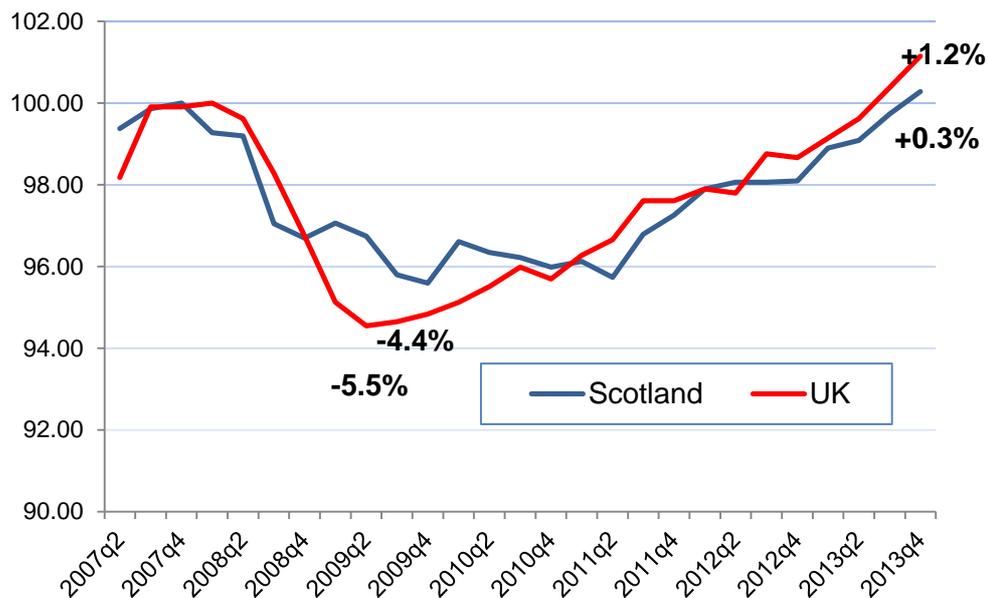
Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013 and Fraser of Allander Institute calculations

When oil and gas production is removed, we find that the respective Scottish and UK growth rates remain the same for the latest quarter but over the year – four quarters on four quarters – UK growth rises to 1.8%. The long period of weak oil and gas production has resulted in the UK GDP - ex oil & gas - having a much stronger recovery from recession than Scottish GDP. Scottish GDP has recovered by 5.02% since the trough of recession while UK GDP - ex oil & gas - has recovered by 7.41% from its trough. So, by the final quarter of last year UK GDP - ex oil & gas - was -0.5% below its pre-recession peak compared to -0.9% for Scotland.

We now turn now to individual sectors of the economy. The Scottish service sector, which accounts for 72% of GDP in Scotland and 77% in the UK, grew by 0.6% in Scotland and 0.8% in the UK in the fourth quarter - see Figure 4.

Over the year - that is four quarters over previous four quarters - the service sector in Scotland grew by 1.5%, less than the 1.8% achieved in UK services. The state of the recovery in Scottish and UK services is presented in Figure 5.

Figure 5: Services GVA in recession and recovery Scotland and UK to 2013q4



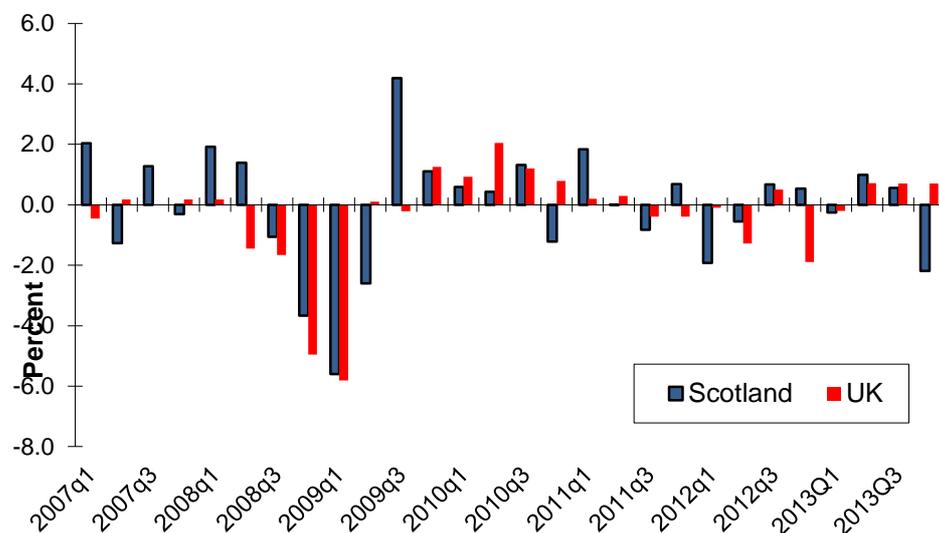
Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013 and Fraser of Allander Institute calculations

We can see from Figure 5 that Scottish services have now finally attained and passed – slightly – their pre-recession peak. UK services attained their pre-recession peak in the Q3 2013. So, UK services now stand at 1.2% above the previous peak, while for Scottish services it is 0.3%. The recovery in Scottish services continues to be weaker than in the UK with growth of 4.33% since the trough of the recession compared to 6.98% in UK services. As we noted in the previous two *Commentaries* Scottish services' growth continues to underperform the overall performance of the economy in the recovery whereas UK services growth has been somewhat ahead of UK GVA growth. The production sector continues to

boost Scottish growth, growing by a little over 9% in the recovery. This contrasts markedly with the UK situation where the sector has been a significant drag on the UK recovery with growth of less than 0.5% since the trough of the recession. This is partly a consequence of the weakness of oil & gas production on the UK production and GDP figures.

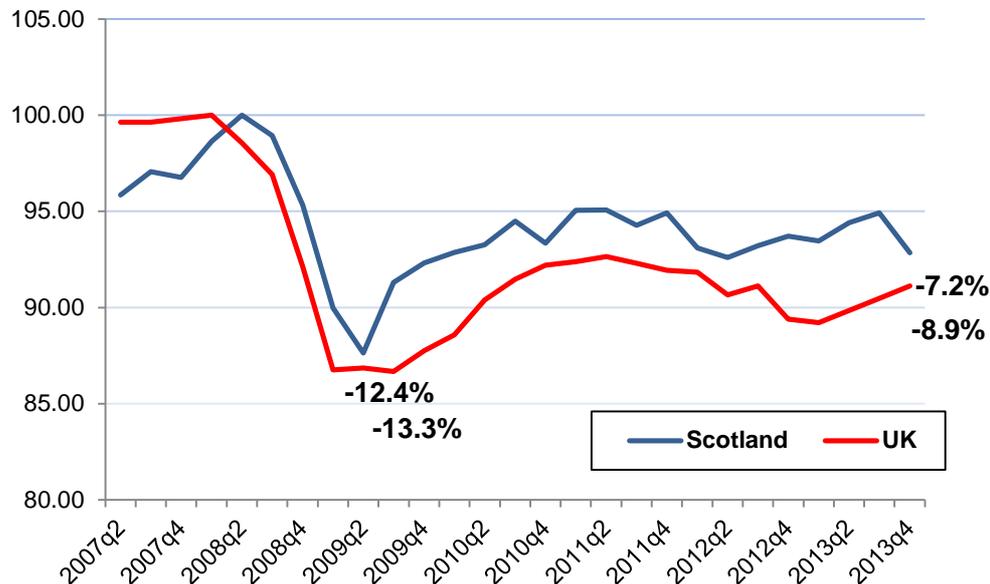
However, Scottish production output weakened in the final quarter of 2013, largely due to the 'Grangemouth effect'. Output fell in the quarter by 0.7% compared to a rise of 0.5% in the UK. But over the year - four quarters on four quarters - production GVA rose by 1.7% in Scotland compared to a fall of -0.3% in the UK. Mining & quarrying GVA grew by 2.9% in the fourth quarter in Scotland and rose by 6.2% over the year. In contrast, UK mining & quarrying fell 1.8% in the quarter and contracted by -2.1% over the year. Electricity & gas supply GVA rose by 2.4% in Scotland in the fourth quarter but fell by -0.6% over the year, almost the complete opposite of performance in the previous quarter. In the UK the sector grew by 1.8% in the quarter while contracting by 0.3% over the year. It is the performance of manufacturing, though, accounting in Scotland for 63% of production and 12% of total GVA, that is the key driver of the differential performance in production between Scotland and the UK. In the fourth quarter, GVA in Scottish manufacturing fell, largely because of the Grangemouth effect, by -2.2% but rose by 0.8% over the year. In UK manufacturing GVA rose by 0.6% in the quarter but fell by -0.6% over the year. Figure 6 charts the quarterly percentage changes in GVA in Scottish and UK manufacturing.

Figure 6: Scottish and UK manufacturing GVA growth at constant basic prices 2007q1 to 2013q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013 and Fraser of Allander Institute calculations

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 and UK to 2013q4

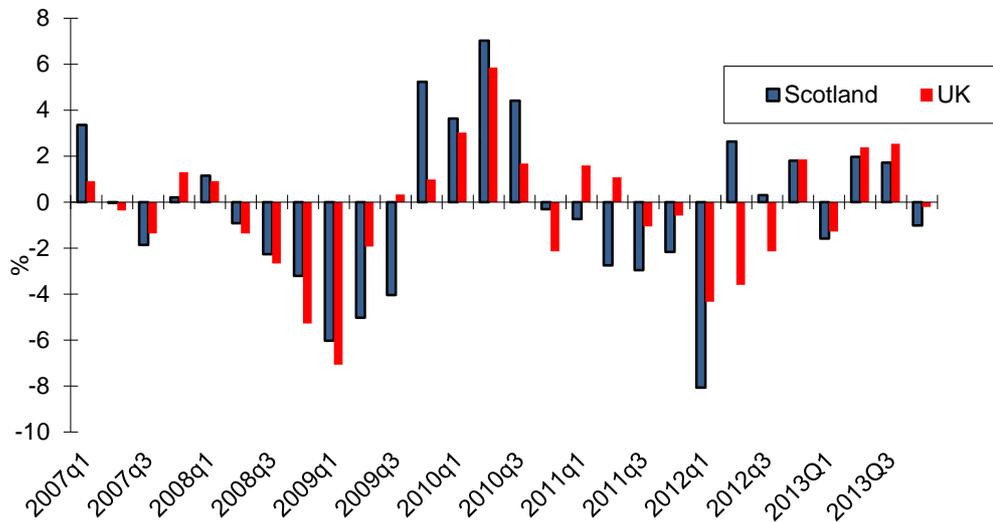
Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013 and Fraser of Allander Institute calculations

Largely, but not wholly, because of the Grangemouth effect, Scottish manufacturing GVA went from 4.6% below the 2009-09 pre-recession peak in the third quarter to -7.2%. The figure for UK manufacturing improved slightly because of the small rise GVA in the quarter from -9% in the third quarter to -8.9% in the latest quarter. We should expect the recent favourable gap between Scotland and UK manufacturing performance during the recovery to be restored in the next quarter's data - 2014q1 was a result of the Grangemouth plant coming back on stream.

Within manufacturing, there was only one principal sector that experienced growth in in the fourth quarter: metals, metal products & machinery n.e.c. (accounting for 19% of manufacturing GVA) which grew by 0.3% in the quarter and by 4.8% over the year. We have already mentioned the Grangemouth driven -10.8% drop in refined petroleum, chemical & pharmaceutical products (accounting for 12% of manufacturing GVA) in the quarter and a small increase of 0.1% over the year. Given the weight of this sector, this accounted for about sixty per cent of the -2.2% fall in manufacturing GVA in the quarter. The remaining forty per cent came from the following sectors: computer, electrical and optical products (electronics) (accounting for 9% of manufacturing GVA), which contracted by -3% in the quarter and by -9.8% over the year; other manufacturing Industries; repair & installation (accounting for 22% of manufacturing GVA) which contracted by -2.1% in the quarter but grew by 1% over the year; textiles, clothing & leather products (accounting for only 2% of manufacturing GVA) suffered a loss of output of -3.5% in the quarter and also contracted by -3.4% over the year; food & drink (accounting for 28% of manufacturing GVA) which contracted by -0.3% in the quarter but grew by 1.2% over the year; and finally, transport equipment (accounting for 8% of manufacturing GVA) contracted by -0.75% in the

quarter but grew by 4.1% over the year. Turning now to construction, the latest data are presented in Figure 8.

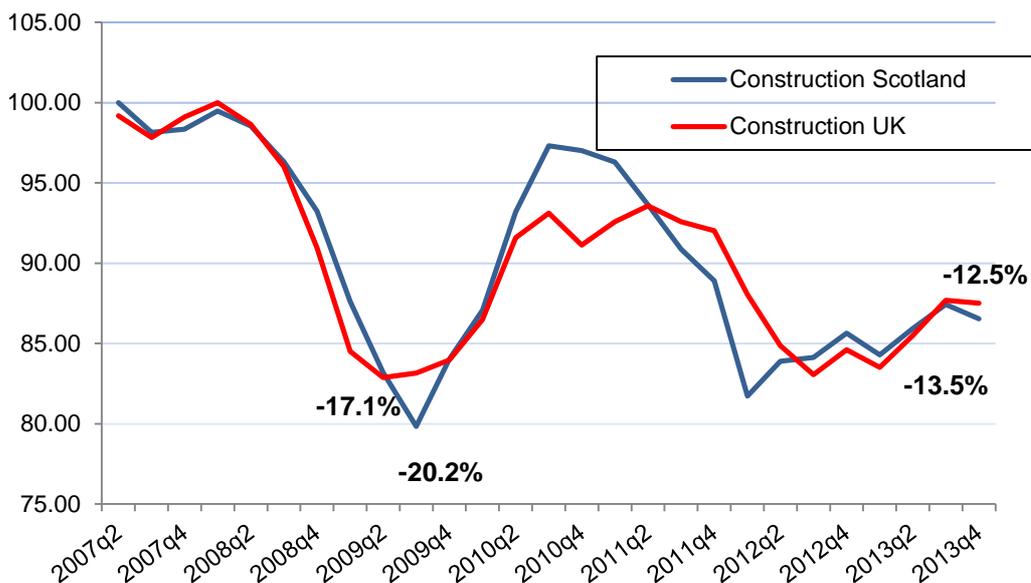
Figure 8: Scottish and UK construction GVA volume growth 2007q1 - 2013q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013 and Fraser of Allander Institute calculations

Scottish construction GVA fell by -1.0% in the quarter but rose by 2.6% over the year. UK construction GVA also contracted, but by less at -0.2% than in Scotland, with GVA rising by 1.1% over the year. Scottish construction's performance has been weaker than its UK counterpart for the last three quarters. Figure 9 displays the recession and recovery performance in both Scottish and UK construction.

Figure 9: Construction, recession and recovery to 2013q4

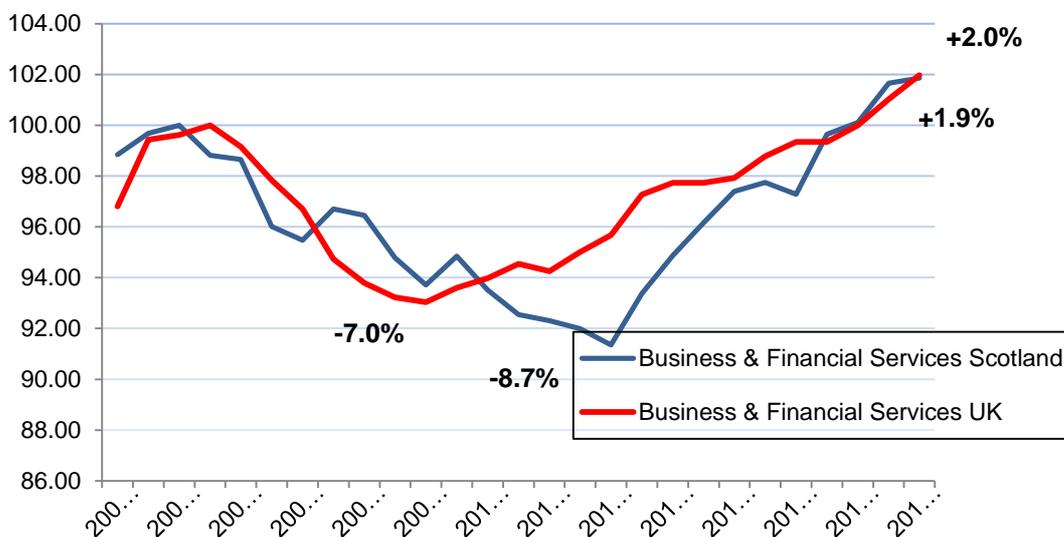


Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013 and Fraser of Allander Institute calculations

Figure 9 shows that the sector despite the general recovery remains considerably depressed in both the UK and Scotland. The recent stronger performance of UK construction means that GVA in the sector stood in the fourth quarter at -12.5% below its pre-recession peak with the sector in Scotland in a worse position at -13.5% below its peak.

Within services, the principal sub-sectors all displayed positive growth in the fourth quarter. However, growth in business and financial services slackened somewhat in the quarter with GVA growing by only by 0.2% compared to 1% in the UK. Over the year, the sector grew at 3.8% in Scotland and 2.2% 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: recession and recovery to 2013q4

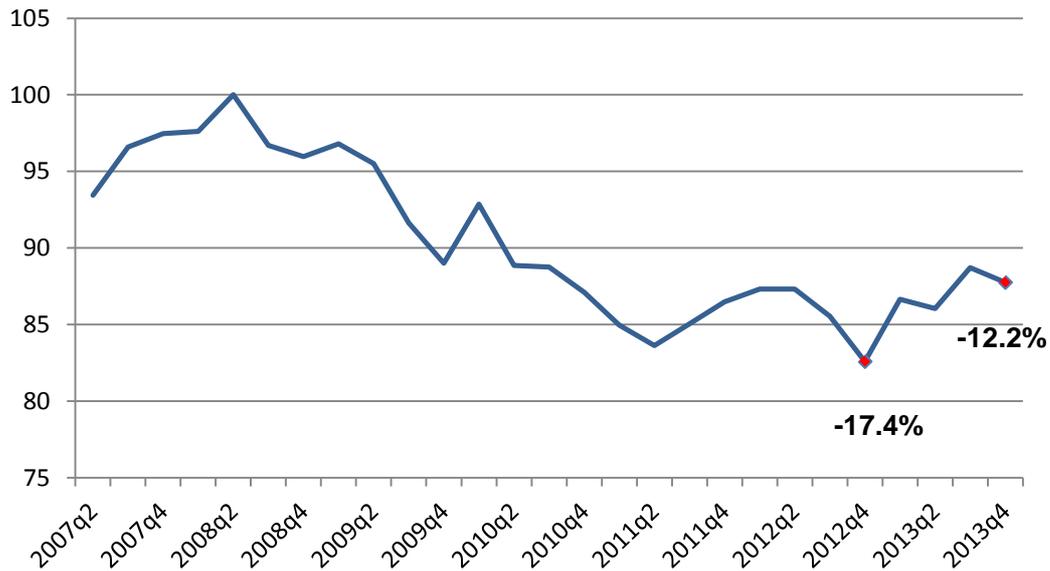


Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013 and Fraser of Allander Institute calculations

By the latest quarter, the sector in both the UK and Scotland had moved to +2% above its pre-recession peak. We noted in previous *Commentaries*, that the aggregate GVA data for business and financial services in Scotland masked significant differences between the performance 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 2008.

These data show that the recent sustained recovery enjoyed by the sector since the fourth quarter 2012 came to an end in the final quarter of last year, with GVA falling by -1.1% in the quarter while rising by 1.9% over the year. Now GVA in the sector is -12.2% below the pre-recession peak compared to the trough of -17.4% in 2012q4. We await further data to assess whether the recovery will resume or whether, following the structural change that occurred after the Great Recession, some of that lost output may never return and so continue to be drag on the sector's recovery.

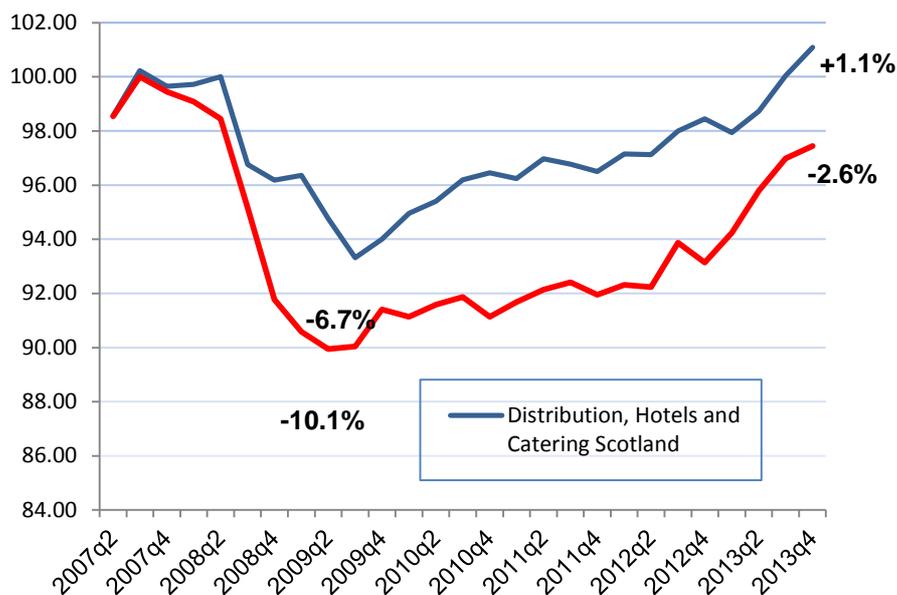
Figure 11: Financial Services, recession and recovery 2008q2 to 2013q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013 and Fraser of Allander Institute calculations

Elsewhere, in private services, distribution, hotels and catering (accounting for 19% of services sector output in Scotland), grew by 1% in the third quarter compared to an increase of 0.5% in the UK. Over the year, the sector grew by 1.8% in Scotland compared to 3.5% in the UK. Figure 12 shows the performance of the sector during recession and recovery.

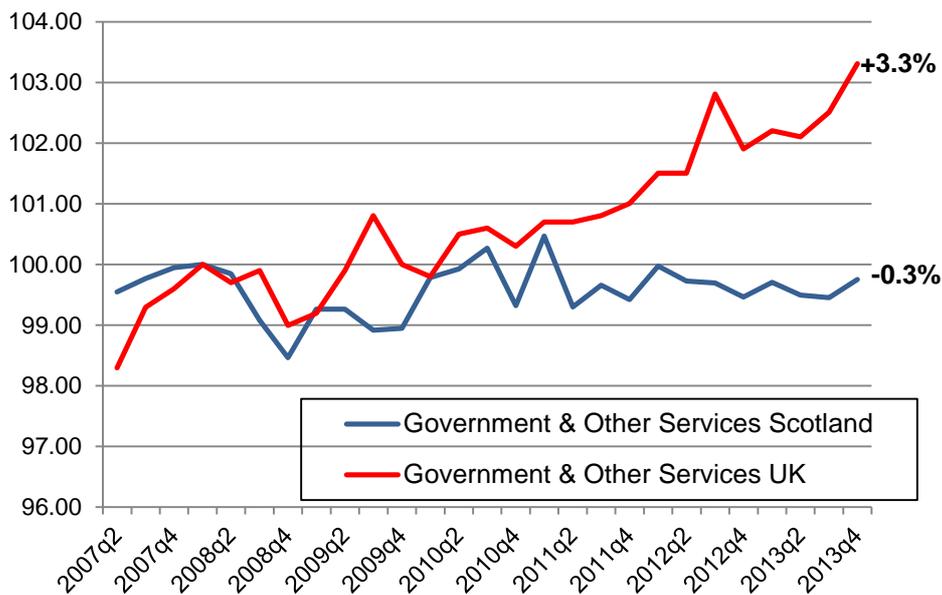
Figure 12: Distribution, Hotels & Catering: recession and recovery to 2013q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013 and Fraser of Allander Institute calculations

Figure 12 reveals that the sector in Scotland has now passed its pre-recession and is 1.1% above, while the sector in the UK is still -2.6% below the peak. However, it should be noted that the sector had a less serious recession in Scotland than in the UK with output falling by -6.7% here compared to -10.1% in the UK. The track of the recovery in the sector picked up strongly during 2013 in both Scotland and the UK. Government & Other Services GVA grew slightly in Scotland in the fourth quarter by 0.3% and somewhat faster in the UK at 0.8%. Over the year, output in the sector fell slightly in Scotland by -0.1% compared to a rise of 0.6% in the UK. Figure 13 shows the performance of GVA in the sector in recession and recovery.

Figure 13: Government and Other Services: recession and recovery to 2013q4



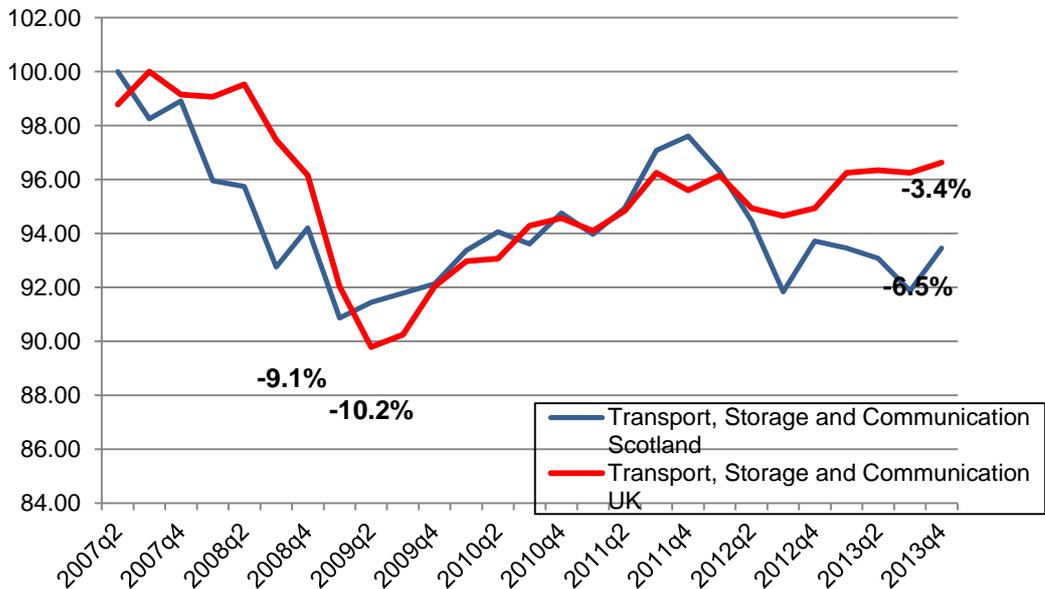
Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013 and Fraser of Allander Institute calculations

GVA in the sector in the UK is 3.3% above the pre-recession peak, which as noted in several previous *Commentaries* is difficult to understand at a time of fiscal consolidation, whereas output in the sector in Scotland is -0.3% below its pre-recession peak, which seems more reasonable.

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 11% of service sector output.

The recent weakness of the sector in Scotland ended in the fourth quarter with GVA rising by 1.7% compared to 0.4% in the UK. Over the year, the sector has contracted by -1.2% in Scotland while rising by 1.3% in the UK. By the end of the fourth quarter GVA in the Scottish sector was -6.5% below pre-recession peak compared to -3.4% in the UK.

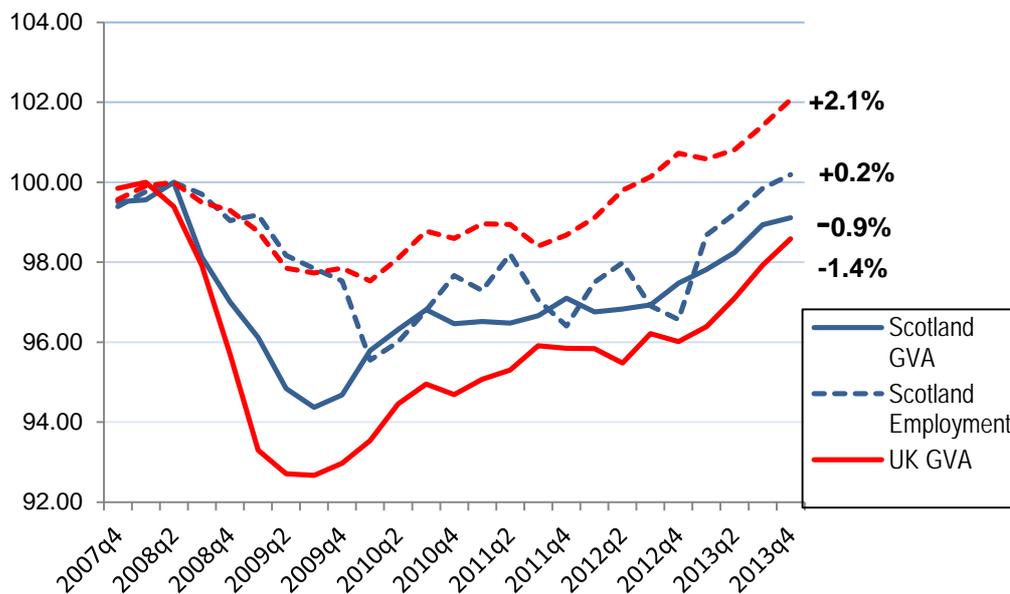
Figure 14: Transport, Storage & Communication: recession and recovery to 2013q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013 and Fraser of Allander Institute calculations

The Labour Market

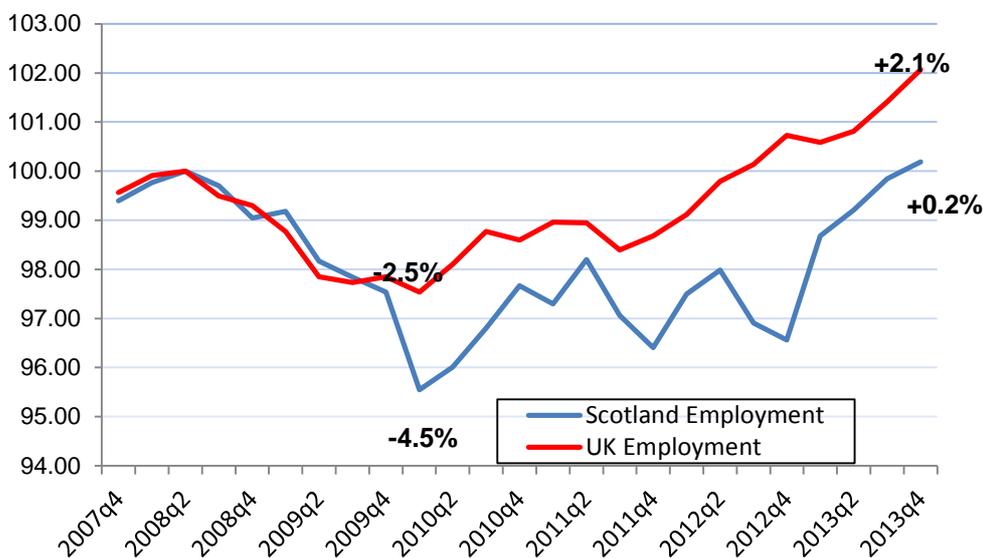
Figure 15: GDP and Employment, Scotland and UK, recession and recovery to 2013q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2013, ONS Regional Labour Statistics and Fraser of Allander Institute calculations

The latest labour market data (see *Overview of the Scottish labour market* below) reveal a recovery in the Scottish and UK labour markets, which is almost unprecedented. In the quarter February to April 2013, employment rose by 0.6% in Scotland and 1.1% in the UK. In terms of numbers, jobs rose by 16,000 in the quarter, compared to a remarkable rise of 345,000 in the UK as a whole. Over the year, Scottish jobs rose by 48,000, a rise of 1.9%, while UK jobs rose 780,000, or 2.6%. During the quarter unemployment in Scotland, in a reflection of the jobs increase, fell by -7,000, or -3.6%, to 183,000, or a rate of 6.6%, while in the UK, unemployment fell more rapidly by -161,000, or -6.9%, to a rate of 6.6%. Figures 15 and 16 show the performance of GDP and employment in Scotland and the UK during recession and recovery to 2013q4.

Figure 16: Index of total employment: (Scotland and UK) pre-recession peak to 2013q4



Source, ONS Regional Labour Statistics and Fraser of Allander Institute calculations

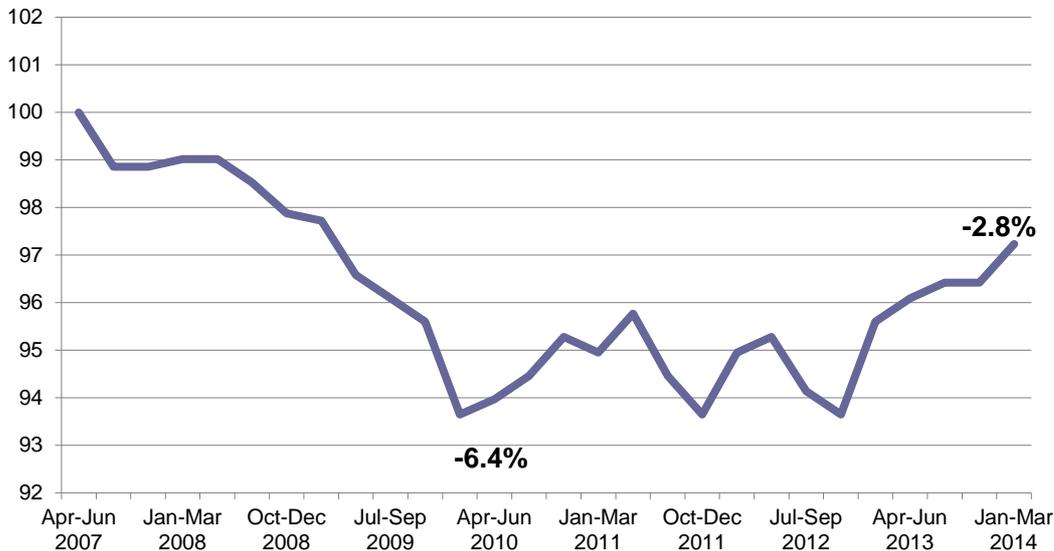
Scottish jobs as reported in the LFS worker surveys have now reached their pre-recession peak, which continues to be worse than the UK, where the jobs total is 2.1% above the pre-recession peak, compared to 0.2% in Scotland in the final quarter of last year. However, it is worth noting that the ONS employee jobs series for Scotland shows that there were 2,343,000 employee jobs in Scotland in the final quarter of 2013. This was an increase of 66,000 jobs from the end of 2012, but 137,000 jobs (5.5%) lower than the peak of employee jobs in Scotland in Q3 2008 (2,480,000).

Finally, it would appear that there continues to be plenty of slack for growth in the Scottish labour market despite the current strong jobs recovery. Figure 17 charts the employment to working population ratio relative to pre-recession peak for Scotland to Jan-Mar2014.

By January-March 2014, the ratio stood at -2.8% below the pre-recession peak. A further indication that there is still substantial slack in the Scottish labour market is revealed in the *Overview of the Scottish labour market* below where it is clear that growth in employment is still sustained by the growth of part-

time workers and the self-employed. Moreover, there are still a large number of part-time workers that cannot find a full-time job.

Figure 17: Scottish Employment to Working Population ratio compared to pre-recession peak in April-June 2007 to Jan-Mar 2014



Source, ONS Regional Labour Statistics and Fraser of Allander Institute calculations

Obstacles to a Sustained Recovery

There are four potential obstacles to a sustained recovery of the Scottish economy:

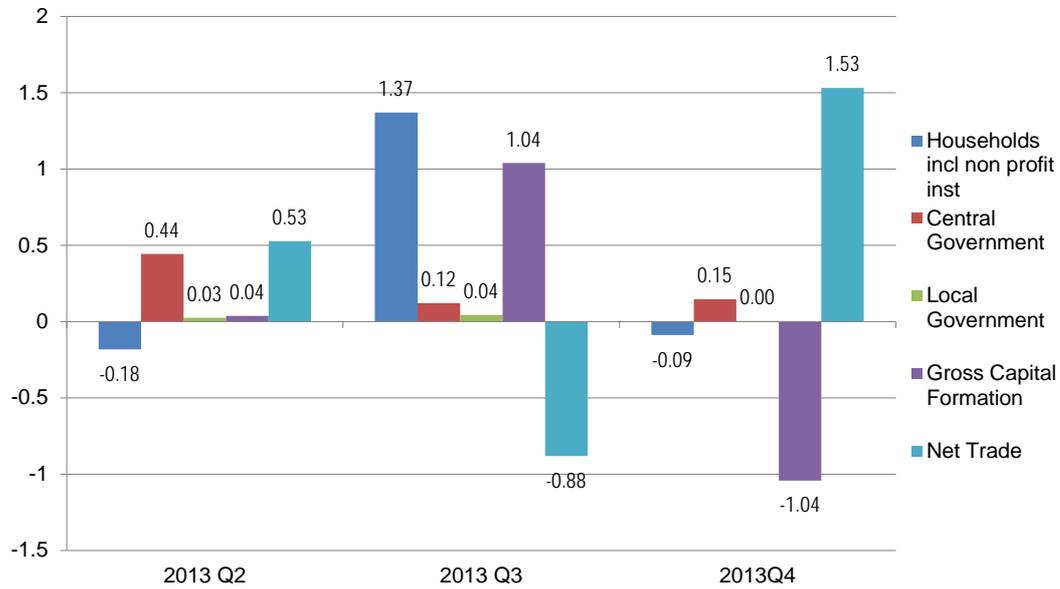
- A failure to achieve a balanced recovery
- Weak or no growth in real wages
- An overheated housing market, especially in London and the South East of England.
- The risk of deflation in the Eurozone

We deal with each of these in turn.

Balanced Recovery

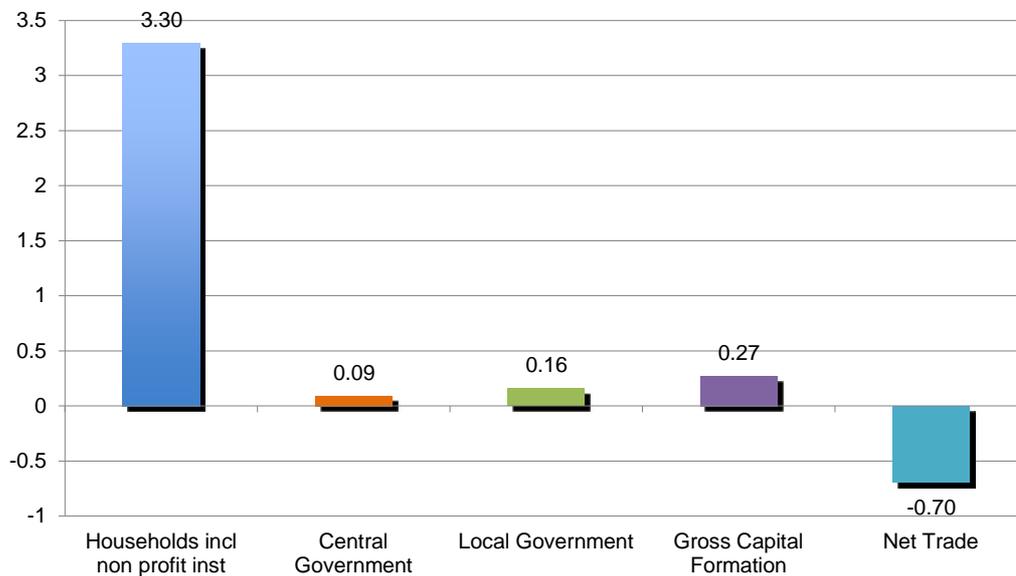
We have argued in previous Commentaries that the recovery has a better chance of being sustained if growth is broadly based. And by this we mean more broadly based across the expenditure components of aggregate demand. We now have Scottish National Accounts Project (SNAP) data from the Scottish Government for the final quarter of 2013 and for 2013 as a whole. These data have been revised for the earlier quarters in 2013 compared with data presented and discussed in the previous Commentary. Figure 18 presents our estimates of the contribution of each expenditure component to nominal Scottish GDP growth in the final three quarters of 2013.

Figure 18: Expenditure components percent point contribution to nominal Scottish GDP growth in 2nd, 3rd and 4th Quarters 2013



Source: SNAP 14 May 2014 and Fraser of Allander Institute calculations

Figure 19: Expenditure components percent point contribution to nominal Scottish GDP growth in 2013



Source: SNAP 14 May 2014 and Fraser of Allander Institute calculations

Figure 18 provides no systematic picture of the drivers of growth. The main components of household spending, gross capital formation and net trade have behaved erratically across over the three quarters. While in the second quarter investment appeared to be beginning to make a major contribution this was reversed in the fourth quarter. The reverse applies with net trade, and while household spending made a

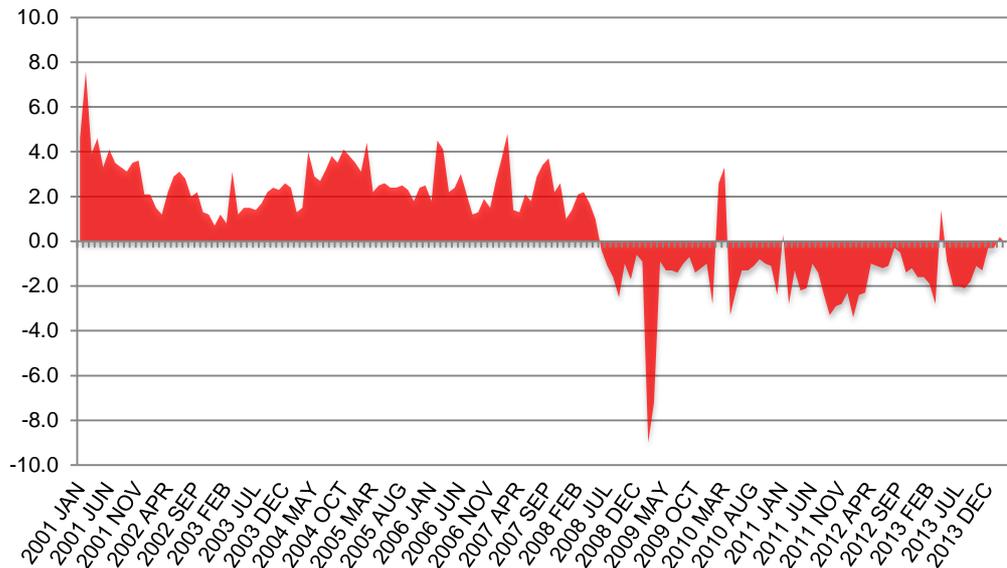
strong contribution to growth in the third quarter this was not the case in the second and fourth quarters. It might be the case that the Grangemouth shutdown influenced net trade in particular in the fourth quarter with imports reducing appreciably but we can't be certain. To get clearer picture Figure 19 looks at the contribution of the expenditure components to nominal GDP growth in 2013 over 2012.

The picture is much clearer in Figure 19. The main driver of growth during the year was household spending. Investment – Gross Capital Formation – made a small positive contribution while the contribution from net trade was negative. Net trade will have been affected by the weakness in the Eurozone economies but also by the rise in sterling, which has strengthened as the current UK recovery began to outpace - in growth terms - the performance of the main OECD countries.

So, we can conclude that we are still a long way off from a balanced recovery. Investment does seem to be picking up and it is to be hoped that this will continue, because the prospects of a marked improvement in the net trade position with sterling high and the European economies weak, does not look promising. And while household spending is currently strong its underlying determinants appear weak, as the next section makes clear.

Real Wage Growth

Figure 20: UK Real Wage Growth January 2001 to March 2014



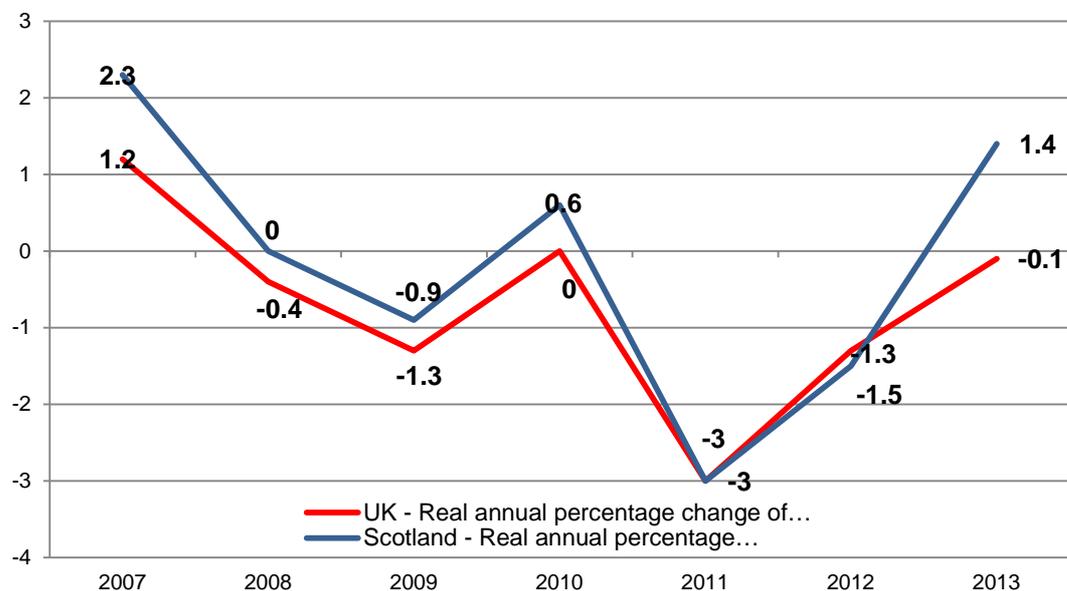
Source: ONS and Fraser of Allander Institute calculations

Households in Scotland and in the rest of the UK still remain highly indebted. We argued in recent Commentaries that many households were turning again to borrowing and for some to less traditional means such as cash generators, payday loan companies and pawnbrokers. This is in part because traditional sources of lending such as banks are themselves adjusting their balance sheets and are lending less, under tighter credit restrictions and more stringent credit checks. Clearly, the more indebted a household the more likely it is to fall foul of these tightened credit conditions. House price

rises may be improving the net asset position of households and this will encourage consumption but the main incidence of house price rises is in London and the South East and the rise in prices is likely to slow as we discuss below. This leaves growth of earnings as the principal source for funding a sustained increase in household spending. And that's the problem - there isn't any growth in real earnings!

Figure 20 shows the growth in UK real wages¹ - UK Average Weekly Earnings - total pay (% changes year on year) deflated by CPI (annual % change) – since 2001. Until this series moves into positive territory the prospects for a sustained growth in UK household spending must remain uncertain. One critical factor here is whether labour productivity can begin to grow strongly. Without a step-change in the rate of growth of productivity, the likelihood is that the recovery as the economy begins to approach capacity will see rising nominal wages but little increase in real wages as the growth of product prices matches that of nominal wage growth.

Figure 21: Real annual percentage wage growth in Scotland and UK, 2007 to 2013



Source: Annual Survey of Hours and Earnings (ASHE)

However, from the data we have for Scotland things appear a little rosier, although the data leave much to be desired and may not be accurate². Figure 21 gives data on real wage growth for Scotland and the UK.

¹ The peak in April 2013 is due to a one-off effect of bonus payments being postponed until April 2013 to take advantage of the fall in the top rate of income tax.

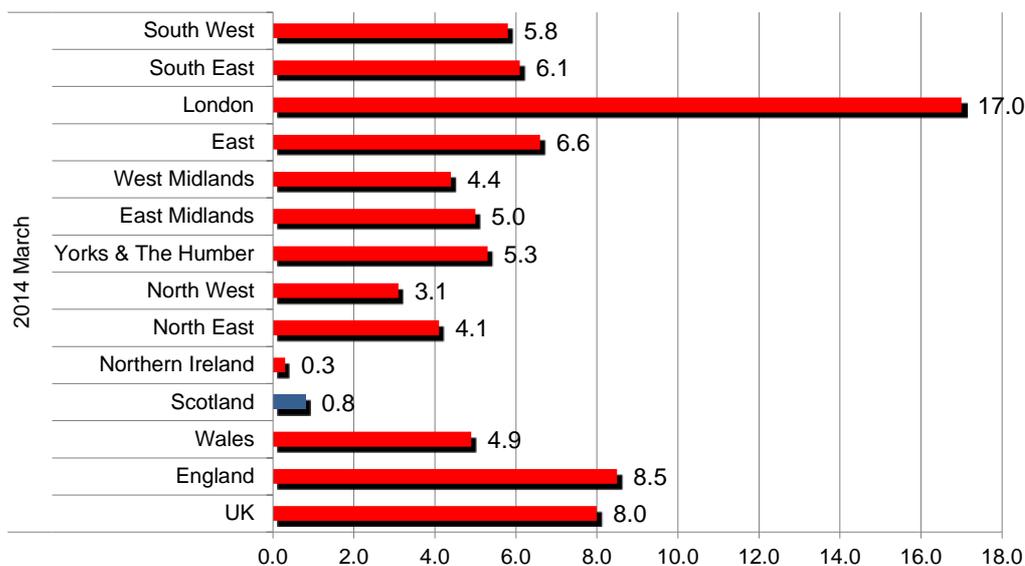
² The wage data presented in Figures 20 and 21 are derived from the Annual Survey of Hours and Earnings (ASHE) of which several entries are based on revised results whilst some are based on provisional releases and are hence likely to be revised. Given the lack in FTE employment growth in Scotland, data for 'For all employee jobs' was used instead of analysing data for 'For full-time employee jobs'. The calculation of real wage growth is based on the assumption that CPI inflation in Scotland is the same as in the UK. Thus, these results must be interpreted with caution.

While we do have some concerns about the quality of the data underlying Figure 21, the chart does show that Scotland's annual percentage change of median wages (for all employee jobs) has gained significant momentum. The growth has outpaced both UK median wages for all employees and, more important, CPI growth. Thus, the real Scottish wage growth has become positive whilst UK growth has been negative for the past three years. This could be due to a faster growth in labour productivity in Scotland than in the UK. We have no up-to-date data on labour productivity in Scotland. The Scottish Government recently published revised annual data but this only went up to 2012. Nevertheless, we can see from Figure 15 that in the recent recovery UK jobs growth has been faster than in Scotland whereas GDP growth has been more similar suggesting faster productivity growth here. So, on this basis, the prospects for Scottish household spending might be a little rosier than in the UK.

The Housing Market

Arguably the biggest threat to the recovery in both Scotland and the UK comes from the housing market. Figure 22 shows the latest ONS data on house price increases for the UK and its component countries and regions.

Figure 22: All dwellings annual house price rates of change: UK, country and regions - 12 month percentage change for March 2014



Source: ONS House Price Index, March 2014.

While there is some evidence from the dataset of a slight slowdown in the rate of growth of prices; for example the UK increase in the year to February was 9.2%, the rapid growth of house prices both in the UK but in London in particular is a clear threat to the recovery. The Governor of the Bank of England, the European Commission and the IMF have all expressed concerns recently about the potential consequences of booming UK house prices. Some, on the other hand, such as Ben Broadbent of the Bank of England, argue that the current strong increases in house prices differ from previous booms. The present surge, he contends, is not based on rapid growth of risky mortgage debt and may reflect

more fundamental factors such as limited housing supply in relation to demand. If it is the latter then Broadbent contends there is no role for the Bank's exercise of macro-prudential policy, which has the principal task of guarding against financial market risks, caused by excessive debt. However, there is concern that lending to finance house purchase is leading to a growth of risky mortgage debt with anecdotal evidence of loans being granted at 4 to 5 times the borrowers' income. The Chancellor is also promising to give the Bank new powers to prevent the housing market from overheating and it is believed these will include capping the size of mortgage loans compared to income or the value of homes. But at the moment the powers of the Bank's new Financial Policy Committee (FPC) are limited and confined to making recommendations to the regulators, the Prudential Regulation Authority and the Financial Conduct Authority that banks either ration very high loan-to-income mortgages, or that they be banned. However, it is for the regulators to act and they may refuse. There is a strong feeling, though, that the booming and probably overheating London housing market – as well as the strength of the labour market – is driving the Bank's gradual movement towards increasing interest rates. The Governor signaled in his recent Mansion House speech that the first rise could now come during 2014, whereas most analysts had expected the rate to rise in 2015. A look back at Figure 22 should remind us that rising house prices are essentially a London and South East England phenomenon. In Scotland, house prices are hardly rising overall. So, it would seem wholly inappropriate for the recovery to be dampened right across the UK to address what is clearly a local or regional issue centered on London.

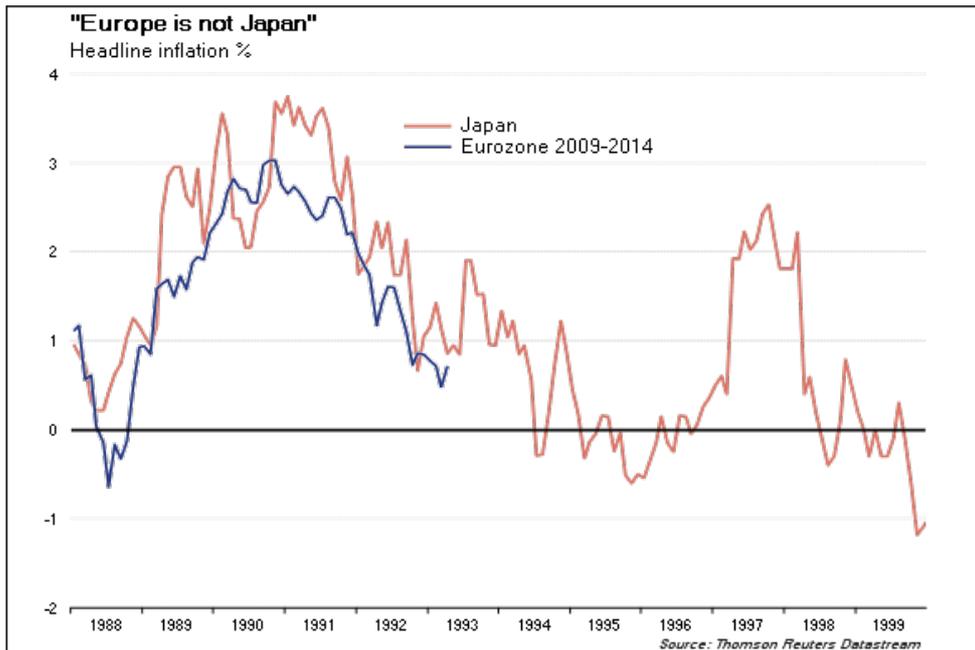
Risks of Eurozone Deflation

The *Forecasts of the Scottish Economy* section below highlights in Table 1, the Euro area remains one of the weakest regions in the global economy, with the IMF forecasting growth of 1.2% this year and 1.5% in 2015. Only Japan has a lower forecast. There is a real fear that growth in the Eurozone may be depressed for some time with the prospect of stagnation similar to that endured by the Japanese economy since the early 1990s. As Mario Draghi Governor of the ECB defines it:

“Deflation is a protracted fall in prices across different commodities, sectors and countries. In other words, it is a generalised protracted fall in prices, with self-fulfilling expectations. Therefore, it has explosive downward dynamics.”

Falling prices while making goods and services cheaper to buy *inter alia* increase the burden of debt so favouring creditors over debtors; it increases real interest rates, makes investment more costly and serves to reduce the demand for goods and services generally. A prolonged period of stagnation is the likely result. Given that 50% of UK exports go to EU countries, many of whom are in the Euro, it is clear that a sustained slowdown in activity in the area will be damaging to Scottish and rest of UK exports and hence to the recovery.

The following chart – Figure 23 - from the Financial Time illustrates how close the present track of inflation is in the Eurozone to the experience of Japan in the 1990s

Figure 23: Inflation in the Eurozone and Japan

Source: *Financial Times*

The ECB has recently cut its base rate and gone into negative territory on its deposit rate but this may not be enough. Further measures are likely to be necessary including expanding the money supply – quantitative easing. It is to be hoped that the ECB takes decisive action and that its actions work!

Forecasts

It is against the above background of a rapid recovery in employment and now output subject to the risks of: a continuing unbalanced recovery; falling real wages; booming house prices in the London housing market, and the risks of deflation in the Eurozone, that we have prepared our latest forecasts.

GVA Forecasts

For our latest GVA forecasts we continue the presentational procedure adopted in earlier Commentaries. We present only a central forecast but use estimated forecast errors to establish the likely range that the true first estimate of the growth of Scottish GVA will lie between. Table 1 presents our forecasts for Scottish GVA - GDP at basic prices - for 2014 to 2016. The forecasts are presented in more detail in the *Forecasts of the Scottish Economy* section of this Commentary below.

Table 1 shows that our GDP forecast for 2014 is 2.5%, which is revised *up* from our forecast of 2.3% in March 2014. Similarly, for 2015, we have revised the forecast *down* slightly from 2.3% to 2.2%, as we allow for some small negative impact of the risks discussed above. The forecast for 2014 is higher than in March 2014 because of the generally better than expected improvement in performance, optimism in business surveys (see *Review of Scottish Business Surveys* section below) and an improved outlook,

especially for investment; although the business surveys also contain doubts about the persistence of the recovery.

Table 1: Forecast Scottish GVA Growth, 2014-2016

GVA Growth (% per annum)	2014	2015	2016
Central forecast	2.5	2.2	2.4
<i>March 2014 forecast</i>	2.3	2.3	<i>n.a.</i>
UK mean independent new forecasts (May)	2.9	2.5	2.4
Mean Absolute Error % points	+/- 0.43	+/- 0.50	+/- 1.12

Fraser of Allander Institute – June 2014

Table 1, also compares our GVA forecasts with the median of latest independent forecasts for the UK as published by the UK Treasury. These show that we again expect Scottish growth to continue to be a little weaker than UK growth over the forecast period. So, we are now forecasting growth of 2.5% in 2014, 2.2% in 2015, and 2.4% in 2016. Given our previous forecast errors the lower and upper bounds for growth in 2014 are expected to be 2.1% and 2.9%, for 2015, 1.7% to 2.7%, and for 2016, 1.3% to 3.5%. Production and manufacturing continue to be the major sectors exhibiting the fastest growth in 2014, 2015 and 2016. In 2014, production is projected to grow by 2.9%. Services and construction display positive growth this year at 2.3% and 1.9% respectively. This relative performance continues in both 2015 and 2016 even though forecast growth diminishes across all sectors in 2015 and then rises again in 2016. Production grows by 2.6% and 2.7% in 2015 and 2016, while service growth is projected to be 2.1% in 2015 and 2.3% in 2016. The construction sector continues to lag with growth of 1.4% in 2015 and 1.5% in 2016.

Employment Forecasts

Table 2: Forecast Scottish Net Jobs Growth in Three Scenarios, 2014-2016

	2014	2015	2016
Upper	52,850	66,050	87,200
<i>March 2014 forecast</i>	<i>51,050</i>	<i>71,900</i>	<i>n.a.</i>
Central	43,100	42,900	58,150
<i>March 2014 forecast</i>	<i>39,600</i>	<i>42,800</i>	<i>n.a.</i>
Lower	33,400	19,900	29,900
<i>March 2014 forecast</i>	<i>36,700</i>	<i>13,350</i>	<i>n.a.</i>

Fraser of Allander Institute – June 2014

Table 2 presents our forecasts for net employee jobs for the years 2013 to 2015 in terms of a central and upper and lower forecast.

Our forecasts for employee job creation are broadly similar to our March 2014 forecasts, with a slight *upward* revision for this year and small *downward* adjustment for 2015. On the central forecast, we are now forecasting that net jobs will increase by 43,100 in 2014, 42,900 in 2015 and 58,150 in 2016. This year, we now expect 36,500 service sector jobs to be created, with around 1,850 added in production due to expected productivity increases given the growth in output, and somewhat stronger jobs growth of 3,300 in agriculture. Construction jobs are now forecast to rise this year by 1,500. In 2015/2016, the bulk of the jobs created are again expected to be in the service sector with an additional 33,650/46,050 jobs forecast, while 4,500/6,150 are added in production, 3,100/3,600 in agriculture and 1,650/2,350 in construction.

Unemployment Forecasts

The key unemployment forecasts are summarised in Table 3 below.

Table 3: Forecasts ILO unemployment 2014-2016

	2014	2015	2016
<i>ILO unemployment</i>			
Rate (ILO un/TEA 16+)	6.4%	6.2%	5.8%
March 2014 forecast	6.6%	6.3%	n.a.
Numbers	173,150	168,150	157,200

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. Our unemployment forecasts have been revised down further again from March 2014, reflecting higher economic activity. Our projection for unemployment on the ILO measure at the end of 2014 is now 173,150 (6.4%). By the end of 2015, unemployment is now forecast to be 168,150 (6.2%) falling further to 157,200 (5.8%) by the end of 2016 as growth in the economy strengthens over 2015.

Brian Ashcroft

13 June 2014

2 Forecasts of the Scottish economy

Grant Allan, Fraser of Allander Institute

Abstract

It appears likely that Scotland's economic activity will finally reach its pre-recession (2008) peak in the current quarter of 2014. The start of this year has seen an upswing in business confidence, particularly around new orders and intentions to invest, while the Bank of England's monetary policy continues to be unprecedented at this early stage of the recovery, and designed to accommodate an increase in economic activity, particularly investment, which remains subdued by historic standards. In this context, we have raised slightly our forecast for growth in this year. Downside risks to growth remain, with households – critical for the first phase of the recovery to date – continuing to face slow real income growth. While inflation pressures have eased, it appears likely that strong household earnings growth will not return until 2015. Rebalancing towards exports continues to be hampered by sluggish export performance, and external markets remain weak, although the outlook for the US – Scotland's largest single (non-UK) export destination – is forecast to grow strongly through 2014 and 2015.

Fiscal and monetary outlook

The UK Budget of March 2014 was broadly fiscally neutral in expenditure terms, meaning the path of continued fiscal consolidation remains. Analysis by the Institute of Fiscal Studies reported that around half of the planned “tightening” of fiscal consolidation has occurred between 2008 and 2013/4. Of the remaining half, much will come from cuts to nominal current spending, i.e. reductions in government spending on goods and services, rather than increases in taxation or capital spending reductions. The Centre for Public Policy for Regions analysed the longer term trend in spending for the Scottish Budget, in line with the 2013 spending review. It reported that the pace of fiscal consolidation would lessen in 2012-13, with reductions in the Scottish Government's budget of -2.1%, -1.1% and -1.5% in real (2012-13) terms for the three years from 2013-14 onwards. Significant further reductions in real terms expenditure under the control of the Scottish Government are anticipated in fiscal years 2016-17 (down -3.2%) and 2017-18 (down -3.6%).

UK monetary policy has evolved considerably since the end of 2013, while on the face of things, nothing much has appeared to change. The Bank's base rate and size of its QE asset purchase programme has remained the same, however, under Mark Carney the policy of “forward guidance” has sought to bring confidence and transparency to the timing and process for how (and when) the Bank will begin to raise interest rates. Carney initially proposed that the Bank would not consider raising rates until the unemployment rate reached 7%. However, a stronger than expected drop in this rate has seen an evolution of the guidance supplied, with the Bank indicating (in its February 2014 Inflation Report) that rates will be guided by a range of economic indicators, such as estimates of the spare capacity in the economy and the outlook for inflation. Additionally, it has been noted that future interest rates will return to a level below their previous average level. These measures, taken together, are intended to give confidence to business about the path of changes to the monetary policy stance.

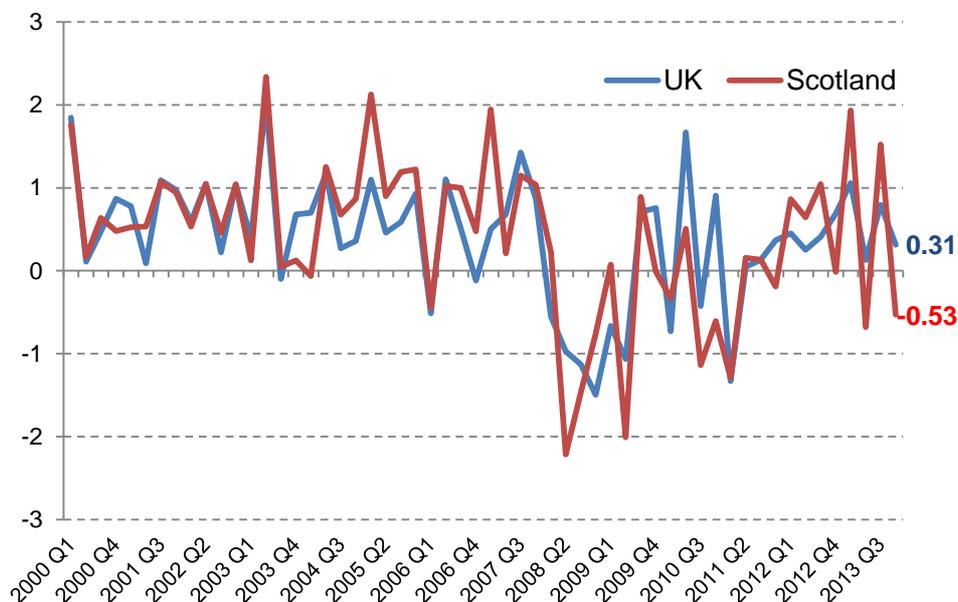
Households

Inflation has continued its decline since the middle of 2013 and CPI inflation stood at 1.8% in April 2014. This was slightly up from the previous month, however it was still below the Bank of England's target rate of 2%. The Bank of England's Inflation Report notes that CPI inflation is expected to pick up through Q2, but remain below target. Falling inflation appears to be positive for households, where nominal incomes have been struggling to rise more than (CPI) inflation, causing declining real incomes broadly since 2008. For almost all of the last six years for the UK - as a comparable Scottish series is not available – earnings growth have been outpaced by inflation, with (rare) exceptions only, for instance, where changes to the tax regime saw some incomes deferred between tax years.

Latest monthly data for the UK suggest that earnings growth has been stronger in the first half of 2014 than through much of 2013. The growth rate in earnings however remains below 2%, and indeed, has rarely been above 2% in the last eighteen months. It is the opinion of the Office for Budgetary Responsibility that a substantial pickup in earnings growth will not occur until 2015.

It is clear that quarterly household spending growth has varied significantly – and more for Scotland than the UK – however, since 2012, quarterly growth has typically been positive (Figure 1). (The most recent quarter, Q4 2013, saw a *decline* in spending in Scotland of 0.5%, while consumer spending *increased* by 3% in the UK as a whole).

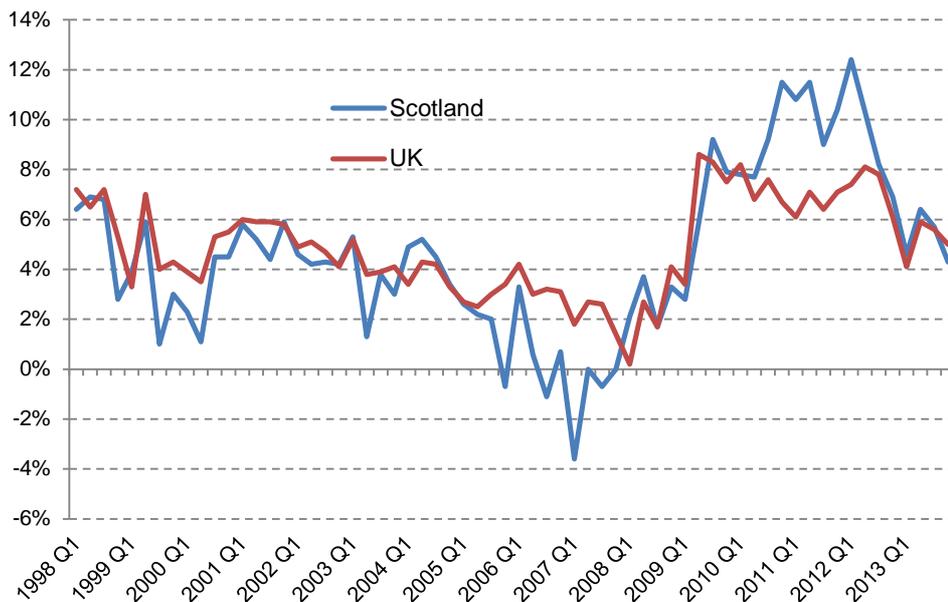
Figure 1: Household real consumption spending growth, Scotland and UK, Q1 2000 to Q3 2013, % q-on-q



Sources: Scottish National Accounts Project (SNAP) data (Scottish Government) and UK Quarterly National Accounts (National Statistics) and Fraser of Allander Institute calculations.

With household consumption supporting over half of the (UK) growth in 2013, in the absence of strong income growth, the unsustainability of this model for future growth is clear from the declining savings rate evident since the middle of 2012 (Figure 2). While UK and Scottish savings rates have been closely aligned over the last six quarters (i.e. since the middle of 2012) the fall in Scottish household saving rate has been more pronounced, coming after a stronger period of savings through 2010 to 2012.

Figure 2: Household savings ratio, Scotland and UK, Q1 1998 to Q4 2013



Sources: Scottish National Accounts Project (SNAP) data (Scottish Government) and UK Quarterly National Accounts (National Statistics) and Fraser of Allander Institute calculations.

Investment

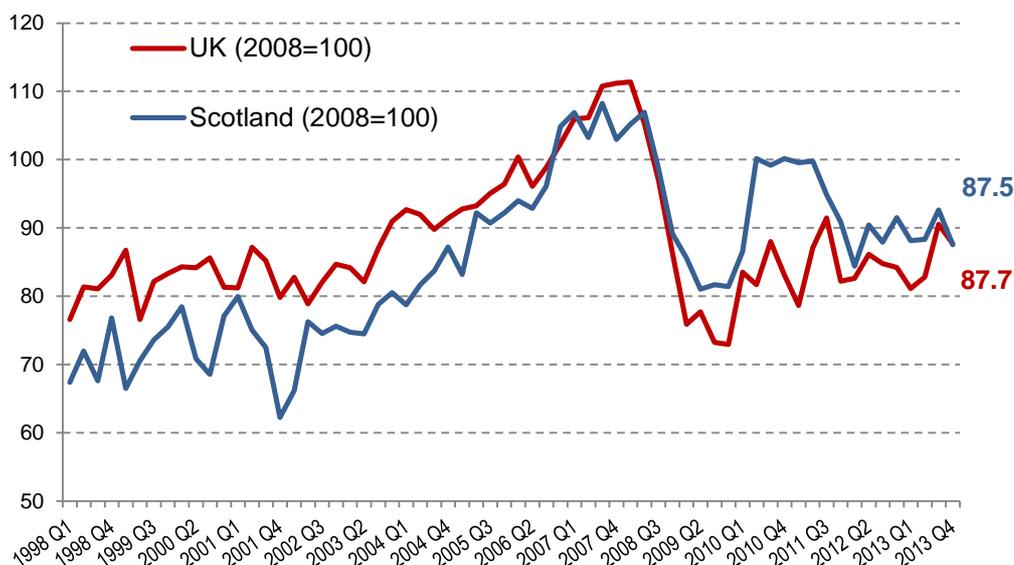
There remains concern around the lack of growth in investment over the last couple of years, both for the UK and Scotland. In the recent (March 2014) State of the Economy report, the Scottish Government's Chief Economic Adviser noted that "business investment remains weak relative to pre-recession levels". Investment spending remains weak in Scotland and lies significantly below pre-recession levels. These data suggest that investment spending in Scotland has broadly stagnated in level terms through 2012 and 2013 (Figure 3). May 2014's Inflation Report by the Bank of England noted that "the pre-conditions for a recovery [in investment] have been in place for some time"; however this has not translated itself into a much-anticipated surge in investment. Clearly, in the continued absence of public investment, policy has been targeted at encouraging private investment.

The Bank's report notes that three factors have improved the outlook for investment. First, demand uncertainty appears to have receded over the last six months, with downside fears easing and a (slow) return to growth now anticipated to persist for the medium term. Second, there appears to be increased confidence in new orders from business surveys: a useful "forward-indicator" for private investment

intentions. Third, it notes improved cost of and access to finance for investment purposes, as well as many firms having retained earnings which they are free to invest.

Investment intentions from the latest surveys (summarised more broadly in the *Review of Scottish Business Surveys* section of this Commentary) note that, even with strong signals for output and employment, there remain doubts about the persistence and sustainability of the recovery, with knock-on impacts for the level and growth in investment expenditures. Within manufacturing, around 30% of firms surveyed by the Scottish Chambers Business Survey in Q1 2014 reported “expansion” as a reason for new investment, up from earlier surveys, while there is optimism in the Scottish Engineering Quarterly Review from, in particular, small and medium-sized companies. Construction sector survey indexes remain strong at the start of 2014, although appear to have eased in Q2 2014 compared to Q1 (and housebuilding remains a relatively weak area).

Figure 3: Real gross fixed capital formation, Scotland and the UK, Q1 1998 to Q4 2013



Sources: Scottish National Accounts Project (SNAP) data (Scottish Government) and UK Quarterly National Accounts (National Statistics) and Fraser of Allander Institute calculations.

Trade

It is hard to read too much into the latest aggregate figures on Scotland’s manufacturing (non-UK) exports, which show a decline of 4% in real terms in the final quarter of 2013. This is largely due to the closure of the Grangemouth refinery and chemical plant which was closed for a period during the quarter, contracting its exports by 20%, and which is responsible for almost one quarter of Scotland’s exports. This single event was estimated to have perhaps reduced growth in the final quarter of 2014 by as much as 0.2%. A large decline in the food and drinks sector: with exports by the drinks sector falling by 5.8%, largely explain the recent quarter’s data. However, future quarters will likely see a return of

activity and exports from Grangemouth, which will have a one-off (positive) effect on the rate of growth in Q1 2014.

On a rolling annual basis, the 1.9% growth for manufacturing exports would have been higher, but for the points above, indicating that there are some reasons to be positive about the overseas performance of Scottish firms. The continued dependence upon a small number of industrial sectors is evident when one considers that two sectors identified above – chemicals and food and drink – are responsible for over half of Scotland's manufactured exports.

In terms of key markets for Scottish products, latest figures suggest some room for cautious optimism about the short-term trajectory. Markit's PMI for the Eurozone in June 2014 suggested growth across the Eurozone has continued for the previous year, and across both manufacturing and service sectors. Eurozone imbalances remain with the strong German economy contrasting with a weak domestic economy in France, still rooted in contraction territory on its overall output measure. Growth in the US is forecast to remain strong, while the forecasts for the UK as a whole have been revised up by a range of forecasters since the start of 2014. **Table 1** shows the forecasts for growth in key global markets for Scottish products through 2014 and 2015.

Table 1: Economic growth forecasts for 2014 and 2015 for major Scottish export markets, plus UK, China, Japan and Euro area, % p.a.

	2014		2015	
	IMF (April 2014)	OECD (May 2014)	IMF (April 2014)	OECD (May 2014)
USA	2.8	2.6	3.0	3.5
Netherlands	0.8	1.0	1.6	1.3
France	1.0	0.9	1.5	1.5
Belgium	1.2	1.5	1.2	1.9
Germany	1.7	1.9	1.6	2.1
Ireland	1.7	1.9	2.5	2.2
United Kingdom	2.9	3.2	2.5	2.7
China	7.5	n/a	7.3	n/a
Japan	1.4	1.2	1.0	1.2
Euro area	1.2	1.2	1.5	1.7

Sources: *World Economic Outlook (International Monetary Fund, IMF, April 2014)* and *Economic Outlook (Organisation for Economic Cooperation and Development, OECD, May 2014)* Notes: "n/a" indicates forecast not produced.

Reductions in import prices have led some to argue that this will bring down UK CPI inflation from its current (low) level – as seen above – and into deflation territory, i.e. a negative rate of inflation. Two factors are likely to have a significant impact on whether this threat manifests itself. First, a continued rise in the value of Sterling (in particular, with respect to the Euro: a major market for UK imports) means that – with import prices constant – UK firms will experience reductions in their costs. Second, the extent to which firms pass on these cost reductions in terms of lower prices for customers. It appears to be the opinion of the Bank's Monetary Policy Committee that the fall in import prices *will* be passed on in full to

households over their forecast horizon, with implications for a downward pressure on the level of CPI inflation.

Forecasts for the Scottish economy in detail

In the March 2014 Commentary, we saw signs of cautious optimism returning to the short-term economic outlook for Scotland, largely driven by better than expected household spending figures, and positive signs returning to business investment through the end of 2013 and continuing into the start of 2014. These trends appear to have been borne out by survey data on the first quarter, with some stabilisation (slightly down on Q1, but still positive) in the early business surveys through Q2 2014. The signs from the Bank of England suggest that in general monetary policy is set to continue being accommodative with low interest rates persisting through until later in 2015. However – as discussed above – we have concerns about the impact on the UK (excluding London and the South East) and Scotland's economic recovery of the Bank's (hypothetical) use of its interest rate lever to subdue the growing bubble in housing prices in parts of the UK, such as London.

This improving economic climate forms the background to our current forecasts. Downside risks remain in both the short and medium term, though we continue to be concerned about the robustness of the recovery. Since March 2014, however, there is increasing evidence that the return of increases in real wages may arise earlier than we had anticipated, albeit that productivity growth remains sluggish and it is likely to be at least 2015 before we see a return to increases in real wage growth. It remains to be seen what the consequence of five years of falling real wages will mean for household balance sheets coming out of the recession, particularly as a large part of the recent recovery has been fueled by the use (and decline) of falling household savings.

Several factors will weigh on the true outturn for growth and labour market performance in Scotland over the years of our forecasts. First, it is likely that the figures for Scottish growth in Q1 2014 will be “distorted” by the disruption to the Grangemouth facility during the final quarter of 2014, as we discussed in the Commentary of November 2013 (Vol 37, No 2). The plants' closure meant that output in this important sector will have been unusually low in Q4 and the recovery in that facility's operation will cause Q1 2014 activity to be stronger than it would otherwise have been. The latest State of the Economy report noted that Q4 2013 the plant's closure could have led to growth in Q4 being reduced by as much as 0.4 percentage points, and “a reversal of this effect [is] expected in subsequent quarters” (p. 22). Second, key survey indicators – such as the Bank of Scotland PMI for May 2014 - suggests that the growth in business confidence evident in Q1 of 2014 has not persisted into the second quarter. Although still in expansion territory, the growth rate appears to have slowed towards the summer of 2014.

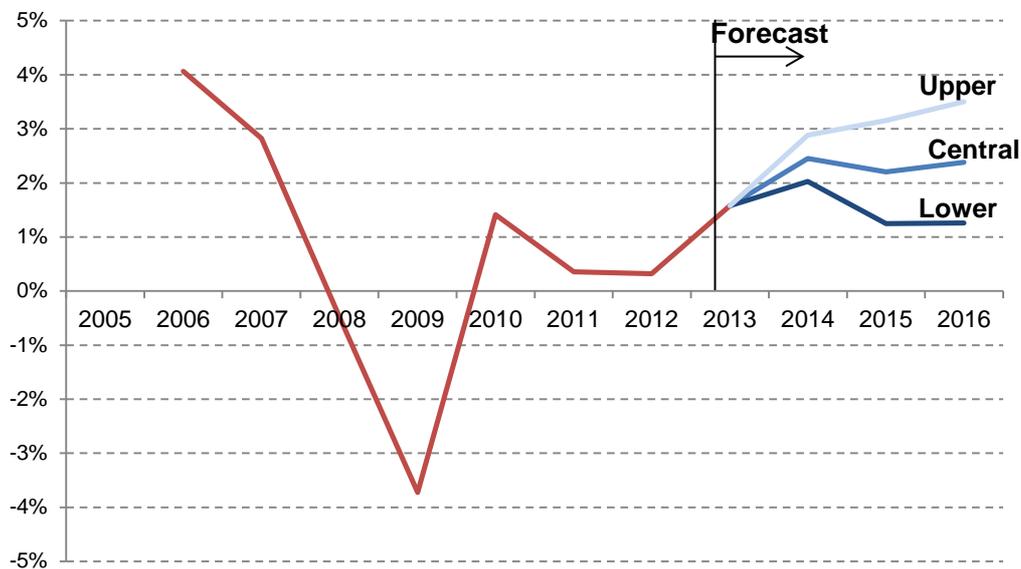
Thirdly, we remain concerned about the strength of the external environment for Scottish goods and products. Growth forecasts for Scotland's major trading partners remains subdued in 2014, with only the US – of Scotland's top-five (non-UK) export destinations – forecast to grow by more than 3% in 2015. There is growing evidence of a strong performance in tourism figures and expenditures by visitors in 2013, which will have important impacts through 2014 and 2015, in part from any ongoing impact from tourism demands stimulated by the range of international sporting events – such as the 2014 Commonwealth Games in Glasgow and the Ryder Cup – in the second half of 2014.

Forecasts

In this section of the *Commentary*, we forecast year-on-year real growth in Scotland's key economic and labour market variables. In this issue, we forecast all variables for 2014, 2015 and, for the first time, 2016. Our forecasts cover Scotland's Gross Value Added (GVA), employee jobs and unemployment. The model used is multi-sectoral, and where useful, results are reported to broad sectoral categories.

We begin with the forecasts for GVA growth in the Scottish economy. The trend for annual growth in Scotland between 2005 and 2013 and our new forecasts are shown in [Figure 4](#). This also includes our upper and lower growth forecasts for the period to 2016. As with previous *Commentary* forecasts, the range around the central forecast is based on our past forecast accuracy (and now updated to include the first estimate of growth in 2013). Our March 2014 *Commentary* forecast GVA growth of 1.7% in 2013, while the first estimate was 1.6%. Based on earlier forecasts since 2000, the mean absolute error of forecasts in the summer period and growth in the same year is 0.43 percentage points. Growth forecast errors for the following year are 0.95 percentage points. This gives the range for the upper and lower bands in 2014 and 2015. Our past forecast errors for the longest forecast horizon is 1.12 percentage points, so this is used to give the range around our central forecast for 2016.

Figure 4: Fraser of Allander Institute forecasts of annual real GVA (%) growth for 2013 to 2015:
Scotland



Source: Fraser of Allander Institute forecasts, June 2014

We have revised our central forecast for GVA growth for both 2014 and 2015, which now stand at 2.5% and 2.2% respectively in 2014 and 2015. Our March 2014 growth forecast for 2014 was 2.3%, and we have revised this year's growth forecast up by 0.2 percentage points to 2.5%. Our previous forecast for

2015 was for growth of 2.3%, and latest forecast has shaded this downwards by 0.1 percentage points. In our first forecast for 2016, we forecast growth of 2.4% in that year.

For comparison purposes, the UK's Office for Budgetary Responsibility (OBR) and the median of independent growth forecasts for the UK made during the last three months have forecast growth in 2014 of 2.7% and 2.9% and 2015 of 2.3% and 2.5% respectively.

In addition to the aggregate growth forecasts in our central scenario, [Table 2](#) presents our forecasts for GVA growth in 2014, 2015 and 2016 for a broad sectoral grouping, i.e. the "production", "construction" and "services" sectors of the Scottish economy. With recovering private sector investment evident in recent surveys, we are now forecasting construction sector growth of 1.9% in 2014 – up from March 2014's forecast of 1.8% - while forecasts for the production and services sectors have also been raised by 0.1 percentage points.

Table 2: Fraser of Allander Institute Scottish GVA growth (%) by sector, 2013 to 2015

	2014	2015	2016
GVA	2.5	2.2	2.4
Production	2.9	2.6	2.7
Construction	1.9	1.4	1.5
Services	2.3	2.1	2.3

Source: Fraser of Allander Institute forecasts, June 2014

Employment and unemployment

Detailed commentary on recent developments in the Scottish labour markets can be found in the Overview of the Scottish Labour Market section of this *Commentary*. Here we present our forecasts for the number of employee jobs in the Scottish economy. We forecast the number, sectoral breakdown and percentage changes in employee jobs at the end of 2014, 2015 and 2016 respectively, as well as the ILO measure of unemployment over the same period.

The most up to date employee jobs series for Scotland shows that there were 2,343,000 employee jobs in Scotland in the final quarter of 2013. This was an increase of 66,000 jobs from the end of 2012, but it is still 137,000 jobs (5.5%) lower than the peak of employee jobs in Scotland in Q3 2008 (2,480,000).

Our new forecasts for employee jobs are shown in [Table 3](#), alongside a detailed sectoral breakdown of employee job numbers. The number of total employee jobs is forecast to increase in each year, and have been revised up slightly since our March 2014 forecasts. The number of jobs is now forecast to increase by 1.8% in 2014 (up from 1.7%) with a slightly upward revision to the net annual change in employee jobs from 39,600 to 43,100 through the current year. Our forecast is that the number of employee jobs will breach its previous 2008 high by the end of 2016. The net change in employee jobs consistent with our upper, central and lower forecasts are shown in [Table 4](#).

Table 3: Fraser of Allander Institute forecasts of Scottish employee jobs ('000s, except where stated) and net change in employee jobs in central forecast, 2014 to 2016

	2014	2015	2016
Total employee jobs, Dec	2,386,100	2,429,000	2,487,150
Net annual change (jobs)	43,100	42,900	58,150
% change from previous year	1.8%	1.8%	2.4%
Agriculture (jobs, 000s)	39	42	46
Annual change	3,300	3,100	3,600
Production (jobs, 000s)	253	257	263
Annual change	1,850	4,500	6,150
Construction (jobs, 000s)	121	122	124
Annual change	1,503	1,650	2,350
Services (jobs, 000s)	1,974	2,007	2,053
Annual change	36,500	33,650	46,050

Note: Absolute job numbers are rounded to the nearest 50.

Source: Fraser of Allander Institute forecasts, June 2014

Table 4: Net annual change in employee jobs in central, upper and lower forecast, 2014 to 2016

	2014	2015	2016
Upper	52,850	66,050	87,200
Central	43,100	42,900	58,150
Lower	33,400	19,900	29,900

Note: Absolute job numbers are rounded to the nearest 50.

Source: Fraser of Allander Institute forecasts, June 2014

We present out forecasts for unemployment at the end of 2014, 2015 and 2016 in our central scenario in our central forecasts in [Table 5](#). In line with the forecasts produced since June 2013, we report the forecasted number (and rate) of those unemployed under the International Labour Organisation (ILO) definition of unemployment. This is preferred to the claimant count measure as it gives a more complete picture of the extent of labour resources 'available for work' but unable to find work, and so it is a better measure of the level of spare capacity in the Scottish labour market.

The recent labour market data at time of writing (10 June 2014) indicates that the ILO unemployment rate in Scotland is 6.4% in the first quarter of 2014, down 0.9 percentage points on the first quarter in 2013. Our forecast for the end of 2014 is for the broadly positive labour market outcomes in Scotland to continue through 2014 and 2015, in line with our March 2014 forecast.

In line with our slight upward revisions to economic activity in Scotland in 2014, we have revised down our forecasts for the level and rate of unemployment from those in March's Commentary. Our new forecasts for the unemployment rate in Scotland at the end of 2014 and 2015 are 6.4% and 6.2%

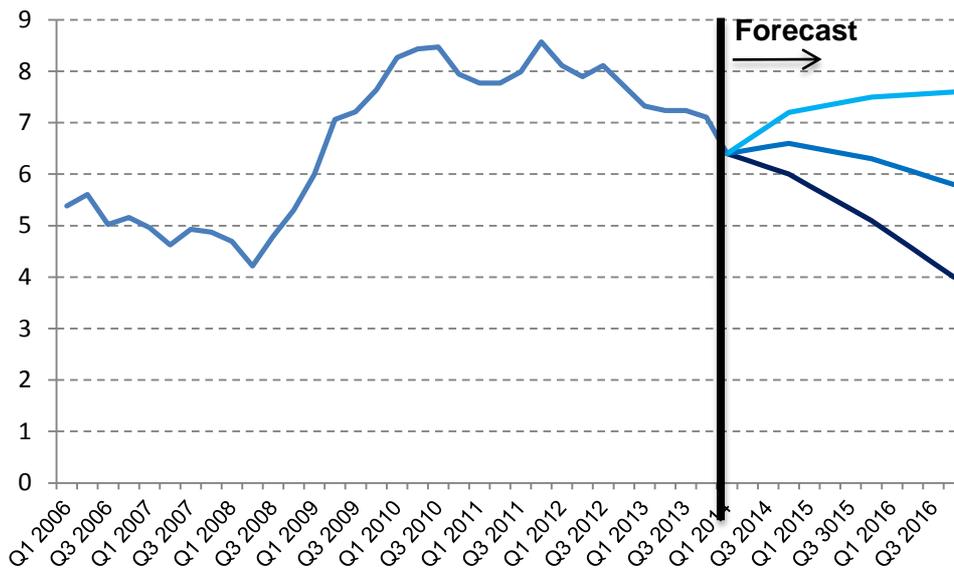
respectively (down from 6.6% and 6.3%). **Figure 5** shows both the history of the ILO measure of the Scottish unemployment rate since 2006 and our central, upper and lower forecasts for the ILO unemployment rate, now extended out to 2016.

Table 5: Fraser of Allander institute forecasts of Scottish unemployment in central forecasts, 2014 to 2016

	2014	2015	2016
ILO unemployment	173,150	168,150	157,200
Rate (%) ¹	6.4	6.2	5.8

*Note: Absolute job numbers are rounded to the nearest 50. 1 = Rate calculated as total ILO unemployment divided by total of economically active population aged 16 and over.
Source: Fraser of Allander Institute forecasts, June 2014*

Figure 5: Scottish ILO unemployment rate, 2006 to 2016 including forecasts from 2014



Sources: ONS and Fraser of Allander Institute forecasts, June 2014

3 Review of Scottish Business Surveys

Eleanor Malloy, Fraser of Allander Institute

Abstract

The business surveys reviewed in this section provide a barometer for the Scottish economy and outlined below is an overview of key recent evidence. These 2014 Q1 surveys suggest that the recovery evident from recent previous surveys has been cemented with growth across all main sectors gathering pace. Since the start of 2014 businesses in Scotland have maintained the positive confidence levels evident from previous surveys. Key benchmarks are stronger than their long-term averages with many now higher than their pre-recession levels. Respondents to many of the surveys, on balance, reported strong performances of the key indicators and also continued to be positive about the prospects for the rest of 2014. However, some warn that the recovery still remains fragile and may be at risk from domestic and foreign uncertainties.

Private Sector

The Bank of Scotland PMI - a single-figure measure of the month-on-month change in combined manufacturing and services business activity - for February 2014 was 56.2, indicating a further increase in the combined output of Scotland's manufacturing and service sectors. Employment rose at the fastest rate in the surveys history during February. In March 2014 the Index rose to 56.4, signalling improving business confidence and leading to increases in output, new business and employment. The March survey also highlighted an easing of inflationary pressures with the rate of increase of input/output prices slowing. The latest figure available is for April when the index stood at 54.8 showing continued growth albeit at a slower rate than in March. The gap between Scotland and the rest of the UK widened in April with the UK index rising to 59.2. However there was a further decline in new export orders, possibly fuelled by the strength of Sterling. The May PMI, at 54, was down on the April 2014 index and was also the lowest figure since April 2013, indicating a slowing in the rate of growth.

The Bank of Scotland group also produce a quarterly business survey, the Scottish Business Monitor (SBM) that analyses the production and service sectors. The latest issue showed Scotland's economy continued to strengthen at the start of this year, with improvements on both the previous quarter and on the same quarter one year ago. Both service and manufacturing firms showed signs of improvement.

Firms exhibited an optimistic outlook with a net balance of firms reporting increased turnover during the three months to the end of February 2014. The survey also found that expectations for the six months to August 2014 were at their highest level since before the recession in 2007. In the latest survey, 40% of Scottish production firms reported a rise in turnover while 24% experienced a decline and in the services sector 42% reported a rise and 22% recorded a fall (a net balance of +20%). This was a marked turnaround compared to the same period a year earlier where a net balance of -9% service sector firms reported a drop in sales.

Export activity improved and respondents are upbeat about export prospects in the six months to August 2014 as a net 42% of firms predict a rise. This highlighted a significant improvement from a balance of 21% forecasting a rise in exports in the previous quarterly survey. In the Q1 survey, 35% of producers reported a rise in export activity and 24% experienced a fall and among services companies, 29% recorded a rise and 15% reported a decline in export activity.

Manufacturing

During the first three months of 2014 business confidence continued to improve for a net of 18% of SCBS firms, a significant improvement from the 18.6% for Q1 2013. Only 11% of firms reported being less confident compared to Q4 2013. In general terms optimism levels also remained high among respondents to the Scottish Engineering Quarterly Review for Q1/14.

During Q1/14 the trend in total new orders improved markedly for SCBS firms (from a net balance of 13.1% to 30.5%) with 44% of all firms reporting a rise. Orders from all areas improved. Respondents continue to remain optimistic as to the trends in future orders during Q2/14 (+17.8%) with orders from all areas set to rise. Average capacity utilisation eased from 78.1% to 77% although was almost two percentage points higher than the Q1/13 figure. The manufacturers organisation, EEF in association with the accountancy firm BDO, reported that a net balance of firms reported a rise in orders and that a net of 31% expects a further rise, although disappointingly export orders fell short of expectations from the previous quarter survey.

Respondents to the Scottish Engineering Quarterly Review for Q1/14 reported that their total order intake increased. Small companies remained positive and appeared to be holding up the sector as medium companies reported a decline and large companies reported no overall change. Within the sector, electronics and machine shops and metal manufacturing were positive whereas fabricators reported no net change. Maintaining the pattern over the last 16 quarters UK orders in general remained healthy and this trend is expected to continue in Q2. Export orders in general declined for a net balance of 3% of firms although a net balance of 13% expect an increase in Q2.

Once again turnover and profitability are expected to rise for a net balance of Chamber of Commerce surveyed firms over the coming 12 month period. Both net balances are at their highest levels since 2007. The trends in investment in plant/machinery improved during Q1/14 for a net balance of SCBS manufacturing respondents (+15.7%). New investment continues to be directed towards replacement (29%) or to improve efficiency (36%) although a significant number are also reporting expansion as a reason (29%). Small and medium companies replying to the Scottish Engineering Quarterly Review are positive regarding investment intentions.

A net balance of SCBS firms reported a rise in total employment levels (+21%). Almost a third of firms increased pay during Q1 and the average increase remained at 3.3%. 52% (compared to 48% in the previous quarter) reported seeking to recruit staff, and almost half of these firms reported increased recruitment difficulties. Staffing levels in Q1/14 and forecasts for the next three months in general remained positive for Scottish Engineering firms.

Construction

The rising trend in business optimism among SCBS respondents continued into Q1/14 with a net balance of respondents reporting a positive net balance of optimism (+20.7%); only 13.8% reported a decline in business optimism. Following the rapid increase in Q4/13 the trend in total new orders dropped back but remained positive in Q1/14 and is expected to remain positive through Q2. Orders from all areas generally improved and all are expected to rise again in the three months to the end of June. Capacity utilisation eased from 82.3% to 77.6%.

Cash flow trends continued to deteriorate for a net balance of SCBS construction firms (-6.9%) although the decline eased from the previous quarter (-11.5%). Turnover is expected to increase for more than half of firms and a net balance now anticipate an increase in profits suggesting that the long term trend in pressure on margins may be beginning to ease. Indeed a net balance of firms reported that tender margins, in the next 12 months, are set to rise.

As forecast there was a net rise in total employment levels in Q1 among Chamber of Commerce respondents although most firms continued to report no change; a net balance (+7.7%) expect a further rise in Q2. Recruitment activity eased (from 46% to 31%) although recruitment problems increased with firms specifying problems attracting suitable professional and technical staff. Average pay increases decreased marginally from 2.9% in Q4/13 to 2.4%.

Latest Scottish Construction Monitor quarterly survey for Q1/14, conducted by the Scottish Building Federation suggests confidence in the construction sector has now returned to pre-banking crash levels. The latest Monitor found more than half – 51.6 per cent – of firms who responded in the first three months of the year are more confident about their prospects in the coming 12 months. This was the third consecutive report showing a rise in business confidence. The Scottish Building Federation however warned that while the survey results were encouraging, the outlook remained mixed across different sectors and that while there had been strong growth in infrastructure and private commercial activity, house building remained flat.

Wholesale distribution

The downward trend in business optimism amongst Scottish SCBS wholesalers continued, though eased, and more than two thirds continued to report no change. The downward trend in sales eased further from -5.6% in Q4 to 0%. Once again the net balance in sales was better than had been expected by respondents in the previous survey, and a net balance of +6.6% expect a rise in the first quarter of 2014.

Overall cost pressures appear to be easing, although more than half of SCBS respondents reported increased pressures from transport costs and other overheads and to a lesser extent, firms also remain under pressure from raw material costs (47%). More than half of firms (52.9%) expect to increase prices over the next three months. The long running downward trend in turnover ended with a net balance of 5.9% expecting a rise in the coming year whereas the downward trend in profitability continued, though eased in Q1. More than 80% of firms reported no change to investment plans although the remaining firms reported an increase.

SCBS wholesale respondents unexpectedly report a net increase in overall employment levels during Q1/14. Recruitment activity eased as did recruitment difficulties. The average pay increase in Q1/14 was 4.7% compared to 2.5% in Q4/13 (few than 20% reported an increase).

Retail distribution

Compared to the previous quarter business confidence eased in Q1/14 for a net balance of -5.5% of SCBS firms; despite the decline the net balance remained significantly higher than the balance in Q1/13 (-45.2%). Overall sales unexpectedly declined as a net balance of 18.5% reported a drop in sales in Q1, however a net balance of 4.4% expects a rise in Q2. This remains an improvement over the same period of 2013 when a net of 47.6% reported a decline in sales.

Cost pressures remain historically high and SCBS firms continued to cite raw material prices and utility costs. Pressures on margins appear to have increased slightly in Q1. A net balance of 12% expect a rise in turnover although a net of -14.6% expect a decline in profitability (compared to -2.1% in the previous quarter).

The trend in total employment remained flat for SCBS firms with more than 80% reporting no net change to total levels. A third of firms reported increasing pay, and the average increase eased from 6.5% to 4.4%.

Following a strong start to 2014 the Scottish Retail Consortium reported that in March 2014 total Scottish sales decreased by 2.5% compared with March 2013, when they had increased by 1.8% although argued that the timing of Easter this year distorted and exaggerated the decline in like-for-like spending figures. Like-for-like sales decreased by 3.8% on last March, when they had increased by 0.9%. Taking account of shop price deflation, March total sales were down 0.8% in real terms.

Tourism

The upward trend in tourism optimism continued with only 10% of SCBS hoteliers indicating that they were feeling less confident during Q1/14. Demand generally continued to improve and exceeded expectations with a net balance of 20.7% reporting a rise. There was however a net decline in demand from the rest of UK although this decline is expected to be temporary. More than half expect no change to demand levels in Q2. Demand from all areas is expected to improve in Q2.

Average occupancy eased from 65% to 56%, Q1 occupancy levels are normally low. During Q1 trends in bar/restaurant trade improved as did the demand for the use of conference/function facilities. A net balance (+7.7%) reported a rise in the average daily room rate and a net of 28.3% expect a rise in Q2.

Only 58% of SCBS firms (compared to 71% previously) reported the lack of tourist demand as the primary business constraint. Poor transport infrastructure and high fuel costs are becoming of increasing concern. Around half of hotels sought to recruit staff and recruitment problems are becoming more evident with a number of hotels reporting difficulties attracting suitable chefs/cooks, bar/waiting staff and managerial staff. Total employment trends declined although a rise is forecast for Q2.

Overall accommodation occupancy levels for January 2014, compiled by Visit Scotland generally recorded increases compared to January 2013. Hotel room occupancy for the month of January 2014

was generally down compared to January 2013. However they reported that growth in room occupancy was recorded in Fife, Glasgow & Clyde, Dumfries & Galloway, Edinburgh & Lothians, and Perthshire. Guest House and B&B room occupancy improved in Glasgow & Clyde, and Highlands. Self-Catering unit occupancy rose during January 2014, with the majority of areas recording growth.

Outlook

Generally, the speed of the recovery in the Scottish economy is continuing to gather pace and is becoming more broadly based. Expectations for 2014 are at their highest level since 2007, suggesting the recovery will continue and will become increasingly rooted. However, for some sectors trading conditions are still harsh suggesting that aspects of the recovery remain fragile and policy action may be required to ensure that it is sustainable. Growth is still, to an extent, reliant on household spending and in order to sustain growth over the longer term, an increase in investment and net exports as well as manufacturing and construction activity is needed. The recovery in Europe, where half of our exports go, remains fairly subdued therefore the challenge now must be to ensure that the recovery is sustainable in the longer term. Confidence levels among Scottish businesses need to reach and maintain a point where firms have the confidence to invest for the longer term.

Current trends in Scottish Business are regularly reported by a number of business surveys. This report draws on:

Lloyds TSB [Business Monitor Issue 65](#) December 2013 – February 2014;

[Scottish Chambers' Business Survey](#) Q1 2014

[Scottish Engineering Quarterly Review](#) Q1 2014;

[The Bank of Scotland Markit Economics Regional Monthly Purchasing Managers' Indices \(PMI\)](#) for February 2014 – May 2014;

The [Scottish Retail Consortium's KPMG Monthly Scottish Retail Sales Monitor](#) for March 2014

Visit Scotland Occupancy surveys for Q1 2014.

EEF and BDO Manufacturing Outlook Survey, Quarter 2 2014

4 Scottish labour market

Andrew Ross, Fraser of Allander Institute

This section provides an overview of key labour market data in Scotland and contrasts these with both UK performance and changes over time. These data are from a range of the latest labour market data for Scotland and the UK, to April 2014. In the quarter to April 2014 Scottish unemployment decreased by nearly 7 thousand to 183 thousand. Total people in employment increased in Scotland by 16 thousand over the quarter to stand at 2,578. The Scottish Unemployment rate has levelled with that of the UK at 6.6%. Growth in employment, however, is still sustained by part-time workers and self-employment. This is particularly important when considering that the number of part-time workers who cannot find fulltime work has remained persistently high since 2008. Thus, despite the positive signs of recovery in the Scottish labour market, there still remain signs of slack and possibly even wider structural issues.

Recent trends and statistics

The latest comparable figures on the labour market between Scotland and the United Kingdom in the quarter to April 2014 are summarised in Table 1. Labour Force Survey (LFS) data show that in the quarter to April the level of employment in Scotland rose by 16 thousand, to 2,579 thousand. Over the year to April 2014, employment in Scotland rose by 48 thousand. For the same period, UK employment rose by 345 thousand and 780 thousand respectively. The Scottish employment rate (16 – 64) – i.e. those in employment as a percentage of the working age population – was 73.4%, up 1.2% from one year earlier. For the same period the UK employment rate was 72.9%, up 1.4% compared to a year earlier. Scottish unemployment, in the quarter to April, fell by 7 thousand to 183 thousand, a fall of 10 thousand over the year.

Table 1: Headline indicators of Scottish and UK labour market, February – April 2014

		Scotland	Change on quarter	Change on year	United Kingdom	Change on quarter	Change on year
Employment*	Level (000s)	2,579	16	48	30,535	345	780
	Rate (%)	73.4	0.5	1.2	72.9	0.6	1.4
Unemployment**	Level (000s)	183	-7	-10	2,165	-161	-347
	Rate (%)	6.6	-0.3	-0.5	6.6	-0.5	-1.2
Inactivity***	Level (000s)	728	-6	-28	8,816	-80	-178
	Rate (%)	21.3	-0.2	-0.9	21.8	-0.2	-0.5

Source: ONS Labour Market Statistics, Scotland and UK, June 2014

Notes: * Levels are for those aged 16+, while rates are for those of working age (16-59/64)

** Levels and rates are for those aged 16+, rates are proportion of economically active.

*** Levels and rates for those of working age (16-59/64)

Note: In considering employment, activity and unemployment rates it is important to remember the bases and relationships of these figures. LFS data (estimated) is provided for: (1) all aged 16 and over and (2) for all aged 59/64. The first measure (all aged 16 and over) leads to higher numbers in employment, in the total economically active and economically inactive – but reduces the economic activity rates and unemployment rates, but at the same time increases the economically inactive rate. Conversely the second measure (all aged 16 to 59/64) leads to lower numbers economically active, in employment and economically inactive – but leads to a higher economically active, employment and unemployment rates but lower economically inactive rates. Figures derived from the Labour Force Survey differ slightly from those derived from the Annual Population Survey. See SPICe briefing note on 'A brief overview of Scottish labour market statistics' for a good overview of labour market data: <https://www.scottish.parliament.uk/parliamentarybusiness/70894.aspx>

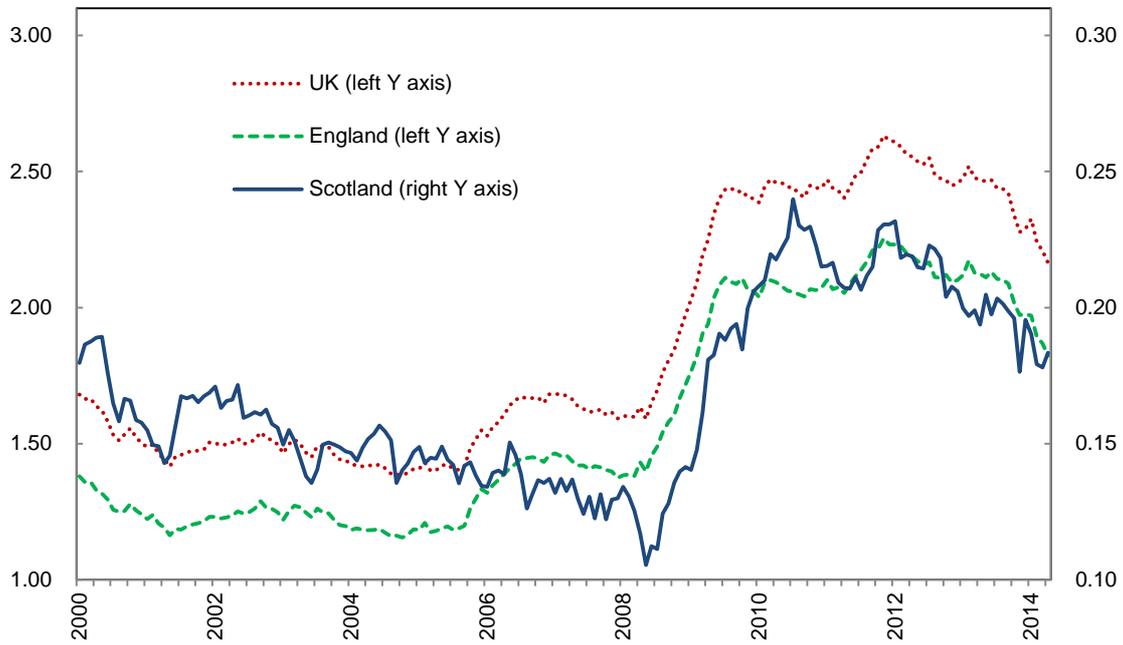
The relationships between employment, unemployment, total economically active and inactive are important in discerning the reaction of the labour market to overall economic conditions. It is important to appreciate that changing levels of employment and unemployment, and changes in employment rates should be seen in conjunction with changes in activity rates. For example, if people leave employment and become unemployed (i.e. are actively seeking work they remain economically active) the unemployment rate will increase, but the rate of those economically active will remain unchanged. However, if people leave employment and do not seek employment, as seems to be a continuing pattern, they are then categorised as economically inactive, and as such the unemployment rate will remain unchanged, whilst the activity and inactivity rates will change. Equally, the changing pattern between full and part time employment is of interest as we uncover how the labour market is reacting to the overall economic conditions. We return to this issue later in this section.

Table 1 shows that for Scotland using the preferred International Labour Organisation (ILO) measure, unemployment fell to 183 thousand, between February – April 2014, a fall of 10 thousand over the year. The ILO unemployment rate fell in the months to April 2014 and now stands at 6.6%. This represents a 0.3% fall over the last quarter and a 0.5% fall over the year. The comparable ILO unemployment rate for the UK stands at 6.6%, and is down 0.5% over the most recent quarter and also down 1.2% over the year.

Figure 1 illustrates the trend in unemployment in Scotland, England, and the UK since 2000. Between 2000 and 2014 Scottish unemployment reached its lowest number of 111,000 in May – June 2008, prior to the worldwide financial crash and the subsequent Great Recession. Unlike the pattern of the previous recession unemployment has fallen more rapidly to just below 200,000, though this may reflect the more rapid rise in part time and self-employment (see Figure 2 and Table 5).

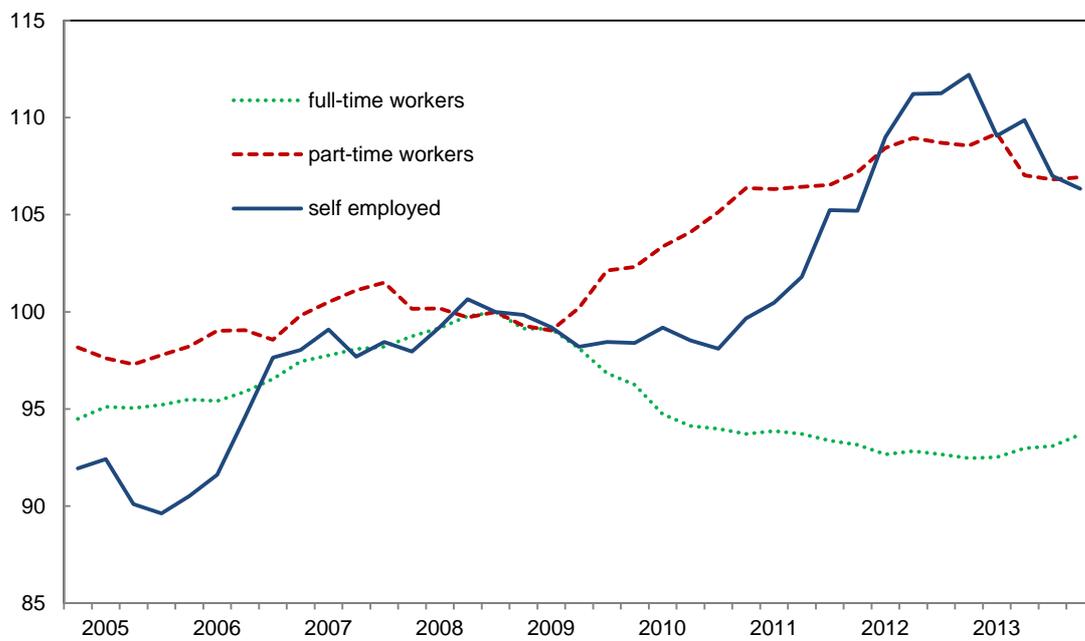
Figure 2 illustrates how the employment 'recovery' continues to be driven by an increase in part time work and self-employment. Growth in full-time workers remains subdued and has failed to gain momentum over the past years. The slight decrease in part-time workers and self-employment over the past year has not been met by an increase in full-time work. A strong and sustained recovery in the labour market would require a more robust growth in full-time workers.

Figure 1: Unemployment (in million) in Scotland, England and the UK 2000 – April 2014



Source: ONS Labour Market Statistics, Scotland, England and UK, June 2014

Figure 2: Trends in full, part time and self-employment January 2004 – December 2013



Source: ONS Labour Market Statistics, Scotland, June 2014
 Notes: October 2007 – September 2007 = 100

The economically active workforce includes those individuals actively seeking employment and those currently in employment (i.e. self-employed, government employed, unpaid family workers and those on training programmes). Between February – April 2014 the number of economically active (16+) in Scotland rose by 9 thousand, whilst the activity rate remained unchanged at 63.7%. There were 2,761 thousand economically active people in Scotland during February – April 2014. This comprised 2,578 thousand in employment (2,511 thousand aged 16 – 64) and 183 thousand ILO unemployed. The level for those of working age but economically inactive increased by 4 thousand (0.3%) in the latest quarter, and increased by 8 thousand (0.5%) over the year to 1,572 thousand people.

Economic inactivity for men aged 16 – 64 decreased by 0.2% over the year, and decreased by 1.4% for women over the year. In the year from January 2013 to December 2013 the key components of change in inactivity were: fewer students, down by 1 thousand; more people looking after family members and/or home, up 1 thousand; fewer retirees, down 14 thousand; while those long-term and temporarily sick remained unchanged. Though the majority of the inactive (580 thousand) did not want a job, slightly more than a third of them (200 thousand) did wish to gain employment.

Data on employment by age, derived from the Annual Population Survey, is available up to September December 2013. Table 2 illustrates the changing employment rates by age group for January 2005 onwards. In the year to December 2013, employment rates fell for workers aged 16-17 (by 2.9%) and 16-24 (by 0.6%). The largest increase in the employment rate was seen by these aged 50 – 64 (increase of 1.0%). The employment rate for all workers aged 16 and over increased by 0.1% over the year to December 2013.

Table 2: Employment rates (%) by age and selected age cohorts, January 2005 – December 2013

(In %) Jan- Dec.	Dec-05	Dec-06	Dec-07	Dec-08	Dec-09	Dec-10	Dec-11	Dec-12	Dec-13
All 16+	59.6	60.4	60.6	59.2	59.2	58.3	57.9	57.7	57.8
16 - 64	72.9	73.6	73.8	71.9	71.9	71.0	70.7	70.6	71.0
16 - 17	44.4	43.2	38.6	34.0	34.0	32.1	30.8	29.4	26.5
18 - 24	69.0	68.3	69.0	64.1	64.1	61.7	60.6	59.2	59.1
16-24	63.6	63.0	62.5	57.8	57.8	55.7	54.6	53.2	52.6
25 - 34	79.5	80.2	81.4	79.5	79.5	77.9	79.0	79.0	79.1
35 - 49	82.2	83.7	83.5	81.8	81.8	81.5	81.1	81.4	81.7
50 - 64	62.8	63.7	64.4	64.5	64.5	64.1	63.7	64.0	64.9
65+	4.8	5.4	5.7	6.6	6.6	6.7	6.6	7.8	8.3

Source: ONS Labour Market Statistics, Scotland, June 2014

Note: Denominator = all persons in the relevant age group

Table 3 provides some indications, although with reservations, of the changing pattern of employment since January 2006 to December 2013 for different occupational groups (SOC2010).

Table 3: Percentage in employment by occupation, January 2006 – December 2013

(In %) Oct-Sep.	Dec-06	Dec-07	Dec-08	Dec-09	Dec-10	Dec-11	Dec-12	Dec-13
Managers and directors	9	9	9	9	9	8	9	8
Professional occupations	18	18	18	18	18	18	20	20
Associate prof & tech	12	13	13	13	13	14	13	13
Administrative & secretarial	12	12	12	12	11	11	11	11
Skilled trades occupations	12	12	12	12	12	12	11	11
Caring, leisure and service	9	9	9	10	10	10	9	10
Sales and customer service	9	9	9	9	9	9	9	9
Process, plant and machine	8	7	7	7	7	7	7	7
Elementary occupations	12	12	11	12	11	12	11	11

Source: Annual Population Survey, NOMIS, June 2014

Notes: Occupation in Standard Occupational Classification (SOC)
Rounding means totals do not add to 100

Total workforce job figures are a measure of jobs rather than people. Total seasonally adjusted workforce jobs for March 2014 (the latest available figures) stood at 2,667 thousand, 2,363 thousand employee jobs, 285 thousand self-employed jobs, HM forces and supported trainees 19 thousand. Table 4 indicates the sectorial breakdown and provides some indication of both the impact of the recession and the recovery on sectors, although the trends need to be considered with some caution as workforce jobs are measured in jobs rather than people and extensive revisions can be expected.

Table 5 outlines the changing patterns of full time and part time employment. The latest data indicates that from January 2013 to December 2013, the number of employees has increased by 26 thousand, whereas the numbers of self-employed have decreased by 16 thousand. Even though the numbers of part-time workers have decreased by 10 thousand over the year, the number of temporary employees has increased by 6 thousand.

Table 5 also indicates that the numbers of full-time workers in Scotland has increased by 23 thousand (1.3%) over the year from January 2013 – December 2013. Part-time employment numbers have grown through the recession, though decreased by 10 thousand over the year to December 2013. The changing trends in full and part-time employment since January 2006 are shown in Figure 2. The rising number of self-employed indicates some substitution of self-employment for employment.

The number of those working part-time because they could not find a full time job is 121 thousand (see Table 5), suggesting that increasing numbers of workers are taking part time employment in the *absence* of full time work. The number of people who cannot find a full-time job is still almost double the pre-recession level. This reflects continuing issues in the wider economy.

Table 4: Total workforce jobs by industry, Scotland, March 2008– March 2014

Industry (in thousands, SIC07)	Mar-09	Mar-10	Mar-11	Mar-12	Mar-13	Mar-14
All jobs	2,693	2,568	2,628	2,635	2,585	2,667
Agriculture, forestry & fishing	59	62	54	49	51	69
Mining & quarrying	29	32	30	32	36	38
Manufacturing	205	187	183	192	189	194
Electricity & gas	16	20	20	18	15	14
Water supply, sewerage, waste	18	14	17	16	16	17
Construction	204	153	180	169	163	168
Wholesale & retail trade	384	376	377	379	372	369
Transport & storage	117	117	110	127	112	114
Accommodation & food service	194	175	169	187	170	180
Information & communication	78	67	64	70	72	67
Financial & insurance activities	104	93	97	91	89	99
Real estate activities	37	30	30	33	36	40
Professional scientific & technical	181	170	193	192	197	186
Administrative & support service	199	198	198	179	213	231
Public admin & defence	162	162	156	155	153	150
Education	200	196	213	201	195	198
Human health & social work	366	380	390	387	377	386
Arts, entertainment & recreation	73	71	85	99	70	80
Other service activities	64	61	58	55	58	62
People employed by households	4	4	3	3	2	3

Source: ONS Labour Market Statistics, Scotland, June 2014

Notes: * Workforce jobs are a measure of jobs rather than people. There are extensive revisions from previous figures

Table 5: Trends in total, full-time, part-time, self-employed and temporary employment etc. and those unable to find a full-time job

All in employment (in thousands) Jan-Dec.	Dec-06	Dec-07	Dec-08	Dec-09	Dec-10	Dec-11	Dec-12	Dec-13
Employees *	2,217	2,244	2,243	2,210	2,185	2,167	2,146	2,172
Self-employed *	264	263	268	265	268	283	302	286
Full-time workers **	1,867	1,892	1,900	1,844	1,796	1,785	1,772	1,795
Part-time workers **	629	631	626	645	672	676	684	674
Workers with 2nd job	96	93	99	101	97	96	101	95
Temporary employees	129	128	116	132	125	121	127	133
Could not find full-time job	59	60	64	84	107	114	115	121
Total *	2,498	2,525	2,529	2,492	2,472	2,464	2,468	2,481

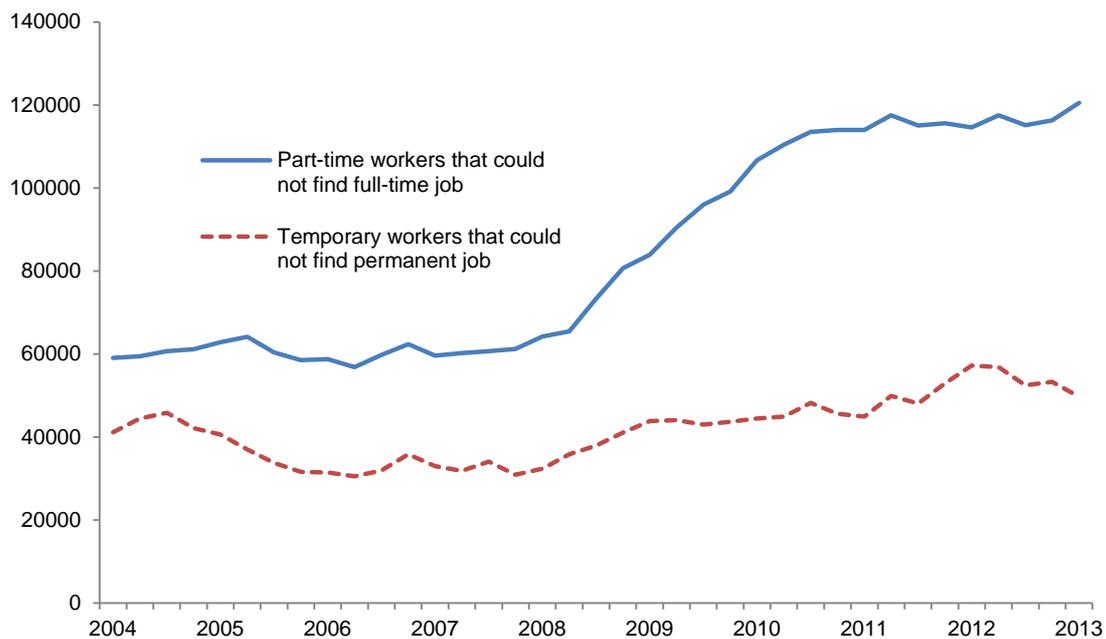
Source: ONS Labour Market Statistics, Scotland, June 2014

Notes: * Includes people who did not state whether they worked part time or full time

** The split between full time and part time employment is based on respondents' self-classification

Figure 3 shows the number of part-time workers that could not find a full-time job and temporary workers that could not find a permanent job from January 2004 – December 2013. Recent growth in employment has largely been fuelled by part-time workers and self-employment (see Figure 2). Yet, Figure 3 shows that the number of part-time workers that could not find full-time jobs has increased - significantly. This involuntary part-time work indicates that there is still significant slack in the Scottish labour market. The same holds for temporary workers that could not find a permanent job.

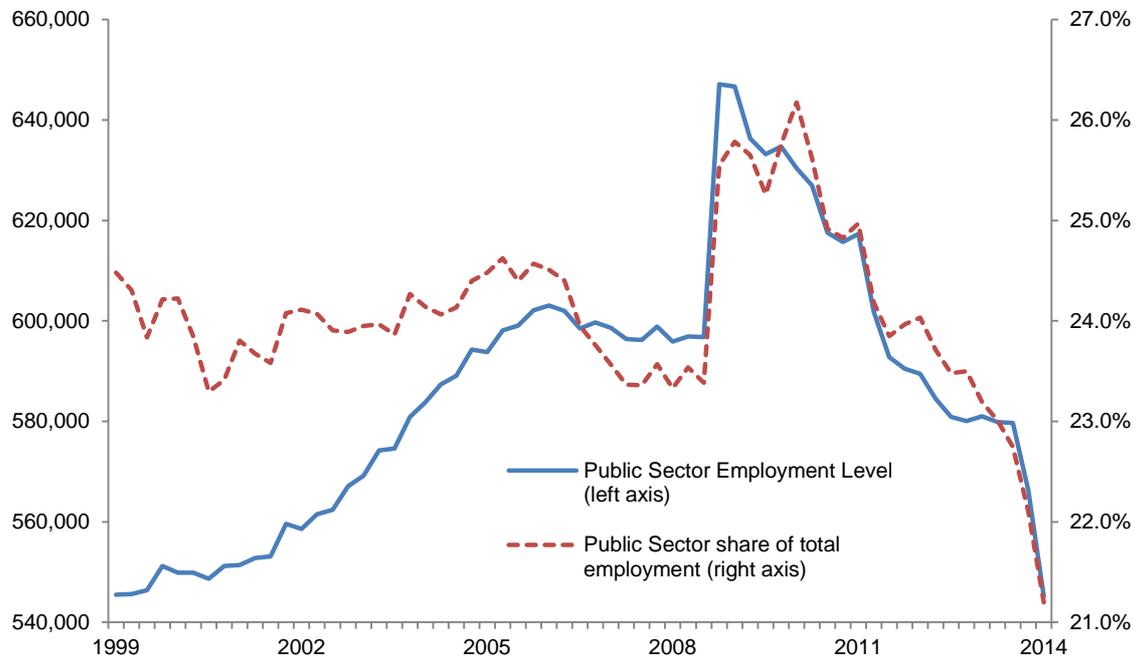
Figure 3: Trends in full, part time and self-employment January 2004 – December 2013



Source: ONS Labour Market Statistics, Scotland, June 2014

Table 6 provides some limited indications of the experience of unemployment in terms of claimant count by age and duration. The latest figures suggest that 29.5 thousand people have been claiming benefit for more than a year, down 8.6 thousand over the year and 16 thousand have been claiming for more than 2 years, down 2.5 thousand (or a change of 13.5%) over the year.

Public sector employment in Scotland continues to decline, although at a slower rate than previously. The latest data at the time of writing is for Q1 2014; it indicates that there were 545,200 employed in the public sector in Scotland, a decrease of 36,000 (6.2%) since Q1 2013. This level is slightly lower than in 1999. In Q1 2014 public sector employment accounted for 21.2% of total employment, down from 23.2% in the previous year. Employment in the devolved public sector declined slightly by 400 (0.1%) over the year to 487,400. Over the year, employment in devolved public sector decreased in further education colleges by 200 (1.7%), other public bodies by 1,400 (9.0%) and – by far the largest component – by local government which saw a decrease in employment of 30,800 (11.0%). Figure 4 shows public sector employment levels and shares.

Figure 4: Public sector employment in Scotland, headcount, 1999:Q1 –2014:Q1

Source: Scottish Government, June 2014

Notes: (1) The large increase at the end of 2008 is the result of the financial institutions that were added to the public sector.
 (2) The large decrease in 2014 is the result of Royal Mail, Direct Line and Lloyds being transferred to the private sector.

Table 6: Total claimant count and computerised claims by age and duration (numbers as of May 2014 and percentage change over year to May 2014)

(In thousands)	All computerised claims	All computerised claims Up to 6 months	All computerised claims Over 6 and up to 12 months	All computerised claims All over 12 months
All 16+ numbers	100.8	54.4	17.0	29.5
All 16+ % change over year	-24.8	-22.6	-34.2	-13.5
All 18 – 24	24.5	16.2	4.2	4.0
All 25- 49	56.7	29.0	9.8	17.9
All 50 and above	19.3	8.8	3.0	7.5

Source: ONS Labour Market Statistics, Scotland, June 2014

Table 7 indicates the continuing and significant variations in employment, unemployment and inactivity rates across Scotland, measured at the local authority level. The highest employment rates (83%) are seen in the Shetland Islands and the Orkney Islands (81% in the Orkney Islands). The lowest (below 65%) North Ayrshire, Dundee and Glasgow - though Glasgow generates significant employment for residents in adjacent local authority areas across the Clyde Valley. Likewise unemployment rates across Scotland varied from 3.2% (Shetland Islands) to 13.5% (North Ayrshire).

Table 7: Employment, unemployment, inactivity and claimant count rates by Local Authority Area, January 2013 – December 2013

	Employment rate (16-64)	Unemployment rate (16+)	Inactivity rate (16-64)	Claimant count (proportion)
UNITED KINGDOM	71.3	7.5	22.7	3.5
SCOTLAND	71.0	7.7	23.0	3.7
Aberdeen City	77.3 (5)	4.5 (4)	18.7 (5)	1.7 (4)
Aberdeenshire	78.6 (4)	3.3 (2)	18.1 (4)	1.0 (1)
Angus	74.0 (12)	6.0 (11)	20.4 (10)	2.7 (10)
Argyll & Bute	75.1 (9)	5.6 (10)	21.1 (12)	3.1 (16)
Clackmannanshire	66.1 (28)	9.5 (26)	25.9 (27)	5.0 (27)
Dumfries & Galloway	70.1 (24)	7.3 (17)	24.5 (26)	3.4 (17)
Dundee City	61.4 (31)	11.3 (30)	29.4 (31)	5.3 (28)
East Ayrshire	68.1 (27)	11.4 (31)	22.5 (19)	5.5 (30)
East Dunbartonshire	77.1 (6)	4.9 (5)	19.6 (8)	2.2 (8)
East Lothian	76.2 (7)	6.1 (12)	19.1 (6)	2.9 (14)
East Renfrewshire	74.2 (11)	6.3 (13)	19.8 (9)	2.1 (7)
Edinburgh, City of	71.7 (18)	6.8 (16)	23.0 (23)	3.0 (15)
Na h-Eileanan an Iar	72.4 (16)	6.7 (14)	21.6 (16)	2.8 (11)
Falkirk	73.5 (14)	7.6 (21)	21.1 (13)	4.1 (20)
Fife	69.3 (26)	8.9 (25)	23.2 (24)	4.2 (23)
Glasgow City	63.3 (30)	10.6 (28)	29.7 (32)	5.3 (29)
Highland	73.9 (13)	5.3 (8)	22.1 (17)	2.3 (9)
Inverclyde	69.5 (25)	8.0 (22)	26.0 (28)	4.8 (25)
Midlothian	72.2 (17)	6.7 (15)	23.6 (25)	3.5 (18)
Moray	78.8 (3)	4.9 (6)	17.0 (2)	2.0 (5)
North Ayrshire	60.1 (32)	13.5 (32)	29.2 (30)	6.1 (32)
North Lanarkshire	70.2 (23)	10.3 (27)	21.3 (14)	4.8 (26)
Orkney Islands	81.0 (2)	3.4 (3)	17.6 (3)	1.2 (3)
Perth & Kinross	75.3 (8)	5.5 (9)	19.5 (7)	2.1 (6)
Renfrewshire	71.7 (19)	8.0 (23)	22.8 (22)	4.5 (24)
Scottish Borders	74.9 (10)	5.2 (7)	22.1 (18)	2.8 (12)
Shetland Islands	83.2 (1)	3.2 (1)	13.8 (1)	1.2 (2)
South Ayrshire	71.7 (20)	7.5 (19)	22.7 (21)	4.1 (21)
South Lanarkshire	71.5 (21)	8.6 (24)	21.3 (15)	4.2 (22)
Stirling	71.2 (22)	7.4 (18)	22.6 (20)	2.9 (13)
West Dunbartonshire	65.2 (29)	10.8 (29)	27.2 (29)	6.0 (31)
West Lothian	73.0 (15)	7.5 (20)	20.9 (11)	3.6 (19)

Source: First Release February 2014 (Annual Population Survey, Job Centre administrative system, BRES)

Notes: Claimant count averaged for 12 month period

Ranking in parenthesis: - Employment from high (1) to low (32)

- Unemployment rate from low (1) to high (32)

- Inactivity rate from low (1) to high (32)

- Claimant count from low (1) to high (32)

FRASER OF ALLANDER INSTITUTE

EDITORIAL INTRODUCTION

In the March 2014 volume of the **Fraser of Allander Institute Economic Commentary** we invited both the **Better Together** and **Yes Scotland** campaigns to state the economic case for their respective positions in the current Scottish independence debate. In so doing, the Commentary offered itself as a *neutral* and informed Scottish economic policy platform.

In this Commentary, **Professor Andrew Goudie** of the University of Strathclyde reflects on the economic cases presented in the Commentary by the pro-independence and pro-union campaigns (by **John Swinney MSP** and **Professor Jim Gallagher**) and on the wider economic (and political) debate within which the current economic issues surrounding the Union, Independence and, importantly, enhanced devolution, have - and have *not* - been debated. Drawing on his book **'Scotland's Future: the economics of constitutional change'** (Dundee University Press, 2013) and particularly on the 'six tests' set out there, Professor Goudie provides three distinct and interlinked articles. The first reflects on the key economic questions that remain central in the Scottish independence Referendum. The second focuses briefly on the pro-independence and pro-union economic cases made in the March 2014 volume of the **Fraser Economic Commentary**, with further commentary on 'enhanced devolution', given that all major UK political parties now propose additional economic powers for the Scottish Parliament. Finally, Professor Goudie turns to some reflections on the Referendum campaigns and Scotland's post-Referendum economic policy agenda.

Tobi Emonts-Holley, Andrew Ross and Professor Kim Swales of the Fraser of Allander Institute present on-going research to develop more sophisticated analytical tools to model the Scottish economy and assess the impact of tax and other policy changes. Their work to build a **Social Accounting Matrix (SAM)** for Scotland, based on 2009 data is outlined. As they note, irrespective of the outcome of the Scottish independence referendum, Scotland will require more and better economic data to manage its increased economic responsibilities. This article outlines how a SAM approach can be used to create a more detailed knowledge of the flows of income and expenditure through the Scottish economy *and* to model how the Scottish economy might respond to proposed changes in, for example, government expenditures and taxes. In a forthcoming Commentary, the Scottish Government will publish an article on the development of Scottish economic statistics to date and its future plans.

Professors Julia Darby and Ian Wooton and Dr. Ben Ferrett (University of Strathclyde and Loughborough) present work on an important economic aspect of the current referendum debate: the issue of corporation tax and the prospectus that an independent Scotland might wish to reduce it to attract investment and jobs. They take a theoretical approach to this and demonstrate that were a small country (eg Scotland), in a larger customs union (eg EU), that competes with a large country with a large centre (eg RUK), to reduce its rate of corporation tax that it can expect to increase its share of mobile investment (and jobs) - even if there is tax retaliation. However, this is clearly at the cost of lost tax revenue.

Finally, the Commentary presents a short note by **Dr Nicolas Scelles** (University of Stirling) and **Emeritus Professor Wladimir Andreff** (University of Paris 1) on a proposed methodology to predict the outcome of men's international football matches. The method is briefly outlined and can be used to predict the outcome of the current 2014 World Cup in Brazil. In a forthcoming Fraser Economic Commentary, Scelles and Andreff will produce an analysis that will model the progress of Scotland's national football team in the forthcoming 2016 Euro competition.

Kevin D Kane

Managing Editor, Economic Commentary
Fraser of Allander Institute
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k.kane@strath.ac.uk

Policy Section

Reflections on the key economic questions in the Scottish Independence Referendum

Andrew Goudie¹

Abstract

This paper reflects on the key economic questions of the Scottish Independence Referendum that should continue to be a political priority and sit at the heart of the debate. It poses the critical issues upon which the political leaderships should focus and provide greater insight and clarity into their thinking. These central questions range from the fundamental nature of economic self-determination to the high-profile and, arguably, primary economic choice of which currency system a newly independent Scotland would wish to adopt. It also focuses on the meaning of *independence* and *dependence*, and on the choices and trade-offs that must be faced. It finally draws out the importance of viewing the Referendum as an irreversible process and the need to assess *all* the constitutional propositions in a systematic manner with a particular emphasis upon their long term value.

I Introduction.

In the early days of the Scottish Independence Referendum debate, many commentators argued that the poor quality of the exchanges was, in part, due to the paucity of the underlying analysis of the constitutional alternatives and the possible economic systems that might be adopted. Over recent months, this picture has changed and a wide range of thinking has now been published to inform the debate². The valuable articles that appeared in this Commentary in March 2014³ were one such contribution. The constitutional models founded on political independence have, quite appropriately, received considerable attention. In contrast, the alternative options of enhanced evolution within the UK⁴ have so far been poorly articulated, largely due to the weakness of the underlying thinking and analysis.

Naturally, some contributions have had explicitly political origins and, given the realities of political debate, were bound to reach predictable conclusions that supported the author's cause. It would, however, be a mistake to discard these pieces since most, nonetheless, contain helpful insights into the primary issues. Other contributors have had more objective origins and, as such, their work has taken on a greater standing. In general, the political challenge is to now make a more productive and considered use of all these contributions, particularly the latter.

In essence, it can be argued that the principal questions that should be confronted in the Referendum debate have now been identified, but there have been few areas of convergence between the

¹ Professor Andrew Goudie is currently Visiting Professor and Special Adviser to the Principal at the University of Strathclyde in Glasgow. He is the former Chief Economic Adviser to the Scottish Government and a former Chief Economist at the UK Department for International Development. He was a Research Fellow of Queens' College, University of Cambridge and is a Fellow of the Royal Society of Edinburgh.

² Some of these valuable contributions are referenced at the end of this paper.

³ Fraser of Allander Economic Commentary, Volume 37(3), March 2014, Fraser of Allander Institute, University of Strathclyde.

⁴ These are summarily set out in chapter 1 of Goudie (2013).

protagonists. Unsurprisingly, the intensity of the interaction in the present political context and the extensive uncertainty about many key parameters in the post-Referendum world necessarily make such convergence highly unlikely.

The reflections in this paper^{5,6} are therefore focused on the key economic questions that, arguably, should continue to sit at the heart of the debate over the remainder of the campaign and which, notwithstanding the earlier comments, still deserve to be a political priority. Much has been said and written by the political leaderships⁷ over the past year, but rarely with a sharp focus on these questions *and* on rigorously argued explanations that would provide greater insight into these challenges. In the absence of this clarity, it appears that an otherwise confused electorate will find great difficulty in assessing the constitutional alternatives currently on offer.

II The key economic questions.

In some key respects, the debate has clearly moved on. Whether for perceived political expediency and political advantage or on account of the economic and financial evidence, few now contest the capacity of an independent Scotland to be sustainable and indeed succeed in the global economy. The issue now is focussed much more sharply on *how* successful it would be over the long term – and, particularly, in comparison to the continuance of Scotland within the UK – and on *how* smooth would be the transition to a sustainable state and with what interim costs? Even those who have serious reservations about the economic prosperity that might ensue from an independent Scotland are careful to avoid the political minefield of seeming to suggest that Scots are not competent to run their own affairs or are trapped in a state of dependency with the UK that cannot be broken.

There are a set of key economic questions that remain fundamental to the debate:

1. **The Fundamental Political Economy Perspective.** Underlying the basic constitutional question faced by the people of Scotland lies a critical choice: is the pre-eminent issue...

under which constitutional arrangement, whether based on enhanced powers within the UK or on political independence, will I be economically better off?

... or, is it ...

irrespective of my precise future economic circumstances, do I wish national self-determination – albeit one that will be constrained in significant ways by the reality of the global economy, and by any monetary union that we may enter - to drive my economic future?

The political prominence accorded to one or other of these key questions is clearly shaped by the strategic approach of the two campaigns and by where they feel the greatest political advantage might be gained. In part, this is driven by what the available evidence might be suggesting and whether it

⁵ Many of the detailed economic questions in the debate are analysed in considerable detail in 'Scotland's Future: the economics of constitutional change', Andrew Goudie (2013). This is a compilation of papers from the outstanding experts in the economic fields most relevant to Scotland's constitutional debate.

⁶ Some sections of this paper reproduce material first set out in *The Geographer*, published by the Royal Scottish Geographical Society (April 2014).

⁷ There are many examples: the key pro-independence document is *Scotland's Future: Your Guide to an Independent Scotland*, Scottish Government (2013); the primary pro-union documents may be found on the UK Government website referred to in the References at the end of this paper and, also, for example, in Darling (2013).

appears to favour or challenge a specific constitutional preference. Equally, the apparent lack of robust and high-quality evidence and the dominance of risk and uncertainty are also strong motivators of the political preference for emphasizing one or other of these.

Survey work⁸ has suggested that the electorate does, indeed, see the economy as the key issue. Voters would apparently be significantly more likely to support a politically independent Scotland if they were £500 better off than if they were £500 worse off⁹. Interestingly, therefore, this tends to suggest that economic self-determination – rooted in a sense of national identity and nationhood - is less important than certain economic benefit. However, herein lies the paradox: while people may wish to see the economy – and, notably, their personal economic benefit – as the critical and decisive determinant of the outcome of the Referendum, it is an area of inevitable uncertainty and indeed speculation, as we consider further below. The knowledge base is simply too weak to provide the clarity that allows this to be the central issue upon which the electorate can form a considered and informed judgement. At the macroeconomic level, there is no convincing evidence of the relative benefit to economic growth of the two differing constitutional arrangements currently before the electorate. Indeed, there are similar weaknesses in assessing the net impact – and thus credibility - of particular policy promises or the priorities of individual governments and political parties, whether in areas as diverse as income tax, corporation tax, specific welfare programmes or particular universal benefits.

So, how is this paradox to be resolved? If people feel that their major concern is going unanswered – whether because it is unanswerable at this time or because the answers are riddled with apparent contradiction, confusion and complexity that leaves them none the wiser – the issue will be: *what then drives people's thinking instead?* Will people adopt a broader understanding of their likely economic net benefit that, for example, encompasses the benefits from the public services that they enjoy or the benefit they derive from the potential gains in their environmental and equity perspectives?

The fundamental vision and generosity of the welfare system has been a prominent issue in this regard, with the argument hinging on the nature of the underlying values of Scottish society. Indeed, it highlights a key question in the debate: *are fundamental Scottish values substantively distinct in a wide range of areas of economic, social and environmental life from those prevailing across the UK as a whole and, if they are, have they been sustained – and appear likely to remain sustained – over many decades?* If they are shown to be such, then the case for greater self-determination and powers and, *in extremis*, political independence, is significantly more compelling. The European elections of May 2014 and, specifically, the political response to the apparent – and now realized – attraction of UKIP to the UK electorate has provided a further clear example of this point. Is Scotland fundamentally – both in the sense of the view being dominant across society and held consistently over the long term - distinct from the rest of the UK in its attitudes to both immigration and to political and economic union with the EU?

Three additional points are important here. Firstly, it is worth noting that the motivation of economic self-determination is relevant to the options founded on both independence and enhanced devolution, although clearly to differing degrees and probably with differing degrees of future reversibility or

⁸ *The Social Attitudes Survey (January 2014) provides considerable insight into the thinking of the Scottish people with respect to constitutional change. See Curtice (2014).*

⁹ *The Social Attitudes Survey suggested that, in the former eventuality, 52% would support political independence while, in the latter case, only 15% would support independence.*

refinement. Secondly, the “£500 debate”, while dismissed by many as absurdly simplistic and superficial in a debate of such immense importance, does at least throw the limelight onto an outcomes perspective, albeit one that is extremely limited. Ultimately, the economic value of constitutional change is about the potential impact on the outcomes that determine the lives and well-being of the people of Scotland and, some would argue, of all the people of the UK and indeed the wider global community.

And, finally, it is worth noting that, if people are indeed motivated by personal economic outcomes, then, while the technical debate may seem dry and obscure, it is, nonetheless, pivotal.

2. ***The Choice of Fundamental Economic System.*** Recent months have revealed an emerging consensus that Scotland’s currency choice is the key challenge. This single decision has such far-reaching ramifications for the definition of the entire economic system that, while a careful analysis of the individual policies that each currency choice might permit or necessitate is important, ultimately, we must revert to the most basic and, arguably, the first decision that should be determined: the currency question. In essence, the crux is: *firstly, which currency system would best facilitate the attainment of society’s primary objectives and, secondly, which constitutional arrangement would facilitate the currency system that Scotland would therefore prefer?*

There are, of course, other key dimensions critical to the definition of the economic system – as, for example, with the fundamental choice of the basic level of public sector expenditure, relative to its output, that the nation wishes to establish – but the focus here is upon the currency question.

Formal sterling currency union. The striking interventions with regard to the prospects for a formal sterling currency area by the UK Chancellor, other senior pro-union politicians and the Scottish First Minister in February 2014¹⁰, and the subsequent furore that they sparked, demonstrated the centrality of the currency question. The apparently unambiguous declaration by the pro-union leaders that an independent Scotland would not be able to formally adopt sterling invites many critical questions. If this position is seen as credible and an irreversible UK policy stance, then the advocates of independence necessarily will be under immense pressure to define a new currency position that they can - or, more probably can - deliver. If this pro-union position is seen as unsustainable and reversible, not least in the face of an actual decision by the people of Scotland to support independence, then little has changed. It will be the post-Referendum negotiations that are crucial.

The Osborne *et al* intervention has been portrayed by the pro-independence campaign as typical of heavy-handed Westminster pro-unionists, and by the pro-union campaign as a necessary contribution to the debate to inform the Scottish people of the post-Referendum reality if the vote were to back independence. Perhaps, most importantly here will be the popular mood across the rest of the UK in the event of a vote for Scottish independence. If UK public opinion were hostile to Scotland remaining within a formal currency union, then the issue will turn on whether the UK Government at that time – assuming it was indeed prepared, in principle, to reverse its current position in the cold light of day following the vote, which is, of course, inevitably uncertain – was willing to go against the prevailing popular mood in the remaining UK. This is potentially a far more serious challenge for a newly

¹⁰ See HMT (2014) and, for example, the BBC (2014a). In addition, the intervention of the HMT Permanent Secretary added further to the heat of the exchanges that followed (see HMT (2014)).

independent Scotland wishing to set up a formal sterling area. How this popular view evolves will be key and will no doubt reflect the closeness of the vote, the underlying attitudes towards Scotland, the perceptions of the costs and benefits of Scotland to the rest of the UK and the atmosphere created by the political classes and media at the time.

The popular mood and the consequent stance of the UK parties post-Referendum will be brought all the more sharply into focus in the light of the imminent UK elections in May 2015. It is highly probable that all the UK parties will be obliged to be explicit in their manifestos about their proposed stance in the post-Referendum negotiations in the event of a pro-independence vote. Reflecting the popular view will therefore be a crucial element.

However, there are deeper issues at stake here. For example, even if the current UK Government's position is indeed final and an informal sterling area emerged, there is still the key question of whether global financial markets would find this a long term, credible situation, or would they behave as if the informal arrangement were in fact quasi-formal. In the event of a financial crisis in Scotland¹¹, for instance, would the rest of the UK - in an informal sterling union - stand aside and not provide support, even when there was a UK self-interest in a stable currency union? In other words, from a UK perspective, what risks would be generated by Scottish participation in an informal union? Given that the Scottish economy constitutes almost 10% of the present UK economy, a share significantly in excess of the size of Hong Kong or Panama relative to the Dollar zone, would the UK not wish, in reality, to have an up-front agreement that provided some *ex ante* reassurance about the conduct of Scottish policy?

Moreover, from a Scottish perspective, just how different would an informal sterling zone be from a formal sterling monetary union? Some argue that Scotland would *de facto* be equally subject to the UK's monetary policy under either scenario.

Interestingly, while the UK self-interest in a continuing sterling monetary union, that included an independent Scotland, has been strongly asserted as a clear reason for the UK agreeing to such a formal union, the case has been advanced primarily on the basis of the increase in transaction costs¹² that would be imposed on UK businesses, consumers and visitors were Scotland compelled to adopt a non-sterling currency. Important though transaction costs would undoubtedly be¹³, this consideration is dwarfed by the far greater concerns regarding the fundamental stability of the sterling union and the costs that might be incurred were the union to prove unsustainable and unstable. It is here that the UK pro-union advocates see the greatest threat to the UK interest. Events in the EU since 2009 have only served to heighten these fears.

¹¹ *It is important to acknowledge in this context that it is highly unlikely that the structure of the Scottish economy would remain unchanged through a period of major transformation to independence as, for example, corporate decision-makers reassess their operations and investment decisions in the light of a new economic environment with its different set of incentives and risks. Thus, the nature of a future financial crisis, for example, is likely to be quite different from the one of 2008 and the claims on Government would similarly be expected to be substantively different, too.*

¹² *See, for example, BBC (2014b) or New Statesman (2014).*

¹³ *In view of Scotland's greater dependence on trade with the rest of the UK, these costs are likely to impact proportionately more on Scottish interests than on the rest of the UK's interests.*

Similarly, the UK dependence on the strength of Scottish trade and exports – and, especially, Scottish North Sea oil assets - has often been cited as an important factor in the UK interest. This analysis begs the question of who actually owns the North Sea assets that are being exploited and who benefits from the profits¹⁴: to where is the profit directed..... to within Scotland, the UK, the USA or elsewhere? And, moreover, would the North Sea assets be actually traded in sterling? It is also interesting to consider that, while there may be monetary policy arguments for a strong currency, few economies in practice are unhappy to see their competitiveness enhanced through modest depreciation. Indeed, many have argued that, if the benefits of the North Sea were to accrue primarily to Scotland, the UK would not be averse to seeing its currency weaken to facilitate the development of other tradable sectors. The UK interest here is therefore not clear-cut.

On the other hand, it has been argued forcefully by some throughout the Referendum campaign that the currently constituted UK is the best global example of a successful optimal currency area, that has developed over the centuries to become a very highly integrated and prosperous economic zone. It would seem inconsistent, therefore, for the UK to rush to dismantle such an effective currency union if, indeed, a stable union could be agreeably established to the mutual benefit of both economies, difficult though that might prove to be.

The refusal of the pro-independence camp to countenance anything other than a formal sterling area, largely for fear of opening up an area of debate that would expose it to considerable challenge about the feasibility and value of the alternatives, which it would not welcome, is both striking and critical to the Referendum. Similarly, the blunt rejection of a formal sterling union by the pro-union camp in its effort to starkly expose the massive risks, as they see it, from independence, has had an equivalent effect.

Both stances have effectively killed the prospect for further meaningful debate of the alternative options. The *apparent* choice before the electorate is a simple one: either sterling within the political union or sterling with independence, formally agreed and negotiated with the UK Government. In this regard, the pro-independence camp has been relatively successful. Whether the present stance of the three pro-union leaders is a bluff or not, the pro-independence camp has – so far – avoided a highly problematic debate about alternative currency plans, one which would raise very significant questions of future risk and uncertainty. In contrast, the pro-union camp has not, to date, dispelled the view that a formal currency union is, in fact, possible and that the more extreme risks of independence are therefore avoidable.

What would seem almost certain is that, post-Referendum, were there to be a majority in favour of independence, there *would* be negotiations between the new Scottish administration and the UK administration about the future currency and any transitional process. It would seem inconceivable that, given the present, deeply-embedded role of sterling across the UK, a future UK Government could refuse to at least discuss the conditions under which a formal sterling area *would* be acceptable to them.

¹⁴ This issue has recently emerged in the wider discussion about the underlying wealth of the Scottish economy in the light of the high levels of overseas ownership of businesses in many of Scotland's key sectors, such as oil and gas, financial services and whisky.

That these conditions might ultimately prove unacceptable to Scotland is a different, though critical, point.

The nature of the UK's preferences with respect to such conditionality are considered further, later in this paper, but the key point is to identify the perceived risks about which the UK would be most concerned and understand the form that its conditions might indeed take. The UK interest would primarily appear to focus on the regulation and control of the banking system and the tightness and discipline embedded in a set of fiscal rules that shaped fiscal policy at both the aggregate and detailed policy level. If conditionality could be designed in such a way that it *were* deemed appropriate by a UK administration, why would the UK then reject a formal agreement, not least since the UK would no doubt see benefits to itself from, for example, averting the prospect of an independent Scotland adopting a more competitive exchange rate or tax regime, or contributing less than proportionately (in UK eyes) to its continuing adjustment programme and to the unravelling of the quantitative easing programmes¹⁵?

At present, the political context is dominated by the apparent rejection by the pro-union parties of a formal sterling currency union. Paradoxically, if negotiations were to take place following a yes vote, then it is easy to see that it might be the newly-independent Scottish administration that rejects a formal currency union.

It also would seem obvious that, if establishing a formal sterling area proves impossible because the two governments are unable to converge on a workable agreement, the pro-independence camp would be prepared for an alternative currency arrangement. While preparations now might not be conducted openly, it would be extraordinary if the Scottish Government were not already thinking about and preparing for this potential outcome. Failure to do so would risk either a further period of damaging uncertainty or an ill-thought out leap to an alternative without the necessary preparation.

Informal currency union. The other currency options have not generated any extensive exchange, especially at the political level. To most, it appears that it is self-evident that both a new Scottish currency – whether free floating or pegged to another currency, such as sterling - and membership of the euro area are indisputably second best choices. Either the economic or political risks, or both, are overwhelming.

One exception to this constrained currency debate has been the recent discussion, led by John Kay¹⁶, around Scottish participation within an *informal* sterling area. In principle, such a system could be operated and, as he notes, in the present global economy, business already transacts in any currency of its choosing. There is, nonetheless, “*no precedent for an advanced country with a sophisticated financial system choosing voluntarily but unilaterally to share another country's money*”.

The pros and cons of an informal currency union are well demonstrated in other economies that have adopted such a system. Foremost, Scotland would not have control or influence over UK monetary

¹⁵ See Scottish Government (2014) on the latter point here.

¹⁶ See, for example, John Kay's article: *English Law cannot stop Scots being sterling squatters*, *Financial Times*, April 8, 2014.

policy, but many have argued that this is the case even within a formal currency union, as far as a much more junior partner is concerned. Similarly, others have pointed to the absence of the lender of last resort role of the Bank of England as too big a price for informal union. However, as has been pointed out elsewhere¹⁷, the lender of last resort role has not been fully understood in the Referendum debate. Such a role certainly does have benefits in some circumstances of financial stress, but responsibility for failed financial institutions does *not* fall solely on the host nation, as many commentators seem to assume without question: where the bulk of the operations of a failing Scottish bank were to lie in other economies and other jurisdictions, it is those nations that would bear the majority of the burden of resolution¹⁸. Certainly, an independent Scotland would have responsibility to guarantee Scottish depositors, but this would not extend to the unilateral and unlimited bail out of every Scottish financial institution.

Importantly, the informal use of sterling overcomes one big challenge compared to the option of adopting a pegged or a floating exchange rate: namely, there is a smaller challenge in establishing the permanence of the currency arrangement and the credibility of the set rate, unless, of course, the informal union is, itself, seen as temporary. With an informal union, short term speculation would be expected to be minimal, *providing* it is indeed seen to be credible and there is thus a minimal risk of capital flight.

The pegged currency option. Interestingly, the pegged currency option probably deserves more attention, not least for an eventuality in which a formal sterling union option might indeed be ruled out either by the UK Government or by a newly independent Scotland were the conditions demanded by a UK Government to be deemed economically or politically too restrictive and one-sided.

A pegged currency has several potential attributes that might make it attractive. Superficially, there might be seen to be significant political mileage in a newly independent nation having its own currency. More substantively, Scotland having its own currency might be seen over the longer term as paving the way both politically and economically for a move towards adopting the euro, once the latter had been placed on a far more sustainable footing. On Day 1, an independent Scotland would be expected to continue within the existing currency union, but a decision to adopt a pegged exchange rate in due course would precipitate a process to establish the necessary economic and financial institutions. These institutions would, moreover, provide a significant long term advantage, as, were any subsequent

¹⁷ See, for example, section 1.3.2.2 of Goudie (2013) that covers this point in greater detail. For more detail, see Professor John Kay's contribution in *Evidence to the Inquiry on The Economic Implications for the UK of Scottish Independence*, The House of Lords, Select Committee on Economic Affairs, 22 May 2012; or his *Evidence to The House of Commons, Scottish Affairs Committee*, 14 March 2012.

¹⁸ Again, see Goudie (2013) for some clear indications of how this mechanism operated during the 2008-09 financial crisis in both the USA and the UK. In addition, in his *Evidence to the House of Lords Select Committee on Economic Affairs in its Inquiry on The Economic Implications for the United Kingdom of Scottish Independence*, in November 2012, Sir Philip Hampton noted that in "late 2008, because we have substantial operations in the United States, we used the US Federal Reserve as a lender of last resort, providing short-term liquidity when the market completely dried up. That was because we had a US banking licence and we were operating in the United States. A central bank does not want its banking system to collapse, so it acts for all the banks that are operating in that country. We have used many central banks as a lender of last resort for the many operations that we have in the many jurisdictions in which we operate. That is a key part of what central banks do in the jurisdictions that they control." The research of Bloomberg (2012) is also highly relevant here.

decision in future years taken to abandon the peg for any reason, the institutional framework would already be in place and have proved its operational capacity.

From the UK's perspective, there are also clear advantages which would go some way to alleviate the present concerns that have apparently motivated the decision to rule out a formal sterling area. Namely, with a peg, there would be a major transference of risk from the UK to Scotland. The UK would be expected to support a peg against speculative activity but not against any fundamental disequilibrium that it perceived. Moreover, to the extent that sustained speculation might itself induce a more permanent disequilibrium, the UK authorities would be expected to limit their support in this eventuality. The UK could therefore walk away from a peg at any time, leaving the primary risks with Scotland. Unlike the formal sterling area option, therefore, where the UK perceives the risk to still reside with itself, that risk is largely eliminated with a peg. There is thus a major incentive for Scottish policy to be designed to satisfy the international financial markets if Scotland wishes the peg to operate in a stable and sustainable manner.

On the other hand, a pegged currency may be seen as a quasi-monetary union, with all that that implies for monetary and fiscal policy: it shares many attributes of an informal sterling area, albeit one that is based on two pegged currencies. In addition, the obvious disadvantage that is embedded in this model is, of course, that the stability of the peg critically depends on the credibility of Scotland's monetary and fiscal policies and a strong underlying belief in the absolute sustainability of the peg and the established rate. As was seen within the euro zone in 2012, even with a single currency relatively well established, any suggestion that the Drachma might be re-established was sufficient to precipitate the markets to adopt immediate risk mitigation – typically entailing major currency in/outflows - with immensely damaging implications and self-fulfilling expectations. The expectations in Greece's case were only thwarted by the weight of potential German support: a clear distinction from the context in which any peg would operate between Scotland and the UK.

Few economists appear to dissent from the view that Scotland and the rest of the UK together form a very good approximation to an optimal currency area¹⁹. Moreover, a change of constitutional state would not be anticipated to change that view in the foreseeable future, even if, over the long term, this might be less clear. Consequently, it can be argued from this perspective that the heart of the currency debate should be about the conditions that would - or could - create sustainability and mutual benefit within a common currency area, not about second-level concerns and not drowned under the noise of political manoeuvring. It could be argued that - with appropriately designed institutions, mutually acceptable directives on the operation of key policies, appropriate risk sharing and oversight, and the pooling of sovereignty, amongst other key elements - a mutually beneficial currency union might be constructed. As was noted above, the key point is whether or not the terms of such an arrangement would be agreeable to all parties and whether or not it would be preferable to having no agreement.

¹⁹ See, for example, chapter 1 in Goudie (2013) for a summary of the underlying theory and conditions conventionally seen as bearing most directly on the definition of an optimal currency area.

Understanding the alternative currency options²⁰ that might need to be pursued for any of the reasons outlined above would seem a prudent step for both parties in entering a transitional stage of preparation for independence. The political reality is that this will, however, simply not happen openly pre-Referendum. The prospective cost to both the pro-union and pro-independence camps of negotiating on their current currency stances would appear immense: further meaningful debate of the alternatives would thus appear politically inconceivable at present.

3. ***The Nature of Independence.*** Inherent in this third key question is the heart of the constitutional debate: *to what extent does political independence facilitate meaningful and substantive economic independence?; and are currency union options necessarily constrained, since both monetary and fiscal policy are inevitably limited by the conditions imposed on the union by the members of that union?* The recent intervention by the Governor the Bank of England²¹, though carefully crafted to avoid overt political comment, was nonetheless insightful in demonstrating his view that the effective and sustainable working of a monetary union necessitates a high degree of coordination and collaboration. He argued for a relatively sophisticated pre-determination of the rules that would shape behaviour within the union and, importantly, a high degree of risk-sharing and risk-pooling within the union²², with all that that implies for the sovereignty of the two states. In the present political climate, it is difficult to see UK Ministers rejecting the Governor's perspective.

It would seem inevitable that any formal monetary union would entail a complex negotiation in which the nature of the conditionality, imposed on each other by the membership, was determined. In this circumstance, the relative power and influencing capacity of the partners to the monetary union are central to the strategic and policy outcomes that emerge. In general, as other such unions have demonstrated, the most powerful economic participants yield by far the greatest influence. Thus, the independence of the smaller interests is certainly likely to be circumscribed. The key question in the event of a pro-independence vote, in which a formal sterling monetary union is the preferred option, is therefore: *are the perceived benefits of the monetary union sufficiently great as to outweigh the perceived constraints and conditionality of the union, or, is the newly gained political independence seen to be too heavily compromised - and the proposed conditionality deemed both politically and economically unacceptable - such that an alternative option is preferred?*

²⁰ The work of Ronnie MacDonald is also highly relevant here as, for example, in MacDonald (2013) and MacDonald (2014). His basic thesis is that a sterling currency union may not be sustainable if, as the advocates of independence suggest, an independent Scotland did indeed, in time, have a relatively superior productivity record compared to the rest of the UK: a flexible exchange rate regime would then be necessary in this circumstance.

²¹ Bank of England (2014).

²² The type of agreed framework that has been advocated embraces critical areas of economic and financial policy, such as:

- A banking union, encompassing a common regulatory framework for the financial sector, common procedures for resolution, a pooled system of deposit insurance and guarantee, the necessary facilities for the Central Bank to act as lender of last resort, and structures and regulations that enabled the decoupling of the banking system from the sovereign, deemed necessary for times of financial crisis;
- Some form of fiscal facility with substantial resources to facilitate fiscal risk-sharing, the implementation of stabilisation policy, including the key automatic stabilisers, and an equalisation role;
- A shared fiscal arrangement, embracing a set of agreed fiscal rules to provide reassurance to all the parties that would bear risk within the union;
- Monetary policy union, including interest rate policy and any monetary easing policy, These would be set by the Bank of England, according to a remit provide by the UK Parliament.

4. **Choices and Trade Offs.** One element of the constitutional challenge that has been largely lost in the political exchanges to date has been the simple observation that no single constitutional option provides an unambiguously better opportunity. All options entail choices and trade-offs.

Continuance of the union necessarily implies that some policy decisions taken in Westminster will be less directly appropriate for Scotland: quite obviously, one-size-doesn't-always-fit-all perfectly. If UK interest rates rise rapidly in the coming couple of years to counter a housing boom that is concentrated in the South East, then this clearly is not *directly* promoting recovery in a Scotland with a much softer housing market. However, whether the overall net benefit of full autonomy (which may, for example, bring with it a greater vulnerability to external shocks) exceeds the overall net benefit to Scotland of being within the UK (without – in this example – the autonomy to set its own interest rates) is the key point. This is a complex issue to resolve as demonstrated in this example which illustrates an asymmetric shock to the UK. There are two key questions here: firstly, what degree of interest policy autonomy would an independent Scotland, in fact, have²³ and, secondly, equally, to what degree would the union, in reality, protect Scotland from external shocks.

Similarly, as a second example, it would seem unwise to fight the apparent reality that Scottish oil production is set to fall, as new investment slows the rate of decline but does not arrest it, and that an independent Scotland is, therefore, likely to be more vulnerable on this count than being within the UK. This apparent fact is, however, constitutionally neutral: it is not itself sufficient to undermine independence. It should prompt a vigorous debate about how, with independence, both the declining contribution of oil might be managed and how this might be mitigated and at what cost this might be done. These are the insights that should inform the debate since managing this inevitable set of risks is the key issue, not the decline in oil production *per se*. In essence, there is a key choice to be made with respect to the autonomy (with perhaps greater vulnerability) versus risk-pooling and risk-sharing (with fewer degrees of economic self-determination) trade-off.

The general concern here should be that the assessment of the constitutional choices has been dogged by piecemeal and partial analysis that has failed to capture the economic reality. Of course, a lower Scottish corporate tax rate, *cet par*, is likely to benefit Scotland²⁴. Of course, retaining the disproportionately high flows of research resources from the UK Government to Scotland is a major benefit to Scotland. But just as the former cannot, in isolation, make the case for an independent Scotland, so the latter does not, in isolation, make the case for the union.

The most prominent and critical macroeconomic decision about the currency choice makes the point equally strikingly. The UK rejection of a formal sterling monetary union rests heavily in the argument that an economic system will not be stable if it embraces a monetary and banking union, but not a fiscal union. Some argue, of course, that it requires a political union. The Governor of the Bank of England and the European Union appear to broadly share this belief. If stability does, in fact, necessitate this complex set of unions, then an independent Scotland faces a stark choice between a relatively highly constrained independence within a formal union or adopting its own currency. There would be no real-

²³ Clearly, there is no monetary policy autonomy in the case of a monetary union.

²⁴ Darby et al (2014), *Natural Geography, Firm Location and the Corporation Tax Debate*, Fraser of Allander Economic Commentary Vol 38, (1), June 2014.

world option of currency union with an unconstrained fiscal policy, for example. Certainly, the aggregate fiscal stance within a currency union would appear very likely to be constrained but, similarly, it is not improbable that the detail of fiscal policy may be limited, not least with concerns over tax competition and the like. Of course, the existence of this trade-off would be contested by some. They would argue that fiscal autonomy within a currency union is indeed possible and would be their intended arrangement. Only post-Referendum negotiations will resolve the degree to which this trade-off exists but the indications are that it will not be an uncontested area of debate at that time.

Ultimately, these examples beg the same critical question of what the totality of any constitutional proposition might look like: is one single preferred policy worth having, given the other costs - and benefits - that would necessarily be part of the proposition? In other words, what policy configurations are, in fact, possible?

Importantly, these questions pose the same critical challenge to both the pro-union and the pro-independence models of constitutional change.

In a similar vein, there are equally critical trade-offs, that are imposed in reality for every constitutional model, which derive from the unavoidable limitations on resources. Given finite resources, including the capacity to sustainably borrow, the application of powers that entail significant expenditure will ultimately be constrained. As with policy configurations, so expenditure configurations therefore need to be seen in their totality - including what configurations are possible and which are most effective in meeting the stated objectives - and in their detail - again, which specific policies are feasible and most effective.

Precisely defining the net benefit of any constitutional proposition is, of course, totally unrealistic: identifying and aggregating the benefits and costs of any proposition is simply impossible. This fact should not, however, lead to the rejection of the critical *qualitative* point: we need to understand the *feasible* policy packages that define any constitutional proposition and the likely net value of each of these policy configurations.

5. *The Lessons from Europe.* Directly relevant to many of the previous points is the question: *what have we learned from the traumatic experience of the European Monetary Union over the course of the financial crisis and subsequent protracted recession?*

Certainly, there have been indications of an emerging consensus - whether we like it or not - of a clear need to establish greater economic coordination and collaboration through banking and financial sector unions and through fiscal union, as was echoed in the Governor of the Bank of England's recent comments. *Are these apparent lessons directly applicable to a possible sterling monetary union?* And what do we also learn from the experience over recent times of other small independent European economies that have successfully maintained stable economic systems outwith the EMU and, indeed, outwith the EU? There is much in these questions to understand still.

6. *Is there a status quo option?* One little-discussed question has been whether the *status quo* is in fact an option at all? The Scotland Act (2012) moves Scotland on from the original 1999 devolution settlement, but it would, for example, appear extremely unlikely that a UK Government would not revisit at least two critical elements post-Referendum following a *no* vote: firstly, the basic UK

equalisation question and, secondly, the range of powers that Scotland might assume in addition to those defined in the 2012 Act.

The Chief Secretary to the Treasury has recently claimed²⁵ that, since no pro-union party is advocating any revision to the Barnett formula, he can reassure the electorate that it will not be amended. This appears to contradict the Liberal Democrat 2010 manifesto²⁶. As ever, there is therefore the question of how credible is such a claim in the face of the known opposition from some political groupings and in other parts of the UK. A less likely interpretation of his comments might suggest the continuing use of Barnett - or a broadly similar mechanism - to make annual revisions to the funding flows, while looking again at the underlying Needs Approach and the base to which Barnett is applied. In many ways, this seems a more probable way forward and, therefore, makes current claims of a *status quo* in this regard questionable.

Ultimately, the question is: *is the current approach (founded on a considerably dated, underlying Needs Approach to equalisation and the marginal adjustments determined through the Barnett formula) sustainable or will the pressures for revision be overwhelming?* Any revision would be a very significant step away from the *status quo*.

In addition, as is considered in the subsequent paper in this Commentary (*Reflections on the pro-independence and pro-union contributions to the Fraser Economic Commentary and on the proposals for enhanced devolution of economic powers to Scotland*), such is the public support for enhanced devolution – and the momentum behind the proposals of the three main UK Parties - that it seems improbable that, were independence to be rejected, more powers would not be granted to Scotland. Moreover, it would be anticipated that the greater the degree of enhanced devolution that is adopted, the greater the likely strain on the existing Barnett arrangement and the more likely it is, therefore, to be reviewed in a more substantive manner.

7. Irreversibility: Assessing the Long Term Value of the Constitutional Propositions. To date, the debate has been somewhat casual about what is really of direct interest to a constitutional question for which the outcome is presumably a new arrangement that could span decades, if not centuries. Arguably, it is not the capacity of a new arrangement to handle the big current economic policy challenges, but rather the capacity to respond to the challenges that might be anticipated over the very long term and, indeed, the challenges whose nature and import is absolutely speculative. The central challenge is: *would the new economic system, that is enabled by new powers, display the characteristics that we would require to promote a stable and sustainable economy in the face of the huge global challenges that might be encountered over the coming decades?*

²⁵ At the Launch of the UK Government document, *12 things that a £1400 UK dividend could buy*, May 2014.

²⁶ Here, it states that the Liberal Democrat Party would “.....replace the current Barnett formula for allocating funds to the Scottish, Welsh and Northern Irish governments with a new needs-based formula, to be agreed by a Finance Commission of the Nations”, *Scottish Liberal Democrats Manifesto*, 2010.

Six Tests were set out in Goudie (2013), which seeks to focus attention on the major economic questions that a new political system – and the economic systems that could be designed within that new politics – ought to be able to handle, with a particular emphasis on the longer term²⁷.

This is not to dismiss the value of analysing short term challenges and problems and the policy response that different constitutional states might facilitate, as these immediate and relatively transitory challenges are, of course, one important and tangible test of any new constitutional state. But they are seriously limited as a test of a long term constitutional change.

There is an important, additional point here: we should pay close attention to any adjustment or transition process from one economic system to another (which is, of course, a separate consideration from any short term and temporary economic challenge, such as a recession or banking crisis, that happens to be important at a particular point in time). If adjustment is anticipated to take years or even decades, then most people would probably seek long term benefits that are more substantive and more certain. So, the analysis of the long term outcomes is again a key part of this debate.

The Tests look at how a more structured approach to the assessment of the various constitutional proposals is possible, with a particular emphasis on the long term value of the proposals: that is, over the time horizon that is most relevant to such a fundamental political transformation. This approach focuses only on the economic dimension of the constitutional propositions: it specifically takes no account of an array of other factors, whether political or social in nature, for example. There are, of course, many instances of different peoples legitimately choosing self-determination and an independence model irrespective of any economic arguments that were advanced at the time.

The *Six Tests* crystallise the key challenges for Scotland in its economic analysis of potential constitutional change. They are designed to answer the questions:

- how does any proposed constitutional arrangement bear up when evaluated against these *Tests*?
- is the long-term economic sustainability of the Scottish economy secured under this constitutional arrangement, given the exceptional uncertainty and risks that most certainly exist when our time horizon is many decades?
- what are the relative strengths and vulnerabilities of the different proposals?

²⁷ Goudie (2013): see chapter 2. *The subject-specific chapters – all written by highly distinguished experts in their field – provide a similar insight: each concludes with an explicit statement of the critical questions that must be confronted in Scotland's constitutional debate.*

Six Tests to evaluate proposals for constitutional change.

1. *New Opportunities:*

- Would the proposed political and economic structure bring new economic, social and environmental opportunities that do not currently exist?

2. *Cyclical compatibility and stability:*

- Are the business cycles and economic structures of the partners in any proposed monetary union compatible? How would the implications of incompatibility and the need for cyclical stabilisation be managed?

3. *Long term competitiveness:*

- How would Scotland promote competitiveness and, if need be, restore competitiveness?

4. *Resilience and managing global shocks:*

- Are there well developed means to manage significant global shocks?

5. *Risk management and uncertainty:*

- Are the other primary risks and uncertainties of the proposal identified, and are there mechanisms through which they could be effectively managed?

6. *Summary Test for proposals for constitutional change:*

- Is the proposal fundamentally economically and financially stable?
- Would the proposal enhance the capacity to promote the primary objectives of economic policy?

Source: Goudie (2013)

Tests such as these are - correctly - open to the criticism that they tend to be too mechanistic (which is true) and don't capture all the points (which is true, too, although they should capture the primary points, where agreement on these is possible). On the other hand, they arguably bring some rigour to what can otherwise degenerate into a very confusing and unstructured analysis. This may suit some, of course, as it can helpfully obscure the failure to address key issues.

III Concluding thoughts.

While the Referendum campaign inevitably will take on an intensely political character as the vote approaches, the key economic challenges of *all* the constitutional options that may emerge arguably need to remain sharply defined and be to the fore of the debate.

Realism about what can and cannot be answered with any precision at this time is equally critical. Little is ultimately to be gained from cavalier assertions lacking any real basis in evidence from either Scotland

or from the experience of other economies. In fact, the answers to many key questions are simply unknown at this time. They may depend on institutional structures yet to be negotiated and whose precise form is therefore unknowable. They may depend on the impact of policy choices – facilitated by constitutional change that brings with it new powers, either within an independent Scotland or with enhanced powers within the UK – where our knowledge is too soft to provide the clarity that we seek. Evidence may be lacking or only exist for economies other than Scotland, or new powers and new policy simply create an economic system for which we have no history of how individual economic agents and businesses might respond. This is not a failing of analysis: it is a reality about any non-marginal economic policy change that creates a new set of incentives and behaviours that an economy has never seen before. We can – and should – offer the insights that theory and other economies can provide, but we cannot know with certainty.

Thus, there is a simple reality here. Choices in the Referendum – and, indeed, choices post-Referendum about the precise detail and form that enhanced devolution or independence might actually take – cannot be founded on hard fact and hard evidence, as we might wish.

Indeed, one striking conclusion would appear to be the importance of acknowledging openly the intractability of some challenges and the obvious risks and, instead, providing a focus on the management of risk and uncertainty, much as the private sector has done for years. Risk and uncertainty are not *per se* reasons to forego an opportunity, but a motivation for contingency planning.

While policy impacts will remain highly uncertain, this does highlight the critical nature of the post-Referendum phase and the negotiations that will follow around the institutional structures and multilateral agreements that will be necessitated by any constitutional change.

The ultimate challenge is this: *given our incomplete understanding and obvious ignorance of the precise form of any constitutional arrangement and the impact of new economic powers that it would bring, do the uncertain net benefits of greater economic powers appear to sufficiently outweigh the uncertain net benefits of the current powers? Or is the fact of greater self-determination - necessarily, constrained within an integrated global economy - with all its uncertainties, a strong enough motivation?*

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Reflections on the pro-independence and pro-union articles in the Fraser Economic Commentary and on proposals for enhanced devolution of economic powers to Scotland

Andrew Goudie¹

Abstract

This second paper briefly reflects on two specific contributions to the debate by representatives of each of the Referendum campaigns. They appeared in the FAI Economic Commentary, March 2014 Vol 37 (3): the first written by John Swinney, MSP, and the second by Professor Jim Gallagher. In particular, the paper considers the extent to which these two contributions address the challenges presented by the *Six Tests*, set out in Goudie (2013), with their emphasis on how effectively different constitutional propositions might stand up to the key economic challenges over the longer term. To date, the independence agenda has been articulated to a far greater degree than the agenda that might drive enhanced devolution within the union. The paper, therefore, turns to the propositions of enhanced devolution and some of the crucial issues that must be more systematically addressed in the event that this form of constitutional transformation is preferred in the Referendum.

I Introduction.

In the Volume 37 (3), March 2014 edition of the Fraser of Allander Economic Commentary, two contributors, John Swinney, MSP and Professor Jim Gallagher², provided considerable insight into the economic thinking that underpins the pro-independence and pro-union campaigns. Both focussed on articulating the economic benefits that their constitutional preference would generate and each provided some analysis of how their preferred economic system would stand up to scrutiny when tested against the *Six Tests*³.

This paper briefly reflects on these two contributions and, in particular, looks at them from the perspective of the insight they bring to the key economic questions set out in the first paper in this Policy Section, *Reflections on the key economic questions in the Scottish Independence Referendum*, and especially from the perspective of the *Six Tests*, first set out in Goudie (2013), with its emphasis on how different constitutional propositions might manage the key challenges that any economic system must

¹ Professor Andrew Goudie is currently Visiting Professor and Special Adviser to the Principal at the University of Strathclyde in Glasgow. He is the former Chief Economic Adviser to the Scottish Government and a former Chief Economist at the UK Department for International Development. He was a Research Fellow of Queens' College, University of Cambridge. He is a Fellow of the Royal Society of Edinburgh.

² The articles were in the Fraser of Allander Economic Commentary, volume 37(3), March 2014, Fraser of Allander, University of Strathclyde. The first was by Professor Jim Gallagher, *The Economic Case for Union*; the second was by John Swinney, MSP, *The Economic Case for an Independent Scotland*.

³ See the discussion in the preceding paper in this Volume, *Reflections on the key economic questions in the Scottish Independence Referendum*, Andrew Goudie, and Chapter 2 of Goudie (2013).

handle. To date, the independence agenda has been articulated to a far greater degree than the agenda that might drive enhanced devolution within the union. The paper therefore turns to the propositions of enhanced devolution and some of the crucial issues that must be more systematically addressed in the event that this form of constitutional transformation is preferred in the Referendum.

II The pro-independence and pro-union contributions to the Fraser Economic Commentary.

The two articles referred to above illustrate the nature of the economic debate over recent months and some broad, high-level reflections on the papers are offered here:

- Both campaigns have tended to focus on the perceived benefits of the constitutional forms for which they have a pre-determined preference and strongly assert their conclusions, rather than open up debate around the undoubted risks and uncertainties of their preferred option. Similarly, each camp has emphasised the perceived costs and dangers of the competing vision, rather than risk appearing to concede anything with respect to the potential benefits. This very extreme form of political risk-aversion is perhaps not surprising, given the enormity of the stakes and the importance of the outcome, but it is not conducive to advancing an intensive analysis and debate of the choices.
- Neither campaign has found it easy to provide the hard evidence that many have sought from the debate. To a considerable extent, this is no criticism of the protagonists, nor of the academic and business communities: the evidence is simply not available in many instances, certainly not with the precision and direct relevance that purity would require. More qualitative and more theoretical argument necessarily entails greater subjectivity and, therefore, less obvious clarity and consensus around the conclusion.

The pro-union contribution to the Commentary.

- The pro-union campaign has faced severe criticism of its negativity and its failure to set out the positive benefits of the union. Much of this has been true, with the political interaction heavily focussed on the risks of independence, often to the exclusion of the risks of the union. Similarly, there has been little acknowledgement of the potential benefits that greater autonomy might bring or indeed of the benefits of the continued union. The Gallagher paper and an earlier presentation by the pro-union leadership⁴ do, in fact, attempt to counter this. Both do discuss the benefits of the UK, as they see them, focussing heavily on the perceived gains in four areas: free trade, risk management at the UK level, the established monetary and banking union, and the fiscal union.

Many commentators, nonetheless, regard the pro-union camp's weaknesses in projecting a positive, ambitious vision - for a new dynamic phase of union that does embrace all regions of the UK - as an obvious shortcoming. Indeed, in Gallagher's article, the focus switches firmly towards the reasons why the currently advocated model of independence would be a poor choice in the pro-union campaign's view. The article asserts powerfully that the independence model will fail

⁴ *Darling (July 2013).*

each of the *Six Tests* set out in the preceding paper in this Commentary, but provides little on the mechanisms through which such risks could be broadly managed in a small, independent economy. Experience in other small economies across the globe broadly suggests that short term stability and longer term competitiveness - and indeed unanticipated shocks - *can* be managed. That is, these economies do find mechanisms through which the *Six Tests* are satisfied, despite some important challenges and perhaps with some costs attached.

Interestingly, in the same article, the proposition for a continuing union is not analysed explicitly within the *Six Tests* framework.

- Little is said in the article to establish why the larger UK Union would be better placed to provide shorter term stability and to withstand the kind of external shocks that have recently hit the global economy compared to a small independent state. In particular, there has been little attempt to counter the pro-independence camp's argument that failures at the UK level in fiscal, monetary and banking policy contributed to the financial crisis and to the subsequent recession, through poor oversight and analysis, regulation and policy design. There are obvious internal constraints within the pro-union campaign that make this a difficult area, since the Labour and Conservative Parties would never agree on a riposte, given their fiercely opposing views throughout this period. Perhaps more importantly, there is little attempt to differentiate between the policy implications of this period that carry little constitutional relevance, from the relevance of this period for future constitutional arrangements.
- The pro-union article also places a heavy emphasis on the transitional period. As was noted above - and as is captured explicitly in the fifth *Test*, although not with the priority accorded in Gallagher's article - this is an important argument and both the relative size of transitional costs and the impact, intensity and time period of the transition are, of course, legitimate questions to raise.

The pro-independence contribution to the Commentary.

- The pro-independence campaign unsurprisingly articulates a powerful and ambitious vision. Importantly, it does not only emphasise the legitimacy and value of self-determination irrespective of the outcomes that independence might bring. The achievement of self-government is not sufficient: the assertion that independence will bring greater economic benefit is of considerable significance. As noted above, it is unreasonable to expect pro-independence advocates to *prove* this case, just as it would be unreasonable to expect pro-unionists to *prove* that the union will bring greater prosperity.

However, having strongly and consistently asserted that independence models will be superior, the article is somewhat reticent on *how* this would be achieved. Of course, any future context is unknown, but the generalities around using (apparently unconstrained) tax and welfare policy, and around "*establishing industrial strategy focussed on diversifying... manufacturing, innovation and productivity*" give little insight into how - and why - future outcomes under an independence model would differ from a past in which UK policy in these areas has typically struggled. The high level objectives are probably widely shared, but it is unclear what new opportunities would arise to make

the difference. Similarly, "*the use of tax and allowances to (promote) R&D*" reflects an admirable policy direction but, as in many areas, the mechanisms through which the past experiences are significantly surpassed are unclear.

Other documents⁵, however, do provide more insight into how economic policy might be conducted within an independence model to stimulate economic growth. They, nonetheless, say little about the limitations and constraints upon policy, the trade-offs and choices that would need to be made and the challenges of prioritisation and affordability. Nor do they provide much insight into why the newly available levers would be more effectively deployed and secure superior outcomes than in the past.

Moreover, there is a familiar underlying assumption that fiscal policy would be subject to no external constraint in a formal sterling monetary union, but, so far, this has not convinced the UK or EU authorities, or indeed many of the more objective observers of the campaign. Post-Referendum, with a yes vote, this would be the key challenge in any negotiation.

- The pro-independence campaign unsurprisingly asserts that the "*vast majority of decisions that influence Scotland's economic structure, rate of growth and levels of equality are taken outwith Scotland*". This is undoubtedly an overstatement. Certainly, the macroeconomic decisions reside currently in Westminster, but the critical role of microeconomic policy and the effective implementation of supply-side policy are widely recognised throughout the world as crucial in building healthy and high-quality human capital, in particular, and the other key economic infrastructure that underpins economic development. While some microeconomic powers are indeed reserved, many of the prime micro powers already sit in Holyrood. The primary question is whether the currently reserved macro and reserved micro powers could add substantively to the overall policy stance by being brought together under an independent Scotland ?
- As with the pro-union article, little is said of the mechanisms through which economic stability and the absorption of external shocks would be achieved; this is the crux of two of the *Tests*. There are strong assertions about the value of new economic powers that would provide the levers for securing these objectives, but the risks and uncertainties that might be anticipated with an independence model and the likely constraints that would impact on the policy decision-making process are not considered. The specific form of independence is a critical area, defining as it does the scope to pursue policy that is not limited by formal agreements that might operate within a monetary union, or by choice in order not to provoke a retaliatory response from competitors.
- Ultimately, the critical challenge is this: *can policy be defined in a sufficiently distinctive manner to provide an independent Scotland with the comparative advantage that would allow it to markedly accelerate the nation's economic development ?*

⁵ *Scottish Government (2013), for example, sets out a more comprehensive picture of how new economic levers within an independence model might be deployed to facilitate accelerated economic growth. The chapters on competitiveness and reindustrialisation, and on innovation provide more detail on specific potential opportunities.*

III The Enhanced Devolution Option.

The advocates of the Union have broadly offered increased economic powers for Scotland in the event of the Referendum rejecting the independence option. Often without great conviction and typically in a somewhat incoherent and unstructured manner, the basic proposition has been to convene a Commission or other gathering post-Referendum in order to define a set of new powers.

This approach has been challenged on several fronts. Firstly, there is no specificity at this time of what *enhanced powers* might in fact constitute and on what timescale such powers might be transferred⁶. Notwithstanding the recent flurry of proposals that the three main UK Parties have produced, the absence of any sustained and coherent discussion of what economic powers might be considered for transfer to Holyrood post-Referendum leaves the Scottish electorate little the wiser of what form this alternative constitutional proposition might take.

Secondly, there is a major credibility question. Whether any promises – particularly when they are ill-defined – would ever see the light of day is strongly contested, with the pro-independence group citing the 1979 experience in which Alec Douglas-Home made promises that were subsequently broken. While this event raises a legitimate concern, not least in a country in which the trust for the political classes is exceptionally low, it has been observed by some that it is not clear that this specific event and the role of these particular individuals has any great relevance 35 years later. Nonetheless, how credibility and trust is secured is a massive challenge for the pro-union group.^{7, 8}

Not least must be the concern that, post-Referendum, the UK is simply distracted by other priorities at that time or indeed exhausted by the Referendum campaign. In these circumstances, there might be little immediate appetite, both at the political and civic level, for a major initiative to drive through the significant work required for the formulation of coherent programmes to transfer more powers.

Thirdly, the rationale for new powers has, in part, been founded on various perceptions of the current lack of accountability over expenditure and revenue-raising at the Scotland level and therefore the value of bringing the powers closer to the electorate. This view has largely gone unchallenged. However, to the extent that the rationale also rests – and certainly should rest - on the economic value of having a greater array of economic levers to deploy in response to the specific context of the Scottish national economy, the arguments are far from compelling. Indeed, little has been said about the manner in which new powers would be deployed and about the underlying evidence and justification for believing these powers would be effective in achieving the objectives.

⁶ Indeed, in a recent BBC interview, David Cameron said he could not guarantee that legislation for more powers would be included in the first Queen's speech after the next general election, if he is in government. See BBC (2014).

⁷ The oft-quoted speech by Alec Douglas-Home appealed to Scots to reject devolution with the promise of "something better" at a later stage. This suspicion was encouraged by the broader views that were held with respect to devolution. In her memoirs, Margaret Thatcher notes that, with the rejection of greater devolution in the 1979 vote, "Although I had not publicly campaigned for a 'No' vote in the referenda in Scotland and Wales, that was the result I wanted. For the moment, devolution was dead: I did not mourn it". Thatcher (1995).

⁸ Interestingly, it is not only the pro-independence group that has challenged the credibility of the promise of greater devolution. In the House of Commons debate on Scotland's Future in the UK (25 November 2009), Alistair Carmichael, MP, the current Secretary of State for Scotland, then in opposition to the Labour Government, observed: "I listened to the hon. Member for Dumfriesshire, Clydesdale and Tweeddale (David Mundell) speaking about producing another White Paper the other side of a general election, and I could almost hear the ghost of Sir Alec Douglas-Home speaking prior to the 1979 referendum. He promised that we would get something better from the Conservatives, but they betrayed us after the 1979 election, and they would betray us again tomorrow given half a chance which, fortunately, they are unlikely to get."

<http://www.publications.parliament.uk/pa/cm200910/cmhansrd/cm091125/debtext/91125-0007.htm>

While enhanced devolution does not appear as an option on the ballot paper, it is arguably a critical element in the outcome of the Referendum. As various survey and polling evidence have suggested, there is very considerable support for enhanced economic powers in Scotland and the effect on voting behaviour of the various political promises and claims in this regard would, therefore, be expected to be highly significant. The debate in 2012 around the precise form of question(s) to be asked in the Referendum demonstrated the key nature of this point. Many have suggested that, on the basis of the polling evidence, a set of constitutional options that incorporated enhanced devolution within the UK would have won strong support.

One good example of this point is reflected in the work of Professor John Curtice⁹ of the University of Strathclyde. In early 2014, he found that 31% said that the Scottish Parliament should make all decisions for Scotland (broadly the independence proposition); 32% said that the Scottish Parliament should be responsible for everything apart from defence and foreign affairs (broadly the 'devo max' proposition¹⁰); 25% said that they were happy with the *status quo* (with taxation and welfare benefits still primarily Westminster's responsibility); while a further 8% reckon that all decisions for Scotland should be made by the UK government.¹¹

For differing strategic reasons, the political view converged on a simple yes/no question, but, even within this decision-making framework, the potential impact of the enhanced powers option on the Referendum still remains huge. Hence, it is surprising that the pro-union group has managed this issue so poorly and in such an incoherent manner. The inability to offer a unified view on what enhanced powers might constitute is arguably one sign of this, with the Scottish Labour Party, Scottish Liberal Democrat Party and Scottish Conservative Party all producing their own documents.^{12, 13, 14} Interestingly, there has been an explicit statement that no cross-party, agreed announcement on the specifics of further devolution for Scotland would be made prior to the Referendum.¹⁵

Underlying this reticence to be explicit are layers of political anxiety, some related to the Referendum itself, as, for example, with the Labour Party's concern not to be seen to endorse a full cross-party deal on devolution before the Referendum in order to prevent its message being undermined by Scottish

⁹ *What Does Scotland Think About More Devolution?*, John Curtice (February 2014).

¹⁰ See, for example, the explanation of the various enhanced devolution propositions in Goudie (2013), chapter 1.

¹¹ Curtice (2014) also comments that ... "in short, no single option for Scotland's constitutional future commands the support of more than a third of Scottish voters. That perhaps is one reason why finding a stable constitutional settlement for Scotland has so far proven so difficult". He also notes that.... "however, just looking at people's first preferences underestimates the level of support for more devolution. This year we also asked SSA respondents what their second preference would be. Overall, 42% said that 'devo max' was their second preference. No less than 79% of those whose first preference is independence named 'devo max' as their second choice, as did two-thirds (66%) of those who would prefer to see a continuation of the status quo. That means that overall, nearly three-quarters of all respondents (32% + 42%) said that 'devo max' was their first or second preference."

¹² *Powers for a purpose - Strengthening Accountability and Empowering People*. Scottish Labour, Devolution Commission. March 2014.

¹³ *Federalism: the best future for Scotland. The report of the Home Rule and Community Rule Commission of the Scottish Liberal Democrats*, October 2012; and *CAMPBELL II: The second report of the Home Rule and Community Rule Commission*, Scottish Liberal Democrat Party, March 2014.

¹⁴ *Commission on the Future Governance of Scotland*, Scottish Conservative Party, May 2014.

¹⁵ *The pledge made by the leadership of the three Scottish pro-union parties on June 16, 2014 reiterated the common position that additional powers would be transferred to Scotland in the event of a pro-union vote, but there were no further indications of the timescale, the process for bringing this about or the nature of the powers that would transfer.*

National Party accusations that it is in already in a quasi-coalition with the Conservatives. Other concerns relate to the political positioning before the 2016 UK election and the wish not to blur and complicate the positions the parties will wish to adopt for that key vote. Other factors relate to the inability of individuals to work collegiately between the parties and, indeed, within parties – as with the intra-party fears about the response of backbenchers - deriving from long-standing political differences, animosities and conflicts¹⁶.

Appreciating that political agreement prior to the Referendum is simply impossible amongst the pro-union parties, Sir Menzies Campbell¹⁷ has called for the three pro-union parties to hold a summit within 30 days of the Referendum to agree a broad programme on devolution. While realistic and designed to demonstrate a degree of certainty to counter the “1979” riposte, there remains a serious question of credibility. Can this stance be trusted to indeed deliver, following a *no* result? What might this compromise set of new powers entail? Would it be a convincing set that addresses the preferences of the Scottish electorate and their apparent wish for significantly enhanced accountability?

While there has been no apparent coordination between the pro-union parties in producing their proposals for enhanced devolution, and no attempt to systematically converge on an agreed set of propositions that would provide a desirable degree of clarity to the electorate, some common threads can be seen in their individual plans. These focus around the degree to which income tax powers would be transferred. Whether this disparate set of constitutional alternatives is understood, or is sufficient to persuade the electorate is, of course, the key issue.

Convincing a highly sceptical and suspicious electorate will be a massive task.

Moreover, as noted above, the underlying economic basis for the pro-union propositions that have been advanced has been weak: there has been little clarification of the mechanisms through which Scottish economic performance might be enhanced and the key role that the greater devolution of economic powers to Holyrood might contribute.

Were enhanced devolution to be the basic political choice, the economic thinking around a coherent and economically meaningful set of new powers would need serious development.¹⁸

¹⁶ One recent example has been the highly publicised speech by the former Prime Minister Gordon Brown, MP, which was explicitly hosted under the Scottish Labour Party's separate United with Labour anti-independence banner, rather than the Better Together banner. <http://gordonandsarahbrown.com/2014/04/scotlands-five-big-positives-excerpt-from-gordon-browns-speech-on-tuesday-22nd-april-2014/>

¹⁷ Campbell, Menzies. (2014).

¹⁸ In contrast, it can be argued that the vast array of thinking that has been captured in the Scottish Government's White Paper, the work of the Scottish Government's Fiscal Commission, the sets of analytical documents produced by both the Scottish and UK Governments, by different Parliamentary Committees and by a wide range of academic writers has provided considerable insight into the challenges and opportunities of an independence model.

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Some reflections on the Referendum campaigns and the post-Referendum economic agenda

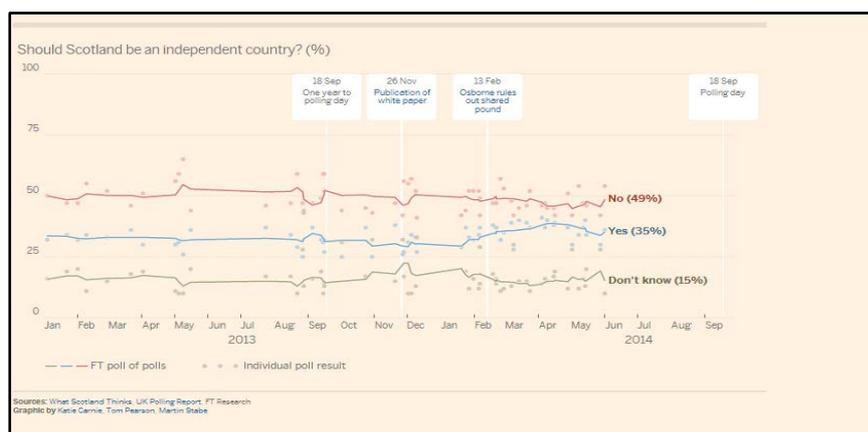
Andrew Goudie¹

Abstract

This third paper offers some summary thoughts on the manner in which the political context and the nature of the political interaction bear on the evolution of the economic perspective in the Referendum and thereby on the understanding and insights of public opinion at large. Specifically, it provides some reflections on how the political context imposes itself on the understanding of the critical economic challenges set out and discussed in the first and second papers. The paper then looks ahead to some of the crucial questions that may dominate the post-Referendum period and some of the key challenges that will be to the fore. It considers the importance of preparation for that phase of transformational change.

I. Some political reflections

There are several closely related observations that one might make on the approach to the Referendum of the competing campaigns to date. To the extent that these approaches bear on the understanding of the principal economic issues, they are immensely important and deeply relevant to the insights of the electorate in the run-up to the Referendum. Arguably, they go some way to explain the underlying evolution of public opinion over recent times, as illustrated in the Financial Times poll-of-polls².



Source: Financial Times (2014)

¹ Professor Andrew Goudie is currently Visiting Professor and Special Adviser to the Principal at the University of Strathclyde in Glasgow. He is the former Chief Economic Adviser to the Scottish Government and a former Chief Economist at the UK Department for International Development. He was a Research Fellow of Queens' College, University of Cambridge. He is a Fellow of the Royal Society of Edinburgh.

² See for example, the Financial Times (2014) analysis: <http://www.ft.com/cms/s/0/2a5bdce0-c4a4-11e3-b2fb-00144feabdc0.html?siteedition=uk#axzz32R6lPRig>

The first observation focuses on the value that each campaign has placed upon political coherence. It has become something of received wisdom in recent years that strong, high quality leadership with a consistent, clear vision and well-directed messaging are a pre-requisite for successful political campaigns, especially when founded upon a unified and well-organised political grouping. Typically, what has deterred and confused electorates has been political disunity and in-fighting that overshadows and, indeed, proscribes the displaying of a coherent vision and ambition. In this latter context, electoral experience demonstrates the price that political parties have paid across the world when seeking to convince an electorate of their superior case.

In the present context, the key point is that – not least because many have *de facto* advanced their causes in the Referendum campaign as if this were an election – the pro-union alliance of several political parties has apparently not appreciated the value of behaving as if it were a single unified “party” and, on the contrary, has typically displayed many of the characteristics of the classic disunited party. Whether it is a reality or merely perception is not material, but the pro-union parties often appear to demonstrate the apparent belief that the Referendum will be won and thus they can afford the luxury of internal incoherence: that is, there would appear, collectively, to be a fundamental failure – at least in some quarters - to appreciate the importance of this Referendum and the uncertainty of its outcome.

In contrast, the pro-independence campaign – heavily dominated by a single party and led by a particularly dominant personality – has demonstrated absolute focus and discipline, projecting thereby a clear vision into an otherwise confused and divergent landscape. Most commentators see a pro-independence grouping that displays a sharp awareness of these issues and, in general, a more incisive insight into the sensitivities and concerns of the general public. Some may bemoan the perceived absence of evidence and rigorous analysis within the pro-independence campaign and dismiss the certainty with which the benefits of independence are asserted, but few would challenge the campaign’s political astuteness and single-mindedness.

The second observation relates to the striking difference that is apparent in pursuing a sharply defined and compelling new vision compared to an ill-focused campaign that poorly articulates the benefits of a prevailing political and economic system. In this regard, the pro-independence camp has sought to project a vision of ambition and aspiration compared to the present. The pro-union campaign is faced by an inherently more challenging task in that it needs to establish the perceived benefits of an existing union in which those benefits are familiar but poorly articulated. Many have observed that, despite the centrality of this issue, the pro-union campaign has, in fact, conveyed an unambitious and less than visionary perspective that many have found uninspiring.

Thus, the onus has been on the pro-union campaign to counter this through an emphasis on what could be achieved, even with existing powers and particularly highlighting the potential of new powers to transform the economy and society more generally. A campaign that argues merely for the preservation of existing systems and existing benefits – no matter how important those benefits are believed to be - will always struggle to compete with a campaign that has an exceptionally forward-looking and dynamic vision. In this regard, the independence campaign has been notably effective. The challenge for the latter cause is a different one altogether: it is whether the people trust that judgement and whether that vision is indeed achievable.

The third observation is that there has generally been a failure to establish the irreversibility of this event and the distinction between an election and a Referendum. It has often been difficult - if not impossible - to distinguish between a debate that would characterise a 4 or 5-yearly election from a once-in-a-lifetime constitutional Referendum. Hence, there has been the unfortunate paradox that the dominant issues have often – though, of course, not always by any means – been very short term in nature and very focussed on current challenges, with much less interest in the fundamental long term nature of the constitutional propositions. This is the central thesis underlying the *Six Tests* considered in the first and second papers of the Policy Section in this Commentary. Many of the policy issues advanced by both sides in the campaign, and the proffered policy solutions, have a distinctly ‘electoral’ feel to them, with the implication that, if they prove to be ill-conceived or misguided, the next election can reverse the decision.

Thus, while a Referendum ought not to be approached in the same light as an election, this distinction has not been successfully articulated by either the pro-independence or the pro-union groupings, often for their own deliberate strategic reasons. In consequence, it would appear that this critical point has failed to impress on the public mind.

Exploring new ideas, experimentation and risk-taking should arguably be analysed and understood from distinct perspectives according to the underlying capacity to correct or revise a choice, if such proves desirable. If this is indeed an appropriate approach to adopt, some would argue that this inherently injects a fundamental conservatism into the public mind in the context of a Referendum and promotes a greater degree of caution about more substantive transformation. More ambitious projects may tend to appear more risky merely because they are less familiar, in contrast to the continuance of more familiar projects for which the historical outcomes – while not necessarily unambiguously successful – are at least known. If this *is* so, the Referendum context of irreversibility places a heavier burden on the pro-independence camp to establish a picture of what the future will bring, and with what degree of certainty, than those favouring something much closer to the *status quo*.

II. The post-Referendum economic agenda in Scotland

Economic priorities. The post-Referendum period is arguably one of great importance to Scotland whatever the outcome of the vote. The fundamental economic and social questions that dominated our thinking prior to the financial crisis and global recession largely remain and, if anything, have become all the more challenging since the onset of the crisis in 2008. Adjustment and austerity have imposed huge strains on the economy and on society, while the continuing rise of the emerging economies has placed an ever-increasing demand on the Scottish economy to compete effectively.

Superficially, Scotland has emerged from the recession in relatively good shape, with an apparently strong labour market and growth that compares favourably with our primary trading partners in the developed world. However, this masks to some extent the significant continuing weaknesses in productivity and in the quality of employment, both of which are fundamental to the future competitiveness of the economy as a whole. There have been impressive gains in self-employment and in business creation, but it is critical to understand the quality of these trends and the extent to which they indeed represent a dynamic, creative economy or simply a pragmatic response to an otherwise weak economy. It is certainly not self-evident that the long-standing challenges have been mastered.

The familiar list of concerns does not immediately suggest that a major step change has been achieved and, even if it had over the past decade, the nature of global competition implies a continuing pressure to attain yet higher levels of achievement. The list would certainly include the questions that relate to the development of companies from small to medium size and from medium to large scale, global enterprises; the international penetration of Scottish companies; the creation of high-quality innovative micro enterprises; and the fundamental levels of innovation and commercialisation of both existing and new ideas, generated from the world class universities and research bodies in Scotland. Underlying these challenges remain key questions of policy design and policy effectiveness, as well as more deep-seated cultural concerns about the nature of entrepreneurialism in Scotland and the attitudes to risk-taking and ambition, all of which have been identified for many years as key priorities.

The key point here is that the definition of a new economic strategy will be necessary post-Referendum irrespective of the outcome. Its emphases will, of course, be very different depending on the constitutional state that emerges, whether an independent Scotland, a continuing Union with a greatly increased degree of devolved economic power or something little changed from the present. In each context, however, the same fundamental questions must be faced.

Continuance of the Union. As was observed in the second paper in the Policy Section of this Commentary, the advocates of enhanced powers within the Union have not, to date, articulated convincingly which specific new powers are required - and why - in order to deliver the economic objectives that they have identified. Proposals for new powers lack any detailed understanding of why these would be the optimal powers to assume and how they would be deployed. Through what specific mechanisms would these new powers impact on the economy and where is the evidence and reassurance that these channels would be effective?

While there will be strong pressure to formulate another package of powers to be transferred to Holyrood, it is important that it is underpinned by a clear understanding of what that package is designed to achieve for economic, social and environmental ends. Importantly – given the pro-union group's line of argument now – there will need to be a clear economic rationale for determining which areas of policy are most effectively managed at the UK level and which would bring greater benefit to Scotland from being devolved.

The current experience with the income tax powers that were transferred under the Scotland Act (2012) is not encouraging, with little debate at present about what those powers are designed to achieve and, most pressingly, how the powers might be deployed most effectively. Determining which powers should be transferred ought to be driven by an understanding of how the economic outcomes are best secured, and not solely by legitimate concerns of accountability.

Moreover, were the decision made to continue within the Union, there are many lessons from the Referendum campaign that could helpfully be absorbed. Two diverse examples make the point. Firstly, the campaign has clearly demonstrated the weakness in joint working between the UK Government and the Scottish Government on key issues of shared interest as, for example, with welfare policy. While welfare is reserved to the UK Government, it is clear that, such is its importance to both the economic and social policy of the Scottish Government and the local authorities, there is a great need for significantly enhanced understanding and coordination. Why is *all* welfare policy reserved; is there a

clear gain from devolving some elements ? Why is the Scottish Government not far more active in influencing, and working with, the UK Government in the design of reserved UK policy, and why has the UK not been more open to this form of engagement ? There is only a very weak history of interaction over arguably one of the key pieces of Government policy.

A second example, and one very different in nature, is the emergence of the Fiscal Commission³. It remains to be seen how widely accepted across the political spectrum the Commission will be, but, in principle, it represents an important step forward that is of potential value to any constitutional state. Some may question the scope of its proposed remit – which is indeed narrow and appears to exclude many critical elements of macroeconomic policy and, especially, detailed fiscal policy – but the idea of seeking independent input and oversight of Government thinking in this way is an important step forward.

Independence. Similarly, with a majority favouring independence, the reality of imminent independence will need to promote much hard thinking, shorn of the inevitable political rhetoric of a campaign and focussed tightly on the transitional period in which the establishment of the nation's credibility as an independent and sustainable entity will be paramount. The immediate post-Referendum period would rightly be dominated by the top priority challenges: many of which would need to be negotiated with urgency. The political climate post-Referendum would be expected to bear heavily on the nature of the negotiations: the degree of compromise and the bargaining power of the parties being closely related to the decisiveness – or otherwise – of the outcome.

The imminence of the UK elections imposes a further complication, with the UK parties certainly being concerned about the impact of the negotiations with Scotland on their electoral chances in 2015. One key question is whether the UK election would delay the negotiations and make the time horizon planned by the pro-independence camp unfeasible? Will the rest of the UK be preoccupied by the hugely significant UK elections? Two issues could easily absorb the UK Government's energies: firstly, the European Union dimension and the prospect of an EU Referendum under a new administration; and, secondly, the rise of UKIP in recent months and its electoral successes in the European and local elections, which have added another major threat to the historically dominant parties and their capacity to attain the majority government that they undoubtedly seek. In this context, how urgent will the resolution of the *Scotland issue* be?

Indeed, with whom would Scotland negotiate? It could face the prospect of starting negotiations with one UK administration, only to find, post-May 2015, it is faced by restarting them with a totally different administration and another group of UK political actors, with entirely different motivations and views on the specific issues to be resolved.

There are, therefore, a range of UK-specific challenges that make the post-Referendum period problematic in the event of a pro-independence vote, challenges that would necessarily need to be surmounted on an acceptable timescale.

³ See Scottish Government. *Scottish Fiscal Commission announced, May 2014*, <http://news.scotland.gov.uk/News/Scottish-Fiscal-Commission-announced-c43.aspx>

As argued in the first paper in the Policy Section of this Commentary, the resolution of the currency question stands out as *the* key decision. It may not, however, be rapidly resolved. Even if the UK Government does agree to negotiate on a possible formal currency union, it is far from evident that the terms would prove acceptable to Scotland and reaching this conclusion could take a very protracted period. Were the negotiations to become entwined within the UK election campaign, the outcome would appear even less certain.

The technical and skill challenges would be significantly reduced were independence to be defined within a formal currency union: alternative currency options would be far more demanding in terms of the required institutional infrastructure and the required levels and types of technical expertise, such that the timescales for putting in place a new currency arrangement would inevitably be significantly longer. This, of course, does not suggest that it would be necessary to delay the day of political independence. It would, however, require an interim understanding with the UK about the continued short-term use of sterling while a new currency arrangement is developed.

Other questions would also take on a real urgency. Two examples suffice. Firstly, any period of transition is potentially of concern if the uncertainty that is inherent in any negotiations provokes behaviours that are detrimental to the new state, even if they are reversible in time. Limiting the time period is crucial, not least as it would be surprising if business investment, with the long term commitment that it implies, was not temporarily curtailed as companies wait to see precisely what form of independence would be designed⁴. Such a disruption is probably inevitable and difficult to counter but certainly its implications are minimised through rapidly defining the new economic system. Companies would be anticipated to adapt very rapidly to the political climate but would very likely hesitate in the face of economic uncertainty of this kind.

Secondly, even if the currency question remained unresolved for some time, formulating sustainable fiscal policy would be critical. At the moment of political independence, the new state would need to demonstrate fiscal stability: without this, the signalling effects to international markets would be immensely damaging, with implications for the cost of borrowing and, with some currency regimes, for the exchange rate. While the campaign has led to many claims that the present Scottish Government in this context would find great difficulty in reconciling its various policy proposals - as in the White Paper - within a tightly defined resource pot, the priority would not be the introduction of radical new policy on Day 1. While new policy directions would be an important step in meeting the political imperative to demonstrate the real value of independence and the difference it could indeed make, the immediate short term preoccupation would have to be with the continuity and stability of the system. Meeting expectations would be very demanding, but it is clear that there would be a huge pressure to finance existing programmes that were deemed essential, as, for example, with the payments through the welfare system and for other previously reserved areas of expenditure.

Misjudging the funding requirements in such a way as to endanger the continuity in the provision of a necessary public service would be seriously damaging for a new nation. Not introducing major new reform on Day 1 would be understood, albeit not acceptable to some groupings no doubt. Errors in

⁴ *The recent comments by, for example, the CEO of B&Q illustrate the uncertainty that would concern business and, while this doesn't imply any long term withdrawal of business of course, any reductions or deferral of investment will be damaging in the short to medium term.*

revenue projection and expenditure flows – many of which would be very difficult to forecast with accuracy in a first year – can, to a degree, be accommodated through borrowing, of course, but the dangers of disappointing the financial markets through what is perceived to be too great a reliance on new debt finance cannot be exaggerated.

The pro-independence camp has argued that the record of financial competence established since 2007 will carry significant weight with the international financial markets were independence to be adopted. This is an exaggeration, since Scottish Governments have in fact had only a very small capability to behave incompetently at an aggregate expenditure level, given the manner in which the Scottish budget is currently pre-determined and the very limited borrowing powers. Nonetheless, the public finances are recognised by most people to have been very well organised and effectively managed. Whether this impresses the markets is doubtful: the real test will be year 1.

Thus, while year 1 is undoubtedly the most difficult year with no historical experience to guide the forecasts in many areas of the budget, it is also the most important year in shaping all-important international perceptions. This suggests a degree of caution will need to be injected into the fiscal thinking and the overall fiscal stance, given the costs of over-optimism.

Overall, these reflections point to the importance of anticipating the post-Referendum period irrespective of the outcome of the vote itself. Whether with a continuance of the Union or with a decision to pursue one of the independence models, the dangers of a protracted period of indecision and uncertainty are significant. Independence would likely necessitate a protracted period of negotiation with both the UK and EU authorities to establish the precise form of independence that were to be adopted, while, with a *no* vote, a process of unknown duration to transfer greater powers to Holyrood would commence.

Recalling the ultimate objectives of constitutional transformation – as far as the economic aspirations are concerned, the reinvigoration of long term economic development in Scotland – would seem invaluable, not only to inject urgency into the re-establishment of a stable and sustainable economic context, and thereby provide the greater certainty that economic actors require, but also to more sharply focus the thinking and post-Referendum negotiations on the critical, desired outcomes that a settled constitutional form is designed to deliver.

Economic perspectives

A Social Accounting Matrix for Scotland

Emonts-Holley, T., Ross, A., and Professor Swales, J.K., Fraser of Allander Institute

Abstract

Irrespective of the outcome of the September 2014 Scottish independence referendum, Scotland will require more and better economic data to manage its increased economic responsibilities. The 2012 Scotland Act and proposals by each major UK political party will further increase Scotland's fiscal powers. These powers require that future Scottish governments have more detailed knowledge of the flows of income and expenditure through the Scottish economy. This will allow it to better understand how the economy operates and – more critically – to model how the economy will respond to proposed changes in, for example, government expenditures and taxes. One extremely effective way to present and analyse such data is via a Social Accounting Matrix (SAM). Here we present a Scottish SAM for 2009 constructed in the Fraser of Allander Institute. We take the reader through the SAM's key elements and show how it can be used to better describe, analyse and model the Scottish economy.

1 Introduction

Table 1 shows an aggregate version of the Scottish SAM for 2009. This has been generated as part of a research programme jointly funded by the Scottish Government and the Economic and Social Research Council.¹ The SAM is here shown as a 12 x 12 matrix. It identifies all the incomes received and all the expenditures made within the Scottish economy for that year. It shows the accounts for production sectors; factors of production (labour and other value added); institutions (households, corporations and government); the capital account (savings and investment) and the external accounts (with the rest of the UK and the rest of the world). The figures are measured in £ million at 2009 basic prices.

First, some clarification is required. The figures in Table 1 do not cover activity on the continental shelf. That is to say, it does not include the incomes and taxes directly generated through the extraction of North Sea oil and gas. It is almost certain that a large proportion of this activity, and the associated tax revenues, would be attributed to Scotland under independence. However, in the present UK regional accounts these activities are dealt with separately. Second, for presentational purposes the industrial sectors have been aggregated to just four; Energy, Financial & Business Services, Manufacturing, and 'All other Industries'. In the full table there are 104 sectors.

¹ The funding covers fees and grants for two PhD students [ES/J500136/1].

Table 1: Aggregate 2009 Social Accounting Matrix for Scotland, 2009 basic prices (£million)

	1. Energy	2. Financial & Business	3. Manufacturing	4. All other Industries	5. Labour	6. Other Value Added	7. Households	8. Corporations	9. Government	10. Capital	11. RUK	12. ROW	Total:
Incomes →													
Expenditures ↓													
1. Energy (including renewables)	6,274	591	1,031	3,372	-	-	4,555	-	393	458	11,466	3,037	31,178
2. Financial & Business Services	736	4,117	538	4,187	-	-	2,973	-	29	213	10,374	2,161	25,328
3. Manufacturing	744	155	5,174	5,105	-	-	3,820	-	0	1,613	5,628	6,949	29,189
4. All other Industries	2,758	2,551	3,235	23,039	-	-	38,454	-	29,064	11,697	9,411	5,018	125,226
5. Labour	4,673	7,027	7,872	43,989	-	-	-	-	-	-	-	-	63,561
6. Other Value Added	6,998	6,566	3,162	21,715	-	-	-	-	-	-	-	-	38,442
7. Households	-	-	-	-	63,561	5,289	-	15,103	19,835	-	1,853	2,237	107,877
8. Corporations	-	-	-	-	-	29,456	6,401	-	5,722	-	7,784	4,144	53,507
9. Government	632	836	509	2,802	-	3,697	27,947	5,248	-	1,495	20,234	129	63,530
10. Capital	-	-	-	-	-	-	5,070	14,740	119	-	-	-	19,931
11. RUK	5,641	2,993	4,954	16,686	-	-	14,113	10,638	8,368	3,358	-	-	66,750
12. ROW	2,722	492	2,714	4,331	-	-	4,544	7,778	-	1,097	-	-	23,675
Total:	31,178	25,328	29,189	125,226	63,561	38,442	107,877	53,507	63,530	19,931	66,750	23,675	

Note: The fully disaggregated SAM can be accessed at: <http://www.strath.ac.uk/fraser/research/sam/>

Accessing the SAM, the methodology and the Income and Expenditure Accounts:

The method used to compute the SAM was streamlined in such way that it allows other researchers to update and alter the SAM according to subsequent releases of Scottish Input-Output Tables.

The fully disaggregated SAM, the Income and Expenditure Accounts and the underpinning methodology can be freely accessed at: <http://www.strath.ac.uk/fraser/research/sam/>

Future releases of the SAM will include disaggregated labour (by education and gender), household (by type) and Government (central and local) accounts.

2 Reading the SAM

It is useful to see how the SAM is structured by working through one account. Let's take the Households account, which is shown in row and column 7. The row entries give the size and sources of Scottish household income. Total household income is £107,877 million, which implies a per capita income of just over £20,600. Not surprisingly, the most important source is wage payments, which account for £63,561 million, or almost 60%. The other major sources are non-wage income from production. These are the entries in the other value added and corporate columns. These include income from self-employment, dividends, private pensions and other corporate income going to households. Combined, the total comes to £20,392 million or just less than 20%. The final major source of household income is Government which contributes £19,835 million, just over 18%. This includes welfare payments and public pensions.

Where the row entries give the income sources, the column entries show how that income was used (i.e. spent). Note first that the total household expenditure of £107,877 million is equal to the total income. This is true for all the accounts: income and expenditure must balance. Of this total, £49,802 million, that is 46%, is spent on consuming Scottish goods. This is found by summing the first four entries in the household column (column 7). The biggest single element of Scottish household expenditure is labeled here 'All other Industries'. The major expenditures in this category are Retail (excluding vehicles) £8,326 million, Imputed rent £6,342 million, Food & beverage services £3,198 million, Real estate £2,603 million, Wholesale (excluding vehicles) £2,556 million, and Education £2,442 million.

Of the other expenditures, £27,947 million, or just over a quarter, goes to the Government, primarily in taxes. These include both direct and indirect taxes, such as income tax and VAT. The payments to the rest of the UK and the rest of the world (RUK and ROW) are almost all imports to consumption. These are goods or services produced outwith Scotland but purchased by consumers here. The value of consumer imports is a little over one third the value of the consumption of Scottish produced goods with the rest of the UK (RUK) supplying just over three quarters. The payments to the capital account are savings and to corporations are payments for shares and for private pensions.

3 Industries

Each account has the same broad characteristics as those shown in the discussion of households above. That is to say, the rows show income sources and the columns expenditure, and the corresponding rows and columns balance. The first four rows and columns contain information for the accounts for individual sectors. Three industries important for the Scottish economy are separately identified here and 'All other Industries' aggregated together. This is simply for illustrative purposes; as we state earlier, in the full table there are 104 separate industries. The first four rows of Table 1 show the income sources for these industries. These indicate to whom the sectors' outputs are sold. For the first three sectors, Energy, Financial and Business Services, and Manufacturing, exports are the major market. In all cases the RUK and rest of the world (ROW) combined sales provide more than 40% of the industry's revenue, and for Financial & Business Services this is almost 50%. These sectors are the most likely to be impacted upon by any future changes to the Scottish vis-à-vis RUK economic and constitutional landscape if this was to have implications for RUK trade.

The block of transactions in the 4 x 4 square at the top right hand corner of the SAM details the sales from industries to themselves and other sectors. These are the sales and purchases of intermediate inputs required for production. For example Financial & Business Services purchases £591 million from the Energy sector in order to light and heat its offices. Similarly Manufacturing sells £744 million of its output to the Energy sector as intermediate inputs. Sales of intermediate goods and services are a significant share of the total sales of individual industries. For the three industries separately identified here, intermediate sales make up over 35% of total sales and for 'All other Industries' the share is just over 25%. Note that in all the industries there are large own-industry sales: that is to say transactions between firms within the same industry. An example would be an electricity distribution company in the Energy sector that purchases its electrical energy from an electricity generating company.

For the other elements of demand, note that over 50% of the sales of the 'All other Industries' sector is to government and household consumption demand. This is not surprising since this will include such large sectors such as Education, Health and Personal Services.

The first four columns of the SAM show the purchases of the same four industrial sectors. Essentially these reveal the differing cost structures of these industries. We know already that the first four entries in each of these columns give the intermediate purchases in that sector. So in the first column, the £744 million sold by the Manufacturing sector to the Energy sector is here seen as a purchase (and therefore a cost) to the Energy sector. The last two elements in each of these four columns also report intermediate expenditures, in this case on imports from the RUK and ROW. The Energy and Manufacturing sectors have a high level of intermediates. In particular, both of these sectors import intermediates, primarily from the RUK, to a value of over 25% of their total output.

The entries in the industry columns which are central to the economic well-being of the country are those that show the value added that is produced in these sectors. When summed, they equal Scotland's gross domestic product, GDP. In the SAM these are divided into payments to labour and other value added, which comprises essentially profits and rents. By summing the totals for these entries, we can

calculate the Scottish GDP for 2009 as £102,002 million. A little over 60% goes to labour and just under 40% to profits and rents. The three sectors separately identified together generate over 35% of Scottish GDP, with Financial & Business Services being the biggest contributor at just over 13%. The wage share of GDP has become an important issue in discussions about changes in income inequality since 1970, highlighted most recently in the work of Thomas Piketty (2014). It is clear that both the Energy and Financial & Business Service sectors have a relatively low share of wage income to their total value added.

4 Factors of Production: Labour and Other Value Added

The accounts for labour and other value added are given in rows and columns 5 and 6 of the SAM. These accounts are relatively straightforward. As we have already seen, the incomes to these accounts come solely from production sectors. This implies that the rows 5 and 6 only have positive entries for the first four elements. Columns 5 and 6 show how this income is distributed. Wage income is straightforward. The whole £63,561 million is transferred to households. Over three quarters of the income in the Other Value Added account is transferred to Corporations. The remainder is split between the Household and the Government accounts. These reflect income earned by resources owned directly by households or the Government.

5 Institutions: Households, Corporations and Government

We have already looked in detail at the Household accounts. The Corporate account is shown in row and column 8. In many ways this is the most problematic set of accounts because it is the one in which we have least reliable information. The total income is £53,507 million. Over a half of this income, £29,456 comes from Other Value Added. A further 22% is derived outwith Scotland. We have no direct means of attributing this combined figure between the two external sources, RUK and ROW, but we have divided the total up in a way that is consistent with the balancing of the Table as a whole. A further 22% comes from Households and Government. The expenditure by corporations is made up of four main parts. The first is the payments of taxes (plus some interest and dividends) to Government; this is primarily corporation tax and non-domestic rates and amounts to £5,722 million and makes up just over 10% of corporate income. The remaining three elements to Households, the Capital Account and the External (RUK and ROW) accounts each comprises around 30% of Corporation expenditure. The payments to Households are capital gains, interest payments, dividends, pensions etc., payments to the Capital account are savings and the payments to the External accounts are to individuals and institutions located outwith Scotland.

The Government Account is shown in row and column 9. It covers the three levels of Government operating in Scotland: UK, Scottish and local government. In the income row the entries from the individual Industries, Households, Corporate, Capital and the ROW accounts are primarily tax payments. The income from Other Value Added is from productive activities owned by the Government. The large entry from RUK is almost all a transfer from the central Government to meet the net cost of the Barnett formula funding of Scottish Government expenditure and to finance the UK budget deficit. Government income is used for the purchase of goods and services and to make transfer payments. The top four

entries in the Government expenditure column are the purchases of Scottish goods and services. This totals £29,486 million and, as we have commented already, is spent almost wholly on the 'All Other Industries' sector. The entry of £19,835 in the Households row is primarily welfare payments and pensions. These are expenditures mainly met at present from the UK Government which would become the Scottish Government's responsibility under independence. The large transfer to RUK is to the UK Government to cover expenditure on centrally produced services such as defense and foreign affairs and to pay interest on the UK public debt. There is a small addition to saving.

6 The Capital Account (Saving and Investment)

This account identifies the £19,931 million expenditure on real investment in Scotland and its financing. The entries along the Capital account row are savings. These are made by Corporations, Households and the Government sectors, with Households generating just over 25% and the Corporate sector just under 75%. The Capital (investment) expenditure primarily goes on Scottish produced goods and services, concentrated in the 'All other Industries' classification (e.g. sectors such as Construction are heavily involved in investment). Imports of capital goods make up £4,455 million, which is just over 20% of the total, primarily from RUK. There are also tax payments made to the Government.

7 The External Account

The external account incorporates all trade and income flows between Scotland and RUK and Scotland and ROW. These are shown in the final two rows and columns of the SAM. The income entries along the rows from the Industrial and Capital sectors represent exports from RUK and ROW of intermediate and investment goods and services to be used in Scottish production. Similarly the entries in the Households account are for imports of consumer products, although there is a small of transfer payments incorporated too. However, the entries from Corporations and Government are all transfer payments of various types.

8 Economic Interaction

Up until now we have been looking at the SAM as a set of accounts. Organising the information in this way provides a strong discipline and framework for analysis. The accounts require data to be assembled with a high degree of consistency and the accounts must balance. This imposes necessary constraints not required when data is generated in different ways and for different purposes and never brought directly into contact with one another. Constructing the SAM can also indicate areas where our knowledge is weak. We discuss this briefly later. The consistency of the data means that it is a valuable source for simple data comparisons of the type we have made in the previous sections.

However, another advantage of the matrix formulation of the SAM is that it helps trace the complex set of impacts within the economic system which accompany expenditure changes. For example, imagine an increase in the export demand from the RUK for the output of the Energy sector, where the Energy output rises to meet that demand. This increases the income in the Energy account. The sector will then spend the additional income on intermediate inputs, labour and imports required to produce the

increased output. Profit payments will also rise. These expenditures increase the income in the accompanying accounts. For example, in so far as there is an increase in employment or wage rates, this will increase household income, which will generate subsequent consumption expenditure, stimulating further demand expansion and so on. Again, increased expenditure on domestic intermediate goods will directly increase the output of other sectors and additional value added, including wages. We can visually trace the financial flows as expenditure from one account becomes income in a second account, which is subsequently spent to become income in a third account, etc. etc.

If we assume that all these expenditure increases have an impact that applies linearly (so that an increase in income in any account generates a linear expansion in all the expenditures from that account), then we can construct a sophisticated SAM multiplier model (Miller and Blaire, 2009). This will predict the increase in total output from some external expenditure increase, for example from an increase in Energy exports. It will also show the way in which the impact from a change in activity is spread across sectors and institutions. Such demand-driven models, usually of a less sophisticated form than this, are extensively used in economic impact analysis.

However, the SAM data base can also be used to construct even more powerful models which will simulate changes in prices, outputs for individual sectors and also give overall changes in economic activity in terms of employment, GDP and the price level. Such Computable General Equilibrium (CGE) models can deal with both demand and supply-side changes. The Scottish Government and HMRC use such a model to consider changes in taxes, such as corporation tax, and fuel duty (HMRC, 2013/2014; Scottish Government, 2011). Similar CGE modeling for Scotland has been employed at the Fraser of Allander Institute on topics such as the impact of the tourism stimulus associated with the Commonwealth Games and the effect of energy efficiency improvements (Allan et al., 2014; Lecca et al., 2014).

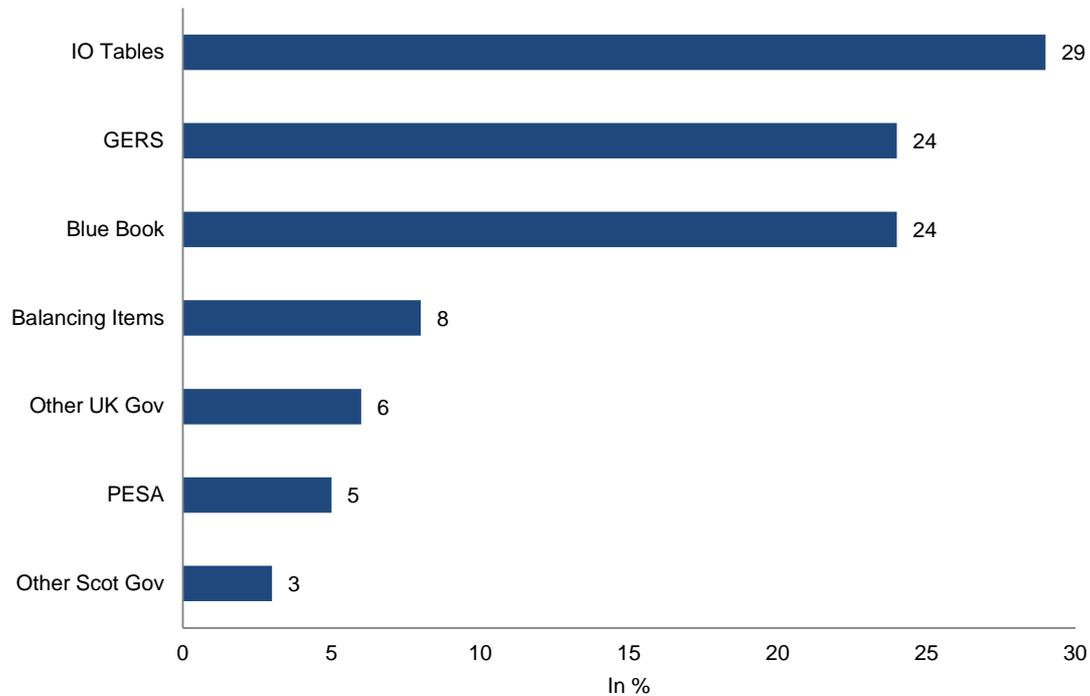
9 Data

A Scottish SAM brings together several powerful and independently produced data sets to better illustrate and model the overall structure of (and interdependencies within) the Scottish economy. Figure 1 gives a broad overview of the main data sources used. At the very heart of the SAM are the Scottish Input-Output Tables (Scottish Government, 2013a). This is the information that is included here in the first four rows and columns of the SAM. It presents the accounts of the industrial sectors presented in a matrix form. The full SAM for Scotland includes the full 104 sectors.

The Input-Output Tables themselves are often used to quantify the demand-side impact of expenditure changes. SAM modeling improves this in particular by modeling household consumption in more detail. This Input-Output information is produced by the Scottish Government and is regularly up-dated, though with a time lag because the data required for its construction only become gradually available (Scottish Government, 2013a). The commitment of the Scottish Government (and previously the Scottish Executive and the Scottish Office) to produce these Input-Output tables is a major benefit in being able to analyse the Scottish economy. No other UK region has such an official data source. The Scottish

Government are taking forward a significant body of work to improve the depth and coverage of economic statistics, much of which is via the Scottish National Accounts Project.¹

Figure 1: Shares of data sources in Income and Expenditure Accounts



The construction of the SAM's Government accounts benefit from the Scottish Government publication, "Government Expenditure and Revenue Scotland", often referred to as 'GERS'. This is an annual publication which uses both UK and Scottish Government finance statistics in order to capture all public sector expenditures and receipts in Scotland. This source provides, amongst other things, household and corporate tax payments as well as total public spending (Scottish Government, 2013b). The third most important data source we have used to construct the SAM are the UK National Accounts, known as the ONS 'Blue Book'. This is an annual UK National Statistics publication. The Blue Book is constructed using financial statistics from both UK and international governmental sources. It provides a detailed sectoral breakdown of the UK economy as well as its economic activities with the rest of the world (ROW). The Blue Book data are used for a wide variety of SAM entries, with Scotland being allocated a share of the UK figure (ONS, 2013). The fourth largest single source of data for the SAM is the annual HM Treasury Public Expenditure Statistical Analysis (PESA) publication (HMRC, 2012).

In addition to the above, there are various other UK and Scottish Government publications used to help construct the SAM. The breakdown of sources is given in Figure 1. In Figure 1 we note that there are some sources that are given as "Balancing Items". In the SAM, as we have stressed already, in each account total income and total expenditure must balance. The use of all income going into an account

¹ <http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/SNAP>

must be identified. However, the data that are being used to identify the income and expenditure flows come from different sources. Also there are some income/expenditure flows where we have no direct information and no easy estimate. For example, some of the flows around the corporate account are of this nature as are the financial relationships between Scotland and the rest of the UK. In many of the accounts, we have set one or sometimes two entries as residual entries to take the level required to balance that account. This is not ideal as any errors in the estimation of the other flows in the account end up in this residual. Ideally we would like to have good estimates for all entries and the table balanced by a mixture of manual and algorithmic procedures.

10 Summary

We have shown in simplified form the development of a SAM for 2009 as a new and powerful tool to help analyse and model the Scottish economy. We have taken the reader through each of the major 'Accounts' of the SAM (Industries, Households, Government, Capital etc.) to better demonstrate the relationship between income and expenditures in these accounts. We have shown that the SAM is capable of describing the flows of income and expenditure in the Scottish economy and can form the basis for more sophisticated modeling of the impact of changes in income and expenditure across the economy as whole. A key benefit of extending the Input-Output system to a SAM stems from the added ability of modelling households in more detail. When examining the income effects of an external policy shock on households, IO models allow for analysing different effects on household income. SAM-based multiplier models, however, can additionally detail distributional effects on households. The main utility, however, of a SAM is that it provides a comprehensive and consistent record of the interrelationships of an economy at the level of individual production sectors, factors and institutions. Thereby, the SAM makes available an internally consistent statistical foundation, or benchmark, for the creation of plausible economic models (e.g. Computable General Equilibrium models) which simulate changes to the economy. The SAM is built from four primary Scottish and UK economic data sets. Notwithstanding this, research areas remain to be addressed to help minimise any remaining residual entries (Balancing Items) and to improve the Scottish SAM as the basis for robust economic analyses for future Scottish Government's. Given the importance of the SAM to Scottish policy analysis we have made the SAM publicly available, and streamlined the compilation process to ease the process of updating it when new Input-Output Tables are released. The SAM, the Income and Expenditure Accounts and the undergirding method are freely available from: <http://www.strath.ac.uk/fraser/research/sam/> More detailed versions of the SAM are currently being developed. Upcoming releases of the SAM will include disaggregate Labour, Government and Household accounts.

Author details:

T. Emonts-Holley
University of Strathclyde
Fraser of Allander Institute
Department of Economics
tobias.emonts-holley@strath.ac.uk

A. Ross
University of Strathclyde
Fraser of Allander Institute
Department of Economics
andrew.g.ross@strath.ac.uk

Prof. J.K. Swales
University of Strathclyde
Fraser of Allander Institute
Department of Economics
j.k.swales@strath.ac.uk

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Natural Geography, Firm Location and the Corporation Tax Debate

Julia Darby, University of Strathclyde; Ben Ferrett, Loughborough University and Ian Wooton, University of Strathclyde, CEPR and CESifo.

Abstract

In this article we describe our ongoing research to investigate the impact of geography on firms' location decisions. This work allows us to comment on a key current policy debate, by assessing whether independent control over corporation tax offers an effective lever for a nation (e.g. Scotland) to offset aspects of geographic disadvantage when competing against other nations within Europe to attract foreign direct inward investment.

1. Introduction

In this article we summarise some key findings from our ongoing research into how natural geography influences the success of nations competing to attract firms into a supranational region.

Our analysis is based on a stylised model designed to capture two key features of natural geography: the relative size and centrality of nations. We initially assume that corporation tax is the same in each nation and gain insights on how these key features of natural geography impact on firms' location decisions. We then review the UK Government's recent changes in corporation tax, which it views as a key element of its growth strategy. We also review the motivation for the Scottish Government's desire to reduce the rate of corporation tax in Scotland to below the unified UK rate.

Within the context of our model we then explain how we can assess whether independent control over corporation tax offers an effective lever for a nation to offset aspects of geographic disadvantage when competing to attract inward foreign direct investment to a supra-national region. We show that lower corporation taxes do have the potential to attract additional inward investment and mitigate the geographic disadvantage of being a relatively small nation on the periphery of a large multi-state region. In addition, even if the governments of other nations respond to such a tax cut, their responses do not fully match the initial cut, thereby limiting the 'race to the bottom' effect.

In section 2 we explain the key features of our stylised model and characterise how firms' location decisions are made. Section 3 summarises our findings on how natural geography impacts on the distribution of firms across nations. In section 4 we contrast recent UK policy on corporation tax with the Scottish Government's desire to take control of, and reduce, the rate of corporation tax in Scotland. In section 5 we explain how we use the model to gain insights on whether independent control over corporation tax offers an effective lever for a nation to offset aspects of geographic disadvantage when competing to attract inward foreign direct investment. Section 6 concludes.

2. Key features of our stylised model

Our stylised model involves just three nations that together comprise a supranational free trade region.

Natural geography:

The first aspect of natural geography incorporated into the model is the size of each nation. From the perspective of the firms coming into the region and setting up a production plant, the size of the nation they choose matters since that nation's consumers constitute their local market; a larger nation has more consumers, so providing a larger local market for the firms' production.

Centrality and the costs of exporting:

The second aspect of natural geography incorporated into our model is the centrality of each nation. Centrality matters because firms incur additional costs when they export goods to the other nations within the free trade region. These additional costs incurred when exporting involve shipping costs as well as any associated administrative costs, but we assume that they are not prohibitive, so that each firm choosing to locate within a given nation will still choose to sell both in the market of its host nation and export to the other nations throughout the free trade region. However, it is reasonable to assume that the costs of exporting will be higher the greater the number of national borders crossed by the firm's exports en-route to their final destination.

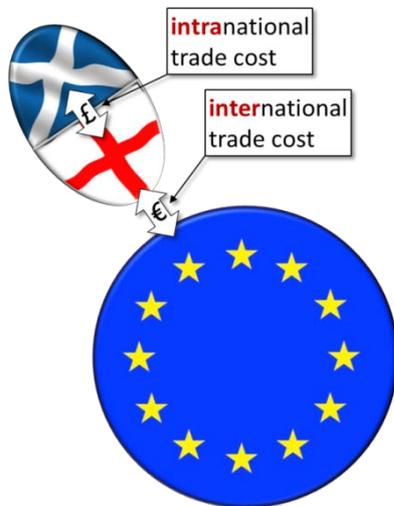
We capture these features within our model through characterising one of the three nations as a 'hub' with the other two nations located in spoke positions. The additional costs incurred through exporting will be lowest for firms choosing to locate in the hub nation, since these firms' exports can reach their destination by crossing just one national border. The exports of firms choosing to locate in the spoke nations can reach the hub nation by crossing one border, but when the two spoke nations trade with each other their exports first cross the border to the hub then travel onwards and cross a second border, that between the hub and their final destination. The costs incurred by firms that export from one spoke nation to the other are therefore higher than the costs incurred by firms exporting from hub to spoke or spoke to hub. Note that even if it is in principle possible for firms located in either of the spokes to ship goods directly to the other without going through the hub, our logic holds provided the costs incurred through shipping direct exceed those of going through the hub.

This model seems justified, since it is consistent with available evidence. For example, Scottish Government (2009) reports that oil exports "are piped to England (or via England to Continental Europe)" (p46) while "much of the whisky destined for European consumption is transported by road to cross the Channel at Dover" (p52), and in the case of fish "significant road freight movement (...) is to the south of England before being transported to mainland Europe for distribution around the World"(p55).

A visual representation of these features of size, centrality and trade costs for a stylised three nation region is provided in Figure 1 below. From the perspective of Scotland and the rest of the EU, England is

a central hub through which all shipments of goods must pass. Scotland and the rest of the EU respectively are spoke locations of very different sizes.

Figure 1: Natural Geography



Firms' location decisions

We consider the location decisions of a fixed number of companies, currently located outside the supranational free trade region, each of which has decided to set up a firm (a production facility) within the region. We assume that each firm faces identical fixed costs of setting up a production facility whichever nation it chooses. We further assume that these fixed costs are sufficiently large to ensure that each company will set up, at most, one production facility within the region¹.

We assume that firms are able to segment the national markets, choosing how much to sell in each. The greater the number of firms attracted to produce within a nation, the more intense the competition. Greater competition drives down consumer prices. There are likely to be broader benefits of attracting inward foreign direct investment in the form of net new jobs (reduced involuntary unemployment), wage premia relative to indigenous firms and technological spillovers to local firms.

Firms make the location choice that maximises their total after-tax operating profits. That is, they compare the profits they would expect to achieve if they were to locate in each individual nation, then choose the most profitable location. The equilibrium allocation of firms across nations will satisfy the condition that post-tax profits of all firms within the region are equalised.

¹ Note that by assuming that each company only locates a production facility in one nation we abstract from issues that have attracted a lot of attention in relation to profit shifting and compliance costs.

3. Insights on the impact of natural geography on firms' location decisions

Consistent with previous research, we show that when there are no differences in corporation taxes across nations within the supra-national region, size matters: larger nations are able to attract more firms.

The hub and spoke nature of our model, along with the costs associated with exporting, allow us to gain new insights on the influence centrality on firms' locations. Solving the model for firms' location choices under the assumption that each nation has an equal share of the region's population demonstrates that the proportion of firms that then choose to locate in the hub nation is substantially greater than the proportions locating in either spoke.

The existence of these costs incurred through exporting mean that exporting firms will sell a lower quantity in a given external nation than firms that chose to set up production within that nation.

The interaction of the influences of size and centrality can be clarified further by solving the model after reallocating a proportion of the population from the hub nation to one of the spokes. Since both spoke nations gain in size relative to the hub, they both attract more of the firms while the hub attracts fewer. As would be expected, the nation that gains in size in both relative and absolute terms attracts proportionately more investment. So, while centrality of a nation within the free trade region confers an advantage in attracting inward investment to a large hub nation, this can be offset by the size disadvantage of locating in a small hub. Furthermore, reallocating a proportion of the population from a spoke to the hub illustrates the disadvantage of being a relatively small nation on the periphery of a free trade region in attracting inward investment.

4. Corporation tax: and the contrasting views of the UK and Scottish Governments

The current UK Government sees corporation tax as a key element in "creating the right environment for businesses to invest, export and grow" HM Treasury (2014) p3. Successive reductions in the rate of corporation tax are at the heart of its growth strategy. It has followed through on its five year plan, first announced in 2010, to implement year-on-year cuts in the rate of corporate tax rate from 28 percent in 2010-11 to 21 percent in April 2014. In the March 2014 budget, the Chancellor announced that the unified UK corporation tax rate will reach 20 percent, the joint lowest rate in the G20.

However, corporation tax currently remains a reserved power and successive UK governments have, so far, been opposed to setting (or indeed allowing) differential rates across the devolved nations.

Meanwhile, the current Scottish Government has long argued that it would like to set a rate of corporation tax below that in the rest of the UK and this is reflected in various Scottish Government policy documents. At least in part, its reasoning is based on the argument that hubs (such as London and the South East of England) have in-built competitive advantages that derive from their natural geography, and that reducing corporation tax in Scotland is one appropriate lever to help redress this:

“a unified UK rate of corporate tax is neither desirable nor economically efficient. (...) Given the competitive advantages of London relative to other parts of the UK (such as London’s position as one of the largest financial centres in the world, and its transport links with major cities worldwide etc.) there is clear evidence that London (and indeed the South East of England) already has an in-built competitive advantage over not only Scotland but also other parts of the UK. Scotland needs the lever of corporate tax to consider a wider array of options than is currently the case to help address this imbalance.”
Scottish Government (2011), p34.

5. Using our model to consider whether differences in corporation taxes across nations can offset the impacts of natural geography

The Scottish Government’s line of argument (as quoted above) seems to view Scotland’s geographical disadvantage as derived both from its smaller size *and* its peripheral location. These characteristics are captured in our model which does indeed suggest that Scotland’s natural geography means Scotland has less chance than (parts of) England in attracting foreign direct investment from firms wanting to serve consumers across Europe as a whole.

Of course there are many other factors, aside from corporation tax, that influence firms’ location choices. Our stylised model abstracts from these other factors by assuming nations have identical wage rates, skills bases, infrastructures and regulatory environments and differ only in terms of their relative size and position within the region. This means that we cannot hope to compare and contrast the use of corporation tax with other levers that governments have available to them to influence firms’ location decisions.

In order to use our stylised model to explore the incentive for an independent Scotland to deviate from the corporation tax regime of the rest of the UK we assume that each national government has as its goal maximisation of the welfare of its households. Inward foreign direct investment is then attractive because local production confers higher social benefits than imports.

We show that, relative to the location decisions made when taxes are equal, a geographically disadvantaged nation whose government reduces corporation tax will attract more firms and that this will partially offset the impact of its natural geography. Of course, any nation that follows a tax-cutting strategy such as that proposed by the Scottish Government must expect retaliation. However, our analysis demonstrates that when the tax cutting nation is sufficiently small, the retaliation does not involve matching the extent of the tax cut in full, given that the other nations retain their advantages of size and centrality. Hence, any ‘race to the bottom’ is likely to be limited, with the result that there is a net improvement in the attractiveness Scotland to inward investors. Nevertheless, there is a trade-off to be made between attracting more firms through reducing corporation tax, and accruing less corporation tax revenues.

Conclusions

In this article we have summarised our ongoing research using a stylised model to gain a clearer understanding of the impact of natural geography on firms’ location decisions. We have explained the

set-up of our model and have outlined a number of insights. We then went on to describe how we have explored the incentives for national governments change corporation tax. We found that corporation tax can be an effective lever for a small nation to mitigate some impacts of geographic disadvantage, and attract more inward investment. Nonetheless there is likely to be a trade-off between attracting more firms and accruing less tax revenue.

Our research in this area is continuing. In particular, we are seeking to draw insights on how a possible future decision to allow different corporation tax regimes across devolved administrations within the UK might impact on the welfare of each nation, as well as that of the UK as a whole.

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Author details

Professor Julia Darby
University of Strathclyde
Department of Economics
julia.darby@strath.ac.uk

Ben Ferrett
Loughborough University
School of Business and Economics
B.E.Ferrett@lboro.ac.uk

Professor Ian Wooton
University of Strathclyde
Department of Economics
ian.wooton@strath.ac.uk

How to predict the 2014 World Cup winner (in one simple equation): determinants of national football team results 2011-2013 - a new methodology

N Scelles, University of Stirling and W Andreff, University of Paris 1

I Introduction and background

This short note sets out an approach to predicting national football team results using a new, hybrid economics-based methodology. It draws on previous work in the field and was tested on almost 3,000 international football matches over the period 2011- 2013. The same methodology can be used in a predicative way and could be used, for example, to predict the result of the 2014 World Cup in Brazil. A forthcoming article to be published by the Fraser Economic Commentary will seek to predict Scotland's likely progress in the forthcoming Euro 2016 competition.

II Methodology

The approach is to specify and estimate a score equation based on previous literature, plus some new determinants. Our variables depend on determinants already identified in previous literature:

- *Population difference* - the difference between the log of the populations for the two teams' nations, divided by the log of the smallest population among the two;
- *GDP per capita difference* - the difference between the log of the GDP per capita (in US dollars) for the two teams' nations, divided by the log of the smallest GDP per capita among the two;
- *Climate difference* - the difference between the square of (temperature - 14°C) for the two teams' nations, divided by the lowest square of (temperature - 14°C) among the two;
- *Experience difference* - the difference between the log of the number of matches played between the two teams, divided by the log of the smallest number of matches played between the two;
- *Share of players' difference* - the difference between the log of the number of players divided by the log of the population for the two teams' nations, divided by the smallest value for the log of the number of players divided by the log of the population among the two. We expect that a large population is not sufficient as the share of players among this population is also an important factor. It is worth noting that even though we are interested in men's football, data for population and share of players also, clearly, include females; this is consistent with previous research. The assumption is that the share of men in every population and the share of men's players in every number of national players are the same for every country. Obviously, this is not true but we can consider our data for population and share of players as good approximation of the difference between countries;

- Home advantage which is a dummy and is 1 if a team plays at home.

We then introduce our own, new determinants which are:

- *Quality of players' difference* - the difference between the numbers of players in the Top 10 most valuable clubs with at least 20 appearances during a season between the two teams. The Top 10 most valuable clubs are Real Madrid, Manchester United, FC Barcelona, Arsenal, Bayern Munich, AC Milan, Chelsea, Juventus, Manchester City and Liverpool (with more than \$650m for every Top 10 team, as compared to \$520m for the 11th placed one, Tottenham (Forbes¹, 2013). The assumption is that the best players have an incentive to play in the teams which have the best financial means to pay them;
- *Foreign managers' difference* - the difference between the two countries for foreign managers from the core group of western European countries that correspond to a dummy equal to 1 for countries with a foreign manager from either Belgium, France, Germany, Italy or Netherlands. This dummy is based on the elements developed by Kuper and Szymanski (2012, p. 329) in *Soccernomics*²;
- *Technology transfer difference* - the difference between the two countries for managers having played for a club belonging to the core group of western European countries which is a dummy that is 1 for countries with a manager having played for a club or been trained by a manager belonging to Belgium, France, Germany, Italy or Netherlands (0.5 if the club was in the second division);
- *Prize* - is a dummy that is 1 for the favourite team (at least a difference of 0.1 between the two teams in betting odds) in a match with sporting prize for the two teams;
- *Prize difference in favour of the favourite* - is a dummy that is 1 for the favourite team when it has a sporting prize whereas the underdog has no sporting prize;
- *Prize difference in favour of the underdog* - is a dummy that is 1 for the underdog when it has a sporting prize whereas the favourite has no sporting prize;
- *No prize* which is a dummy that is 1 for the favourite in a match without sporting prize for the two teams.

¹ Soccer's most valuable teams. Retrieved February 26, 2014, from <http://www.forbes.com/soccer-valuations/>

² "Western Europe has discovered the secret of football. More precisely, a core group of western European countries has: namely five of the six nations that in 1957 founded the European Economic Community, ancestor of the European Union. (We'll leave out the sixth founding nation, the pathetic minnows Luxembourg.) West Germany, France, Italy, Holland and even Belgium don't all play in exactly the same style. Holland and Italy, say, are rather different. But they all adhere to the basic tenets of rapid collectivised western European football." In the chapter 18 of their book, Kuper and Szymanski (2012) seem indicate that Spain is now connected to the core group of western European countries. Nevertheless, they only talk about the example of FC Barcelona and the influence of the Dutchman Johan Cruyff. This explains why we do not incorporate Spanish managers among foreign managers from the core group of western European countries;

Using the above, we selected a linear specification to predict the score in any international men's football match. We specify this as follows:

$$S_{ijtsd} = \beta_0 + \beta_X X_{ij} + \beta_Z Z_{ijt} + \beta_W W_{ijts} + \beta_K K_{ijtsd} + \epsilon_{ijtsd}$$

Where:

S_{ijtsd} is the score for the match between the team *i* and the team *j* during the year *t*, the semester *s* and the day *d*;

β₀ is an intercept term;

β_X the coefficients of the explanatory variables **X_{ij}** which depend on the team *i* and the team *j* (Climate and Share of players differences);

β_Z the coefficients of the explanatory variables **Z_{ijt}** which depend on the team *i* and the team *j* during the year *t* (Population and GDP per capita differences);

β_W the coefficients of the explanatory variables **W_{ijts}** which depend on the team *i* and the team *j* during the year *t* and the semester *s* (Quality of players' difference);

β_K the coefficients of the explanatory variables **K_{ijtsd}** which depend on the team *i* and the team *j* during the year *t*, the semester *s* and the day *d* (Experience, Foreign managers and Technology transfer differences, Home advantage, Prize, Prize difference for the favourite, Prize difference for the underdog and No prize); and

ε is a stochastic error term.

We used the above equation to analyse a sample of game-specific data for all international men's football matches over the period from 2011 to 2013 (2,854 observations with Montenegro excluded due to data limitations on the number of players). Score, Experience, Share of players and Home advantage were found or calculated from FIFA sources. Population was sourced from the United Nations website, GDP per capita from the International Monetary Fund (IMF) and Temperature from the World Bank. Quality of players was sourced from ESPN and Wikipedia; Foreign managers and Technology Transfer from Wikipedia; and Prize / Prize difference for the favourite / Prize difference for the underdog / and No prize from BetBase1.

III Forthcoming analysis of Scotland's predicted performance in the 2016 Euro competition

Using this methodology we could predict the outcome of the 2014 World Cup Finals in Brazil. However, we will present an article in the forthcoming Fraser Economic Commentary (October 2014) that will predict Scotland's success in the forthcoming Euro 2016 competition.

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Author details:

Dr N. Scellesa (Corresponding Author)
School of Sport
University of Stirling
FK9 4LA Stirling UK
E-mail: nicolas.scelles@stir.ac.uk

Professor W. Andreff
Department of Economics
University Paris 1
F-75647 Paris
France



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