

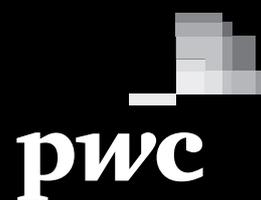


University of
Strathclyde
Business
School

Fraser of Allander Institute **Economic Commentary**

Vol 37 No. 3

In association with



Economic summary

Brian Ashcroft, Economics Editor, Fraser of Allander Institute

The latest economic data provide further evidence of a strengthening recovery. Positive growth has now been recorded for the Scottish economy in the last 6 quarters. In the third quarter, GDP in Scotland was -0.9% below the pre-recession peak, whereas UK GDP stood at -1.9% below its pre-recession peak more than 5 years ago. But during 2013, the UK recovery has again been stronger in each of the three quarters of published data so far. When oil and gas production is removed from the UK figures to make UK GDP comparable to the Scottish data, which do not include offshore production we find that 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 4.9% since the trough of recession while UK GDP - ex oil & gas - has recovered by 6.8% from its trough.

At the industry level, Scottish services' growth is underperforming the overall performance of the economy in the recovery whereas that is not the case in the UK where the recovery in services has been somewhat quicker. It is the production sector that has boosted Scottish growth, growing by nearly 10% in the recovery while it has been a significant drag on the recovery in the UK with zero growth since the trough of the recession, which is partly a consequence of the weakness of oil & gas production on the UK production and GDP figures. It is the performance of manufacturing that is the main driver of the differential performance in production between Scotland and the UK. Scottish manufacturing GVA continues to stand at -4.6% below the 2008-09 pre-recession peak, while the figure for UK manufacturing has dropped slightly to -9% from -9.8% in the second quarter. The favourable gap between Scotland and UK manufacturing performance during the recovery therefore continues to be large. In Scottish construction while growth in the sector has picked up since the heavy recession period of 2010q4 to 2012q1 performance appears to have weakened relative to the UK from the start of last year. The sector is still very much depressed in both the UK and Scotland. However, the recent stronger performance of UK construction is evident with GVA in the sector in the third quarter -10.9% below its pre-recession peak compared to -13.6% in Scotland. Business and financial services continue to contribute positively to the growth of the Scottish economy. By the latest quarter, the sector in the UK had moved to +1.3% above its pre-recession peak from -0.4% in the previous quarter, while its Scottish counterpart moved further ahead to stand at 2.2% above its pre-recession peak. In the previous two Commentaries, we noted 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.

What is clear now is that the difference is not so marked and financial services in particular have enjoyed a sustained recovery since the fourth quarter 2012. However, we note that there is a strong likelihood following the structural change that occurred after the Great Recession that some of this lost output may never return. This could still be the case despite the recent recovery in financial services. Moreover, with the recent RBS announcement that significant further cut backs in activity and jobs losses in the bank are to be expected the recent recovery in the sector might not be sustained.

The latest labour market data provide further welcome evidence of an improvement in conditions in the Scottish labour market. The unemployment rate now stands at 7.1% compared to 7.2% in the UK. Scottish jobs are now -0.2% below their pre-recession peak, which continues to be worse than the UK, where the jobs total is 1.4%

above the pre-recession peak. The greater gap between the UK's GDP and jobs position in relation to pre-recession peak compared to the position in Scotland suggests that productivity has fallen relatively more in the UK. The weak labour productivity position in both Scotland and UK is underlined by evidence which shows that increasing numbers of workers are taking part time employment in the absence of full time work. The employment 'recovery' continues to be driven by an increase in part time work and self-employment, although this may now be starting to moderate.

During the recovery household spending has been the main driver of growth with some positive but erratic contributions to growth from net trade, while gross fixed capital formation, i.e. investment, is now belatedly starting, as it is in the UK, to make a positive contribution to growth. In Scotland and the UK the contribution of household spending to growth is similar, but the contribution of net trade is stronger in Scotland while that of investment is weaker. By the third quarter of last year overall UK gross fixed capital formation was around 10% below its pre-recession peak, while in Scotland the situation is worse with investment currently 14% below pre-recession peak. The Institute believes that there is no substantive reason why Government should accept this weak investment profile. In addition to increased UK government spending on capital investment, we contend that there is a strong argument for the Chancellor to introduce a programme of private sector investment incentives, such as accelerated depreciation, in his forthcoming Budget. Moreover, rising regional inequality in growth and income per head in the UK suggests that there should be differential regional investment incentives as well. In addition, the Scottish Government should consider raising the funding for its Regional Selective Assistance (RSA) programme and other investment funds administered by Scottish Enterprise. Of course adopting such incentives is a bit of a policy minefield because of the EU State Aid rules. However, the EU's General Block Exemption Regulation (GBER) allows for regional incentive programmes under certain criteria. Furthermore, academic evidence on the impact of regional policy in the 1960s shows that it works best when the national economy is expanding or recovering and firms are thinking about investing. So now would be the right time.

Overall, the pace of the recovery in the Scottish economy is accelerating and becoming more broadly based than previously. However, for some sectors trading conditions are still harsh suggesting that the recovery remains fragile and policy action may be required to ensure that it is sustainable. Against this background our GDP forecast for 2013 at 1.7% has again been revised upwards from our October forecast of 1.3%. For 2014 we have also revised up our forecast from the 1.8% predicted in October to 2.3%. Similarly, for 2015, we have revised the forecast up from 2.1% to 2.3%. The forecasts for 2013 and 2014 are higher than in June because of better than expected outturn data on the growth of household spending, a pick-up in investment, improving trade conditions and increasingly optimistic business surveys. We are now predicting that growth will move above trend next year. On jobs, we continue to raise our forecasts for job creation over the forecast horizon. This reflects our raised GVA forecast and weak forecast productivity implying that more jobs are required to produce the greater output. On the central forecast, we are now forecasting that net jobs will rise by 31,450 in 2013, rising to 39,600 in 2014 and 42,800 in 2015. On unemployment, our forecasts have been revised down further again from October, reflecting higher employment given the growth of output. Our projection for unemployment on the ILO measure at the end of 2013 is now 195,000 (7.1%). By the end of 2014 unemployment is now forecast to be 179,900 (6.6%) falling further to 170,214 (6.3%) by the end of 2015 as growth in the economy strengthens.

After 6 years since the start of the Great Recession we are now witnessing a stronger recovery, although weaker than almost all previous recoveries from recession. There is room for considerable optimism but there are also reasons to be cautious about the future path of the recovery.

Professor Brian Ashcroft
Fraser of Allander Institute
March 2014

Fraser of Allander Institute Economic Commentary

Vol 37 No 3

© University of Strathclyde, 2014

The University of Strathclyde is a charitable body,
registered in Scotland, number SC015263

ISSN 2-46-53

[Outlook and appraisal](#)..... 2

The Scottish economy

[Forecasts of the Scottish economy](#)..... 24

[Review of Scottish Business Surveys](#)..... 36

[Scottish labour market](#)..... 41

[Editorial Introduction](#)..... 49

Policy section*

[The Economic Case for an Independent Scotland](#)

John Swinney MSP 52

[The Economic Case for Union](#)

Professor J D Gallagher..... 67

Economic perspectives

[Regional recovery in a diverse union](#)

Julia Darby..... 81

[Scotland's international competitiveness within
Western Europe](#)

Martin Eichler, Rebekka Rufer
and Andrea Wagner..... 90

[The performance of employee-owned businesses
in Scotland: some preliminary empirical evidence](#)

Ross Brown, Ronald McQuaid,
Robert Raeside and Jesus Canduela 108

*Opinions expressed in the policy section and
economic perspectives are those of the authors
and not necessarily those of the Fraser of Allander
Institute

The Fraser of Allander Economic Commentary was first published in 1975. The association between PwC and the University of Strathclyde's Business School provides the Fraser of Allander Institute with the support to publish the Commentary, and we gratefully acknowledge this support. The Fraser of Allander Institute is a research unit within the Department of Economics at the University of Strathclyde in Glasgow. The Institute carries out research on the Scottish economy, including the analysis of short-term movements in economic activity. Its researchers have an international reputation in modelling regional economies and in regional development. One-off research projects can be commissioned by private and public sector clients. If you would like further information on the Institute's research or services, please contact the Institute Administrator on 0141 548 3958 or email the Institute at fraser@strath.ac.uk.

The Fraser of Allander Institute was established in 1975 as a result of a donation from the Hugh Fraser Foundation. We gratefully acknowledge the contribution of the Buchanan and Ewing Bequest towards the publication costs of the Commentary.

PwC in Scotland supports the production of the Economic Commentary and has no control of its editorial content, including, in particular, the economic forecasts. PwC in Scotland produces its own regular review of UK and international economic prospects, the next issue of which is published on their website http://www.pwc.co.uk/eng/publications/uk_economic_outlook.html

The editors welcome contributions to the Commentary's *Policy and Economic Perspectives* section. Material submitted should relate predominantly to the Scottish economy (or regional economies) and/or have a wider Scottish public policy interest. Contributions should be written in an intelligible style for a non-technical and informed readership. Contributions should be submitted to Kevin D Kane, Managing Editor, Fraser of Allander Economic Commentary at k.kane@strath.ac.uk. Articles accepted for publication should be supplied in electronic form and conform to the guidelines available from Isobel Sheppard at fraser@strath.ac.uk. Opinions expressed in the Policy and Economic Perspectives sections are those of the authors and not necessarily those of the Fraser of Allander Institute. The copyright for all material published in the Economic Commentary rests with the University of Strathclyde, permission to quote is freely given provided full citation is given. If you wish to receive copies of press releases and be kept informed of other publications from the Commentary, please click on the following link: <http://www.strath.ac.uk/frasercommentary/registration> and complete the registration form.

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/>

Outlook and appraisal

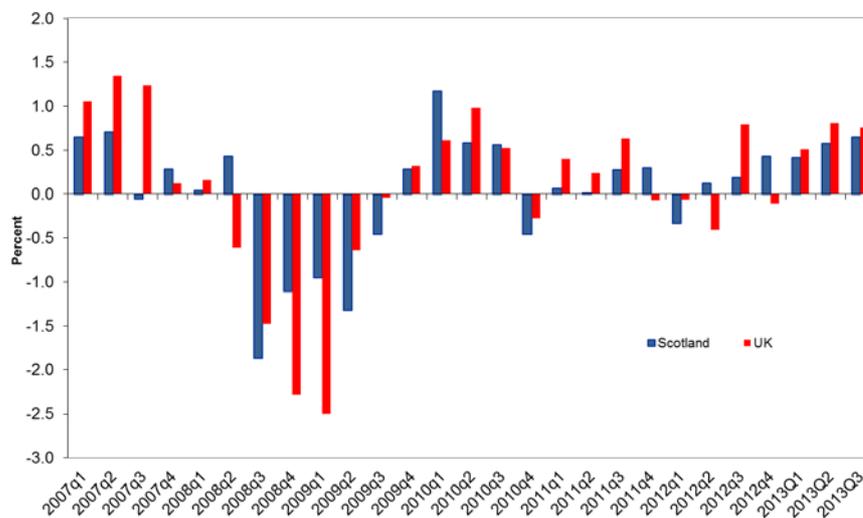
1 Outlook and appraisal

Brian Ashcroft, Economics Editor, Fraser of Allander Institute

Recent GDP performance

The latest Scottish GDP data for the third quarter of 2013 show that Scottish GDP rose by 0.7% in Scotland in the quarter, a little less than the 0.8% rise in the UK, see Figure 1.

Figure 1: Scottish and UK quarterly GDP growth, 2007q1 - 2013q3

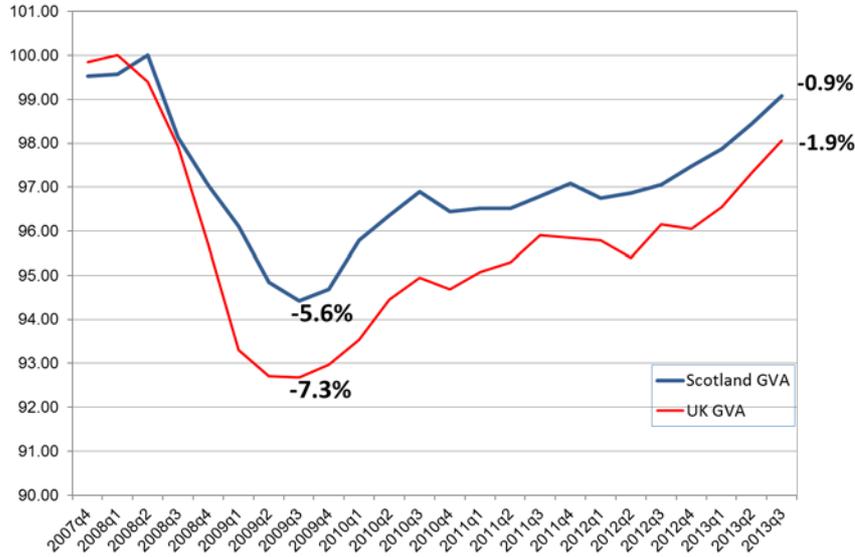


Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

Over the year to the second quarter - four quarters on previous four quarters - Scottish GDP grew at 1.3% identical to the outturn in the UK. These data provide further evidence of a strengthening recovery. Positive growth has now been recorded for the Scottish economy in the previous 6 quarters. Yet, as noted in the previous *Commentary* the recovery continues to be considerably weaker than from any recession in the last 70 to 80 years. The effect of the new data on Scotland's recovery from recession is shown in Figure 2.

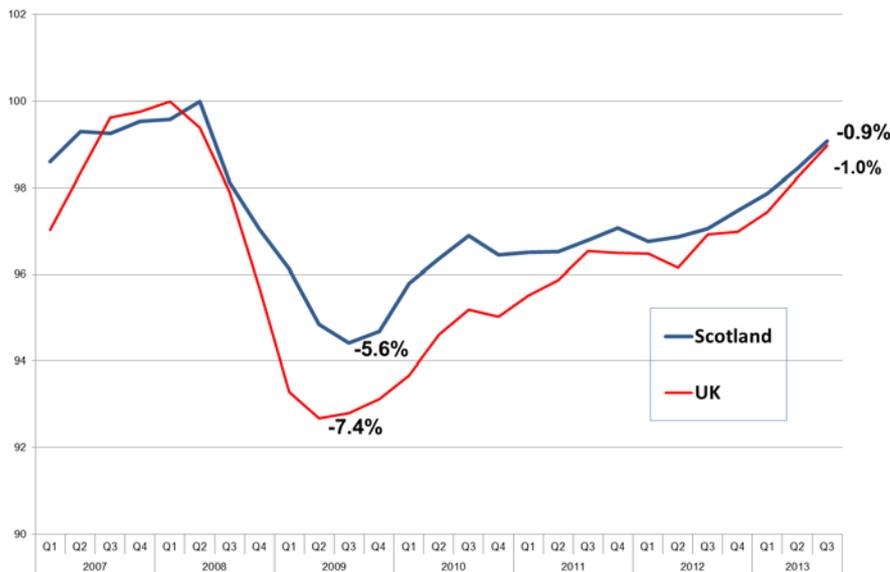
In the third quarter, GDP in Scotland was -0.9% below its pre-recession peak, whereas UK GDP stood at -1.9% below its pre-recession peak of more than 5 years ago. The scale of the recession was greater in the UK: a drop of -7.3% in GDP compared to a fall of -5.6% in the Scotland. A stronger UK recovery to late 2011 was replaced by a stronger Scottish recovery during 4 of the 5 quarters between 2011q4 and 2012q4 - the exception being the stronger 'Olympics effect' on rest of UK in 2012q3. But during 2013, the UK recovery has again been stronger in each of the three quarters of published data so far. Scottish GDP has recovered by 4.9% since the trough of recession while UK GDP has recovered by 5.8% from its trough, suggesting a somewhat weaker recovery overall in Scotland than in the UK.

Figure 2: GVA in recession and recovery Scotland and UK to 2013q3 (relative to pre-recession peak)



Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

Figure 3: GVA ex oil & gas, recession and recovery to 2013q3



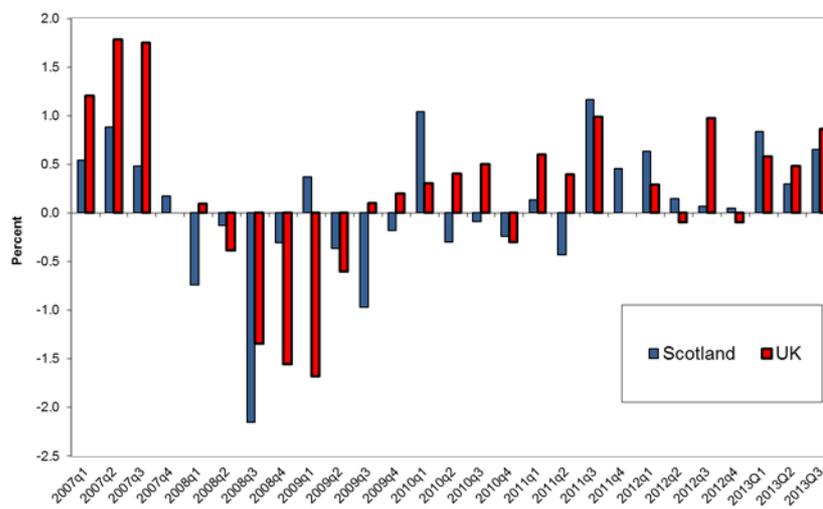
Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

However, as noted in previous *Commentaries* there is the complicating factor of oil and gas production which - offshore production - is included in the UK GDP data but not in the Scottish data. Removing oil and gas production gives us Figure 3.

When oil and gas production is removed, we find that Scottish and UK GDP growth ex oil between the second and third quarters is the same as when oil is included in the UK data at 0.7% and 0.8% respectively. But over the year - four quarters on four quarters - UK GDP growth - ex oil & gas - was at 1.4% slightly stronger than the Scottish figure of 1.3%. 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 4.9% since the trough of recession while UK GDP - ex oil & gas - has recovered by 6.8%. So, by the second quarter of this year UK GDP - ex oil & gas - was -1% below its pre-recession peak compared to -0.9% for Scotland. Scottish and UK GDP - ex oil & gas - are now almost identical in relation to their pre-recession peaks even though the scale of the recession was much greater in the UK as a whole.

Turning 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 0.7% in Scotland and 0.9% in the UK in the third quarter - see Figure 4.

Figure 4: Scottish and UK services GVA growth 2007q1 to 2013q3

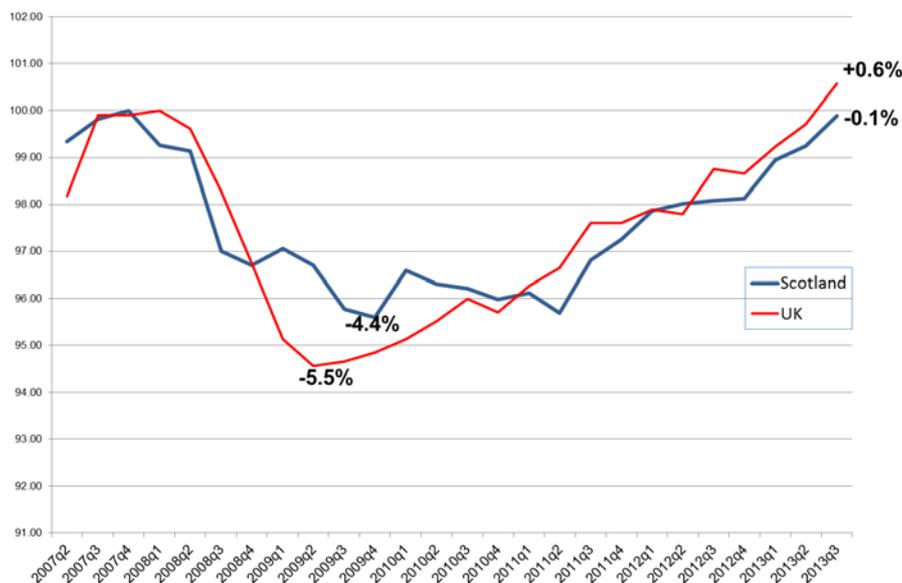


Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

Over the year - that is four quarters over the previous four quarters - the service sector in Scotland grew by 1.3%, less than the 1.6% achieved in UK services. The state of the recovery in Scottish and UK services is presented in Figure 5.

We can see from Figure 5 that UK services finally surpassed their pre-recession peak in the third quarter to stand at 0.6% above peak, fully five and one half years later. Scottish services GVA has almost reached its pre-recession peak being at -0.1% below peak. The recovery in Scottish services remains weaker than the UK with growth of 4.5% since the trough of the recession compared to 6.4% in UK services. Indeed, as noted in the October *Commentary* Scottish services' growth is underperforming the overall performance of the economy in the recovery whereas that is not the case in the UK where the recovery in services has been somewhat quicker. It is the production sector that has boosted Scottish growth, growing by nearly 10% in the recovery while it has been a significant drag on the recovery in the UK with zero growth since the trough of the recession, which is partly a consequence of the weakness of oil & gas production on the UK production and GDP figures.

Figure 5: Services GVA in recession and recovery Scotland and UK to 2013q3

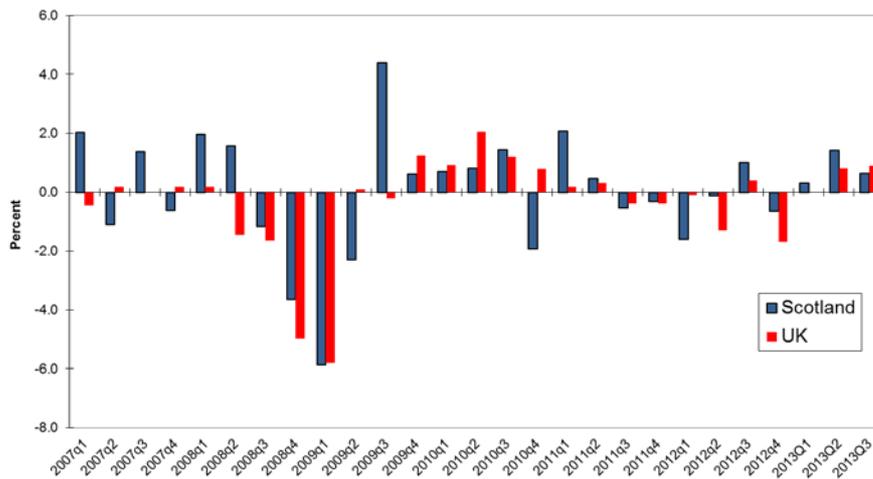


Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

In the Scottish production sector the growth of output slowed to 0.6% in the third quarter from 1% in the second quarter. UK production rose by the same percentage as in Scotland during the third quarter compared to 0.7% in the second quarter. Over the year - four quarters on the previous four quarters - production GVA rose by 1.9% in Scotland compared to a fall of -1.6% in the UK. The weakness of mining & quarrying, due in part to oil & gas weakness, and the erratic behaviour of electricity & gas supply are key reasons for the differential performance of the production industries in Scotland and UK. Mining & quarrying grew by 2.1% in the third quarter in Scotland while GVA rose by 6.8% over the year. In contrast, UK mining & quarrying rose 0.6% in the quarter but contracted by -7.1% over the year. Electricity & gas supply GVA fell by -2.3% in Scotland in the third quarter but rose by 0.8% over the year. In the UK the sector contracted by -5.9% in the quarter but GVA rose by 1.7% over the year. However, it is the performance of manufacturing, accounting in Scotland for 63% of production and 12% of total GVA, that is the main driver of the differential performance in production between Scotland and the UK.

In the third quarter, GVA in Scottish manufacturing rose by 0.6% and by 0.7% over the year. In UK manufacturing GVA rose by 0.8% in the quarter but fell by -1.4% over the year. Figure 6 charts the quarterly percentage changes in GVA in Scottish and UK manufacturing.

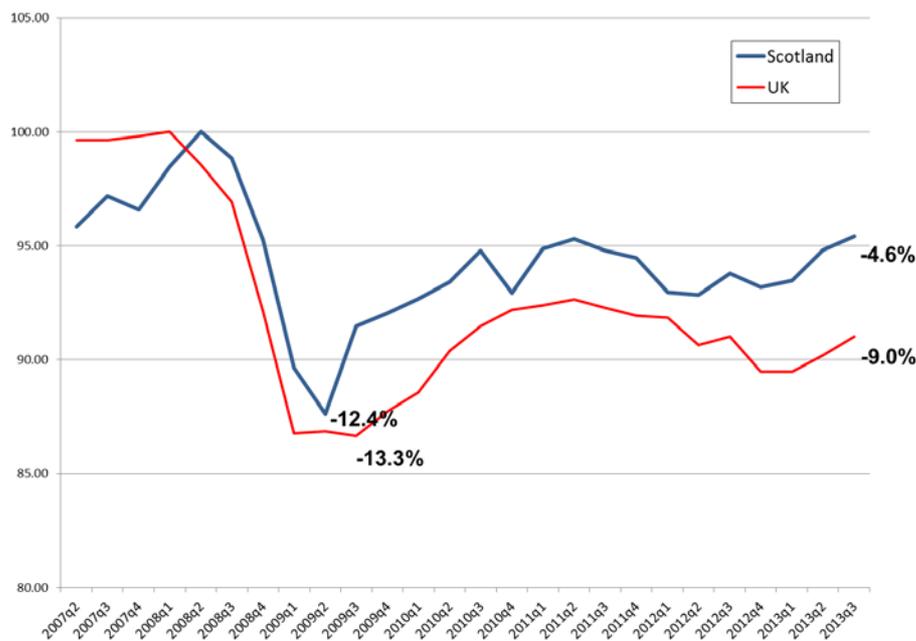
Figure 6: Scottish and UK manufacturing GVA growth at constant basic prices 2007q1 to 2013q3



Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI 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 2013q3

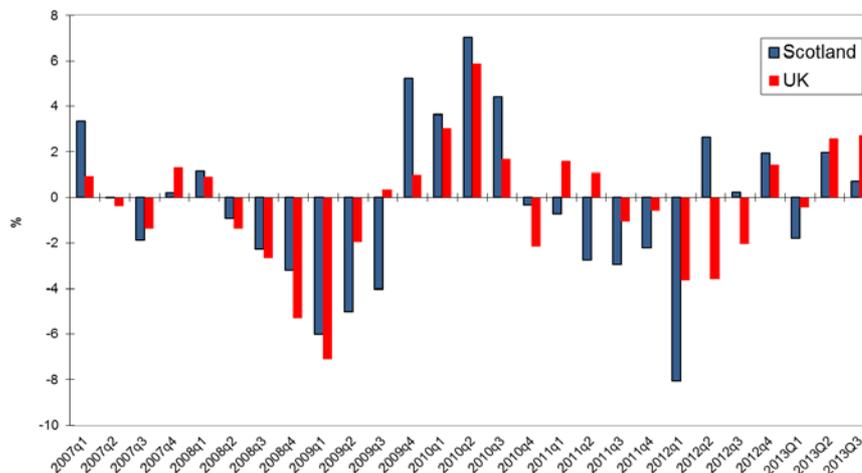


Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

Because of the small amount of movement in manufacturing GVA in the third quarter the chart looks much the same as after the second quarter. Scottish manufacturing GVA continues to stand at -4.6% below its 2008-09 pre-recession peak, while the figure for UK manufacturing has dropped slightly to -9% from -9.8% in the second quarter. The favourable gap between Scotland and UK manufacturing performance during the recovery therefore continues to be large.

Within manufacturing, the main drivers of growth in the third quarter came from other manufacturing industries; repair & installation (accounting for 21% of manufacturing GVA) with growth of 1.3% in the quarter and 0.7% over the year. Metals, metal products & machinery n.e.c. [not elsewhere classified] (accounting for 19% of manufacturing GVA) grew by 1.1% in the quarter and 4.1% over the year. And refined petroleum, chemical & pharmaceutical products (accounting for 12% of manufacturing GVA) grew by 3.9% in the quarter while contracting by -0.6% over the year. The main sectors holding back manufacturing growth in the third quarter were, computer, electrical and optical products (electronics) (accounting for 9% of manufacturing GVA), and food & drink (accounting for 28% of manufacturing GVA) which contracted by -4.5% and -0.3%, respectively, during the quarter. 'Electronics' also contracted by -4.6% over the year, while food & drink grew by +1.3%. Turning now to construction, the latest data are presented in Figure 8.

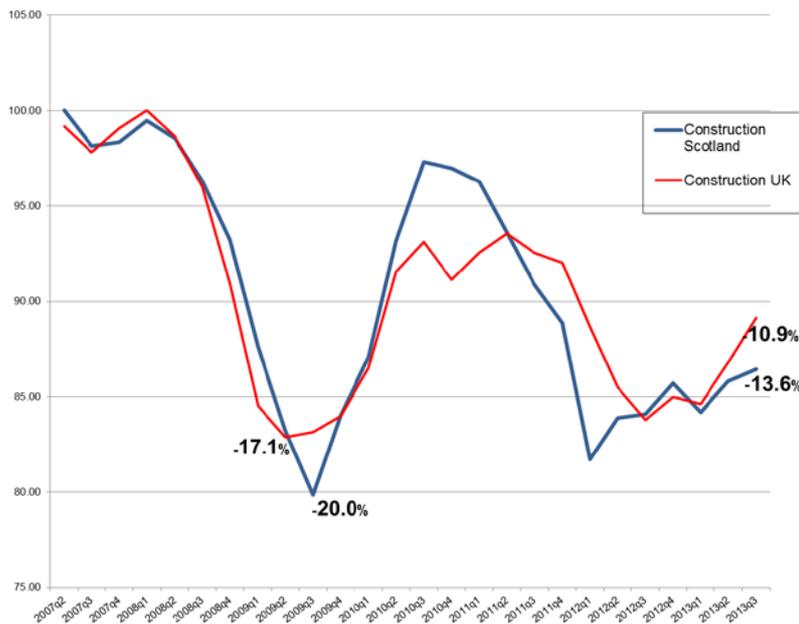
Figure 8: Scottish and UK construction GVA volume growth 2007q1 - 2013q3



Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

Scottish construction GVA rose by 0.7% in the quarter and by 1.1% over the year. UK construction, in contrast, grew more strongly in the quarter at 2.6% but contracted -1.3%, over the year. While growth in the sector has picked up since the heavy recession period of 2010q4 to 2012q1 Scottish construction's performance appears to have weakened relative to the UK from the start of 2013. Figure 9 charts the recession and recovery performance in both Scottish and UK construction.

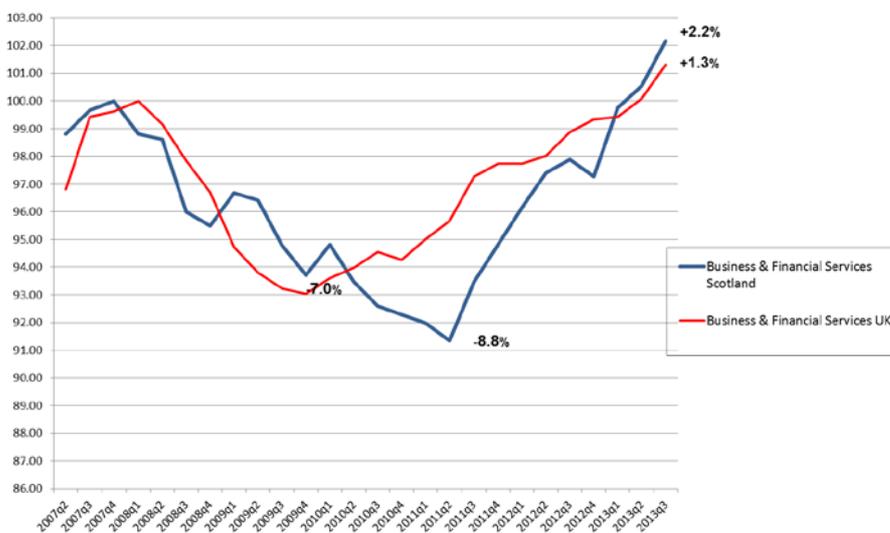
Figure 9: Construction, recession and recovery to 2013q3



Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

Figure 9 makes clear that the sector is still very much depressed in both the UK and Scotland. However, the recent stronger performance of UK construction is evident with GVA in third quarter at -10.9% below its pre-recession peak compared to -13.6% in Scotland.

Figure 10: Business & financial services: recession and recovery to 2013q3



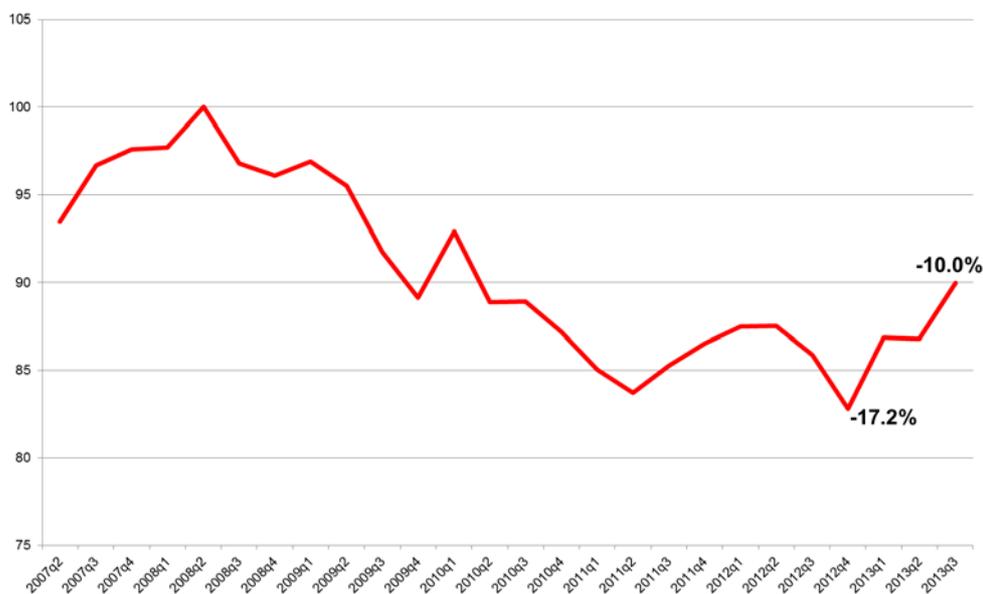
Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

Within services, business and financial services continue to contribute positively to the growth of the Scottish economy. In the third quarter of 2013, the sector grew by 1.6% and by 3.5% over the year. In the UK, the sector grew at a slower rate of 1.2% in the quarter and 2% over the year. Figure 10 shows the growth of the sector in Scotland and UK during the recession and recovery.

By the latest quarter (2013q3), the sector in the UK had moved to +1.3% above its pre-recession peak from -0.4% in the previous quarter, while its Scottish counterpart moved further ahead to stand at 2.2% above its pre-recession peak. In the previous two *Commentaries*, we noted 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. What is clear now is that the difference is not so marked and financial services in particular have managed something of a revival. Figure 11 shows what has been happening to financial services since peak output in the second quarter of 2008.

These data show that the sector has enjoyed a sustained recovery since the fourth quarter 2012. Now GVA in the sector is -10% below its pre-recession peak compared to -17.2% in 2012q4. We noted in earlier *Commentaries* that there is a strong likelihood following the structural change that occurred after the Great Recession that some of this lost output may never return. This could still be the case despite the recent recovery. Moreover, with the recent RBS announcement of significant further cut backs in activity and jobs losses in the bank are to be expected, the recovery shown in Figure 11 may fail to be sustained.

Figure 11: Financial services, recession and recovery 2008q2 to 2013q3



Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

Elsewhere within private services, the main sector is distribution, hotels and catering which account for 19% of services sector output in Scotland: this sector grew by 0.9% in the third quarter compared to an increase of 1.1% in the UK. Over the year, the sector grew by 1.8% in Scotland compared to 2.7% in the UK. Figure 12 shows the performance of the sector during recession and recovery.

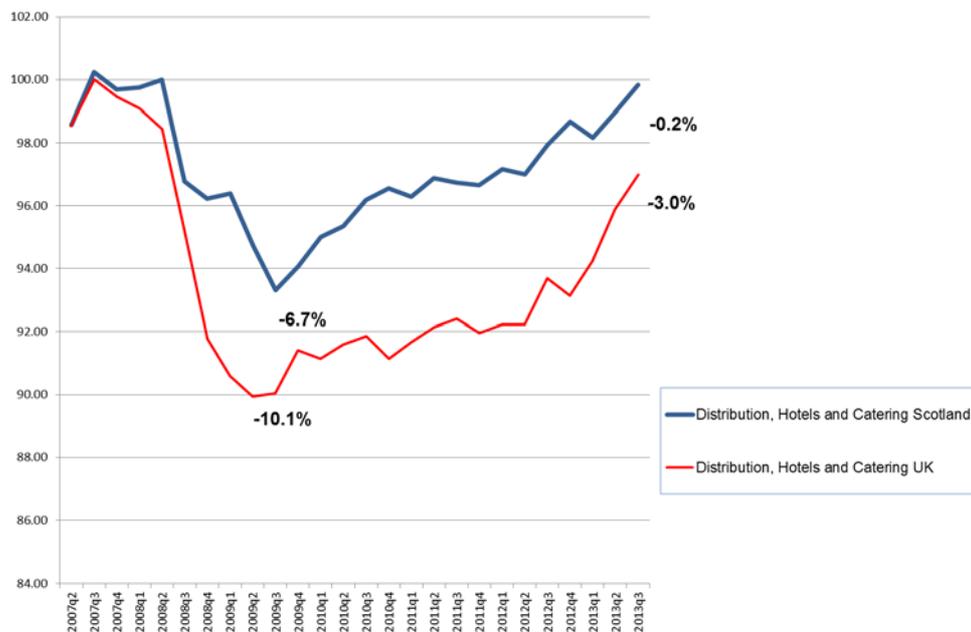
From Figure 12 we can note that the sector had a less serious recession in Scotland than in the UK with output falling by -6.7% here compared to -10.1% in the UK. The track of recovery has been a little faster in Scotland despite weakness towards the end of 2012. By the third quarter of last year GVA in the sector was almost at its pre-recession peak in Scotland (-0.2%) compared to -3% below in the UK.

Government & Other Services GVA exhibited no growth in Scotland in the third quarter compared to a small rise of 0.4% in the UK. Over the year, measured value added 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.

GVA in the sector in the UK is 2.7% above the pre-recession peak, which continues to be difficult to understand at a time of fiscal consolidation, whereas output in the sector in Scotland is -0.5% below its pre-recession peak, which is more intuitively reasonable.

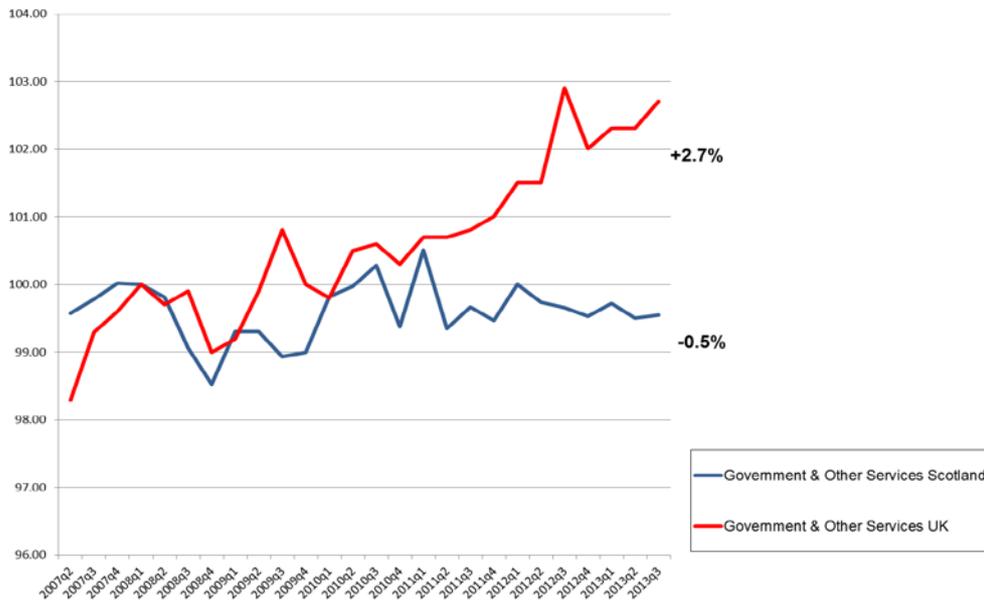
Finally, Figure 14 highlights the performance of transport, storage & communication in Scotland and UK in recession and recovery. The sector accounts for nearly 8% of total GVA and about 11% of service sector output.

Figure 12: Distribution, hotels & catering: recession and recovery to 2013q3



Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

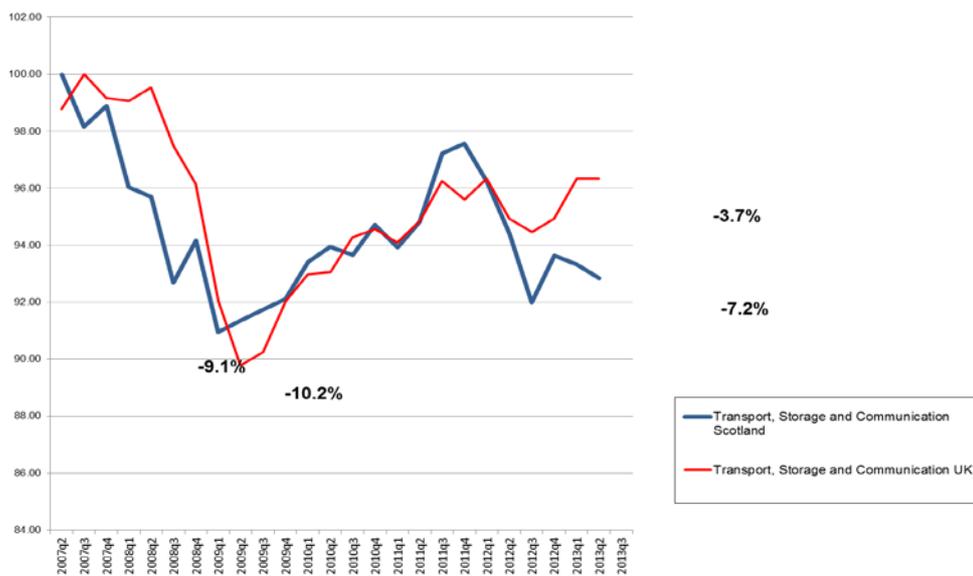
Figure 13: Government and other services: recession and recovery to 2013q3



Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

The recent weakness of the sector in Scotland continued in the third quarter with GVA falling by -1% and by -2.2% over the year. In contrast, the sector in the UK contracted slightly in the quarter, by -0.2% but grew by 0.6% over the year. By the end of the third quarter GVA in the Scottish sector was -7.2% below pre-recession peak compared to -3.7% in the UK.

Figure 14: Transport, storage & communication: recession and recovery to 2013q3



Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and FAI calculations

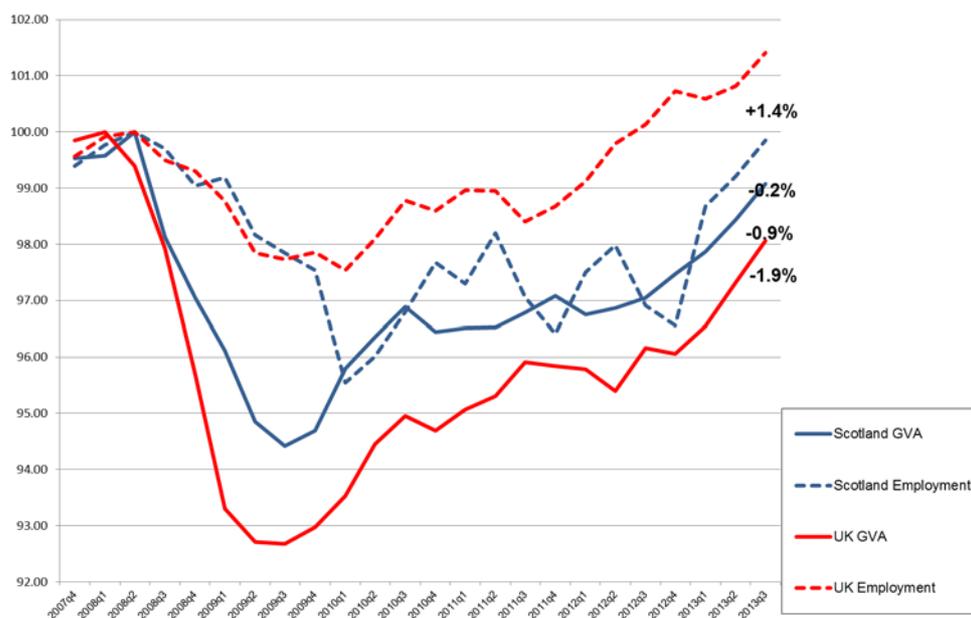
The Labour Market

The latest labour market data (see *Overview of the Scottish labour market* below) provide further welcome evidence of an improvement in conditions in the Scottish labour market. In the quarter October to December 2013 employment rose at the same rate as in the UK but at a faster rate over the year. Jobs rose by 9,000, or 0.3%, in the quarter, compared to a rise of 193,000, a rise of 0.3%, in the UK as a whole. Over the year, Scottish jobs rose by 92,000, a rise of 2%, while UK jobs rose 396,000, or 0.6%. Moreover, during the quarter unemployment fell by 3,000, or -0.1%, to 195,000, or a rate of 7.1%, while in the UK, unemployment fell more rapidly by 125,000, or -0.4%, to a rate of 7.2%.

Figure 15 shows the performance of GDP and employment in Scotland and the UK during recession and recovery up to 2013q3 while Figure 16 shows total employment for Scotland and the UK over the same period.

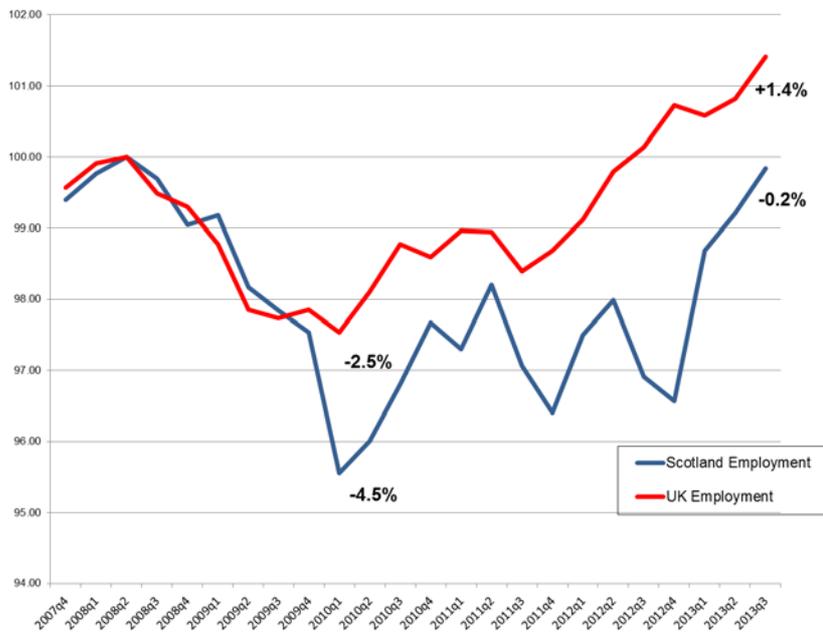
Scottish jobs are now -0.2% below their pre-recession peak, which continues to be worse than the UK, where the jobs total is 1.4% above the pre-recession peak. However, Figure 15 makes clear that the productivity gap between the UK and Scotland still persists. With a gap of +3.3% between the UK's GDP and jobs position in relation to pre-recession peak (i.e. 1.4% - (-1.9%)) compared to +0.7% (i.e. -0.2% - (-0.9%)) in Scotland. This suggests that productivity has fallen relatively more in the UK than in Scotland. The weak labour productivity position in both Scotland and UK is underlined by evidence provided in Table 6 and Figure 2 of the *Overview of the Scottish labour market* below which shows that increasing numbers of workers are taking part time employment in the absence of full time work. The employment 'recovery' continues to be driven by an increase in part time work and self-employment, although this may now be starting to moderate.

Figure 15: GDP and employment, Scotland and UK, recession and recovery to 2013q3



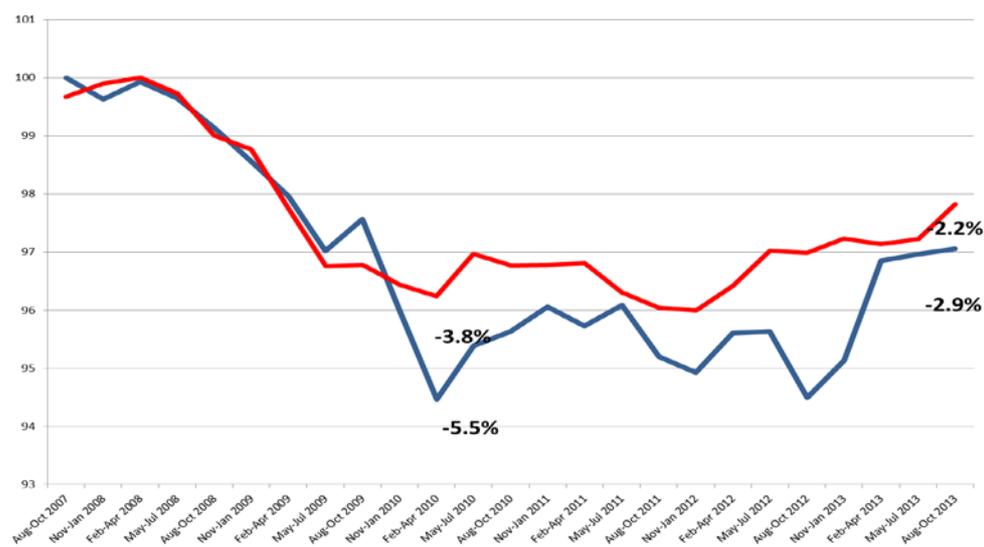
Source: Scottish Government unrounded GDP 2013 Q3 Tables, January 2014 and ONS Labour Market Statistics and ONS Regional Labour Market Statistics, February 2014 and FAI calculations

Figure 16: Total employment: Scotland and UK pre-recession peak to 2013q3



Source: ONS Labour Market Statistics and ONS Regional Labour Market Statistics February 2014 and FAI calculations .

Figure 17: UK and Scotland ratio of employment to population (16 plus) - recession and recovery to Aug-Oct 2013



Source: ONS Labour Market Statistics and ONS Regional Labour Market Statistics February 2014 and FAI calculations .

Finally, it would appear that there is still plenty of 'slack' in the Scottish labour market and more than in the UK as Figure 17 shows. Figure 17 charts the employment to working population ratio relative to pre-recession peaks for Scotland and UK.

By August - October 2013, the ratio in Scotland stood at -2.9% below the pre-recession peak compared to 2.2% in the UK. With earnings growth almost flat, and inflation falling, these data offer further evidence that there is still no justification for the Bank of England to apply the brakes, in the form of a rise in interest rates. This is likely to remain the case even when the UK unemployment rate falls below the Bank of England's 'forward guidance' target of 7%.

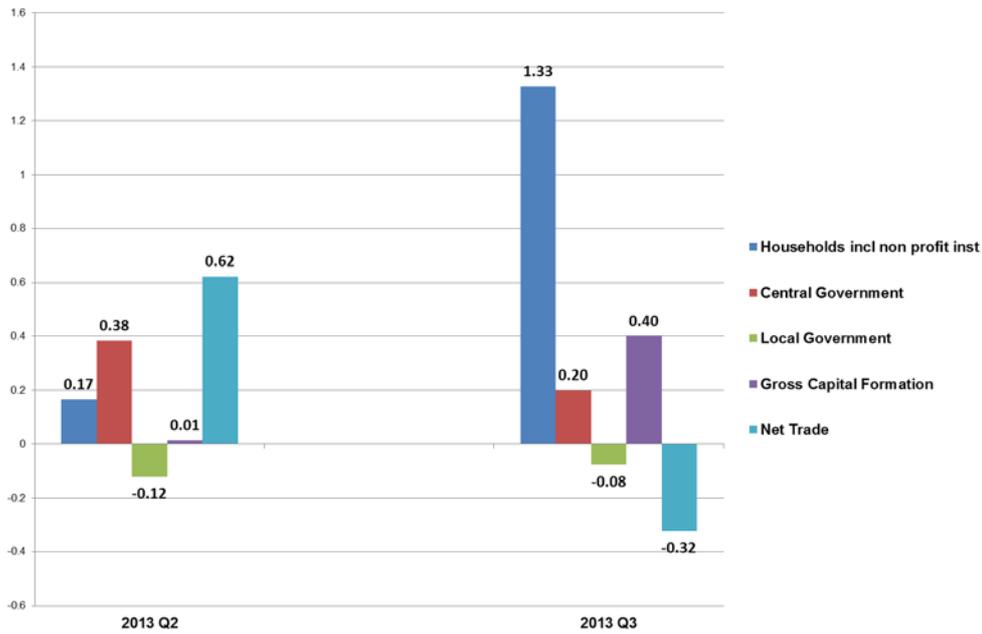
Driving the Recovery

We argued in the previous *Commentary* that the recovery had a better chance of being sustained if growth was broadly based. Moreover, given that households in the aggregate had to reduce their debt levels and government had embarked on a programme of fiscal consolidation in order to improve its own debt position, which had worsened following the bail-out of the banks and the loss of revenue in recession, there was a need to rebalance growth away from private domestic consumption to external demand and capital investment. This had certainly not been achieved up to the first quarter 2013, where growth was still being driven by household consumption and a belated improvement in the net trade position. But there was no evidence that capital investment was contributing to growth, although there was some evidence that it was starting to make a positive contribution to UK growth in the second quarter. It remained to be seen - in the absence of data - what would happen to investment in Scotland in the second quarter.

We now have *Scottish National Accounts Project* (SNAP) data for the second and third quarters of 2013. SNAP reports that nominal GDP, i.e. in *current market prices*, rose by 1.07% in the second quarter and by 1.52% in the third quarter. When we disaggregate this change into the contribution of the different (expenditure) components of aggregate demand, we obtain Figure 18, which shows the *percentage point* contribution to nominal growth while Figure 19 shows the *percentage* contribution to nominal growth.

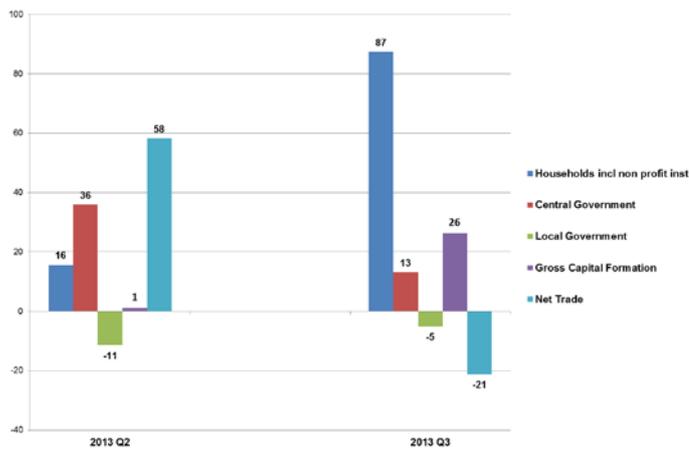
What is clear from Figures 18 and 19 is that the behaviour of the expenditure components is fairly erratic with, for example, household spending contributing 16% of nominal GDP growth in the second quarter rising to 87% in the third quarter. In contrast, net trade accounted for 58% of growth in the second and -21% in the third quarter. What we can say is that household spending has been the main driver of growth and that we are seeing some positive contributions to growth from net trade, as in the first and second quarters, but this has not been sustained as the third quarter negative contribution shows. The drivers of both household spending and net trade remain hesitant and weak, although as noted below there are some signs of improvement. However, it does appear that gross fixed capital formation, i.e. investment, is now tentatively starting, as it is in the UK, to make a positive contribution to growth: 1% in quarter 2 and 26% in quarter 3.

Figure 18: Expenditure components: percentage point contribution to nominal Scottish GDP growth in 2nd and 3rd quarters 2013



Source: SNAP 12 February 2014 and FAI calculations

Figure 19: Expenditure components: percentage contribution to nominal Scottish GDP growth in 2nd and 3rd quarters 2013

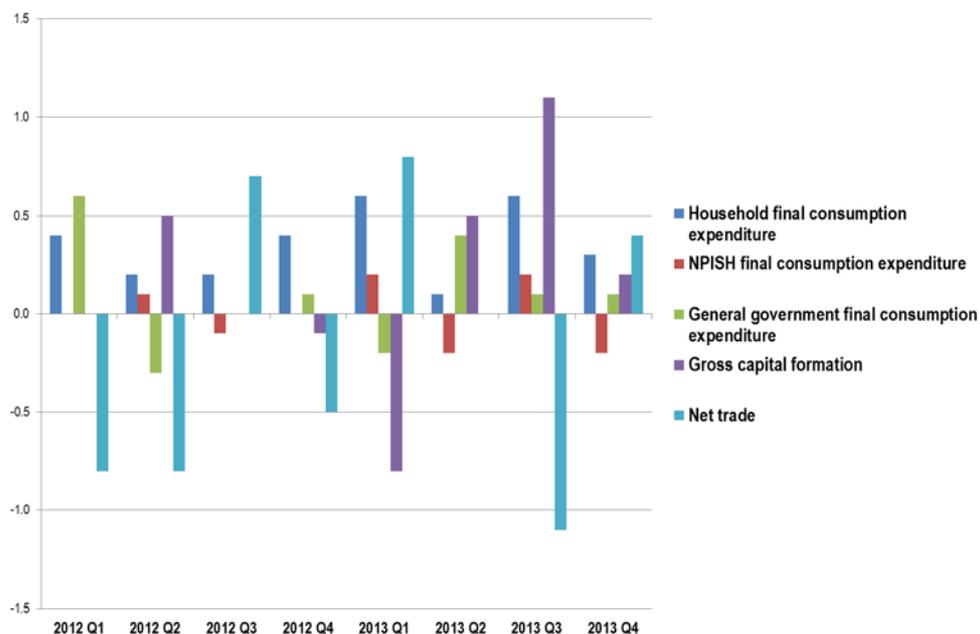


Source: SNAP 12 February 2014 and FAI calculations

We have argued for some time that there is a strong case for the UK Government and the Chancellor in his Budgets to promote capital investment, by public infrastructure investment. This would add to demand in the economy, thereby helping the recovery and would help longer-term growth by improving

the scale and efficiency of the supply-side of the economy. The increasing evidence that the recovery is now underway in no way removes the need for such a policy: it is now six years since the Great Recession began and the UK economy is still more than one percent below its pre-recession peak; the Great Recession has clearly removed capacity permanently from the British economy, and the quality of the existing infrastructure, especially transport, communications and energy, is poor by the standards of our main international competitors. In 2010 McKinsey and Company identified investment in transport and energy infrastructure as one of seven key priorities to help the UK move from austerity to prosperity¹. We therefore believe that there is a strong case for more public investment for both supply and demand-side reasons. Moreover, this argument can be extended to the private sector where investment remains weak, is doing little to help the recovery and by its absence is doing little to address the UK's weaknesses in productivity and hence competitiveness. In the *Forecasts of the Scottish Economy* section below Figure 3 shows that following the recession there was a sharp pick up in investment but that since the start of 2012 it declined again so that by the third quarter of last year overall UK gross fixed capital formation was around 10% below its pre-recession peak. In Scotland the situation is worse with investment currently 14% below pre-recession peak. There are issues of measurement and suggestions that the investment data may yet be revised upwards. In addition, we note above that investment does appear now to be contributing positively to growth in Scotland and recent survey data suggests a pick-up in investment intentions.

Figure 20: Expenditure components percent point contribution to UK GDP growth 2012Q1 to 2013Q4



Source: ONS Second Estimate of GDP, Q4 2013, Reference Tables

¹ See http://www.mckinsey.com/insights/economic_studies/seven_priorities_for_the_uk_economy

There is no substantive reason why Government should accept this weak investment profile. In addition to increased UK Government spending on capital investment, we believe there is a strong argument for the Chancellor to introduce a programme of private sector investment incentives, such as accelerated depreciation, in his forthcoming Budget. Moreover, rising regional inequality in growth and income per head in the UK - see *Forecasts of the Scottish Economy* section and the article by Julia Darby below - suggests that there should be differential regional investment incentives as well. In addition, the Scottish Government should consider raising the funding for its Regional Selective Assistance (RSA) programme and other investment funds administered by Scottish Enterprise. Of course adopting such incentives is a bit of a policy minefield because of EU State Aid rules. However, the EU's General Block Exemption Regulation (GBER) allows for regional incentive programmes under certain criteria.² Furthermore, academic evidence on the impact of regional policy in the 1960s shows that it works best when the national economy is expanding or recovering and firms are thinking about investing³. So now would be the right time.

Forecasts

Background

The second estimate for UK GDP growth in the fourth quarter of 2013 was a rise of 0.7%. This followed an increase of 0.8% in the third quarter, a 0.7% rise in the second quarter, a 0.4% rise in the first quarter of this year, and a -0.1% fall in the final quarter of 2012. GDP growth in the UK in 2013 was 1.8%, its strongest annual growth since 2007. The second estimate also provides data on the contribution of the individual components of aggregate demand to growth. Figure 20 charts the contribution of the principal components over the 8 quarters since 2012Q1: the final consumption expenditure of Households, non-profit institutions serving households (NPISH), and General Government, as well as Gross capital formation and Net trade.

Household spending has been the main driver of growth over the period, it has grown for nine consecutive quarters and as the ONS notes has accounted for more than 75% of expenditure growth since the fourth quarter of 2011. It is also evident that investment began to make a positive contribution to growth in each of the last three quarters, accounting for around one half of expenditure growth in the final quarter of last year. Net trade on the other hand has behaved erratically: four quarters with a negative contribution to growth, three quarters with a positive contribution and one quarter where the contribution was neither positive nor negative. It is also interesting to compare Scotland with the UK in the second and third quarters (Figures 18 and 20). The contribution of household spending to growth is similar while investment is weaker in Scotland with a lesser contribution and the contribution of net trade is somewhat stronger. Overall, in the UK, the fourth quarter data suggest that expenditure growth is becoming more balanced with investment and net trade playing a greater role and household spending a lesser role. This is to be welcomed, at long last, almost four years since the UK Government articulated

² See *The State Aid Guide* Department for Business Innovation and Skills, at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/31700/11-1040-state-aid-guide.pdf

³ Ashcroft B Taylor J. 1977. *The movement of manufacturing industry and the effect of regional policy*. *Oxford Economic Papers*, 29. Moore B , Rhodes J. 1973. *Evaluating the effects of British regional policy*. *Economic Journal*, 83

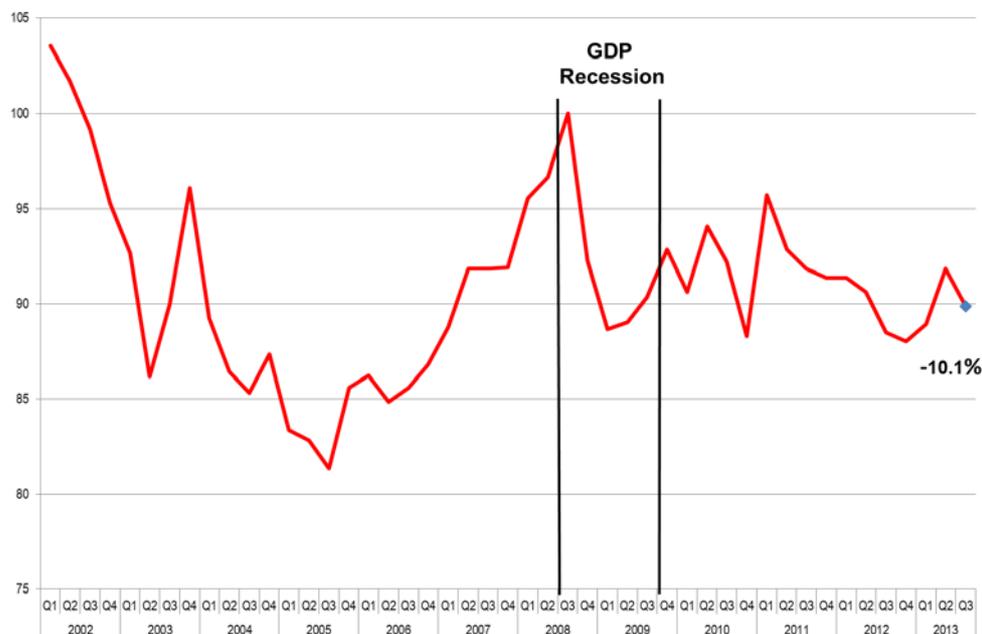
the need for a rebalancing of spending. The hope is that it continues with stronger contributions from investment and net trade.

In Scotland, we will not have 2013 fourth quarter GDP data until mid-April 2014. In the third quarter, we noted above that real GDP rose by 0.7% in Scotland, while rising by 0.8% in the UK. The Scottish economy has now been growing for the previous 6 quarters and the indications are that the growth rate will continue to rise in the near term. The latest business surveys - see *Review of Scottish Business Surveys* below - generally have a positive outlook in the short term. Many of the surveys showed that trends in key indicators are stronger than a year ago and net balance figures are returning to pre-recession levels of late 2007. Previous surveys have indicated a stagnating economy but these latest results indicate a return to pre-recession levels. The sense is that the pace of the recovery in the Scottish economy is accelerating and becoming broader based than previously. However, for some sectors, such as manufacturing and construction trading conditions are still harsh suggesting that the recovery remains fragile and policy action may be required to ensure that it is sustainable.

The future path of GDP in Scotland will, in the short to medium term, depend on the growth of the components of aggregate demand discussed above and their specific determinants. As we note in the UK in the fourth quarter spending became more balanced with a greater role played by investment and net trade complementing the significant contribution from household spending. In Scotland spending remained as unbalanced in the third quarter as in the UK. So we need to gauge the immediate future prospects for each of the principal components in Scotland. This is set out in some detail in the *Forecasts of the Scottish Economy* section below so we summarise briefly here.

The growth of real household income is largely flat even though household spending has been rising. This is explained by the drop in the saving ratio, which has behaved similarly in Scotland to the UK, although it has remained higher in Scotland since late 2010. Sustained growth of household spending cannot rely on a falling savings ratio. Households may borrow more but this cannot be sustained indefinitely especially given the already high levels of household debt which remain above historical levels even though they have fallen somewhat since the start of the Great Recession. What is required is rising real incomes and/or the value of asset holdings. Nominal earnings may now be starting to pick up as hinted at in the Scottish business survey evidence but such growth is little different from consumer price inflation implying that real earnings remain stagnant. The housing market is definitely picking up but house prices remain around 6% below their pre-recession peak in Scotland, so while rising house prices may be giving some boost to household spending the effect is unlikely to be great at this stage at least.

Investment is now beginning to contribute to Scottish growth but large companies continue to hoard cash and are still uncertain about the prospects for consumer demand despite rising confidence. We noted above that investment is weaker in Scotland than in the UK at 14% compared to 10% below its pre-recession peak. Without policy support it seems unlikely that there will be a great surge in investment in the immediate future.

Figure 21: Scottish manufacturing export volumes to 2013q3, seasonally adjusted - 2008q3 = 100

Source: Scottish Government Index of Manufacturing Exports 3rd Quarter 2013, January 2014 and FAI calculations.

Similarly, with net trade which is contributing more positively to growth in Scotland than in the UK. But Scottish export performance is still weak by historical standards. The fall in sterling has, as in the UK, not produced the boost to exports that was hoped and now sterling is rising again. The performance of Scottish manufacturing exports outside the UK weakened in the third quarter of last year as Figure 21 shows.

Manufacturing exports are now languishing at slightly more than -10% below their pre-recession peak and not much higher than the trough of around -12% below the peak that the series has experienced on three occasions (2009q1, 2010q4 and 2012q4) since the start of the Great Recession. Trading conditions in the wider world economy are improving as growth slowly returns. The IMF revised its growth forecasts up in January 2014 for the US, China and the Euro area, although there is some concern that growth may slow again in China and other emerging economies. So, we are hopeful that the recovery is gathering pace. However, we share the view of the Financial Times, which in responding to recent Bank of England forecasts said in its editorial of 13 February 2014

"... the bank's hyper-bullish growth forecasts may well be too optimistic. The government's austerity programme will continue to weigh on growth and, as sterling keeps appreciating, net exports are unlikely to pick up. Since real wages are still stagnant there is only so much more consumers can do to boost the economy. Were companies to continue hoarding cash rather than investing, growth may well disappoint."

It is against this background 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 2013 to 2015. The forecasts are presented in more detail in the *Forecasts of the Scottish Economy* section of this Commentary below.

Table 1: FAI Forecast Scottish GVA growth, 2013-2015

GVA Growth (% per annum)	2013	2014	2015
Central FAI forecast	1.7	2.3	2.3
October FAI forecast	1.3	1.8	2.1
UK mean independent new forecasts (February)	1.9	2.7	2.4
Mean Absolute Error % points	+/- 0.19	+/- 0.50	+/- 1.21

Source: Fraser of Allander Institute forecasts, March 2014

Table 1 shows that our GDP forecast for 2013 at 1.7% has again been revised upwards from our October forecast of 1.3%. For the 2014 we have also revised up our forecast from the 1.8% predicted in October to 2.3%. Similarly, for 2015, we have revised the forecast up from 2.1% to 2.3%. The forecasts for 2013 and 2014 are higher than in October because of better than expected outturn data on the growth of household spending, a pick-up in investment, improving trade conditions and increasingly optimistic business surveys. We are now predicting that growth will move above trend next year. After 6 years since the start of the Great Recession we are now witnessing a stronger recovery, although weaker than almost all previous recoveries from recession. Moreover, as discussed above there are good reasons to be cautious about the future path of the recovery.

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 expect Scottish growth to continue to be a little weaker than UK growth over the forecast period. So, we are now forecasting growth of 1.7% in 2013, 2.3% in 2014 and 2.3% in 2015. Given our previous forecast errors the lower and upper bounds for growth in 2013 are expected to be 1.5% and 1.9%, for 2014, 1.8% to 2.8%, and for 2015, 1% to 3.5%.

Production and manufacturing continue to be the major sectors exhibiting the fastest growth in 2013, 2014 and 2015. In 2013, production is projected to grow by 2%. Services and construction display positive growth this year at 1.6% and 1.3% respectively. This relative performance continues in both 2014 and 2015 as forecast growth across all sectors increases. Production grows by 2.8% and 2.7% in 2014 and 2015, while service growth is projected to be 2.2% in both years. The construction sector continues to lag but picks up to 1.8% and 1.4%. We have therefore revised up again the forecast of growth in all the major sectors for the forecast period.

Employment Forecasts

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.

Table 2: FAI Forecast Scottish Net Jobs Growth in Three Scenarios, 2013-2015

	2013	2014	2015
Upper	35,450	51,050	71,900
October forecast	27,900	38,100	68,750
Central	31,450	39,600	42,800
October forecast	21,200	27,200	38,400
Lower	26,350	36,700	13,350
October forecast	15,750	16,450	11,400

Source: Fraser of Allander Institute forecasts, March 2014

We continue to raise our forecasts for job creation over the forecast horizon. This reflects our raised GVA forecast and weak forecast productivity implying that more jobs are required to produce the greater output. On the central forecast, we are now forecasting that net jobs will rise by 31,450 in 2013, rising to 39,600 in 2014 and 42,800 in 2015. This year, we now expect just under 28,000 service sector jobs will be created, with around 1,550 to be added in production due to expected productivity increases given the growth in output, and somewhat stronger jobs growth of 1,650 in agriculture. Construction jobs are now forecast to rise this year by 400. In 2014/2015, the bulk of the jobs created are again expected to be in the service sector with an additional 33,900/33,750 jobs forecast, while 1,650/4,700 are added in production, 2,650/2,700 in agriculture and 1400/1,650 in construction.

Unemployment Forecasts

The key unemployment forecasts are summarised in Table 3 below.

Table 3: FAI forecasts ILO unemployment 2013-2015

	2013	2014	2015
<i>ILO unemployment</i>			
Rate (ILO un/TEA 16+)	7.1%	6.6%	6.3%
October FAI forecast	7.6%	8.3%	6.9%
Numbers	195,000	179,900	170,214

Source: Fraser of Allander Institute forecasts, March 2014

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 October, reflecting higher employment given the growth of output. Many workers have re-entered the labour market as job prospects improve. The upshot is that unemployment has not fallen as much as the job creation figures might suggest but may fall more quickly if this rise in participation in the labour market begins to ease. Furthermore, the high rate of job creation as productivity growth remains stubbornly weak contradicts our model-based expectation that growth would not be fast enough to absorb new entrants into the labour force hence we are now forecasting a progressive but slow reduction in the unemployment rate over the next three years. Our projection for unemployment on the ILO measure at the end of 2013 is now 195,000 (7.1%). By the end of 2014 unemployment is now forecast to be 179,900 (6.6%) falling further to 170,214 (6.3%) by the end of 2015 as growth in the economy strengthens.

7 March 2014

The Scottish economy

2 Forecasts of the Scottish economy

Grant Allan, Fraser of Allander Institute

Abstract

This section provides an overview of recent changes in the drivers of economic activity in Scotland and provides the detailed forecasts for the Scottish economy to 2015 on key economic variables of GDP, employment and unemployment. In line with improving economic data and surveys of activity at the start of 2014, we are cautiously encouraged by the short term outlook for growth to 2015. As previously, we caution about the unbalanced nature of economic growth based upon consumption spending growth – when income growth is weak and part of the consumption growth comes as households reduce their savings rather than paying down debt levels. This has implications for the “balance”, robustness and speed of recovery in the Scottish economy.

Fiscal and monetary outlook

Broadly, the UK Autumn Statement was fiscally neutral, and confirmed that the process of fiscal consolidation will continue up to 2018-19. As noted by the Chief Economic Advisor in the Scottish Government in his December report, “Government spending is not expected to make a significant contribution to growth in the medium term.” (p. 15)

The minutes of the most recent Bank of England Monetary Policy Committee (MPC) make some interesting points regarding its decision to maintain both interest rates at their historical (low) level and the scale of its Quantitative Easing (QE) programme. Firstly, the Bank’s “forward guidance” framework was argued to have been well known to businesses and to have contributed to increasing business confidence and spending plans in the latter part of 2013. Secondly, the Bank saw good conditions for increased business investment with improved access to credit, healthy balance sheets and information pointing to strong investment intentions (albeit that the latter does not match with current investment data, see below).

In revisiting its “forward guidance”, February’s MPC minutes note that the unemployment rate is not the only measure of labour market “slack”, with (in its view) there being potential to absorb spare capacity below an unemployment rate of 7% before raising interest rates. Additionally, these same minutes specified that potential increases in the interest rate would occur “gradually”, when they did occur, and that the Bank’s current expectation of the “appropriate” rate “was likely to be materially below the 5% level set on average by the Committee prior to the financial crisis”.

Households

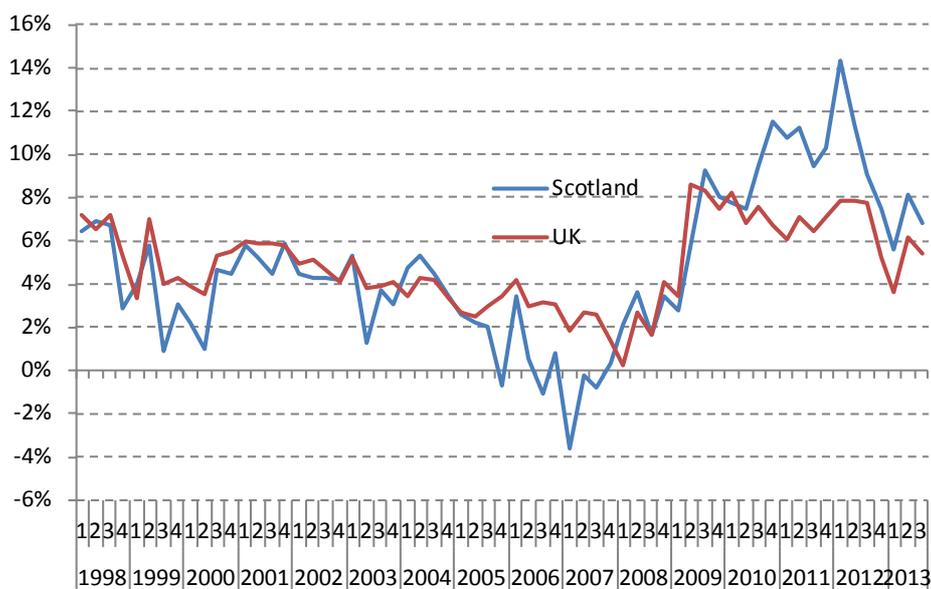
The Bank of England’s February Inflation Report continues to suggest that income growth in the UK was broadly flat through 2013, while consumption growth has been driving much recent UK performance. During 2013 therefore the UK household savings ratio fell, partly due to improved credit conditions and improved income expectations. While it is possible that these data will be revised, estimates for the household savings ratio in Scotland moved in line with UK changes over 2013. The household savings ratio remains higher in Scotland than in the UK, as it has been since the third quarter of 2010 (Figure 1).

With the household savings ratio unable to decline indefinitely, it is unlikely that household consumption alone can sustain to economic growth and activity over the medium term. Rebalancing growth towards investment and exports remain the most important drivers for sustainable growth, in the absence of support from fiscal levers.

Household debt-to-income measures have improved since the peak of the housing market in 2008, but remain above their historic values. The affordability of debt remains relatively good, albeit with interest rates at historic lows.

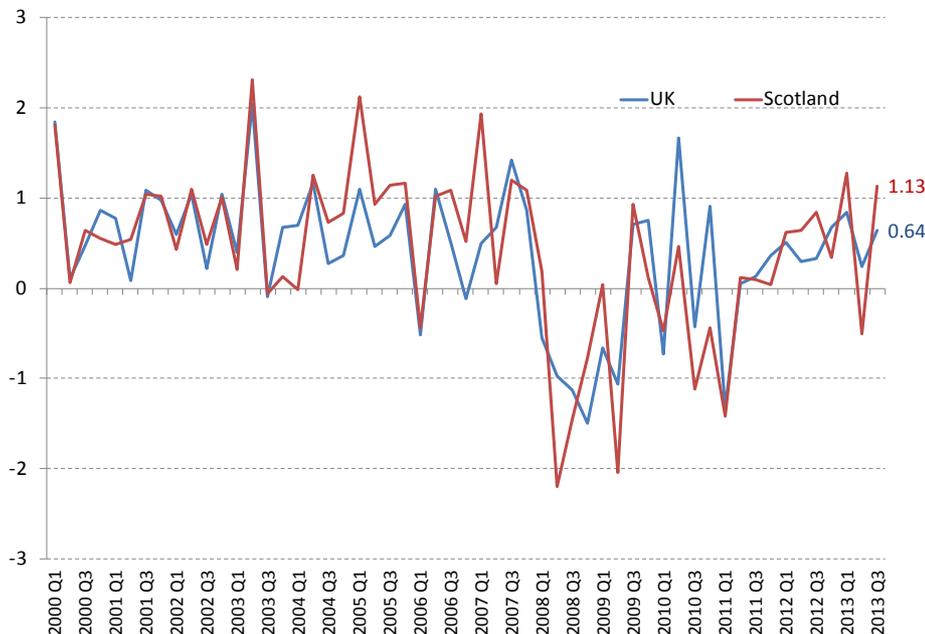
Consumer confidence measures for Scotland and the UK have moved upwards over the last four months, for instance in consumer discretionary expenditures. Growth in the Retail Sales Index for Scotland was stronger than Great Britain (GB) over the final quarter of 2013 in volume terms, while it was broadly in line with changes in the value of sales in GB over 2013 as a whole. If consumer confidence begins to weaken – perhaps from anticipated income increases not being realised - it could have implications for households' saving and expenditure decisions.

Figure 1: Household savings ratios, Scotland and UK, Q1 1998 to Q1 2013



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

The Scottish housing market appears to have started 2014 strongly. The number of home loans obtained in the final quarter of 2013 was back to the levels seen in 2008, and there is evidence of an increase in the number of house sale transactions in Scotland. House price growth was seen in some surveys of the housing market at the end of 2013, though house prices remain around 6% below their pre-crisis peak. Across the UK as a whole house prices returned to their peak, however much of this was driven by price increases in London. Taking that region out of the data, UK house prices remain around 4% below their peak levels from 2008.

Figure 2: Household real consumption spending growth, Scotland and UK, Q1 2000 to Q3 2013

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

Investment

Investment spending remains significantly below its pre-recession peak in both Scotland and the UK. As evidenced by Figure 3, the revised (since October 2013's Commentary) investment series for Scotland now shows that during 2010 there was a sharp return in the level of real investment to 2008 levels, which remained during 2011. However since the start of 2012 investment spending (which includes private and public actors) has declined again and now remains subdued below its pre-recession peak, more so than the same investment series for the UK as a whole.

There remains some uncertainty about measurement of business investment, which has become more volatile at the UK level as a whole, perhaps due to methodological reasons, and February's Bank of England Inflation Report argued that strong investment indicators during 2013 "suggest that investment... is more likely than not to be revised up" (p. 21).

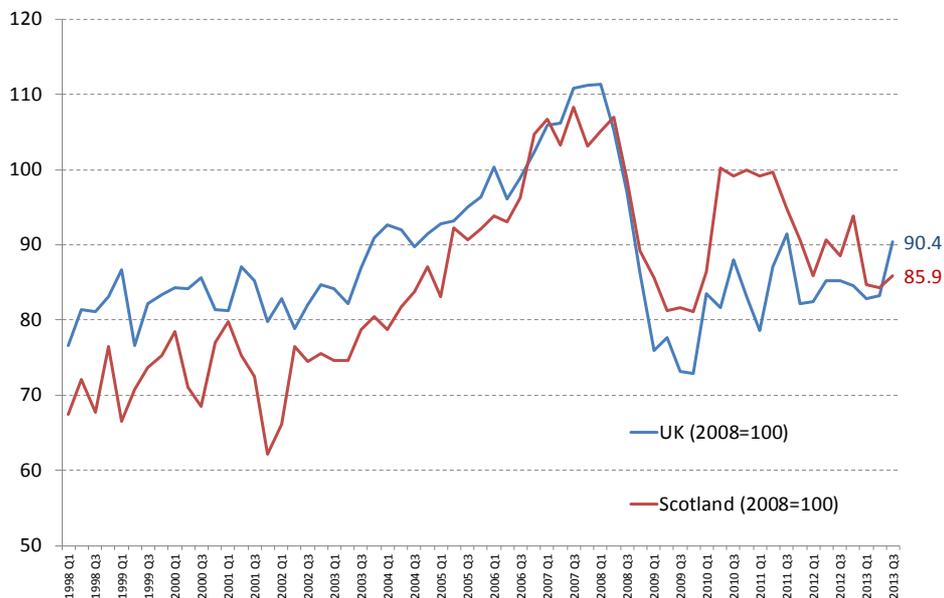
As identified in the Review of Business Surveys section, recent survey evidence on investment in Scotland is favourable and has improved significantly in the last four months. New evidence from the construction sector in the Scottish Chambers Business Survey identifies the first positive net balance to optimism since 2007, while there was also an uptick in total new orders and contracts, principally driven by an increase in private commercial orders.

Trade

The latest data on exports from Scotland to the (non-UK) rest of the world was published on the 22nd of January 2014 with the release of the "Index of Manufactured Exports" (published by the Scottish

Government). These latest data relate only to manufacturing exports during the third quarter of 2013, and so lag the release of the GDP series for the same quarter by a week.

Figure 3: Real gross fixed capital formation, Scotland and UK, Q1:1998 to Q3:2013



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

These showed that during the third quarter of 2013, the volume of international exports from Scotland fell by 2.2% in real terms and were down 0.9% on an annual basis. This follows two previous quarters of growth, emphasising that this series, and its subcomponents of sectoral exports, does appear to be particularly volatile on a quarterly basis. However, the latest figures reveal Scottish manufacturing export volumes 10.1% below their pre-recession peak.

The 19th of January 2014 saw the release of the Scottish Government's annual Global Connections Survey. This reports on total exports from Scotland – to the rest of the UK and rest of the world – and across all industrial sectors, making it the most complete database on Scotland's exports. However, this completeness comes at the price of timeliness, with the data relating to the calendar year for 2012 released 13 months later. The nominal increase in Scottish exports was the headline result, with total international (i.e. non-UK) exports increasing by £1,445 million (5.9%) between 2011 and 2012. This was less than the (nominal) increase between 2010 and 2011.

Looking at this further, there was a faster rate of growth for exports to areas outside the EU (8.0%) than inside (4.8%), with manufacturing exports to non-EU destinations increasing by 16%. In absolute amounts, the increase in manufacturing exports to non-EU destinations was two-thirds of the increase in international exports from Scotland (£1,090 million out of total growth of £1,445 million). Of the non-EU destinations, exports to other European destinations rose by 17.3% while North American exports increased by 7.1%. The USA with 14% of all international exports remains the top international first destination for Scottish goods and services.

The same publication reports exports to the rest of the UK: these totalled £47,570 million in 2012 and grew by 4.3% over the year. The rest of the UK market therefore is worth around two-thirds of total exports from Scotland.

Table 1: Economic growth forecasts for 2013 and 2014 for major Scottish export markets, plus UK, China, Euro area and world, including changes from earlier forecasts where available, %

	2014			2015		
	IMF (January 2014)	Revision from October 2013	OECD (October 2013)	IMF (January 2014)	Revision from October 2013	OECD (October 2013)
USA	2.8	+0.2	2.9	3.0	-0.4	3.4
Netherlands	0.3	-	-0.1	-	-	0.9
France	0.9	=	1.0	1.5	=	1.6
Belgium	1.0	-	1.1	-	-	1.5
Germany	1.6	+0.2	1.7	1.4	+0.1	2.0
Ireland	1.8	-	1.9	-	-	2.2
UK	2.4	+0.6	2.4	2.2	+0.2	2.5
China	7.5	+0.3	-	7.3	+0.2	-
Euro area	1.0	+0.1	1.0	1.4	+0.1	1.6

Source: World Economic Outlook Update, International Monetary Fund (January 2014) and Economic Outlook, No. 93, OECD (October 2013). = means forecasts is unchanged, - means that forecast of growth for that country in that year is not featured in that publication.

Turning to international developments, February's Markit PMI for the Eurozone as a whole, showed acceleration in the rate of expansion compared to January's report. This series now stands at a 32-month high, driven particularly by production activity. Looking across the Eurozone, national divergences continue, suggesting that growth trajectories will be different, with a widening gap in particular between the strong performance of Germany and weaker activity in France. This divergence, together with very low rates of inflation, arguably makes rebalancing growth within the Eurozone more challenging, a point noted by the Bank of England. The other major Eurozone countries, Italy and Spain, registered encouraging figures, suggesting that 2014 could begin with some strong growth figures for these economies.

Most recent growth forecasts see positive growth in 2014, and have largely been revised upwards in the last quarter. Growth forecasts for Scotland's major trading partners are identified in Table 1, including the size and direction of revisions from earlier publications, where available.

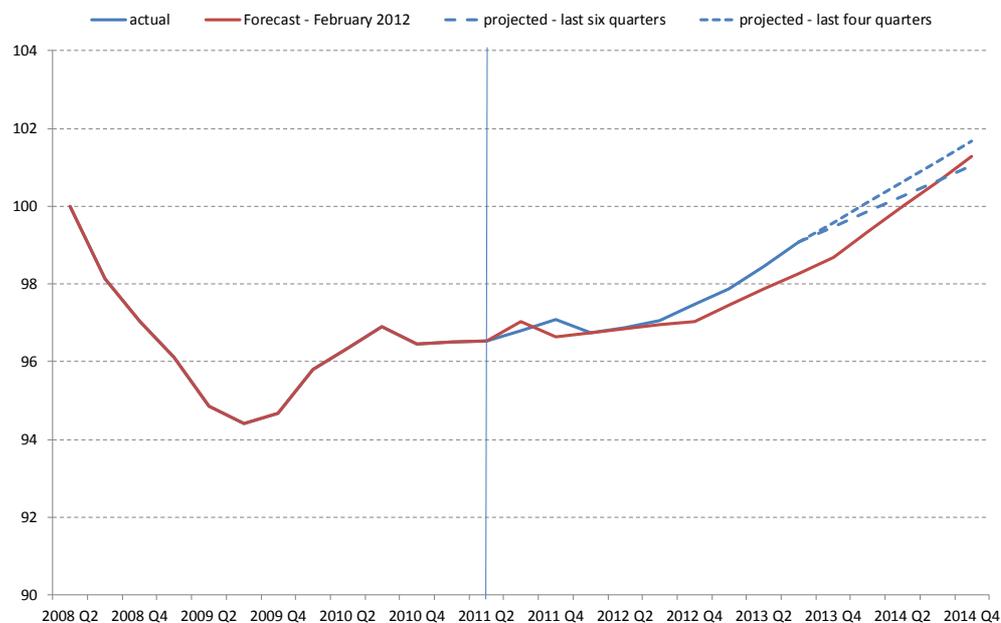
The IMF's recent update to forecasts pointed to an upside potential for the economic outlook from strengthening activity during the latter half of 2013, with signs of growth returning to both the Euro area and the US budget deal likely to boost US domestic demand through 2014 in that country, with important implications for exporters to the US. The minutes from February's MPC discussions note that "the downside risks to a continued steady expansion of global activity had shifted somewhat away from the advanced economies and towards the emerging economies" (p. 2).

Box 1: Return to pre-recession peak: forecast against possible outcome

One of the stories about the performance of the UK economy in the great recession has been the duration that output has been below its pre-recession peak. It has been the longest recession in modern economic history, and indeed the last data for Scotland show that the Scottish economy in the third quarter of 2013 is 0.9% below its peak of the second quarter of 2008.

In February 2012, the Commentary forecast when the Scottish economy would return to its pre-recession peak. The prediction then was for growth through 2012, 2013 and 2014 with the peak being attained during Q3 of 2014. The figure below shows how this forecast has fared in the two years since it was made. The blue line in Figure B1 shows the actual outcome growth for Scotland over the period while the red line shows our February 2012 forecast. Note that the forecast was made when Q3 2011 growth was known, but growth for 2011 as a whole was not.

Taking the path to the latest data – i.e. for Q3 2013 – we have then projected two alternative developments about the continued growth prospects. If growth continues on the same (quarterly average) basis as the last six quarters then we will see a return to the pre-recession peak in the second quarter of 2014 (and therefore one quarter earlier than we forecast two years ago). However, if growth continues at the same rate as the last year, the pre-recession point will be reached during the first quarter (two quarters earlier than predicted two years ago).

Figure B1: Forecasts of Scottish economy return to pre-recession peak

Source: FAI calculations

Forecasts for the Scottish economy: Detail

Following our discussion above, we now see cautious optimism returning to Scotland's short term economic outlook, albeit that a reliance on solely consumption-led growth is unsustainable over the medium term. The outlook for business investment in Scotland and the UK looks significantly stronger than it was during 2013, and survey indicators for both new orders and new contracts in construction suggest that this pick up will feed through to the real economy. Downside fears to growth in Scotland's major (non-UK) trading partners appear to have reduced, while growth forecasts for the US in 2014 have been revised up. The (rest of the) UK economy, Scotland's largest trading partner shows robust growth in Q4 2013 and this is likely to continue through 2014. Recent developments in the Scottish labour

market have led us to revise our assumptions about productivity growth going forward, with consequences for the unemployment rate over our forecast horizon.

Box 2: Growth across regions of the UK

Commentators have argued that as well as rebalancing away from services to manufacturing and production activity, regional 'rebalancing' would be desirable. There continues, for instance, to be debate around whether growth in the London economy helps or hinders growth in the UK as a whole. The implications for policy of the answer to that question is critical, and has implications across housing, transport and industrial policies (at least).

Some initial findings can be sought from (nominal) GDP figures for the regions of the UK (including Scotland), for which consistent and comparable GDP figures. These were published in December 2013. Figure B2 below shows the average (compound) annual growth rate in nominal GVA for each UK region for three time periods: the period 1997 to 2012 ("Whole period") and two sub-periods, 1997 to 2008 and 2009 to 2012.

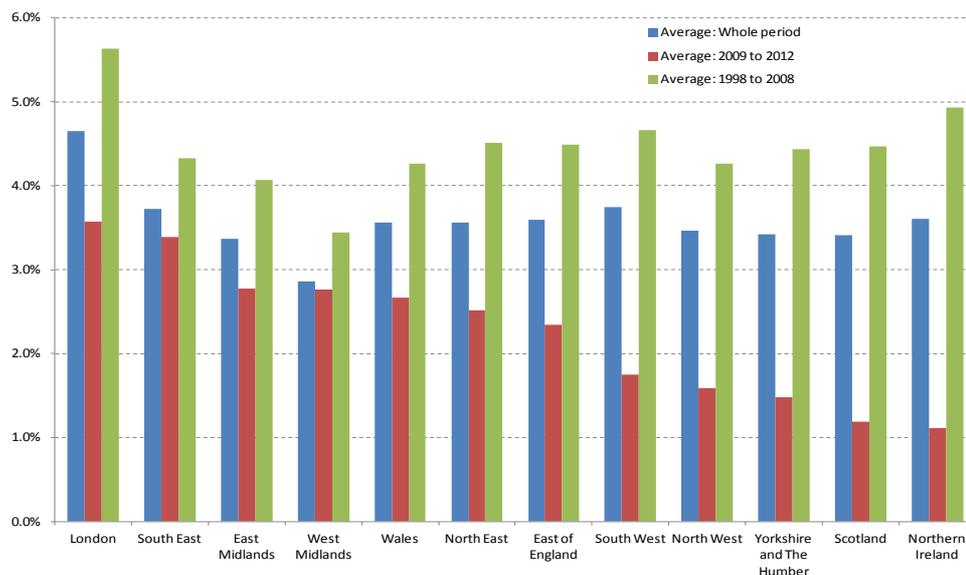
Several points can be noted. First, London and the South East grew in excess of 5% per annum on average over period between 1998 and 2008, with the South West, East of England and Scotland in 3rd, 4th and 5th respectively. In the period since 2009, London and the South East continued their strong performance, growing by over 2.5%.

Second, the nominal nature of these data makes comparisons to real growth problematic. Ideally, real GVA would be used to remove the effects of regional inflation, but the lack of region-specific GVA deflators makes this impossible.

Third - and critical for examining Scottish growth over the period since 2009 - there are significant discrepancies between the ONS and the Scottish Government series for GVA growth in Scotland over this period. *Scotland's apparent low rate of nominal growth is not consistent with the official GVA series used for Scotland or with other indicators of Scottish activity.* Indeed, using the figures for nominal GVA from the Scottish National Accounts Project (SNAP) restores Scotland's performance over the period. Those data place Scotland's performance over the 1998 to 2012 period as second only to London, and in line with other UK regions over the period since 2009, with the exception of London and the South East.

Albeit illustrative, this brief analysis demonstrates that the recent (to 2012) growth performance of London and the South East follows their strong performance as the UK's leading growth regions over the past fifteen years. This suggests that rebalancing is not occurring. More recent indicators, including on the housing market, suggest that London has continued its status as the highest growth region of the UK.

Figure B2: Nominal average (compound) annual growth rates for UK regions, 1997 to 2012.



Sources: ONS and FAI calculations

Results

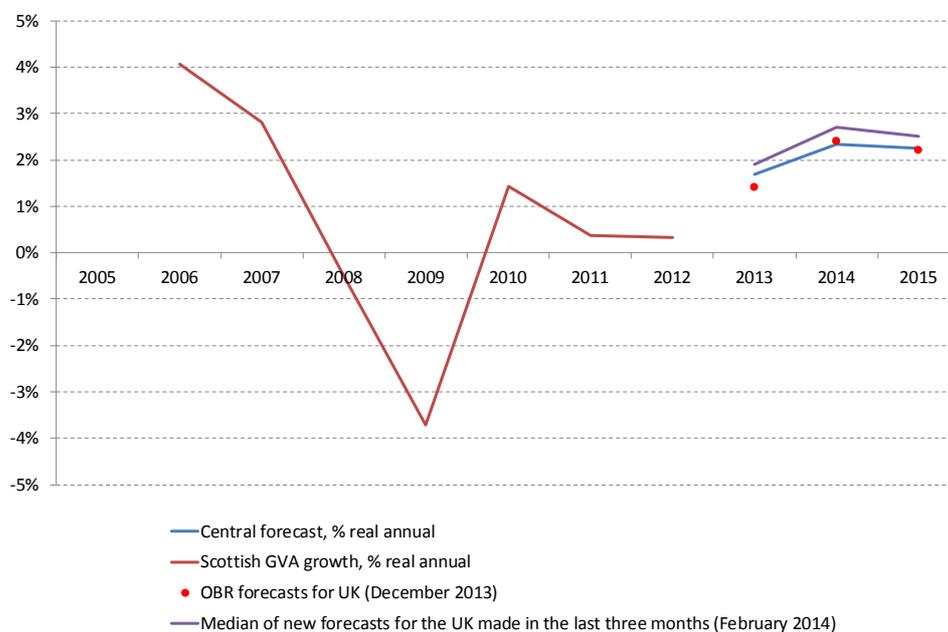
As in the October 2013 *Commentary*, we continue to forecast year-on-year real growth in Scotland's key economic and labour market variables over the period 2013 to 2015. Our forecasts cover Scottish Gross Value Added (GVA), employment and unemployment. The model used is multi-sectoral, and where useful, results are reported at the broad sectoral level.

We begin with the (central) forecasts for GVA growth in the Scottish economy. Our new forecasts for 2013, 2014 and 2015 are shown in Figure 4. This also shows – for comparison purposes only – a number of other forecasts for the UK over the same period. These are taken from the Office for Budgetary Responsibility (OBR) and the median of independent growth forecasts for the UK made during the last three months.

We have revised our forecasts for GVA growth in Scotland through 2013 to 2015. We now forecast growth in 2013 and 2014 of 1.7% and 2.3% (up from our October 2013 forecasts of 1.3% and 1.8%). Our forecasts for 2015 are also revised up, to 2.3%, from 2.1% in October's forecast.

In addition to the aggregate growth forecasts, Table 2 presents our forecasts for GVA growth in each year by broad sectoral grouping, i.e. for the “production”, “construction” and “services” sectors of the Scottish economy. Compared to October's *Commentary*, the largest upward revisions for growth in 2014 are in “production” and “services”: up by 0.6 and 0.5 percentage points respectively.

Figure 4: Forecast annual real GVA (%) growth for 2013 to 2015: Scotland and UK



Sources: Fraser of Allander Institute forecasts, Office for Budgetary Responsibility and HM Treasury (February 2014)

We use outturn forecasts errors (i.e. the difference between our annual growth forecasts and the outturn growth figures for Scotland) to show the potential range of outcomes around our central forecast.

Improved accuracy at shorter forecasts' horizons means that any forecasts' errors are larger for years further into the future. Over the period since 2000, for forecasts made during the Spring (January to April) period of the year, FAI forecasts of the first estimate of GVA growth in the year just completed (i.e. 2013 in this case) have an average absolute forecast error of 0.19 percentage points.

Please note that statistics confirming the final quarter of 2013, and hence the first annual estimate of growth in the year is not realised until April 2014. For the year in progress (i.e. 2014) our Spring forecasts have an absolute forecast error of 0.50 percentage points, while for the following year, our past errors have been 1.21 percentage points. These historical forecast errors give the ranges around our central estimate of Scottish GVA growth, and are shown around the central estimate in Figure 5. Our estimate therefore of Scottish GVA growth in 2013 is between 1.5% and 1.9%, while growth in 2014 and 2015 is forecast to lie in the range of 1.8% to 2.8% and 1.0% to 3.5% respectively.

Table 2: Scottish GVA growth (%) by sector, 2013 to 2015

	2013	2014	2015
GVA	1.7	2.3	2.3
Production	2.0	2.8	2.7
Construction	1.3	1.8	1.4
Services	1.6	2.2	2.2

Source: Fraser of Allander Institute forecasts, March 2014

Employment

Detailed commentary on recent developments in the Scottish labour market can be found in the Overview of the Scottish Labour Market section of this *Commentary*. Here we focus on our forecasts for the levels and trends 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 2013, 2014 and 2015 respectively.

The most recent employee jobs data show that there were 2,277,000 employee jobs in Scotland in the final quarter of 2012. This is 35,000 fewer than was estimated for the same period in the last set of data available in October 2013. This indicates that there have been revisions to the underlying dataset, which makes it impossible to directly compare the level of employee jobs with past forecasts.

As a consequence of the altered base line figures for employee jobs, our forecast for the net number of jobs created during 2013 has been revised up since October's *Commentary*, and now stands at 31,450 (up from 21,200). However given the scale of these revisions, we are now forecasting a lower number of employee jobs at the end of 2013 than we did in October.

Our forecasts for employee jobs at the end of 2013, 2014 and 2015 are shown in Table 3, alongside a detailed sectoral breakdown of job numbers. The number of total jobs is forecast to increase in each year of our forecast, and have been revised up since our forecasts in October 2013. The number of

employee jobs is now forecast to increase by 31,450 between December 2012 and December 2013, with an increase of 1.4%. This is up from our October forecast of a 21,200 (0.9%) increase in job numbers in 2013. In 2014 and 2015 we forecast employee job numbers in Scotland to increase each year, by 39,600 and 42,800 (1.7% and 1.8%) respectively. The employee jobs forecast consistent with our central, upper and lower growth forecasts is given in Table 4.

Table 3: Forecasts of Scottish employee jobs ('000s, expect where stated) and net change in employee jobs in central forecast, 2013 to 2015

	2013	2014	2015
Total employee jobs, Dec	2,308,450	2,348,050	2,390,836
Net annual change (jobs)	31,450	39,600	42,800
% change from previous year	1.4%	1.7%	1.8%
Agriculture (jobs, 000s)	34	36	39
Annual change	1,650	2,650	2,700
Production (jobs, 000s)	243	244	249
Annual change	1,550	1,650	4,700
Construction (jobs, 000s)	115	117	118
Annual change	400	1,400	1,650
Services (jobs, 000s)	1,917	1,951	1,984
Annual change	27,850	33,900	33,750

Note: Absolute numbers are rounded to the nearest 50.

Source: Fraser of Allander Institute forecasts, March 2014

Table 4: Net annual change in employee jobs in central, upper and lower forecast, 2013 to 2015

	2013	2014	2015
Upper	35,450	51,050	71,900
Central	31,450	39,600	42,800
Lower	26,350	36,700	13,350

Source: Fraser of Allander Institute forecasts, March 2014

Unemployment

We present our forecasts for unemployment at the end of 2013, 2014 and 2014 in our central forecast 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 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 is a better measure of the level of spare capacity in the labour market.

Our October forecast for the unemployment level for the end of 2013 was 204,550, with a rate of 7.6%. February's outturn data for Scotland revealed we had overestimated the number of unemployed by less than 9,000 and 0.5 percentage points.

Table 5: Forecasts of Scottish unemployment in central forecast, 2013 to 2015

	2013 ¹	2014	2015
ILO unemployment	195,000	179,900	170,214
Rate (%) ²	7.1	6.6	6.3

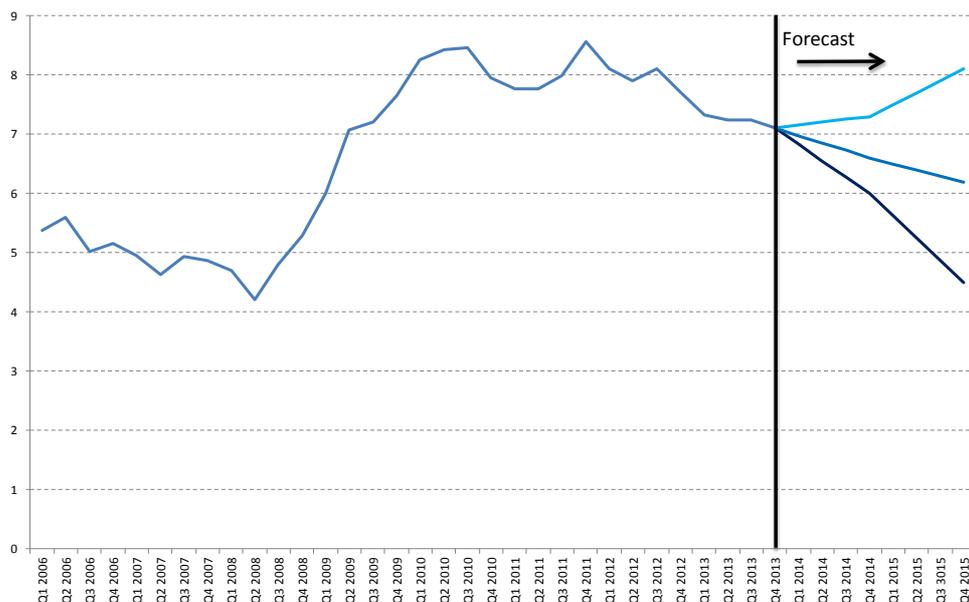
Notes: Absolute numbers are rounded to the nearest 50. ¹

2013 figures in Table 5 refer to outturn figures from February 2014's first release of labour market data for Scotland. ²

Rate calculated as total ILO unemployment divided by total of economically active population age 16 and over. The most recent labour market figures are detailed in the Labour Market Section of the Fraser Economic Commentary.

Source: Fraser of Allander Institute forecasts, March 2014

Figure 6: Scottish ILO unemployment rate, 2006 to 2015 including forecast range from 2013



Source: ONS and Fraser of Allander Institute forecasts, March 2014

We have revised down our forecasts for the Scottish ILO unemployment level and rate for 2014 and 2015 since our October forecast. Our new forecasts for the unemployment rate in Scotland at the end of 2014 and 2015 are 6.6% and 6.3% respectively. The Bank of England's most recent Inflation Report notes how their own forecasts of the unemployment rate have been significantly affected by changes not just in the employment rate, but also in the participation rate for the UK (largely through increased participation rates for older workers, driven by increased longevity and low rates on annuities discouraging retirement). It is possible that increased labour market participation may ease through

2014, making it possible that the unemployment rate could fall more sharply for given employment changes.

We show the history of the Scottish ILO measure since 2006, and our central and upper and lower forecasts for this variable to 2015 in Figure 6.

3 Review of Scottish Business Surveys

Eleanor Malloy, Fraser of Allander Institute

Abstract

This section provides an overview of key recent business survey evidence in Scotland. The latest findings suggest that although recovery has its ups and downs most of the recent Business Surveys have shown a distinct improvement in the recent economic climate; indeed many of the Surveys show that trends in key indicators are stronger than a year ago and net balance figures are returning to pre-recession levels of late 2007, perhaps indicating that the worst of the recession may now be over. However some warn that the recovery still remains fragile and further action may be required to ensure that it is sustainable.

Private Sector

The Scottish Purchasing Managers Index (PMI), published monthly by Lloyds Banking Group, has indicated that growth in the private sector is continuing although the rate of increase is easing. The September 2013 PMI saw output grow at a record pace; October saw the upturn continue; November saw the growth easing and December saw a further easing. Although still solid in the context of historical survey data the December PMI reported that growth in activity levels was the weakest since May 2013. The December Index also highlighted the slower pace of job creation as the rate of increase in new work eased. Additionally the December Index showed stronger inflationary pressures. Encouragingly, the January 2014 PMI indicated that growth in the private sector had gained some momentum after easing at the end of 2013.

Production

According to the Scottish Business Monitor (SBM) conducted by the Bank of Scotland, the net balance of turnover for firms in the production sector in the three months to end November 2013 was +12%. This is down on the +24% of the previous quarter but remains well up on the +1% of the same quarter one year ago. There was an improvement in the total volume of new business. The sterling exchange rate has long been of concern to production businesses and the importance attached to the exchange rate increased dramatically at the end of 2008 but has now fallen back to the levels of six years ago.

Manufacturing

During the final quarter of 2013 business confidence continued to improve for a net of 22% of SCBS firms, a significant improvement from the 1.1% reported for Q4 2012. Only 13% of firms reported being less confident compared to Q3 2013. Respondents to the Scottish Engineering Quarterly Review (SEQR) reported that overall, optimism remained positive during the first quarter of 2014; small and medium firms reported higher levels of business confidence.

In the fourth quarter of 2013 SCBS firms reported that the trend in orders remained buoyant with a net balance of 13.1% reporting a rise; more than a third of firms reported a rise in total new orders and only a fifth reported a decline. Respondents continue to remain optimistic as to the trends in future orders

during Q1 2014 (+13.5%). Average SCBS capacity utilisation rose again (from 77.5% to 78.1%) and was almost more than two percentage points higher than the fourth quarter of 2012. Only small SEQR respondents reported a rise in total orders in the first quarter, although the overall net balance remained positive. UK orders continued to improve but there was a net decline in export orders, although a rise is forecast for Q2

Turnover and profitability are expected to rise further for a net balance of SCBS firms over the coming 12 month period.

The trends in investment in plant/machinery improved during Q4 2013 for a net balance of SCBS manufacturing respondents (+11%). New investment continues to be directed towards replacement (38%) or to improve efficiency (31%) although a significant number are now reporting expansion as a reason (22%). Similarly SEQR respondents reported rising investment trends and that capital and training investment both strengthened.

During the three months to the end of December a net balance of Chamber of Commerce firms reported a rise in total employment levels (+16%) the highest net balance in five years. A quarter of firms increased pay during Q4 and the average increase was marginally up from the previous quarter at 3.3%. 47.9% (compared to 33% in the previous quarter) reported seeking to recruit staff, and more than a third of these firms reported recruitment difficulties. In the Q1 2014 survey SEQR firms reported and expect a rise in total employment levels

Construction

The long term decline in business optimism ended for SCBS respondents in Q4 2013 with a balance of firms reporting the first positive net balance of optimism since 2007; only 11.5% reported a decline in business optimism. Similar to the Chamber of Commerce Survey, the Federation of Master Builders in its survey headlined that Scotland's construction sector experienced the biggest pick-up among the four home nations during the final three months of 2013 and the survey showed its first positive reading since the onset of the financial crisis. Respondents to the Scottish Construction Monitor conducted by the Scottish Building Federation were slightly less optimistic and reported that confidence dipped slightly compared to Q3, though the net balance remained positive.

Unexpectedly, the trend in total new SCBS orders/contracts improved and the net balance was the highest recorded level since 2007. Orders generally improved, although concerns remain over public sector orders. More than half of firms reported an increase in private commercial orders and a net of respondents expect a further rise in Q1 2014. Capacity utilisation improved marginally from 80.8% to 82.3%, higher than previous fourth quarters. During the final three months of 2013 orders from all areas, save from the public sector are forecast to rise.

Notwithstanding the above, cash flow trends continued to deteriorate for a net balance of SCBS construction firms (-11.5%) although the decline eased from the previous quarter (-22.2%). Turnover (+23.1%) is now expected to improve although profitability (-7.7%) is still expected to be weak over the next 12 months suggesting continued pressure on margins. In Q4 2013 more than half of responding firms expected tender margins to worsen during the coming year in this fourth quarter survey concerns had eased with fewer than a third expecting margins to decline.

The Q4 2013 issue of the Scottish Construction Monitor to some extent focused on costs. Its main results suggest a fragile recovery with, on average, firms spending 32% of their annual turnover on materials/supplies and many firms indicated that they were unable to pass on the rising costs to clients thus reducing profit margins. The main costs were noted as fuel and building supply costs.

There was an unexpected net fall in total employment levels in Q4 for SCBS construction firms although most firms reported no changes; a net balance (12%) expect a further rise in Q1. Recruitment activity strengthened (from 38% to 46%) and recruitment problems eased. Average pay increases decreased marginally from 3.2% in Q3 to 2.9%.

Services

Service businesses among SBM respondents displayed a pattern of improvement in performance. The overall net balance for turnover for the three months to the end of November was +17% (lower than the +22% of the previous quarter but much improved on the -16% of the same quarter one year ago). The pace of growth has eased since the summer but remains robust. Service firms are slightly more optimistic than production firms, with service firms showing an overall net balance for turnover for the next six months at +17% compared to +14% for production firms.

Wholesale distribution

The downward trend in business optimism amongst SCBS wholesalers continued in Q12014, although two thirds reported no change. The downward trend in sales eased further from -6.7% in Q3 to -5.6% and once again the net balance in sales was better than expected. A net balance of -6.7% expect a decline in the first quarter of 2014. Three-quarters of wholesalers continued to report increased pressures from transport costs and to a lesser extent firms also remain under pressure from raw material costs (67%). More than half of firms (61.1%) expect to increase prices over the next three months. The downward trends in both turnover and profitability continued in Q4. Two thirds of firms continued to report no change to investment plans.

SCBS wholesale respondents unexpectedly continued to report a net decrease in overall employment levels during Q4. More than half sought to recruit staff (55.5%) and 47% of these firms reported recruitment difficulties. The average pay increase in Q4 was 2.5% compared to 2.3% in Q3.

Retail distribution

Business confidence among SCBS retailers improved further in Q4 for a net balance of 4.2%; in stark contrast to the -41.2% of Q4 2012. The trend in overall sales once again improved, with a net of 18.8% of firms reporting an increase; the highest net balance since 2006. No net change is forecast for Q1 2014. In January 2014 the Scottish Retail Consortium reported that Scottish sales had increased by 4.3% compared to January 2013; like for like sales increased by 2.5% on January 2013 when they had increased by 1.1%.

Cost pressures among SCBS remain historically high and continued to increase in the three months to the end of December 2013. Utility costs, transport costs and raw material prices continued to be of particular concern and firms also reported pressures from pay settlements. Pressures on margins

continued to ease in Q4. A net balance of 16% expect a rise in turnover and a net of -2.1% expect a decline in profitability (compared to -10.4% previously); the highest positive net balances since Q3 2007.

Though the trend in total SCBS employment levels continued to rise in Q4, a net balance expect to shed staff in Q1. Fewer than a third of firms reported increasing pay, and the average increase rose from 5.3% to 6.5%.

Tourism

The SCBS tourism results should be viewed with an element of caution as a number of hotels indicated that they were closed for the winter season. Slightly more than a third of hotels reported an increase in optimism. This is the fourth consecutive increase and the highest balance of optimism since 2006. The Scottish Hotel Occupancy Survey by Visit Scotland reported that more than two thirds of hotels and almost 80% of Bed & Breakfast establishments were 'quite confident'.

The outturn in demand exceed expectations with more than half of hotels reporting an increase total new orders in the fourth quarter. More than two thirds expect no change to demand levels in Q1 2014. Demand from all areas improved and only demand from abroad is expected to decline in Q1 2014.

Average occupancy among SCBS hotels fell back from 75% to 65%, though despite the decline this is a higher level than previous fourth quarters. During the fourth quarter of 2013 trends in bar/restaurant trade improved although the use of conference/ function facilities continued to decline. A net balance (+30.6%) unexpectedly reported a rise in the average daily room rate, although no net change is expected in the three months to the end of March. The Scottish Hotel Occupancy Survey by Visit Scotland reported a rise in year-on-year occupancy from 49% in December 2012 to 52% in December 2013.

Seventy-one percent of Scottish Chamber of Commerce member hotels (compared to 63% previously) reported a lack of tourist demand as their primary business constraint. Competition, poor transport infrastructure, high fuel costs and weak area marketing also remained a concern to hotels. Almost two thirds of hotels sought to recruit staff and recruitment problems remained low with only 15% of these hotels reporting recruitment difficulties. However, as forecast, employment trends declined and are set to decline further in Q1.

Outlook

Respondents to recent surveys generally have a positive outlook in the short term. The rises in business confidence are welcome, but significant challenges and concerns remain. Previous surveys have indicated a stagnating economy but these latest results indicate a return to pre-recession levels of confidence. The sense is that the pace of the recovery in the Scottish economy is accelerating and becoming more broad based than previously however for some sectors trading conditions remain harsh. Much will continue to depend on the rate and extent of recovery in our major markets and on Government measures adopted over the medium 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 August 2013 –November 2013;

Scottish Chambers' Business Survey Q4 2013

Scottish Engineering Quarterly Review Q1 2014;

The Bank of Scotland Markit Economics Regional Monthly Purchasing Managers' Indices (PMI) for September 2013
– January 2014;

The Scottish Retail Consortium's KPMG Monthly Scottish Retail Sales Monitor for January 2014

Visit Scotland Occupancy surveys for Q4 2013.

4 Scottish labour market

Andrew Ross, Fraser of Allander Institute

Abstract

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 December 2013. The section provides an overview of unemployment by age, local authority areas and duration (using various measures) as well as employment and economic activity by occupation and industry. It also reports on trends in full-time, part-time and self-employment in an effort to explain how the labour market has responded to recession and recovery.

Recent trends and statistics

The latest comparable figures on the labour market between Scotland and the United Kingdom in the quarter to December 2013 are summarised in Table 1. Labour Force Survey (LFS) data show that in the quarter to December the level of employment in Scotland rose by 9 thousand, to 2,556 thousand. Over the year to December 2013, employment in Scotland rose by 92 thousand to 2,556 thousand. For the same period, UK employment rose by 396 thousand. The Scottish employment rate (16 – 64) – i.e. those in employment as a percentage of the working age population – was 72.8%, up 2.0% from one year earlier. For the same period the UK employment rate was 72.1%, up 0.6% compared to a year earlier. Scottish unemployment, in the quarter to December, fell by 3 thousand to 195 thousand, a fall of 10 thousand over the year.

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.

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: Headline indicators of Scottish and UK labour market, October – December 2013

		Scotland	Change on quarter	Change on year	United Kingdom	Change on quarter	Change on year
Employment*	Level (000s)	2,556	9	92	30,146	193	396
	Rate (%)	72.8	0.0	2.0	72.1	0.3	0.6
Unemployment**	Level (000s)	195	-3	-10	2,342	-125	-161
	Rate (%)	7.1	-0.1	-0.6	7.2	-0.4	-0.6
Inactivity***	Level (000s)	732	6	-57	8,932	8	-23
	Rate (%)	21.5	0.1	-1.7	22.1	0.0	-0.1

Source: ONS Labour Market Statistics, Scotland and UK, February 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)

Table 1 shows that for Scotland the preferred International Labour Organisation (ILO) measure of unemployment fell to 195 thousand, between October – December 2013, a fall of 10 thousand over the year. The ILO unemployment rate fell in the months to December 2013 and now stands at 7.1%. This represents a 0.1% fall over the last quarter and a 0.6% fall over the year. The comparable ILO unemployment rate for the UK stands at 7.2%, and is down 0.4% over the most recent quarter and also down 0.6% over the year.

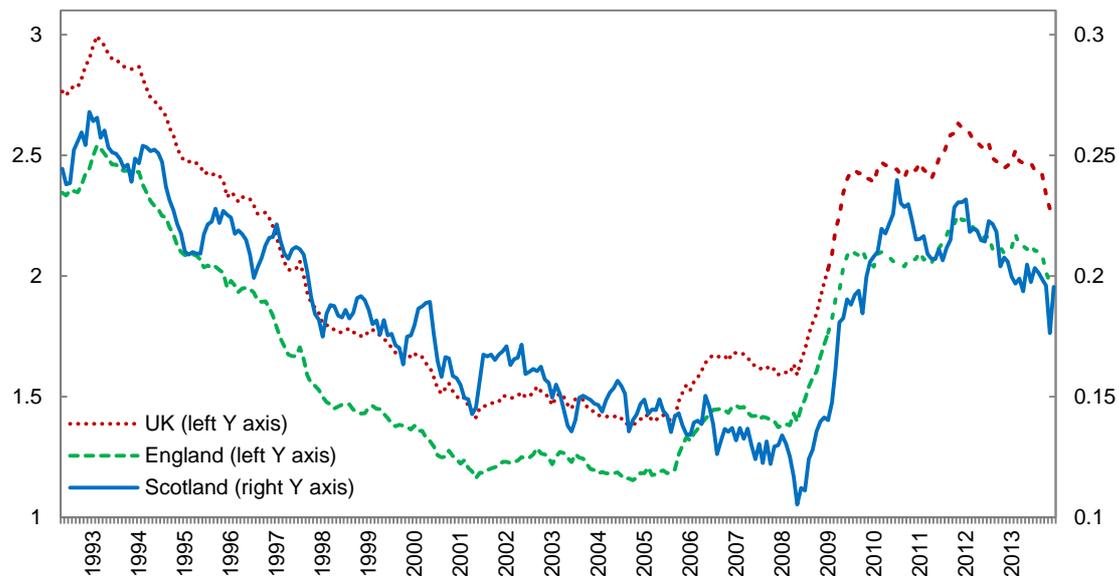
Figure 1 illustrates the trend in unemployment in Scotland, England, and the UK since 1992. Scottish Unemployment peaked in October – December 1992 at 268,000. It took almost five years (to August - October 1997) to be consistently below 200,000. It took a further five and a half years (to February – April 2003) to be below 150,000 and reached the lowest number of 111,000 in May – June 2008, preceding 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, this may reflect the more rapid rise in part time and self-employment (see Figure 2 and Table 5).

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 October – December 2013 the number of economically active (16+) in Scotland rose by 6 thousand, whilst the activity rate decreased by 0.1 to 63.8%. There were 2,751 thousand economically active people in Scotland during October – December 2013. This comprised 2,556 thousand in employment (2,480 thousand aged 16 – 64) and 195 thousand ILO unemployed. The level for those of working age but economically inactive increased by 8 thousand (0.5%) in the latest quarter, and decreased by 48 thousand (3.0%) over the year to 1,564 thousand people.

Economic inactivity for men aged 16 – 64 rose by 1.2% over the year, and decreased by 12.2% for women over the year as women were drawn more into the labour market. In the year from October 2012

to September 2013 the key components of change in inactivity were: fewer students, down by 4 thousand; more people looking after family members and/or home, up 3 thousand; fewer retirees, down 7 thousand; more long-term sick, up 8 thousand; temporarily sick were down by 1 thousand. Though the majority of the inactive (584 thousand) did not want a job, 204 thousand wanted employment.

Figure 1: Unemployment (in million) in Scotland, England and the UK 1992 – December 2013



Source: ONS Labour Market Statistics, Scotland, February 2014

Data on employment by age, derived from the Annual Population Survey, is available up to September 2013. Table 2 illustrates the changing employment rates by age group for October 2004 onwards. In the year to September 2013, employment rates fell for the young, those aged 18 – 24, but rose significantly for those aged 50 and over.

Table 3 indicates the continuing and significant variations in employment, unemployment and inactivity rates across Scotland, measured at the local authority level. The highest employment rates (over 77%) were seen in Aberdeen and the Northern Isles (83.4% in the Orkney Islands) and the lowest (below 65%) North Ayrshire, Glasgow and Dundee - though the latter generate significant employment for residents in adjacent local authority areas. Likewise unemployment rates across Scotland varied from 3.3% (Orkney Islands) to 13.5% (North Ayrshire).

Table 4 provides some indications, although with reservations, of the changing pattern of employment since October 2006 to September 2013 for different occupational groups.

Total workforce job figures are a measure of jobs rather than people. Total seasonally adjusted workforce jobs for September 2013 (the latest available figures) stood at 2,637 thousand, 2,313 thousand employee jobs, 305 thousand self-employed jobs, HM forces and supported trainees 19 thousand. Table 5 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 long-term data is needed when analysing underlying changes.

Table 2: Employment rates (%) by age and selected age cohorts, October 2004 – September 2013

(ln %) Oct-Sep.	Sep 05	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 11	Sep 12	Sep 13
All 16+	59.5	59.9	60.6	60.9	59.5	58.3	58.0	57.9	57.6
16 - 64	72.7	73.0	74.0	74.2	72.3	71.0	70.7	70.8	70.7
16 - 17	44.3	43.3	40.6	40.1	37.1	31.1	31.0	28.8	29.0
18 - 24	68.0	68.3	68.6	67.9	64.4	62.7	61.1	58.4	59.8
16-24	62.8	62.9	62.6	61.9	58.6	56.2	55.0	52.5	53.6
25 - 34	79.5	79.7	81.5	81.6	80.1	77.9	79.3	79.7	79.0
35 - 49	82.3	82.9	83.8	83.7	82.1	81.1	80.7	81.5	81.4
50 - 64	62.4	62.9	64.5	66.0	64.6	64.2	63.6	64.1	63.9
65+	5.1	5.3	5.4	6.0	6.8	6.6	6.7	7.5	8.0

Source: ONS Labour Market Statistics, Scotland, February 2014

Note: Denominator = all persons in the relevant age group

Table 6 outlines the changing patterns of full time and part time employment. The latest data indicates that from September 2012 to September 2013, the number of employees has increased by 6 thousand, whereas the numbers of self-employed have decreased by 11 thousand. Even though the numbers of part-time workers have decreased by 12 thousand over the year, the number of temporary employees has increased by 14 thousand.

Table 6 also indicates that the numbers of full-time workers in Scotland has increased by 8 thousand (0.5%) over the year from October 2012 – September 2014. Part-time employment numbers have grown through the recession, though decreased by 12 thousand over the year to September 2013. The changing trends in full and part-time employment since January 2004 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 116 thousand (see Table 6), 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 compared to pre-recession (61 thousand) numbers. This reflects continuing issues in the wider economy. Figure 2 illustrates how the employment 'recovery' continues to be driven by an increase in part time work and self-employment. This changing pattern of employment may help to explain why the link between employment and GDP seems so different to previous recessions.

Table 3: Employment, unemployment, inactivity and claimant count rates by Local Authority Area, October 2012 – September 2013

(In %)	Employment rate (16-64)	Unemployment rate (16+)	Inactivity rate (16-64)	Claimant count (proportion)
UNITED KINGDOM	71.1	7.7	22.8	3.7
SCOTLAND	70.7	7.8	23.2	3.9
Aberdeen City	77.8	4.1	18.9	1.8
Aberdeenshire	78.6	3.4	17.8	1.1
Angus	72.4	6.1	22.0	2.9
Argyll & Bute	72.8	5.8	23.5	3.3
Clackmannanshire	65.5	9.5	27.4	5.1
Dumfries & Galloway	68.7	7.6	25.2	3.6
Dundee City	62.8	11.1	28.7	5.5
East Ayrshire	68.0	10.9	23.4	5.7
East Dunbartonshire	77.2	4.9	19.7	2.4
East Lothian	74.5	6.1	21.2	3.0
East Renfrewshire	72.6	6.1	22.1	2.3
Edinburgh, City of	72.8	7.1	21.0	3.2
Na h-Eileanan an Iar	70.8	6.7	22.6	2.8
Falkirk	74.1	7.9	20.0	4.2
Fife	69.8	8.8	22.7	4.4
Glasgow City	60.9	10.5	33.1	5.5
Highland	74.1	5.3	22.0	2.5
Inverclyde	67.0	9.7	26.0	5.1
Midlothian	73.2	6.4	23.4	3.7
Moray	80.2	4.8	16.1	2.2
North Ayrshire	60.2	13.5	29.6	6.4
North Lanarkshire	70.3	10.6	20.5	5.1
Orkney Islands	83.4	3.3	13.8	1.2
Perth & Kinross	74.0	5.8	20.3	2.2
Renfrewshire	70.4	8.6	23.5	4.6
Scottish Borders	74.4	5.5	21.8	2.9
Shetland Islands	78.8	3.4	18.4	1.3
South Ayrshire	69.5	8.2	24.2	4.3
South Lanarkshire	73.0	8.3	20.3	4.4
Stirling	70.2	7.7	23.1	3.0
West Dunbartonshire	66.0	10.8	26.4	6.2
West Lothian	73.6	7.6	20.1	3.7

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

Notes: Claimant count averaged for 12 month period

Table 4: Percentage in employment by occupation, October 2005 – September 2013

(In %) Oct-Sep.	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 11	Sep 12	Sep 13
Managers and directors	8.5	8.3	8.8	8.8	8.7	8.6	8.3	8.5
Professional occupations	17.6	18.2	17.7	18.5	18.0	18.2	19.8	19.9
Associate prof & tech	12.3	12.3	12.5	12.7	12.6	13.4	12.6	12.7
Administrative & secretarial	12.5	11.8	11.7	11.4	11.4	10.9	10.6	10.9
Skilled trades occupations	11.8	11.7	12.3	11.6	12.0	11.4	11.4	11.1
Caring, leisure and service	8.7	9.3	9.2	9.3	9.7	9.6	9.6	9.3
Sales and customer service	9.1	8.8	8.8	9.0	8.9	9.5	9.1	9.1
Process, plant and machine	7.6	7.3	7.4	7.1	6.7	6.7	6.6	6.4
Elementary occupations	11.7	12.0	11.3	11.3	11.7	11.4	11.5	11.4

Source: Annual Population Survey, NOMIS

Notes: Occupation in Standard Occupational Classification (SOC)

Rounding means totals do not add to 100

Table 5: Total workforce jobs by industry, Scotland, September 2008– September 2013

Industry (in thousands)	Sep 08	Sep 09	Sep 10	Sep 11	Sep 12	Sep 13
All jobs	2,758	2,647	2,579	2,620	2,599	2,637
Agriculture, forestry & fishing	55	62	58	49	52	60
Mining & quarrying	28	32	33	30	36	37
Manufacturing	215	200	182	189	191	199
Electricity & gas	12	17	19	19	15	14
Water supply, sewerage, waste	19	15	14	16	17	16
Construction	210	181	172	171	170	170
Wholesale & retail trade	398	394	377	375	372	370
Transport & storage	118	119	108	116	115	114
Accommodation & food service	197	187	183	181	174	178
Information & communication	72	71	72	65	72	73
Financial & insurance activities	108	94	91	89	89	98
Real estate activities	33	32	29	33	37	43
Professional scientific & technical	175	182	160	208	199	186
Administrative & support service	198	195	190	192	200	216
Public admin & defence	174	163	159	153	153	152
Education	211	196	212	207	196	196
Human health & social work	392	374	376	386	370	377
Arts, entertainment & recreation	77	70	73	80	79	77
Other service activities	61	60	64	59	59	59
People employed by households	5	2	5	3	2	3

Source: ONS Labour Market Statistics, Scotland, February 2014

Notes: * Workforce jobs are a measure of jobs rather than people

There are extensive revisions from previous figures

** Industries are at SIC07 Classification

Table 6: 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) Oct-Sep.	Sep 06	Sep 07	Sep 08	Sep 09	Sep 10	Sep 11	Sep 12	Sep 13
Employees *	2,192	2,242	2,262	2,219	2,187	2,167	2,153	2,159
Self-employed *	263	265	269	265	264	283	299	288
Full-time workers **	1,850	1,882	1,916	1,855	1,801	1,789	1,776	1,784
Part-time workers **	621	640	631	644	664	672	685	673
Workers with 2nd job	95	94	98	101	98	96	98	99
Temporary employees	129	131	119	127	127	126	119	134
Could not find full-time job	59	62	61	81	99	114	116	116
Total *	2,473	2,524	2,550	2,502	2,469	2,464	2,469	2,470

Source: ONS Labour Market Statistics, Scotland, February 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

Table 7 provides some limited indications of the experience of unemployment in terms of claimant count by age and duration. The latest figures suggest that 32.4 thousand people have been claiming benefit for more than a year, down 5.9 thousand over the year and 17.4 thousand have been claiming for more than 2 years, up 1.9 thousand (or a change of 12.2%) over the year.

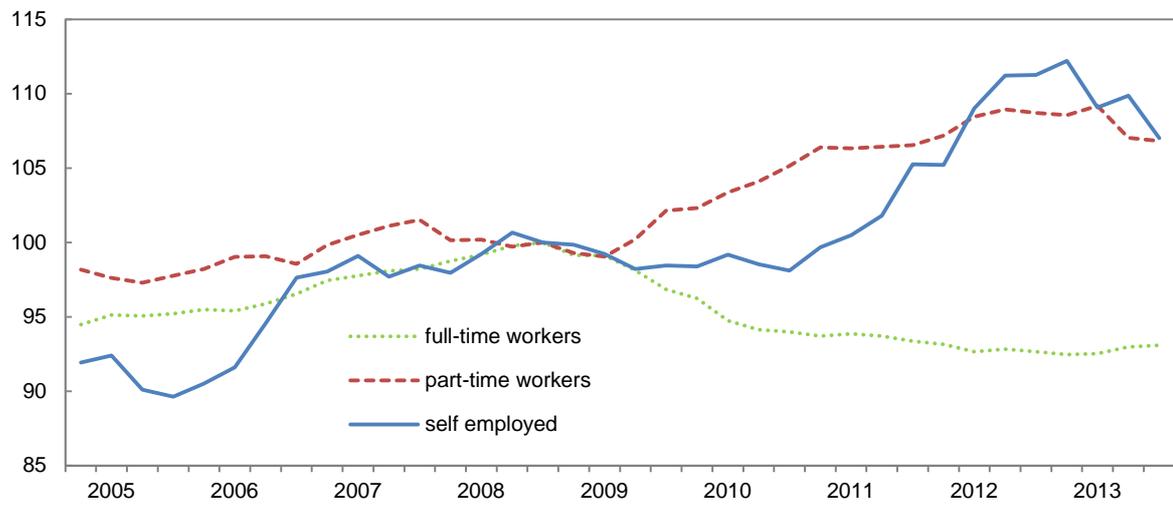
Public sector employment in Scotland continues to decline, although at a slower rate than previously. The latest data at the time of writing is for Q3 2013; it indicates that there were 579,700 (547,300 excluding public sector financial institutions) employed in the public sector in Scotland, a decrease of 1,200 (0.2%) since Q3 2012. However, it should be noted that this level is now similar to that of in 2003. In Q3 2013 public sector employment accounted for 22.7% of total employment, down from 23.5% in the previous quarter. Employment in the devolved public sector declined by 1,600 (0.3%) over the year to 484,400, due mainly to declines in employment in local government.

Table 7: Total claimant count and computerised claims by age and duration (numbers as of January 2014 and percentage change over year to January 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	113.5	64.1	17.0	32.4
All 16+ % change over year	-19.8	-20.7	-24.0	-15.5
All 18 – 24	27.7	18.9	4.0	4.7
All 25- 49	64.3	34.6	9.9	19.8
All 50 and above	21.1	10.2	3.0	7.9

Source: ONS Labour Market Statistics, Scotland, February 2014

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



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

FRASER OF ALLANDER INSTITUTE

Editorial introduction

In six months' time, voters in Scotland will be asked a simple and momentous question: "Should Scotland be an independent country?" As Scotland's leading publication on the Scottish economy, the **Fraser of Allander Institute Economic Commentary** invited both the **Better Together** and **Yes Scotland** campaigns to state the economic case for their respective positions in the current independence debate. In so doing, the Commentary offered itself as a *neutral* and informed platform on Scottish economic policy.

Each campaign was asked to reference the 'six tests' identified by **Professor Andrew Goudie** in his book '**Scotland's Future: the economics of constitutional change**' (Dundee University Press, 2013) and publication was assured only if both campaigns were able and willing to submit – which they did. **Professor Jim Gallagher** argues that the economic *status quo* best meets the needs of the Scottish economy and is a stable platform upon which Scotland can prosper in a sometimes volatile world. **John Swinney MSP**, Scottish Government Cabinet Secretary for Finance, Employment and Sustainable Growth argues that the case as laid out in the Scottish Government's White Paper - '**Scotland's Future: your guide to an independent Scotland**' - provides the best platform to develop the Scottish economy into the future and to set an economic policy that is most attuned to Scotland's economic opportunities and needs. Clearly, it is for the readers of the **Economic Commentary** to assess the economics (and political economy) of the respective cases.

Scotland is a European country, so it is useful to set Scotland and the UK's performance in a wider European context. The paper by **Professor Julia Darby** (Department of Economics, University of Strathclyde) outlines the differential performance of EU countries as they return (or not) to their pre-recession peak. She shows a 'variable speed' Europe with Germany and France having surpassed their pre-recession output peak in 2011, while it is forecast that the UK will do so during 2014. Her paper also touches on the wide variation in inter-regional economic inequality *within* EU countries with the UK prominent as having both the greatest inter-regional inequality and the EU's richest city region (as measured by GDP per capita) in London. This she posits will be a challenge to the Bank of England when it seeks to use its much vaunted 'macro-prudential policy toolbox' to fine tune UK macroeconomic stability.

The competitiveness of Scotland in Europe is the subject of a paper by economists from **BAK Basel Economics**, a private, independent Swiss-based economic research institute. Using indices developed by BAK Basel, they assess Scotland's economic performance and potential to compare it to ten EU small nations and larger sub-national regions. One of their conclusions is that Scotland's productivity and productivity growth over the past decade provide a strong platform for Scotland's future economic competitiveness.

Finally, **Dr Ross Brown** (University of St. Andrews) and others present a preliminary analysis of employee owned businesses (EOBs) in Scotland. They find that on average EOBs perform better than comparable businesses and the EOB sector in Scotland is larger than expected. They raise some

interesting policy issues such as whether the promotion of EOBs as an alternative to a customary trade sale might help retain business ownership in Scotland. Though it is a preliminary analysis, their paper focuses attention on perhaps an unheralded Scottish success story.

The Fraser of Allander Institute Economic Commentary exists to publish new work on the Scottish economy, regional economics and public policy more widely. If you would like to discuss submitting an article for publication in the **Economic Commentary**, please contact the Managing Editor.

Kevin D Kane

Managing Editor, Economic Commentary

Fraser of Allander Institute

March 2014

k.kane@strath.ac.uk

Policy Section

The Economic Case for an Independent Scotland

John Swinney MSP

Cabinet Secretary for Finance, Employment and Sustainable Growth, The Scottish Government

1 Introduction

Scotland is a successful and productive country, with a wealth of talent and an abundance of natural resources. We have a proud history and a bright future. On 18th September 2014, the Scottish electorate will have the opportunity to determine our nation's future and with that to choose the right economic path for Scotland. The choice is between the status quo with key decisions continuing to be made by Westminster, or becoming an independent nation with all the responsibilities and opportunities of comparable nations.

How we best equip ourselves to meet the challenges and seize the opportunities of the future for people living in Scotland now and in years to come is central to the independence debate.

The Scottish Government has I believe set out a compelling positive economic case for independence.¹ At its core is a set of economic assets - from our people, our innovation, our culture and our natural resources. Economic success is ultimately about competitiveness, economic resilience and equality, and we believe that this can be best achieved by having control over the key levers of economic growth.

When assessing choice, it is necessary to consider the counterfactual – what would happen in the absence of any change? To that extent, we have made a positive case for change based on our ability to improve competitiveness but also to reshape our society and maintain the values the Scottish people hold. Applying criteria or tests to any economic change can only take one so far, as ultimately it is about how one responds to future opportunities and challenges.

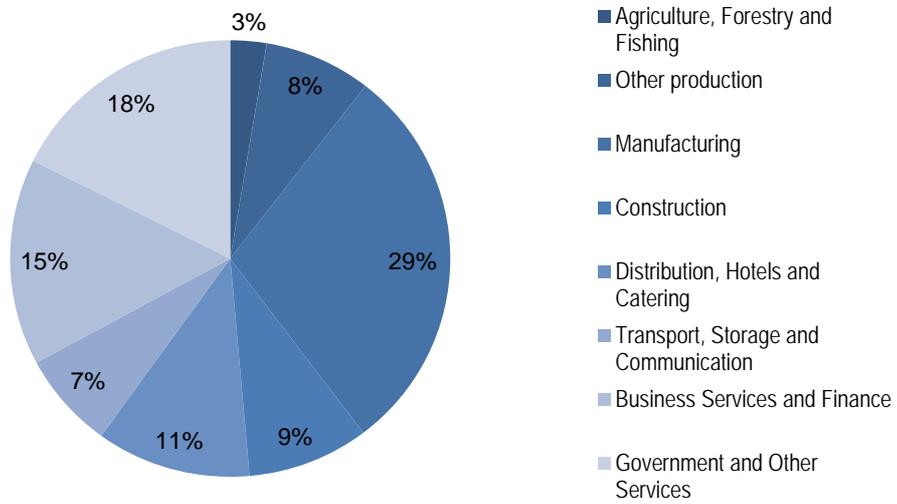
The Scottish economy has undergone a significant period of change over the last 40 years – see Figure 1. Industries and firms that were once the bedrock of the economy have been replaced, as have the skills and work patterns we deploy daily and the distribution of income within the workplace. Society has become more unequal and we must do more to ensure that everyone in Scotland has the opportunity to reach their full potential. This paper sets out Scotland's economic and financial potential, and how our economic prosperity and resilience is not well served by the current UK economic model or constitutional framework.

It shows how independence provides the greatest opportunity for boosting competitiveness and delivering greater resilience and equality. It also highlights priority areas to deliver these aims. It concludes that independence provides the opportunity to design a macroeconomic framework that delivers short-run responsiveness and long-term resilience – the platform for sustainable economic growth.

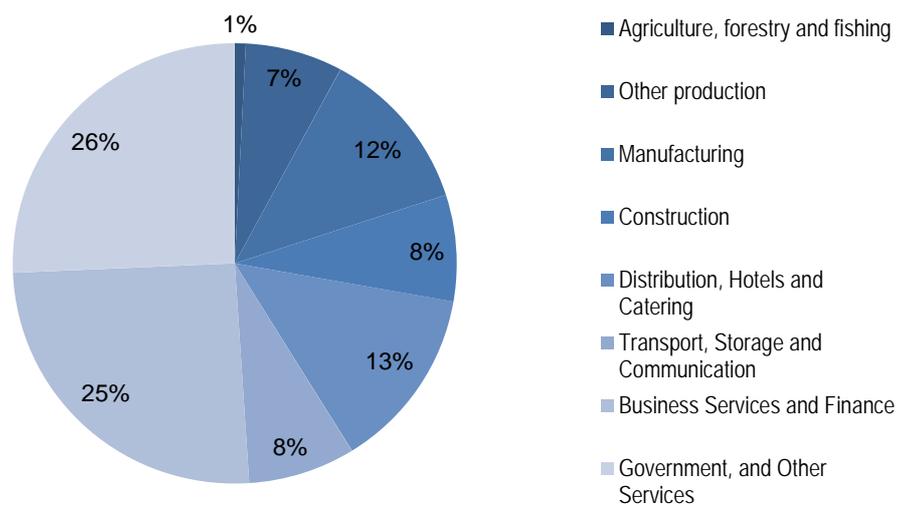
¹ *Scotland's Future*, November 2013, Scottish Government, <http://www.scotland.gov.uk/Publications/2013/11/9348>; and *Building Security and Creating Opportunity: Economic Policy Choices in an Independent Scotland*, November 2013, Scottish Government, <http://www.scotland.gov.uk/Publications/2013/11/2439>

Figure 1: Changing structure of the Scottish economy – output per sector, 1973 and 2009.

1973



2009



Source: Scottish Government Input-Output Tables², onshore output.

² <http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/Input-Output>

2 Scotland's economic potential

The First Report of the Fiscal Commission Working Group³ concluded that –

*“By international standards Scotland is a wealthy and productive country. There is no doubt that Scotland has the potential to be a successful independent nation.”*⁴

In 2012, even excluding North Sea oil and gas, output per head in Scotland was the third highest of any UK country or region – behind only London and the South East. When Scotland's oil and gas sector is included, Scotland is well above the UK average.

Across a range of indicators, Scotland's performance relative to the UK as a whole, and its countries and regions, is strong. See Table 1.

Table 1: Economic performance in Scotland

Indicator	Value in 1999	Performance Relative to UK in 1999	Rank (12 UK countries / regions) in 1999	Most Recent Value	Most Recent Performance Relative to the UK	Current Rank (12 UK countries / regions)
1. GVA per head ⁵	£12,786	91.7%	5 th	£20,013	94.0%	3 rd
2. Productivity (output per hour worked) ⁶	na	94.9%	4 th	na	97.4%	3 rd
3. Employment rate (16-64) ⁷	69.3%	-2.6 p.p	8 th	72.8%	+0.7 p.p.	4 th
4. Unemployment rate (16+)	7.1%	+1.1 p.p	8 th (lowest)	7.1%	-0.1 p.p.	Joint 5 th (lowest)
5. Inactivity Rate (16-64)	25.3%	+1.9 p.p	8 th (lowest)	21.5%	-0.7 p.p.	4 th (lowest)
6. GDHI ⁸	£9,771	92.7%	5 th	£15,654	97.6%	5 th
7. Full-time Gross Median Weekly Pay ⁹	£329.00	95.2%	5 th	£508.30	98.2%	3 rd

In addition, while like all other countries, our fiscal position has fluctuated over time, overall Scotland has, on average, been in a stronger position than the UK over the last 30 years.

³ The FCWG is a subset of the Council of Economic Advisers, established in March 2012 to advise on a robust macroeconomic framework for an independent Scotland. The group is chaired by Crawford Beveridge CBE and members include Professors Sir James Mirrlees, Joseph Stiglitz, Andrew Hughes Hallett and Frances Ruane. The FCWG has published five reports covering all aspects of a workable macroeconomic framework for Scotland - <http://www.scotland.gov.uk/Topics/Economy/Council-Economic-Advisers/FCWG>

⁴ Page 23 – Fiscal Commission Working Group First Report (2013), February 2013.

⁵ Latest Gross Value Added (GVA) per head figures are for 2012, and are in current basic prices on a workplace basis, <http://www.ons.gov.uk/ons/rel/regional-accounts/regional-gross-value-added-income-approach-december-2013/index.html>. On a 'residence basis', GVA per head in Scotland is 96.7% of the equivalent UK figure.

⁶ Productivity, output per hour worked, 2012 figures: ONS Labour Productivity, Q3 2013 <http://www.ons.gov.uk/ons/rel/productivity/labour-productivity/q3-2013/index.html>

⁷ Employment, Unemployment & Inactivity rates are for April-June 1999 (capturing the start of the first term of the Scottish Parliament in May 1999) and Oct-Dec 2013, Regional Labour Market Statistics, ONS: <http://www.ons.gov.uk/ons/rel/subnational-labour/regional-labour-market-statistics/february-2014/index.html>

⁸ General Disposable Household Income: Regional GDHI, <http://www.ons.gov.uk/ons/rel/regional-accounts/regional-household-income/spring-2013/index.html>

⁹ Full-time Gross Median Weekly Pay, Annual Survey of Hours and Earnings, 2013 Provisional Results, ONS, <http://www.ons.gov.uk/ons/rel/ashes/annual-survey-of-hours-and-earnings/2013-provisional-results/index.html>

3 Constraints of the current economic model and constitutional framework

Devolution has provided the opportunity for successive administrations to tailor policies to meet Scotland's distinct priorities, often taking a different approach to the UK.

From our world leading climate change legislation through to recent initiatives such as retaining our Enterprise Bodies, setting competitive business rates and prioritising capital investment, devolution has enabled Scotland to take decisions that best match its own circumstances.

However, ultimately the vast majority of decisions that influence Scotland's economic structure, rate of growth and levels of equality are taken outwith Scotland.

Scotland's average growth rate has lagged behind both comparable European countries and the UK over the last 30 years. This constrains Scotland's potential. See Table 2.

Table 2: Average annual GDP growth rates

Time Period	Annual Average GDP Growth Rate			Gap (Scotland minus UK/ Comparable European)	
	Scotland	UK	Comparable European ¹⁰	UK	Comparable European
1999-2007	2.9%	3.1%	3.2%	-0.3%	-0.3%
1963-2007	2.6%	2.9%	3.4%	-0.3%	-0.8%
30 year average (1977-2007)	2.4%	2.9%	3.0%	-0.4%	-0.6%

Source: SNAP¹¹, ONS, and OECD. Note that numbers may not sum due to rounding.

At the same time, many other comparable European countries perform better, not just economically, but also in terms of well-being and inclusiveness. One particular feature of Scotland's economic growth within the UK to date has been the failure to spread the rewards of growth more fairly across society.

For example –

- In 2010, the UK was ranked 28th (out of 34) OECD countries on income equality;¹²
- The UK is now one of the most regionally unbalanced economies in the world, which reflects the dominance of London. These imbalances have widened in recent years, with the gap between GVA per head in London and every other part of the UK increasing over the period 1999 to 2012.¹³
- The UK economy is also prone to instability. Despite recent quarters of growth, the UK has had the weakest economic performance, with the exception of Italy, of any G7 nation during the financial crisis. Debt is amongst the highest in the OECD.

¹⁰ The comparable European countries are: Austria, Denmark, Finland, Iceland, Ireland, Luxembourg, Norway (mainland GDP only), Portugal and Sweden.

¹¹ <http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/snap>

¹² Macroeconomic Framework – First Report (2013), Fiscal Commission Working Group

¹³ Regional Gross Value Added (Income Approach), December 2013, ONS, <http://www.ons.gov.uk/ons/rel/regional-accounts/regional-gross-value-added--income-approach-/december-2013/stb-regional-gva-2012.html>

- On key drivers of long-term growth, the UK often lags behind other countries. For example, the UK is currently ranked 30th out of 35 advanced countries in terms of levels of investment as a percentage of GDP in 2012;¹⁴
- The UK has witnessed a particularly pronounced decline in manufacturing, which explains, in part, why the UK has been in a current account deficit in 29 out of the previous 33 years.¹⁵

Overall, across a range of social justice and competitiveness indicators, comparable economies to Scotland often outperform the UK. See Table 3.

Table 3: Select comparison of international social justice and competitiveness measures

Country	Social Justice Measures		Measures of Competitiveness (Country Ranking)		
	UN HDI ranking (2012) ¹⁶	Gini Coefficient – (2010) ¹⁷ . Higher value indicates greater inequality	World Bank Ease of Doing Business (2014) ¹⁸	IMD competitiveness (2013) ¹⁹	WEF competitiveness (2013-14) ²⁰
Denmark	15	0.252	5	12	15
Finland	21	0.26	12	20	3
Ireland	7	0.331	15	17	28
New Zealand	6	0.317	3	25	18
Norway	1	0.249	9	6	11
Sweden	7	0.269	14	4	6
Switzerland	9	0.298	29	2	1
UK	26	0.341	10	18	10

Independence would allow Scottish policies to be matched to the specific needs and circumstances of the Scottish economy – both in the short-term and long-term.

It would also mean that decisions were taken by the people living and working in Scotland and who have the greatest stake in the future success of the Scottish economy.

4 Independence as the key to boosting long-term competitiveness

In an increasingly integrated global economy, establishing and maintaining a competitive advantage is vital. The powers of independence themselves cannot bring about a guaranteed outcome – but instead it is how effectively they are used.

¹⁴ IMF (October 2013) *World Economic Outlook Database*, Comparisons based on 35 advanced economies as defined by IMF. <http://www.imf.org/external/pubs/ft/weo/2013/02/weodata/index.aspx>.

¹⁵ *Balance of Payments, Q3 2013, December 2013*, ONS, <http://www.ons.gov.uk/ons/rel/bop/balance-of-payments/q3-2013/index.html>

¹⁶ *United Nations Human Development Index, 2012*, <https://data.undp.org/dataset/Table-1-Human-Development-Index-and-its-components/wxub-gc5k>

¹⁷ *OECD Statistics*, <http://www.oecd.org/social/inequality.htm>

¹⁸ *Doing Business 2014*, World Bank, 29 October 2013

¹⁹ *IMD World Competitiveness Yearbook*, May 2013

²⁰ *Global Competitiveness Report 2013-2014*, World Economic Forum, September 2013

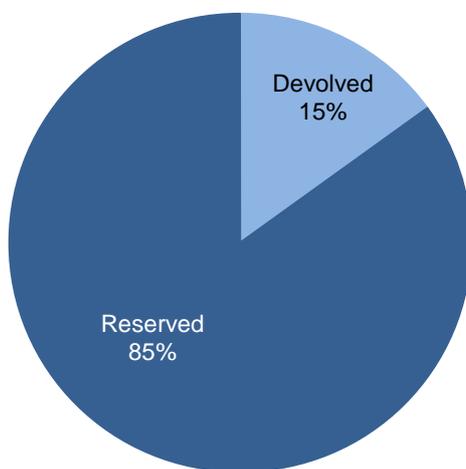
4.1 The degree of autonomy to tailor policies to the distinct circumstances of the Scottish economy

Under independence future Scottish governments would have the maximum degree of autonomy to tailor policies to the distinct circumstances of Scotland's economy and take advantage of Scotland's unique strengths, size and situation.

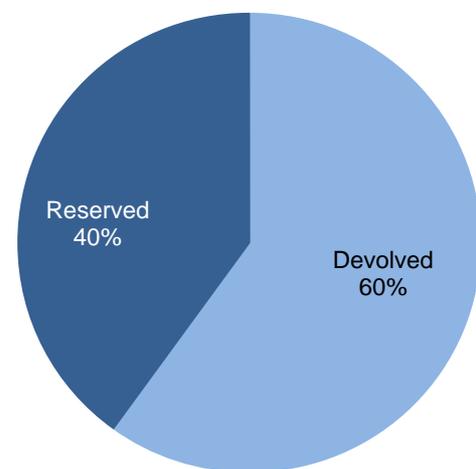
Currently, responsibilities for key economic and social policies are reserved. Being 'one-size fits all', such decisions cannot always consider Scotland's distinct circumstances or needs.

Figure 2: Expenditure and taxation devolved to Scotland (including Scotland Act 2012)

Scottish tax revenue



Public expenditure for Scotland



Source: GERS 2011/2012, <http://www.scotland.gov.uk/Publications/2013/03/1859>

This puts Scotland at a relative disadvantage to independent nations with economic policies reflecting their own characteristics, and designed to exploit their competitive strengths.

Moreover, the nature of the funding settlement – the Barnett Formula – means that the Scottish budget is determined principally by changes set at the Westminster budget.

Such restrictions are particularly pertinent in the face of long-term challenges faced by all developed nations. For instance, the risk posed by changing demographic structures can only be properly addressed with control over immigration and labour force levers.

4.2 The breadth of opportunities to extend competitive advantages

Under the current constitutional framework, Scotland has some responsibilities for key supply-side economy policy, including education, skills and infrastructure. Successive administrations have used these to tackle key challenges. However, the powers outside these areas are limited.

With independence future Scottish governments would have the ability to draw on the full spectrum of tax, regulatory and public spending levers – as outlined in Table 4 – to establish an industrial strategy focused on diversifying Scotland’s industrial base by promoting manufacturing, innovation and productivity.

For example, these include microeconomic policies which influence and shape incentives and behaviours at the sector, firm, household or individual level. They can also affect the performance of social policies and levels of well-being.

Table 4: Overview of microeconomic framework under independence

Taxation	Public Spending
<ul style="list-style-type: none"> • Corporation Tax • Income tax • National Insurance • Oil and Gas Taxation • Capital Gains Tax • Value Added Tax (VAT) • Tax Credits and Allowances • Excise Duty • Air Passenger Duty 	<ul style="list-style-type: none"> • Welfare • Infrastructure • Borrowing • Procurement • Education and Skills • Economic Development • Transport • Health • Housing
Regulatory Levers	Institutions and Representation
<ul style="list-style-type: none"> • Competition • Consumer Protection • Industry Regulation • Employment Legislation and the Minimum Wage • Energy Markets and Regulation • Company Law and Insolvency • Intellectual Property • Environmental Regulation • Planning 	<ul style="list-style-type: none"> • Governance and institutions • Social Capital • Administration • EU Representation • International Trade • Foreign Policy • Responsible capitalism

4.3 The efficiency of the delivery of public services and the degree of accountability and transparency

Efficient and effective policy making is best achieved when there are clear choices and trade-offs between both expenditure and revenue. This is clearly lacking in the status quo.

In addition, the current complex mix of responsibilities limits the scope for policy synergies and also presents an inherent inefficiency in the funding of policies.²¹

For example, currently the budgetary benefits from good policy making – such as in employability and childcare – in the form of higher tax receipts or lower welfare payments do not flow back to Scotland and cannot be used either to help fund further expansion in such policies or be reinvested elsewhere.

As an illustration, growing Scotland's four largest tax receipts by 1% and reducing core welfare spending by 1% through higher rates of employment would benefit the public finances by around £350 million. Even after the Scotland Act, Scotland would only receive £45 million of this directly. Under independence, the full £350 million would return.

Overall with independence, there will be the opportunity to utilise the full range of economic levers – taxation, investment, economic regulation and existing devolved responsibilities – in a more coherent and aligned manner and to better exploit synergies.

5 Priority areas for encouraging growth and innovation in Scotland

In “Building Security and Creating Opportunity: Economic Policy Choices in an Independent Scotland” we set out four priority areas for encouraging growth and innovation in an independent Scotland, and ensuring the gains are sustainable and shared across all the people of Scotland.²²

5.1 Rebalancing the economy to promote innovation and productivity

The services sector in Scotland is currently estimated to account for around 70% of output and 80% of employment. A strengthened role for manufacturing is clearly a major part of rebalancing the Scottish economy.

With a tradition of scientific expertise, a highly-skilled workforce and world renowned universities Scotland has a strong base from which to build on, but there remains significant room for improvement. For instance, as a proportion of GDP, Denmark and Finland spend nearly twice as much on R&D as Scotland.

Manufacturing has an important role to closing this innovation gap. While manufacturing firms account for only 12% of Scottish onshore output, they account for 66% of business R&D spending. Manufacturing also brings with it high-value jobs and greater employment opportunities, and manufacturing firms have a higher propensity to export, thereby boosting net-trade.

Scotland's size would be an advantage in helping to close the innovation gap as collaboration and cooperation across business, academia, government and trade unions is arguably easier in Scotland than in larger countries.

This would tie in with the use of tax and allowances to break-down barriers to R&D and bridge the gap between our acclaimed higher education establishments and a burgeoning innovative economy.

²¹ *Macroeconomic Framework – First Report (2013), Fiscal Commission Working Group*

²² *Building Security and Creating Opportunity: Economic Policy Choices in an Independent Scotland, November 2013, Scottish Government, <http://www.scotland.gov.uk/Publications/2013/11/2439>*

5.2 Putting in place an effective tax system

Scotland will have a unique opportunity to reform and re-design an archaic UK tax system which has been identified as costly and complex by a number of commentators, including the FCWG²³ and the Institute of Fiscal Studies²⁴.

Crucially, as all countries raise taxes to fund government expenditure, it offers a significant opportunity to establish an international advantage by increasing the efficiency and effectiveness of the tax system.

A more efficient tax system will help Scottish businesses and support investment, jobs and growth.

5.3 Building a labour market policy which meets the needs of the Scottish economy and creates opportunities

Devolution has shown what can be achieved with greater access to the levers that support the labour market. Independence would allow future Scottish governments to establish truly transformational policy initiatives to increase labour market participation.

While the Scottish Government currently has responsibility for education and skills policies, it lacks crucial powers over employment regulation, tax and welfare policies, all of which are vital in supporting people to enter and remain in employment.

With independence we would not suffer this disjoint, providing the potential to establish a more coherent framework linking education, employability and skills with tax and welfare levers that can motivate people out of inactivity and support people into work.

Carefully designed employment protections can help employees strike a balance between non-market activities, such as care of young children or older people, and paid work. Maternity and paternity leave and return-to-work rights, for example, have a direct impact on female labour force participation.

Employment protections, and the wider equality and human rights legal framework, can also support individuals faced with institutional power imbalances.

We have announced an independent review of workplace policies - *Working together: progressive workplace policies in Scotland*²⁵ – which aims to improve workplace policies through effective union and employer cooperation. The review will see trade unions, businesses and academics working together with the Scottish Government to create better working environments.

Whilst the UK Government requires firms to report the number of men and women on their boards,²⁶ and has a target to increase the number of women on FTSE 100 boards to 25% by 2015,²⁷ a number of European countries have adopted a more progressive attitude to worker and gender balance on

²³ *Principles of a Modern and Effective Tax System*, FCWG, November 2013, <http://www.scotland.gov.uk/Publications/2013/10/4839>

²⁴ *Mirrlees Review*, Institute for Fiscal Studies, <http://www.ifs.org.uk/mirrleesReview>

²⁵ <http://news.scotland.gov.uk/News/Workplace-policies-to-be-reviewed-937.aspx>

²⁶ <http://www.legislation.gov.uk/ukdsi/2013/9780111540169/regulation/3>

²⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/182602/bis-13-p135-women-on-boards-2013.pdf

company boards. For instance, Belgium, Italy, France, Iceland and Norway have already introduced legislation requiring a gender quota on boards.²⁸

The Scottish Government is keen to learn from these approaches and will legislate if necessary to secure greater female representation.

Our approach to childcare, as set out in Scotland's Future, will enable more people, particularly woman, to participate in the workforce.²⁹

5.4 Boosting internationalisation

Scotland is an open and globally integrated economy with an established network of international connections.

In 2012 Scottish firms exported nearly £26 billion of goods and services to economies across the world, with the value of exports increasing by 6% between 2011 and 2012.³⁰

Likewise, Scotland has a strong recent record in attracting international investment, accounting for 16% of UK Foreign Direct Investment job creation in 2012, well above our per capita share and ranking near the top of the UK table for the third consecutive year.³¹

Independence would provide the opportunity to build on these strengths through access to key policy levers including trade promotion, immigration, and the ability to fully represent Scotland's interests in the international economic community.

6 Independence as the key to boosting short-run responsiveness

The ability to respond swiftly and flexibly to changing economic needs is important not just to provide greater stability but also to deliver long-term sustainable growth.

Under the current framework, such 'macroeconomic' policy is set largely for the UK as a whole. The impacts of any economic changes or events in Scotland are not considered in their own right.

In contrast, independence would provide much greater scope to respond quickly and decisively to any negative event (such as a recession) in Scotland and, crucially, to capture distinct new opportunities.

It would also allow Scotland to address some of the weaknesses in the current UK model – such as the bias toward high indebtedness and unbalanced growth across sectors and regions – which have left the UK particularly vulnerable to economic shocks.

A number of criteria have been proposed to assess the impact of constitutional change on macroeconomic stability, including the '6 tests' put forward by Professor Andrew Goudie.³²

²⁸ European Commission Women on boards - Factsheet 2: Gender equality in the Member States

http://ec.europa.eu/justice/gender-equality/files/womenonboards/factsheet-general-2_en.pdf

²⁹ Childcare and labour market participation – Economic Analysis, Scottish Government, Jan 14

<http://www.scotland.gov.uk/Resource/0044/00441783.pdf>

³⁰ Global Connections Survey, Scottish Government, January 2014, <http://www.scotland.gov.uk/Resource/0044/00442854.pdf>

³¹ Ernst and Young Scotland Attractiveness Survey 2013, <http://www.ey.com/UK/en/Issues/Business-environment/2013-Scotland-attractiveness-survey>

Our proposed macroeconomic framework is built around the insights of the Fiscal Commission Working Group (FCWG). Their informed analysis and proposals have been set out comprehensively over the course of the past year in a substantial body of work.

The FCWG model presents an effective balance between autonomy and risk management. It identifies areas where there will be benefits in sharing risks but also areas where Scotland will benefit from the autonomy to choose a different path.

For instance, a key proposal of the Fiscal Commission Working Group – and the Scottish Government agrees – is that *“the preferred model would be for Scotland to enter a formal monetary union with the rest of the UK and the Bank of England operating as central bank for the common monetary area”*.³³

Retaining Sterling has clear benefits both for Scotland and the UK. As highlighted by Governor Carney in his recent contribution³⁴, a currency union secures a single market, facilitates trade, competition and economic efficiency and eliminates transaction and exchange rates costs. With two thirds of Scottish exports destined for the UK and Scotland estimated to be the UK’s second largest trading partner this makes clear sense, as highlighted by Sir James Mirrlees in his recent article *“Benefiting the UK is the most logical option”*.³⁵

It is clear that Scotland and the UK currently meet the essential economic criteria for successful currency union, with Scotland performing close to (or many cases slightly better than) the UK on key indicators such as the labour market, productivity, output per head and income.

Figure 3 demonstrates the relatively close movements between the two economies. It highlights that since 1964 estimates of the output gap between Scotland and the UK differed by only 0.7 percentage points over the period on average and only twice by more than 2 percentage points (1987 and 1988).

Scotland the rest of the UK also share similar institutional histories and there is a high degree of economic mobility and interaction between both countries.

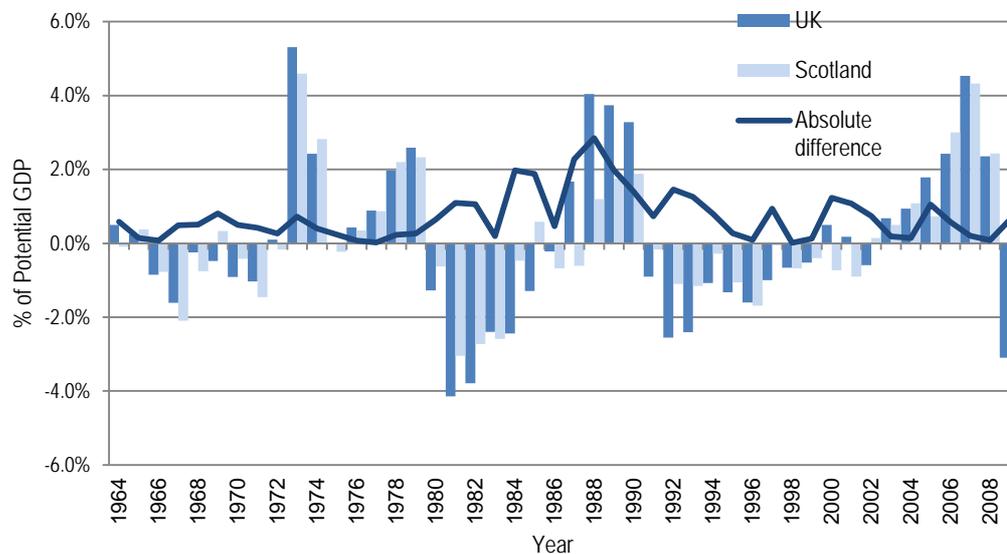
Crucially, by providing detailed and well-engineered frameworks and institutions in areas such as governance, financial regulation, management of oil revenues and fiscal policy, the model proposed is robust and rich in design. It addresses all the key issues of monetary unions, including building on the lessons from the experience of the Euro area.

³² Andrew Goudie (2013), *Scotland's Future: The economics of constitutional change*, Dundee University Press

³³ Page 28 - *Macroeconomic Framework – First Report (2013)*, Fiscal Commission Working Group

³⁴ <http://www.bankofengland.co.uk/publications/pages/speeches/2014/706.aspx>

³⁵ *“Benefiting the UK is the most logical option”*, Sir James Mirrlees, 13 February 2014, *Scotsman*, <http://www.scotsman.com/news/analysis-benefiting-the-uk-is-most-logical-option-1-3304617>

Figure 3: Estimated output gaps UK and Scotland

Source: Chart 7.01, Page 131 - *Macroeconomic Framework – First Report (2013)*, Fiscal Commission Working Group

6.1 Budget stability and affordability

Under the current framework, Scotland is dependent on decisions of the UK Government to both manage the public finances responsibly, and to allocate a budget for devolved spending.

As a result, not only is the affordability of Scottish policy choices driven by the performance of the UK, there is uncertainty in the method used to allocate funding to Scotland, which could be changed at any time. For example, it has been suggested that scrapping the Barnett formula could lead to a cut of around £4 billion from the Scottish Budget in a given year.³⁶

Looking forward, given the poor financial management of successive UK governments, Scotland will be faced with a challenging fiscal position irrespective of the outcome of the referendum. This is because the UK's financial management prior to the global financial crisis left it particularly vulnerable. See Figure 4 overpage.

Under independence, Scotland's public finances would depend solely upon tax revenues raised here, the fiscal approach to borrowing and debt that is adopted and the choice of policy priorities by the people of Scotland. This has a number of advantages.

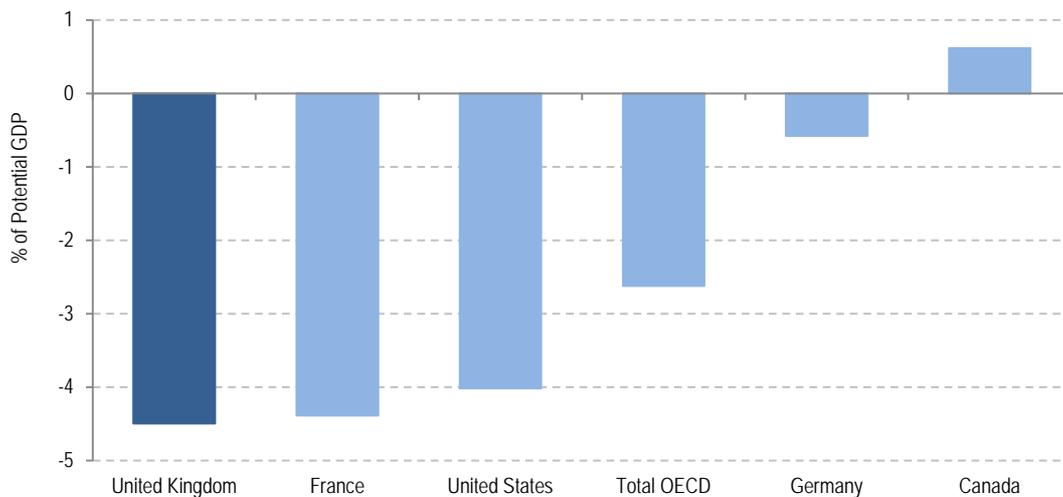
Firstly, subject to the broad parameters of a sustainability agreement, independence would provide the opportunity to manage the public finances in a manner most appropriate to the needs of, and conditions facing, the Scottish economy.

³⁶ "Scotland is taking more than its share of funds", David Miles and Gerald Holtham, *Financial Times*, July 5 2010, <http://www.ft.com/cms/s/0/ea6b6198-8865-11df-aade-00144feabdc0.html#axzz2uFUleAdR>

Secondly, priorities could be managed according to the values and preferences of the people of Scotland.

Thirdly, if future Scottish governments were able to use the new economic powers to grow the economy more quickly, or to generate savings through preventative spending, then the proceeds could be re-invested to support the public finances or new initiatives.

Figure 4: General Government cyclically-adjusted balances, 2007



Source: OECD

6.2 Flexibility

Under independence, the Scottish Government will control key policy levers and be able to respond flexibly to changing economic circumstances and to tackle problems or areas which were underperforming.

There is a trade-off between temporary pooling of resources and flexibility. On the one hand, a centralised system can allow for temporary transfers from more prosperous parts to relatively poorer areas. However, a reliance upon such 'transfers' run the risk of locking areas into permanent lower levels of growth. Long-term economic development is unlikely to be achieved on a sustainable basis by transfers and redistribution alone. This is a clear failing of the UK approach.

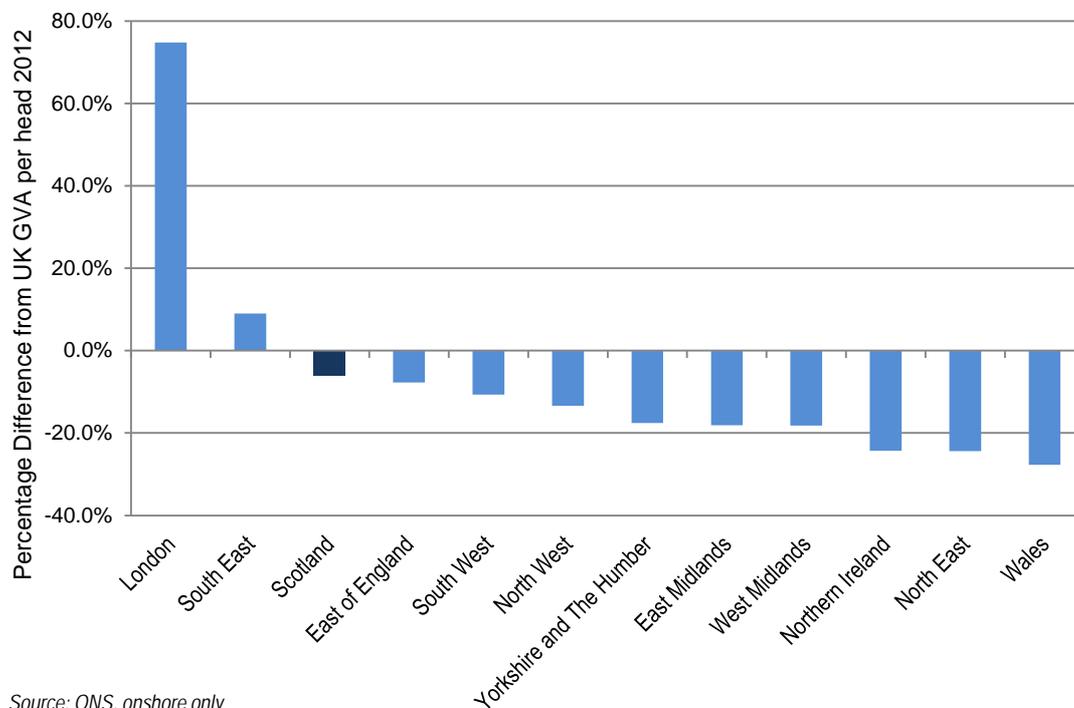
For example, the UK is one of the most regionally unbalanced economies in the world, with Figure 5 highlighting how, in 2012, output per head in London was nearly 75% higher than the UK average whilst output in Wales was nearly 28% lower.

7 Conclusion

Since devolution and even with limited powers, Scotland has made progress. This demonstrates what can be achieved even with limited economic self-determination. But with independence Scotland could do even more. Independence would provide the opportunity to create a stronger, fairer and more resilient Scottish economy.

Being strong neighbours will benefit both Scotland and the rest of the UK. A stronger Scotland will provide an economic counterweight across the islands of the UK, helping to address the unequal nature of regional growth. We will continue to work together with the rest of the United Kingdom on issues of common interest such as sharing Sterling and working together to ensure financial stability.

Figure 5: Gross Value Added (GVA) per head (workplace based) percentage difference from the UK average³⁷, 2012



However, the choice to do things differently – and better – would lie with us. This is fundamental to Scotland's future economic success.

Remaining part of the UK without control of key economic levers will perpetuate the lower levels of growth experienced in Scotland. It will mean the continuation of one size fits all economic policies which repeatedly fail to meet Scotland's needs. It will leave the Scottish and UK economies unbalanced and will fail to deliver the economic instruments needed to ensure all parts of Scotland's economy are working to capture the opportunities available, to address the challenges we face and to share the benefits of success.

³⁷ Regional Gross Value Added (Income Approach), December 2013, ONS, <http://www.ons.gov.uk/ons/rel/regional-accounts/regional-gross-value-added--income-approach--december-2013/index.html>

It is not enough to have tax raising powers without the ability to grow the tax base, or the ability to grow the tax base without the means of benefitting from the revenues.

Scotland requires control over both sides of her balance sheet in order to fully succeed.

The greatest opportunities come not just from the ability to vary individual powers, but from the ability to design a consistent and coherent approach to supporting key sectors and implementing a fully coordinated economic policy.

There are no longer arguments over Scotland's wealth. We are one of the wealthiest nations in the developed world and wealthier per head than the UK as a whole. Our strengths stretch from world leading universities, to a vibrant food and drink sector, from low carbon technology to oil and gas and from financial services to innovative life sciences and creative enterprises. Combining powers over business investment, employment creation, and taxation will help secure stronger levers of economic growth from which all the people of Scotland could benefit.

References

- Ernst and Young, (2013), Scotland Attractiveness Survey
<http://www.ey.com/UK/en/Issues/Business-environment/2013-Scotland-attractiveness-survey>
- Fiscal Commission Working Group (February 2013), First Report: Macroeconomic Framework <http://www.scotland.gov.uk/Resource/0041/00414291.pdf>
- Fiscal Commission Working Group, (February 2013), 'Assessment of Key Currency Options', Technical Annex to First Report, Macroeconomic Framework <http://www.scotland.gov.uk/Publications/2013/02/3017/downloads>
- Fiscal Commission Working Group, (October 2013) Second Report: Stabilisation and Savings Funds for Scotland <http://www.scotland.gov.uk/Publications/2013/10/7805>
- Fiscal Commission Working Group, (November 2013) Third Report: Principles of a Modern and Effective Tax System <http://www.scotland.gov.uk/Publications/2013/10/4839>
- Fiscal Commission Working Group, (November 2013) Fourth Report: Fiscal Rules and Fiscal Commissions <http://www.scotland.gov.uk/Publications/2013/11/4732>
- International Monetary Fund, (October 2013), World Economic Outlook Database <http://www.imf.org/external/pubs/ft/weo/2013/02/weodata/index.aspx>.
- Institute for Fiscal Studies, (November 2010), The Mirrlees Review <http://www.ifs.org.uk/mirrleesReview>
- IMD, (May 2013), World Competitiveness Yearbook
- Scottish Government, (November 2013), Scotland's Future <http://www.scotland.gov.uk/Publications/2013/11/9348>;
- Scottish Government, (November 2013), Building Security and Creating Opportunity: Economic Policy Choices in an Independent Scotland <http://www.scotland.gov.uk/Publications/2013/11/2439>
- Scottish Government, (January 2014), Global Connections Survey <http://www.scotland.gov.uk/Resource/0044/00442854.pdf>
- United Nations (2012) Human Development Index 2012 <https://data.undp.org/dataset/Table-1-Human-Development-Index-and-its-components/wxub-qc5k>
- World Economic Forum, (September 2013), Global Competitiveness Report 2013-2014 http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf

Author details:

John Swinney MSP
 Scottish Parliament
John.Swinney.msp@scottish.parliament.uk

The Economic Case for Union

Professor J D Gallagher CB FRSE Gwylim Gibbon Fellow, Nuffield College, University of Oxford

1 Introduction

It is not surprising to find this journal debating the economic consequences of independence. More surprising perhaps has been how economics has dominated the referendum debate. While one might not take at face value the repeated evidence that voters would support independence only if it made them £500 a year better off¹ the choice of nationhood appears to be a remarkably instrumental one. Certainly whether Scotland would be worse or better off as a separate state is, according to the Scottish Government, the most important question. Naturally, they say Scotland would be better off. Independence, however, is an uncertain business; a new state might gain new freedoms but would lose present sources of stability, and some questions about independence are simply unanswerable in advance. It is nevertheless possible to draw some conclusions about its possible economic effects, and how it would measure up to the criteria set out in Goudie (2013), though his '6 tests' do not address all the relevant questions.

Today, Scotland is a successful part of the UK economy and a very strong case can be made that maintaining the union is in Scotland's best economic interest. This case rests on the foundation that the UK is a well-developed economic union, with a single domestic market, in which goods and services, capital and labour can move freely to take up opportunities, unhindered by international boundaries and not distorted by regulatory arbitrage. It is also a well-functioning fiscal union which, together with an effective banking union, supports both a single currency and a system of social solidarity that promotes social cohesion. The UK pools economic and other risks, (whether banking crises, natural resource revenues or longevity trends) and so absorbs economic shocks. An independent Scotland would have to manage these in other ways, and that would require a painful transition to a different approach to economic management.

The possibility that Scotland might in the long run be more successful as a separate state than within the UK cannot of course be completely ruled out: there are simply too many uncertainties to be sure about that. Yet three things can be said with reasonable confidence. First, the particular version of limited economic independence promoted in the White Paper² is unlikely to be a sustainable way forward, and the alternatives in relation to currency, are unpalatable. Second, an independent Scotland would face immediate and very substantial fiscal challenges. Third, whatever the very long term economic trajectory of an independent Scotland might be, there would inevitably a period of transition during which Scotland would be worse off. That could last for many years, conceivably even decades.

¹ SSA (2014) found that 52% of voters would support independence to be £500 a year better off, but only 15% would if they were £500 worse off.

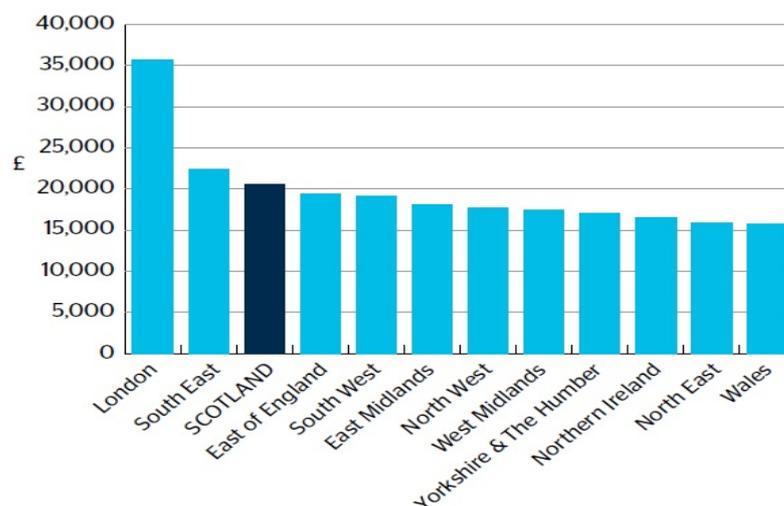
² Scottish Government (2013).

2 How is Scotland doing economically?

It is important to begin with an understanding of Scotland's economic performance as part of the UK.

There are two frames of reference here. In recent decades, much discussion has concentrated on how Scotland was faring compared to the rest of the UK, with an implicit assumption that London and the South East of England were growing at Scotland's expense (and that of the rest of the country). This is linked in political debate to the historic decline of Scotland's traditional economic base and London's success as an international city. Present data, however, do not bear out this picture. Despite undoubted problems, Scotland is one of the richest regions of the UK. Gross per capita domestic product (onshore i.e. ignoring economic activity in the North Sea) makes Scotland the 3rd richest region of the UK, as shown in Figure 1.

Figure 1: Gross Value Added per head, by UK regions



Source: Office of National Statistics, Regional Gross Value Added, 2011.

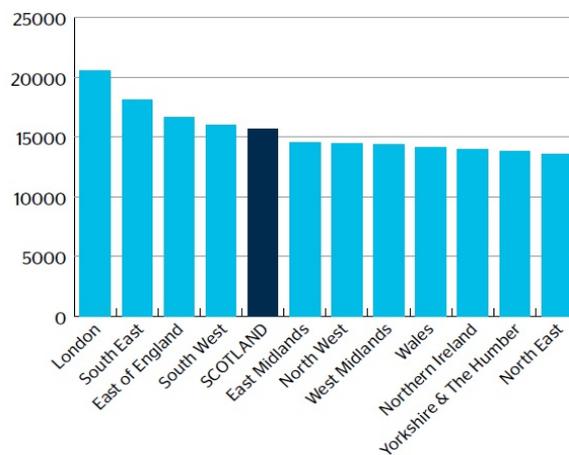
Data on household income by UK region tell a similar story, refer Figure 2.

London remains an outlier for the whole UK, but economic activity in Scotland's largest cities comes surprisingly close to its level, as shown in Figure 3.

A consistent theme in the discussion of the Scottish economy is that growth in Scotland does not match, indeed lags behind, growth in the UK as a whole. This however is principally driven by relative population growth, as the population of England has gradually grown over recent decades, whereas Scotland has been flat by comparison, even though it has recently reached a new high. It is income and economic activity per head which matter most for economic welfare. In fact, Scotland's economic growth *per head* has matched or exceeded the UK's over a prolonged period, albeit by a small amount.

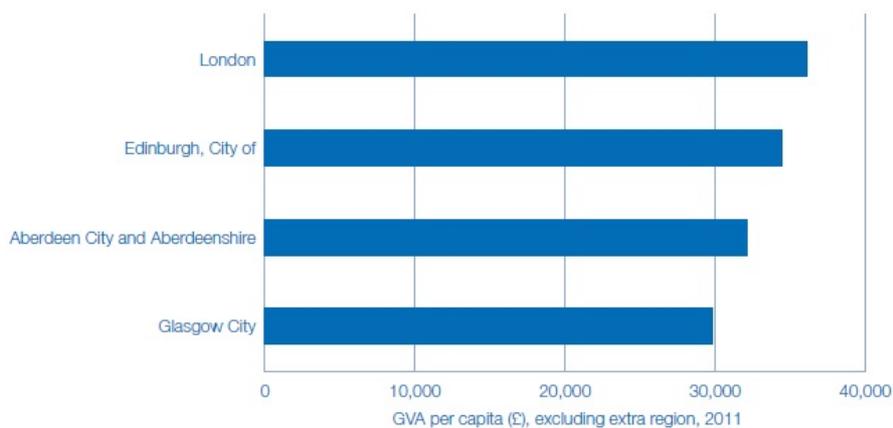
As can be seen from Table 1, during all periods from 1963 to the present day – with the significant exception of the 1980s³ – Scotland's *per capita* economic growth exceeded that of the UK as a whole. Taking the whole period for which data are available, Scotland has a small lead over the rest of the UK in per capita growth terms. It is this lead which means that Scotland now enjoys levels of economic activity at 98% of the UK level, higher than most of England, having started in 1963 at a much lower level. (Of course if offshore activities were included, Scotland, within the UK, would look very much more economically successful. But this is simply a book transfer, as no one would be a penny better off. Similarly claims that an independent Scotland would be very much richer simply as a result of including the North Sea in its economic books is a trivial statistical trick).⁴

Figure 2: Household Income, by UK regions



Source: Office of National Statistics, Regional Gross Disposable Household Income 2011

Figure 3: Economic performance of Scotland's cities and London



Source: ONS, Regional Gross Value Added (December 2012)

³ The 1980s was of course very significant in political as well as economic terms, forming the opinions of much of the Scottish political class, as well as a significant proportion of its economists.

⁴ Of course an independent Scotland would have access to tax revenues from the North Sea; whether this is overall a plus or minus is discussed below.

The UK is about the sixth largest economy in the world, but not the richest country. According to OECD data, UK GDP in purchasing power terms is above the EU, Euro area and OECD averages, and ahead of France, Italy and Spain though behind Germany and some (but by no means all) small European states. So it might be argued that Scotland should instead compare itself with successful small countries. Indeed the Scottish Government set a target of Scotland's economic performance matching that of small independent European nations (the following 7: Austria, Ireland, Denmark, Finland, Sweden, Portugal and Luxembourg).⁵

Table 1: UK and Scottish growth rates 1963 to present (onshore)

	Growth in GVA per head					
	1963-2012	1963-1970	1970-1980	1980-1990	1990-2000	2000-2012
Scotland	2.2%	3.7%	1.7%	2.5%	2.9%	1.1%
UK	1.9%	2.4%	1.5%	2.5%	2.2%	1.1%

Analysis of these comparators⁶ gives a more mixed picture. In terms of GVA per head, Scotland is above Denmark, Finland and Portugal, but behind Austria, Sweden, and Ireland. (Ireland's data however is distorted by multinationals booking profits there for tax reasons, meaning that gross national income is 20% lower than GVA, but no reliable series of GNI data for Scotland is available to make a comparison.) This analysis⁷ looks at historical trends and shows that in recent decades Scotland has had an economic growth rate similar to all the chosen countries. In the labour market Scotland compares quite favourably to them, with relatively high employment rates, and slightly better than average unemployment. No evidence has been adduced for the existence of a 'small country effect' in relation to economic growth: an extensive literature has failed to demonstrate any meaningful correlation. (See eg Rose 2006.) More interestingly, one might expect the volatility of small economies to be greater and Scotland's economic position has indeed in recent years been less volatile than the comparator countries, for reasons discussed below.

3 The significance of economic union: free trade

It is fair to conclude that, overall, Scotland's economic performance is very good by UK standards, and good by comparison with the Scottish Government's own benchmarks. So, what is it about an economic union that achieves these results?

The union of 1707 was, in the words of one of the Commissioners, motivated by "trade with most, Hanover with some".⁸ Hanover was code for the Protestant religion, which was immediately secured. It did however take some time for the benefits of trade to become obvious; Jacobite wars did not help.

⁵ Scottish Government (2007); though Luxembourg is an odd comparator: it is a statelet with a smaller population than Glasgow.

⁶ HM Government (2014)

⁷ HM Government (2014), p.30

⁸ McLean, Gallagher and Lodge, (2013), page 171

Nevertheless the UK has become a single market in all meaningful senses. There are no tariffs and few if any non-tariff barriers. Despite Scotland's different legal system, commercial law is substantially uniform. Company law and employment law are set out in UK statutes. Business taxation is uniform. Regional policy interventions over business location are much more limited than in the 1960's and 70's.

The result is free trade. This is taken for granted, but the UK domestic market is a much better functioning single market than any international free trade area. The comparison with the European single market is instructive. Substantial non-tariff barriers remain, eg in financial services. As a result, levels of trade, investment flows and movement of workers between Scotland and the rest of the UK are completely unhindered. This can be seen in patterns of settlement. 830,000 Scottish people now live in the rest of the UK, and 450,000 born elsewhere in the UK live in Scotland.⁹

It can also be seen in patterns of trade. Scotland's biggest customer for exports by far is the rest of the UK. Indeed, Scotland has specialised in certain markets serving the rest of the UK. Two examples will suffice. Scotland is the biggest hub for financial services in the UK outside of London, with an estimated 200,000 jobs dependent on the sector. 90% of the customers of these businesses are elsewhere in the UK. Similarly, Scotland builds the UK's warships. As it happens, both of these sectors would be significantly affected by the creation of an international border. Financial services is highly regulated, and although services can in principle under EU law be provided cross-border, it is likely that providers would wish to relocate to the regulatory domain which contained the majority of their customers; the regulator there would agree. Similarly, if they can, countries tend to buy defence equipment from within their own borders, and this has long been the UK policy for warships.

These are very direct examples of border effects on trade. But border effects are much wider. How significant they are is a matter of some dispute, and will undoubtedly depend on the detailed circumstances and previous history. It is clear, however, beyond all doubt that erecting an international border will, other things being equal, reduce trade, not increase it. Estimates by the UK government calculate this effect as reducing real income by 4 per cent after 30 years.¹⁰ Independence would have to lead to marked increases in economic activity to offset this. How it would do so has not been explained.

In short, a single UK market promotes opportunity in trade, employment and capital flows, and if Scotland becomes a separate state, this market will be hindered and economic welfare suffer accordingly. This is surely indisputable: if such border effects did not exist, nations in Europe, North America or elsewhere would not be negotiating to deepen free trade areas.

4 The significance of economic union: risk management

Free trade offers an argument from economic opportunity: by contrast, economic integration offers one from economic security. Larger economies tend to be less volatile, as risks and shocks are absorbed over a wider pool. Here comparison with the Scottish Government's selected group of small countries is

⁹ Governor Carney noted (Carney 2014, p.5) that flows at present were not especially high, but that the economic and social similarities meant they could easily grow in size if need be.

¹⁰ HM Government (2013), p.52. This number could in fact be significantly higher depending on the exchange rate regime adopted. See, for example, Engel and Rogers 1996.

instructive. Because Scotland is an integral part of a larger economy it showed markedly less volatility in the recent financial crisis than small, independent EU countries even though it has a large financial services sector-. The UK Government's analysis (HMG, 2013) suggests that the impact of the recession in small economies was greater and more prolonged than on large ones, because of their relative lack of absorptive capacity. The economies of small countries are in general more volatile due to a greater reliance on external trade and the absence of any "inter-regional insurance" in the form of fiscal transfers. Refer Table 2.

Table 2: Impact of the recession on Scotland and small comparator economies

	Timing of the recession			Output impact of the recession		
	Quarter of peak	Quarter of trough	Duration (peak to trough)	Peak to trough(%)	Trough to 2013Q1(%)	Peak to 2013Q1(%)
Austria	2008Q2	2009Q2	4	-5.2	6.5	1.0
Denmark	2008Q2	2009Q2	4	-8.0	2.6	-5.6
Finland	2007Q4	2009Q2	6	-10.4	5.2	-5.7
Ireland	2007Q4	2009Q4	8	-11.5	2.0	-9.8
Luxembourg	2008Q1	2009Q2	5	-6.3	3.9	-2.6
Portugal	2007Q4	2013Q1	21	-8.6	0.0	-8.6
Sweden	2007Q4	2009Q1	5	-7.6	13.1	4.5
Median of comparable countries	2007Q4	2009Q2	6	-8.0	3.9	-5.6
Scotland	2008Q2	2009Q3	5	-5.6	3.8	-2.0

The two most significant mechanisms for this absorption of risk are Scotland's existing monetary and fiscal unions; each follows from having an integrated UK economy. It is helpful to look at each in turn.

5 The significance of economic union: monetary and banking union

UK monetary union followed the 1707 political union (with some ups and downs on the way). Economic theory is settled on the necessary conditions for a successful monetary union: a genuinely open market, and an economy which reacts to external shocks in broadly the same way. Recent experience of the Eurozone in particular demonstrates two further requirements, as set out in Carney (2014): sufficient fiscal integration that allows fiscal flows to offset the effects of economic shocks to growth, and a sufficiently integrated banking system to ensure stability across the area. The UK meets these conditions; the Eurozone is seeking to move in that direction.

As a result the UK Government was able to rescue the Scottish banks in 2008, even though they were bigger compared with the Scottish economy than banks in Ireland. In the UK, neither depositors nor bondholders lost their investments, unlike in Iceland. This sharing of risk in a larger economy is seen in the reduction in economic volatility in Scotland compared to small European countries shown above. Refer Table 2.

But as Governor Carney pointed out in his careful lecture, a successful banking and monetary union also requires fiscal union. In his view successful currency unions have a national or supranational authority able to address economic imbalances as they arise by having direct fiscal control over about 25% of GDP. This implies some form of fiscal union.

6 The significance of economic union: fiscal sharing

Fiscal sharing is needed for two reasons. First, bank rescues are not only about the provision of central bank liquidity. Ultimately they rely on governments, ie taxpayers, standing behind institutions, providing capital if needed. In a fiscal union like the UK, this happens automatically, without question, and it is not subject to slow and painful intergovernmental negotiation, as in the Eurozone. The UK has been a fiscal union for so long it is taken for granted that public resources flow in such circumstances irrespective of geography or nationality. It is very hard to see how they could do so after separation into two states: this has now been made plain by the Chancellor of the Exchequer, and the other political parties, in their ruling out of a post-independence currency union.

Secondly, 'horizontal' fiscal transfers can ensure that if one part of a currency union experiences a negative shock, the strain of adjustment (which, absent currency union, would be met by exchange rate adjustment) is met by the transferred resources. Typically such transfers might be increased unemployment insurance payments, or support for public services. It is the absence of such payments in the Eurozone that means that countries like Greece struggle to provide either: without fiscal union, spending is determined by local taxable capacity. (Fiscal transfers between independent states are called international aid, or in the EU 'structural funds': neither is automatic or continuing.) By contrast, in the UK, transfer payments such as pensions and welfare benefits are blind to geography: they depend only on individual circumstances. And meeting needs – however imperfectly measured and recognised – is the watchword for the geographical distribution of spending on services.

This has significant consequences. First, there is a much greater equalisation of living conditions in the UK than across many other unions, such as the EU or even the United States. Second, the risks not just of short term shocks but also of long term trends are pooled, so that individual geographies do not have to carry them. So for example those parts of the country which have a high age dependency ratio do not have to have higher tax or lower state pension rates. Similarly, if tax revenues fluctuate in the short or long terms (as for example when oil revenues decline) benefits or public services – and demand in the economy – do not fluctuate in the same way. (As discussed below these fluctuations can alternatively be managed across time rather than geography through borrowing: but that significantly constrains the economic strategy a country can follow.)

7 So what about independence?

It cannot simply be asserted that independence would make Scotland richer. Economic success or failure of an independent state depends on the policies it follows, and indeed, the range of major economic choices it could in principle make (from socialist paradise to capitalist tax haven) is remarkably wide - and there are proponents of independence advocating something close to each.¹¹ That doesn't

¹¹ See for example the publications of the Jimmy Reid Foundation (<http://reidfoundation.org>) or the Wealthy Nation group (www.wealthynation.org).

help make a comparison between being part of the UK and leaving it – excepting the obvious point that independence is markedly more uncertain. It is fair, however, to begin with an assessment of the likely effect of the policies as set out in the Scottish Government's independence White Paper.¹²

The striking thing about the White Paper is not that it claims elements of both socialist paradise and capitalist tax haven; that is to be expected, if deprecated, in a manifesto. What is striking is how limited the form of economic independence proposed is, and how few proposals there are for making and taking the new opportunities set out in the first of the Goudie tests. Critically, it proposes a continued banking and monetary union, but complete fiscal independence. The pound, it proposes, should be shared with the rest of the UK, with some form of Scottish representation on the Bank of England, a hybrid system of financial regulation, but no fiscal sharing.

To the challenge that a Scottish Government cannot guarantee that the rest of the UK would join a union with such an asymmetrical risk profile, their response is it would be in the interests of the continuing UK to do so.

This has been heavily criticised, understandably, as an attempt at political reassurance masquerading as an economic policy. As the Carney analysis makes very clear (like much other commentary) a monetary union without fiscal underpinning would be unstable, and while the advantage of reduced transaction costs is a real one, that would be more than offset by the inability to manage financial or asymmetric shocks.¹³ Given the asymmetry, most of the risks of such an arrangement would be borne by the continuing UK – it is conceivable the continuing UK could bail out Scotland or Scottish banks but not vice versa. There is now a cross-party consensus among the three main UK political parties that such an agreement would not be in the interests of the continuing UK, and they have ruled out the White Paper's proposed monetary union.

Nor is it in Scotland's economic interests. While not having exchange rate uncertainty with Scotland's main trading partner is desirable, the loss of both exchange rate and fiscal transfer mechanisms for dealing with economic shocks would leave Scotland's economy very vulnerable. In these two respects the plans for independence fail, at the first hurdle, the second of the Goudie tests - that a proposed monetary union be stable.

Scottish Ministers resolutely refuse to contemplate an alternative currency strategy. Indeed, they suggest that the threat of defaulting on Scotland's share of the UK debt would bring the rest of the country to heel, given that the UK has already guaranteed to honour all debts. A unilateral refusal to meet obligations might not be the best start in the world of international borrowing for a new state that would still be running a public sector deficit of 2.5% of GDP or more. More immediately, such threats would imperil a stable transition to independence for which UK cooperation over a very wide range of areas is essential.

It makes sense to consider the two main alternatives. One can relatively swiftly be dismissed, even though it has been hinted at by the First Minister – the use of the pound in an "informal" currency union without agreement, and without a Scottish central bank to issue currency. In those circumstances a

¹² *Scottish Government (2013).*

¹³ *A point made in debate by the Institute of Directors, amongst others.*

Scottish government would have very few 'economic levers' (to use the phrase popular with the present administration) - no monetary tools whatsoever, and very limited fiscal freedom.

The alternative – followed by many small countries outside currency unions – is a new Scottish currency, say the pound Scots. If the challenges of establishing it could be overcome, it gives Scotland options. It might be allowed to float or be managed, and perhaps pegged to the pound sterling. Both are possible, but each has implications for economic strategy. A floating currency – especially one linked to the oil price – creates instability in prices, and damages trade through exchange rate risk. A managed currency requires substantial reserves, and a highly conservative fiscal policy to establish sufficient cushions to cope with economic shocks. That is why small countries typically run fiscal surpluses or very small deficits.

In either event, Scotland would have to make a transition to a different economic strategy from the one it pursues today, as part of a larger economy, running substantial deficits. Whether, having made the transition, that different strategy would be more or less successful, is difficult to predict, though the risks are on the downside for the reasons above. The fourth of the Goudie tests - that there should be a well-developed way of managing economic shocks – is failed also, as the White Paper fails to acknowledge that a small open economy has to pursue a different risk management strategy from a part of a larger one.

There is no doubt that the process of transition – particularly if it involved a change of currency, and a shift from deficit financing to running a surplus – would be difficult and painful, especially on top of the fiscal adjustment required anyway. This is, discussed below.

The costs of transition are in no sense trivial. Even the most optimistic advocate of independence would not expect Scotland, as a result of independence, to increase its growth relative to the UK by more than part of a percentage point. As Professor Robert Young has pointed out significant transition costs (especially if a currency change is needed) may absorb many years of the hoped-for increased growth. He notes: "No advanced industrial capitalist state has ever undergone such a breakup, but transaction costs obviously could be very large. In the Quebec case, predictions of GDP losses ranged from about 2 per cent to over 7 per cent."¹⁴

The White Paper proposes few other firm economic policies whose effect might be assessed. The big plan is more state provided childcare to increase parental participation in the workforce. It is possible that this might increase growth; or that the deadweight cost of the policy ¹⁵, which is not assessed, would outweigh this. The possibility of a phased cut in corporation tax is discussed, but there is a firm plan to cut Air Passenger Duty. That independence might unleash presently unknown and previously untapped economic potential cannot be ruled out *a priori*, but it seems highly unlikely that cheaper air flights will have that result. The White Paper certainly lacks clear plans for improving Scotland's long term competitiveness, the second Goudie test.

Overall, therefore, the probability of independence under the Scottish Government's model improving Scotland's economic performance, while not exactly zero, cannot be assessed as at all high. The

¹⁴ Young (2013)

¹⁵ the cost of providing free childcare for parents who already pay for it, or for those who do not wish to work

probability of transitional disruption is close to one. This is a very significant consideration, and one that is ignored in the Goudie tests.

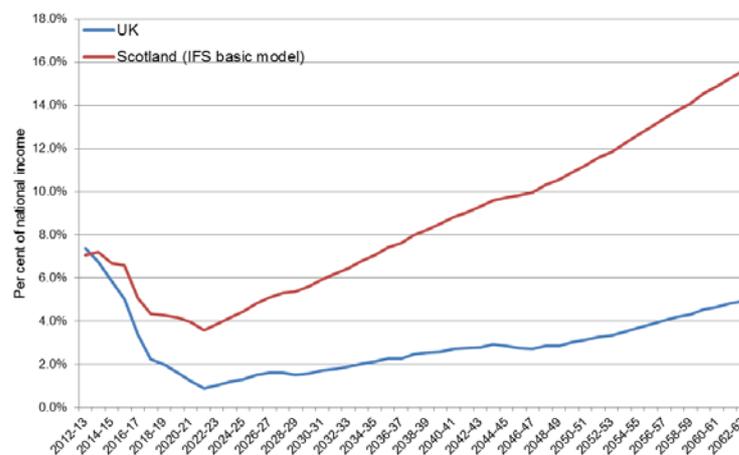
One significant issue, however, is readily predictable: the likely fiscal position of an independent Scotland.

8 Scotland's long-term fiscal position

Scotland's fiscal position inside the UK has been extensively analysed for long periods of time, notably in the Government Expenditure and Revenues in Scotland (GERS)¹⁶, published annually since 1991. The headline story is now well known, if frequently obfuscated. At present, Scottish onshore tax revenues (excluding revenues from North Sea oil) are close to, but slightly under, the UK per capita average. Scottish public spending, including a *per capita* share of 'non-identifiable' spending, such as defence, undertaken on Scotland's behalf by the UK government is just over 10% higher per head. If that were all there was to it, Scotland would be in receipt of substantial horizontal fiscal transfers inside the UK, and likely to run an unmanageably large deficit as an independent country.

Oil makes the important difference, so the future trajectory of oil revenues is the critical consideration. Forecasts vary, as forecasts do, but all agree that there will be a marked downward trend. The most complete analysis has been by the Institute for Fiscal Studies¹⁷, which projected (on the basis of present trends) how Scotland's fiscal position would compare with the UK's as a whole. By 2012/13 oil revenues are no larger than the additional public sector in Scotland, and the striking results are illustrated in the Figures 4 and 5 below. If nothing else changed, Scotland would swiftly run into unmanageable levels of deficit and debt. Even if Scotland was relieved of much of its liability for inherited debt (on what basis it is not clear) and Scottish independent economic policies were more successful than the UK's, something would have to give.

Figure 4: Public sector net borrowing projections for Scotland and UK



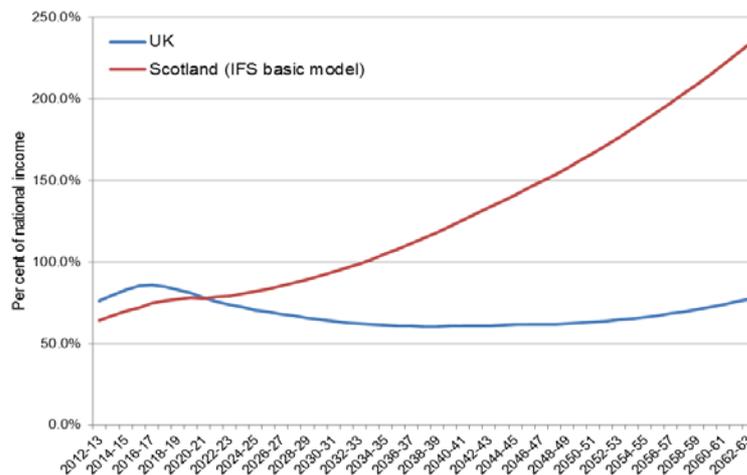
¹⁶ <http://www.scotland.gov.uk/Topics/Statistics/Browse/Economy/GERS>

¹⁷ Institute for Fiscal Studies (2013), *Fiscal sustainability of an independent Scotland*

Source: Institute for Fiscal Studies, *Fiscal sustainability of an independent Scotland (with permission)*

That ‘something’ would be either higher taxation, perhaps with negative effects on economic growth, or very big cuts in public services. Broadly speaking, in order to reach the same level of deficit as the rest of the UK, the IFS calculate that even on its most optimistic scenario this would require a 9% increase in the basic rate of income tax, or an 8% cut in public services, or some combination of the two. The Scottish Government, however, assert that it would be possible not only to maintain present or better public services and lower levels of taxation but also to put some of the oil revenues into an oil fund. These assertions have been seriously challenged by work such as that of the Centre for Public Policy and Regions at the University of Glasgow.¹⁸ It is hard to escape the conclusion that the Scottish Government’s view is that independence would give Scotland full control over the laws of arithmetic. Certainly these plans fail the fifth of the Goudie tests about risk management: this risk is simply denied to exist, rather than identified and managed.

Figure 5: Public sector net debt projections for Scotland and the UK



Source: Institute for Fiscal Studies, *Fiscal sustainability of an independent Scotland (with permission)*

9 Conclusion

In summary, it is clear that Scotland’s economic performance inside the UK, within the present constitutional model, is creditable. It does very well by UK standards, and well by the standards of other small countries, even those chosen as comparators by the Scottish Government. The model of independence proposed by the Scottish Government is unsustainable and offers no prospect of greater economic growth than at present. It is clearly designed to meet political objectives – reassurance that independence does not involve substantial change – rather than offer a coherent economic strategy for a small country. Partial economic union, while claiming fiscal autarky, is not a sustainable strategy. The White Paper’s strategy would be in the interest neither of Scotland nor of the rest of the UK. It can be assumed, therefore, that it will not be followed.

¹⁸ See for example CPPR (2013).

Although the “Goudie tests” are not a comprehensive set of criteria for assessing the economic effects of independence (e.g. they neglect the very significant issue of transition costs) the White Paper fails to meet them. For political reasons independence is presented as minimal change with low risk, and it fails to address key questions, such as risk and resilience, entirely. The first leg of the sixth, summary, test (“is the proposal economically and financially sound”) is failed resoundingly: the monetary union plan is flawed and already rejected, and the reality of the fiscal arithmetic simply denied. Similarly the absence of substantial economic policy proposals means that its second leg (“enhance the capacity to promote the primary objectives of economic policy”) is not satisfied by the White Paper plans either.

Even if another approach were to be followed under independence, there is no evidence that small countries are more likely to be economically successful than large ones. They are however likely to be more economically volatile, and if it were to be successful as a small country Scotland would have to pursue a different strategy from today: one which would involve coping with economic shocks through running surpluses. The process of adjustment to move from being a country dependent on borrowing (perhaps unwisely, but that is today's reality) to one running a surplus would require structural adjustments to Scotland's economy, taxation and public services. Those would be in addition to the adjustment already being made, and the bigger one needed to move away from dependence on oil revenues to finance public services is set out very clearly in the work of the IFS in particular. No reliable estimate of these transitional costs has been made, but it is plain that they could vastly outweigh any plausible putative benefit of increased economic growth even over a very long period. It is certainly very hard to see that the two economic policy changes advocated by the Scottish Government in its White Paper – namely a possible cut in corporation tax, and cutting air passenger duty – are tools equal to this challenge.

The preservation of the union with the UK is overwhelmingly in Scotland's economic interest, and the burden of proof lies on those who propose to end it. That is not to deny, however, that major economic challenges remain. Scotland's rate of business creation is still persistently low. Scotland's tail of inequality is not merely a narrative of injustice, but one of lost economic opportunity, for individuals and the country as a whole. More needs to be done to address these problems, but many (if not all) of the tools are already in Scotland's hands, in the form of the powers exercised under devolution by the Scottish Parliament.

References

Carney, Mark (2014), The Economics of Currency Unions www.bankofengland.co.uk/publications/Documents/speeches/2014/speech706.pdf

Centre for Public Policy & the Regions (CPPR), (2013), Analysis of Scotland's Past and Future Fiscal Position www.gla.ac.uk/media/media_273150_en.pdf

Engel, Charles and Rogers, John, (1996), How wide is the border? American Economic Review, 86, 112-25.

HM Government (2013), Scotland Analysis: Macroeconomic and Fiscal Performance www.gov.uk/government/collections/scotland-analysis

HM Government (2014), Scotland Analysis: Assessment of a Sterling Currency Union www.gov.uk/government/collections/scotland-analysis

Institute for Fiscal Studies (2013), Fiscal sustainability of an independent Scotland www.ifs.org.uk/publications/6952

McLean, Iain, Gallagher, Jim, and Lodge, Guy, (2013), Scotland's Choices, Edinburgh University Press, Edinburgh

Rose, Andrew K, (2006), Size really doesn't matter: In search of a national scale effect Journal of The Japanese and International Economies, 2006, Vol.20(4)

Scottish Government (2007), The Government Economic Strategy www.scotland.gov.uk/Publications/2007/11/12115041/0

Scottish Government (2013), Scotland's Future <http://www.scotland.gov.uk/Publications/2013/11/9348>

SSA, (2014) Scottish Centre for Social Research, Scottish Social Attitudes Survey 2014, www.scotcen.org.uk/

Young, Robert (2013), The road to secession: Estimating the costs of independence in advanced industrial states <http://blogs.lse.ac.uk/europpblog/2013/12/05/the-road-to-secession-estimating-the-costs-of-independence-in-advanced-industrial-states/>

Author details:

Professor J D Gallagher
University of Oxford
jim.gallagher@nuffield.ox.ac.uk

Economic perspectives

Regional recovery in a diverse union¹

Julia Darby, University of Strathclyde

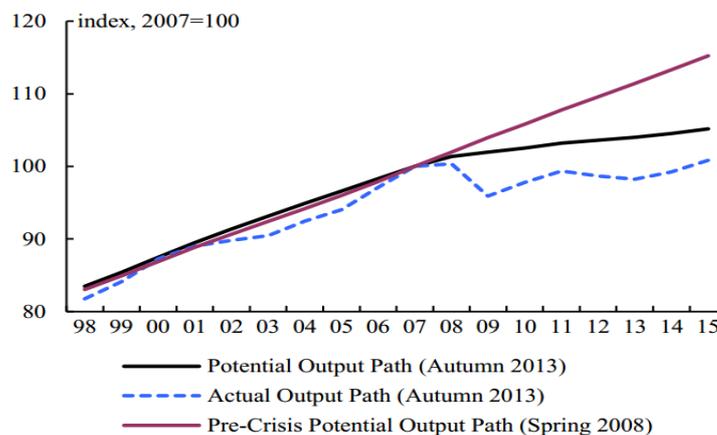
Abstract

This article reviews the diverse state of economic recovery across the Euro area and across the UK. Distinctions are drawn between the experiences within the Euro area, particularly among the high debt countries, and the UK. The focus then turns to whether the ongoing reforms set out in the Four Presidents' Report "Towards a Genuine Economic and Monetary Union" address the right issues. Turning to the most recent evidence on regional disparities within countries, it is clear that challenges remain, both for the Euro area and the UK. In the case of the UK, recent evidence on regional disparities in house prices present a challenge for the Bank of England and its Financial Policy Committee and are likely to provide a challenge to the use of its macro-prudential policy toolbox in the near future.

1 Introduction

The Euro area is showing a muted pickup in GDP (having returned to positive growth in Q3 of 2013). In the words of the IMF's most recent World Economic Outlook, this looks to be a 'fledgling recovery', still fragile and with a number of downside risks. Notably unemployment, especially youth unemployment, and other measures of 'slack' remain very high and inflation has stayed below the European Central Bank's medium term objective, renewing fears of further disinflation and possible deflation.

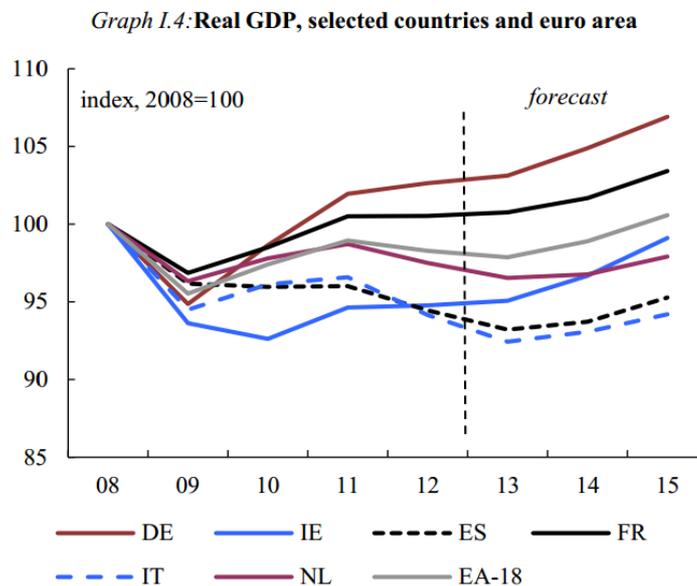
Figure 1: "Early stages of a gradual recovery" Euro area paths of actual and potential output



Source: Reproduced from European Commission (2013), Chart 1.3, p 11.

Looking across countries within the Euro area, this is clearly a multi-speed recovery with diverse experiences.

¹ This article is based on the opening talk of a panel discussion on 'Insurance and adjustment in a diverse monetary union – what can the Eurozone learn from the UK?' delivered at the London School of Economics' European Institute public seminar series 'Towards a Genuine Economic and Monetary Union' on 29 January 2014.

Figure 2: Multi-speed recovery

Source: Reproduced from European Commission (2013)

In Figure 2, the data are indexed at 100 in 2008, that is pre-recession. The horizontal line drawn at 100 is there for reference and shows that Germany and France's real GDP recovered to 2008 levels during 2011, while other EU countries will fail to do so throughout the forecast period (to 2015).

So, while the forecasts signal positive growth for the Euro area (EA-18) by 2013-14, it will be some time before some countries such as Italy, Spain etc. will see an end to depressions. (Here I'm using the National Institute of Economic and Social Research's definition of the end of a depression, i.e. when real GDP surpasses the pre-crisis peak).² Hence, a return to long term trends experienced before the recession remains a more distant possibility.

Looking at a wider range of countries in Table 1, the diversity of experience across Europe and worldwide is even more evident.

For each country, Table 1 shows i) the size of the drop from the pre-crisis peak to the trough of the recession; ii) the duration of the decline; iii) when the pre-crisis peak has been surpassed (if at all); and a snapshot of how each country's position in 2013 compares to its pre-crisis peak.

The latest figures for year on year growth in GDP, while positive, should be interpreted in this context. Even on the latest release of UK data, the UK economy is only expected to return to its 2008 level of GDP during 2014, and a significant gap remains in other indicators such as measures of median household disposable income. Indeed, the Institute of Fiscal Studies has suggested this is not expected to surpass the pre-crisis peak until 2016 (see Phillips, 2013).

² As noted in NIESR Monthly Estimates of GDP at <http://niesr.ac.uk/sites/default/files/gdp0214.pdf>

Table 1: Depth and duration of decline; and progress of recovery.

	% decline in real GDP from pre-crisis peak to trough	# years of declining real GDP between 2007 and 2013	Year in which surpassed pre-crisis peak	2013 volume of GDP relative to pre-crisis peak
Greece	-22.7	6	-	-22.7
Italy	-8.9	4	-	-8.7
Portugal	-8.6	5	-	-8.5
Spain	-6.8	4	-	-6.8
Ireland	-7.4	3	-	-5.1
Iceland	-10.4	2	-	-5.0
Finland	-8.5	3	-	-4.7
Netherlands	-3.7	3	-	-3.6
Denmark	-5.7	3	-	-3.4
Euro area	-4.4	3	-	-2.0
United Kingdom	-5.2	2	2014	-1.0
Luxembourg	-5.9	3	2013	+0.5
Austria	-5.0	1	2012	+0.7
France	-3.1	2	2011	+0.7
Belgium	-2.8	2	2011	+1.3
Germany	-5.1	1	2011	+3.4
Total OECD	-3.5	1	2011	+4.1
United States	-2.8	2	2011	+6.1
Sweden	-5.0	2	2011	+6.1

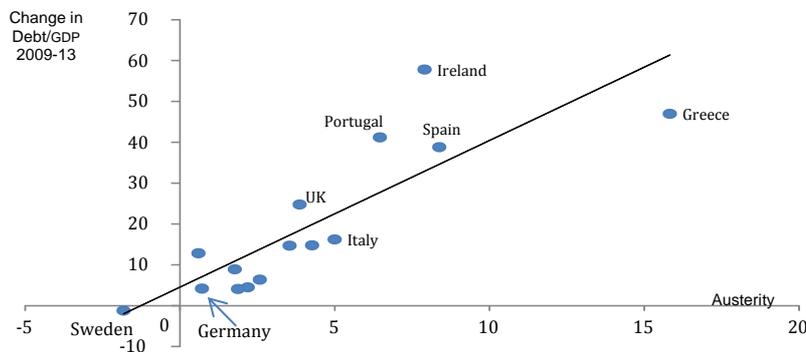
Returning to Table 1, in 2013, Greece, Italy, Portugal and Spain have yet to return to positive growth and significant long term damage to their potential output now seems unavoidable. These are of course countries that had the highest debt to GDP ratios as the crisis deepened. But they are also the countries that have instituted the largest austerity efforts over the period 2009-2013 as is shown in Figure 3.³

Austerity effort, on the horizontal axis, is calculated as the increase in primary balances over the period, adjusted for the cycle (i.e. "structurally adjusted primary balances"). Despite this austerity effort, debt stocks have yet to stabilise as a percentage of GDP, and the largest increase in debt to GDP ratios over the period occurred in those countries making the greatest austerity effort. Of course, this in part reflects the front loaded nature of the adjustments and their negative impact on GDP, the denominator of the debt ratios.

Given the continued sizeable divergences in debt to GDP ratios, as shown in Figure 4, plus the current priorities within EMU, these austerity efforts are set to continue for some time to come.

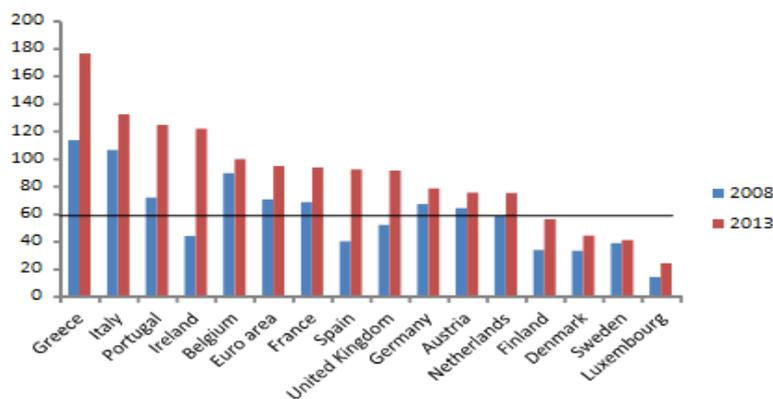
³ This chart is an updated version of that originally shown in DeGrauwe and Ji (2013)

Figure 3: Change in Government debt to GDP ratio and austerity, 2009-13



Austerity is defined here as the % change in the structurally adjusted primary government budget from 2009-13.

Figure 4: Gross Government debt as % of GDP

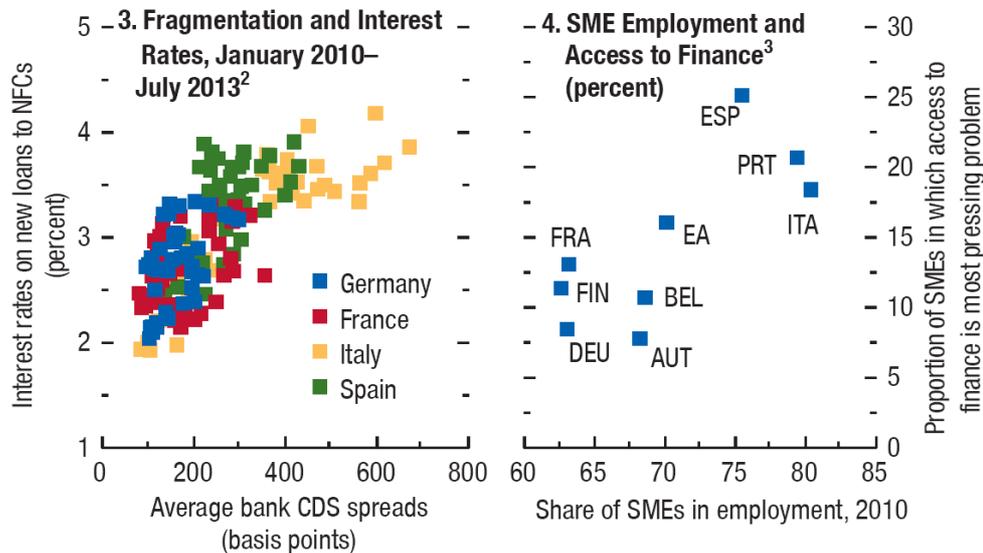


Source: OCED Economic Outlook, November 2013

2 Is the Euro area in a different position to the UK?

In a number of important ways the UK is in a different position to the high debt countries within the euro area. First, austerity in the Euro area has been much more severe than in the UK; especially for those countries forced into austerity by their inability to sell government bonds at reasonable interest rates.

Second, while the scope for stimulus from conventional monetary policy has been limited everywhere, in that all Central Bank interest rates are close to the zero lower bound, in the Euro area this is compounded by below target inflation, falling consumer prices in the worst hit countries and financial fragmentation showing up in continuing interest differentials and differential access to finance across countries (see Figure 5).

Figure 5: Financial factors holding back growth

Source: IMF World Economic Outlook (2013)

In the UK, quantitative easing has helped to keep bond yields low, both for government and corporate bond issuers. Most recently, communication around the Bank of England's 'forward guidance' has strengthened the message that they will maintain a low interest rate for some time to come and do not expect to unwind quantitative easing until after the interest rate has begun to return to more normal levels. In contrast, in the Euro area unconventional measures seem to have been less coherent and there have been episodes of considerable policy uncertainty.

Until the announcement in September 2012 that the ECB would 'do whatever it takes' via Outright Monetary Transactions, sovereign bond spreads played the role of a 'crisis barometer', reacting strongly to debt sustainability fears and in a self-fulfilling manner having dramatic consequences for the Euro area's weaker economies.

3 Do the ongoing reforms outlined in the "Four Presidents' Report"⁴ address the right issues?

The Four Presidents' Report outlined three stages of proposed reforms. The first, now largely complete, aimed to address a number of weaknesses in the design, surveillance and enforcement of the EMU's fiscal rules, as expressed in the Stability and Growth Pact and before it, the Maastricht Treaty), and set out more predictable ways of dealing with countries in severe fiscal difficulties.

Even prior to the current crisis, fiscal monitoring across the Euro area was not an unqualified success. It was focused predominantly on assessing whether plans met the deficit rule, and paid too little attention

⁴ See Van Rompuy (2012): the "Four Presidents Report" was written by Herman Van Rompuy, President of the European Council in close collaboration with José Manuel Barroso, President of the European Commission, Jean-Claude Juncker, President of the Eurogroup and Mario Draghi, President of the European Central Bank.

to debt to GDP ratios, possibly due to a misguided belief in the disciplining effect of financial markets in 'normal' times.

One factor that contributed to inadequate budgetary control was a widespread optimism bias in forecasts, particularly at the two and three year planning horizons.

By regularly promising more than was ultimately achieved in both projected budgetary adjustments and growth forecasts, countries in the Euro area effectively escaped the strictures of the deficit rule and evolving government debt took up the slack.

Amongst others, Frankel and Schreger (2013) have argued that there is clear potential for independent fiscal authorities to curb this tendency toward biased projections, improve ex post surveillance and facilitate more efficient early warnings. The Office of Budget Responsibility has been useful to the UK in this regard.

Once the more immediate problems in the Euro area are contained, these insights should improve fiscal governance going forward, and elements of the EMU reforms should help.

However, the restatement by the European Commission of the 60% reference value for the gross debt to GDP ratio⁵ is in my view disappointing. Restoring debt sustainability is important and there is undeniably a need for 'fiscal space' to deal with the next set of challenges including the fiscal consequences of aging populations. However, from where we are now, stabilising debt to GDP ratios would seem to be a more sensible primary objective. If applied to all Euro area countries, this could allow for some limited stimulus in countries that have already achieved a stable debt to GDP ratio (eg Germany) with the possibility of positive spillover effects aiding a more widespread Euro area recovery.

However, lack of debt control prior to the crisis was only part of the problem. The crisis exposed other flaws in EMU. A wider list of shortcomings would include the following:

- The lack of a financial dimension to macroeconomic stability (a flaw shared with the UK, US and others);
- The lack of clear crisis resolution mechanisms;
- Slow progress with structural reforms; and
- The fact that EMU does not look to be an Optimal Currency Area and may not develop into one⁶.

In particular, it seems clear that the less resilient countries have insufficient flexibility to handle large negative shocks and/or growing divergence.

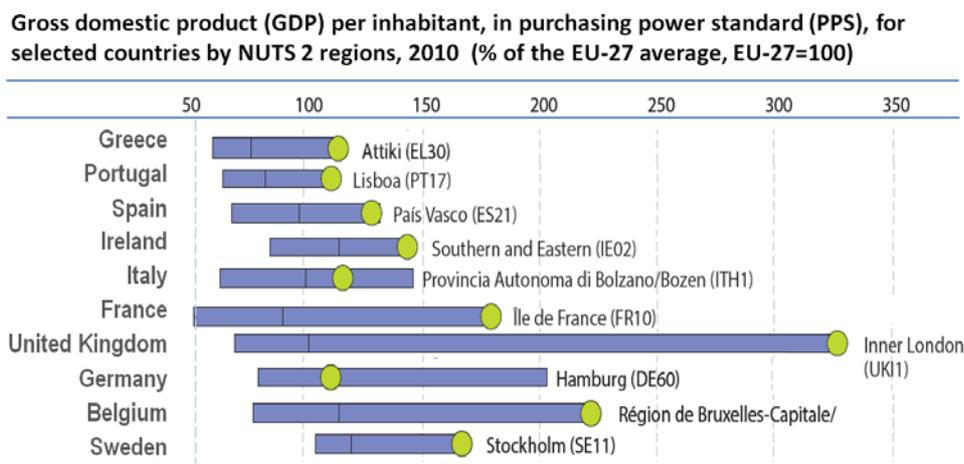
Some of the reforms planned reforms discussed in the "Four Presidents' Report" will help. Steps toward a Banking Union aim to break the vicious circle between banks and sovereigns, allowing banks to improve the functioning of financial markets. But this requires agreements on Euro area wide regulation, supervision, and clarification on resolution mechanisms.

⁵ The restatement of the 60% reference value for the gross debt to GDP ratio is part of the 'six pack' of fiscal reforms that entered into force at the end of 2011, and referred to in the Four Presidents' Report. A brief guide is provided in European Commission (2012).

⁶ For a recent discussion on this point see De Grauwe (2013).

Reaching agreement on the third stage of the proposed reforms is likely to be even harder to achieve. This stage is intended to involve “establishing a well-defined and limited fiscal capacity to improve the absorption of country-specific economic shocks, through an insurance system set up at central level” Van Rompuy (2012 p5). The feasibility of a system that would involve transfers from countries that temporarily experience ‘good’ economic times to countries that are simultaneously experiencing ‘bad’ times, where transfers do not always go in the same directions is threatened by the current and growing divergence, and restatement of the Euro area wide 60% debt to GDP ratio objective does not help. Hence, it is possible that some element of debt forgiveness may still be necessary.

Figure 6: Regional disparities within selected EU countries



The figure shows the range of the highest to lowest region for each country; the black vertical line is the average (mean); the green circular marker is the capital city. The name of the region with the highest value is also included. Source: Eurostat Yearbook 2013

4 Regional disparities within countries

The aggregate European country data hides disparities across regions *within* countries, and in this regard the UK is certainly not immune. Figure 6 compares GDP per inhabitant within and across selected EU countries. The bars show (i) the range of the highest to the lowest region for each country; (ii) the green dot represents the GDP per inhabitant in the capital region; and (iii) the vertical line shows mean GDP income. In fact, the largest disparity between regions within each country in the EU is in the UK, where the dominant position of Inner London is clear.

Looking at the reported growth in GVA for each UK NUTS1 region over the period 2007-2012 using the ONS's December 2013 release of regional indicators shows that London's nominal GVA grew by 15% in the five year period 2007-2012, while for the UK as a whole, nominal GVA grew by 8.5%. Only London and the South-East of England achieved growth in nominal GVA that was above the UK average over this period, albeit still at a far lower annualised growth rate than had been achieved in the decade prior

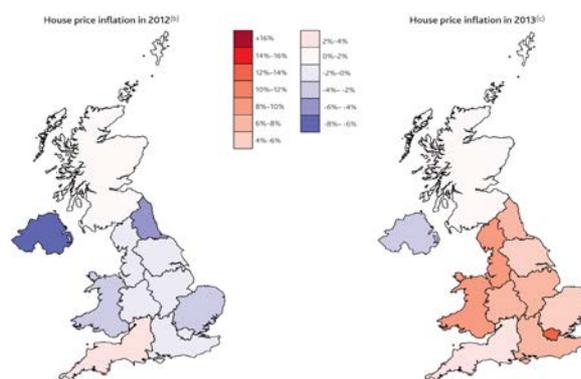
to 2007. London had increased its share of UK GVA to 22.8% by 2012.⁷ As the UK's recovery is progressing, disparities between the best and worst performing regions look to have increased.

Table 2: Regional GVA growth and shares in UK GVA

%	Growth in nominal GVA 2007-12	Average annual growth rate in nominal GVA 2007-2012	Average annual growth rate in nominal GVA 1997-2007	Region's share of UK GVA in 2007	Region's share of UK GVA in 2012
London	15.4	2.9	6.2	21.0	22.4
South East	11.3	2.2	5.2	14.3	13.5
East of England	6.7	1.6	5.1	3.1	2.9
East Midlands	7.0	1.6	5.3	8.5	8.0
South West	6.8	1.3	4.8	5.9	5.4
North West	6.8	1.3	5.4	7.5	7.0
North East	6.7	1.3	5.2	9.6	9.0
Scotland	6.7	1.3	5.1	3.1	2.9
Wales	6.6	1.3	5.0	7.8	7.5
West Midlands	6.2	1.2	5.1	3.5	3.2
Yorkshire/Humber	5.4	1.1	4.4	7.3	6.8
Northern Ireland	-1.0	-0.2	5.0	2.3	2.1
United Kingdom	8.5	1.6	5.4	100	100

Note: Figures are for NUTS 1 regions. Nominal growth rates were calculated from the published series for Workplace based GVA at current basic prices. Source: ONS Regional Economic Indicators December 2013 Release <http://www.ons.gov.uk/ons/rel/regional-accounts/regional-gross-value-added--income-approach-/december-2013/rf1-nuts1.xls>

Figure 7: Annual house price inflation in 2012 and 2013 across the United Kingdom^(a)



Sources: Halifax, Nationwide and Bank calculations. (a) The stylised maps show the average of the Nationwide and Halifax regional house price series (b) The 2012 map shows house price inflation between 2011 Q4 and 2012 Q4. (c) The 2013 map shows house price inflation between 2012 Q4 and 2013 Q3, scaled to an annual rate. Source: Bank of England: Financial Stability Report, November 2013 (Chart 2.17)

⁷ The quoted figures are constructed from the published workplace-based UK regional GVA series. Commuting means that London's share in UK GVA is increased, and the south-east figure reduced relative to residence based figures. Nonetheless, London has both the highest residence-based and workplace-based GVA across the UK's NUTS1 regions.

Recent data also shows marked regional disparities in the increase in house price inflation over 2012 and 2013 indicating a UK growth trajectory that is regionally unbalanced.

5 How can macroeconomic policy address these regional imbalances?

The new governor of the Bank of England has been clear that the Bank is mindful of the risks posed by sustained loose monetary policy. The Bank's Inflation reports, Financial Stability reports, minutes and briefings make clear that developments are being monitored and a macro-prudential policy toolbox⁸ is now available to the Financial Policy Committee, to enable it to manage these risks. The aim is that this will allow the Monetary Policy Committee to focus its efforts on establishing the conditions for a sustained recovery, while maintaining price stability.

A key question is will this aim be achieved, and in a more balanced way across regions? Well, it looks like we may soon find out!

References

- Bank of England (2013) Financial Stability Report, November <http://www.bankofengland.co.uk/publications/Documents/fsr/2013/fsrfull1311.pdf>
- DeGrauwe, Paul (2013) "The Political Economy of the Euro" Annual Review of Political Science Vol. 16: 153-170
- DeGrauwe, Paul and Yuemei Ji (2013) "The Legacy of Austerity in the Eurozone" in Economic Policy, CEPS Commentaries, May <http://ceps.be/ceps/dld/8472/pdf>
- European Commission (2012) "Six-pack? Two-pack? Fiscal compact? A short guide to the new EU fiscal governance", March http://ec.europa.eu/economy_finance/articles/governance/2012-03-14_six_pack_en.htm
- European Commission (2013) "European Winter Forecast Autumn 2013" European Economy, November http://ec.europa.eu/economy_finance/publications/european_economy/2013/pdf/ee7_en.pdf
- Frankel, Jeffrey and Jesse Schreger (2013) "Over-optimistic official forecasts and fiscal rules in the eurozone", Review of World Economics (Weltwirtschaftliches Archiv), Springer, Vol. 149(2), pages 247-272, June
- Phillips, David (2013) "Living Standards", part of the Institute of Fiscal Studies' analysis of the Autumn Statement published on 6th December, available at <http://www.ifs.org.uk/publications/7002>
- Van Rompuy, Herman (2012) "Towards a Genuine Economic and Monetary Union" written in close collaboration with José Manuel Barroso, Jean-Claude Juncker and Mario Draghi, European Council, December 2012 http://www.consilium.europa.eu/uedocs/cms_Data/docs/pressdata/en/ec/134069.pdf

Author details

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

⁸ The contents of the macro-prudential policy toolbox include imposition of capital requirements which are intended to enhance the resilience of lenders' balance sheets; a possible counter-cyclical capital buffer; the potential to set limits on loan to value or loan to income ratios of mortgages; the possible introduction of compulsory stress tests of mortgage applicant's repayment abilities; and recommendations that the Financial Stability Committee may make to HM Treasury in relation to the Help to Buy scheme. For further details see Bank of England Financial Stability Report, November 2013, especially Table 5.A, page 64.

Scotland's international competitiveness within Western Europe

Martin Eichler, Rebekka Rufer and Andrea Wagner BAKBASEL Economics

Abstract

The paper measures regional competitiveness of Scotland in comparison to ten EU regions and small countries using the International Benchmarking Index Family ('IB Index Family') developed by BAK Basel Economics.¹ The IB Index Family contains an index with three dimensions of competitiveness: *Performance*, *Attractiveness* and *Structural Potential*. The *Performance Index* measures recent economic success; the *Attractiveness Index* measures how well a region is an attractive location to companies and highly-qualified individuals; and the *Structural Potential Index* estimates future potential economic growth based on current economic structure. The application of the IB Index Family provides a first-step into a more in-depth benchmarking of the competitiveness of a region, which is necessary when working towards detailed policy conclusions. The paper explains these measurement tools and applies them in a short benchmarking analysis of Scotland and ten EU regions and small nations (e.g. Ireland, Norway, Western Sweden etc.).

1. Introduction

Nations and regions are increasingly exposed to international competition and globalisation. In this context, a competitive economy is crucial for robust economic growth and for providing a high level of prosperity to its citizens.

Indices are highly valuable tools in summarising and communicating the most important economic issues and assessing complex topics like competitiveness. The International Benchmarking Index Family (IB Index Family) developed by BAK Basel Economics (BAKBASEL) offers a sophisticated approach for measuring the competitiveness of European regions. It is based on the extensive economic data for nations and regions available in BAKBASEL's International Benchmark Database (IBD) (BAKBASEL 2012).

The IB Index Family contains an index for each of three dimensions related to a regional economy's competitiveness: *Performance*, *Attractiveness* and *Structural Potential*. Firstly, a competitive region is characterised by successful economic development. Therefore, the Performance Index measures recent economic success. Secondly, a competitive region must be an attractive location for companies as well as for highly-qualified individuals. This is assessed in the Attractiveness Index. Finally, a competitive region possesses an economic structure which will build the foundation for strong economic growth in the future. The Structural Potential Index estimates a region's potential future economic growth based on its current economic structure.

The IB Index Family provides an easily understood overview of a region's competitiveness when benchmarked internationally. The application of the IB Index Family can be the first step to a more in-

¹BAK Basel Economics AG (BAKBASEL) is a private, independent economic research institute based in Basel, Switzerland. It was established in 1980 as a spin-off from Basel University. It has 30 years of experience of providing economic analyses, forecasts and consulting services on an empirical and quantitative level to clients across Europe.

depth benchmarking of the competitiveness of a region, which is necessary when working towards detailed policy conclusions. The construction of the indices in combination with the underlying vast database allows extensive “drilling down”: Starting from the quickly provided overview all the necessary details for strategic decisions and policy shaping can be achieved in a continuous and consistent process.

Overall, this paper addresses the following questions:

- How can we measure regional competitiveness?
- What are Scotland's strengths and weaknesses in terms of competitiveness?
- What do these results imply for Scotland's future prospects with respect to potential constitutional change (political independence)?

This paper begins with an explanation of the IB Index Family which is then applied in a brief benchmarking analysis of Scotland² and eleven European regions and small nations. After introducing the benchmarking sample, the benchmarking analysis starts with an analysis of the economic performance of Scotland compared to its benchmarking partners. The Performance Index will then be explained and applied. After that, the Attractiveness Index will be introduced. It benchmarks the quantity and quality of important location factors in Scotland against the selected sample. Then, using the Structural Potential Index, Scotland's future economic potential will be assessed given its economic structure today. The paper closes with a summary of the strengths and weaknesses of Scotland's economy and reflects on the possible economic impact of constitutional change.

2. Scotland and its benchmarking sample

Choosing the regions to be included in the benchmarking followed a number of criteria with the aim of comparing Scotland with the most relevant regions and small countries in Europe.

Eleven key European regions or countries were chosen for benchmarking. The selection consists of regions and small countries with an economic-geographic situation similar to Scotland (population size, geographical position). Furthermore, regions were selected to guarantee diversity with respect to economic systems (Anglo-Saxon, Continental and Nordic) as well as some regions or small countries with strong economies.

Some small countries (Ireland, Switzerland and Norway) are included in order to compare Scotland with geographical entities of similar size but independent. Two UK regions (North West England and Wales) are included to enable comparison of Scotland to other non-independent regions of the UK. Furthermore, Baden-Württemberg, Rhône-Alpes, Catalonia and Lombardy are included as members of the international “Districts of Creativity”,³ a network of which Scotland is a member as well.

² More detailed benchmarking analyses for Scottish regions were conducted by BAKBASEL for Metro Edinburgh (BAKBASEL 2006) and the City-region Glasgow (BAKBASEL 2005a, 2008).

³ Refer to <http://www.districtsofcreativity.org/about>

Table 1: Benchmarking regions/countries

Benchmarking regions		Population 000's	GDP/capita 000's
Region/country	definition of region		
Scotland	Country (NUTS1)	5261	39
Ireland	Country (NUTS0)	4585	46
Norway	Country (NUTS0)	5053	99
Switzerland	Country (NUTS0)	8049	75
Wales	Country (NUTS1)	2950	29
West Sweden	Västsverige region (NUTS2)	1905	52
Catalonia	Barcelona, Girona, Lleida and Tarragona regions (NUTS4)	7236	35
Baden-Württemberg	Bundesland (NUTS1)	10815	46
North-Holland	Kop van Noord-Holland, Alkmaar en omgeving, IJmond, Agglomeratie Haarlem, Zaanstreek, Groot-Amsterdam and Het Gooi en Vechtstreek regions (NUTS2)	2672	54
North West of England	Cumbria, Cheshire, Greater Manchester, Merseyside and Lancashire regions (NUTS1)	7022	33
Lombardy	Bergamo, Lecco, Sondrio, Brescia, Cremona, Lodi, Mantova, Pavia, Milano, Como and Varese regions (NUTS2)	9981	41
Rhône-Alpes	Ardeche, Drôme, Loire, Isère, Ain, Rhône, Haute-Savoie and Savoie regions (NUTS2)	6396	40
Western Europe	Germany, France, Italy, Great Britain, Spain, Sweden, Belgium, Netherlands, Denmark, Ireland, Luxembourg, Austria, Portugal, Finland, Norway, Switzerland, Greece*	412678	40

*Greece has been excluded of the Western Europe aggregate due to data inconsistencies

NUTS = Nomenclature des Unités Territoriales Statistiques, EUROSTAT 1981

Source: BAKBASEL

3. Benchmarking economic performance

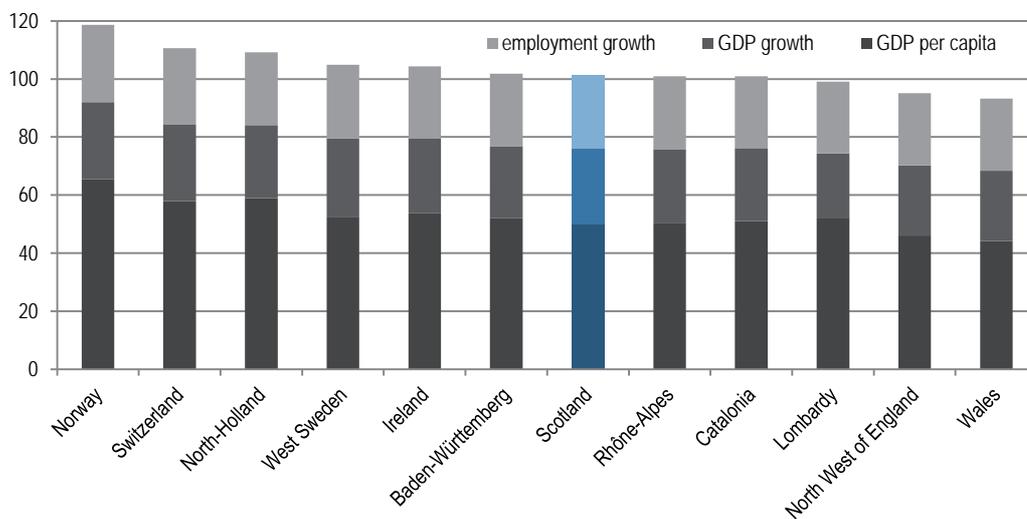
The Performance Index describes the competitiveness of a region by summarising its recent economic performance. It measures both the level of economic activity as well as the dynamics of the economy. Both components are important for the well-being of a region and its inhabitants. The level component of the Performance Index reflects the wealth produced in the region. The growth part of the Performance Index is important for a region in order to achieve additional value added to the economy.

The indicator which best captures the economic activity level part of the Performance Index is GDP per capita. To reflect the growth part of the Index, two indicators are selected: GDP growth and employment growth. GDP growth reflects the advances in the production possibilities of a region. It is also the most common indicator for measuring economic growth. Creating adequate jobs for the population is probably the most important task of economic policy. That is why the achievements in this important area, as indicated by employment growth, are reflected directly in the Performance Index. As the international benchmarking aims to align itself with structural developments rather than with the effects of a single

economic cycle, a ten year average growth rate is used. This period is long enough to cover at least one, often two, economic cycles.

For defining the weights of the three components of the Performance Index, no clear theoretical or empirical guideline exists. Therefore, it has been decided to weigh the level and the growth components equally. Within the growth component, identical weights are given to GDP growth and employment growth. All indices are constructed in similar ways: A value of 100 reflects the Western European average, and a difference of 10 index points equals one standard deviation between the Western European regions (NUTS2).

Figure 1: BAKBASEL Performance Index



Western Europe = 100; 2012

nominal GDP per capita, real GDP growth ppp adjusted

Source: BAKBASEL

In the Performance Index of 2012, Scotland scores slightly better than the Western European average reflecting Scotland's above average growth in GDP. Its GDP per capita and employment growth, however, are about the same as in Western Europe. Of all UK regions in the sample, Scotland performs best and reaches a higher score than the UK as a whole as well (not shown in the graph). Smaller independent countries (Switzerland, Ireland and Norway) all score better than Scotland: indeed Norway and Switzerland lead the sample. What propels them to the top is their high GDP per capita, while growth in GDP and employment were average over the past decade.

Figure 2 shows the average annual growth rates of GDP and employment of the total economy for the years 2002 to 2012. The bisecting line depicts constant labour productivity, regions above the line achieved labour productivity growth. The distance to the bisecting line reflects the size of the gains (above the line) or losses (below the line) in productivity.

Apart from Lombardy, all benchmarking regions lie above the bisecting line signifying that their labour productivity increased over the past decade.

Figure 2: Growth in GDP and employment

real GDP ppp adjusted

Source: BAKBASEL

The highest productivity gains are found in West Sweden, where GDP rose by 2.3 percent per annum and employment growth was 0.7 percent per annum. At the other end of the scale, Lombardy saw a remarkable loss in productivity. Its GDP shrank on average 0.4 percent per annum while employment increased by the same percentage.

Scotland's growth in GDP (+1.8% p.a.) was the second highest (together with Switzerland) after West Sweden. Employment growth was above average as well (+0.7% p.a.), but it expanded only about half as quickly as GDP. That means that Scotland achieved its GDP growth through a considerable gain in productivity.

Productivity and productivity growth are two major factors influencing the competitiveness of a region. The above average productivity growth in Scotland engenders a bright outlook for its future competitiveness and is the main reason why Scotland scores so well in the Performance Index.

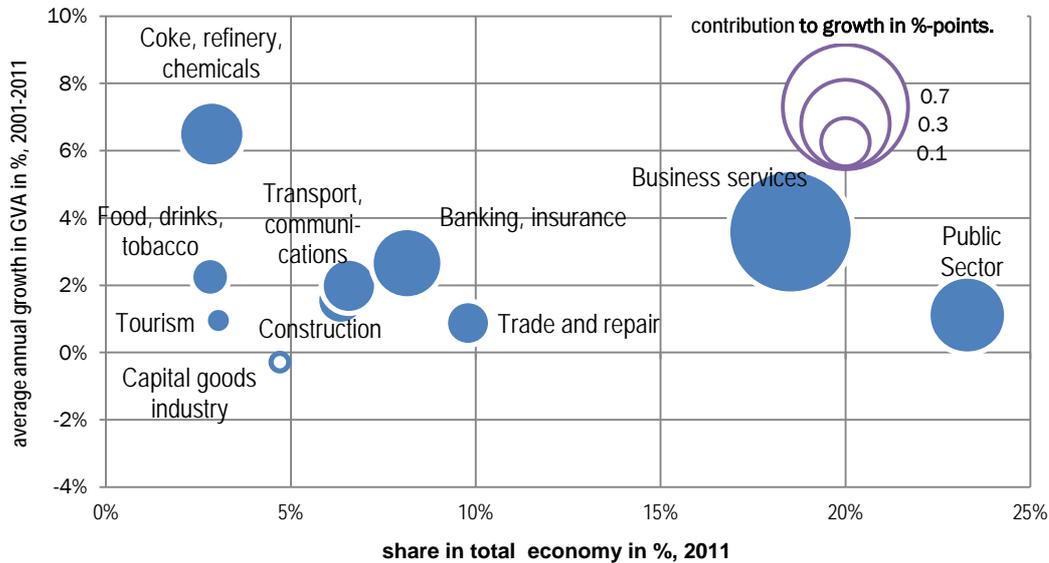
Which industries are the driving factors behind this performance?

The bubble chart shows the development and the average share of the ten key industries in Gross Value Added (GVA) in the last decade (2001-2011). The size of the bubble corresponds to the contribution of the industry to the economy's overall growth.

Analysing the growth contribution of the ten key industries reveals some remarkable results. Business-services is the most important key industry. On average, it contributed about 45 percent to the total GDP growth.

The banking and insurance industry achieved a remarkable contribution to growth even though the 2008 financial crisis is fully included in the analysed time period. This result is not simply due to high growth rates prior to the financial crisis. Scotland's banking and insurance industry expanded despite the crisis.

Figure 3: Growth contribution of selected sectors in Scotland



Growth in real GVA ppp adjusted; share in nominal GVA of total economy

Source: BAKBASEL

The chemical (including pharmaceutical) industry (aggregate of «coke, refined petroleum products, nuclear fuels and chemicals and chemical products») showed the highest growth in real GVA over the last decade (+3.5% p.a.). This strong growth was due to the rapid expansion of the chemical and pharmaceutical industry. In contrast, the coke and refined petroleum products sector shrank.

The tourism sector is composed of hotels and restaurants. Its growth of 1.0 percent in real GVA is considerable given the slump created by the financial and sovereign debt crisis in the EU. Its development was supported mainly by city tourism.

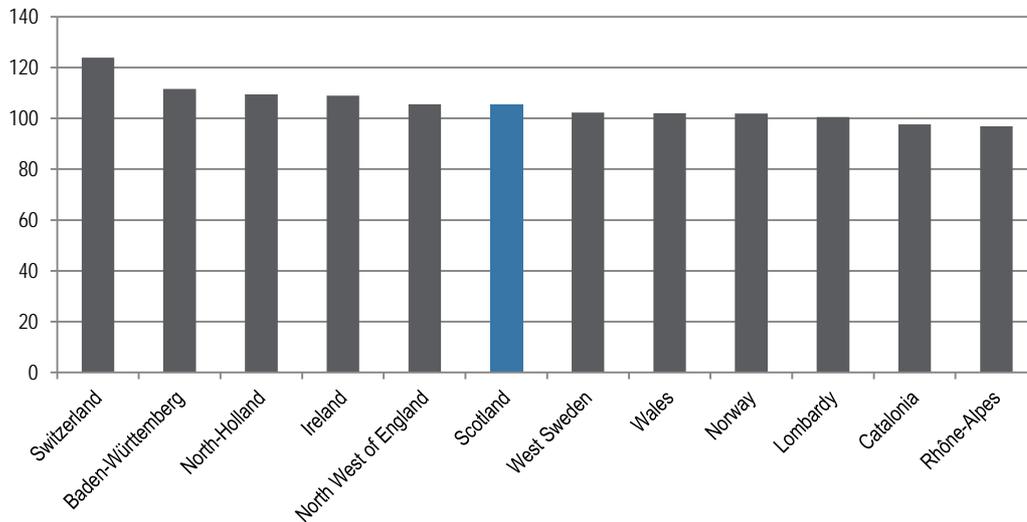
4. Attractiveness: Measuring and Comparing Location Factor Quality

The Attractiveness Index reflects the ability of a region to attract and retain both companies and human capital. In a globalised economy, the ability to attract these valuable resources is crucial to a region's competitiveness. Although attractiveness cannot be measured directly, various indicators in different areas are available which, together, paint a picture of the attractiveness of a region. Company surveys (such as the International Company Survey conducted by BAKBASEL in 1995, BAKBASEL 1995) demonstrate that when deciding on a company location, the tax burden, accessibility, quality of life, innovation capacities and regulation of markets are the most decisive factors. With the exception of quality of life (due to limited data availability) all these factors are covered in the Attractiveness Index. Thus, the Attractiveness Index covers nine indicators grouped into the following four areas: taxation (tax burden manpower and company), accessibility (global and continental), regulation (labour and product

market) and innovation (patents, publications and Shanghai Index). The weighting of the indicators is explained in the appendix.

Figure 4 displays the BAKBASEL Attractiveness Index for 11 regions and small countries in Europe.

Figure 4: BAKBASEL Attractiveness Index



Western Europe = 100; 2012

Source: BAKBASEL

On the Attractiveness Index, Scotland scores adequately well and is positioned in the middle of the BAK Attractiveness Index. Scotland is more attractive than the average of the Western European regions. The most attractive is Switzerland, followed by Baden-Württemberg and North-Holland. Of the 'Anglo-Saxon' regions, Ireland is more attractive than North West England and Scotland, and Wales is slightly less attractive than Scotland. Despite its high level of wealth, Norway ranks well behind the English-speaking countries and regions with respect to attractiveness as do Catalonia and Rhône-Alpes.

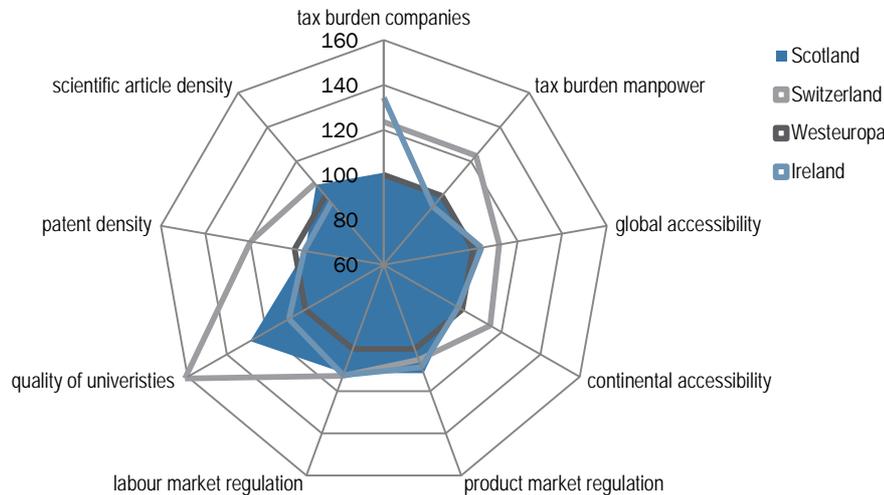
Which specific factors contribute to the attractiveness of Scotland? Figure 5 summarises Scotland's achievements with respect to the various indicators of the key location factors of attractiveness.

Taxation: Taxation is a key topic particularly for businesses evaluating the attractiveness of a location. Tax competition is an oft-discussed issue. BAKBASEL measures the tax burden on companies and on highly qualified people.⁴ Highly qualified people are usually more mobile (interregionally and internationally) than other workers and they become increasingly important as locations make structural changes towards knowledge-based economies. Some countries, particularly small countries, often follow a strategy of lowering taxes to support economic growth. The ongoing competition between countries, particularly in company taxation, is evident in the graph (Figure 6). All of the countries lowered their tax

⁴ For more information see www.baktaxation.ch. For detailed technical information on the models see for highly qualified manpower *Elschner and Schwager (2005)* and *Lammersen and Schwager (2005)* for company taxation. Latest commented results can be found in *BAKBASEL (2011)*.

burdens on companies between 1990 and 2011 and some countries (e.g. Sweden, Germany or Norway) have *significantly* lower taxes today.

Figure 5: Summary: Quality of location factors



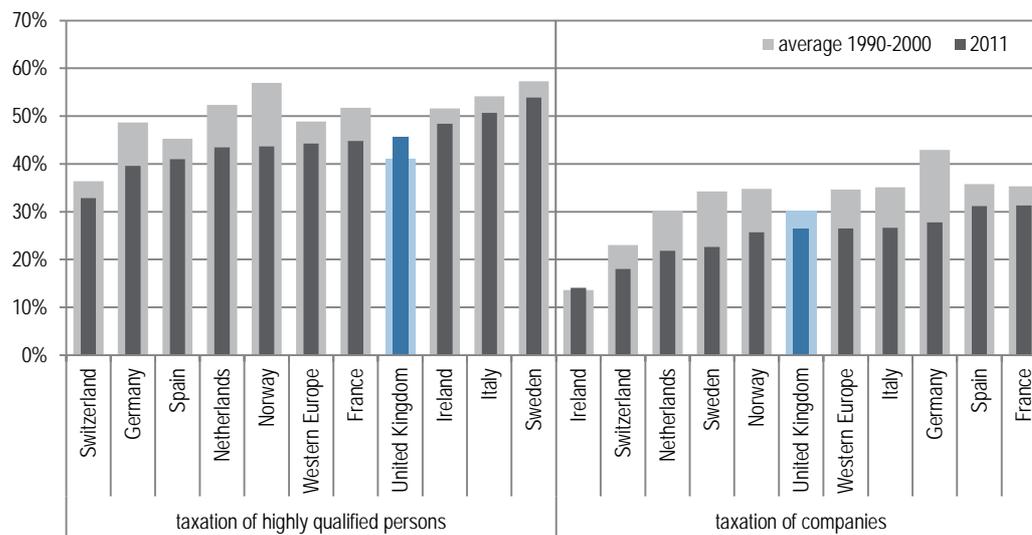
Source: BAKBASEL

In the UK, taxation is determined by the UK government and, therefore, is not in the power of Scotland to regulate. The formerly moderate UK company taxation level is not as favourable today as it was in the 1990s, although it is still slightly below the Western European average. But the UK's relative position vis-à-vis its competitors has clearly weakened. However, the situation is even worse with respect to the tax burden on highly qualified persons: this has increased in the UK, while all other benchmarking countries have decreased their taxation of highly qualified manpower. In 2011, the UK tax burden for highly qualified manpower is actually slightly above the average burden in Western Europe. Interestingly, Ireland has the lowest taxation level for companies, but it taxes highly qualified people somewhat higher than the UK. In this sample, only Italy and Sweden have even higher rates.

Regulation: The links between regulation and economic performance are complex. In short, a more liberal product market may result in a higher level of competition and a more efficient allocation of resources. More liberal labour markets allow faster adoption of the labour input to market conditions changes and lead to a more efficient use of the labour market potential. Hence, more liberal product and labour markets are expected to be positive for economic growth.

Regulation is determined at the national level in the UK and there are no differences between the UK regions.⁵ The UK labour market is one of the most flexible in Europe. Moreover, its product market regulations are also very liberal. This positions Scotland very well compared to Western Europe, but also compared to Switzerland, which overall is the most attractive country in the sample.

⁵ For the measurement of regulation, BAKBASEL relies on the work of OECD, amended with several other sources (see OECD regulation database).

Figure 6: Taxation: Companies and manpower

Effective average tax burden

Source: BAKBASEL, ZEW

Accessibility: In a global economy, connectivity and accessibility are decisive factors in attracting international companies, highly qualified people as well as tourists. Geography and infrastructure are the two determinants of the accessibility of a region or country. The global accessibility indicator measures how well a region is connected to the rest of the world.⁶ For that, the geographical location of a region is less important than its transport links to one of the large intercontinental airports. However, in measuring *continental* accessibility, regions located close to the economic centres of Europe have a clear advantage as do those regions located close to a larger airport. Because of Scotland's geographical position in the north of Europe, its index of continental accessibility is below average. Scotland scores better in the *global* accessibility index because the global index is less influenced by geography and Scotland profits from the good connections to London Heathrow, one of Europe's largest hubs.

Innovation: The highly developed economies of Western Europe are not just exposed to (cost-related) competition resulting from globalisation. The goal of these regions and countries is to maintain their competitive advantage, and thereby their high living standards, through innovation. The Attractiveness Index includes three indices which indicate the innovation level of the region or country. An important resource used in the innovation process is top quality academic research measured by the Shanghai Index. Patents and scientific articles are among the indicators best suited to measure the scientific output of an innovation system, particularly a regional innovation system. They are also an indication of the existence of technology transfer from the region to other regional economies. The indicators are reported as a density (per capita) to take the different sizes of the regions into account. Scotland's universities perform well with regard to their research potential and rank clearly better than most of the selected benchmarking small nations and regions. Similarly, the density of scientific articles in Scotland

⁶ For more information on the BAKBASEL accessibility models see BAKBASEL 2005b; recent results are also available at www.bakbasel.com →Accessibility.

is high and above the average. However, the number of patents per capita is not favourable and is below the Western European average. Scotland has not yet managed to tap its full innovation potential.

To sum up, according to the BAK Attractiveness Index, the following factors contribute positively to the attractiveness of Scotland:

- moderate company taxes
- liberal labour and product markets
- high-quality universities
- high density of scientific publications
- good global accessibility

while the following factors make Scotland less attractive than the Western European country average:

- tax levels for highly qualified people
- patent density
- continental accessibility

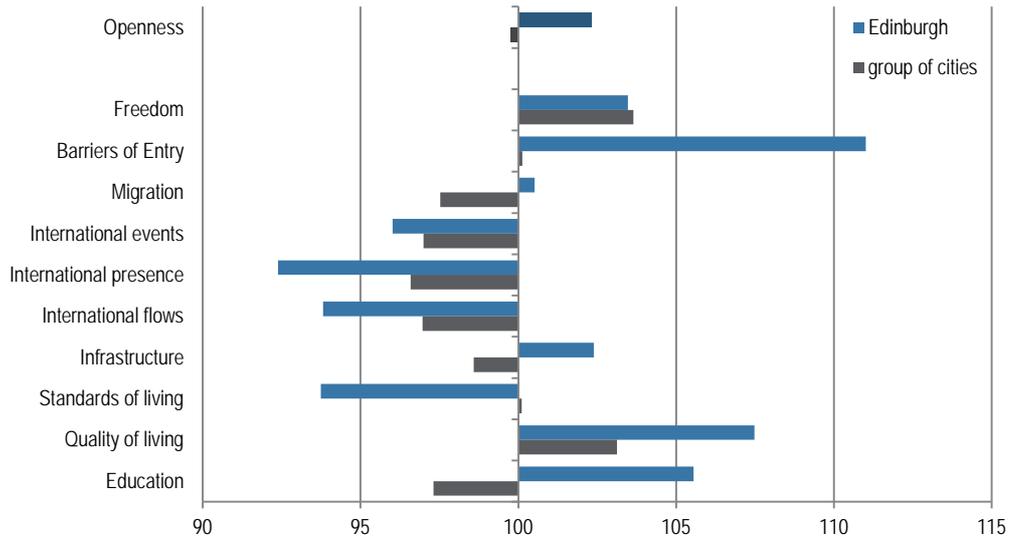
As can be seen from Figure 5, Scotland's attractiveness is near or above the Western European average in most areas. Scotland is thus an attractive location. However, to keep and to attract foreign capital and highly qualified people the level of attractiveness has to be significantly above the Western Europe average. Switzerland, for example, posts values considerably above average in all indicators. Although Ireland is slightly more attractive than Scotland overall, it shares some similar weaknesses: comparably high taxes on manpower, below average continental accessibility and low patent density.

Quality of life and openness are important factors in attracting highly qualified people. As previously mentioned, there is not enough information to measure the quality of life in all regions in Europe. However, there are some good data for cities. The importance of human capital and human creativity as one of the key location factors explaining sustainable economic long-term growth is significant and rising. Urban regions, in particular, compete globally to attract highly qualified and talented labour (Florida 1992). Cities must therefore be attractive and open and provide a tolerant environment to attract and retain international talent and population groups. The OPEN Cities Monitor (www.opencities.eu) identifies the link between international migration and economic growth and measures the multidimensional phenomenon of openness. Within this context, openness is defined as "the capacity of a city to attract international populations and to enable them to contribute to the future success of the city." It is measured with 53 internationally comparable indicators. These indicators are subdivided in 11 areas: migration, quality of living, international flows, standard of living, freedom, international presence, infrastructure, barriers of entry, education, international events and diversity actions.

BAK Basel does not have data on Scotland's quality of life and openness but does have such data for Edinburgh. Figure 7 presents a snap-shot of the results for Edinburgh. Edinburgh is benchmarked against the average results of the city sample (in blue) and against the group of cities with similar population size (in grey). Since the average value of the sample is 100, Edinburgh's values above 100

indicate that its results are above average in that area. As is obvious from the figure, Edinburgh has a high level of education. It has a high quality of life, the barriers to entry for foreigners are low, however its standard of living is somewhat lower than the sample average and its degree of internationalisation is relatively low compared to the sample. Nevertheless, the results suggest that Edinburgh is an open city offering a high quality of living for international populations.

Figure 7: Openness Index for Edinburgh



group of cities: Aarhus, Amsterdam, Auckland, Bucharest, Copenhagen, Dusseldorf, Manchester, Sofia, Vienna, Zurich

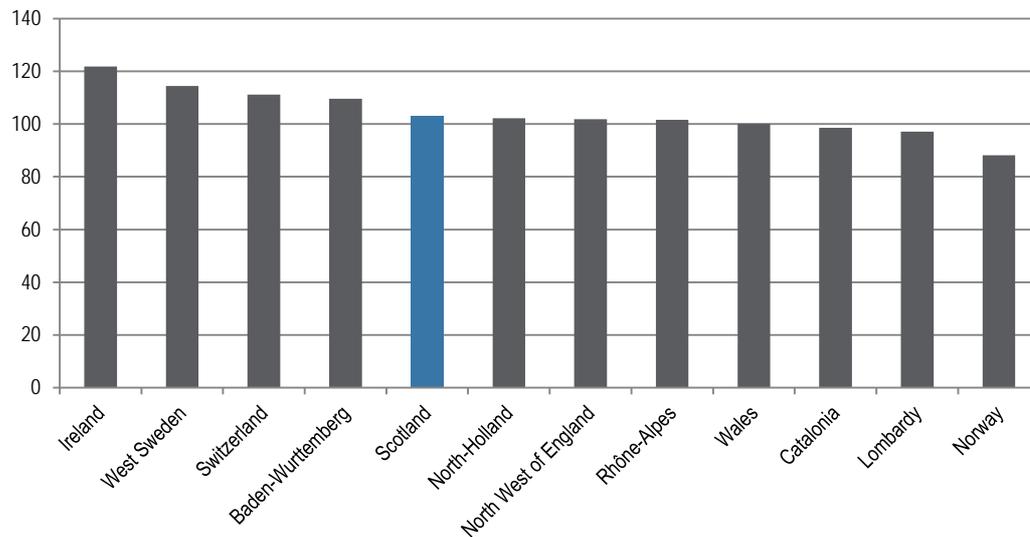
average of city sample = 100

Source: BAKBASEL

5. Assessing the economic and political structural potential of Scotland

The Performance Index and the Attractiveness Index cover current conditions and recent achievements of regional economic development. This is supplemented in this section by an analysis of a region's future prospects. This third index of the IB Index Family, the Structural Potential Index, indicates the future growth potential of a region inherent in its current economic and political structures.

The Structural Potential Index is itself divided into three components: Industry Structure Potential, Capacity to Compete, and Political Structure Potential. The Industry Structure Potential focuses on the regional industry structure and its inherent potential for further growth. A regional concentration in industries with bright prospects for expansion gives a region greater potential for substantial and sustainable growth and vice versa. The Capacity to Compete gauges the competitiveness of the region by summarising productivity indicators for all the export orientated industries. The Political Structure Potential covers the influence of the political structural conditions on overall growth prospects. The share of the informal economy, perceived corruption and the decentralisation of political decisions are the indicators applied here. The weighting of the indices is stated in the appendix.

Figure 8: BAKBASEL Structural Potential Index

Western Europe = 100; 2011

Source: BAKBASEL

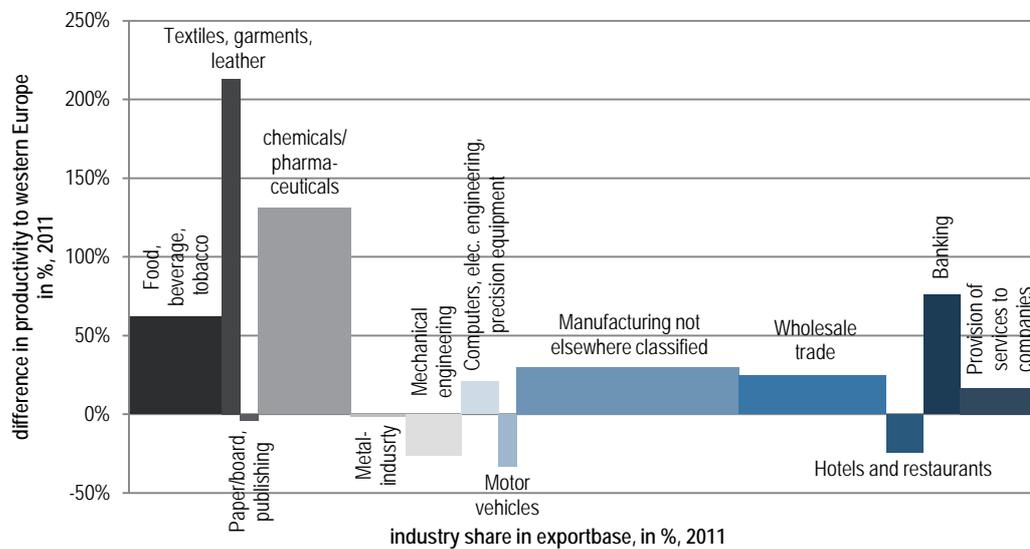
Scotland scores well in the Structural Potential Index (Figure 8). This result is due to its considerable competitiveness. In contrast, the potential of its industry structure is below average. A remarkable number of important industries in Scotland (in terms of industry share in total economy) show on average rather slow growth prospects. Apart from financial and business services industries, none of the important industries of Scotland are included in the prospective top growth industries. The rest of the future top growth industries are rather small in Scotland.

The Capacity to Compete Index concentrates on the competitiveness of the industries in the region. The Industry Structure Potential Index focuses on the regional industry structure and the potential for further growth inherent in it. In this part of the Index, the focus lies on the competitiveness of the industries in the region compared to the same industries elsewhere. If the industries present in the region are more competitive than their competitors elsewhere, the region is more competitive as well. The Capacity to Compete looks exclusively at the competitiveness of the export orientated industries. These industries are fundamental to the economic success of a region as they allow the region to participate in the global division of labour and profit from the advantages of a global economy. At the same time, these industries are much more vulnerable to sudden changes in international and interregional demand.

The main determinant of the competitiveness of the export industries is their productivity. In the long run, a more productive industry in one region should be able to gain market shares in the globalised economy and grow stronger than a similar, but less productive industry in another region.⁷

As noted above, Scotland's economy has increased its productivity over the last decade and is today highly productive.

⁷ On the level of the whole economy, productivity is highly biased due to, for example, different capital intensities. Within a chosen industry, this is much less of a problem. Productivity is an increasingly suitable measure for competitiveness the more similar the production conditions are. The IBD offers very detailed industry data on a regional level (45 industries) which is applied here.

Figure 9: BAKBASEL Capacity to Compete Index: Scotland

industry share in nominal GVA of total economy; nominal productivity

Source: BAKBASEL

As can be seen from Figure 9, in Scotland a considerable productivity advantage is found in the following industrial sectors: “chemicals and pharmaceuticals”, “food, beverages and tobacco” and “other manufacturing”. Although the textiles and garment industry’s share of the total economy of Scotland amounts to just 2.0 percent, its contribution to the productivity advantage of Scotland’s economy is remarkable. Because the industry in Scotland is more than three times as productive as the Western European average, it contributes about 4 percent to Scotland’s productivity advantage. This is the same amount that the much larger banking or wholesale trade industries contribute.

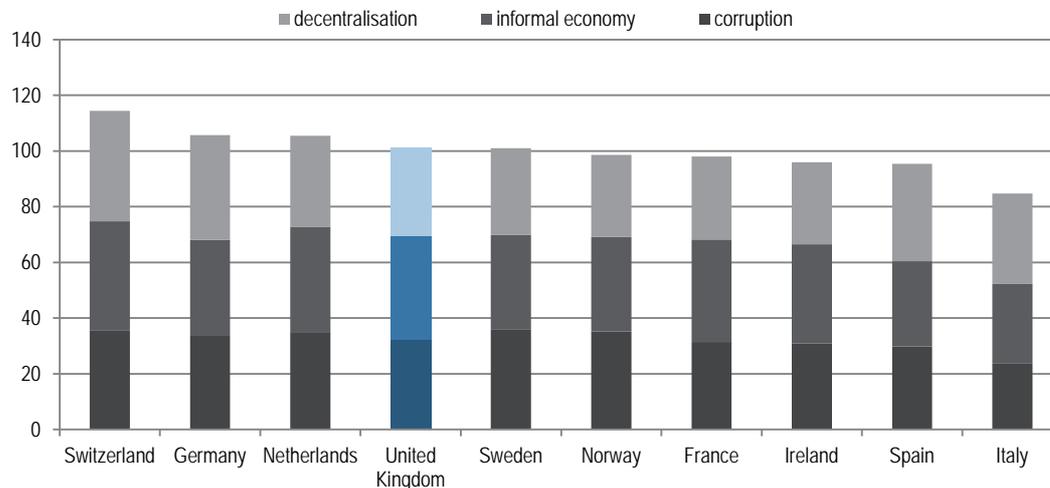
In Scotland’s service sector, every sub-sector, save the hotels and restaurants, shows higher productivity than the Western European average.

Hence, Scotland’s economy can be seen to be composed mainly of industries that, in general, do not promise the brightest prospects. However, even in industries with low or negative growth prospects (e.g. textiles industry), Scotland is more productive than the Western European average. It might well be that, because of regional specialisation, these industries will continue to grow in Scotland, whereas they will remain static or even shrink in other regions.

Not only does the economic structure shape a region’s future potential for development but so does its regulatory and political framework. The Political Structure Index summarises three economically important aspects of the framework: the size of the informal economy, perceived corruption and the index of decentralisation. This index measures a region’s freedom to act. Greater decentralisation provides regions with more room to organise their own future development opportunities. Corruption, on the other hand, undermines regional policies. Therefore, it is measured negatively in the index (the more corruption in a region, the fewer points earned in this category). The size of the informal economy is also integrated negatively in the index. A large informal economy implies there are problems in the

enforcement of regulations and/or there are excessive taxes, dues and regulations. The three indices are equally weighted in the Political Structure Index.

Figure 10: BAKBASEL Political Structure Index 2012



Western Europe = 100; 2012

Source: BAKBASEL

The United Kingdom is awarded just slightly more points in the Political Structure Index than Western Europe (Figure 10). On the positive side, the informal economy is considerably smaller in the United Kingdom than on average in Western Europe. Additionally, the Index for corruption shows fairly low corruption in the UK and is in line with the results in the recent EU anti-corruption report (European Commission 2014). On the negative side, decentralisation in the UK is less than average.

6. Conclusion

Scotland's economy performed quite well over the last decade. Compared to the top regions in the benchmarking sample, it still shows a slight deficit in GDP per capita, but when concentrating on the structural development over a period of ten years it is on a fast growing track and about to catch up with the leaders. A large advantage Scotland has is its strong gains in productivity. Productivity and productivity growth are two major aspects determining the competitiveness of a region. The above average productivity growth in Scotland provides a bright outlook for its future competitiveness.

While political independence can boost productivity and GDP per capita growth only indirectly, the small independent countries in the benchmarking sample are among the best performers in the EU. Nevertheless, one cannot conclude from this that independence *per se* would necessarily increase economic performance. For example, non-independent regions such as North Holland or West Sweden follow close on the heels of the Index leaders.

Scotland is an attractive region. Its attractiveness is near or above the Western European average in most areas. However, to attract and to hold on to foreign capital and highly qualified people, its level of attractiveness should be well above the Western European average.

Would an independent Scotland be more attractive to investors and people? How could an independent Scotland improve its attractiveness? In which areas is there room to manoeuvre?

Scotland clearly profits from advantageous UK regulations. Scotland, as part of the UK, enjoys a favourable regulatory environment. Product and labour markets are very flexible. If Scotland became independent of the UK, it should strive to preserve this advantage.

The political structural potential of Scotland is good. Scotland currently benefits from the favourable conditions in the UK. Political independence could potentially strengthen this potential even more. Especially in the area of decentralisation, there is room for improvement.

While still below average, Scotland's tax burden on companies is moderate. The taxation of highly skilled people is, however, higher than in many European locations. Many countries and regions have lowered their tax burdens in the past and now outperform the UK. In the case of independence, Scotland's ability to adjust taxation would increase. Nevertheless, it is questionable whether lower taxes would increase the attractiveness of Scotland sufficiently to compensate for lower tax revenues.

Any improvement in the accessibility of Scotland would be good. However, the restrictions of its geographical position are hardly possible to change. With respect to its connection with the world, Scotland profits from its reliable connections to the international hub of London. Here, an independent Scotland should aim to ensure that it retains its good accessibility to Heathrow as Europe's largest global hub.

The framework conditions for innovation are good in Scotland. Scotland's productivity gains may reflect these positive conditions. Scotland has high-quality universities and researchers and its innovation capacity is high, but its number of patents is low. A more effective use of the available knowledge resources should be encouraged. For innovation, interaction and exchange between people and academia and industry matters. With regard to any future constitutional change, this should be an important focus for Scottish public policy.

In summary, Scotland's future economic prospect is driven by two opposing forces. First, in Scotland's economy, industries with mediocre prospects play important roles. Only two industries that are generally considered to be high-growth industries make up a considerable share of the economy of Scotland [financial and business services and the chemical (including pharmaceutical) industry]. Second, nearly all industries in Scotland show higher productivity than the Western European average. Scotland's economy possesses an advantage in its competitiveness. It might well be that some industries will prosper in Scotland while they retreat in Western Europe. This regional specialisation would perhaps become more pronounced and supported were Scotland to be independent.

References

- BAKBASEL (1995): "Standortattraktivität von Regionen in der Schweiz", Basel.
- BAKBASEL (2005): "Glasgow Economic Analysis and Benchmark Report", Basel.
- BAKBASEL (2005): "IBC Modul Erreichbarkeit, Schlussbericht Phase II – Globale und kontinentale Erreichbarkeit: Resultate der Modellerweiterung", Basel.
- BAKBASEL(2006): "Edinburgh Economic Analysis and Benchmark Report", Basel.
- BAKBASEL (2008): "Glasgow City Region Summary Report 2008", Basel.
- BAKBASEL (2011): "Effektive Steuerbelastung von Unternehmen und auf den Einsatz hoch qualifizierter Arbeitskräfte sowie Nachhaltigkeit der Finanzpolitik", Basel / Mannheim.
- BAKBASEL (2012): "International Benchmarking Report 2012", Basel.
- Elschner, C. / Schwager, R. (2005): "The Effective Tax Burden on Highly Qualified Employees - An International Comparison", in: ZEW report on behalf of the IBC BAKBASEL International Benchmark Club, BAKBASEL, Basel.
- European Commission (2014): "Report from the commission to the council and the European parliament – EU anti-corruption report", Brussels.
- Florida, R (2005): "Cities and the Creative Class", London.
- Lammersen, L. / Schwager, R. (2005): "The Effective Tax Burden of Companies in European Regions – An International Comparison" 11th Ed., Physica: Heidelberg.
- Schneider, F. (2010): "Size and Development of the Shadow Economy of 31 European Countries from 2003 to 2010", http://media.hotnews.ro/media_server1/document-2011-05-8-8602539-0-shadeceurope31-sept2010-revisedversion.pdf

Author details

Martin Eichler,
BAKBASEL, Basel, Switzerland
Martin.Eichler@bakbasel.com

Rebekka Rufer
BAKBASEL, Basel, Switzerland
Rebekka.Rufer@bakbasel.com

Dr. Andrea Wagner
BAKBASEL, Basel, Switzerland
Andrea.Wagner@bakbasel.com

Appendix: Methodology

Normalisation of the indices:

All three indices of the IB Index Family as well as all sub-indices used are normalised with identical methods. For each variable used in the calculation – which could be an indicator from the IBD or an index already calculated in an earlier step – the average value of the indicator across all NUTS2 regions in Western Europe is calculated.⁸ This average is set identical to 100. In the next step, standard deviation of the variable across the same set of European NUTS2 regions is calculated. This is set to 10. Therefore, an index value of 110 means the region is, with respect to the variable in question, one standard deviation better than the average of the European NUTS2 regions; an index of 80 means it is two standard deviations below the average.⁹

When summing up the individual sub-indices, the weights given in the definition (see below) are used and the calculation of standard deviation is repeated. Therefore, the three indices of the IB Index Family have an average of 100 and a standard deviation of 10 Points for the set of Western European NUTS2 regions as well. Note that for some indicators, e.g. taxation, the inverse is used in calculating the corresponding index as lower values actually reflect higher attractiveness.

Components of the Performance Index

- GDP per capita (last available year, PPP): Weight 50%
- GDP growth (last ten years average, at constant prices, PPP): Weight 25%
- Employment growth (last ten years average): Weight 25%

Components of the Attractiveness Index

- Taxation (30%):
 - Tax burden on highly qualified employees (effective average tax rate; single person, disposable income € 100'000): Weight 10 %, negatively included in the index
 - Tax burden on companies (effective average tax rate (EATR) on a profitable investment): Weight 20%, negatively included in the index
- Accessibility (20%)
 - Global accessibility (outbound accessibility to destinations other than Europe, destinations GDP-weighted): Weight 10%
 - Continental accessibility (outbound accessibility to destinations within Europe, destinations GDP-weighted): Weight 10%
- Regulation (20%)
 - Regulation of labour markets (OECD index): Weight 10%, negatively included in the index
 - Regulation of product markets (OECD index): Weight 10%, negatively included in the index
- Innovation (30%)

⁸ There are about 200 NUTS2 regions in the "old" EU15 plus Norway and Switzerland. Offshore territories (e.g. in Africa, Caribbean) are excluded.

⁹ Note that this methodology is identical to the calculation of the IQ.

- Research quality of universities ("Shanghai Index of University Quality"): Weight 10%
- Patents (patents per inhabitant): Weight 10%
- Publications (publications per inhabitant): Weight 10%

The weighting used to aggregate the indicators into the overall Attractiveness Index is derived from a growth estimation. They reflect the (rounded) coefficients of the involved locations factors obtained from an estimation of GDP growth across the regions covered in the International Benchmarking Database.

Components of the Structural Potential Index

- Industry Structure Potential: Weight 40%
Industry Structural Potential is calculated using the expected average growth of all industries in highly developed and industrialized countries like Western Europe or North America for the period 2012 to 2020. These expectations are derived from a meta-analysis from various sources and forecasts (Oxford Economics, Prognos, BAKBASEL). They are combined with the region specific industry shares. The derived structurally expected growth in the regions is then used to calculate a sub-index.
- Capacity to Compete: Weight 40%
The Capacity to Compete draws on the differences in hourly productivity, setting the export orientated industries' productivity in relation to the productivity average of corresponding industries in Western Europe. All manufacturing industries are considered as export orientated industries as well as a number of service industries (predominantly wholesale trade, tourism, finance and business services). Note that the index takes the weight of the individual export orientated industries into account, but it does not include the weight of the export orientated industries within the regional economy.
- Political Structure Potential: Weight 20%
 - Size of the informal economy (P. Feld / F. Schneider, 2010): Weight 6.7%
 - Perceived corruption (Corruption Perceptions Index (CPI), Transparency International)¹⁰: Weight 6.7%
 - Decentralisation (Decentralisation Index, BAKBASEL, 2009)¹¹: Weight 6.7%

As before, choosing the weighting for the individual components of the Structural Potential Index is not based on clear theoretical or empirical guidelines. The Industry Structure Potential and the Capacity to Compete are weighted identically with 40 percent. The Political Structure Potential is considered to have a less direct effect on the economic potential. Therefore, it is weighted with 20 percent in the Structural Potential Index; its individual indicators are given identical weights.

¹⁰ For more information on the CPI consult http://www.transparency.org/policy_research/surveys_indices/cpi

¹¹ For more information on the Decentralisation Index consult "Decentralisation Indicators on the Regional Level" on http://bakbasel.ch/w/Englisch/competences/governance_projects/index_governance

The performance of employee-owned businesses in Scotland: some preliminary empirical evidence

Ross Brown, University of St. Andrews; Ronald McQuaid, University of Stirling; Robert Raeside and Jesus Canduela Edinburgh Napier University

Abstract

In recent years, there has been a growing focus on promoting the concept of employee-ownership of businesses within public policy. One of the strong drivers of this is an assumption that these businesses out-perform conventionally structured businesses. This paper highlights some of the findings from the first empirical examination of the growth performance of employee-owned businesses (EOBs) ever undertaken in Scotland. The study involved an in-depth examination of a small sample of employee-owned firms and a quasi-experimental comparison of these firms against a control group of non-employee owned firms. The study confirms that the performance of EOBs is generally superior to that of non EOBs on a number of different variables. On average, employee-owned firms both employ more staff and exhibit higher turnover growth than their peers. The results of this analysis are discussed and the policy implications arising from the study are outlined.

1 Introduction

In recent years there has been mounting levels of interest in different forms of employee ownership and employee financial participation (Poutsma et al, 2013). Under this form of business organisation employees have a direct financial stake in the firm, exhibit greater employee participation and in various ways 'help management make decisions regarding the economic activities of the firm' (Freeman et al, 2010, p. 1). Some have used the term 'shared capitalism' to denote this dispersed ownership model (Kruse et al, 2010). It is also central to a growing literature around employee 'voice' (Timming, 2012). In this paper we use the Co-operative Development Scotland definition of an employee owned business (henceforth EOB) whereby:

'the employees, rather than external shareholders, hold the majority of the shares either directly or through an employee benefits trust which buys the business on their behalf. In addition, employees have a heightened level of voice within the business.' (Co-operative Development Scotland 2012)

While traditionally quite rare in the UK, this model of corporate structure and governance is now proving increasingly appealing [1]. Part of this growing interest stems from various policy initiatives undertaken both by the UK and Scottish Governments to promote various forms of employee ownership. At the UK level, the current Conservative-led coalition government has recently undertaken policy initiatives such as tax relief on bonuses paid through staff trusts (Financial Times, 2013). Meanwhile, in Scotland organisations such as Cooperative Development Scotland have been pro-actively encouraging employee-ownership for a number of years, which has resulted in quite a significant growth of these firms in Scotland. Indeed, such is the desire to promote this model of corporate organisation the UK government has taken to 'extolling the virtues of the John Lewis economy' (Wilkinson et al, 2014, p. 739).

One of the main reasons for this growing policy interest in EOBs stems from the increasing body of evidence suggesting that EOBs out-perform firms with more restricted ownership structures, especially in the UK and US (Lampel et al, 2012; Blasi et al, 2013). Research in the US has found a consistent positive relationship between employee-ownership and labour productivity (Blasi et al, 1996). Past research across a number of countries within a range of different sectors suggests that EOBs provide higher financial returns, greater productivity levels and higher levels of employment stability than non-EOBs (Doucouliagos, 1995, p.58; Kramer, 2010). An examination of more than 70 studies, mainly undertaken in the US, found that employee ownership is linked to a 4-5% uplift in terms of productivity (Kruse, 2002). Another US study compared 229 'new economy' firms with broad-based employee stock options discovered that they outperformed their conventionally structured counterparts (Sesil et al, 2002).

EOBs also seem to adopt different organisational characteristics than non-EOBs which may account for this superior performance. For example, a recent UK study comparing EOBs and non-EOBs found that the former were more likely to adopt longer-term horizons when investing in their business, invest more in human capital and had a stronger focus on organic growth than non-EOBs (Lampel et al, 2012). Lower levels of staff turnover and absenteeism are also sometimes found in EOBs compared to non-EOBs, (McQuaid et al., 2012) although some research does not indicate lower staff turnover (Sengupta et al, 2007). Recent evidence suggests that EOBs are less likely to be negatively affected by cyclical downturns than traditional firms (Lampel et al, 2012). This research found that EOBs had greater levels of employment continuity over the recent economic downturn (Lampel, 2014).

Yet, as a form of corporate governance, employee-ownership remains a relatively small and little understood component of the business population within the UK economy. At present, according to the Employee Ownership Association there are only around 150 companies with a significant employee ownership within the UK (EOA, 2012). EOBs account for a relatively small proportion of the overall UK economy which is estimated at around 2% of GDP or £25bn (Lampel et al, 2012). Despite its small size, the sector is growing by around 3% per annum (EOA, 2012). What is more, these businesses appear to exist in all parts of the economy and are not restricted to the types of sectors (such as primary industries, retail and professional services) traditionally associated with alternative corporate governance models. That said, the number of EOBs in the UK is still much smaller than that found elsewhere in US and parts of Europe (Wills and Lincoln, 1999).

Interestingly, at a sub-national level in the UK, EOBs seem to be a particularly prevalent within some regional economies. In recent years, there has been a large upsurge in firms adopting this form of governance structure in Scotland. Recent examples of firms becoming employee-owned include AquaScot, Clansmen Dynamics, Voice Technologies and Woollard & Henry. As a consequence of this, Scotland seems to be overrepresented in EOBs in relation to the rest of the UK. According to recent data from Cooperative Development Scotland, there are now 45 employee-owned and cooperatives headquartered in Scotland (CDS, 2014). The majority are in some form of employee ownership (n= 28) rather than workers cooperatives (n= 17). Cumulatively, these firms employ around 2,405 employees with the vast majority of employment within employee-owned firms (2157 employees) rather than in

workers cooperatives (248 employees). If we include UK-owned firms, the total number of employee-owned firms rises from 45 to 59 and total employment rises from 2157 employees to 8082. The big uplift in employment from UK-headquartered EOBs is due to the inclusion of very large firms such as the John Lewis Partnership within this cohort. In contrast, the vast majority of Scottish EOBs are SMEs.

To date there has been little empirical investigation of Scottish employee-owned firms. This paper seeks to rectify this omission by examining this growing organisational phenomenon by studying the growth performance of EOBs in Scotland, specifically independently Scottish-owned employee-owned firms. The next section outlines the methodology used within the study. The empirical findings from the quantitative element of this research are then considered. The fourth part of the paper discusses the findings and examines some of the potential implications raised by the study. The final section provides some conclusions and outlines further areas for research.

2 Research methodology

This paper draws on a research project which adopted a multi-method examination of the growth performance of EOBs in Scotland (McQuaid et al, 2013). The focus of this paper is primarily on the quantitative and statistical analysis undertaken of the growth performance of EOBs. Fifteen EOBs which have their headquarters in Scotland, were contacted and asked to participate in the research. Three declined to participate. These were smaller companies in niche areas and if included might have altered our findings relating to growth. Of the twelve participating businesses, two were still in the process of becoming employee owned and five had been employee owned for less than three years. The three other businesses had been employee owned for 8 years, 18 years and 35 years. Only one of the participating businesses had been employee owned since its inception, the rest had transitioned to employee ownership from a different ownership structure. Of these twelve firms 8 provided financial data and participated in the interviews, 2 only provided data and 2 only participated in the interviews (so in total 10 provided data and 10 participated in interviews). The companies who participated in the quantitative part employed 1674 people in 2011.

The research used financial data to compare the performance of ten participating EOBs against their peers. Participating EOBs were asked to supply data for each year since at least 2008 (and preferably over a longer period) on: turnover; number of employees; salary costs, pre-tax profit; percentage profit margin; and return on capital employed. To facilitate this, companies were emailed a data collection sheet. The work also entailed the use of a quasi-experimental method to compare the EOBs with a peer group. This provided a 'viable research laboratory' (Shenkar and von Glinow, 1994, p. 56) in order to compare the performance of these two groups. Using the FAME (Financial Analysis Made Easy) business database which provides financial information on major public and private U.K. and Irish companies, a peer group of non-EOB firms was then identified from which a comparison of financial performance could be made (see below for details of the selection of the peer group). Our aim was to use as much longitudinal data as possible in order to smooth out annual fluctuations. This meant comparing different firms over different reporting periods. Had we used only the lowest common reporting base then too much information would have been lost and meaningful comparisons would have been unreliable.

The analysis on the compiled data followed the approach taken by Lampel et al. (2010) and in addition to the collected data and growth rates the value added index (VAI) was also computed. The VAI is taken as the ratio for profit before taxes and the total annual salary bill to the number of employees (it does not include other impacts on the Scottish economy such as effects on suppliers etc. The individual data collected from each company is compared to a peer group generated from the FAME (2012) database. The peers are chosen to be broadly of the same size and in the same business sector (as the literature indicates the size and sector are important controls when comparing EOBs and non-EOBs). The peers were formed by comparisons of size in 2011. We would have preferred to have used 2003 or 2006 as the base to form the peer groups but we were unable to form consistent groups. For each EOB ten peers were selected, although sometimes the exact number of peers varied because it was difficult to follow peers over the full period as the sectors are dynamic and the nature of competition in the market continuously changes and also some companies fell out of the database over time.

During the data collection stage participating EOBs were asked to list peers for comparison, but very few gave peers and for those who did they tended to be inappropriate either as they were much larger companies or other EOBs but in different business sectors. Also the FAME database allowed for a consistent comparator set. Paired 't' tests and analysis of variance tests were used to explore for statistically significant differences between EOBs, between EOBs and peers and for differences over time. Variations in performance and growth amongst the three types of EOB ownership and business sector or operation were investigated using analysis of variance. These comparisons are reported in tabular form.

3 Empirical findings

In this section we provide a brief summary of the quantitative findings from this study. Summaries of the annual growth rates of turnover, numbers employed, annual salary, profit margin, value added index and turnover per employee are presented in Table 1. This shows that the overall average growth rates of the sample of EOBs are positive over the period in question (each year since at least 2008). The average growth rates of the EOB sample as a whole is greater than that of their peers, for all of the selected variables. A small exception is that the growth in the median salary is slightly below that of the peers although the mean is slightly higher – the salary growth is almost the same for EOBs and their peers. It is worth noting that often employee-owned firms issue staff with non-salary bonuses which may not be captured within our analysis.

Figure 1 presents a comparison of the mean annual growth rates of turnover, employee numbers and average salary presented for all the EOBs in the sample and their peers. In this figure the overall higher growth rates of EOBs in terms of turnover and number of employees relative to their peers is clear. When tested statistically, the average (mean) turnover growth rates of the EOBs were greater than that of their peers ($P = 0.032$), however for growth rates of employee numbers there was no statistically significant difference ($P = 0.103$) and the annual salaries growth rates of the EOBs were almost the same as for their peers (p value for difference = 0.331). Paired t-tests were used to ascertain if the

differences between the mean growth rates of the EOBs was significantly higher than their peers (5% significance level).

Table 1: The mean and median Annual Growth Rates of the EOBs

Employee Owned Business	Turnover		Numbers Employed		Average Salary		Turnover per employee	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
A	-0.33%	0.20%	-4.57%	0.00%	4.03%	4.34%	4.80%	3.51%
B	23.10%	23.70%	6.20%	4.30%	10.10%	6.00%	16.09%	18.78%
C	9.07%	7.65%	15.00%	9.68%	-4.92%	-8.28%	-3.42%	1.49%
D	3.50%	3.08%	-2.34%	-2.95%	3.57%	3.52%	6.00%	7.63%
E	11.30%	9.02%	9.81%	8.34%	3.00%	4.60%	1.63%	2.81%
F	5.00%	7.20%	-1.00%	-0.70%	3.60%	3.30%	6.06%	7.03%
G	36.06%	9.90%	5.56%	5.63%	15.71%	9.29%	29.30%	8.97%
H	2.20%	2.20%	0.00%	0.00%			2.20%	2.20%
I	35.78%	34.94%	17.48%	15.96%	-2.65%	-9.63%	16.10%	18.77%
J	9.35%	11.41%	1.83%	4.22%	5.77%	4.49%	7.96%	5.80%
Peer Group Mean	5.99%	5.55%	1.66%	0.37%	4.10%	3.36%	5.30%	5.75%
Group Mean	13.50%	10.93%	4.80%	4.45%	4.25%	1.96%	8.67%	7.70%
Group Mean without C	14.00%	11.29%	3.66%	3.87%	5.39%	3.24%	10.02%	8.39%

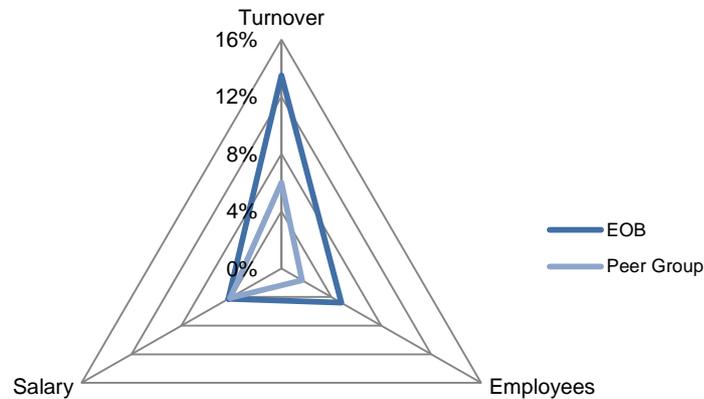
In addition to aggregate growth we also examined the differences between EOBs and non-EOBs on a number of other variables such as turnover per employee, profitability and return on capital. In terms of turnover per employee, this showed that overall EOB's outperform their peers and it is only in two companies where EOB's significantly underperform their peers. Regarding profitability, five out of nine (one EOB did not report its profit margin) EOBs reported a lower profit margin than their peers, while the other four EOBs reported a much higher profit margin than their peers. Our comparison of return on capital was less definitive and showed that some EOBs have a much higher percentage return on capital than their peers.

We also compared the performance in terms of profit or loss before tax, profit margin and return on capital employed. From this comparison again we saw superior profit performance of EOBs over their peers. Combining profit before taxes and annual salary it is possible to obtain an index of the value added to the Scottish Economy. Once again EOBs perform better than their peers.

The mean differences between the EOBs and their peers were computed and the paired one-tailed t-test used to assess the significance of that difference. EOBs appear to have, on the whole, significantly higher turnover, number of employees, profit margin and return on capital than their peers. For average salaries EOBs seem to pay on average £3,640 less than their peers, and this is statistically significant (at the 5% level). Possible reasons for this could be the market sectors that participated in the research, and that EOBs are more likely than non-EOBs to have profit-related bonuses which are additional to

basic salary levels. There was no statistically significant difference between EOBs and their peers for profit before tax and value added index.

Figure 1: Average growth rates of all EOBs and Peers



In Table 2 each EOB is compared to its peer group in terms of the ratio of its results compared to its peer group, using the equation $(EOB - \text{mean of peer}) / \text{absolute value of the peer mean}$. In this ratio numbers greater than zero represent superior performance of the EOB relative to the mean of the peers and numbers less than zero are where the EOB's performance is poorer than their peer group. Again the EOBs generally perform well compared to their peers, particularly for numbers employed. Profit margin and turnover are also higher for EOBs while value added seems broadly similar to peers. However, one company (C) as a consequence of an acquisition, greatly expanded in one year and salaries are still to be reported, this has made the value added index for this company unreliable, therefore the means are recomputed with company C removed. The superior performance of EOBs is clear, although the value added index is not as strong. The marginal improvement of EOBs in regard to the value added index is due to them employing relatively more staff than their peers.

4 Discussion

The findings from our research strongly suggest EOBs in Scotland correspond to EOBs elsewhere in terms of their strong growth performance in relation to their non-EOBs peers. The study discovered that the performance of these firms is generally superior to their non-employee-owned peers on a number of different variables. This superior performance was evident across a number of different variables over a period of time. On average, employee-owned firms both employ more staff and exhibit higher turnover growth than their peers. Differences between the two cohorts were less marked for profitability and pay. Overall, our work corroborates the existing literature on EOBs and confirms their overall strong growth performance.

Table 2: The Performance of EOBs compared to Peers

Comparisons to Peer Groups						
Employee Owned Business	Turnover	Number of Employees	Average Salary	Profit Margin	Value Added Index	Turnover per employee
A	0.58	-6.11	0.16	-0.24	0.07	74.16
B	2.25	-0.40	4.74	2.11	1.69	30.91
C	0.10	30.97	-1.26	6.97	0.13	-1.22
D	0.75	0.25	-0.03	-0.65	-0.21	0.12
E	2.86	6.87	2.28	-0.46	-0.44	0.11
F	0.25	0.47	-0.12	-0.20	-0.42	-0.01
G	0.86	-0.13	0.51	1.17	0.00	1.72
H	1.62	1.00		2.44	1.06	23.78
I	2.05	3.04	-14.89		0.44	1.22
J	0.06	-0.29	1.43	-0.71	0.08	0.16
Group Mean	1.14	3.57	-0.80	1.16	0.24	13.10
Group Mean without C	1.25	0.52	-0.74	0.43	0.25	14.69

While not the focus of this paper, the other part of the research project examined some of the employment practices within EOBs which might account for this superior performance. The work found that employee ownership is very much an evolving process and that employee participation and ‘voice’ strongly contributes to the effective functioning of these enterprises. On the one hand, this creates a situation where employees feel more valued, more engaged and committed with greater levels of job security. According to managers, on the other hand, employee ownership creates a growing appetite for human capital development, helps attract good employees, creates creativity, and promotes a culture of problem solving and employee engagement. The work also found that employee ownership does bring with it some problematic issues such as difficulties raising finance.

This research is not without limitations of course and a note of caution is required when interpreting these results. Although ten firms comprises over a third of all EOBs in Scotland, owing to the small sample size the findings from this study ought to be viewed as preliminary. We also note that the sample self-selected itself by agreeing to participate in the study; perhaps the three EOBs who did not take part were very different from those that did. Only occasionally did an EOB exhibit negative growth. The EOBs provided data for different years, so the growth rates between one EOB and another are not necessarily for comparable periods, however, the figures for the peers of each EOB are for the same years as the EOB and so we can compare EOBs with the peers.

Further research examining EOBs would help alleviate some of these problems. Given the small overall scale of the cohort of EOBs in Scotland perhaps a longitudinal tracking study could be implemented which compares the growth performance of the entire population of these firms with a carefully constructed cohort of non-EOBs. This would help to more fully 'test' whether EOBs out-perform non-EOBs over a period of time. Plus, further research is needed to further explore some of the 'internal dynamics' within EOBs which contributes to this high level of performance.

5 Conclusions and Policy Implications

This study has found that EOBs in Scotland strongly resemble EOBs elsewhere by outperforming conventionally based firms with less dispersed ownership structures. While the organisational determinants behind this superior firm performance remain less well understood, our research suggests that the organisational model within these firms engenders greater levels of performance. Thus learning from EOBs contributes towards the policy objective of how to create high performance work systems in all firms, employee-owned or not (Appelbaum et al, 2000).

The research clearly has important implications for public policy. On one level, this research backs current policy frameworks which are supportive of employee ownership. Not only does this model of ownership produce growth within firms, our empirical research suggests employee ownership may help prevent the trade sales of firms when owner-managers retire. Therefore, the succession process seems a critical opportunity to aid the transferral into employment ownership. Targeting firms undergoing these kinds of key changes or 'trigger points' is crucial (Brown and Mawson, 2013). Owing to the fact many trade sales or acquisitions are driven by foreign-owned firms, encouraging employee-ownership may also be a good mechanism for retaining domestic ownership of Scottish businesses. Indeed, the main motivation for becoming employee-owned is often driven by the desire to retain indigenous ownership.

On another level, the findings may provide justification for even greater emphasis on promoting employee-ownership as a model of business governance. Building on the important work undertaken by Cooperative Development Scotland, greater promotional efforts to further advocate the positive benefits of employee-ownership seem appropriate. Stakeholders such as business bodies, trade unions and universities (especially business schools) also have an important part to play to help remove some of the misconceptions about this mode of business organisation. While the recent fiscal changes enacted by the UK government have created supportive incentives to adopt greater levels of financial participation by employees, businesses in Scotland still seem unaware of the opportunities that this kind of governance structure can offer them. This is illustrated by the fact there are still so few EOBs despite the strong growth performance this governance arrangement can confer on firms. Relative to the rest of the UK Scotland already has more employee-owned businesses. Perhaps this presents the Scottish Government with an opportunity to build on this success and to continue to seek to foster a culture of employee ownership, both within new start-ups and existing businesses (of all sizes).

Author details:**Ross Brown**

School of Management
University of St Andrews, UK
Ross.Brown@st-andrews.ac.uk

Ronald McQuaid

School of Management
University of Stirling, UK
r.w.mcquaid@stir.ac.uk

Robert Raeside

Employment Research Institute
Edinburgh Napier University, UK
r.raeside@napier.ac.uk

Jesus Canduela

Employment Research Institute
Edinburgh Napier University,
UK j.canduela@napier.ac.uk

Acknowledgements

The authors wish to thank Cooperative Development Scotland for funding the research outlined in this paper. In particular, they wish to thank the extremely helpful support from Sarah Deas and Glen Dott throughout the duration of the research project. They also wish to thank Duncan Whitehead from the Scottish Government for his input into the research. The authors are extremely grateful to all the employee-owned firms who kindly participated in the study. We also wish to thank a number of researchers, Valerie Egdell and Matthew Dutton, who participated in this research exercise at various stages. Finally, we would like to thank Kevin Kane for his comments on an earlier version of the paper. As always, the views in this paper remain those of the authors alone. The usual disclaimer applies.

References

Appelbaum, E. Bailey, T., Berg, P. and Kallerberg, A (2000) *Manufacturing advantage: Why high-performance work systems pay off*, Columbia University Press, New York.

Blasi, J., Conte, M. and Kruse, D. (1996) Employee Stock Ownership and Corporate Performance Among Public Companies. *Industrial and Labor Relations Review*. 50: 60-80.

Blasi, J., Freeman, R. and Kruse, D. (2013) *The Citizen's Share: Putting Ownership Back into Democracy*. Yale: Yale University Press.

Brown, R. and Mawson, S. (2013) Trigger points and high-growth firms: A conceptualisation and review of public policy implications, *Journal of Small Business and Enterprise Development*, 20(2), pp. 279-295.

CDS (2014) Personal email communication between Ross Brown and Glen Dott, 3/2/14.

Doucouliaos, C (1995) Worker Participation and Productivity in Labor-Managed and Participatory Capitalist Firms: a Meta-Analysis. *Industrial and Labor Relations Review*, 49 (1), 58-77.

EOA (Employee Ownership Association) (2012) *About Employee Ownership*. Available at: <http://www.employeeownership.co.uk/employee-ownership/about-employee-ownership/>

FAME (2012) *Financial Analysis Made Easy* database <https://fame.bvdinfo.com/version-2012104/Home.serv?product=fameneo>

Freeman, R., Blasi, J. and Kruse, D. (2010) 'Introduction'. In *Shared Capitalism at Work: Employee Ownership, Profit and Gain Sharing, and Broad Base Stock Options* (edited by D. Kruse, R. Freeman and J. Blasi). Chicago: University of Chicago Press.

Kramer, B. (2010) Employee ownership and participation effects on outcomes in firms majority employee-owned through employee stock ownership plans in the US, *Economic and Industrial Democracy*, November, 2010, 31(4) 449-476

Kruse, D. (2002) *Research Evidence on the Effects and Prevalence of Employee Ownership*, The National Center for Employee Ownership. Download from: <http://esop.com/pdf/esopHistoryAndResearch/researchEvidence.pdf>

Kruse, D.; Freeman, R. and Blasi, J. (2010) *Shared Capitalism at Work: Employee Ownership, Profit and Gain Sharing, and Broad Base Stock Options*. Chicago: University of Chicago Press.

Lampel, J.; Bhalla, A., and Jha, P. (2012) *The Employee Ownership Advantage: Benefits and Consequences*. London: Department for Business Innovation and Skills.

Lampel, J. Bhalla, A., Chordia, M. and Jha, P. (2014) *Does Employee Ownership Confer Long-Term Resilience*, Cass Business School.

McQuaid, R., Hollywood, E., Bond, S., Canduela, J., Richard, A and Blackledge, G. (2012) *Health and wellbeing of employees in employee owned*

- businesses, Report for John Lewis Partnership and Employee Ownership Association. www.napier.ac.uk/employmentresearchinstitute/projects/Pages/EOAWellbeing.aspx
- Poutsma, E. Blasi, J. and Kruse, D. (2013) 'Employee share ownership and profit sharing in different institutional contexts'. *International Journal of Human Resource Management*, 23(8): 1513-1518.
- Senagupta, S. Whitfield, K. and McNabb, B. (2007) Employee share ownership and performance: golden path or golden handcuffs, *International Journal of Human Resource Management*, 18(8): 1607-1538.
- Sesil, J. Kroumova, M. Blasi, J., and Kruse, D. (2002) Broad-based Employee Stock Options in New Economy Firms, *British Journal of Industrial Relations*, 40(2): 273-294.
- Shenkar, O and von Glinow (1994) Paradoxes of Organizational Theory and Research: Using the Case of China to Illustrate National Contingency, *Management Science*, 40(1): 56-71.
- Timming, A.R. (2012) Tracing the effects of employee involvement and participation on trust in managers: an analysis of covariance structures. *International Journal of Human Resource Management*. 23(15): 3243-3257.
- Wilkinson, A., Dundon, T., Donaghey, J. and Townsend, K. (2014) Partnership, collaboration, and mutual gains: evaluating context, interests and legitimacy, *International Journal of Human Resource Management*, 25 (6): 737-747.
- Wills J. and Lincoln, A. (1999) Filling the vacuum in new management practice? : Lessons from US employee-owned firms, *Environment and Planning A*, 31(8): 1497-1512.



MSc Global Energy Management (GEM)

- Targeted at the next generation of energy professionals.
- A 12 month taught Master's degree, GEM combines academic rigour with exposure to industry and other experts and hands-on training in the management of significant energy-related issues and problems.
- Students gain an in-depth and integrated knowledge of the entire global energy system along with the specialized analytical tools and techniques they will need to become high performing energy professionals in a wide range of organizations.
- Core taught courses are designed around the latest academic research on the issues facing energy managers today.
- Students also have the opportunity to pursue their own interests through a variety of optional courses drawn from departments across the Business School and from the Schools of Engineering, Politics, and Law.
- Coupled with a Global Energy Forum, a series of interactive seminars delivered by external energy professionals, field trips, conferences, and a summer internship, the curriculum ensures that students are always up-to-date with the changing realities of the global energy industry.

t: +44 (0) 141 548 3871

e: pgecon@strath.ac.uk

<http://www.strath.ac.uk/economics/gem/>