University of Strathclyde Business School

Fraser of Allander Institute
Economic Commentary

Vol 40 No. 1

In association with pwc

Fraser of Allander Institute Economic Commentary

Vol 40 No 1

ISSN 2046-5378

The Scottish economy

Economic perspectives*

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The Scottish economy

1 Outlook and appraisal

Brian Ashcroft, Economics Editor, Fraser of Allander Institute

Overview

Output and jobs growth in the Scottish economy has weakened since we last reported in March 2016. After GDP data revisions it is now clear that with growth of only 0.1% in the second quarter last year and then a fall of -0.1% in the third quarter, the Scottish economy came perilously close to a recession in 2015 and despite the slight upturn to 0.2%; growth in the fourth quarter may fail to avoid a recession in the coming months. In the fourth quarter, Scotland had to rely solely on the service sector for growth as the contribution of construction faded away to zero with the stimulus from infrastructure spending disappearing. Slight negative growth in the production sector meant that the recession in the sector continued with negative growth having occurred in three successive quarters. Within production, manufacturing technically emerged from recession with fourth quarter growth of 0.3% after experiencing falling output in the previous two quarters. But despite that, manufacturing growth in Scotland can only be described as weak. Moreover, even though services registered growth of 0.3% in the final quarter of last year, UK services grew three times faster and performance in all principal private subsectors in Scotland is appreciably weaker than their UK counterparts. Financial services are especially weak and the weakness of business services growth has been exacerbated by the effects of the fall in the price of oil.

The latest labour market data revealed a significant deterioration in performance as the job shedding associated with the consequences of the oil price fall and deteriorating export performance began to bite. In the quarter to March 2016 the numbers in work fell by 53,000 (-2.0%) to 2,578,000. The last time there was a fall in jobs of this scale was back in early 2010. Unemployment rose by 8,000 (+4.8%) to 169,000 with the rate rising to 6.2%, compared to 5.1% in the UK, a gap that is now the largest since mid-2004. Over the year, Scottish jobs fell by -45,000, a fall of -1.7%. Unemployment in Scotland rose by 2,000 over the year, or by 1%. The numbers inactive rose in Scotland in the quarter by 49,000 or by 3.1%, while over the year, inactive numbers rose by 59,000 (3.7%) in Scotland. As a result of this downturn in the labour market, by the end of the first three months of this year the gap between Scotland's and the UK's employment performance had widened considerably with Scottish jobs as reported in the LFS household surveys 0.9% above their pre-recession peak, compared to UK jobs which were 6.3% above peak.

Looking forward, what seems to be happening is that both domestic and overseas demand for Scottish goods and services are faltering, while a weakened domestic demand is still driving growth in Scotland. It now seems clear that both investment and household spending have been badly affected by the continuation of the low price of oil, with job losses affecting household incomes and spending and fixed investment affected by the decline in onshore investment in the oil service industry and related activities as well as the slowdown in infrastructure spending and construction activity. Another factor to note is that the household saving ratio in Scotland was 6.3% in 2015q4 31% lower than it was in the

corresponding quarter of 2014. This fall will clearly have helped sustain household spending either by households saving less or borrowing more. However, a close look at the data reveals that the ratio fell from 9.1% to 6.8% between 2014q4 and 2015q1, then fell a little further to 6.3% in the second quarter and essentially remained there for the rest of the year. By the end of the year the effect of the fall in the saving ratio was fading away as households possibly started to rein back their borrowing and spending. In addition, wage growth remains weak while the housing market seems to be weakening, which is also likely to have a detrimental effect on household spending. It might also be the case that uncertainty about the outcome of the BREXIT referendum on 23rd June might be encouraging companies to postpone investment plans until the issue about Britain's economic relationship with the EU is clarified. In this context it is worth noting that net trade has made a negative contribution to Scotland's GDP growth in 4 of the last 5 quarters, while Scottish exports (including trade with rest of UK) in current market prices have actually been *falling* since 2014 and Scottish manufacturing exports to the rest of the world fell in real terms in the second half of last year.

So, we must conclude that household demand and fixed investment will continue to drive growth in Scotland but with the stimulus from household spending and fixed investment weakening while net trade continues to have a negative effect as the rate of growth in Scotland's main export markets is predicted to fall. In addition, the continuation of the UK Government's austerity programme means that there is little hope of a compensating boost to growth from this component of demand.

Against this background we have revised *down* our GDP (output) forecast for this year from 1.9% in March 2016 to 1.4%. This downward revision is driven by slow investment growth, the continuing effects of the fall in the price of oil on household incomes and spending, a general slowing in household spending as the rate of household borrowing diminishes and a worsening demand for Scottish exports as global growth and growth in Scotland's key export markets slows. We are forecasting growth of 1.9% in 2017 a downward revision to our March forecast of 2.2%, due to an anticipated weakening of both domestic and export demand for goods and services produced in Scotland compared to our March forecast. We are now forecasting 2018 and our prediction is that there will be growth of 2.0% as the economy returns to trend.

We have revised down our forecasts of employee jobs because of the deteriorating conditions in the Scottish labour market. The number of total employee jobs is still forecast to increase in each year with the number of jobs at the end of 2016 forecast to be 2,445,650, an increase of 1.2% during 2016. Our new central forecast is that the Scottish economy will add 28,650 jobs in 2016, down by around 8,000 from our March forecast, with a net of 39,450 jobs added in 2017, down by more than 7,000 from our March forecast. Jobs growth in 2018 is forecast to be 47,379. On unemployment, the deterioration in many labour market indicators over the last four months, and the revision downwards of growth performance of Scotland in 2016 cause us to revise up our forecasts for unemployment in both levels and rates. Our latest forecasts for the unemployment rate in Scotland for the end of 2016 is now 6.9%, with our forecast for this to fall to 6.7% and then 6.2% by the end of 2017 and 2018, respectively.

Finally, in this section of the Commentary we consider further the challenges facing the Scottish economy and turn to the question of policies to promote long-term growth. We note that the *Scotland's*

Economic Strategy published by the Scottish Government in March of last year is the latest of many growth strategies produced by Scottish governments since devolution. All of these strategies provide a strategic framework grounded in mainstream economic development theory, which essentially see economic growth as the consequence of productivity growth stimulated through the promotion of specific 'supply-side' change: improvements in innovation and R&D, enterprise, investment, competition, and skills. But all of these strategies, including the current one, were stronger on the 'what' of growth promotion with much less emphasis on the 'how'. In other words, there needs to be more thought and debate on the operationalisation and implementation of the promotion of innovation, enterprise, investment and skills formation in Scotland. It is not new strategies the Scottish economy needs but clear insights and policy action on the implementation of Scotland's Economic Strategy. In view of this, we welcome the recent creation of the new Economy Secretary post in the Scottish Government and particularly welcome the new Cabinet Secretary Keith Brown's early initiative in instituting a review of Scotland's enterprise and skills agencies. If this review is undertaken in a positive way to help enhance the operational impact of the agencies, it could mark the beginning of a process where strategy *implementation* moves centre stage in economic policy in Scotland.

The Fraser of Allander Institute also welcomes the appointment of the new Cabinet Secretary for Finance, Derek Mackay MSP. The Scottish Parliament's new fiscal powers give the Scottish budget a greater fiscal and economic importance. To reflect this, the Fraser of Allander Institute is initiating a new, annual event - "Scotland's Budget" - to provide informed and independent economic and fiscal analysis of the opportunities and consequences of Scotland's new fiscal freedoms. To coincide with the event - be held in Edinburgh in September 2016 - the Fraser will publish a special 'Scottish Budget' edition of the Economic Commentary that will provide: an outlook for Scottish economy; an overview of the UK public finances and the implications for Scotland; an outline of Scotland's new fiscal framework; the outlook for the Scottish Budget; and, the choices facing the Cabinet Secretary and the likely impacts of alternative policy responses.

Recent GDP performance

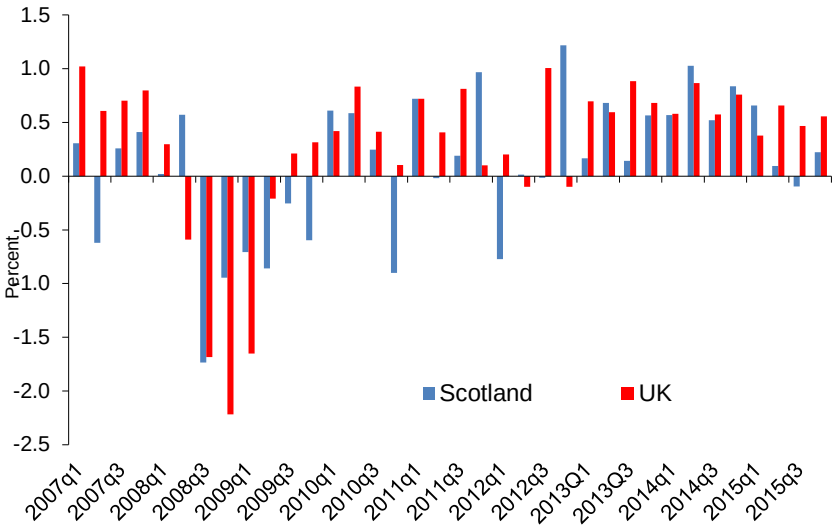
The latest Scottish GDP data are for the fourth quarter of last year (2015q4). The chained volume measure of GDP rose by 0.2% in Scotland in the quarter, while UK GDP rose by 0.6%. Over the year – four quarters on four quarters – Scottish growth was weaker than UK growth at 1.9% compared to 2.3%. However, the marked weakening of Scottish growth from the second quarter of last year means that the growth between the fourth quarter of 2015 and the fourth quarter of 2014 of 0.9% is, in present circumstances, a better indication of annual Scottish growth compared to the UK where growth was 2.1%. It is also worth noting that Scottish GDP growth in the third quarter of last year was revised downwards in the latest release to a fall of -0.1% compared to a rise of +0.1% on the earlier data. It is now clear with growth of only 0.1% in the second quarter the Scottish economy came perilously close to a recession in the second and third quarters of last year and despite the upturn in the figures for the fourth quarter may yet not escape a recession in the coming months. The Scottish and UK quarterly growth rates back to 2007q1 are presented in Figure 1.

With the revised data, the Scottish economy in the third quarter ceased to enjoy the positive growth that it had experienced for the previous 10 quarters (since 2012q3). The widening of the gap between

Scottish and UK GDP growth in recent quarters has meant that the UK recovery from the Great Recession has strengthened farther relative to Scotland as is shown in Figure 2a.

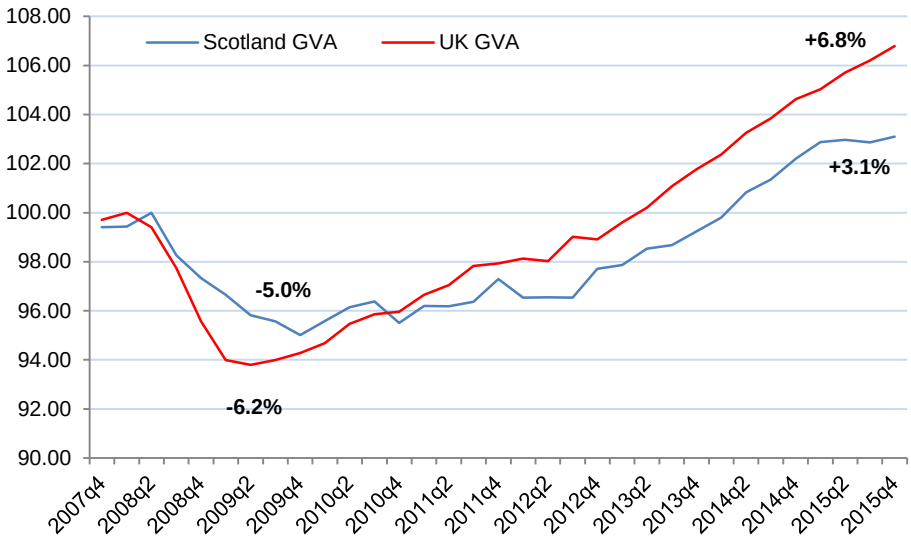
By the fourth quarter, Scottish GDP was 3.1% above the pre-recession peak while UK GDP was 6.8% above its peak. Growth from the trough of the recession to the fourth quarter last year amounts to 8.5% in Scotland and 13.9% in the UK.

Figure 1: Scottish and UK Quarterly GDP Growth, 2007q1 - 2015q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and (FAI) calculations

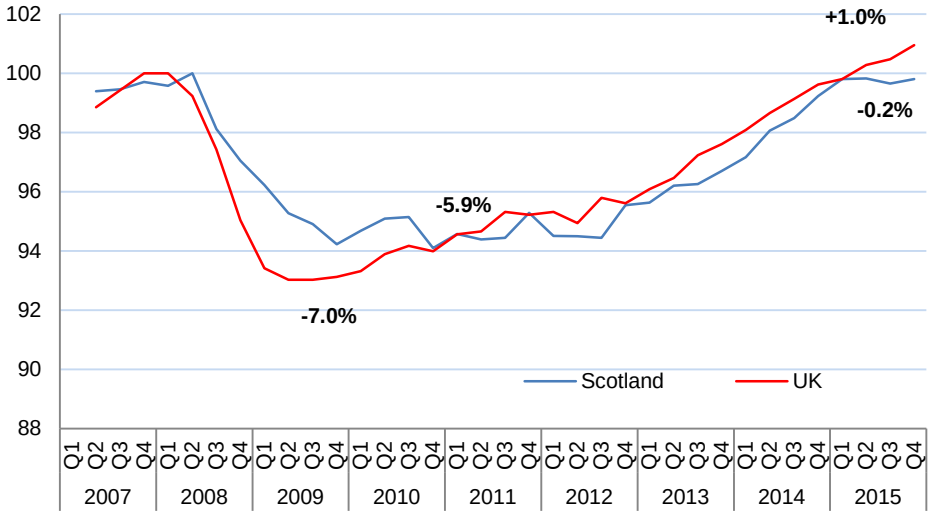
Figure 2a: GDP, Scotland and UK: in recession and recovery to 2015q4 (relative to pre-recession peak)



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and FAI calculations

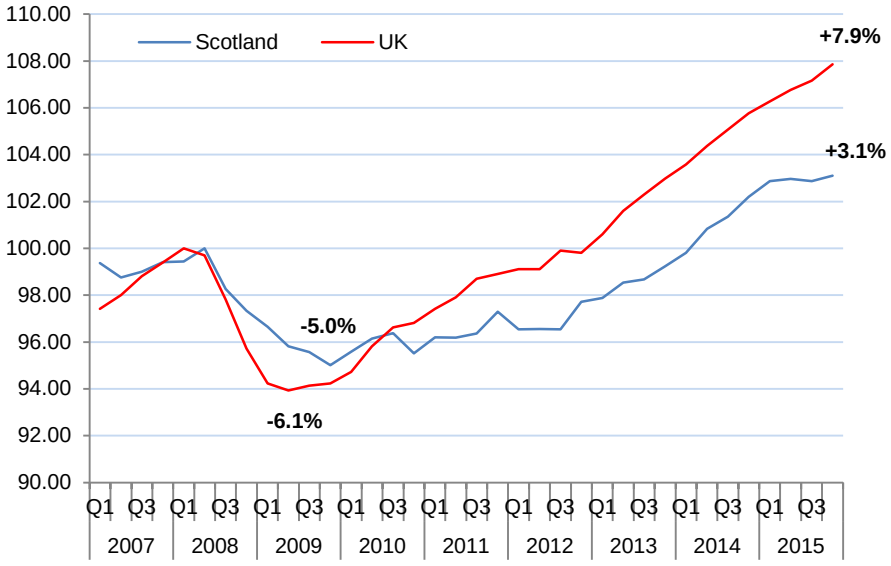
As noted in previous Commentaries, Scottish Government statisticians are now producing GDP per head data, which in many ways is a better measure of the prosperity of people in Scotland. In addition, recent years have seen high inward migration into the UK and Scotland, so in assessing the performance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

Figure 2b: GDP per head, Scotland and UK: in recession and recovery to 2015q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and FAI calculations

Figure 3: GDP (ex oil & gas), Scotland and UK: in recession and recovery to 2015q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and FAI calculations

In the fourth quarter UK GDP per head stood at +1.0% above its pre-recession peak, whereas in Scotland GDP per head was -0.2% *below* pre-recession peak. Clearly, the relative weakening of Scottish economic growth is now affecting GDP per head with the gap between the UK and Scotland widening (1.2% points) compared to the previous quarter (0.5% points).

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

When oil and gas production is removed, we find again that the gap in the strength of the recovery widens further in the UK's favour. UK GDP (ex oil & gas) stands 7.9% above the pre-recession peak compared to 3.1% in Scotland. The long period of weak UKCS oil and gas production has slowed the recovery of UK GDP from recession. So, UK GDP - ex oil & gas - has had an even stronger recovery from recession than Scottish GDP. Scottish GDP has recovered by 8.5% since the trough of recession while UK GDP - ex oil & gas – has recovered by 14.8% from its trough by 2015q4, compared to 13.9% when oil and gas output is included. In the latest quarter, UK GDP ex oil and gas rose by 0.65% - a little faster than the 0.56% reported when oil & gas is included - and by 2.2% over the year, four quarters on four quarters.

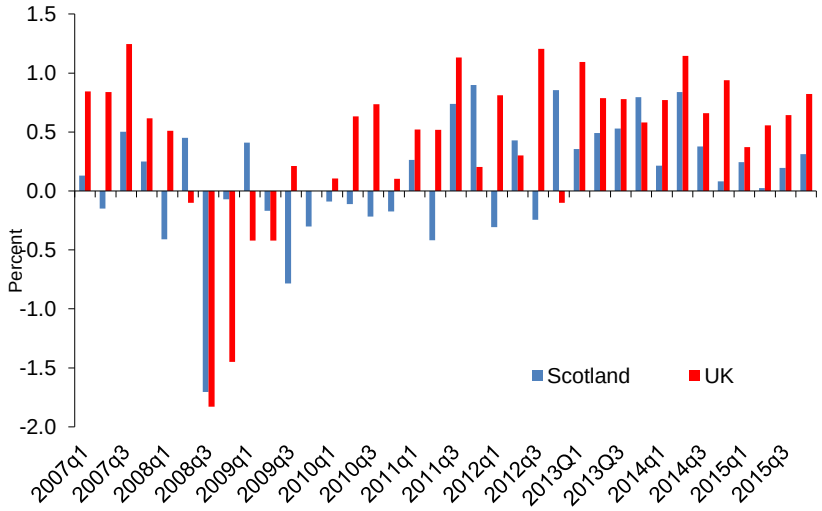
Sectoral Components of GVA growth

Turning now to individual sectors of the economy, we see a continuation of the convergence in the pattern of growth between Scotland and the UK, which we highlighted in the previous Commentary. In the UK, the service sector was again by far the main driver of the overall growth rate of 0.6% by contributing growth of +0.7% points. In Scotland the service sector was also the main driver of growth contributing +0.2% points to overall growth of 0.2%. The construction sector, which was the main driver of Scottish growth in the second quarter and contributed slightly by only +0.1% in the third quarter, had a zero contribution to growth in the fourth quarter as in the UK. The production sector made a very slight negative contribution to growth in Scotland in the fourth quarter while making a small negative contribution of -0.1% in the UK. Within production, manufacturing in both Scotland and the UK made an insignificant contribution to growth. In Scotland mining & quarrying made a negative contribution to growth of -0.1% points, with the other production sub-sectors neither providing a positive or negative contribution to Scottish growth. The production sub-sectors in the UK all made a zero contribution to growth. These data continue to offer evidence of the continuing reliance of both the UK and Scottish economies on service sector growth and the failure to rebalance in favour of manufacturing which was the express desire of the UK Government.

Service sector

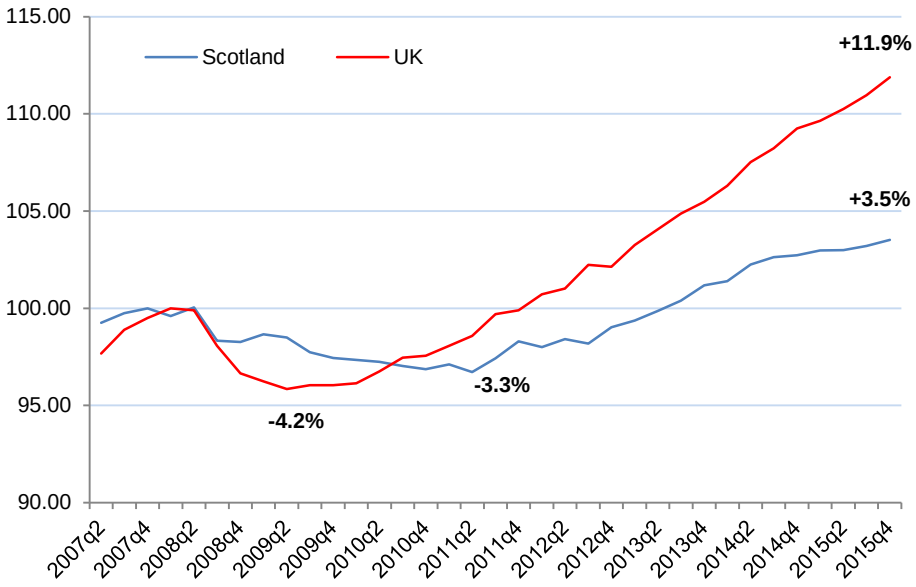
The Scottish service sector, which on 2012 weights accounts for 75% of GDP in Scotland and 78% in the UK, grew by 0.3% in Scotland in the fourth quarter and produced 0.9% growth over the year – four quarters on four quarters. In contrast, UK services grew by almost three times as fast as services in Scotland with growth of 0.8% in the quarter and 2.7% over the year -- see Figure 4.

Figure 4: Scottish and UK Services GVA Growth 2007q1 to 2015q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and FAI calculations

Figure 5: Services GVA, Scotland and UK: in recession and recovery to 2015q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015 and FAI calculations

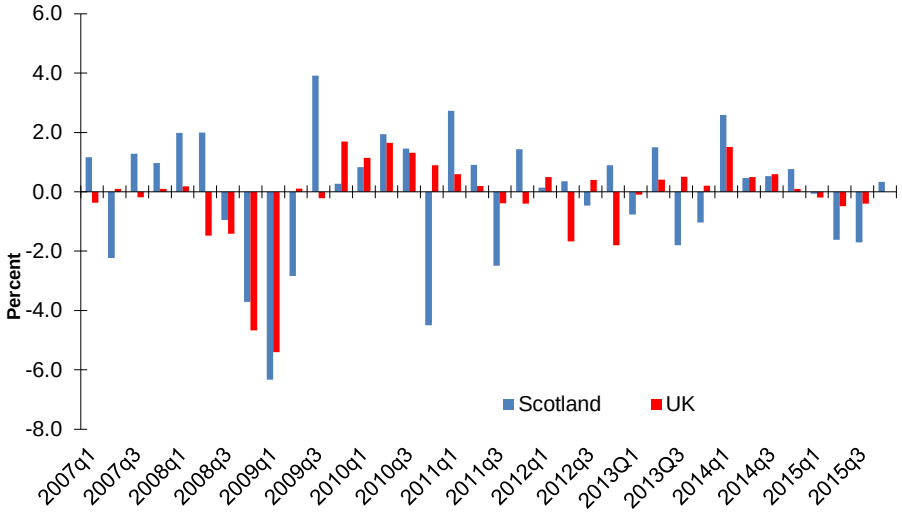
The state of the recovery in Scottish and UK services is presented in Figure 5. After experiencing a shallower but more drawn out recession in Scotland of -3.3% compared to -4.2% in the UK, output in the sector stood at 3.5% above its pre-recession peak by the fourth quarter of last year very significantly less than the 11.9% above peak achieved in the UK.

So, continuing weaker service sector growth in the fourth quarter in Scotland meant that the gap between the scale of the recoveries widened further in favour of the UK to +8.4% points. As noted in the previous Commentary, the effect of the slowdown in the oil & gas industry due to the low price of oil is affecting business services and the service sector as a whole in Scotland much more than the UK, because of the concentration of the oil-services supply chain in Scotland. However, the weakness of Scottish services is also more general and due to other reasons since UK services have now grown faster than Scottish services for the past eight quarters.

Production / Manufacturing sector

The production sector has been the key driver of Scotland's recovery. However, since the first quarter of 2015 it slipped into recession and during the final three months of last year output was still falling. Even so production overall has grown by 8.5% since the trough of the recession equal to the 8.6% achieved by the economy as a whole. This contrasts with the growth of 6.2% in the Scottish service sector since the trough of the recession. In the UK, the production sector remains a drag on the recovery with growth of 2.0% since the trough of the recession compared to the 13.9% growth of overall GDP and 14.8% for GDP ex oil & gas. Scottish production output fell in the fourth quarter by -0.1% while UK production contracted even more by -0.4%. Over the year - four quarters on four quarters – Scottish production GVA fell by -0.2%, while UK production output rose by 1.0%.

Figure 6: Manufacturing GVA, Scotland and UK: growth at constant basic prices 2007q1 to 2015q4



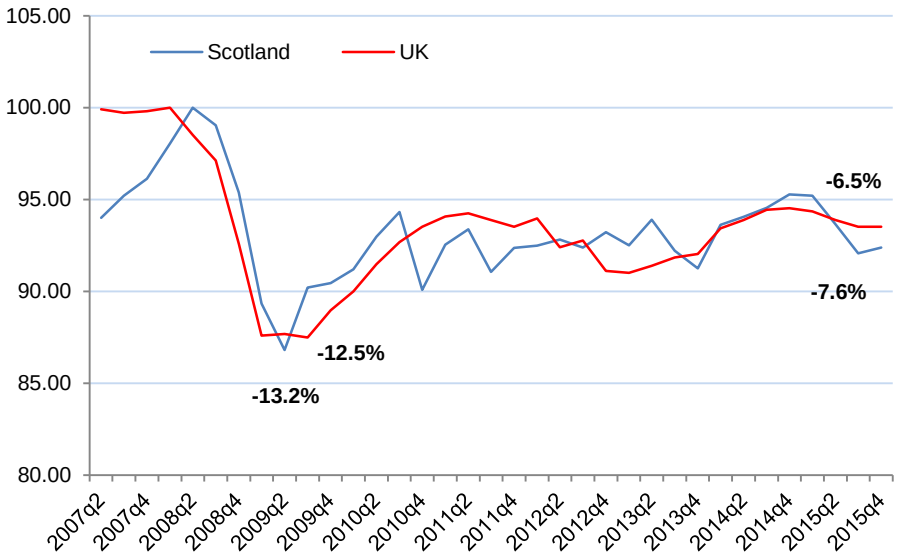
Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and FAI calculations

Within production, Mining & quarrying GVA contracted by -2.3% in the fourth quarter and contracted by -1.3% over the year (UK mining & quarrying contracted by -2.2% and grew by 6.9%, respectively). Electricity & gas supply GVA contracted by -0.8% in the fourth quarter but rose by 1.5% over the year (UK electricity & gas supply contracted by -2.2% and by -0.2%, respectively). In the fourth quarter, GVA in Scottish manufacturing rose by 0.3% but fell by -1.1% over the year, while UK manufacturing output rose by 0.1% in the quarter but falling by -0.3% over the year. Figure 6 charts the quarterly percentage changes in GVA in Scottish and UK manufacturing.

Figure 6 makes clear that Scottish manufacturing was subject to a brief recession during the second and third quarters of last year emerging in the fourth quarter with a small degree of positive growth. UK manufacturing was subject to a less severe recession over the first three quarters of last year with growth effectively stagnating in the fourth quarter.

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

Figure 7: Manufacturing GVA, Scotland and UK: in recession and recovery to 2015q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and FAI calculations

By the fourth quarter of last year Scottish manufacturing GVA was -7.6% below its pre-recession peak, compared to -6.5% for manufacturing in the UK. Manufacturing growth in both Scotland and the UK is now clearly weak after picking up in 2013 and 2014. As we noted in the previous Commentary, it is a matter of deep concern that the level of manufacturing output in both Scotland and the UK as a whole is lower than the level it was at in the third quarter of 2010. In Scotland, the level of manufacturing output was 2% lower in the final three months of last year than it was in the third quarter 2010.

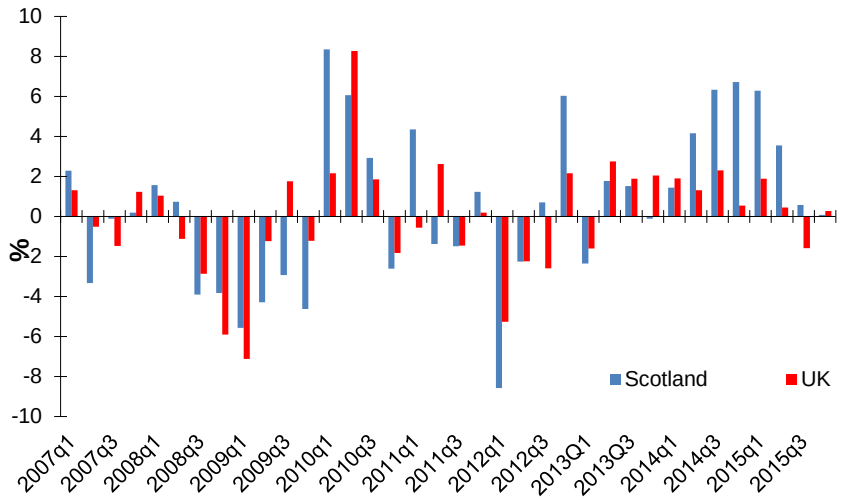
Within manufacturing, only three of the seven principal sectors experienced growth in the third quarter: refined petroleum, chemical & pharmaceutical products (accounting for 13% of manufacturing GVA) grew by 5.3% in the quarter and by 4.1% over the year; food & drink (accounting for 27% of manufacturing GVA) grew by 1.6% in the quarter and by 4.4% over the year; and transport equipment (accounting for 7% of manufacturing GVA) grew by 1.0% in the quarter and by 2,5% over the year. However, that growth performance was offset by the four manufacturing sub-sectors that contracted in the quarter: computer, electrical and optical products (electronics) (accounting for 10% of manufacturing GVA), contracted by 4.0% in the quarter and by -0.3% over the year; metals, metal products & machinery n.e.c. (accounting for 17% of manufacturing GVA) contracted by -1.5% in the quarter and by -13.9% over the year; textiles, clothing & leather products (accounting for 4% of manufacturing GVA) contracted by 1.2% in the quarter and by -1.8% over the year; and other manufacturing industries, repair

& installation (accounting for 24% of manufacturing GVA) contracted by -1.0% in the quarter and by -2.2% over the year.

Construction sector

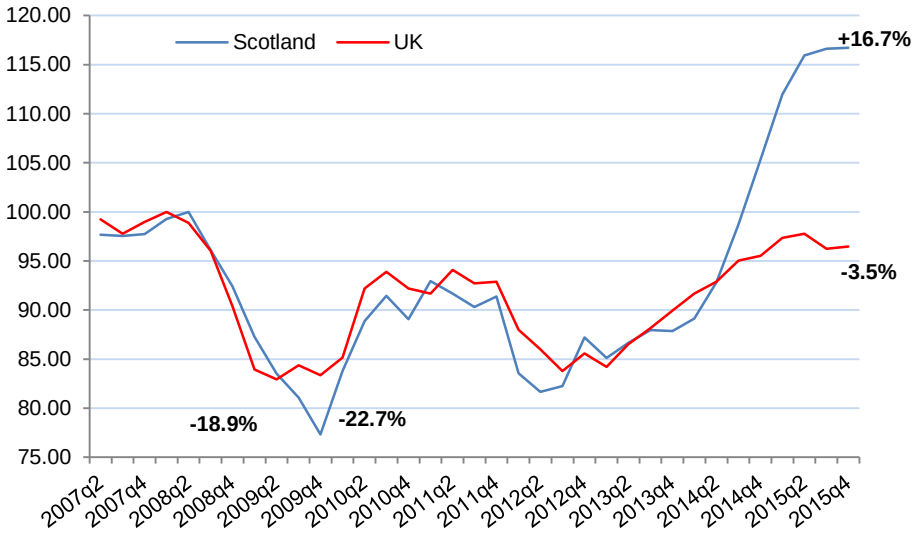
Turning now to construction, the latest data are presented in Figure 8.

Figure 8: Scottish & UK Construction GVA: volume growth 2007q1 - 2015q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and FAI calculations

Figure 9: Construction, Scotland and UK: in recession and recovery to 2015q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and FAI calculations

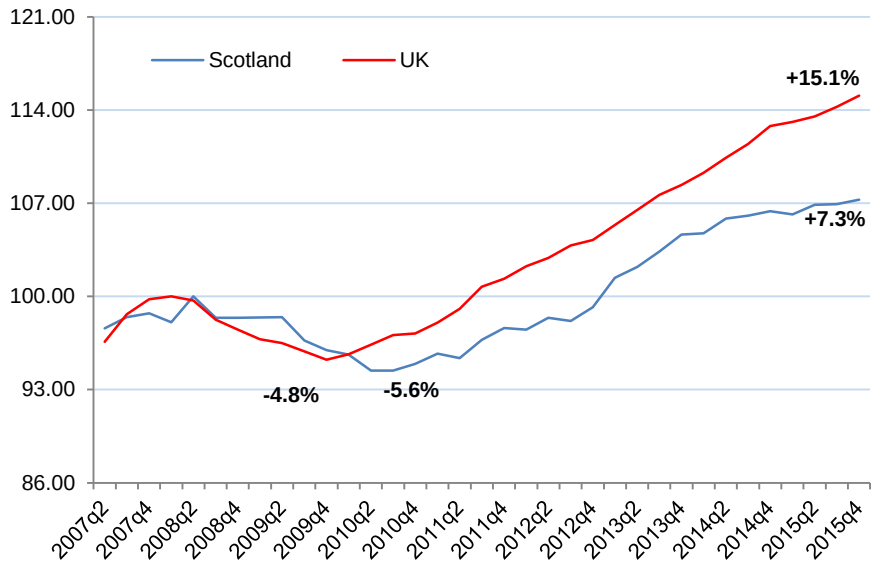
Scottish construction GVA was almost stagnant in the final quarter of last year with growth of only 0.1%. The major boost to construction provide by public infrastructure projects in Scotland appears now to have dissipated. Over the year the sector still grew by a remarkable 19.5% but the sector has clearly now entered a new weaker phase. The UK construction sector grew by 0.3% in the fourth quarter and by 3.4% over the year. Figure 9 shows the recession and recovery performance of both the Scottish and UK construction sectors.

Figure 9 shows the public infrastructure driven surge in Scottish construction activity from the final quarter of 2013 and then flattens out after the second quarter of last year as that surge came to an end. The chart shows that by the 2015q4 Scottish construction had moved to 16.7% *above* its pre-recession peak compared to UK construction, which was -3.5% below its pre-recession level.

Within services, two of the three principal sub-sectors in the private sector posted positive growth in the fourth quarter: business and financial services and distribution, hotels and catering. Business and financial services grew slightly by 0.3% in the quarter and grew by 1.0% over the year, compared respectively, to growth of 0.7% and 2.7% in the UK. Figure 10 shows the growth of the sector in Scotland and UK during the recession and recovery.

Components of private services sector growth

Figure 10: Business & Financial Services, Scotland and UK: in recession and recovery to 2015q4

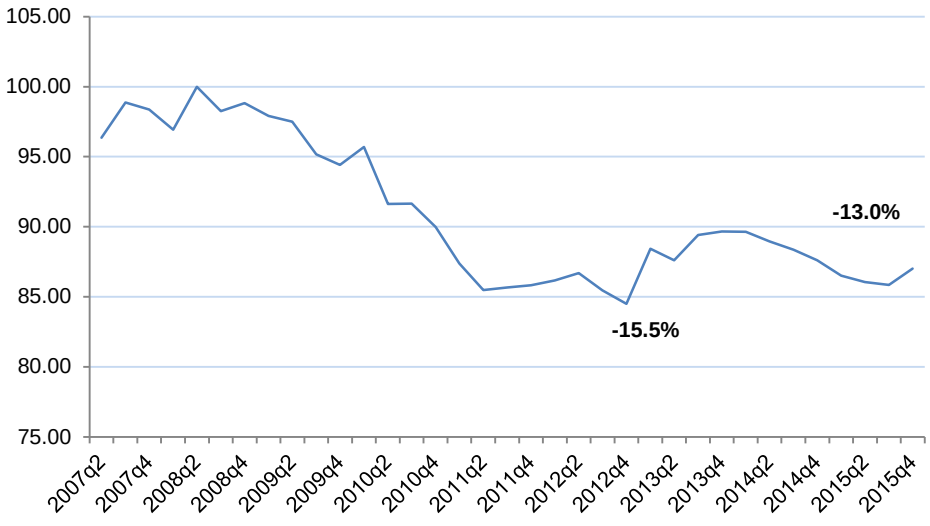


Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and FAI calculations

By the fourth quarter, business and financial services output or GVA remained +7.3% above its pre-recession peak in Scotland compared to +15.1% in the UK. The sector in Scotland continues to lag its UK counterpart and the effect of the low oil price on activity in oil and gas support firms, which are classified to business services may have contributed to a widening of the gap between the performance of the sector in Scotland and the UK. The aggregate GVA data for business and financial services in

Scotland have recently masked significant weakness in the performance of financial services. Figure 11 shows what has been happening to financial services since peak output in the second quarter of 2008.

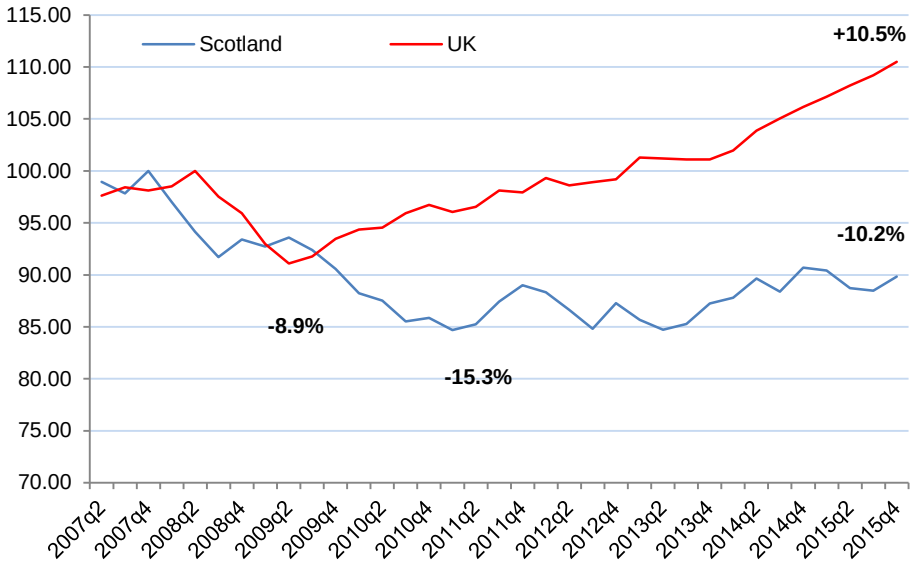
Figure 11: Financial Services in Scotland: in recession and recovery 2007q2 to 2015q4



Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and FAI calculations

After growth of 1.4% in the fourth quarter last year GVA in the sector was -13.0% below the pre-recession peak compared to the trough of -15.5% in 2012q4. Despite the recent pick up in performance the value of output fell by -2.6% over the year and it seems unlikely that the scale of the financial services sector in Scotland will return to the levels seen before the Great Recession in the foreseeable future.

Figure 12: Transport, Storage & Communication, Scotland and UK: in recession & recovery to 2015q4

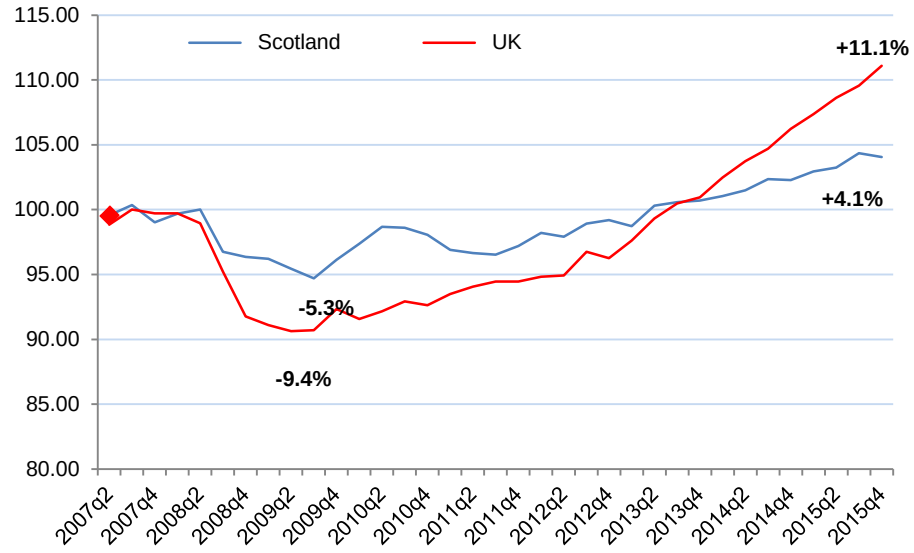


Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and FAI calculations

The second of the two principal sub-sectors in private services displaying positive growth in the fourth quarter was transport, storage & communication, which grew by 1.5% in Scotland and by 1.2% in the UK. Over the year, growth was 0.3% in Scotland and 4.3% in the UK. Figure 12 indicates that the recession was deeper and more prolonged in the Scottish sector with output falling by -15.3% compared to -8.9% in the UK. Thereafter, the Scottish sector has largely stagnated but that has not been the case in the UK. By the end of the fourth quarter GVA in the Scottish sector was -10.2% below its pre-recession peak compared to +10.5% above in the UK, a huge difference in the performance of the sector between Scotland and the UK.

The other principal sub-sector in private services is distribution, hotels and catering (accounting for 18% of services sector output in Scotland), which covers the Scottish high street, accommodation and restaurants and captures some of the impact of tourism. The sector exhibited falling output in the fourth quarter. GVA fell slightly by -0.3% in the quarter but rose by 1.8% over the year. In the UK, the sector grew by 1.4% in the quarter and by 4.7% over the year. Figure 13 shows the performance of the sector during recession and recovery.

Figure 13: Distribution, Hotels & Catering, Scotland and UK: in recession and recovery to 2015q4

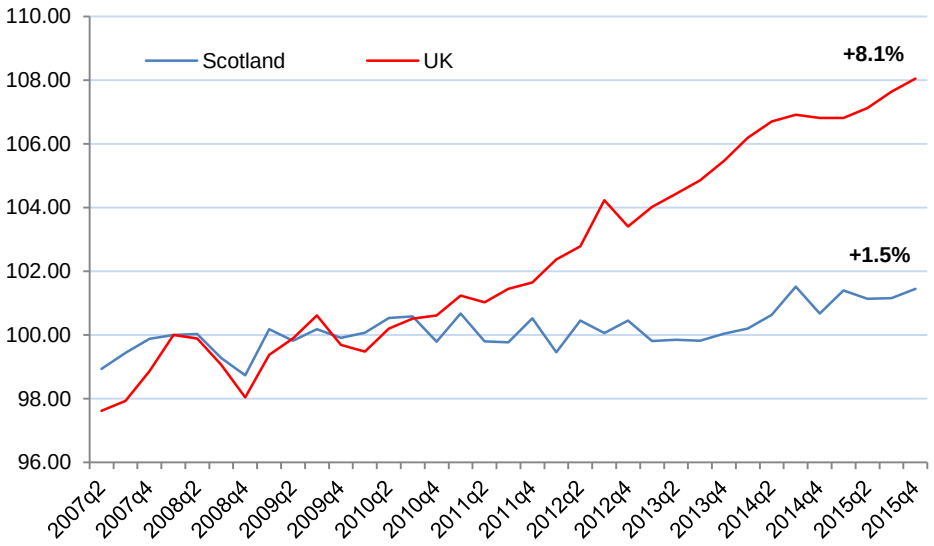


Source: Scottish Government GROSS DOMESTIC PRODUCT 4th QUARTER 2015, and FAI calculations

Figure 13 reveals that by the fourth quarter the sector in the UK was +11.1% above its peak, while the sector in Scotland continued to do much worse at only +4.1% above peak. The scale of the recession in the sector in Scotland at -5.3% was much less than the loss of output in the sector in the UK, which amounted to -9.4%. The track of the recovery in the sector picked up in the UK from 2012q4 but continued at much the same slow pace in Scotland, with the level of GVA in the sector in the UK relative to the pre-recession peak overtaking Scotland in the final three months of 2013.

Finally, output in Government & Other Services in Scotland in the fourth quarter rose by 0.3% compared to a rise of 0.4% the UK. Over the year, output in the public sector grew by 0.5% in Scotland and by 0.7% in the UK. Figure 14 shows the performance of GVA in the sector in recession and recovery.

Figure 14: Government & Other Services, Scotland and UK: in recession and recovery to 2015q4



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

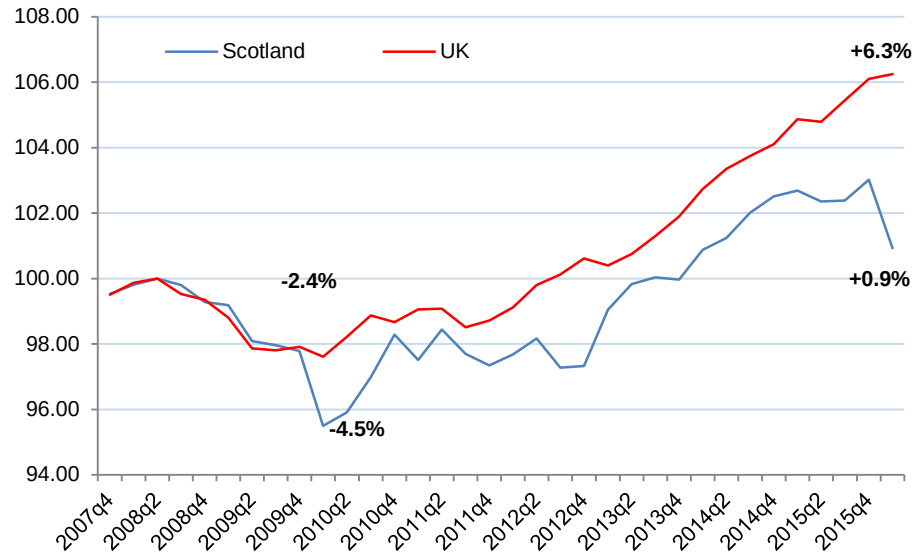
By the fourth quarter GVA in the sector in the UK was 8.1% above the pre-recession peak, which, as noted many times in previous *Commentaries,* is difficult to understand at a time of fiscal consolidation, whereas output in the sector in Scotland was 1.5% above its pre-recession peak.

The Labour Market

The latest labour market data for January - March 2016 (see *Scottish Labour Market* section below) reveals a significant deterioration in labour market performance. In the quarter to March 2016 employment fell by 53,000 (-2.0%) to 2,578,000. The last time there was a fall in jobs of this scale was back in early 2010. Unemployment rose by 8,000 (+4.8%) to 169,000 with the rate rising to 6.2%. In the UK, employment rose weakly, with 44,000 jobs created or an increase of 0.14%, while unemployment again fell but slightly by -2,000 (-0.13%) with the rate remaining unchanged at 5.1%. The gap between the Scottish and UK unemployment rate is now at its largest since mid-2004. Over the year, Scottish jobs fell by -45,000, a fall of -1.7%, while UK jobs rose 409,000, or 1.3%. Unemployment in Scotland rose by 2,000 over the year, or 1%, while in the UK unemployment continued to fall by -139,000, or -7.6%. The numbers inactive rose in Scotland in the quarter by 49,000 or 3.1%, compared to an identical rise of 49,000 in the UK or 0.3%. Over the year, inactive numbers rose by 59,000 (3.7%) in Scotland and by 109,000, or 0.6% in the UK.

Figure 15 shows the performance of employment in Scotland and the UK during recession and recovery to the first quarter of this year i.e. 2016q1.

Figure 15: Total Employment: Scotland and UK: pre-recession peak to 2016q1



Source, ONS Regional Labour Statistics and FAI calculations

After the large loss of jobs in the latest quarter, Scottish jobs as reported in the LFS household surveys were 0.9% *above* the pre-recession peak, while UK jobs were 6.3% above peak. The shake out in jobs in Scotland is clearly related to the consequences of the fall in the price of oil. But the fall is likely only to be partly due to the effects of the falling oil price. The continued weakness of manufacturing is likely also to be important. Whatever the causes, the gap between the UK and Scotland is at its widest since early 2010 for unemployment and early 2012 for employment.

Challenges facing the Scottish economy

In the previous three Commentaries (Vol. 39, No's 1, 2 and 3) we began to consider the challenges facing the Scottish economy. The July 2015 *Commentary (Vol. 39, No. 1)* focused on the short-term capacity utilisation issue. In the November 2015 *Commentary (Vol. 39, No. 2)* we focused on the more long-term capacity growth question. In the March 2016 *Commentary (Vol, 39, No.3)* we examined the revised data on Scotland's long-term growth performance, and considered the implications for Scotland's economic performance if the British people voted to leave the European Union in the coming referendum on 23 June 2016.

We concluded that the latest revised data suggested that Scotland's growth performance over the long-run had been weaker than the UK with GDP per head growth evened out by falling and/or slower population growth in Scotland, with some of that weaker population growth reflecting the weaker relative strength of the Sottish economy. On productivity, the key overall driver of growth, we concluded that while Scottish labour productivity was growing, it was weaker than in the UK: -2.4% below. Moreover, we noted that academic research on Total Factor Productivity (TFP) - where one estimates the productivity of all factors: labour, capital and land – has found it to be significantly lower in Scotland than in the UK.

In one key study, the 'gap' between Scotland and rest of UK was around 11% across all sectors in 2012 (and 22% below the leading UK region). We suggested that the evidence indicated that Scotland was weak in varying degrees on all of the key determinants of competitiveness: in innovation/R&D; exporting (especially for a small open economy); skills; investment, and enterprise.

On BREXIT, we concluded that there was a high probability that output and growth in the Scottish economy would be damaged if Britain left the EU. First, the likelihood would be that trading arrangements would be less favourable than in the EU. Not only would actual and potential Scottish exporters have to overcome their weaker competitive position due to lower labour and total factor productivity they would also have to face the additional hurdle of less favourable trading arrangements. Secondly, Brexit might worsen Scottish productivity growth through the negative effects on trade competition, inward investment and financial integration. So, at a time when there is increasing policy concern about Scotland's productivity and growth performance a vote to leave the EU would place an unnecessary burden on Scottish companies and economic policy.

In the current Commentary we offer a few comments on policy issues relating to the improvement of Scotland's long-term growth perfromance.

Policy and the Growth of the Scottish Economy

The achievement of legislative devolution in 1999 following the Scotland Act 1998 allowed Scottish Governments to develop a strategic approach to the promotion of Scotland's economic development. The process began with the introduction of the *Framework for Economic Development* in June 2000. This was followed by the publication of *Smart Successful Scotland*, with its focus on the role of the Enterprise Networks, in February 2001. Both FEDS and SSS were "refreshed" in 2004, and 2005 with largely cosmetic changes. After the SNP Government came to power in 2007 a *Government Economic Strategy* was published in November 2007. In September 2011 a new strategy was published and finally, in March 2015 the Scottish Government published *Scotland's Economic Strategy*.

All of these strategies provide a strategic framework grounded in mainstream economic development theory, which sees economic growth being enhanced by productivity growth through the promotion of 'supply-side' change. Supply-side improvements in innovation and R&D, enterprise, investment, competition, and skills are the route to faster economic growth. It is true that the strategies have focused on other things seen as important to the development of the economy. So, for example the 2011 strategy introduced the desire to move to a low-carbon economy as a strategic priority, while the latest strategy has introduced the priority of tackling inequality and promoting inclusive growth. There has also been increasing recognition of the role of 'openness' and internationalisation in the growth of small open economies. But all of these strategies have been stronger on the 'what' of growth promotion with much less emphasis on the 'how'. In other words, we need to put more thought and debate into the operationalisation and *implementation* of the promotion of innovation, enterprise, investment and skills

formation. It is not new strategies the Scottish economy needs but clear insights and policy action on the implementation of Scotland's Economic Strategy.[1]

It is against this background that we welcome the creation of the new Economy Secretary post in the Scottish Government the appointment of the new Cabinet Secretary for Finance, Derek Mackay MSP following the recent election. We also welcome the new Minister Keith Brown's early initiative in instituting a review of Scotland's enterprise and skills agencies with a brief "… to consider how best to deliver and enhance the services and functions those bodies currently provide or need to provide in the future, to meet the needs of those engaging with the bodies, as well as to deliver on Ministerial ambitions – particularly productivity." Providing this review is undertaken in a positive way to help enhance the operational impact of the agencies, then we hope this marks the beginning of a process where strategy implementation moves centre stage in economic policy in Scotland.

Forecasts

Background

Output and jobs growth in the Scottish economy has weakened since we last reported in March 2016. After GDP data revisions it is now clear that with growth of only 0.1% in the second quarter last year and then a fall of -0.1% in the third quarter, the Scottish economy came perilously close to a recession in 2015 and despite the slight upturn to 0.2% growth the fourth quarter may yet not escape a recession in the coming months. In the fourth quarter, Scotland had to rely solely on the service sector for growth as the contribution of construction faded away to zero with the stimulus from infrastructure spending disappearing. Slight negative growth in the production sector meant that the recession in the sector continued with negative growth having occurred in three successive quarters. Within production, manufacturing technically emerged from recession with fourth quarter growth of 0.3% after experiencing falling output in the previous two quarters. But despite that manufacturing growth in Scotland can only be described as weak.

We do not yet have outturn data for GDP in the first quarter 2016 in Scotland but extrapolating from the fourth quarter what seems to be happening is that both domestic and overseas demand for Scottish goods and services appear to be weakening, while domestic demand is still driving growth in Scotland – see *Forecasts of the Scottish Economy* section below. In particular in the first two quarters of 2015 household demand and fixed investment were the sole drivers of growth. In the third quarter general government spending also made a small positive contribution to growth, although the continuation of the UK Government's austerity programme means that there is little sustained boost to growth from this component of demand. In the fourth quarter household demand and fixed investment were again the sole drivers and were both weaker than previously. It now seems clear that both components of demand have been badly affected by the continuation of the low price of oil, with job losses affecting household incomes and spending and fixed investment affected by the decline in onshore investment in the oil service industry and related activities as well as the slowdown in infrastructure spending and

[1] *A point raised by the STUC's Stephen Boyd at the Fraser of Allander Institute's policy seminar in May 2016. I also made a similar point in commenting on the Government's current Scottish Economic Strategy in my presentation Post-election economic challenges: Scotland and the UK at the IPPI/FAI seminar on 1 July 2015.*

construction activity noted above. Another factor to note is that the household saving ratio in Scotland was 6.3% in 2015q4 31% lower than it was in the corresponding quarter of 2014. This fall will clearly have helped sustain household spending either by households saving less or borrowing more. However, a close look at the data reveals that the ratio fell from 9.1% to 6.8% between 2014q4 and 2015q1, then fell a little further to 6.3% in the second quarter and essentially remained there for the rest of the year. Household spending was clearly boosted in the first quarter of last year but by the end of the year the effect of the change was fading away as households possibly started to rein back their borrowing. In addition, wage growth remains weak while the housing market seems to be weakening, which is also likely to have a detrimental effect on household spending. It might also be the case that uncertainty about the outcome of the BREXIT referendum on 23rd June might be encouraging companies to postpone investment plans until the issue about Britain's economic relationship with the EU is clarified. In this context it is worth noting that net trade has made a negative contribution to Scotland's GDP growth in 4 of the last 5 quarters, while Scottish exports (including trade with rest of UK) in current market prices have actually been *falling* since 2014 and Scottish manufacturing exports to the rest of the world fell in real terms in the second half of last year.

The ONS Release *Second Estimate of GDP: Quarter 1 (January to March) 2016* estimated UK GDP in volume terms to have grown by 0.4% in the first quarter, the same as the preliminary estimate in April but lower than the 0.6% growth achieved in the final quarter of last year. The release also provides detail on the expenditure component contribution to UK growth. The picture remains broadly similar to Scotland in the fourth quarter of last year, and broadly similar in the first quarter 2016 to the fourth quarter 2015, with the exception that the contribution of fixed investment to growth increased, which we think unlikely to be the case in Scotland in view of the effects of the oil price fall – notwithstanding the recent pick up in the price to around $50 per barrel - and turn down in infrastructure spending. So, we must conclude that in the first quarter and probably through the rest of the year, household demand and fixed investment will continue to drive growth in Scotland but with the stimulus from household spending and fixed investment weakening while net trade continues to have a negative effect as the rate of growth in Scotland's main export markets is predicted to fall.

The Scottish Chambers' *Quarterly Economic Indicator* for the 1st quarter 2016, found that performance across the Scottish economy was inconsistent throughout the five key business sectors covered. The construction sector, retail & wholesale and tourism were reasonably buoyant, but there was evidence of a further weakening in activity in both manufacturing and business and financial services. In some ways this is encouraging because it suggests that the weakening in the economy may not be as pervasive as first thought. But there is much survey evidence to show that manufacturing in particular is struggling north of the border, although the recent outturn data for UK manufacturing in April revealed that production increased by 2.3% during the month, the largest rise since July 2012.The latest Scottish Engineering survey shows that output and orders have fallen for the sixth consecutive quarter, with export orders declining for eleven consecutive quarters. The Bank of Scotland *PMI Survey* for April reported that the output of Scottish private sector firms had stabilised, which ended a two-month sequence of contraction. Nonetheless, as the *Forecasts of the Scottish Economy* section of this Commentary notes the Fraser of Allander Institute's "*Nowcasts"* of the Scottish economy for the first and second quarters of 2016 estimate growth to be weak with forecasts of 0.28% and 0.36%, respectively.
It is against this background that we have prepared our latest forecasts of the Scottish economy.

GVA Forecasts

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

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

Table 1: Fraser of Allander Institute Forecasts of Scottish GVA growth, 2016-2018

GVA Growth (% per annum)	2016	2017	2018
Central forecast	**1.4**	**1.9**	**2.0**
March 2016 forecast	*1.9*	*2.2*	*n.a*
UK mean independent new forecasts (for May 2016)	1.9	2.1	2.3
Mean Absolute Error % points	+/- 0.52	+/- 1.24	+/- 1.31

Source: © Fraser of Allander Institute, June 2016

Table 1 shows that we have revised down our forecast for this year from 1.9% in March 2016 to 1.4%. This downward revision is driven by slow investment growth, the continuing effects of the fall in the price of oil on household incomes and spending, a general slowing in household spending as the rate of household borrowing diminishes and a worsening demand for Scottish exports as global growth and growth in Scotland's key export markets slows. On our central forecast, we are forecasting growth of 1.9% in 2017 a downward revision to our March forecast of 2.2%. This revision is due to an anticipated weakening of both domestic and export demand for goods and services produced in Scotland compared to our March forecast. We are now forecasting 2018 and our prediction is that there will be growth of 2.0% as the economy returns to trend.

Table 1, also compares our GVA forecasts with the median of latest independent forecasts for the UK as published by the UK Treasury in February 2016. These show that we expect Scottish growth to be weaker than in the UK over the forecast horizon 2016, 2017 and 2018. So, we are forecasting growth of 1.4% in 2016, 1.9% in 2017 and 2.0% in 2018. Given our previous forecast errors the lower and upper bounds for growth in 2016 are expected to be 0.9% and 1.9%; for 2017, 0.7% to 3.1%, and for 2018, 0.7% to 3.3%.

Production is the major sector exhibiting the fastest growth in 2016, 2017 and 2018 with predictions of 1.8% in 2016, 2.1% in 2017, and 2.2% in 2018. Growth of construction is forecast to be 0.7% in 2016, 1.1% in 2017 and 1.2% in 2018. Service sector growth is projected to be 1.3% in 2016, 1.8% in 2017, and 1.9% in 2018.

Employment Forecasts

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

Table 2: Forecast Scottish Net Jobs Growth in Three Scenarios, 2016-2018

	2016	2017	2018
Upper	37,950	67,550	79,200
March 2016 forecast	*50,700*	*79,400*	*n.a.*
Central	**28,650**	**39,450**	**47,379**
March 2016 forecast	*36,800*	*46,850*	*n.a.*
Lower	19,400	10,200	16,400
March 2016 forecast	*24,250*	*31,200*	*n.a.*

Source: © Fraser of Allander Institute, June 2016

We have revised down our forecasts of employee jobs because of the deteriorating conditions in the Scottish labour market. The number of total employee jobs is still forecast to increase in each year with the number of jobs at the end of 2016 forecast to be 2,445,650, an increase of 1.2% during 2016. Our new central forecast is that the Scottish economy will add 28,650 jobs in 2016, down by around 8,000 from our March forecast, with a net of 39,450 jobs added in 2017, down by more than 7,000 from our March forecast. Jobs growth in 2018 is forecast to be 47,379.

This year, we expect 21,800 service sector jobs to be created, with 3,650 added in production, and a reduction of -350 in agriculture. Construction jobs are now forecast to rise this year by 1,050. In 2017/2018, the bulk of the jobs created are again expected to be in the service sector with an additional 32,850/38,250 jobs forecast, while 4,650/5,350 are added in production, 350/1,800 in agriculture and 1,650/2,000 in construction.

Unemployment Forecasts

The ILO rate is our preferred measure since it identifies those workers who are out of a job and are looking for work, whereas the claimant count simply records the unemployed who are in receipt of unemployment benefit. In March 2016 we forecast that the unemployment rate would fall slightly to 5.7% (from its 2015 value of 5.8%) by the end of 2016, with a level of unemployment of 153,350. The

apparent worsening of many labour market indicators over the last four months, and the revision downwards of growth performance of Scotland in 2016 cause us to revise up our forecasts for unemployment in both levels and rates. Our latest forecasts for the unemployment rate in Scotland for the end of 2016 is now 6.9%, with our forecast for this to fall to 6.7% and then 6.2% by the end of 2017 and 2018, respectively.

The key unemployment forecasts are summarised in Table 3 below.

Table 3: Forecasts ILO unemployment, 2016-2018

ILO unemployment	2016	2017	2018
Forecast Rate (ILO un/TEA 16+)	**6.9%**	**6.7%**	**6.2%**
March 2016 forecast	5.7%	4.8%	n.a.
Numbers	**183,850**	**181,050**	**168,050**

Source: © Fraser of Allander Institute, June 2016

Brian Ashcroft
10 June 2016

2 Forecasts of the Scottish economy

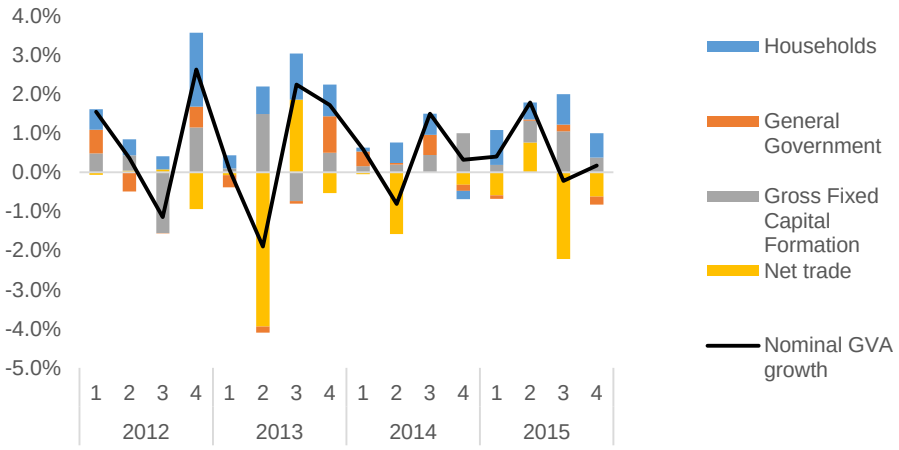
Grant Allan, Fraser of Allander Institute

Abstract

Growth in Scotland continues to be weak, with survey indicators suggesting that the first half of 2016 has seen a period of subdued activity. Growth slowed during the second half of 2015, with the third quarter seeing a decline in GDP in Scotland, although growth was positive (1.9%) over the year as a whole. While the global environment continues to look particularly muted – with exports likely to slow further from already insipid levels, as global trade growth remains muted – the domestic drivers of Scottish economic growth through 2015 and the first half of 2016, specifically investment and household spending, appear to be weaker in Scotland than across the UK as a whole. We have therefore revised down our growth forecasts for 2016, 2017 and 2018, with an associated worsening of the Scottish labour market expected over this period.

Households

Figure 1: Contribution to nominal quarterly growth, Scotland, 2012q1 to 2015q4, % points q-on-q



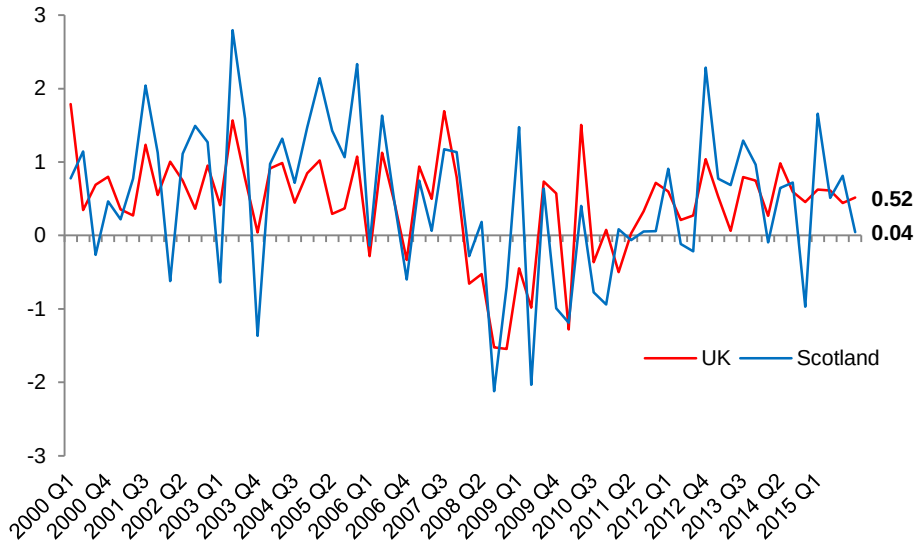
Sources: *Scottish National Accounts Project (SNAP) data (Scottish Government) and Fraser of Allander Institute (FAI) calculations. The columns shows the percentage point contribution of each element to quarterly Scottish (nominal) GVA growth, while the solid black line shows nominal GVA growth for Scotland for each quarter, e.g. in Q3 2015, household and government and Gross Fixed Capital Formation (GFCF), i.e. investment, contributed positively to (nominal) growth in that quarter, while net trade contributed negatively.*

Figure 1 shows the contribution of each expenditure component to nominal growth in the Scottish economy over each quarter of the last four years. Three things are particularly striking. First, the negative contribution made by net trade over this period, with only two quarters in the last three years where trade contributed positively to Scottish growth (Q3 2013 and Q2 2015). For growth to be transformed, the performance of Scottish exports needs to be addressed. Second, investment (Gross Fixed Capital Formation) has contributed positively in each quarter since the third quarter of 2013. The

final quarter of 2014 for example, saw positive nominal growth which was exclusively due to investment growth expenditure according to this data. (Real growth was also positive in this quarter). The contribution of investment through 2015 in offsetting potentially lower growth rates for Scotland is also clear. Third, Scottish households expenditure continues to be driving a major portion of Scotland's recent economic performance.

With this context in mind trends in Scottish household expenditures become important for Scottish growth. The latest results of the Retail Sales Index for Scotland suggest that Scottish household spending in the first quarter of 2016 grew in real terms by 0.1%, while in the same period it grew by 0.3% in the UK. This weaker spending growth would be consistent with a worsening of the Scottish labour market compared to the UK over the same period. We will return to this later.

Figure 2: Household real consumption spending growth, Scotland and UK, 2000q1 to 2015q4, % q-on-q

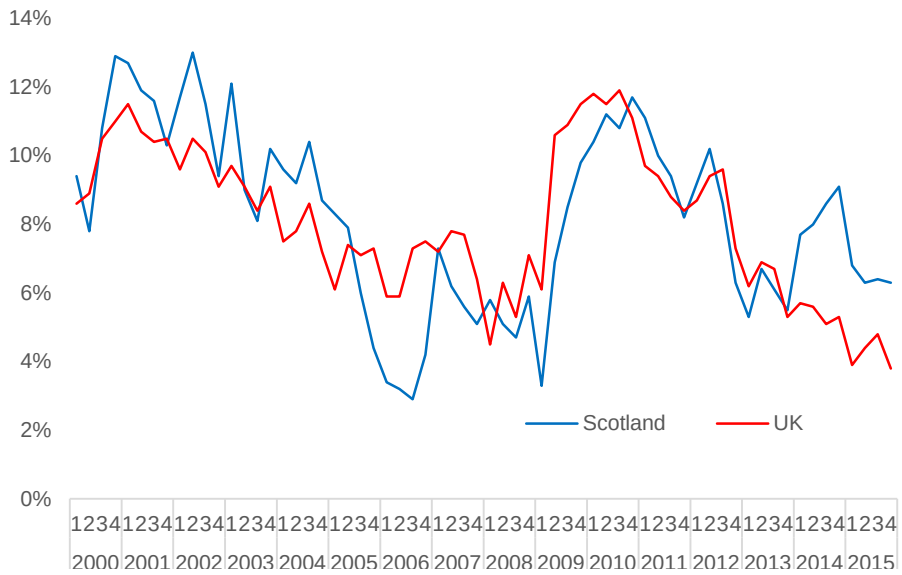


Sources: *Scottish National Accounts Project (SNAP) data (Scottish Government) and UK Quarterly National Accounts (National Statistics) and FAI calculations.*

Figure 2 shows the growth in quarterly real household spending for both Scotland and the UK, as calculated from official figures produced separately by the ONS and Scottish Government. This shows that the growth in household spending in Scotland typically coincides with that of the UK as a whole, but can be more volatile. The latest quarter for which data are available (Q4 of 2015) suggests that growth of household spending was only 0.04% in Scotland, and 0.52% in the UK. Figure 3 shows the household savings rate in both Scotland and the UK. What is evident is firstly the rapid reduction in the savings rate in Scotland between the end of 2014 and start of 2015 – which then saw household spending support growth through 2015 (Figure 1) – and second, its relative stability since then. Third, the Scottish savings rate is roughly two percentage points higher than for the UK as a whole. This suggests that, other things being equal, Scottish households have a lower average propensity to spend and likely a lower marginal propensity to spend. Further, this higher savings rate is one reason why the positive consequences of lower energy prices from the rapid reduction in the price of oil at the end of 2014 and start of 2015 did

not translate into more positive household spending and therefore overall economic growth through 2015.

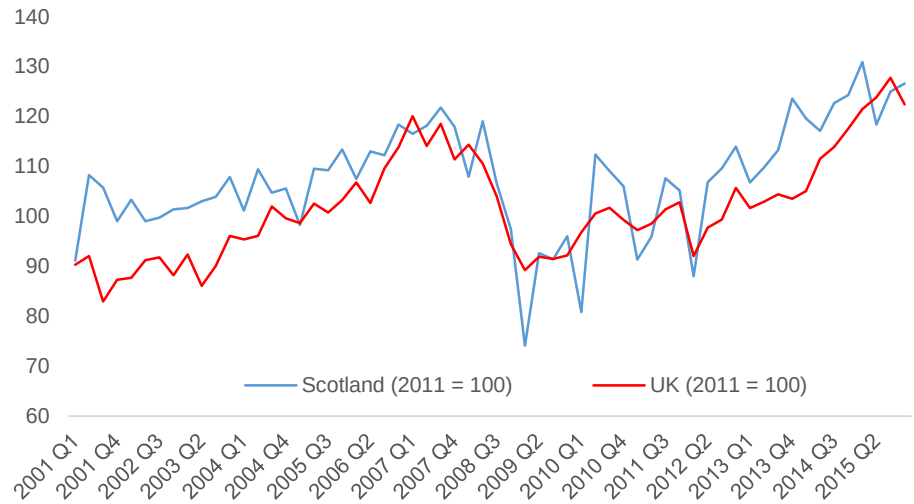
Figure 3: Household savings ratio, Scotland and UK, 2000q1 to 2016q4, %



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

Investment

Figure 4: Real gross fixed capital formation, Scotland and the UK, 2010q1 to 2015q4



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

Figure 4 shows the recent developments in investment in both Scotland and the UK, which are again calculated from official figures produced separately by the ONS and Scottish Government. They show that under these revised data, that the level of investment relative to its 2011 level is broadly similar between Scotland and the UK. Currently, the level of investment is around 22% (UK) and 26% (Scotland) above their 2011 levels. What is also evident is that the Scottish level of investment recovered more quickly than in the UK – through 2012 and 2013, for instance, the "gap" between the two reached as much as 15 percentage points (although the Scottish series is again more volatile than that for the UK). Investment levels in Scotland and the UK appear to have converged in the last year, suggesting a slowing of investment spending in Scotland compared the UK as a whole.

Trade

The most recent data on Scottish manufacturing exports to the rest of the world were released on the 20th April 2016 ("Index of Manufactured Exports"). These showed that in the final quarter of 2015, exports to the rest of the world *fell* by 1.5%: the second consecutive quarter when Scottish (manufacturing) exports (to the rest of the world) fell in real terms. There were particularly pronounced falls in exports of Drink – down 5.2% - as well as in Electrical and Instrument Engineering (down 3.5%).

Table 1 shows the forecasts for growth in key global markets for Scottish products through 2016 and 2017. The export markets used here differ from those used in our March 2016 Commentary. They have been selected on the basis of the 'ultimate' export destinations for Scottish goods, as identified in additional questions now included in the Global Connections Survey (GCS) - rather than by the countries noted in GCS as the 'first destinations' for Scottish goods and services. The latter measure identifies countries that are not necessarily the final destination market, and so is likely to overstate the role of markets through which Scottish exports merely transit (e.g. the Netherlands registers as Scotland's largest EU market on the GCS ranking, while on our preferred measure it is not even in the top ten). Table 1 identifies the top seven "future export destinations" as reported in GCS.

The latest forecasts for Scotland's key international markets have been revised down over the last few months. Table 1 shows that the OECD have revised down their forecasts for the USA (down 0.7 percentage points), Norway (down 0.5 percentage points) and the UK (also down 0.7 percentage points). Growth in the US, has been undercut by weak domestic demand, while many emerging economies – in particular oil producers – have seen reductions in growth. Global trade – a good barometer of growth in economic activity more generally – remains subdued and is only expected to increase slightly, and continues to grow more slowly than GDP growth. This is partly driven by an increasing on-shoring of value chains in production – particularly by China – which could limit both trade growth, as well as lower innovations from learning from exporting firms, and may have a disproportionate effect on exporting firms from smaller countries who rely upon selling externally for their growth. The OECD's most recent Economic Outlook talked about the need for "comprehensive national policies, incorporating more proactive fiscal prioritisation and revived structural ambition". The recovery through 2017 appears more uncertain, and growth in key Scottish export markets – such as the UK as a whole – have been revised further down for that period.

Table 1: Economic growth forecasts for 2016 and 2017 for Scotland's key export destinations, including UK, Japan and the Euro area, % p.a.

		2016			2017		
	Rank (2014 exports[1])	IMF (April 2016)	OECD (June 2016)	Revision since Dec '15	IMF (April 2016)	OECD (June 2016)	Revision since Dec '15
USA	1	2.4	1.8	-0.7	2.5	2.2	-0.2
China	13	6.5	6.5	0.0	6.2	6.2	0.0
Germany	4	1.5	1.6	-0.2	1.6	1.7	-0.3
France	3	1.1	1.4	+0.1	1.3	1.5	-0.1
Australia	15	2.5	2.6	0.0	3.0	2.9	-0.1
Norway	5	1.0	0.6	-0.5	1.5	1.3	-0.6
Canada	16	1.5	1.7	+0.3	1.9	2.2	+0.1
United Kingdom	-	1.9	1.7	-0.7	2.2	2.0	-0.3
Japan	20	0.5	0.7	-0.3	-0.1	0.4	-0.4
Euro area	-	1.5	1.6	-0.2	1.6	1.7	-0.2

Sources: World Economic Outlook Update (International Monetary Fund, IMF, April 2016) and Economic Outlook (Organisation for Economic Cooperation and Development, OECD, June 2016) *Notes*: [1] = Sourced from Export Statistics Scotland. "-" indicates that a country is not listed as a destination for international exports from Scotland.

Forecasts for the Scottish economy: detail

In this section we look at the likely impacts on both the domestic and external economic environment for Scotland over the years 2016, 2017 and 2018. This is the first time that we have forecast for 2018.

We noted earlier that both net trade and government spending contributed negatively to nominal growth in the final quarter of 2015, with growth supported by household spending and investment (GFCF). Both of these two elements however were down between the third and fourth quarters of 2015. Additionally, the range of surveys for Scottish economy activity suggest an ongoing weakness in business investment intentions. *For this reason, we have revised down our forecast for the growth of investment through 2016 and 2017.* It is plausible that some of the reductions in expected business investment could be driven by fears of uncertainty over a vote in favour of "Brexit" in the EU referendum on the 23rd of June 2016. What is more surprising perhaps is the broad evidence for reductions in investment, across most sectors, and most firm sizes, where one might expect a more heterogeneous picture. This perhaps suggests that there are more systemic weaknesses to the economic picture than those to be resolved by the outcome of the EU referendum.

We continue to produce forecasts and update them on a monthly basis at www.nowcastingscotland.com in an attempt to "nowcast" economic growth currently (and *in advance* of official measures, which are

produced with a significant lag). The latest nowcasts estimate growth in the first and second quarters of 2016 to be 0.28% and 0.36% respectively. Both are only slightly up from the growth seen in the final quarter of 2015 (0.22%), and well below the growth rates seen in 2014. Our nowcasts appear to offer little evidence for optimism for anything approaching trend growth for the Scottish economy through the first half of 2016.

The Scottish economy continues to be impacted by the continuing lower price of oil (and the knock-on effect across the UK economy, and the disproportionate impact upon Scotland). Prices have risen above $50/barrel in the last few weeks, and up from the $35/barrel seen during January 2016. This will however have no immediate impact on exploration and production drilling work, as such decisions take time to lead to visible signs of orders and investment. DECC figures report that in the final quarter of 2015 only a single exploration well was drilled in the UK continental shelf (UKCS), alongside 20 development wells – the second lowest number of wells drilled since the quarterly series began in 1998. Evidence from a number of business surveys of firms with activity in the UKCS suggest that continued redundancies are expected across the sector. Shell's recent announcement of (a further) 475 jobs losses from its UK and Ireland workforce (and reductions by other firms across the sector) points to a sector where confidence remains at historically weak levels.

Latest forecasts for key international markets have been revised down over the last few months – as noted earlier – the IMF predict that the global economy is now expected to grow by 3.2% in 2016, down by 0.2% from its January 2016 forecast. In part this reflects continued slowdown in the Chinese economy, which – along with market specific factors – is continuing to depress commodity prices. They point to a general weakness in investment and trade and rising political factors that are impacting on uncertainty, which is expected to depress activity through the rest of this year. On the IMF's forecasts, global growth is expected to increase in 2017 by 3.5%, particularly driven by an increase in emerging and developing economies. *The lower rate of global growth, in particular in Scotland's main export markets, which are largely developed economies cause us to revise down our forecast for the rate of export growth through this year and next.*

Household spending has positively contributed to Scotland's recent economic performance. The latest evidence suggests that conditions in the Scottish labour market overall have worsened through the end of 2015 and the start of 2016, and that Scotland is diverging from the UK as a whole. The unemployment rate in Scotland increased in the first quarter of the year, while it was broadly unchanged across the UK as a whole. The unemployment rate in Scotland in the first quarter of 2016 was 6.2%, more than one percentage point above the unemployment rate for the UK in the same period (5.1%). At the same time, the region of the UK with the largest fall in the employment rate was Scotland, down to 73.1% (UK overall was 74.2%). The number of people in work fell by 53,000 in the final quarter of 2015 while the number unemployed rose by 8,000. *For these reasons we have slightly revised down our forecasts for household spending growth during 2016 and 2017.*

Fraser of Allander Institute forecasts: 2016, 2017 and 2018

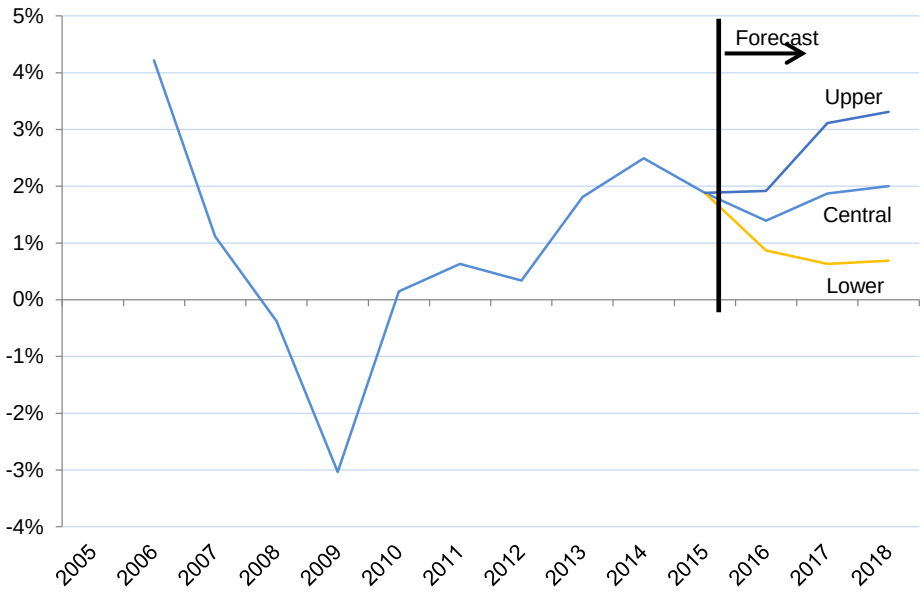
In this section we forecast year-on-year real growth in Scotland's key economic and labour market variables and do so for all variables for 2016, 2017 and – for the first time –2018. Our forecasts cover

Scotland's Gross Value Added (GVA), employee jobs and ILO unemployment. The model used is multi-sectoral, and where useful, results are reported to broad sectoral categories.

We begin with the forecasts for GVA growth in the Scottish economy. The growth performance of Scotland between 2010 and 2015 and our forecasts for the period to 2018 are shown in Figure 5. We note that the outturn data for the final quarter of 2015 confirmed growth of 1.9% for last year, the same as our forecasts for growth in that year from both our March 2016 and November 2015 commentaries. Incidentally, this 1.9% growth rate was forecast the very first time that we forecast growth for 2015, in our March 2013 Commentary forecast. Figure 5 also includes our upper and lower forecasts of growth. As previously, the range around the central forecast is based on our past forecast accuracy of the first release of growth data for the year.

Based on FAI forecasts between 2000 and 2015, the mean absolute error of forecasts (i.e. the difference between the rate forecast and the outturn rate from official sources) made around June and growth in that year (i.e. 2016 in this forecast) is 0.52 percentage points. The mean absolute errors of forecast errors made in summer for the year ahead (i.e. our current forecast for 2017) are 1.24 percentage points. This gives the range for the upper and lower bands in 2016 and 2017. While our past forecast error for the year subsequent to the following year (i.e. made now for the calendar year 2018) forecast horizon is 1.31 percentage points. This is used to give the range around our central forecast for GVA growth in 2018.

Figure 5: FAI Forecasts of annual real GVA (%) growth for Scotland, 2010 to 2018



Sources: © Fraser of Allander Institute, June 2016

Relative to our March 2016 forecasts, we have now revised *down* our short-term forecasts for growth in the Scottish economy. Our central forecast for GVA growth in 2016 is now 1.4% (i.e. a downward revision of 0.5 percentage points) and largely driven by slow investment growth, weak survey results

suggesting a contraction of domestic investment activity and worsening export performance over the rest of 2016. Our forecast for 2017 has been revised down from 2.2% to 1.9%, due to a further weakening of both local (i.e. Scottish and rest of the UK "domestic" demand) and a further worsening of the global growth picture over the last four months. Our first forecast for growth in 2018 is that the Scottish economy will grow by 2.0%. Thus, in the coming three years, we forecast growth in Scotland to not exceed its pre-recession trend growth rate.

For comparison purposes, in March of 2016, the UK's Office for Budgetary Responsibility (OBR) forecast UK growth in 2016 of 2.0%, while in May 2016 the median of independent forecasts for the UK in 2016 - made in the last three months - was for growth of 1.9%. The OBR's forecast for growth in 2017 is 2.2%, while the median of new forecasts for that year is 2.2%.

In addition to the aggregate growth forecasts in our central scenario, Table 3 presents our forecasts for GVA growth in 2016, 2017 and 2018 for three broad sectoral groupings within the Scottish economy: "Production", "Construction" and "Services".

Table 3: FAI Forecast Scottish GVA growth (%) by sector, 2016 to 2018

	2016	2017	2018
GVA	**1.4**	**1.9**	**2.0**
Production	1.8	2.1	2.2
Construction	0.7	1.1	1.2
Services	1.3	1.8	1.9

Source: © Fraser of Allander Institute, June 2016

Employment and unemployment

Detailed commentary on recent developments in the Scottish labour markets can be found in the Overview of the Scottish Labour Market section of this *Commentary.* Here we present our forecasts for the number of employee jobs in the Scottish economy. We forecast the number, sectoral breakdown and percentage changes in employee jobs at the end of 2016, 2017 and 2018 respectively, as well as the ILO measure of unemployment over the same period.

The most up to date employee jobs series for Scotland shows that there were 2,417,000 employee jobs in Scotland in the final quarter of 2015, an increase of 30,000 jobs from the end of 2015. The rate of jobs growth has slowed over the years since 2013: with 66,000 and 40,000 employee jobs added in 2013 and 2014 respectively.

Our new forecasts for employee jobs are shown in Table 4, alongside a sectoral breakdown of employee job numbers. The number of total employee jobs is forecast to increase in each year, however the number of jobs forecast to be added in 2016, 2017 and 2018 have been revised down slightly since our

March 2016 forecasts. The number of jobs at the end of 2016 is forecast to be 2,445,650, an increase of 1.2% during 2016. Our new forecast is that the Scottish economy will add 28,650 jobs in 2016, down by around 8,000 from our March 2016 forecast. Thus, we forecast a continuation of the slowing rate of absolute jobs growth - seen since 2013 – to continue through to 2016. Jobs growth is forecasted to increase in 2017, with a net addition of 39,450 jobs. The net change in employee jobs over the next three years, consistent with our upper, central and lower forecasts, is shown in Table 5.

Table 4: FAI Forecasts of Scottish employee jobs ('000s, except where stated) and net change in employee jobs in central forecast, 2016 to 2018

	2016	2017	2018
Total forecast employee jobs, Dec	2,445,650	2,485,100	2,532,500
Net forecast annual change (jobs)	**28,650**	**39,450**	**47,400**
% change from previous year	1.2	1.6	1.9
Agriculture (jobs, 000s)	26	27	28
Annual change	-350	350	1,800
Production (jobs, 000s)	262	267	272
Annual change	3,650	4,650	5,350
Construction (jobs, 000s)	141	143	145
Annual change	1,050	1,650	2,000
Services (jobs, 000s)	2,016	2,049	2,087
Annual change	21,800	32,850	38,250

Note: Absolute job numbers are rounded to the nearest 50.
***Source:** © Fraser of Allander Institute, June 2016*

Scottish unemployment rate since 2006 as well as our ILO unemployment rate forecasts under the central, upper and lower scenarios to 2017.

Table 5: FAI Forecast Scottish net annual change in employee jobs in central, upper and lower forecast, 2016 to 2018

	2016	2017	2018
Upper	37,950	67,550	79,200
Central	**28,650**	**39,450**	**47,379**
Lower	19,400	10,200	16,400

Note: Absolute job numbers are rounded to the nearest 50.
Source:© Fraser of Allander Institute, June 2016

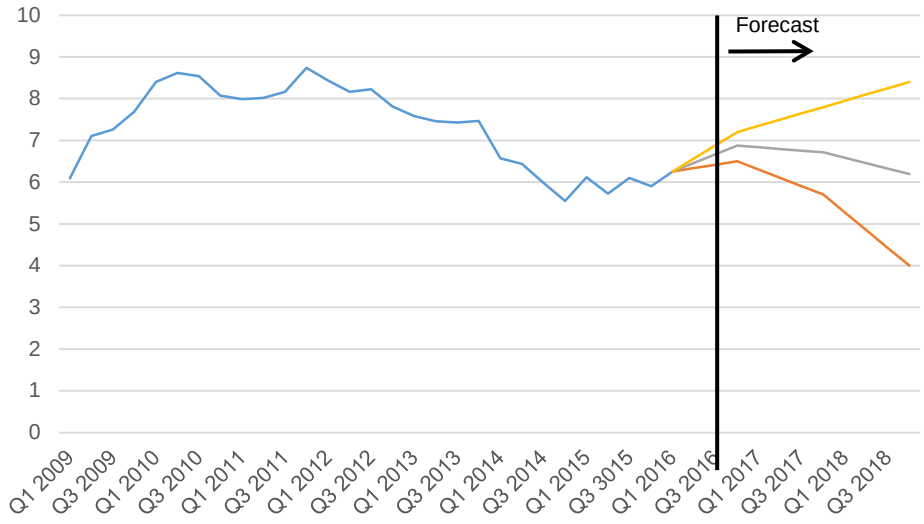
We present our forecasts for unemployment at the end of 2016, 2017 and 2018 in our central scenario in Table 6. In line with the forecasts produced since June 2013, we report the forecast number (and rate) of those unemployed using the International Labour Organisation (ILO) definition. This is preferred 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 measures of the level of spare capacity in the Scottish labour market.

Table 6: FAI Forecast of Scottish unemployment in central forecasts, 2016 to 2018

	2016	2017	2018
ILO unemployment (numbers)	183,850	181,050	168,050
Rate (%)[1]	**6.9**	**6.7**	**6.2**

Source: © Fraser of Allander Institute, June 2016
Note: Absolute numbers are rounded to the nearest 50. [1] = Rate calculated as total ILO unemployment divided by total of economically active population aged 16 and over. The most recent labour market statistics are detailed in the Labour Market section.

Figure 5: Scottish ILO unemployment rate, 2009 to 2018 including forecasts from 2016



Sources: ONS and Fraser of Allander Institute forecasts, June 2016

In March 2016 we forecast that the unemployment rate would fall slightly to 5.7% (from its 2015 value of 5.8%) by the end of 2016, with a level of unemployment of 153,350. The clear worsening of many labour market indicators over the last four months, the continued weak survey evidence for a rebounding economic recovery and the revision downwards of growth performance of Scotland in 2016 cause us to revise up our forecasts for unemployment in both levels and rates. Our latest forecasts for the

unemployment rate in Scotland for the end of 2016 is now 6.9%, with our forecast for this to fall to 6.7% and then 6.2% by the end of 2017 and 2018 respectively. Figure 5 shows the trajectory of the ILO.

Grant Allan
10 June 2016

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3 Review of Scottish Business Surveys

Eleanor Malloy, Fraser of Allander Institute

Abstract

Business surveys are a useful tool to provide accurate and timely data and are extremely helpful in pinpointing subtle movements and also turning points in the economy. The business surveys reviewed here provide an overview of key recent evidence of the Scottish economy. Once again the latest set of Scottish Business Surveys are not particularly strong and show that many of the key benchmark indicators continued to slow in the most recent quarters. For business the economic outlook remains muted, perhaps reflecting the oil price fall and its onshore impact in Scotland, especially in the North East and on the supply chain, as well as uncertainty surrounding the EU referendum. This sense of uncertainty is most tangible for the business optimism and investment key balances and it is concerning that many of the forward-looking indicators indicate an easing of trends.

The Bank of Scotland Purchasing Managers' Index (PMI)

The seasonally adjusted headline Bank of Scotland PMI - a single-figure measure of the month-on-month change in combined manufacturing and services output - scored 48.5 in March 2016, falling from February's 49.2 which in turn was down on the January figure of 50.3. The January PMI showed a further deterioration in the Scottish private sector. The survey showed that both the service sector and, more significantly, the manufacturing sector contracted in March. The survey indicated that output, new business and employment all continued to decline.

RBS (Scottish) Business Monitor

The latest RBS (Scottish) Business Monitor produced in conjunction with The Fraser of Allander Institute (results for December 2015, January 2016 and February 2016, and expectations to August 2016) shows the Scottish economy slowed further during this period. The outturn this quarter for many key balances was significantly worse than the previous survey and down on expectations expressed in the previous survey. The rate of recovery is still being constrained by companies in the North East. New business levels declined during the three months to the end of February with an overall net balance of -8% compared to +3% of the previous quarter and also down on the +2% of the same quarter one year ago. Expectations are that this slowdown in the rate of recovery will continue and growth in Scotland is set to slow further with the fall in oil prices having a net negative impact on Scotland compared to the rest of the UK.

Firms' assessments of their immediate prospects in the next six months were on a rising trend throughout 2013 and reached highs in the first two quarters of 2014. The remainder of 2014 and into 2015 showed lower but still positive levels of expectations. Last quarter, expectation levels eased but largely remained positive whereas this quarter many declined to become negative. This is the thirteenth successive Business Monitor showing a positive net balance for turnover expectations although the

balance has eased to +2%; down from +4% last quarter and down from +14% compared to Q1 2015. The expectation levels recorded by respondents in this latest survey suggest the private sector of the Scottish economy will show growth below trend level in the first quarter of 2016.

These expectation levels suggest the private sector of the Scottish economy will show growth below trend level in the first quarter of 2016, and suggests slower growth in the six months to August 2016, compared to the period to November 2015. Expectations of growth have generally eased or fallen and suggest that current growth rates will be maintained in the early part of 2016.

On a positive note domestic demand is still growing, inflation remains low, earnings/income growth is picking up slowly, interest rates remain low, and external demand for goods and services is being boosted by the continued resilience of the US economy and a gradual pick-up in growth in the Eurozone. However some threats to Scotland's economic growth remain namely the lower price of oil, unbalanced growth as household spending remains the key driver - fueled largely by rising household debt - net trade continues to be strongly negative – with exports weak - fiscal austerity and finally the current uncertainty surrounding the referendum on the UK's membership of the EU.

Total volumes of business had, up until the previous quarter, been showing a slowly improving trend however in the latest quarter a net of -19% reported a decline, further down on the -3% of the previous quarter and also down on the +7% of the same quarter one year ago. This is the lowest net balance since the first quarter of 2011.

- The overall net balance of turnover (those reporting an increase minus those reporting a decrease) fell significantly to -21%, this is down from the +1% of the previous quarter and from the 0% of the same quarter one year ago. This is the lowest net balance since the first quarter of 2011.

- Export activity is continuing, on balance, to fall. The overall net balance for export activity at −22% down on the −10% of the previous quarter and also significantly worse than the +6% of the same quarter one year ago.

- Firms are significantly more concerned over weakening demand compared to the previous quarter with the percentage of firms citing it as 'very important' or 'important' increasing from 81% to 84%.

- Concerns over credit costs and more notably credit availability remain relatively low for both production and service firms.

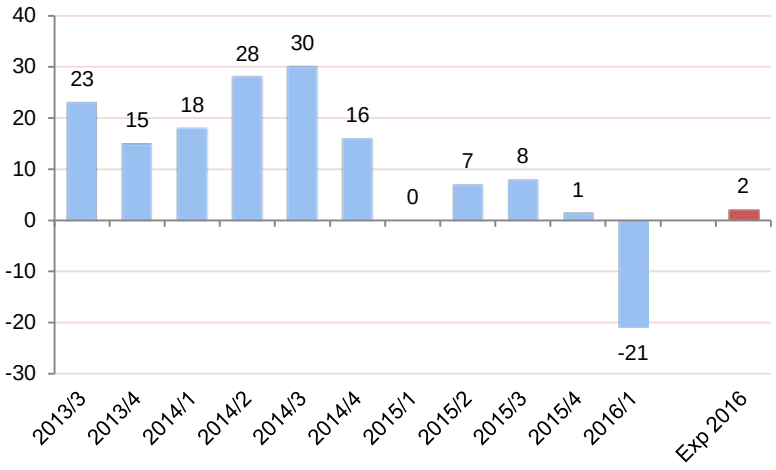
- Firms located in the North East continue to perform worse than those located elsewhere.

- Firms with a turnover of between £5 million and £10 million are reporting the most positive trends with those with a turnover of up to £5 million and those with a turnover of more than £10

million reporting more negative trends. Firms with a turnover of more than £500,000 are expecting an increase in the total volume of new business.

- Expectations are that this slowdown in the rate of recovery will continue and growth in Scotland is set to slow further with falling oil prices having a net negative impact on Scotland compared to the rest of the UK.

Figure 1: Trend in business turnover, % net balance of respondents



Source RBS Scottish Business Monitor

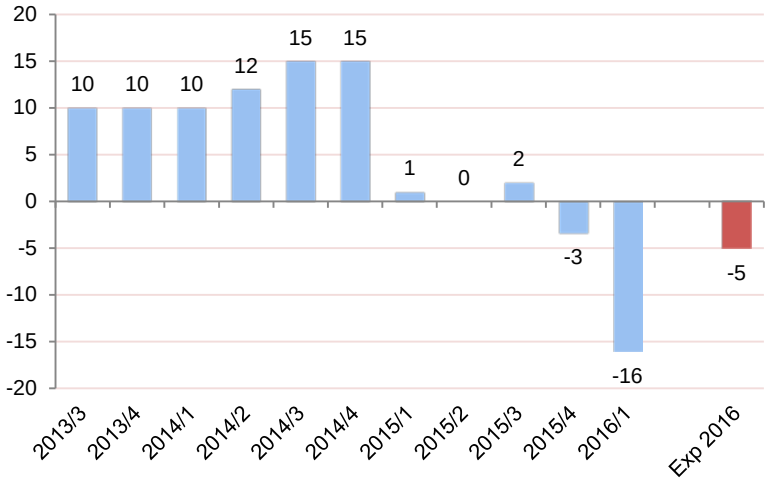
In the three months ending February 2016, 22% of the firms surveyed increased turnover, 35% experienced static turnover and 43% experienced a decrease. The overall net balance (those reporting an increase minus those reporting a decrease) is -21.5%, down from the +1% of the previous quarter and from the zero balance of the same quarter one year ago. This latest result is the lowest net balance since the first quarter of 2011.

The overall net balance of turnover for firms in the production sector in the three months to end February 2016 was -27%. This is significantly down from 0% of the previous quarter and also on the -5% of the same quarter one year ago. Services firms showed an overall net balance for turnover for the three months ending February 2016 of -18%, well down on the +2% of the previous quarter and also from the +4% of the same quarter one year ago. Expectations for turnover in the next six months ending February 2016 are showing an overall net balance of +2%. Although still positive this is down on the +4% of the previous quarter and also down on the +15% of the same quarter one year ago. Whilst 49% expect turnover to be static in the next six months, 27% expect turnover to increase against 24% who expect a decrease. Services firms remain more optimistic than production firms, with service firms showing an overall net balance for turnover for the next six months at +3% (+6% in the previous quarter) compared to +2% (+1% in the previous quarter) for production firms.

Volumes of repeat business are showing a decline in the latest quarter. In the three months ending February 2016, 12.1% of the firms surveyed increased repeat business, 59.9% experienced static new

business and 28.0% experienced a decrease. The overall net balance of -16% is significantly worse than the -3% of the previous quarter and also markedly worse than the +1% of the same quarter one year ago.

Figure 2: Trend in the volume of repeat business, % net balance of respondents



Source RBS Scottish Business Monitor

The overall net balance of repeat business for firms in the production sector in the three months to end February 2016 was –14.3%. This has down from the –1.3% of the previous quarter and also down on the -2% of the same quarter one year ago. Services firms showed an overall net balance for turnover for the three months ending February of –16.8%, down on the -4.7% of the previous quarter and also from the +1% of the same quarter one year ago. Expectations for the volume of repeat business were, once again, down on the levels of the last quarter with an overall net balance of-5% for this quarter compared to +2% for the previous quarter; significantly down on +10% for the same quarter one year ago.

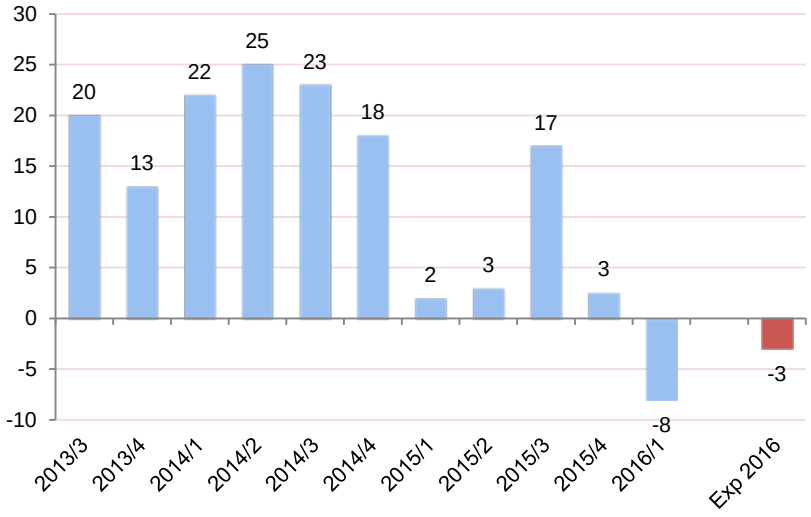
Production firms are marginally less pessimistic than service firms, with service firms showing an overall net balance for repeat business for the next six months at -4% (+0.5% in the previous quarter) compared to -6% (+3% in the previous quarter) for production firms.

Trends in the volume of new business declined during the three months to the end of February 2016 with an overall net balance of -8% compared to +3% of the previous quarter, down also on the +2% of the same quarter one year ago. During the summer new business volumes appeared to have recovered to the levels seen in 2014 after a poor six month period at the end of 2014 and the beginning of 2015 but this appears to have been a temporary position as the levels have declined.

The overall net balance of new business for firms in the production sector in the three months to end February 2016 was –21.7%. This is significantly down from the -3.4% of the previous quarter and also down on the +6% of the same quarter one year ago. Services firms showed an overall net balance for turnover for the three months ending February of +0.5%, down on the +7% of the previous quarter and

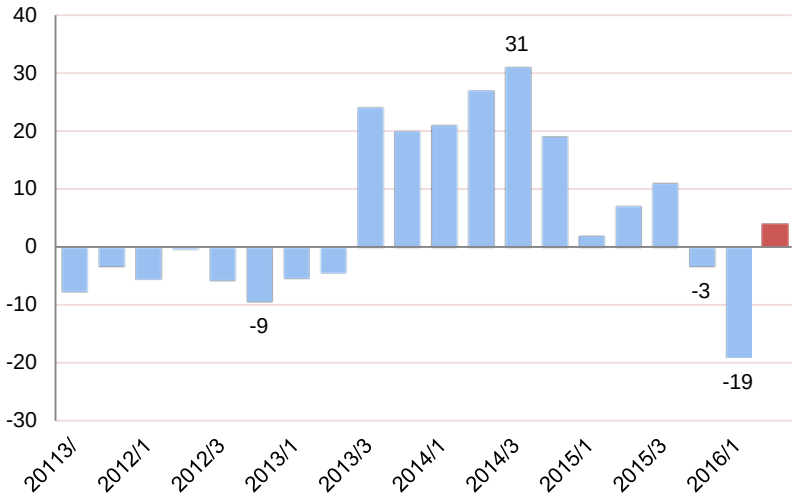
also from the 0% of the same quarter one year ago. Expectations for the volume of new business in the next six months have declined with the latest net balance at -3% – down on the +6% of the previous quarter and also down on the +14% of the same quarter one year ago. Service firms are showing an overall net balance for expectations of new business for the next six months at -2.8% (+8% in the previous quarter) compared to -2.5% (+1% in the previous quarter) for production firms.

Figure 3: Trend in the volume of new business, % net balance of respondents



Source RBS Scottish Business Monitor

Figure 4: Trend in the total volume of business, % net balance of respondents



Source RBS Scottish Business Monitor

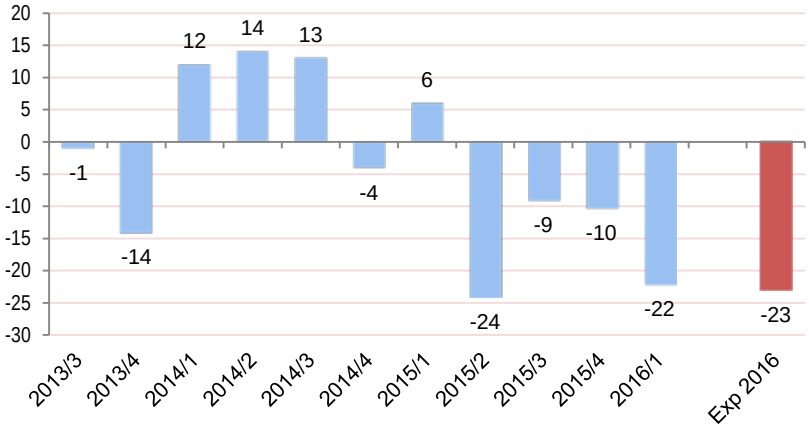
During 2015 total volumes of business had been showing a slowly improving trend however in the latest quarter a net of -18.9% reported a decline, down on the -3% of the previous quarter and also down on

the +2% of the same quarter one year ago. These downward trends are evident across both production (-19.0%) and services firms (-18.9%).

The overall net balance of the total volume of business for firms in the production sector in the three months to end February 2016 was –19%. This is significantly down from the -1% of the previous quarter and also down on the -5% of the same quarter one year ago. Services firms showed an overall net balance for turnover for the three months ending February of –18.9%, significantly down on the -5% of the previous quarter and also from the +7% of the same quarter one year ago.

Expectations for the total volume of business in the next six months have remained broadly unchanged with the latest net balance at +4.5% – very marginally down on the +5% of the previous quarter but down further from the +15% of the same quarter one year ago. Service firms are now slightly less optimistic than production firms, with service firms showing an overall net balance for new business for the next six months at +3.8% (+7% in the previous quarter) compared to +5.6% (+3% in the previous quarter) for production firms.

Figure 5: Trend in export activity, % net balance of respondents



Source RBS Scottish Business Monitor

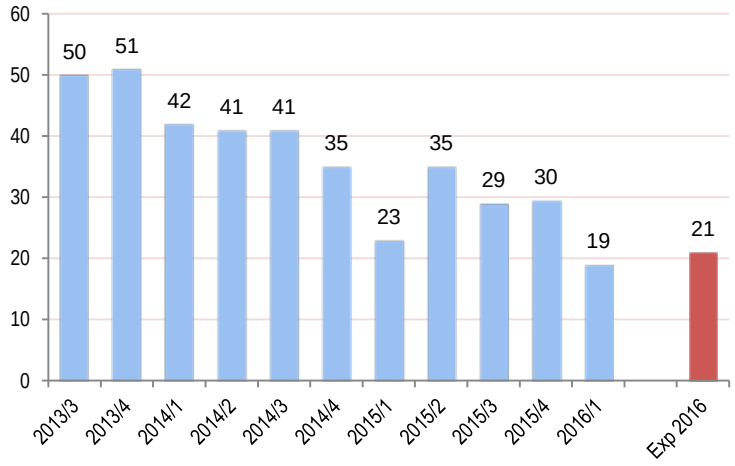
Export activity is continuing, on balance, to fall. The overall net balance for export activity at −22% is marginally down on the −10% of the previous quarter and also worse than the +6% of the same quarter one year ago. Net trade (exports minus imports) continues to be strongly negative, exacerbated by slowdown in China and a slowing of the growth of world trade. This feeds back to Scottish activity both through lower exports and a low price of oil affecting activity across the country, and particularly in the North East of Scotland.

The net balance for expected export activity for the next six months has worsened. The net balance reached −22% – well down on the −6% of last quarter and also worse than the +2% of the same quarter one year ago.

The overall net balance of the total volume of business for firms in the production sector in the three months to end February 2016 was –24.4%. This is significantly down from the -10.6% of the previous quarter and also down on the +6% of the same quarter one year ago. Services firms showed an overall net balance for turnover for the three months ending February of –20.0%, significantly down on the -9.8% of the previous quarter and also from the +6% of the same quarter one year ago.

Expectations for export activity in the next six months have fallen with the latest net balance at –23.3% – this down on the –6% of the previous quarter and is also down on the +2% of the same quarter one year ago. Service firms are less pessimistic than production firms, with service firms showing an overall net balance for export activity for the next six months at –17.8% (-10% in the previous quarter) compared to –29.3% (-2% in the previous quarter) for production firms.

Figure 6: Trend in costs, % net balance of respondents



Source RBS Scottish Business Monitor

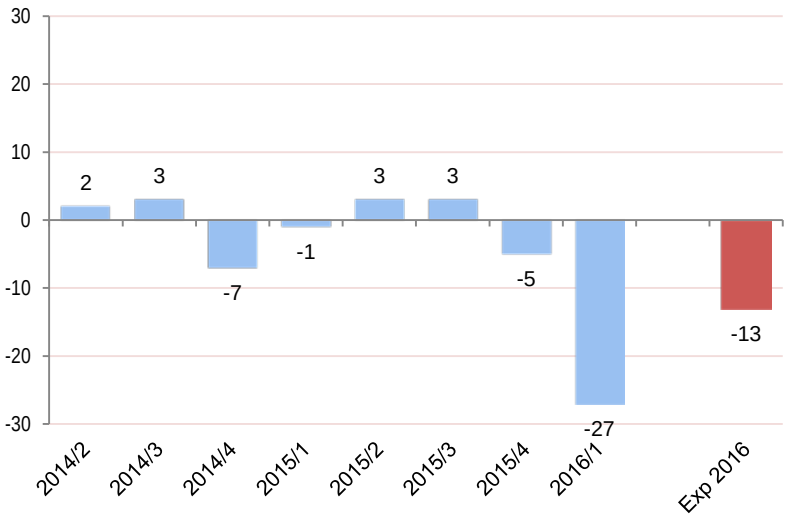
Cost pressures were broadly unchanged in the latest quarter. The overall net balance of firms experiencing cost increases in the last three months was +19% – this has eased from the +30% of the previous quarter and also from the +23% of the same quarter one year ago.

The overall net balance of costs for firms in the production sector in the three months to end February 2015 was +18.4%. This has eased from the +31% of the previous quarter and is also marginally down on the +19% of the same quarter one year ago. Services firms showed an overall net balance of costs for the three months ending February of +20%, down on the +28% of the previous quarter and also from the +25% of the same quarter one year ago.

Expectations for future cost increases have fallen slightly. The overall net balance for cost expectations is +21% – down from the previous quarter's +25% and lower than the +26% of the same quarter one year ago. Whilst 61% expect their costs to remain static, 30% expect an increase as opposed to 9% who expect a decrease in the next six months. Production firms are facing a larger increase in costs than service firms, with service firms showing an overall net balance for the trend in costs for the next six

months at +18% (+3% in the previous quarter) compared to +23% (+22% in the previous quarter) for production firms.

Figure 7: Trend in capital investment, % net balance of respondents



Source RBS Scottish Business Monitor

As forecast by firms from the previous survey the rate of capital investment declined in Q1. For the last three months, 48% of firms reported static levels of capital investment, 30% a decrease while 21% reported an increase giving a net balance of -8.8%, down on both the levels last quarter -5% and also compared to the same quarter one year ago -1%.

The overall net balance of the rate of capital investment for firms in the production sector in the three months to end February 2015 was –9.5%. This has eased marginally from the -11% of the previous quarter but is down from the +1% of the same quarter one year ago. Services firms showed an overall net balance of capital investment for the three months ending February of -8.4%, down on the 0% of the previous quarter and also from the -2% of the same quarter one year ago.

Expectations for new capital investment the next six months ending February 2016 are showing an overall net balance of –12.9%; down on the –6% of the previous quarter and also down on the -1% of the same quarter one year ago. Services firms remain marginally less pessimistic than production firms, with service firms showing an overall net balance for new capital investment for the next six months at –9.1% (-1% in the previous quarter) compared to –18.3% (-13% in the previous quarter) for production firms.

Scottish Chambers of Commerce Quarterly Economic Indicator Quarter 1 2016

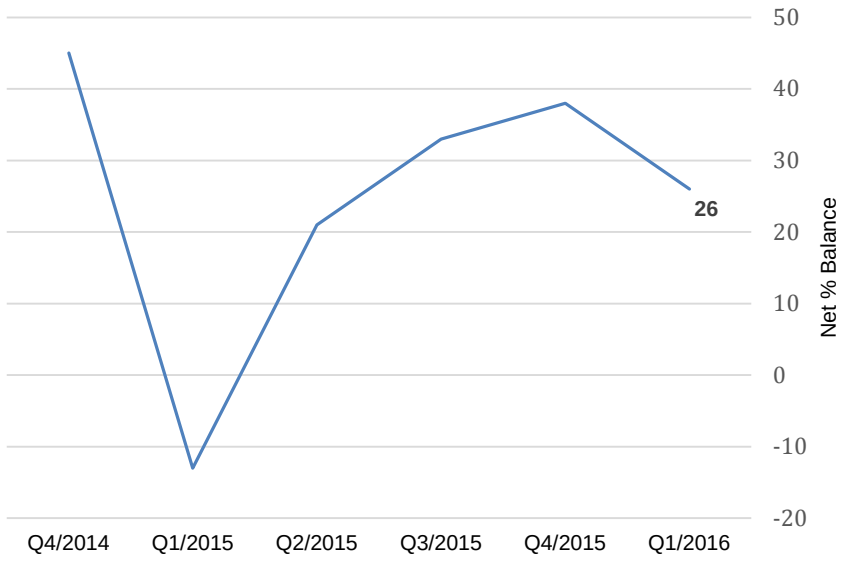
Construction

Construction respondents to the QEI were fairly buoyant, business confidence rose from +4% in Q4 2015 to +20% in Q1. Sales revenues, on balance remained positive for a net of 26% of firms and

positive trends in sales revenue are expected to continue in Q2 with 61% of businesses predicting a rise. Almost half of all respondents reported an increase in the volume of total new contracts, with a net balance of +24%, the highest net % balance reported since Q4 2014.

Generally pressure to raise prices appears to have increased as 49% of firms reported an increase in prices and only 3% reported a fall. Almost 40% of construction firms reported that wages increased over the quarter. On balance firms reported a positive net balance of +7% for total investment although a net balance of 3% reported a fall in capital investment.

Figure 8: Scottish Construction Sales Revenue, 2014q4 – 2016q1



Source: Scottish Chambers of Commerce Economic Intelligence Unit

Financial & business services

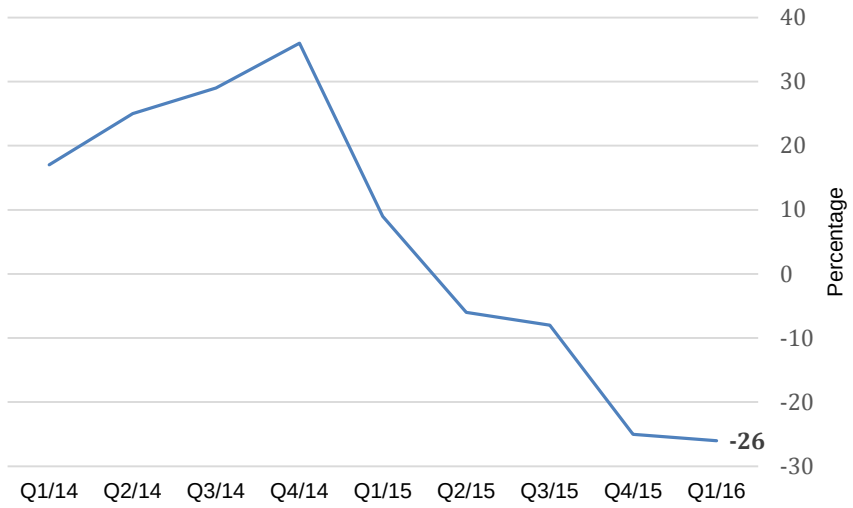
Following a disappointing quarter in terms of sales revenue in Q4 of 2015, businesses in the sector experienced another quarter of declining growth with a 43.2% of firms reporting a decrease in total sales revenue over Q1 2016 the quarter. Negative net balances were reported for domestic sales (-18), sales revenue from the rest of the UK (-12), and revenue generated by exports (-22). Profits declined for the fourth consecutive quarter with a net balance of -26% reporting a decline. A decline in cashflow was reported by a net balance of -23% the lowest figure recorded since Q1 2014.

Employment levels decreased for a net balance of -6% of firms although the majority of businesses (52.1%) reported that employment levels remained the unchanged Q1 and 59.5% of businesses expect employment over the next quarter to remain stable.

The financial and business services sector has experienced negative growth since the second half of 2015. A net balance of businesses have indicated that they expect both investment (-8%) and employment (-1%) to remain in negative territory in Q2 although a net balance of 7% expect a rise in sales revenue.

Business optimism dipped to the lowest net balance since Q3 2012 with a net balance of -10% reporting a fall. Despite the decline in business optimism levels of investment remained buoyant with over 80% of businesses indicating that total investment had either increased or remained unchanged over the quarter.

Figure 9: Financial and business services profit, 2014q4 – 2016q1



Source: Scottish Chambers of Commerce Economic Intelligence Unit

Manufacturing

A net balance of -17% of manufacturers reported a fall in total orders, the lowest figure recorded since Q3 2012. There were net declines in Scottish orders (-19), rest of UK orders (-13) and export orders (-15). Despite the trends in orders falling into negative territory, more than half (54.3%) of businesses expect total new orders to increase in Q2 2016. The majority of businesses expected orders to increase or remain level in Q2.

A net balance of +15% of firms reported a rise in employment and employment levels are expected to rise or remain unchanged by 81.3% of businesses during Q2 2016. Also 72.9% of business indicated that they were currently recruiting and around a third of firms currently indicated that they were experiencing recruitment difficulties.

Retail and wholesale

Business optimism improved for a net balance of 10% of distribution firms during the three months to the end of March 2016. A net balance of +10% reported a rise in total sales with firms reporting net rises in export (+4%) and online sales (+19%); however, domestic sales were, on balance unchanged and rest of UK sales declined for a net of 7% of respondents.

Total investment expenditure improved for a net of 8% of firms with net increases in both capital (+2%) and training investment (+2%). Investment is expected to continue to increase in Q2 2016 for 22.2% of retail and wholesale firms. Profitability declined for a net of 4% of firms.
Employment levels changed for fewer than half of firms and 72.9% of firms expect no change to their staff numbers during the three months to June 2016.

Tourism

Sales revenue rose for a net balance of 28% of firms over the quarter, with sales from Scotland increasing for a net of 25% of firms. Sales revenue is expected to continue to rise in Q2, with 60% of firms anticipating an increase. However despite positive trend balances for the number of total guests, sales revenue and investment a negative net balance was recorded for profits (-10%). The total number of Guests/ Customers grew in comparison with the same time last year for a net balance of +17%, with net rises in coming from Scotland (+23%). Although a net balance of 0 was reported for guests coming from the rest of the UK, and business experienced a net fall in the number of guests from the rest of EU (-10%) and from outside the EU (-3%).

Investment levels continued to increase albeit at a slower rate than in the previous quarter with a net balance of +13% reporting a rise compared to +25% reported in Q4 of 2015, and also lower than the +21% reported for the same time last year. However, investment is expected to increase or remain unchanged in Q2 of 2016 for 80% of businesses. Most businesses in the tourism sector expect to increase prices in Q2 of 2016 as and only 7.1% expected their prices to fall.

Employment levels increased for a net balance of +17%. Firms expect positive trends in employment to continue in Q2 with 93.1% of firms stating that they expect employment levels to rise or remain the unchanged. Recruitment problems persist throughout the sector, with 41% of firms facing difficulties recruiting during Q1 2016.

Scottish Engineering Quarterly Review

The Scottish Engineering Quarterly Review for the first quarter of 2016 showed little change from the survey of Q4 2015 in that orders and output remained negative, optimism remained low however employment once again, was to some degree stronger. Optimism was broadly unchanged with small and medium firms reporting negative trends whereas larger firms were more confident.

The trend in total order intake improved compared to last quarter but the trend remained negative (-11%); once again small and medium sized companies reported negative trends but large companies remained positive. Forecasts for the next three months of UK orders in show that the trend is expected to ease slightly but remain, on balance, negative. A net balance of firms predict that export trends will remain negative during Q2 2016 – though only for small and medium sized firms. Overall, output volumes in general remained negative for small and medium sized firms whereas large companies reported a rise and predictions for the next three months in general are slightly better with both medium and large firms expecting a rise.

Respondents on balance reported a slight rise in prices and in Q2 2016 small and medium companies are forecasting a further fall although large companies are predicting a positive balance. Capital investment plans, in general, remained negative whereas training investment plans remained positive.

Employment trends remain broadly unchanged with similar numbers of firms recruiting staff as reported shedding staff however forecasts for the next quarter predict that small and medium sized firms will, on balance, shed staff.

Scottish Construction Monitor

For the eleventh consecutive quarter the overall confidence rating of the Scottish construction sector remained positive at +3 although the rating dropped 5 points during Q1 2016. The percentage of respondents more confident about their prospects for the next 12 months compared to the past year rose marginally from 33% last quarter to 35% this quarter. The percentage of respondents less confident about their firm's future prospects has also risen marginally from 25% in Q4 2015 to 26% this quarter

In anticipation of referendum on the UK's membership of the European Union, the latest Construction Monitor asked a series of questions about Scottish construction companies' level of exposure to the European Union in terms of labour, supplies and exports. Participants were asked questions about the impact on their business if the UK were to leave the European Union. The survey found that almost one quarter of respondents employ labour from EU countries and a third of respondents procure goods and/or services from other EU countries. Only 6% of Scottish construction respondents export to other EU countries. Thirty one percent of all respondents reported that there would be a negative impact on the Scottish construction sector if the UK were to leave the EU compared to 7% who believe the impact would be positive.

Conclusions

The economy appears to be settling into a pattern of 'lower and slower for longer' growth; with the economy still growing, but growing less strongly. This latest round of Scottish Business Surveys indicated that there are some signs of growth in the economy although many show that Scottish firms are continuing to face considerable challenges. Uncertaintly surrounding a number of issues including the EU referendum is affecting optimism and investment and if capital investment plans fall then this will affect growth into the future. Growth in the UK is still, to an extent, reliant on household spending and in order to sustain growth over the longer term, an increase in investment and net exports as well as manufacturing and construction activity is needed. Confidence levels among Scottish businesses need to reach and maintain a point where firms have the confidence to invest for the longer term.

Eleanor Malloy
7 June 2016

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4 Scottish labour market

Andrew Ross, The Fraser of Allander Institute

This section provides an overview of key labour market data in Scotland and contrasts these with both UK performance and changes over time. These data are from a range of the latest labour market data for Scotland and the UK, to April 2016. The latest figures show that in the 3-months to April 2016, Scottish unemployment fell by 11 thousand whilst the unemployment rate fell from 6.1% to 5.8%. This was the first fall in unemployment in Scotland since the end of 2015. Of concern however, is the sharp decrease in employment, which fell by 48 thousand over both the quarter and the year. In effect, the gains made in employment growth through 2014 & 2015 have been lost over the first few months of 2016. Indeed, Scotland was the only UK nation or English region to see a fall in employment over the last 12 months. Scotland now has a lower employment rate (73.2% vs. 74.2%), a higher unemployment rate (5.8% vs. 5.0%) and a lower economic activity rate (77.8% vs. 78.2%) than the UK as a whole. Growth in employment is being sustained by part-time working and self-employment. The question of whether this shift away from fulltime job creation is the 'new normal' prevails.

Recent trends and statistics

The latest comparable figures on the labour market for Scotland and the United Kingdom are summarised in Table 1. Labour Force Survey (LFS) data show that in the quarter to April 2016 the level of employment in Scotland fell by 48 thousand, to 2,580 thousand and decreased over the year. In effect, the gains made in employment growth through 2014 & 2015 have been lost over the first few months of 2016. For the same period, UK employment rose by 55 thousand and 461 thousand respectively. The Scottish employment rate (16-64) – i.e. those in employment as a percentage of the working age population – was 73.2%, down by 1.3% from one year earlier. For the same period, the UK employment rate was 74.2%, up 0.8% compared to a year earlier. Scottish unemployment decreased by 11 thousand to 160 thousand in the quarter to April 2016, a 4 thousand decrease over the year. The unemployment rate decreased in the months to April 2016 and now stands at 5.8%. The comparable unemployment rate for the UK is 5.0%.

The relationships between employment, unemployment, total economically active and inactive are important in discerning the response 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 further 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 responding to overall economic conditions. We return to this issue later in this section.

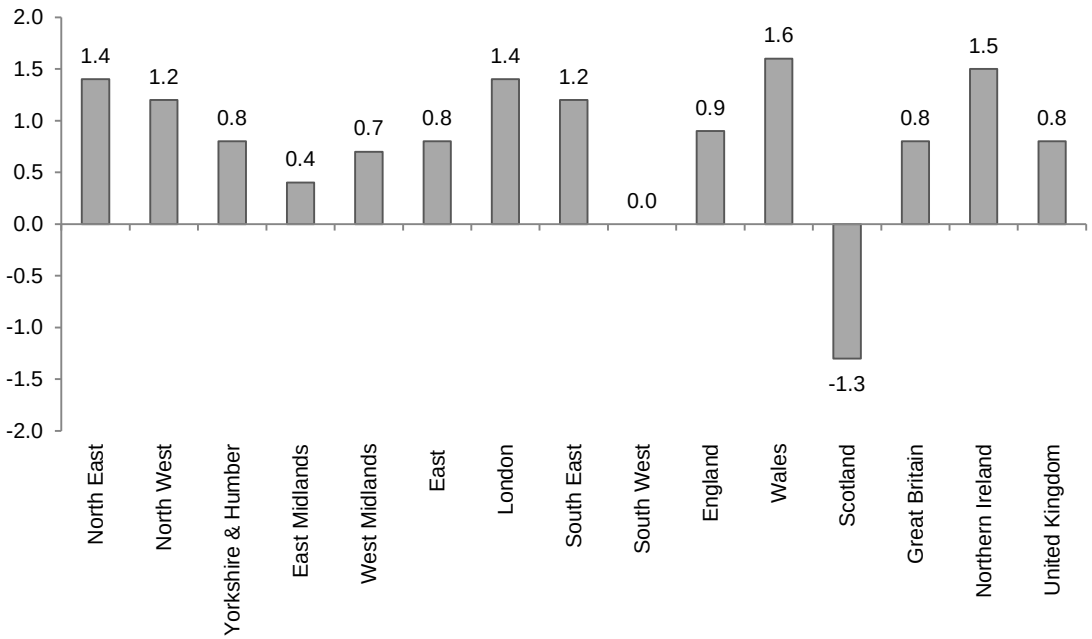
Table 1: Headline indicators of the Scottish and UK labour markets, February – April 2016

		Scotland	Change on quarter	Change on year	United Kingdom	Change on quarter	Change on year
Employment*	Level (000s)	2,580	-48	-48	31,594	55	461
	Rate (%)	*73.2*	*-1.2*	*-1.3*	*74.2*	*0.1*	*0.8*
Unemployment**	Level (000s)	160	-11	-4	1,671	-20	-148
	Rate (%)	*5.8*	*-0.3*	*0.0*	*5.0*	*-0.1*	*-0.5*
Inactivity***	Level (000s)	759	54	48	8,924	-9	-124
	Rate (%)	*22.2*	*1.6*	*1.4*	*21.8*	*0.0*	*-0.4*

Source: *ONS Labour Market Statistics, Scotland and UK, June 2016.*
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).*

Figure 2 details the regional employment rate, change on year (change since February to April 2015). Scotland was the only UK nation or English region to see a fall in employment over the last 12 months.

Figure 2: Regional employment rate, change on year to April 2015, and aged 16-64.



Source: *ONS Labour Market Statistics, Scotland, June 2016.*
Notes: *Change on year (change since February to April 2015).*

Note: In considering employment, activity and unemployment rates it is important to remember the bases and relationships of these figures. LFS data (estimated) is provided for: (1) all aged 16 and over and (2) for all aged 59/64. The first measure (all aged 16 and over) leads to higher numbers in employment, economically active and economically inactive – and reduces the economic activity rate and unemployment rate, while at the same time increasing the economically inactive rate.

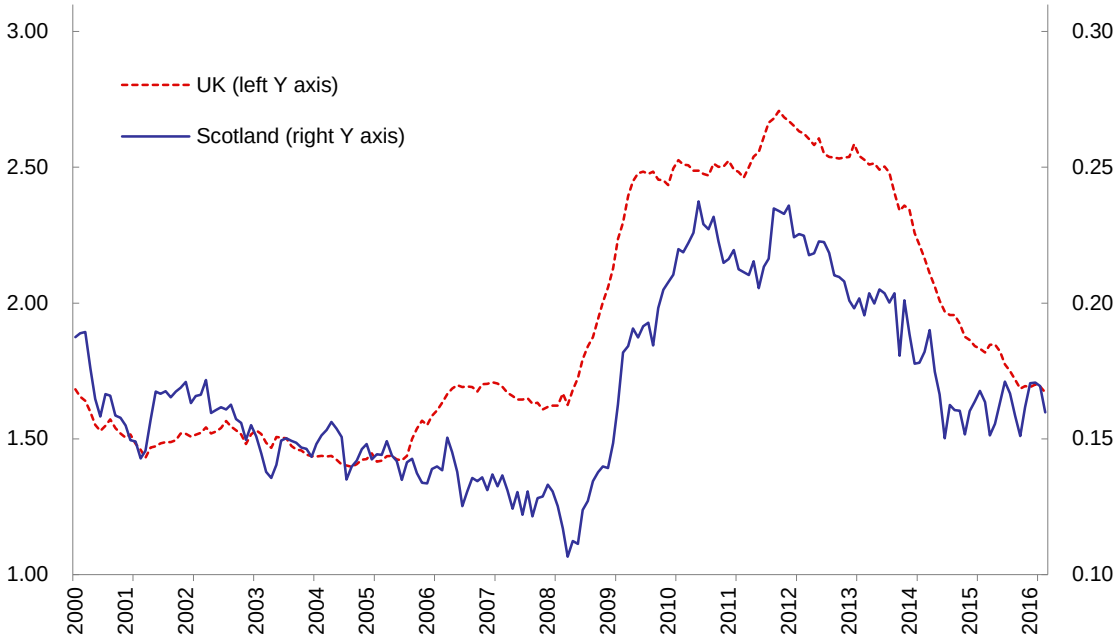
Conversely the second measure (all aged 16 to 59/64) leads to lower numbers who are economically active, in employment and economically inactive – and leads to a higher rates of those who are economically active, in employment and unemployed and to a lower rate of those who are economically inactive. See Scottish Parliament Information Centre briefing on Scottish labour market statistics: https://www.scottish.parliament.uk/parliamentarybusiness/70894.aspx

Figure 2 illustrates the trend in unemployment in Scotland and the UK since 2000. Between January 2000 and April 2016 unemployment in Scotland was at its lowest (106 thousand) in March – May 2008, immediately preceding the worldwide financial crash and the subsequent Great Recession. In contrast, unemployment was at its lowest (1,396 thousand) in the UK between August – October 2004. The highest number of unemployed in Scotland was in the period May – July 2010 (237 thousand) and in the UK in the period from September – November 2011 (2.708 thousand). Unlike the pattern of previous recessions, unemployment has fallen in Scotland (and the UK) more rapidly than expected to just below 160 thousand, reflecting in part the rapid rise in part time and self-employment (see Figure 2 and Table 5) and the development – temporary or permanent – of a more flexible labour market.

Figure 3 illustrates how the employment continues to be driven by an increase in part-time work and self-employment. Growth in full-time work remains subdued but it has started to gain some momentum since 2014. In this time-series, self-employment peaks in 2012, and 2014 at 301 thousand. Full-time work peaked in 2008 with 1,902 thousand, and part-time work peaked in 2014 with 702 thousand workers. A balanced recovery would require full-time work to gain significant momentum. The question is whether this shift away from full-time job creation is the 'new normal'. This shift towards self-employment and part time jobs also emphasises the importance to measuring and monitoring the 'quality of work' to identify underlying structural issues in the labour market.

The economically active workforce includes all individuals actively seeking employment and those currently in employment (i.e. self-employed, private sector and government employed, unpaid family workers and those in training programmes). Between February – April 2016, the number of economically active (16+) in Scotland decreased by 59 thousand, and the rate of the economic active fell by 1.4% to 62.4%. There were 2,740 thousand economically active in Scotland during the period. This comprised 2,580 thousand in employment (2,499 thousand aged 16–64) and 157 thousand ILO unemployed (all aged 16-64). The level for those of working age but economically inactive increased by 63 thousand over the latest quarter to 1,654 thousand and increased by 67 thousand over the year.

Figure 2: Unemployment (in millions) in Scotland and the UK January 2000 – April 2016



Source: *ONS Labour Market Statistics, Scotland and UK, June 2016.*

Figure 3: Index of full, part time and self-employment in Scotland, January 2005 – December 2015

Source: *ONS Labour Market Statistics, Scotland, June 2016.*
Notes: *Index – Jan 2008 – December 2008 = 100.*

The economic inactivity rate for men aged 16–64 increased by 0.3% over the year to 18.2%; it also increased by 2.5% for women over the year to 26.0% from February – April 2016. In the year from January 2015 to December 2015 the key components of change in inactivity were: an increase in the number of students, up by 6 thousand; less people looking after family, down by 14 thousand; fewer long-term sick, down by 3 thousand; fewer people who are retired, down by 3 thousand; and 'other' up by 7 thousand. Although the majority of the inactive (578 thousand) did not want a job, 183 thousand did want employment.

Data on employment by age, derived from the Annual Population Survey, is available up to January 2015 to December 2015. Table 2 illustrates the changing employment rates by age group form January 2007 onwards. In the year to December 2015 employment rates increased for all age groups, other than 65+ which decreased by 0.2% over the year, 35-49 which decreased by 1.1% over the year, and 25-34 which decreased by 0.2% over the year. The largest increase in the employment rate was in the age group 18-24 (+3.0%), 16-24 (+3.0%), followed by the age group 16-17 (+2.5%). The employment rate for all workers aged 16 and over increased by 0.1% over the year to December 2015 to 58.7%.

Table 2: Employment rates (%) by age, Scotland January 2007 – December 2015

(In %) Jan-Dec.	Dec-07	Dec-08	Dec-09	Dec-10	Dec-11	Dec-12	Dec-13	Dec-14	Dec-15
All 16+	60.5	60.2	58.9	58.0	57.4	57.3	57.4	58.6	58.7
16 - 64	73.9	73.6	72.0	71.0	70.5	70.5	70.8	72.6	73.1
16 - 17	38.9	40.6	34.2	32.0	30.9	29.8	26.8	24.9	27.5
18 - 24	69.0	66.2	63.9	61.6	60.0	58.9	59.0	60.1	63.1
16-24	62.6	60.7	57.6	55.5	54.2	53.2	52.6	53.2	56.2
25 - 34	81.4	81.1	79.6	78.1	79.0	78.9	78.8	81.0	80.8
35 - 49	83.5	83.2	81.9	81.6	80.9	81.5	81.8	83.5	82.4
50 - 64	64.4	65.2	64.5	64.1	63.6	63.9	64.9	67.4	68.6
65+	5.7	5.9	6.4	6.6	6.4	7.6	8.2	8.4	8.2

Source: *ONS Labour Market Statistics, Scotland, June 2016.*
Note: *Denominator = all persons in the relevant age group.*

Total workforce job figures are a measure of jobs rather than people. Total seasonally adjusted workforce jobs in Scotland for March 2016 (the latest available figures) stood at 2,711 thousand, (i.e. 2,422 thousand employee jobs, 275 thousand self-employed jobs, HM forces and supported trainees 14 thousand). Table 3 indicates the sectoral breakdown and provides some indication of both the impact of the recession and the differential recovery in jobs across sectors. As noted above, these trends need to be considered with some caution as workforce jobs measure jobs rather than people in employment i.e. the estimates of self-employment jobs and government supported trainee jobs differ from the estimates of people in self-employment and in government supported training and employment programmes.

Table 3: Total workforce jobs by industry, Scotland, March 2011 – March 2016

Industry (in thousands, SIC07)	Mar-11	Mar-12	Mar-13	Mar-14	Mar-15	Mar-16
All jobs	2,644	2,657	2,612	2,681	2,713	2,711
Agriculture, forestry & fishing	55	50	52	64	43	55
Mining & quarrying	31	32	35	37	42	36
Manufacturing	183	192	186	190	208	208
Electricity & gas	20	18	17	17	21	21
Water supply, sewerage, waste	17	16	16	16	17	20
Construction	181	170	171	183	175	188
Wholesale & retail trade	379	381	375	377	395	396
Transport & storage	110	128	112	114	120	113
Accommodation & food service	171	189	181	201	196	187
Information & communication	66	72	74	69	71	70
Financial & insurance activities	98	91	86	95	89	85
Real estate activities	31	33	35	37	36	31
Professional scientific & technical	195	183	189	183	183	201
Administrative & support service	205	197	218	216	209	202
Public admin & defense	156	155	153	151	152	156
Education	213	204	196	200	219	207
Human health & social work	386	384	378	384	397	390
Arts, entertainment & recreation	83	97	72	82	80	82
Other service activities	64	61	64	63	58	58
People employed by households	3	3	2	3	3	4

Source: *ONS Labour Market Statistics, Scotland, June 2016.*
Notes: ** Workforce jobs are a measure of jobs rather than people. There are extensive revisions from previous figures.*

The data in Table 3 suggest that the Education sector has seen a significant contraction of workforce jobs over the year. This sector has seen a decrease of 12 thousand (-3.5% change) workforce jobs over the year. The Real estate activities sector has experienced a fall in workforce jobs of 3 thousand (-9.3% change) over the quarter, and a 4 thousand fall (-12.4% change) over the year. In contrast, the Agriculture, forestry & fishing sector has seen an increase of 12 thousand workforce jobs over the year, a 27% increase.

Table 4 outlines the changing patterns of full time and part time employment. The latest data indicates that from January 2015 to December 2015, the number of employees increased by 25 thousand (1.1%), and the numbers of self-employed decreased by 6 thousand (1.9%). The number of part-time workers decreased by 4 thousand (-0.6%) over the year, and the number of temporary employees increased by 4 thousand (3.1%).

Table 4 also indicates that the numbers of full-time workers in Scotland increased by 20 thousand (1.1%) over the year from January 2015 to December 2015. Part-time, and self-employment numbers have grown significantly through the recession.

The number of those working part-time because they could not find a full time job is 102 thousand, a decrease of 10 thousand (-9.0%) over the year to December 2015. The number of people who cannot find a full-time job is still almost double that of pre-recession numbers. This reflects continuing issues in the wider economy and whether these numbers will see significant reductions in near future is questionable.

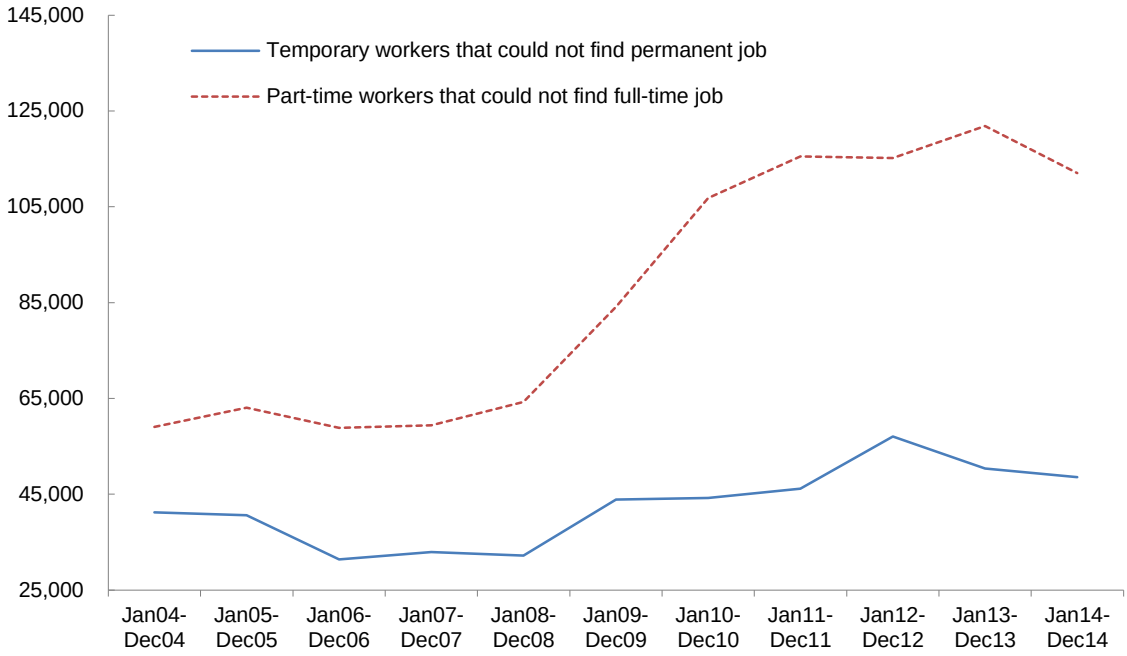
Table 4: Trends in Scottish employment statuses, January 2010 – December 2015

All in employment (in thousands)	Dec -10	Dec-11	Dec-12	Dec-13	Dec-14	Dec-15
Employees *	2,189	2,178	2,159	2,182	2,237	2,262
Self-employed *	271	284	302	288	301	296
Full-time workers **	1,799	1,790	1,776	1,798	1,850	1,870
Part-time workers **	677	683	694	684	703	699
Workers with 2nd job	98	96	101	96	103	94
Temporary employees	125	123	128	134	133	138
Total *	2,480	2,476	2,481	2,494	2,559	2,576

Source: *ONS Labour Market Statistics, Scotland, June 2016.*
Notes: ** Includes people who did not state whether they worked part time or full time*
*** The split between full time and part time employment is based on respondents' self-classification*

Figure 4 shows the number of part-time workers that could not find a full-time job and temporary workers that could not find a permanent job from January 2004 – December 2015. Given that the recent growth in employment has largely been fueled by part-time workers and self-employment (see Figure 3) it is positive to see that the number of part-time workers that could not find full-time jobs decreased by 10 thousand, a -9% change, over the year to December 2015. However, the remaining high number of involuntary part-time workers shows that there is still significant slack in the labour market. The same, even though to a lesser extent, holds true for temporary workers that could not find a permanent job.

Figure 4: Trends in full, part time and self-employment January 2004 – December 2015



Source: *ONS Labour Market Statistics, Scotland, June 2016*

To summarise, the latest figures show that in the 3-months to April 2016, Scottish unemployment fell by 11 thousand whilst the unemployment rate fell from 6.1% to 5.8%. This was the first fall in unemployment in Scotland since the end of 2015. Of concern however, is the sharp decrease in employment, which fell by 48 thousand over both the quarter and the year. In effect, the gains made in employment growth through 2014 & 2015 have been lost over the first few months of 2016. Indeed, Scotland was the only UK nation or English region to see a fall in employment over the last 12 months. Scotland now has a lower employment rate (73.2% vs. 74.2%), a higher unemployment rate (5.8% vs. 5.0%) and a lower economic activity rate (77.8% vs. 78.2%) than the UK as a whole. the latest labour market data confirm that the headwinds associated with the consequences of the ongoing challenges in the oil and gas sector and tough business conditions more generally – including weak export performance – are continuing to have an impact.

Economic perspectives

China's growth prospects and the 'two' Chinas

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Abstract

In the first three decades of the former Soviet Union its rate of urbanisation was approximately the same as it has been in China since 1978[1]. Yet despite plenty of platitudes from Western academics, politicians and members of the media, the Soviet Union eventually collapsed under the weight of its own contradictions. While it was easy to centrally plan urbanisation and the growth of its industrial sector from a low base, the Soviet Union never managed to take the requisite next step towards entrepreneurship and services-led growth. To do so would have necessitated abandoning much of what had worked for it in previous decades, allowing market forces and the incentives they create to respond to the tastes of consumers rather than that of the *nomenklatura*. This is the position that China faces today and has done since its double digit growth dipped in 2009, impacting on both its domestic economy and on global growth.

We raise this point because, while they are incredibly different economies, there are similarities between the choices the leadership of the Soviet Union faced and those that China faces today. While China already has far more 'capitalism' than the Soviets ever did – one need look no further than the likes of e-commerce giant Alibaba, which today has 423m annual active buyers and 410m monthly active mobile users – the unpredictable, chaotic nature of market-led growth is causing the Chinese leadership to increasingly veer left with regards to economic policy. In that respect, China had pre-2009 – and still has – a choice as to whether or not to take the "old road" (centralised, industrial-led growth) or the "new road" (decentralised, market-led growth). One cannot hope to understand China today unless one appreciates from whence it has come and the political forces at work in China today.

Falling back to the old ways?

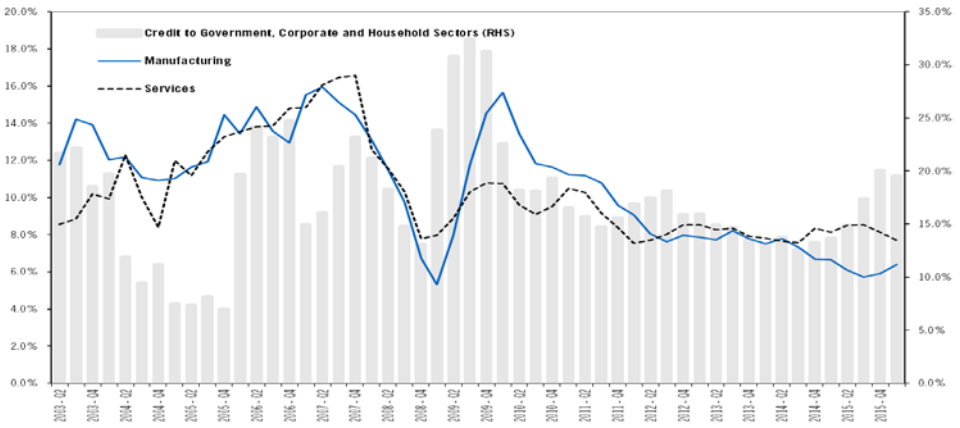
As the Soviet Union approached its end, its budget deficits ballooned and the money supply grew rapidly, leading to price inflation of above 50% a month. However, this experience was not unique: throughout history regimes have resorted to the printing press to delay the inevitable and hold on to power for just that little bit longer. And China is no different. For the past 30 years it has relied on a combination of liberalisation along with a centrally planned industrial sector, combined w with a relatively lax monetary regime.

In the context of rapid urbanisation and industrial development, central planning and ample credit were able to be tolerated. Indeed, China's entire growth model was dependent upon the rapid expansion of credit. But while that works well for an economy playing 'catch-up', eventually the easy investments dry up and the returns to that ever-expanding credit fail to materialise. Thus the problem today is that the low hanging fruits of urbanisation and industrial development have been picked, with the old model of catch-up and easy money no longer providing the same impetus to growth as it once did. Figure 1 shows the year-on-year growth in Chinese credit to the government, corporates and household sector alongside GDP

[1] *Arthur Kroeber (2016), China's Economy: What Everyone Needs to Know, p. 71*

growth for both the secondary (e.g., industrial and manufacturing) and tertiary (e.g., services) sectors from 2003 to today.

Figure 1: China credit growth by sector, % YoY, 2q 2002 – 1q 2016



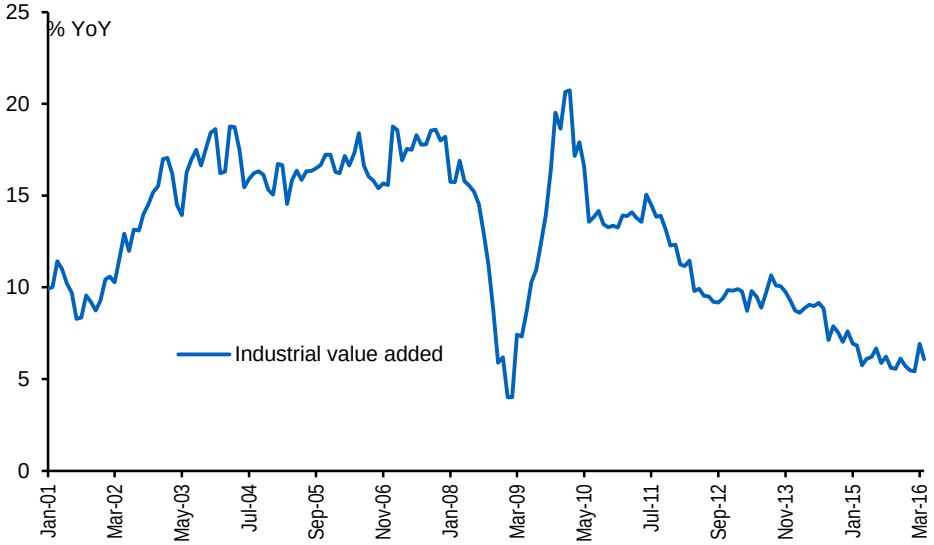
Source: NBS

While the 2009 stimulus, lauded by Keynesian and Monetarist pundits in the West as a stroke of genius, was a standout given that it restored China to pre-crisis levels of growth, it ultimately contained the seeds of its own destruction. Monetary stimuli can only ever work for a limited period of time. They work by fooling actors in an economy, both at home and abroad, into believing that there is far more available capital than actually exists. Activity booms and people invest believing that the effect is permanent when in reality there is not enough capital to go round. The party must eventually end and when it does we wind up with an excess in whatever sectors were stimulated during that particular boom - in China's case industrial productive capacity (this was as true pre-2009 as it is post-2009 – it just got far worse).

In the past such monetary mistakes were not an issue because China could just grow into any investment it made and turn a profit. Yes, productivity was not as high as it *could* have been, but it was good enough given China's place on the ladder of economic development - and given from where it had come. However, by 2008 that growth model was already being tested to its limit and China's leadership, having nothing else in their play-book, could not resist falling back on the old ways. Figure 2 and Figure 3 show the after-effects of the 2009 stimulus, not just in China but in those countries whose manufacturing products are heavily exposed to Chinese demand: Australia, Germany and Brazil.

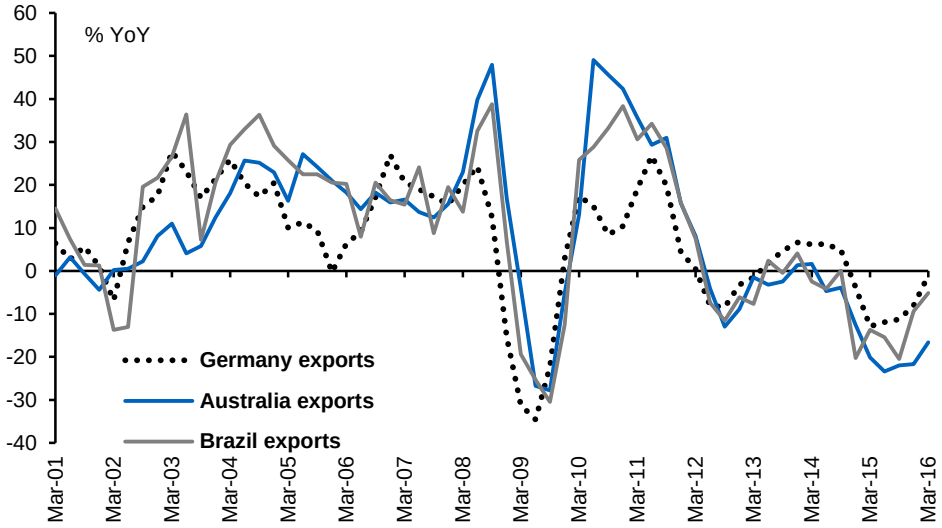
What Austrian economists call a '*malinvestment boom*' started well before 2009; indeed, the recession that China and her 'vassal' states faced at the time was not due to some random event but the revelation of prior mistakes. But 2009 is important because the actions of the Chinese government served to accentuate those mistakes – misallocations of capital, both human and physical – and worse, caused investment to flood into projects that were even less viable than those made prior to 2008.

Figure 2: China industrial value added, %YoY, Jan 2001 – Apr 2016



Source: Haver Analytics, Asianomics Group

Figure 3: Australia, Brazil, Germany merchandise exports to China, %YoY, 1q 2001 – 1q 2016



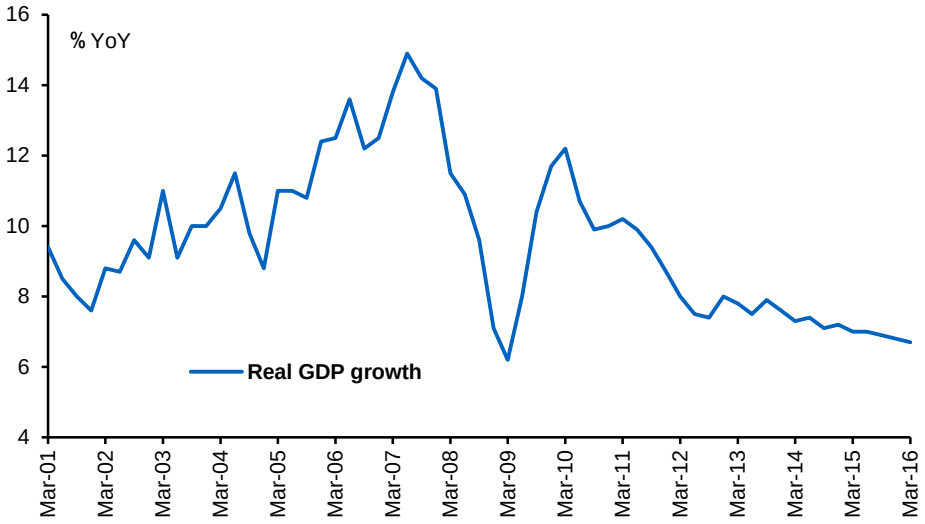
Source: Haver Analytics, Asianomics Group

Now China was not entirely at fault – the case on the Mainland is completely different to, say, the U.S. sub-prime catastrophe. Indeed, the U.S. can share some blame for the malaise in China too: the zero interest rate policy in the world's largest market for capital artificially reduced the cost of capital on global wholesale markets. It thus contributed in no small part in both growing as well as extending the duration of the boom beyond what it otherwise would have been. But the point is that the boom was always fleeting and the stimulus China enacted in 2009 was never going to provide the nation with a permanently higher growth plateau.

To the contrary, rather than restructure its economy in the face of a recession – remember, a recession is nothing more than a reflection of prior errors – the Communist Party of China (CPC) decided to fight reality so that it could continue to meet its growth targets. Much like the modern central banker faced with sub-2 to 3% consumer price inflation (or whatever arbitrary level any particular Central Bank targets), failure to achieve its growth target was deemed too great a risk. And so down the old road it marched.

The case study of 2009 is important today in that the CPC, with different leaders at the helm today, again faces a similar choice and similar political forces. Figure 4 shows that the Chinese economy is no longer growing anywhere near the rate it once was and a continuation of this trend would result in the government missing its long-term targets.

Figure 4: China real GDP, %YoY, 1q 2001 – 1q 2016



Source: Haver Analytics and Asianomics Group

What about services?

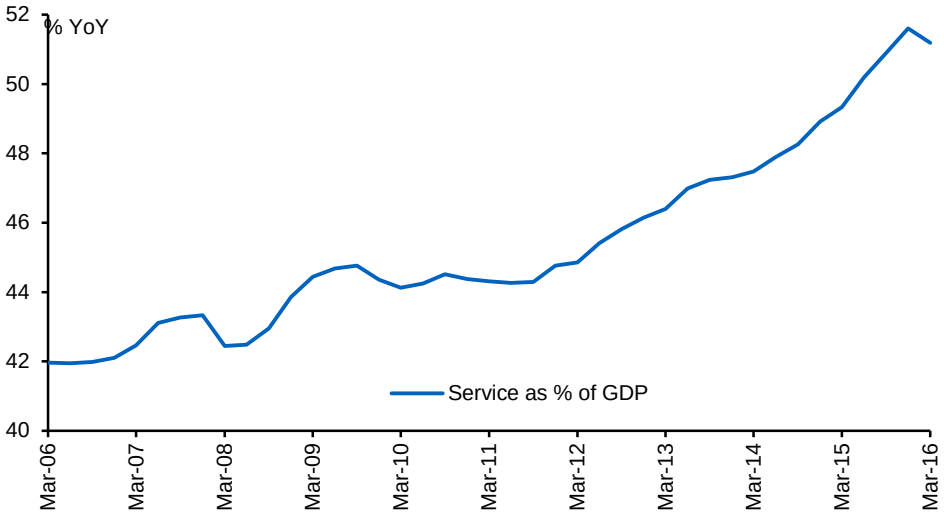
There is no denying that China has a flourishing services sector with many world-leading performers. But what really makes an economy tick as it moves towards having the tertiary sector become the largest component of growth, is competition at the margin. Free entry and exit, not dependent upon whom a business might know in the CPC or whether or not it can afford enough lawyers to navigate an industry's regulations, but rather the ability to test a new idea and have it succeed or fail on its merits.

China has improved immensely in that area over the past few decades. According to official data (so take this with a pinch of salt) there are now over 10,000 businesses created every day in China – seven every minute, with half of those listed as "internet companies"[2]. The State Administration for Industry and Commerce says that today there are some 73 million private enterprises and family businesses in China, and these without question represent the future source of growth[3]. Not all of them will succeed but that is the point: trial and error and ultimately Schumpeter's "creative destruction" are how economies transition to

[2] *China's startup boom: 7 new firms every minute, China.org.cn, 9 June 2015*
[3] *China's Business Feels the String of the Party, Bloomberg, 05 May 2016*

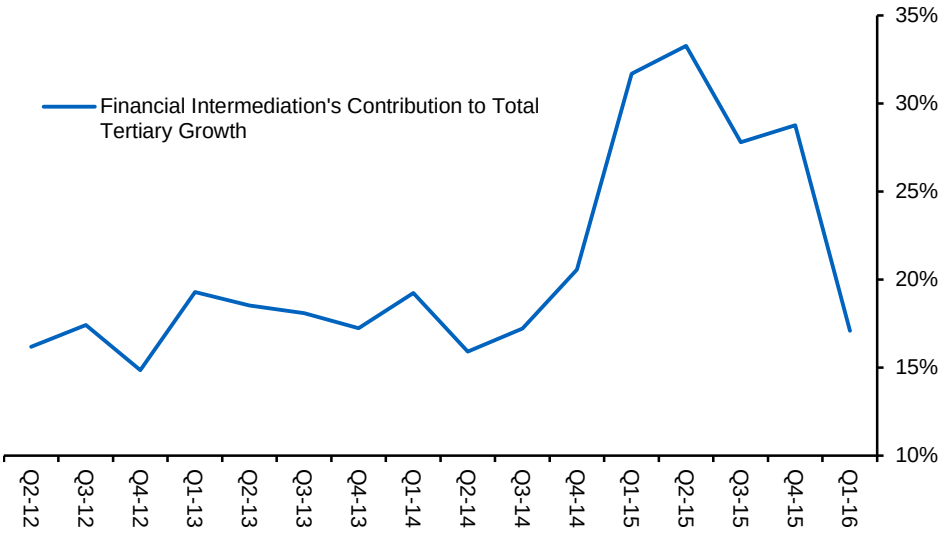
high wealth societies. Older, inefficient industries are left by the wayside – which can create immense social pressure within an economy that is used to it (e.g., look at all the pushback against Uber), let alone one that has only recently been exposed to such forces – as new sectors which more ably meet consumer demand begin to thrive.

Figure 5: China services as a % of total GDP, 1q 2006 – 1q 2016



Source: Haver Analytics and Asianomics Group

Figure 6: Financial intermediation as % of tertiary sector's GDP contribution, 2q 2012 – 1q 2016



Source: Haver Analytics and Asianomics Group

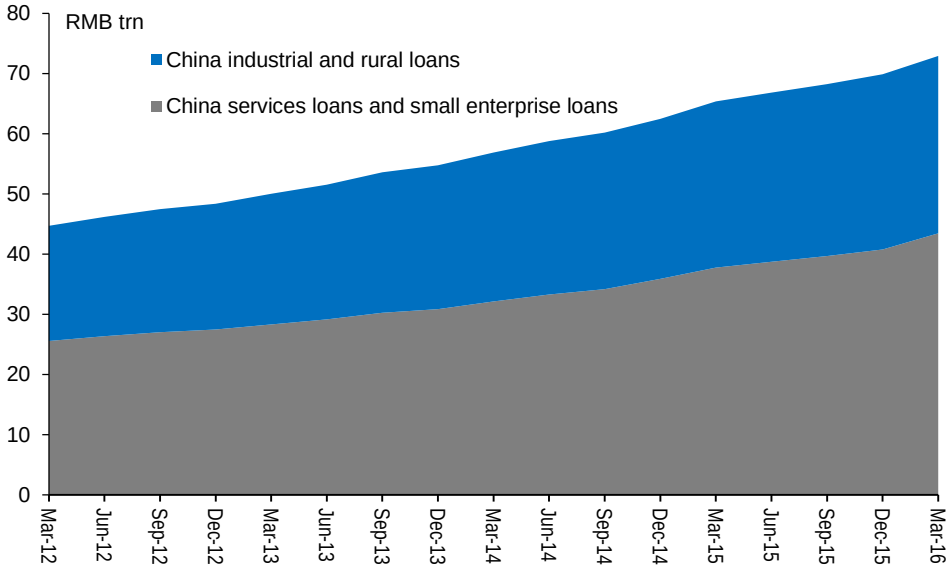
But the fundamental question for China is: can its new sectors grow fast enough to offset the massive malinvestment and necessary contraction in its primary and secondary sectors? We believe that the

answer to this question is a resounding NO, if the rates of growth that the government is forecasting is what it truly expects to achieve i.e., 6.5% real GDP growth over the next five years. The growth in the services sector will offset the decline in the traditional, heavy industry sectors but if industry is in contraction (which it is at the moment) then services will, at best, bring total GDP growth up to the 3-4% range in the coming years. Indeed, China's services sector is now responsible for much more growth than has ever been the case in China's past, and today it makes up more than half of total GDP (Figure 5).

However some risks begin to appear when you start to break down the aggregate data. While services are growing, financial intermediation accounts for nearly 20% of China's total tertiary sector and has been responsible for more than 20% of its total growth since 2012, reaching heights of just under 35% in 2015 (see Figure 6).

That is an issue, for much of that growth has come from a rapid rise in debt and, more problematically, much of that was funnelled into the very sectors that are now waning (Figure 7).

Figure 7: China's credit channels, 2q 2012 – 1q 2016



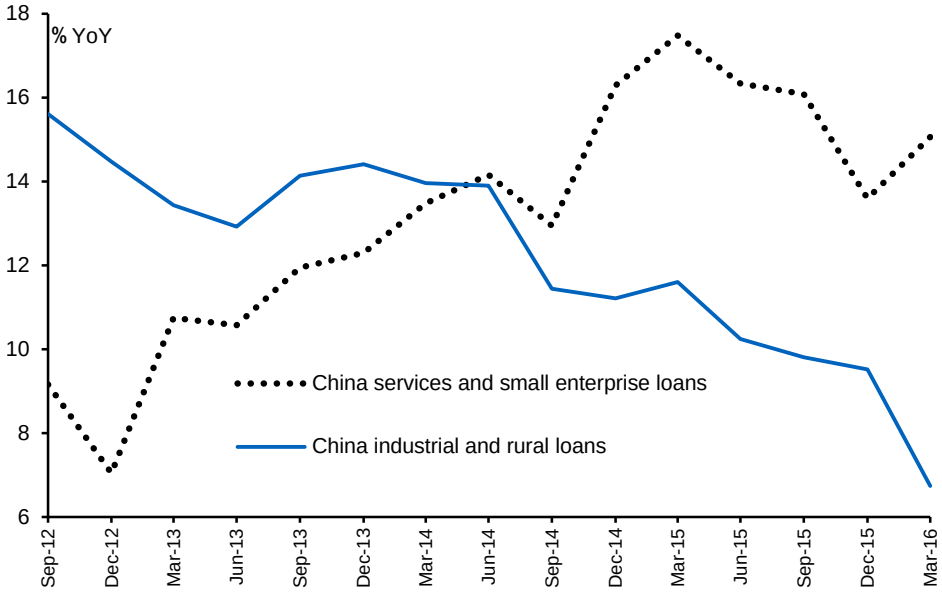
Source: Haver Analytics and Asianomics Group

While that officially changed in 2014 (Figure 8), when growth in services and small enterprise loans outstripped that of the "old" sectors, it does not change the fact that trillions of renminbi worth of loans were issued to hopelessly inefficient businesses and the ability of such borrowers to repay the principal is questionable at best.

Nor does it change the fact that, in volume terms, large industrial enterprises (mostly State-Owned Enterprises or SOEs) are still absorbing much of the new credit being issued, despite being part of the "old" economy. Beijing is thus left in a bit of a tangle – it wants to liberalise further (including the renminbi) and allow its new growth sectors to thrive but in doing so it would expose the old growth sectors to, well, a far more rapid demise. That would leave its banks extremely exposed to a rush of bad debts and ultimately a crisis. So its policy is to take baby steps, weeding out corruption where it can and reforming inefficient

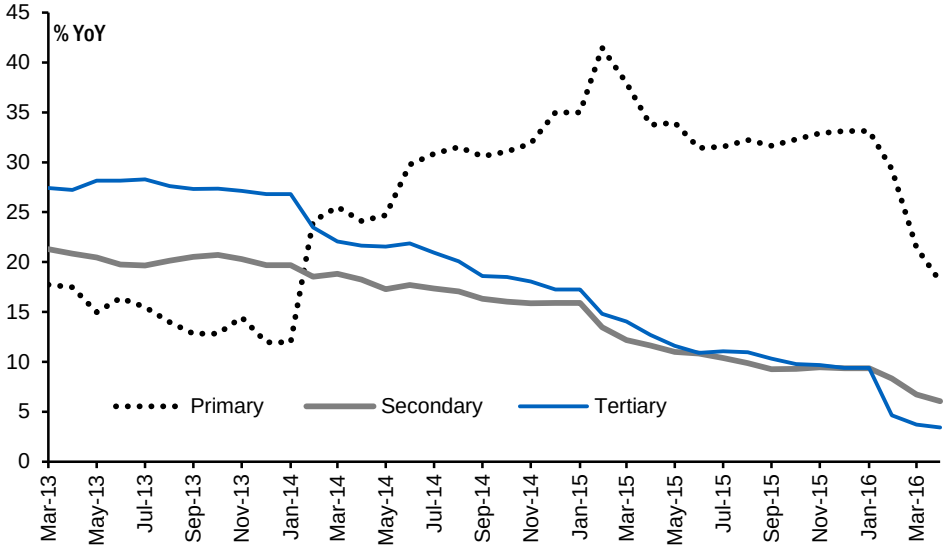
sectors at the margin, while providing enough credit to keep the biggest problems at bay. That is quite simply not an environment in which 6%+ real growth can be expected to take place.

Figure 8: China loan growth by sector, 3q 2012 – 1q 2016



Source: Haver Analytics and Asianomics Group

Figure 9: China investment by sector, %YoY, 1q 2013 – 1q 2016



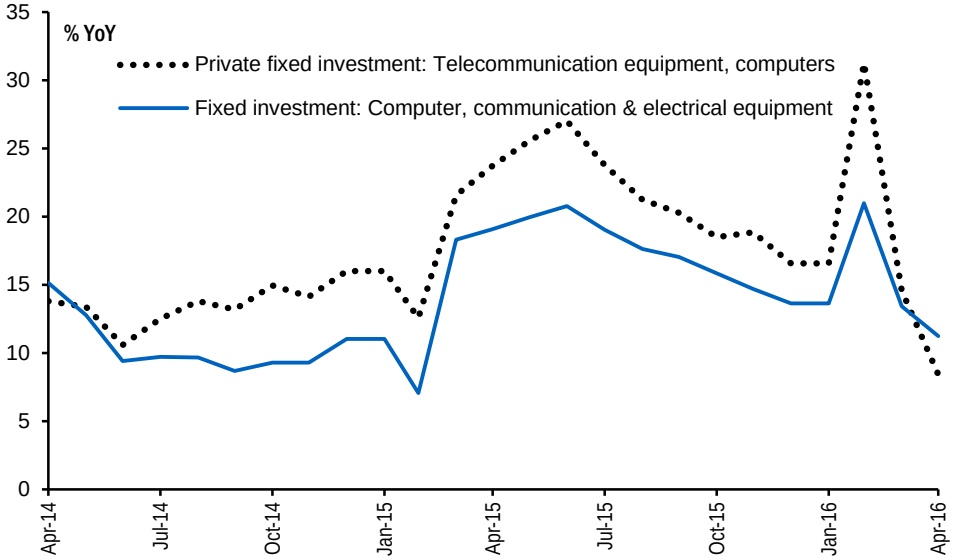
Source: Haver Analytics and Asianomics Group

But even without the problems in the financial sector there is still one other rather significant issue with the whole rebalancing story and that is that investment growth in the services sector is *slowing* along with the "old" primary and secondary sectors. Figure 9 shows fixed asset investment growth in the Primary,

Secondary and Tertiary sectors side by side and of the three it is actually services which is showing the weakest growth.

When we disaggregate the services sector we find other potential concerns, too. Investment in electronic and computer equipment – an essential ingredient for the supposed 5,000 new "internet companies" registered each day – is beginning to slow both in the country as a whole but also in urban areas where, if the rebalancing story was true, you might expect investment growth to be accelerating (Figure 10).

Figure 10: China private investment in computer equipment, %YoY, April 2014 – April 2016



Source: Haver Analytics and Asianomics Group

'The hills are high and the emperor is far away' [4]

Where does all of that leave the services sector and growth in China? Other than the data and the sheer volume of "old" activity that the services sector would need to replace, we have one other major issue with the 'rebalancing' narrative: that the government is pushing back on what it does not fully understand, potentially stifling future growth. On April 8, 2016, the party's periodical, **Red Flag Manuscript**, wrote the following:

"Some businesspeople in the nonstate economy, especially some entrepreneurs, are having errors in their thinking... [They] lack faith in Marxism, socialism, and communism [and think] China under capitalism would be better".

That passage came after a number of senior leaders had expressed similar concerns and were joined by government newspapers such as the **China Daily**, which ran stories about its "concerns" over the growing role of the private sector in China's economy. Some of it is valid: there is a very good reason why

[4] *This traditional Chinese saying alludes to local officials' tendency to disregard the wishes of central authorities in distant Beijing*

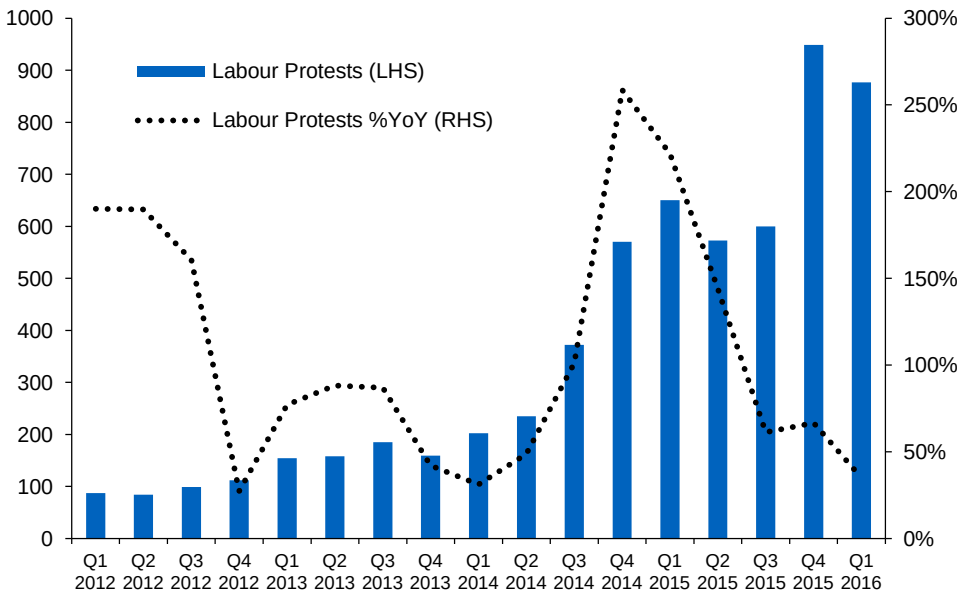
President Xi has, for the past few years, embarked on a general crackdown on corruption, in particular corrupt officials. When China allowed bits and pieces of capitalism through the gates it also invited its many bureaucrats across many levels of government to turn it into crony-capitalism.

In just one example of officials dragging their feet, in April 2016 reports circulated that the State Administration for Industry and Commerce – the bureaucracy that oversees businesses, including those in the services sector – had "failed to issue any certificates since August [2015] because it had run out of paper"[5]. Why, exactly, we do not know but the cynic might surmise that members of that bureaucracy were holding out for a bigger cut of the pie. Examples such as these are littered across China and the CPC has had a difficult time controlling its public "servants".

But corruption aside, the fact that the leadership is openly expressing doubts about the pace of liberalisation and the eagerness with which the Chinese people are embracing it, is a cause for concern. It would not take much for Beijing to deter investment in the more "capitalist" sectors such as information technology by making examples out of a few of the more enterprising businesses in its economy. While we do not expect the CPC to go down that road given that the general liberalisation regime has served to enrich its members as much as anyone else, it will continue to make examples of those individuals which bring it unwanted attention.

Two Chinas

Figure 11: The incidence of strikes in China, 1q 2012 – 1q 2016



Source: China Labour Bulletin

It is true that the services transition is alive in China, in particular in the large, wealthy cities along the Yangtze River Delta, the Pearl River Delta and Beijing itself. In Shanghai alone, one in six residents is

[5] *Pen-pushers and paper tigers: China's bureaucrats are still good at getting their way, South China Morning Post, 17 April 2015*

supposedly an owner of a start-up, having embraced the new economy with open arms[6]. But China's problems have never been located in these areas. No, the real problem confronting China today lies in its regional, industrialised cities. Jobs in those areas are not based on entrepreneurs but on SOEs and are concentrated in "old" businesses such as steel milling and manufacturing. While the official unemployment data show that nothing is wrong, Figure 11 tells a different story. The number of strikes from disgruntled or unemployed workers continues to rise, with the vast majority occurring in regions with large concentrations of the “old” growth.

There is no denying that China has, at the margin, made efforts to reform its SOE sector. For example, on 18 May 2016, the CPC released a statement following a State Council executive meeting claiming that[7]:

“The core business of centrally-owned SOEs is not good enough. Low efficiency and excessive human resources, especially in management teams, still plague those companies.”

Apparently the CPC has asked SOEs to “cut redundant management by around 20 percent within three years” and to begin using a more “market-based approach” for hiring and firing decisions. The fact that SOEs are still *not* using a “market-based approach” for such decisions says it all – and labour management is surely not the exception here. These businesses are a drag on growth of which the CPC is well aware. But for all of its talk, how much it can actually accomplish when there are a myriad of vested interests blocking the way of reform? Thus there still remains two Chinas, with the old China absorbing the majority of new credit, using it to roll over bad debts, pay its workforce and meet operational costs. The principal will likely never be repaid in full as China has reached full capacity and neither the new China nor the rest of the world has a need for the entirety of old China’s produce.

So, what lies ahead?

China is not going to re-assume the baton of global growth anytime soon. It will continue to grow but it has a long, long way to go if it is to catch up to the living standards that even less fortunate Western economies enjoy. Per capita GDP is only just above 20% of the U.S. and real GDP per hour worked is about 11%, no doubt dragged down by the hugely inefficient SOE sector. Double-digit GDP growth as a result of catch-up in its industrial sector has worked well over the past 30 years but only services sector growth and the boost in efficiency gains from a move away from large-scale, centrally-planned activity, will see it continue to move up the global wealth ladder. The CPC is talking the talk – albeit with some more disturbing exceptions – but to all intents and purposes it has yet to fully walk the walk.

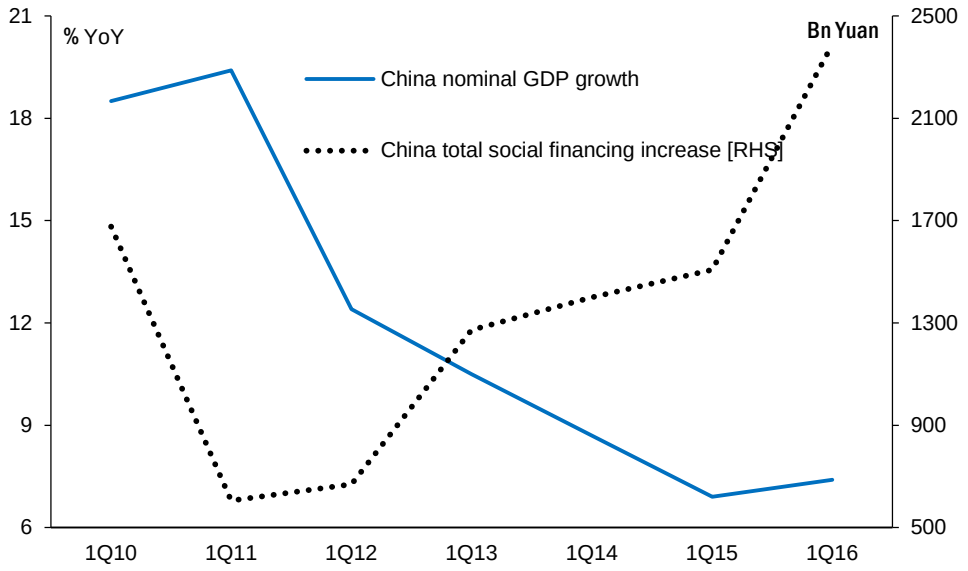
In the short term, the government is faced with the issue of labour unrest as a huge number of workers continues to migrate away from the old parts of the economy. Those 20% of redundant SOE management (the real figure is far, far larger) will not transition seamlessly into the “new” economy. Their primary skillset of making friends, obeying rules and siphoning off just enough from the kitty to go unnoticed is not needed in a small enterprise, service based economy.

Indeed, the misallocations today are so severe and have gone on for so long that many will be unable to transition at all and so the government will have to keep otherwise insolvent businesses afloat to prevent large-scale labour unrest. But the trade-off is a continuing low productivity drag on a services sector that

[6] *China's startup boom: 7 new firms every minute, China.org.cn, 9 June 2015*
[7] *China vows to make major state-owned enterprises more competitive, Xinhua, 18 May 2016*

not only has to grow but grow sufficiently strongly to offset the deadening effect of the multitude of inefficient, loss-making businesses in China's old economy.

Figure 12: Total social financing and RGDP, annual RMB change, q1 2010 – 2016



Source: Haver Analytics and Asianomics Group

To achieve this end the government needs to keep the credit spigots on the loose side, even if it serves no other purpose than to keep bad debts rolling over. It is therefore very unlikely that any expansion of credit will have a meaningful, stimulatory impact on the Chinese economy given the lack of investment opportunities for the vehicles that are still doing the bulk of the borrowing (SOEs). As Figure 12 shows, credit's influence on real GDP growth has been in decline for some time and it will not improve until the inefficient SOE sector shrinks significantly.

The fact that credit is not translating into GDP growth anymore is not due to a want of it or "tight money" but due to poor allocative efficiency. That is, China is creating plenty of debt but it is not going to entrepreneurs with good ideas but to managers of SOEs who use it to stay in business and meet their payroll. President Xi's crackdown on corruption is a move in the right direction, along with the CPC's desire to improve the efficiency of SOEs. But the only way to truly improve the efficiency of SOEs is for them to drop the "S" and not only privatise but - and this is even more important - open up the sectors in which they operate to private sector competition. Until that happens the "old" sectors, no matter how efficient the government tries to make them become, will still serve as a net drag on Chinese growth.

Where stands china in the business cycle?

At Asianomics we assess the business cycle position of countries in Asia according to a series of what we Call "Austrian Stress Indicators". These indicators are split into two – five domestic economy indicators and two external signals. The scores – which are assessed as positive, negative or neutral – on the domestic indicators in particular form the basis for placing each country in our business cycle assessment. From a macro perspective China scores a -4 (the possible range is +5 to -5) on our domestic business cycle

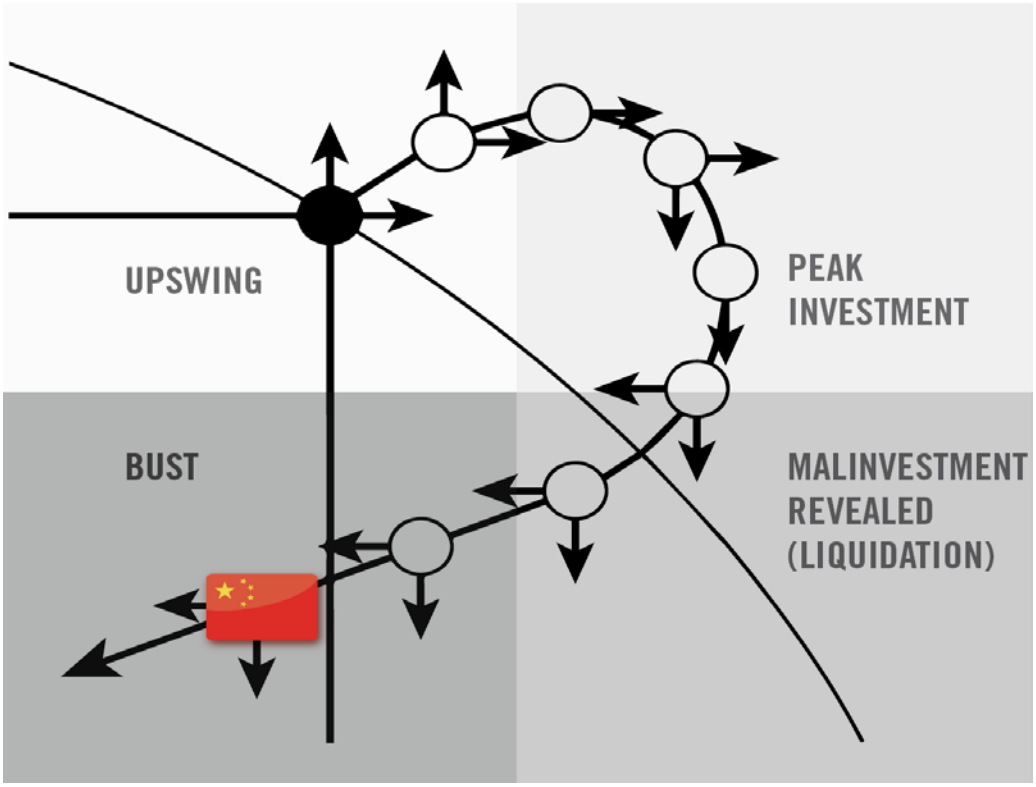
indicators. It is positioned firmly in the “bust” phase of the cycle and that is where we expect it to remain for the next few years (Figure 13 and Figure 14).

Figure 13: Austrian stress assessment for Asian economies (May 2016)

	Bank Credit Relative	Investment Relative	Real Lending Rate	Return On Equity	Broad Money	Money Reserves Multiple	Adjusted Resource Gap	Domestic Score	External Score	Total Score
Australia	-	-	-	-	N	N	+	-4	1	-3
China	**-**	**-**	**-**	**-**	**N**	**-**	**+**	**-4**	**0**	**-4**
Hong Kong	-	N	N	+	N	n.a.	-	0	-1	-1
India	N	N	+	N	N	+	N	1	1	2
Indonesia	+	N	N	N	+	-	N	2	-1	1
Japan	N	N	N	+	N	-	+	1	0	1
Korea	N	N	N	-	+	-	+	0	0	0
Malaysia	N	-	N	N	-	-	+	-2	0	-2
Philippines	N	+	N	N	N	+	+	1	2	3
Singapore	-	N	N	N	N	+	+	-1	2	1
Taiwan	N	N	N	+	+	+	+	2	2	4
Thailand	N	N	-	+	-	-	+	-1	0	-1
EU	-	-	+	N	+	N	+	0	1	1
US	+	+	N	N	N	N	-	2	-1	1

Source: Asianomics Group

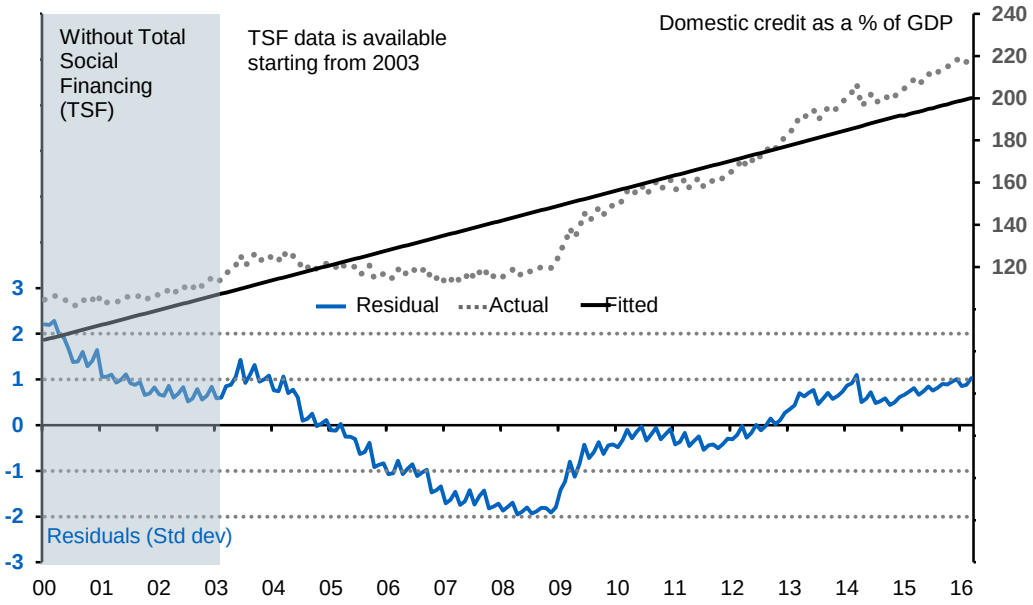
Figure 14: China in the business cycle, may 2016



Source: Asianomics Group

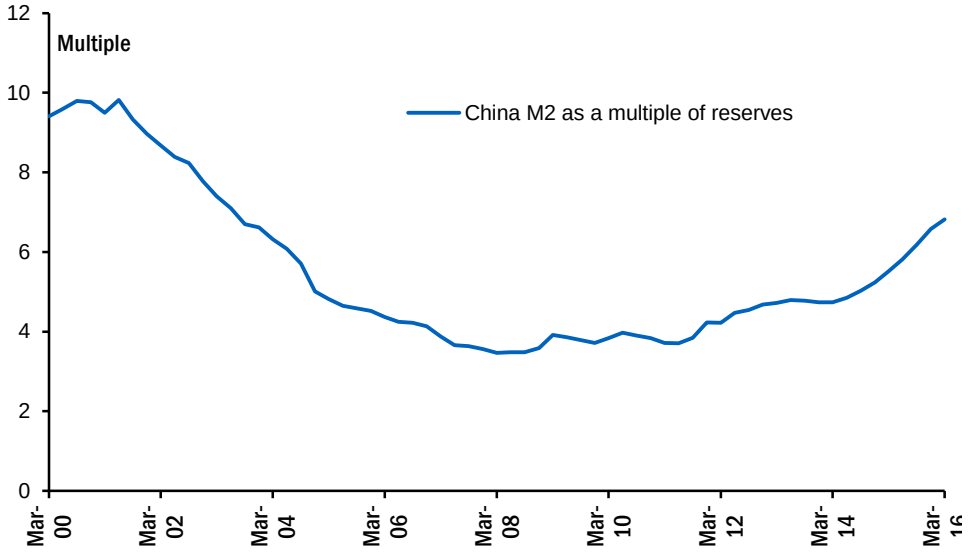
One of the key reasons why China will remain in the 'bust' phase, other than the malinvestment created during the "boom" years, is that debt to GDP is on the high side and is still running above the long-term trend (Figure 15) yet this is not translating into new growth given its non-market allocation.

Figure 15: China bank credit relative to GDP growth, 1Q 2000 – 1Q 2016



Source: Asianomics Group

Figure 16: Total M2 to reserves (1q 2000 – 1q 2016)



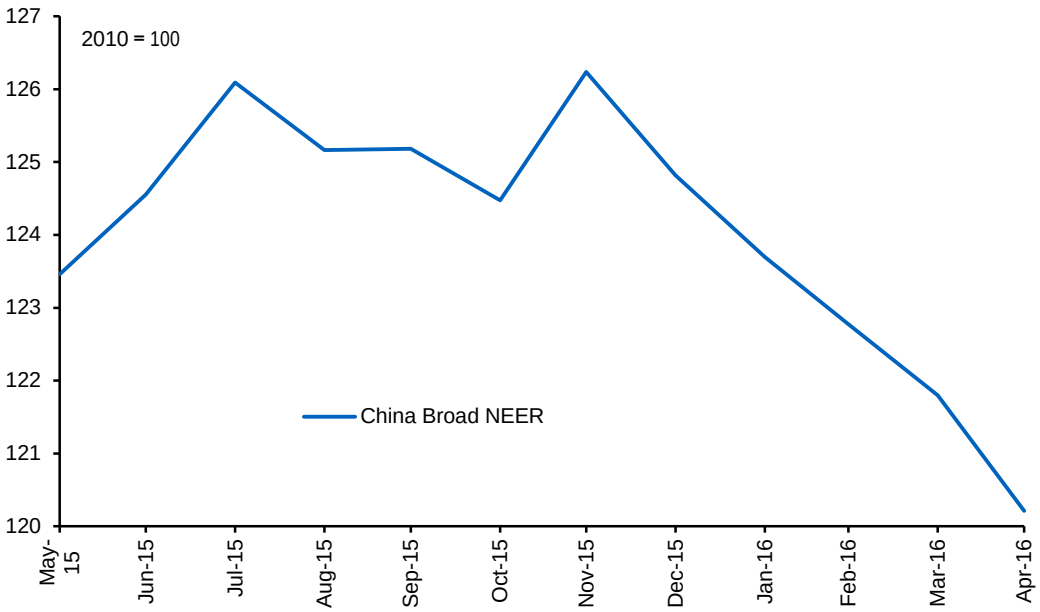
Source: Haver Analytics and Asianomics Group

The credit allocation problem is one of the reasons for the conundrum that China faces in its desire to have a fully convertible renminbi. Moves to liberalise the currency will result in liquidity being drained from the

financial services sector as the Chinese move their capital offshore, reducing the credit available to SOEs and slowing services sector growth (of which financial services is a major component). As Figure 16 makes clear, its M2 to reserves ratio, our preferred proxy for the risks of capital flight and a currency crisis, continues to rise every month.

China is generally considered to have large amounts of international reserves and, in absolute terms, this is true. However, relative to the size of China's money supply, its reserve assets are quite small. If 10% of the money supply were to exit in a capital flight frenzy (not at all unusual in emerging markets), China's reserves would drop dramatically – by about two-thirds – in short order. That is why capital controls will not be relaxed any time soon.

Figure 17: China broad nominal effective exchange rate (May 15 – April 16)



Source: Haver Analytics and Asianomics Group

Currency crises in emerging markets are only caused when domestic actors lose faith in the domestic economy and the way it is being managed. Moreover, policy decisions that are poorly understood, a very real risk in China IF it floats the renminbi, can add to the tensions. But even without floating the currency, China is limited by how much it can devalue without imposing new capital controls on a regular basis as the Chinese people figure out new ways to get around them. While a one-off devaluation the renminbi of up to 10% followed by a commitment to maintain a Singapore-style managed exchange rate might have taken the heat out of things earlier this year, the People's Bank of China appears content with its current, somewhat uncertain policy. While that has worked out so far in 2016 thanks to a weaker US dollar – and Figure 17 shows that the renminbi has softened against a trade-weighted basket of currencies – if that trend reverses then it will be forced to act to strengthen capital controls.

Conclusions

While recent data have shown a slight revival in the "old" China – industrial profits, for instance, rose 7.4% YoY in 1Q2016 – this will only be fleeting. The malinvestment in the economy, which existed prior to 2009, was only accentuated in the worst possible way following a mammoth monetary and fiscal stimulus. Today there are two Chinas with two very different forces at work: one a drag on growth as the other seeks to boost it. While the "old" China will continue to absorb most of the new credit and linger in the economy like a bad smell, existing only so as to prevent civil disruption that would derail the entire economy, the "new" economy and its entrepreneurs will carry the baton of progress in the coming years. We expect 3–4% real growth, at most, for the next several years as the "old" slowly falls into insignificance, with its debts eventually washed away by growth in the "new" China.

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Fast-growth companies in Scotland

Paul Hopkins and Kenny Richmond, Scottish Enterprise[1]

- Only a small proportion of companies achieve fast-growth, but fast-growth companies account for a disproportionate level of turnover and employment growth in the economy. There were 132 fast-growth companies in Scotland in 2014 (based on the definition used for this research) with a combined turnover that increased from £570m in 2011 to £2bn in 2014 - a growth rate of 266%. Scotland produces fast-growth companies from its business base at the same rate as most other UK regions.
- The largest fast-growth companies in Scotland (and the UK) tend to be involved in low productivity activities, with jobs that are likely to be low skilled and low paid. The majority of employment in fast-growth companies (and employment growth) is in companies with productivity below the total Scottish industry average.
- This suggests that, overall, fast-growth companies are not making a positive contribution to Scotland's productivity levels or to inclusive growth.
- Scotland needs more fast-growth companies in higher productivity sectors. Scottish Enterprise's Company Scaling approach will provide evidence of 'what works' in helping companies achieve fast growth.
- Low productivity, fast-growth companies tend to be in sectors that are not a policy focus for Scotland. New approaches and more evidence will be required to understand factors affecting productivity performance, and the productivity potential of companies in these sectors, and how their potential can be realised.

1. Introduction

Research shows that fast-growth companies contribute disproportionately to jobs growth, and, compared to non-fast growth companies, tend to be more innovative, and are more likely to be exporters[2]. Therefore, developing a better understanding of fast-growth companies in Scotland will contribute to our evidence-base on their contribution to productivity performance.

This paper presents new evidence on fast-growth companies in Scotland. For this analysis, we have considered companies in the turnover sizeband of between £5m and £25m, and that have a minimum of 10 employees. Fast-growth companies are defined as those within this sizeband that achieved turnover growth of at least 60% between 2011 and 2014.

[1] *Scottish Enterprise is Scotland's main economic development agency and a non-departmental public body of the Scottish Government. It work with partners in the public and private sectors to identify and exploit the best opportunities to deliver a significant, lasting impact on the Scottish economy.*

[2] *See for example High Growth Firms and Productivity - Evidence from the United Kingdom - and Moving on from the 'Vital 6%'*

This sizeband was selected as it includes companies that have achieved a level of success (£5m+ turnover). Growth of at least 60% over the three year period was selected as this broadly reflects other definitions of fast (or high) growth[3].

The aim of the paper is to identify the characteristics of fast-growth companies in Scotland; assess their contribution to productivity; and highlight the potential implications of the nature of fast-growth companies for economic growth in Scotland.

2. Fast-growth companies across the UK

The FAME business database was used for the research. This database has the advantage of allowing the identification of individual companies and the nature of their activities. This allows a broad indication of the types of jobs that fast-growth companies in Scotland provide[4].

In 2014, there were 2,022 fast-growth companies in the UK. They generated 1.2% of the UK's turnover growth over the period 2011 to 2014, despite only accounting for 0.06% of the entire UK business population. They accounted for 4.7% of all companies with 10+ employees and turnover of between £5-£25m.

There were 132 fast-growth companies in Scotland. Though only 3% of all fast-growth companies in the UK, it is the fourth largest regional total. Scotland's fast-growth companies accounted for 0.07% of all Scottish companies, and 5% of companies with turnover of £5-£25m/10+ employees.

The combined turnover of the 132 companies grew from £570m in 2011 to £2bn in 2014 - a growth rate of +266% - with employment potentially growing by over 13,000[5]. FAME data does not allow an assessment of the extent to which this growth is 'new' activity or employment or displaced from other companies (e.g. through acquiring other companies or taking market share).

This suggests that 5% of companies were responsible for 33% of all turnover growth amongst companies with turnover of £5-£25m/10+ employees. This highlights the disproportionate contribution that fast-growth companies make to the economy**.**

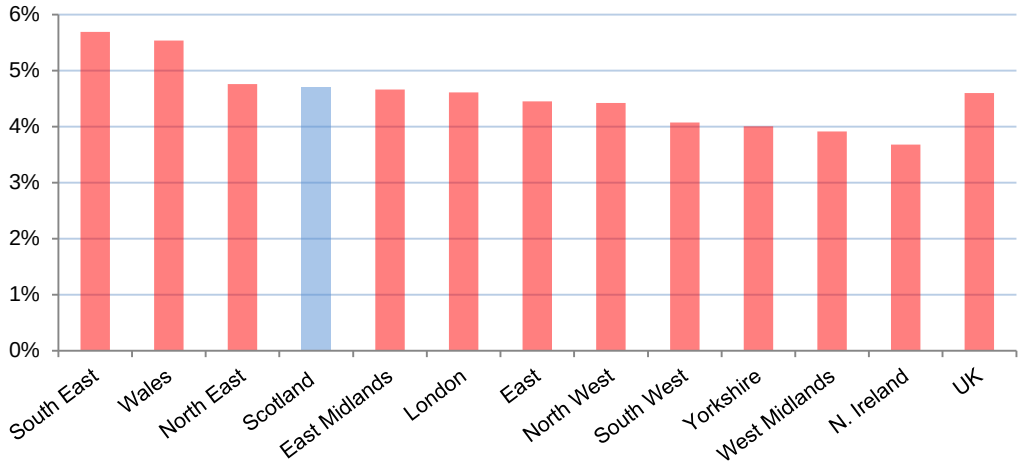
Almost half (48%) of the UK's fast-growing companies are located in London and the South East of England. Figure 1 shows fast-growth companies as a percentage of all companies with turnover of between £5-£25m/10+ employees for UK regions. This indicates that only a small proportion in the size band achieve fast growth. Scotland compares favourably to most other regions with nearly 1 in every 20

[3] *See for example Tomorrow's champions: finding the small business engines for economic growth. Additionally, the OECD define 'high growth' as companies that achieve at least 20% growth a year over three consecutive years. Analysis in this paper just considers growth of 60% between 2011 and 2014, not whether a minimum of 20% was achieved each year.*
[4] *See Appendix 1 for further information on FAME*
[5] *Employment growth data is not available through FAME, so this has been estimated based on average turnover per employee for each fast growth company.*

companies achieving fast-growth[6]. This suggests that compared to most UK regions, companies in Scotland are slightly more likely to achieve fast-growth**.**

The high percentage of companies achieving fast-growth in the South East of England is expected, given the region's fast growing and highly dynamic economy. However, perhaps more surprising is the high percentage of companies achieving fast-growth in Wales, and the relatively low percentage in London. The reasons for this are unclear.

Figure 1: Fast-growth companies as a % of all companies with turnover of £5m+ and employing 10+ staff, by UK nation and region, 2014.



Source: FAME

3. Characteristics of fast growth companies in Scotland

Scotland's fast-growth companies are spread across the country, although 55% are located in Aberdeen, Edinburgh and Glasgow[7]. This suggests that in Scotland fast-growth can be achieved in both cities and rural locations[8].

The 31 fast-growth companies in Aberdeen and Aberdeenshire are predominantly based in or supporting the oil & gas industry. Given the continuing challenges facing the industry, it is likely there are fewer fast-growth companies in Aberdeen now than for the period used in the research.

The data shows that fast-growth can be achieved across a wide range of sectors, including those that are not usually considered to be high technology or knowledge intensive.

The largest numbers of fast-growth companies in Scotland (and the UK) are in financial & business services, technology & advanced engineering, wholesale & retail, and construction (together accounting for 50% of all fast-growth companies)[9].

[6] *The data does not allow an international comparison, but this could be considered via future research.*

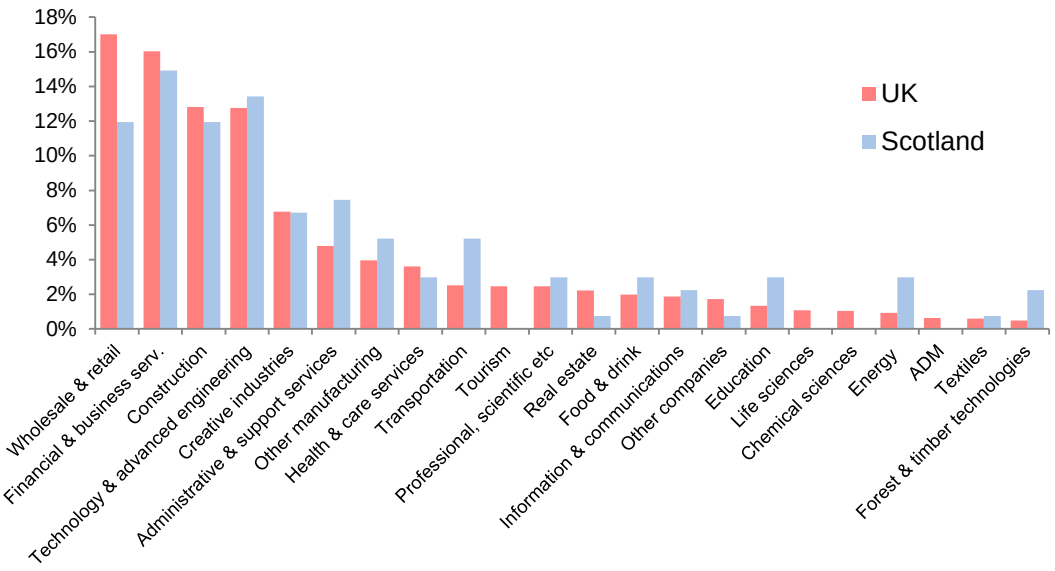
[8] *Appendix 2 provides a full breakdown of geographical location*

[9] Due to data confidentiality, names of these companies cannot be provided.

The percentage breakdown of fast-growth companies by sector is broadly similar for Scotland and the UK, with the main significant difference being wholesale & retail accounting for a higher proportion in the UK, and Scotland having a higher proportion in the administration & support, transportation, education and energy sectors.

Notably**,** for two of the Scottish Government's growth sectors[10] (tourism and life sciences) there are *no* fast-growth companies in Scotland - and in the UK as whole, fast-growth companies are very rare in these sectors. The reasons for this are not clear.

Figure 2: Fast-growth companies in Scotland and the UK by sector (% of all FGCs).



Source: FAME.

Most fast-growth companies in Scotland (and the UK) are in 'non-tradable' sectors that are more locally or domestically focused in terms of markets (rather than international), although the two largest sectors (financial & business services and technology & advanced engineering) are tradable[11].

Fast-growth companies in tradable sectors account for a higher proportion of fast-growth company employment than turnover than those in tradable sectors **-** this suggests that productivity in fast-growth companies in tradable sectors is higher than those in non-tradable sectors.

Figure 3 highlights the proportion of companies within each sector that achieve fast growth, providing a broad indication of which sectors are more likely to 'produce' fast growth companies.

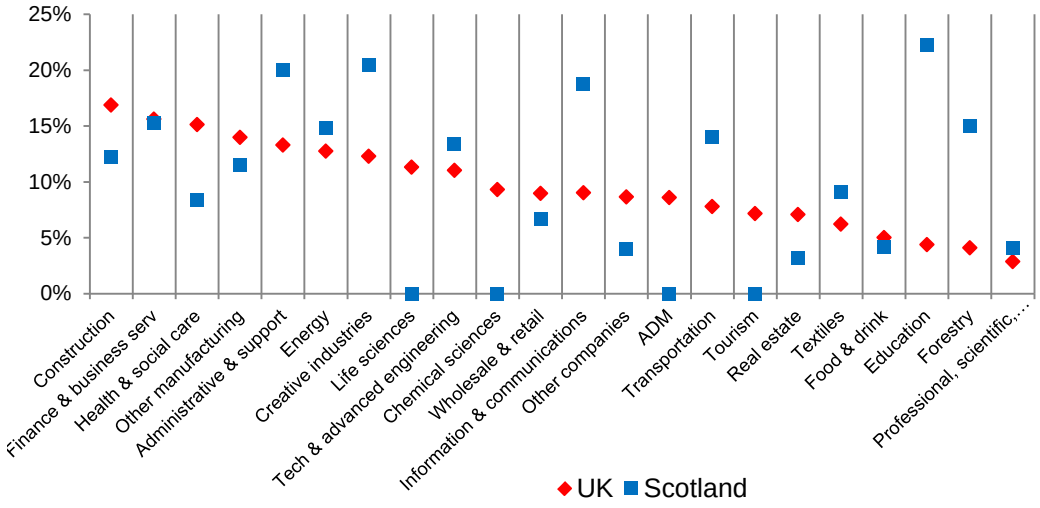
[10] Scottish Government Growth Sectors Database
[11] Industries have been classified as 'tradable' and 'non-tradable' using a broad OECD methodology that considers levels of imports and exports for each sector. See Appendix 3 for a list of sectors.

There are a number of differences between the UK and Scotland. Scottish companies are more likely than those in the UK to become fast-growth in ten of the 22 sectors, particularly in education, information & communications, administration & support services and creative industries.

Conversely, companies in Scotland in construction, aerospace/defence/marine and health & social care are less likely to achieve fast growth than those in the UK. If Scotland matched UK performance in the sectors in which it currently lags the UK, this would result in 22 more fast-growth companies in Scotland.

Although there is no consistent pattern, the data suggests that non-tradable sectors may be slightly more likely to produce fast-growth companies than tradable sectors.

Figure 3: Fast-growth companies as a percentage of all companies with 10+ employees and turnover of £5-£25m, by sector



Source: FAME.

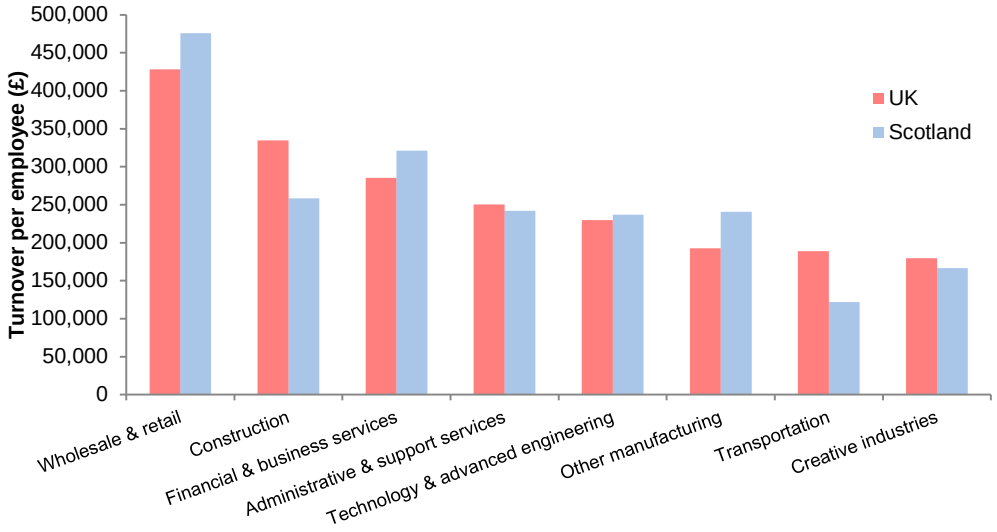
4. Productivity

Productivity is usually defined as gross value add (or GVA)[12] per employee or hour worked. However, this data is not available in FAME, so turnover per employee is used as a proxy productivity measure in the analysis below[13]. For the largest eight sectors for fast-growth companies, productivity is very similar in Scotland and the UK as a whole.

Considering productivity in individual fast-growth companies, there is a large spread ranging from almost £1m turnover per employee to under £60,000. Companies with the highest levels of turnover per employee are from a range of sectors, including wholesale/retail, financial & business services, construction, energy and manufacturing.

[12] *GVA at a company level is defined as employee costs + profits + depreciation*
[13] *Turnover per employee is a good proxy for GVA per employee. Companies that have high turnover per employee also tend to have high GVA per employee – although there are exceptions for a small number of sectors including wholesale and retail.*

Figure 4: Productivity (turnover per employee) of fast-growth companies, by most common sectors, Scotland and UK, 2014



Source: FAME.

Figure 5 shows the distribution of Scotland's fast-growth companies by productivity and employment size. This suggests that fast-growth companies with the highest productivity are small in terms of employment, and the largest fast-growth companies in Scotland tend to be low productivity, and account for a significant proportion of fast-growth company employment. This is also the case across all regions of the UK.

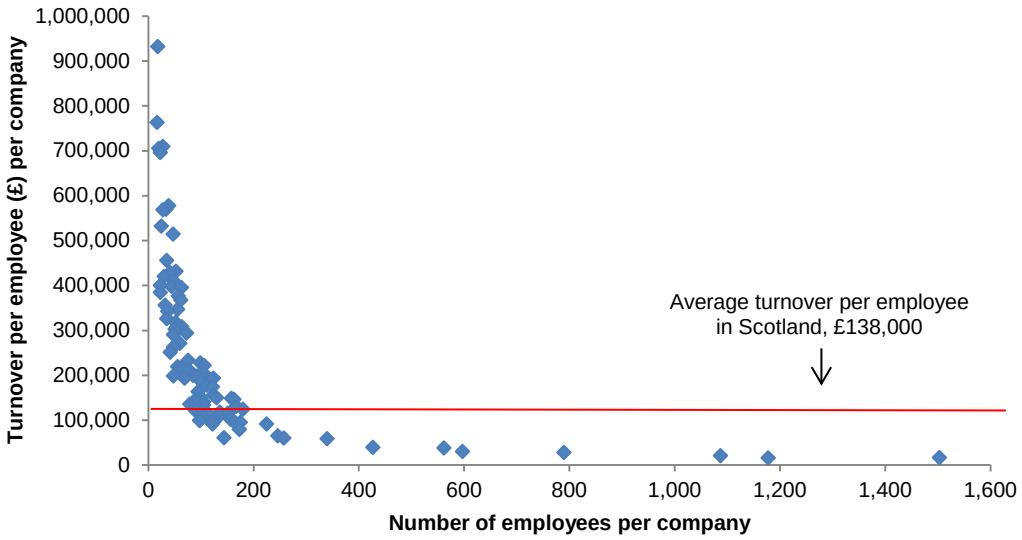
Overall, 67% of fast-growth companies have productivity above the all company average across Scotland[14], however, they account for only 32% of fast growth company jobs. Therefore, 68% of jobs in fast-growth companies have productivity levels *below* the Scottish average. This suggests that fast growth companies overall are not making a contribution to increasing Scotland's productivity performance[15].

Fast-growth companies with the largest employment and the lowest productivity tend to be involved in low productivity activities, such as catering, care services, security, leisure services, facilities management and business process outsourcing. In these sectors job quality and wage rates are likely to be low. The 20 fast-growth companies with the lowest productivity (all below the overall Scottish average) are estimated to have accounted for 55% of employment growth of all fast-growth companies[16].

The finding that fast growth companies tend to have low levels of productivity has been reflected in other research[17].

[14] *Based on average turnover per worker in Scottish Annual Business Statistics*
[15] *It may be the case that a number of fast growth companies are experiencing higher than average productivity growth, however FAME data does not allow this to be measured.*
[16] *Due to data confidentiality, names of these companies cannot be provided.*
[17] *High-Growth Firms: Stylized Facts and Conflicting Results*

Figure 5: Distribution of Scotland's fast-growth companies by turnover per employee and employment size, 2014.



Source: FAME. Note: Excludes top 4 companies with £1m+ turnover per employee. Also excluded are 14 where productivity is *unavailable.*

5. Policy implications

The key findings from this analysis are:

- Fast-growth companies account for a disproportionate level of turnover and employment growth in the Scottish economy, but they are small in number.
- Overall, Scotland is just as good at producing fast-growth companies from its business base as most other UK regions (although for a number of sectors that are a focus for Scotland, there were no fast-growth companies over the 2011-2014 period).
- The largest fast-growth companies in Scotland tend to be involved in low productivity activities, with jobs that are likely to be low skilled and low paid (similar to the UK as a whole). The productivity of the majority of employment in fast-growth companies is below the total Scottish industry average.
- Overall fast-growth companies are not making a positive contribution to increasing Scotland's productivity levels (in terms of turnover per employee) and therefore to inclusive growth.

These findings raise two key policy issues:

(i) How to create *more* and *larger* fast-growth companies in higher productivity sectors in Scotland, including in life sciences, chemical sciences and aerospace/defence/marine (ADM)?

Scottish Enterprise's 'company scaling' approach, which aims to support around 100 companies by 2018, should help to increase the number of fast-growth companies in Scotland. Given the focus of SE support is

to generally support higher productive sectors, this should help increase the number of higher quality and better paid jobs in Scotland.

(ii) How to increase productivity in low productivity companies and sectors?

The data suggests that many of the largest fast-growth companies are involved in low productivity / low pay activities such as security, recruitment, leisure and care. Companies in these sectors account for and create a significant number of jobs. A number of these sectors are forecast to expand significantly over the next decade, particularly the care sector.

A key consideration is the extent to which the productive potential of such companies can be raised, and the role policy can play in both raising their productivity potential and helping them achieve it.

Further research will be required to better understand the productivity challenges and potential for companies in these sectors, including identifying overseas examples of good practice (for example, the approaches taken by a care providers in the Netherlands to significantly increase performance, job satisfaction and productivity[18]).

A number of the sectors in which we find fast growth companies are outwith the usual sector policy focus in Scotland. This raises questions as to the best routes to identify productivity challenges and solutions and, the respective roles of partners in both the public (Scottish Government, Enterprise Agencies, Local Authorities and Business Gateway) and the private sectors (industry / sector bodies, Chambers of Commerce, FSB etc.).

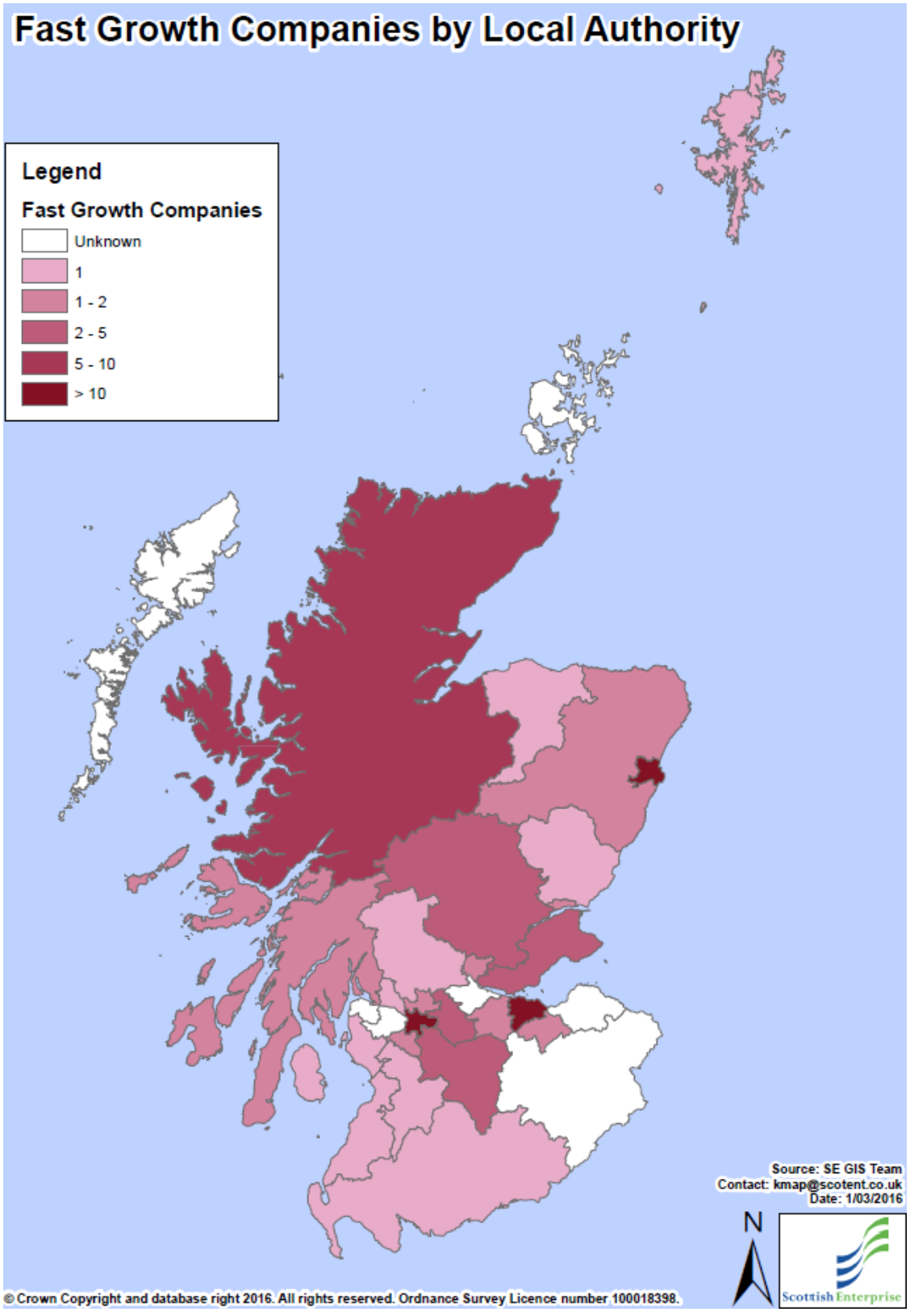
Appendix 1: The FAME database

FAME is a business database drawn primarily from Companies House, of companies in the UK and Ireland. It provides company profiles including subsidiaries and directors, accounting and financial information, shareholder details and latest company news. Companies are traceable to postcode level, and are assigned to regions based on a variety of criteria including company HQ and base location.

FAME provides a useful source for analysis, enabling a comparison of Scotland's performance with other regions in the UK, but there are challenges with using it. For example, smaller subsidiary companies can have financial data listed which refers to their larger, parent company, and employment data can vary on whether companies include all employees such as temporary and agency workers are included. As far as possible, these anomalies have been cleansed from this research.

[18] *Buurtzorg: better care for lower cost*

Appendix 2: Location of Scotland's fast-growth companies by Local Authority area



Appendix 3: Categorisation of 'Tradeable' and 'non-Tradeable' sectors

Non-Tradable	Tradable
Administration and support services	ADM
Education	Chemical sciences
Health and social care	Energy
Information and communication	Financial and business services
Construction	Food and drink
Creative industries	Forest & timber
Professional, scientific, technical services	Life sciences
Tourism	Other manufacturing[2]
Real estate	TAE
Transportation	Textiles
Other companies[1]	
Wholesale and retail	

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[2] *These include packaging companies, rubber manufacturers, manufacturing of imitation jewellery, musical instruments, sports goods, games and toys, and protective safety equipment.*
[1] *These include arts, entertainment and recreation, sports activities, gambling, member organisations*

FRASER OF ALLANDER INSTITUTE

‘Scotland’s Budget’: major new event to examine Scotland’s Budget options announced by The Fraser of Allander Institute (September 2016)

The Fraser of Allander Institute is delighted to announce a major new event in Edinburgh to coincide with publication of the Scottish Government’s Draft Budget later in the autumn, the first to be published under the Scottish Parliament’s new fiscal powers.

This new annual event – the first of its kind in Scotland – will bring together leading experts in the Fraser of Allander and the business and policy communities to discuss the challenges, opportunities and policy responses open to the Cabinet Secretary for Finance when preparing the government’s tax and spending plans for the next year and beyond.

Papers supporting the event will be published in a Special Scottish Budget Issue of the Fraser of Allander Economic Commentary.

Issues to be discussed:

- The Outlook for Scottish Economy
- An Overview of the UK Public Finances and the implications for Scotland
- Scotland’s New Fiscal Framework
- The Outlook for the Scottish Budget
- The Choices facing the Cabinet Secretary and the likely impacts of alternative policy responses
- Panel Q&A

To register your interest in attending please contact – fraser@strath.ac.uk