

The Scottish economy

Forecasts of the Scottish economy

Economic background

As developed economies across the world adjust and recover from the global financial crises and the recession of 2008-9, recent data suggests that after four quarters of negative growth, Scotland has (in Q2) seen a quarter of growth largely outwith most expectations. This has come on the back of three quarters of anaemic growth performance (0.0%, 0.1% and -0.2%) while the unemployment rate and level has continued to increase. While this apparent dichotomy is analysed in more detail in an earlier section, the response of the labour market to changes in the level of activity will be important for our forecasts of both.

The UK monetary policy environment remains generally supportive, even in light of continuing above target inflation figures, given continuing uncertainty about the strength of the recovery. The Bank of England's monetary policy committee (MPC) has kept interest rates on hold at 0.5%, where they have now remained for twenty-one months. The level of assets purchased through the Asset Purchase Facility (APF) remains at £200 billion. The minutes of the MPC's October 2010 meeting reveal fears that the stronger than anticipated return to growth seen in the first half of 2010 will not continue into the second half, and a "modest deceleration" in growth as the inventory cycle fades. With UK inflation remaining above target at 3.1% in September, the MPC was divided on its decision. The votes reveal that most (7) of the (9 member) MPC voted to keep interest rates at the same level, and the size of the APF unchanged, with one member arguing for an increase in interest rates, and another voting for no change in the rates, but an expansion of the APF facility. The Bank's November Inflation report (due for release after this Commentary) should make interesting reading, as additional information on the extent of spare capacity, the outlook for inflation, and activity becomes known. It would appear that the majority of members of the MPC continue to see an expansion of the APF as being more likely; however this will depend on the changes in key variables revealed in forthcoming data.

The much anticipated Comprehensive Spending Review reported on the 20th of October 2010. This has set out the Conservative-Liberal Democrat coalition government's spending plans for the four (financial) years starting in April 2011. Looking firstly at the spending allocated to the Scottish Government through the HM Treasury calculated Barnett formula, Scotland's per capita share of proportionate changes in comparable programme spending in England decides the changes in the funding allocated to Scotland. The outcome of the CSR is that (in real terms) the Resource budget for Scottish Government spending will be reduced by 6.8% over the four years to £25.4 billion, while the Capital budget for Scotland is to fall by 38% to £2.3 billion. As we

noted in June's commentary, reductions in expenditure will, other things being equal, reduce demand in Scotland and so dampen economic activity. That being said, the outturn figures from the CSR suggest a (slightly) smaller than expected decline in overall spending, and less than anticipated in the Chief Economic Advisor's June scenarios for Scottish public expenditure. The counterpoint to slightly smaller reductions in government spending is larger reductions in payments direct to Scottish households through the (UK) the welfare system. These will have an additional knock-on impact on household spending, although the specific timing of these reductions, and the particular Scottish incidence of these, are not yet known.

The spending decisions of the Scottish Government will be announced later this year, with debate in the Scottish Parliament early in 2011. We intend to focus on the impact of these spending decisions for the Scottish economy as the Scottish Budget process continues, and report on this in the Commentary in the new year. In parallel developments, in the last month the Scottish Government, through their Scottish National Accounts Project (SNAP), has released "experimental" "in development" data in the form of a series of Quarterly National Accounts for Scotland, dating back to Q1 1998. This is a phenomenal dataset, which should provide great opportunities to study, in never-before-available detail, the dynamics of economic change in Scotland over the last twelve years. From this, for instance, we can see that (central and local) government spending in Scotland – i.e. non-capital spending – constitutes around 25% of Scottish GDP, although this has risen in the last year as GDP fell and government spending didn't fall by as much. Given this, the scale, and impacts, of next years changes in government spending will have important consequences for the Scottish economy.

The Scottish economy

In the last quarter for which data are available (Q2 2010, published on 20th October 2010), Gross Value Added (GVA) for Scotland rose by 1.3% from the previous quarter (Q1 2010). This was the largest quarterly increase in Scottish GVA in four years, and comparable to the 1.2% growth for the UK seen in Q2 2010. Only six quarters since data for Scotland began in 1995, saw a higher rate of quarterly growth than that measured in Q2 2010. However, growth in Q1 2010 was revised downwards from 0.0% to -0.2% meaning that we have not seen two consecutive quarters with the same direction of growth since the declines observed in Q2 and Q3 2009.

The length of the recession in Scotland has now been revised with the latest data released, and shows that Scotland saw four quarters of declining GVA: from Q3 2008 to Q2 2009. Since then, growth of 0.0%, 0.1% and -0.2% showed an anaemic recovery, and while Q2 2010's growth figure showed a significant increase above this level, specific (one-off) factors might explain this, and downside risks remain for future growth. This said, the fact that these latest GVA data suggest that in many Production sectors,

and the Construction sector, significant positive growth was observed, there would appear to be some encouraging signs. Overall, growth in the Service sectors was weak.

The Scottish "Manufacturing" sector, accounting for 13.0% of Scottish GVA, was up slightly (2.2%) during Q2 2010, and has recovered all the losses from 2009. It remains, however, around 9% lower than its pre-recession peak. The largest sector within Manufacturing – "Engineering and Allied Industries" – grew by 5.6% in the last quarter, while there was also growth in "Metals and Non-metal products" and "Chemicals and Man-made Fibres". "Food, drink and tobacco" GVA fell slightly on the quarter, with declines in the "Drink" sector not enough to offset the growth in the "Food" sector. "Drink" sector GVA has been less badly affected than most other sectors in the Scottish economy, and is up almost 4% over the last year. It is perhaps surprising, but undeniably encouraging, that after a year and a half of decline, Q2 2010 has given us a picture of positive growth across much of the Production side of the Scottish economy.

"Construction" in Scotland (accounting for 7.6% of GVA) was up a spectacular 10.4% in Q2, making up most of its decline since Q3 2008. Over the year, it was down 3.2%. The reasons for this rebound might include good weather allowing the completion of properties, or the following through of investment plans postponed by the recession. This would necessitate a cautious position regarding the ability of the sector to continue to grow at this rate. Certainly, Scottish Government revisions to GVA estimates produced since the last time we reported in June 2010 have particularly affected our previous understanding of the dynamics of the "Construction" sector. The largest revisions to its previous growth rate were seen in this sector when statistics were benchmarked against improved data. The strong pro-cyclical nature of this sector would be expected to be useful as a barometer for the strength of the investment outlook in the Scottish economy, and improved data on this sector is certainly to be welcomed.

The Service industries (responsible for just under 74% of Scottish GVA, and 83% of jobs in the Scottish economy in December 2009) grew by 0.3% in Q2 2010. Like the economy as a whole, the four recent quarters have seen alternative positive and negative growth rates. The sector was down 1.2% over the year so far. Within the Service industries, the strongest growth in Q2 2010 was seen in "Retail and Wholesale" (+1.8%) and "Real estate and business services" (+1.7%). Over the year however, only "Retail and wholesale" (+1.4%) and "Public admin, Education and Health" (+0.0%) did not contract. None of the three sub-sectors in "Public admin, Education and Health" grew in Q2 2010, while "Public administration and defence" shrank by 0.2%.

Labour market developments in Scotland to the end of August 2010 (published in October 2010) showed that employment (aged 16+) was up by 10,000 over the most

Box 1: The link between GVA growth and unemployment rate changes

Okun's Law (Okun, 1962) is a statistical relationship which shows the tendency for periods of economic growth to be associated with a growing demand for labour inputs, and so a declining unemployment rate, and vice-versa. The relationship between GVA growth and the unemployment rate therefore we would expect to be negative. This specific relationship has been widely tested in the economic literature, both for nations and regions. We can use the history of changes in GVA and the unemployment rate to estimate this relationship for the UK and Scotland. Our intention is to begin to shed light on the extent to which recently observed changes in the unemployment rate would be consistent with the scale of GVA growth over this period. If this relationship has changed recently, we attempt to examine if there has been a "break" in the longer-term relationship between these variables, which could coincide with the recession of 2008-9.

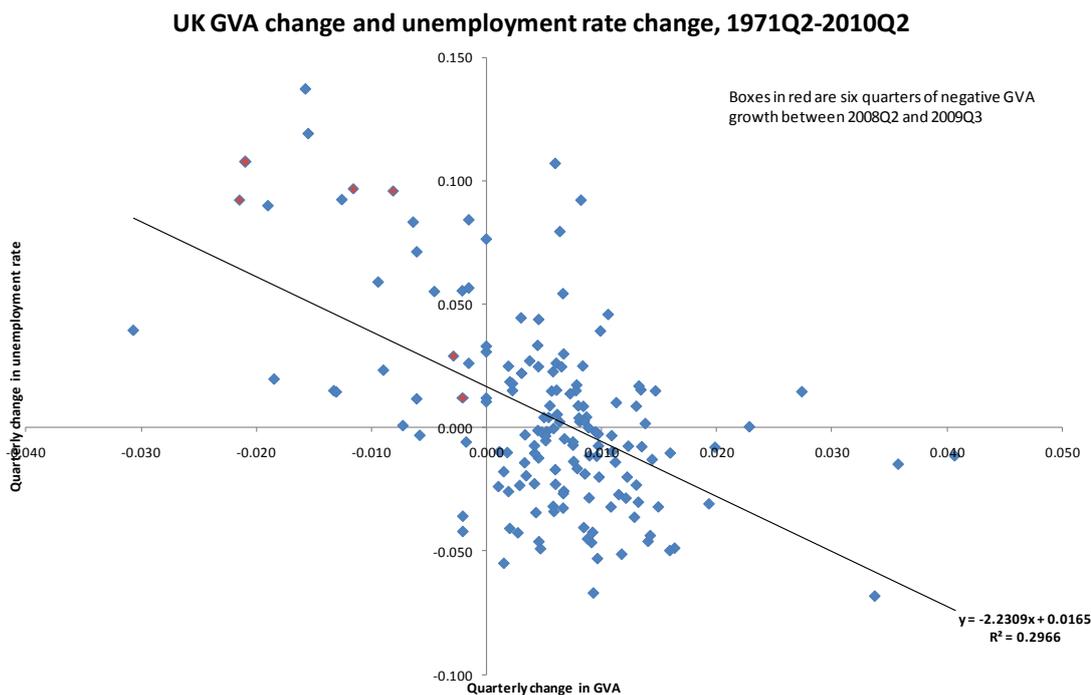
For the UK as a whole, we have quarterly data from 1971Q1 to 2010Q2. We estimate the "difference" version of Okun's Law which links changes in the unemployment rate (Δur) to changes in GVA (ΔGVA) and an intercept term (α):

$$(\Delta ur) = \alpha + \beta(\Delta GVA)$$

We are interested in the coefficients (α and β ("Okun's coefficient")) estimated from this equation, since β gives us the change in the unemployment rate which is associated with a 1% change in GVA. The formula $(-\alpha/\beta)$ gives us the rate of quarterly GVA growth which would be associated with a stable unemployment rate (i.e. is neither increasing or decreasing) (Knotek, 2007).

Estimating this equation for the UK as whole over 1971Q1 to 2010Q2, we get the results below.

Figure B1



The negative relationship between changes in the unemployment rate and GVA growth is observed, with a β coefficient of -2.23. This means that a 1% change in the GVA growth rate is associated with a change in the unemployment rate of 2.23%. For the UK over this period, a quarterly growth rate of $(-0.0165/-2.2309)$ 0.7%, corresponding to an annual growth rate of 3.0%, would be needed to maintain the unemployment rate at a stable level.

We see from Figure B1 that many quarters have seen outcomes for GVA and unemployment rate changes different from that predicted by the line of best fit. Points above the line of best fit show where the increase in the unemployment rate has been greater than that which would be suggested by the estimated relationship. Points below the line suggest unemployment rate outcomes that have been "better" than would be expected for a given GVA change. Four of the six periods of negative GVA growth in the recent recession show large distance from this line (these are shown in red in Figure B1).

The Okun's Law relationship for the UK is however not stable over time. Simply estimating the relationship for each decade in turn we see large changes, particularly for the 1970s compared to the rest of our sample. This is consistent with much of the literature on Okun's Law (Knotek, 2007). A number of studies have found that the value of "Okun's coefficient" is quite different in periods of recession, as well as recent dynamics which appear to suggest a breaking down of the simple relationship between these variables as given by the equation above (Knotek, 2007).

For Scotland, as might be expected, we have less data than is available for the UK. Our quarterly GVA series only goes back to 1995 Q1, meaning that we have 62 quarters worth of data on GVA growth and the unemployment rate. Estimating the difference version of Okun's Law for our Scottish sample, we find:

$$\Delta ur = 0.0163 - 3.2265 (\Delta GVA)$$

Meaning that each 1% change in GVA is associated with a 3.2% change in the unemployment rate in that quarter. The (annual) level of GVA growth consistent with a stable unemployment rate is estimated to be 2.0%.

For the UK over the same period, we estimate the following relationship:

$$\Delta ur = 0.0193 - 3.8521 (\Delta GVA)$$

The (annual) rate of GVA growth for the UK consistent with a stable unemployment rate is also 2.0%. Therefore, the data suggests, firstly, that over this sample period the unemployment rate in the UK is more sensitive to GVA changes than it is in Scotland, and, secondly, that the GVA growth needed for stable unemployment is comparable in these two datasets. Without further analysis and access to a longer term time series, we are cautious in our conclusions.

We can, however, examine how these relationships have fared during the recession of 2008-9. Estimating for the pre-recession period as well as the recession period, we get the following results. (For comparison we include the results again over the whole sample).

Table B1

Period	Scotland			UK			
	Q1 1995-Q2 2010	Q1 1995-Q2 2008	Q3 2008-Q2 2010	Q1 1995-Q2 2010	Q1 1995-Q2 2008	Q3 2008-Q2 2010	
β	-3.2265	*	-4.1632	-3.8521	-2.0788	-3.9541	
α	0.0163	*	0.0682	0.0193	0.0054	0.0287	
$(-\alpha/\beta)$	2.04% p.a.	*	6.71% p.a.	2.02% p.a.	1.04% p.a.	2.9	p.a.

Notes: * indicates that coefficients are not statistically significant, and so we do not report these. This would be consistent with the line of best fit being horizontal, with no significant relationship between GVA growth and unemployment rate changes.

The Okun's coefficients (β) estimated suggests that there has been a break in the relationship over the whole fifteen-year sample, in the last eight quarters. Instability in the Okun's coefficient are a typical feature of this relationship, and have been explained by a changing relationship between unemployment rate changes and GVA growth in periods of recession, as well as changing relationships between these two variables over the last thirty years. Our estimates suggest that the sensitivity of unemployment rate changes to given changes in GVA has increased significantly during the recession for Scotland more than for the UK as a whole. This would be consistent with the line of best fit in Figure B1 becoming "steeper".

As noted above, further research into this apparently simple macroeconomic relationship could investigate the extent to which the large increases in unemployment rates are indicative of a changing relationship between that and GVA growth. We intend this to be an initial illustrative assessment of this relationship, to which we intend to return in later issues.

References

Knotek, E.S. (2007), "How useful is Okun's Law?", Economic Review, Federal Reserve Bank of Kansas City, 4th Quarter 2007, p. 73-103.

Okun, A.M. (1962), "Potential GNP: Its measurement and significance", American Statistical Association, Proceedings of the Business and Economics Statistics Section, pp. 98-104.

recent quarter, but down by 53,000 over the year. Between June and August 2010, employment of those aged over 16 stood at 2,452 thousand. The employment rate for those aged 16 to 64 has fallen by 1.6 percentage points over the year, while it has risen by 0.2 percentage point in the last three months, and now stands at 70.3%. Rising labour market inactivity had been a continuing feature of the Scottish labour market over the recent past and has fallen (slightly) in the last quarter. Inactivity of the 16-64 age group fell by 0.5% in the last three months, with inactivity standing at 779,000. Over the year, the largest increases in reasons for inactivity given were studying (up 15,000) and those who wanted a job (up 9,000). The data on inactivity suggest that increases in inactivity rates are especially high in the 16-17 age group, and males 18-24.

Looking at unemployment, the number of people over the age of 16 who were unemployed rose by 13,000 compared to the previous three months. The rate of increase in unemployment increased from a 10,000 increase in unemployment in the previous three months, and these are significant increases. Over the last year, the numbers of unemployed rose by 37,000. As of June to August 2010, the ILO level of unemployment stood at 231,000. The preliminary estimate of those receiving unemployment-related benefits – a more up to date, but less complete, measure of unemployment than the ILO definition - stood at 134,500 in September 2010. It therefore remains at a level comparable to one year ago. The possible increasing “dislocation” between GVA changes and unemployment rate changes is discussed in more detail in Box 1.

While the number receiving unemployment benefits has fallen since January 2010, and the rate of those in work or receiving benefits who do receive benefits has reduced from 5.0% to 4.8% over this time, the level of “claimant count” unemployment is nine thousand higher than May 2009. Over the year, (a net) 2,600 more women have begun receiving unemployment benefits, while (a net) 6,900 men have moved off Jobseekers Allowance. The aggregate picture of falls in the number of claimants since January 2010 appears to be driven by the movements of male claimants, as the number of female claimants has increased month on month since the start of 2009.

Final demand and recent trends

The *Fraser of Allander Institute (FAI)* forecasting model acknowledges the drivers of economic activity in the Scottish economy to be (household) consumption, (central and local) government spending, investment, tourism and exports (to the rest of the UK and the rest of the World). For all three scenarios considered – High, Central and Low - recent movements in each of these measures, and most up-to-date survey evidence for future trends, are discussed below.

As noted earlier, first (albeit “partial” and “experimental”) Quarterly National Accounts for Scotland were released as

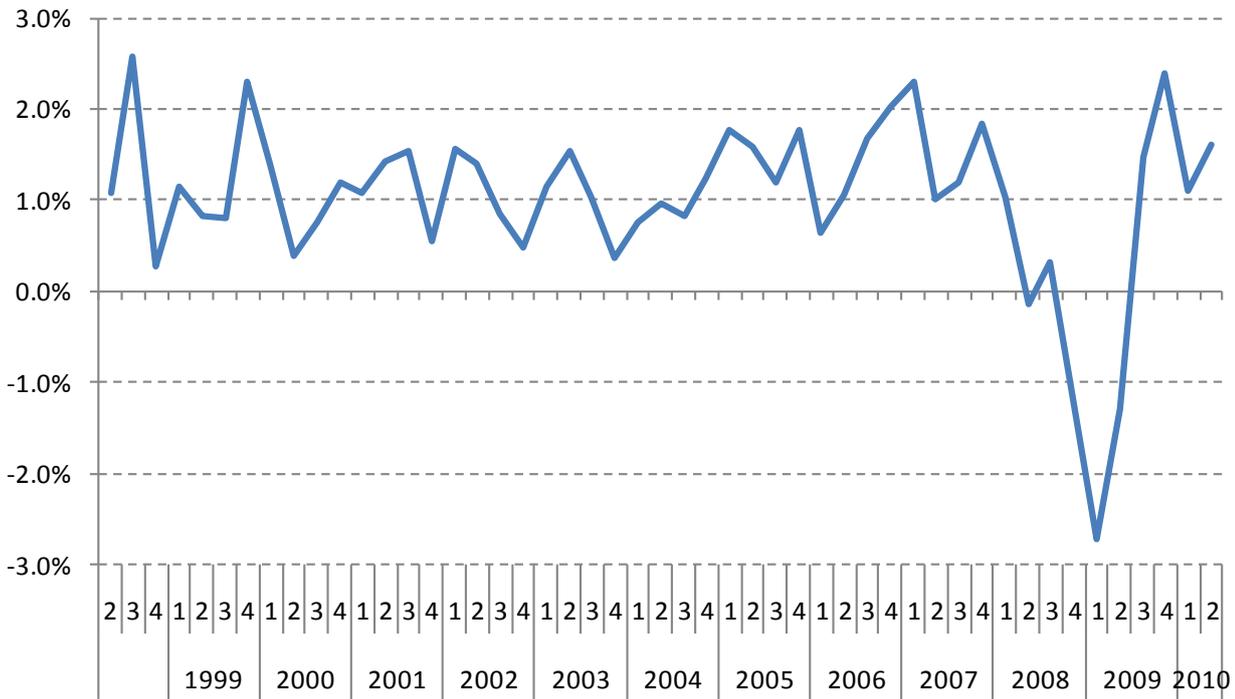
part of ongoing work in the Scottish Government’s Scottish National Accounts Project on the 20th of October 2010. These provide quarterly series for GDP (I) and GDP (E) dating back from Q2 2010 to Q1 1998. This is vitally important data for our understanding of past and current activity in the Scottish economy and its publication is to be applauded. These data in this publication have however, come too late to be systematically incorporated into this issues forecast – although we make use of this data where it appears to be superior to that which we had previously. For instance, there was previously no Scottish series for Investment, and so those data on Scottish Investment expenditures are incorporated in this issue. We look forward to closer examination of all those data in the Quarterly National Accounts for Scotland over the coming months and future Commentaries.

Consumption

Data on household consumption expenditures in Scotland being developed by the Scottish Government through the Scottish National Accounts Project (SNAP) were published on 20th of October 2010 in the Quarterly National Accounts for Scotland discussed in the paragraph above. These showed that Q2 2010 saw the fourth quarter of increases in nominal household expenditure, following three earlier quarters of reductions (Q4 2008 to Q2 2009). These figures are in ‘Nominal’ terms however, so the real increase in spending will be lower, and may be negative since the quarterly increase is less than the quarterly RPI series for the UK. This confirms the evidence from previous quarters that the reduction in household expenditure is moderating, but it is unlikely that this growth in nominal expenditure is signalling a return to strong positive real growth in Scottish household consumption expenditure. The introduction of 20% VAT from 1st January 2011 may be expected to, other things being equal, cause households to bring some (non-perishable) purchases forward to Q4 2010, so we would expect that Q1 2011 may see a slowdown in household expenditures. Furthermore, and while there appears to be uncertainty over the specific timings, any reductions in household incomes from changes to the UK welfare payments system would be expected to, over the coming years, cause household spending to be lower than it otherwise would be. The specific incidence on Scotland of these changes remains to be understood, as does its timing.

As previously noted in Forecasts, household credit facilities are understood to have been crucial for the (pre-crisis) growth of household expenditure, in turn funding the the movement of the Scottish economy towards a more service-oriented structure, with the provision of goods for household consumption. The decline in the availability of credit facilities to households, as well as households continued reluctance to take on credit in uncertain economic conditions as they rebalance and pay down debts, will continue to dampen household spending over the coming quarters, and perhaps years.

Figure 1: Quarterly nominal change in domestic household expenditure, Scotland, Seasonally adjusted, Q1 1998 to Q2 2010



The link between house prices growth and household spending is anecdotally important, and recent increases in house prices reported by the surveys of the Scottish housing market may indicate the beginnings of a return to growth, although total house sales remain weak, and bank lending capacity is forecast by the IMF to contract in 2010. The Halifax House Price Index confirms that “average” house prices in Scotland in Q3 2010 were down 3.6% on Q3 2009. Over the same period, average UK house prices were up 2.6%. From their peak in Q1 2008, average house prices in Scotland are down 16.6%, compared to 16.9% across the UK as a whole (the UK price peak was in Q3 2007).

Figures from the Council for Mortgage Lenders showed that lending for purchases of new homes in Scotland during the second quarter of 2010 was up on the first quarter, and marginally higher than the same period one year previously. As with the VAT point above causing spending to be brought forward into 2009, the CML notes that the decline in Q1 2010 might have been caused by the ending of the Stamp Duty “holiday” on properties up to £195,000 which ended in December 2009. The remortgage market continues to remain very sluggish.

Figures released on the 20th of October 2010 by the Scottish Retail Consortium reported continued challenges across the sector. While food sales showed some small nominal growth, non-food and all sales were lower on a like-for-like basis. Sales have now declined in five out of the last six months. While the SRC laid some blame on the

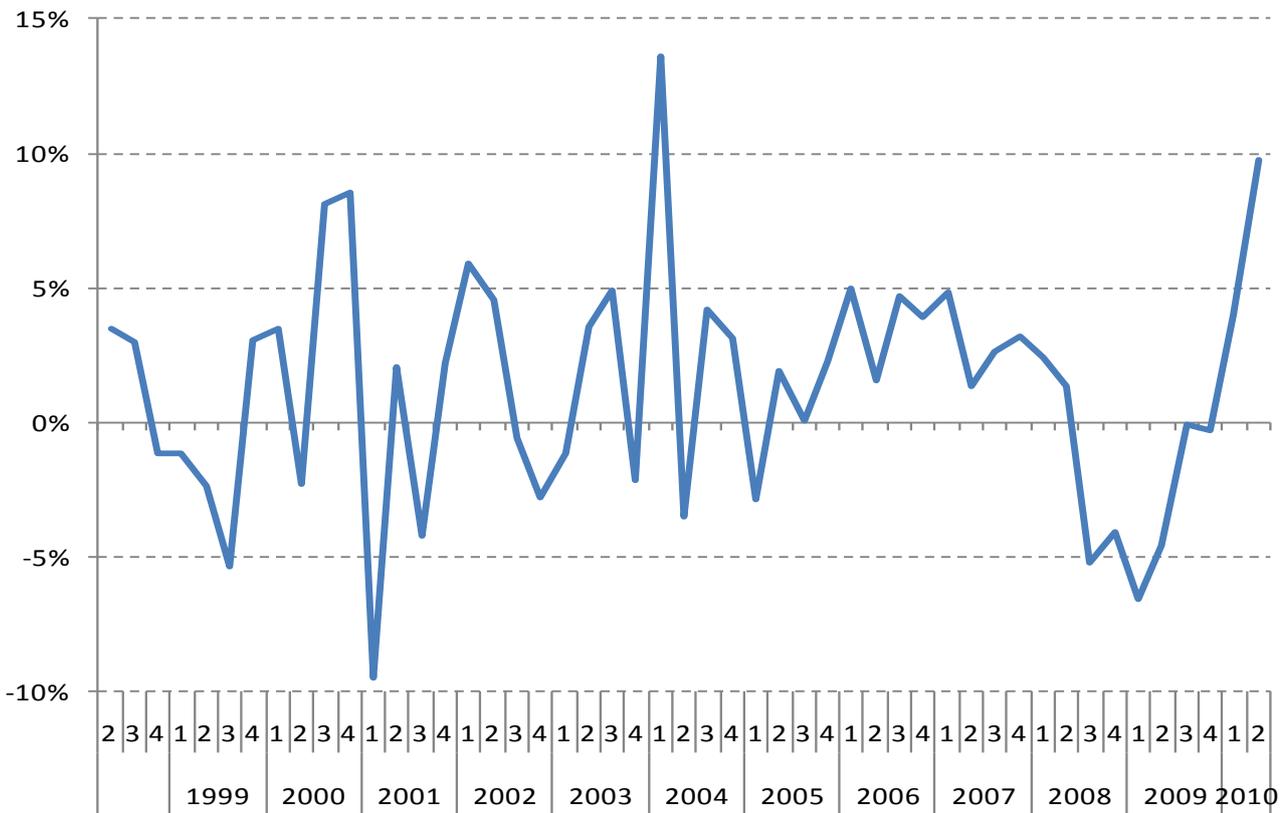
uncertainty surrounding the Comprehensive Spending Review, it remains uncertain when household spending will return to its previous growth path. Fears of unemployment, combined with (assumed) increased savings ratios as households pay down debts, are expected to continue to dampen any quick recovery in household spending.

Government spending

As noted in previous Forecasts, the outlook for UK Government expenditure over the next four years was to be set out in October’s Comprehensive Spending Review. This set out the UK Conservative-Liberal Democrat coalition government’s plans for fiscal consolidation of £113 billion over the next four years. Of this, £83 billion is to come from spending cuts, and the rest from tax rises. The implications of October’s CSR for the budget of the Scottish Government’s Departmental Expenditure Limits for Resource and Capital amounts were laid out in a press notice on the day of the CSR.

In real terms, the Scottish Government’s overall DEL will be 10.5% lower in 2014-15 than in 2010-11. This is somewhat smaller than was perhaps anticipated by the Chief Economic Advisor in his June paper which assumed a 12.5% reduction over this period. The Resource DEL sees a smaller cut than total DEL, falling 6.8%. The capital DEL budget however takes a significant share of the reduction, and is 38% lower in 2014-15 than in 2010-11. This will be likely to have long-lasting impacts on government led investment projects over the next four years.

Figure 2: Quarterly growth in (nominal) gross fixed capital formation in Scotland, Q1 1998 to Q2 2010



Our forecasts capture the extent to which government spending is felt across the economy, and the knock-on impacts on activity and employment at the sectoral level of changes in the sectors whose output is important for the demands of the public sector. Put simply, the forecasting model will see reductions in government spending as directly affecting the public administration, education, health and social work sectors, and at the same time affecting those sectors which rely on public sectors for buying their outputs (which will include suppliers to the public sector in the private sectors).

The Quarterly National Accounts for Scotland show us that (Central and Local) Government spending is a vital element in Scottish economic activity. Over the period Local government has remained broadly constant at around directly contributing 10% of Scottish economic activity, while Central Government's share of economic activity has increased from around 13% to over 17%. Including the linkages between other (including non-public) sectors and Central and Local government, it becomes clear that changes to their expenditure will have important consequences for the Scottish economy.

Investment

As previously noted, there were no separate National Statistics on investment in Scotland. The Quarterly National Accounts for Scotland improves this situation considerably

by providing the first series for Scottish Investment. Quarterly changes in this (nominal) series is shown in Figure 2 below. This reveals an upsurge in investment expenditure in Q2 2010 of 9.7%, which would concur with the strong growth in the "Construction" sector in this period. It also reveals the extent to which Investments declined through the 2008-9 recession, and had shown volatility over the last twelve years.

Business investment figures reported for the UK, which were previously used as proxies of Scottish investment growth, showed in Q2 2010 growth of only 1.4%. This is a simple vindication of the need for (as much as possible) Scottish-specific data

Tourism

Elsewhere in the Commentary, we report weak and weakening confidence in the tourism sector across Scotland. Occupancy levels remain flat compared to previous years and with falling average daily spending and flat demand from overseas. Many hotels appear set to continue discounting in Q4, with those intending to hire staff falling from two-thirds to one half. Figures from the Quarterly National Accounts for Scotland show that spending by (non-Scottish) tourists is worth approximately 3.1% of Scottish GDP in the most recent quarter. This share has varied slightly over the last decade, rising to over 4.0% in 2003, and falling below 3.0% for three quarters – all in the last

three years. While the general trend of non-Scottish tourism spending has been upward over the last decade, the last two years have seen considerable volatility. Q2 2010 was the poorest second quarter for five years in nominal terms for non-Scottish tourism spending, which could indicate that the sector may struggle to produce growth over the year.

Exports to the rest of the UK

Preliminary estimates of GDP growth for the UK in the 3rd quarter of 2010, published on the 26th of October 2010, revealed that growth continued for the fourth consecutive

quarter, up by 0.8%: almost double what analysts had predicted, but down from a growth of 1.2% in Q2. As noted before, the rest of the UK is the most important trading partner for Scottish industries, the demand for Scottish exports will depend crucially on the path of growth which occurs in the UK. Scottish Input-Output tables for 2007, also published in October 2010, showed that exports to the rest of the UK were slightly less than two-thirds of all Scottish exports.

Table 1: GDP growth forecasts for top five export markets for ROW exports from Scotland, % year on year change, plus United Kingdom and Euro Area

		2010		2011	
		IMF (October 2010)	OECD (June 2010)	IMF (October 2010)	OECD (June 2010)
1	United States	2.6	3.2	2.3	3.2
2	France	1.6	1.7	1.6	2.1
3	Germany	3.3	1.9	2.0	2.1
4	The Netherlands	1.7	1.2	1.9	2.0
5	Ireland	-0.3	-0.7	2.3	3.0
	United Kingdom	1.7	1.3	2.0	2.5
	Euro Area	1.7	1.2	1.5	1.8

Sources: International Monetary Fund, World Economic Outlook, October 2010 and OECD Economic Outlook, June 2010.

Recent forecasts for UK GDP growth in 2010 show a strong rebound from the declines seen in 2009. The Office for Budgetary Responsibility's forecast from June 2010 was for 1.2% growth in 2010, and 2.3% and 2.8% in 2011 and 2012 respectively. Household consumption growth in their forecast is anticipated to remain weak, rising by only 0.2% in 2010, and reaching growth of 1.7% in 2012. As we have noted previously, much of the growth forecast for the UK comes exports: forecasted to rise 4.3% in 2010, 5.5% in 2011 and 6.3% in 2012.

As noted elsewhere in this Commentary, Scottish Engineering Review produced the most optimistic survey, including rising export orders, for the Manufacturing sector (the largest export sector in Scotland). Other surveys of that sector were less hopeful, with confidence dimmed, and evidence of increasing spare capacity.

Exports to the rest of the world

Recent forecasts for the growth in world trade were produced by the OECD in their "Economic Outlook", published in June 2010. These are unchanged from their May 2010 forecasts. On the 3rd of November they presented their next "Economic Outlook", however the detailed information on their forecasts are not available until after this issue of the Commentary. Overall, world trade, which fell by 11.0% in 2009, is predicted to increase by 10.6% in 2010, and to grow by 8.4% in 2011. As well as the OECD's assessment, the IMF publishes a twice year "World Economic Outlook", the most recent one from October 2010. In this, they forecast world trade in 2010 to increase by

11.4% in 2010 and 7.0% in 2011. As well as the value in finding new markets, growth in existing markets for Scottish goods will be an important driver of the extent to which exports can drive the economic recovery.

The major (non-UK) importers of Scottish goods, and the recent IMF and OECD forecasts for GDP growth in these countries are given in Table 1. Whilst the development of existing destinations for Scottish goods and services is vital to the export-led recovery for Scotland, opening up previously underdeveloped markets could offer greater scope for economic gains over the next three years.

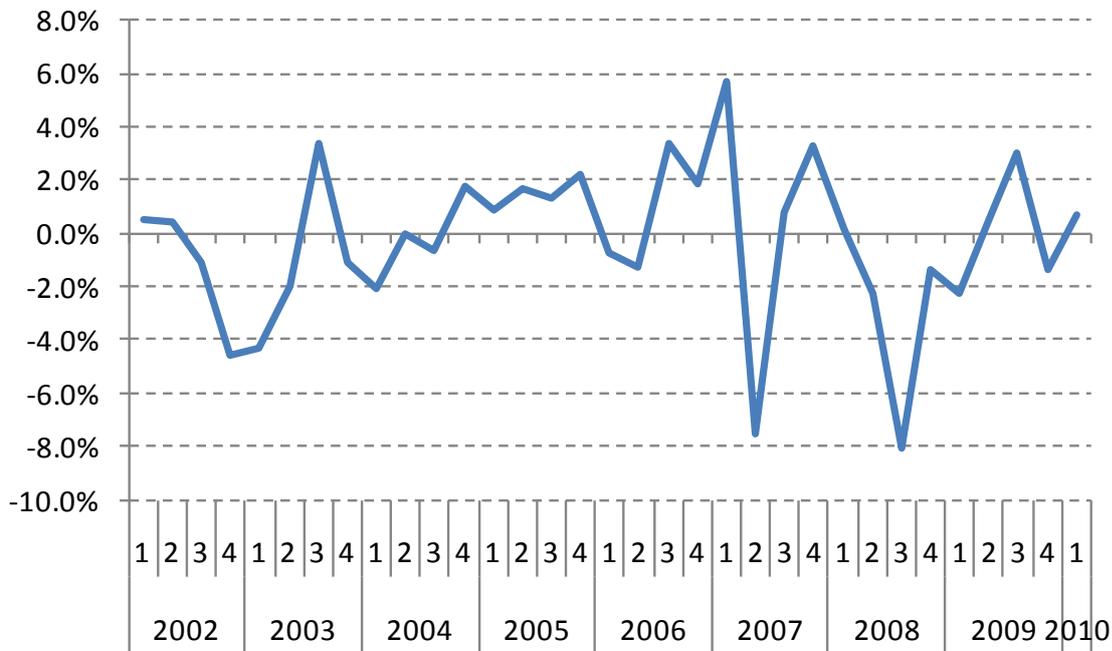
Despite upward revisions for the major (non-UK) destinations for Scottish exports, growth continues to be forecast to be relatively slow to return in 2010, particularly for the EU economies to which Scotland has traditional exported its non-UK exports (although Germany continues to be a clear exception to the rule this year). With most countries hoping for export-led growth, competition in world trade will be high. With the benefit of a floating exchange rate, however, the competitiveness of UK goods and services has improved and could, other things being equal, provide an initial stimulus to exports. In the longer-term, however, finding new markets for Scottish goods and services will be crucial for the extent to which export-led growth can provide a stable foundation for economic recovery.

In past forecasts we have used experimental statistics on Manufacturing exports to the Rest of the World by quarter

produced by the Scottish Government as part of the Scottish National Accounts Project. The most recent data, published in October 2010, covers the period from Q1 2002 to Q2 2010. These data showed that over the year to the end of the 2009 Manufacturing exports from Scotland – which account for roughly two-thirds of Scottish exports to the rest of the world – fell by 9.2% in real terms (stripping out the

impact of inflation). This was slightly less than that given in earlier data. After four quarters of falls in the real value of ROW manufacturing exports to Q2 2009, the last four quarters has seen a steady, if choppy, recovery. The quarterly growth in ROW manufacturing exports is shown in Figure 3.

Figure 3: ROW manufacturing exports, change on previous quarter, 2002-2010



While highly volatile, we can see that manufacturing (ROW) export growth – has not been more than 3.5% in any quarter. On an annual basis, the best years for ROW export growth in the last nine years saw growth of 4.1%. Simple arithmetic suggests that with (net) exports to the rest of the world contributing around 35-40% of GDP in Scotland, and the domestic side of the economy relatively flat, or contracting in the coming years, export growth will need to increase significantly compared to previous levels to provide the boost to Scottish activity and income. In terms of sectoral ROW export growth, (with the exception of “Engineering and Allied Industries”, which is the largest sub-sector of exports to ROW) all of the manufacturing sectors identified showed greater exports in real terms in Q2 2010 than in Q2 2009, with exports up by 2.7%. The largest annual increases were evident in “Metals and Metal Products” (+33%) and “Wood, Pulp, Paper, Publishing and Printing” (+30%).

The forecasts: Background

As with the forecasts published in the last six Commentaries, we give three alternative scenarios for growth, employment and unemployment in the Scottish economy between 2010 and 2012. We give a “Central” case, with “High growth” and “Low growth” as two respectively upper and lower growth alternatives. We intend

these to capture the range of outcomes that are possible, given that there are considerable uncertainties surrounding any specific single or point estimates. While we do not give explicit probabilities for each of these outcomes, we see the “Central” scenario as being that which is most likely, while “High growth” and “Low growth” reveal the possible range of outcomes for the Scottish economy from 2010 to 2012.

The forecasts: Detail

In the three scenarios considered, the following elements are assumed to influence the factors of demand, and therefore economic activity, in the Scottish economy:

Household

In the “Central” scenario, we forecast that the significant reduction in Household spending seen in 2009 moderates, but overall expenditure growth only increases marginally in 2010, in part due to expenditure brought forward from 2011 when VAT will be higher, but also due to continuing attempts to increase household savings rates and pay down debts. Aggregate Household expenditure in 2011 and 2012 is forecast to increase slightly from weak 2010 levels, although spending growth in 2011 is damaged by the VAT increase and only by 2012 does household spending return close to trend expenditure growth. The increased element of the UK fiscal tightening coming from welfare reductions,

means that, to the extent that these payments funds household spending, household spending is lower than it otherwise would be (or would be with larger reductions in Government spending). In “Low growth”, household expenditure remains broadly flat through 2010 and falls slightly in 2011. As with previous scenarios, it isn’t until 2012 that household spending sees a return to positive growth in “Low growth”. In “High growth”, spending responds faster than in “Central”, returning to sluggish, but positive, growth in 2010 before seeing a return to pre-2008 trend expenditure growth through 2011 and increasing marginally above trend in 2012.

Government

In “Central” we forecast an increase in government spending in Scotland through 2010 on 2009 levels, but this

is the final year of government spending growth expected for the short-term. As we have noted before, the delaying of reductions in aggregate spending until next year means that the reduction in 2011 will be greater as a result. This is expected to be the largest single year reduction in expenditure of this period of fiscal consolidation. From 2011, we forecast annual real terms reductions in aggregate Government spending in Scotland, which are reduced by 4.2% in 2012 compared to 2011, and 4.9% lower in 2011 on 2010. In “High growth”, government spending is still lower in 2011 and 2012 compared to the previous year’s total, with less tightening across government budgets at the UK level in comparable spending programmes. Across all scenarios however, government spending in Scotland is lower, as would be expected.

Figure 4: GVA growth 2005-2009 and forecasts for Scotland 2010 to 2012, annual real



Exports

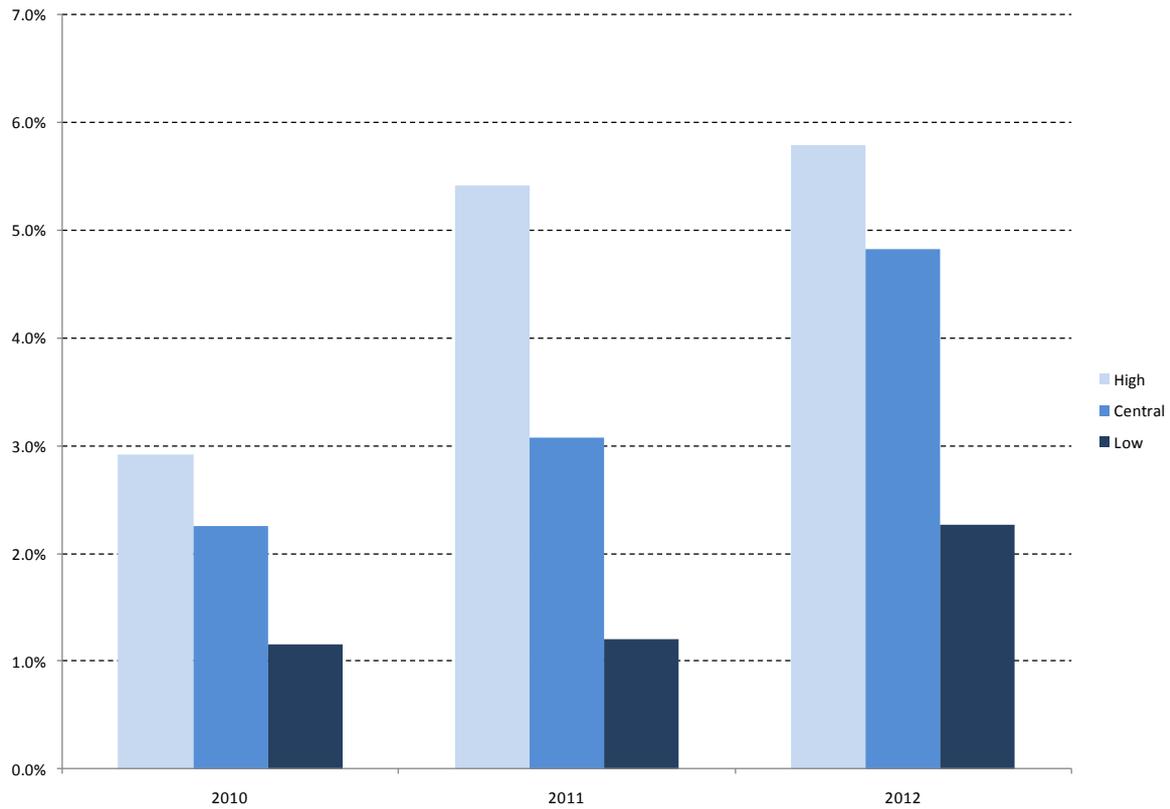
In “Central” we anticipate a return to growth in world trade in 2010 consistent with international opinion, with a commensurate return to relatively strong positive growth in demand for Scottish exports from the rest of the world returning through 2010, 2011 and 2012, in part due to the increased competitiveness of Scottish products. In “High growth” and “Low growth”, this return to positive growth in exports to the rest of the world from Scotland takes less and more time, respectively. Exports to the rest of UK follow a similar pattern returning to slightly positive growth in 2010

across all three scenarios, albeit that, due to the measures introduced in the CSR, growth in domestic demand in the rest of the UK is forecast to be slightly lower in 2010 and 2011 than we assumed previously. In all three scenarios, however, export growth is forecast for each of these three years.

Tourism

Tourism is forecast to recover slowly from the challenging conditions seen through 2009, with (non-Scottish) households’ expenditures on travel and tourism activities

Figure 5: Forecasts of GVA growth in Production, 2010-2012



anticipated to largely follow general household expenditure growth. In “Central”, tourism spending in aggregate is forecast to increase slightly in 2010, with more significant growth continuing through 2011 and 2012.

Investment and stocks

As discussed above, 2009 saw reductions in investment demands which were unprecedented in modern times. As we have previously stated, the recovery in investment will be partly driven by the supply of credit, but also the demand for credit from companies, which will be linked with returning business confidence. Recent survey evidence for Construction, responsible for much of the investment activity in the Scottish economy, continues to show weak levels of overall confidence, with declines in order, albeit that the declines have moderated from earlier periods. We revise up our estimate of Investment growth in 2010 from June’s Commentary, and forecast in our “Central” scenario that aggregate investment levels will return from the huge declines seen through 2009, and will show positive growth in 2011 and 2012. The pro-cyclical nature of investment, combined with the decrease through 2009, could indicate that we might see significant rebound in investment levels over the coming quarters. “Low growth” anticipates investment reducing from 2009 levels – such that spending increases in Q2 were not maintained – although the decrease is forecast to be marginal.

Results

Gross value added

All three scenarios forecast out to 2012, by which time Scottish GVA growth in all scenarios is forecast to be positive. The recovery to positive growth occurs faster in the High growth scenario, and more slowly in the Low growth scenario. As stated above, we forecast that the Central scenario represents the most likely outcome for the Scottish economy given the current economic position and outlook at the start of 2010. Scotland is forecast to return to positive growth in 2010 in both the Central (1.0%) and High growth (+1.3%) scenario and the Low growth scenario sees relatively slower growth (0.5%) in 2010 and only growth of 0.3% in 2011. As noted above, considerable multiple downside risks remain to the strength of the expected economic recovery for Scotland. Further, it is evident that, for many discussed reasons, and under plausible scenarios, this may be particularly experienced in 2011.

These scenarios are presented in Figure 4, alongside (for comparison) the forecasts for the UK as a whole in 2010, 2011 and 2012 made by the Office for Budget Responsibility (OBR) (and published alongside the Budget on the 22nd of June 2010). Forecasts for UK economic growth in 2010 and 2011 were collected from city and non-city forecasters by HM Treasury, and published in October 2010. The median

Figure 6: Forecasts of GVA growth in Services, 2010-2012

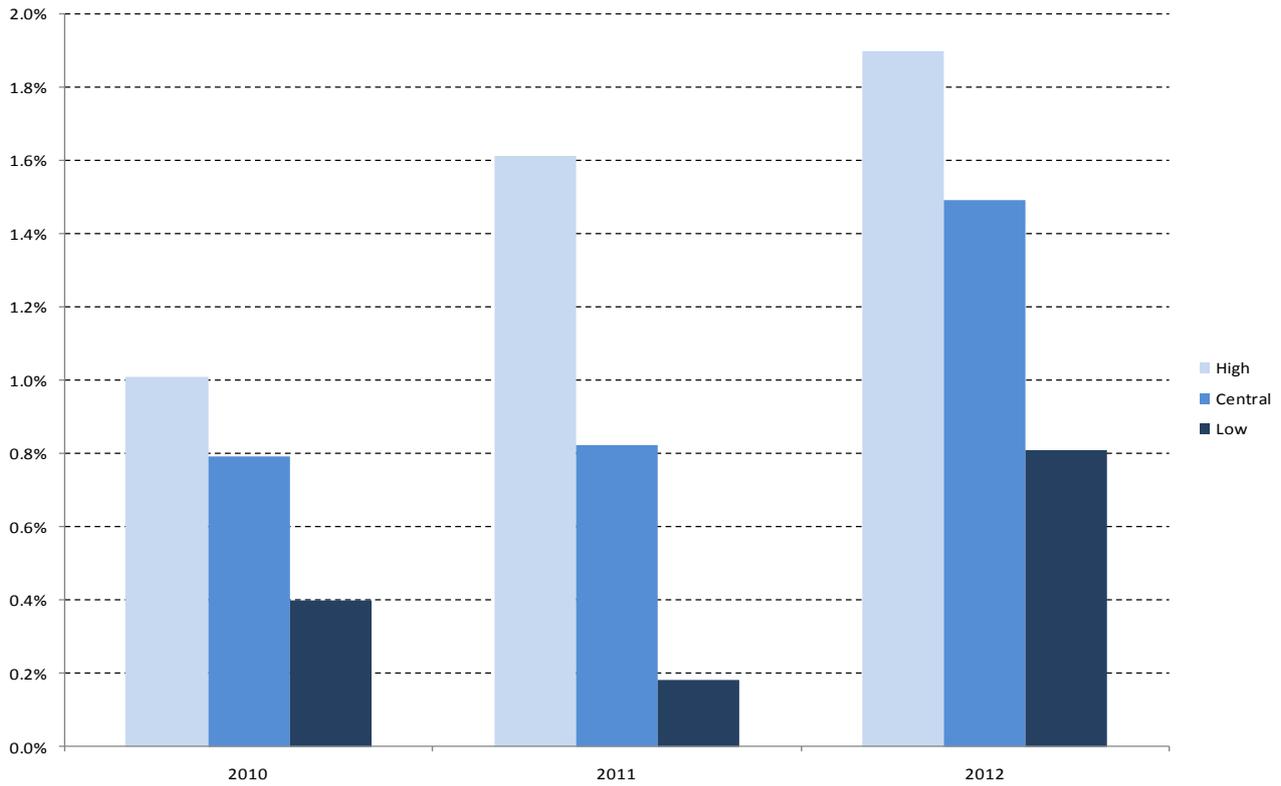
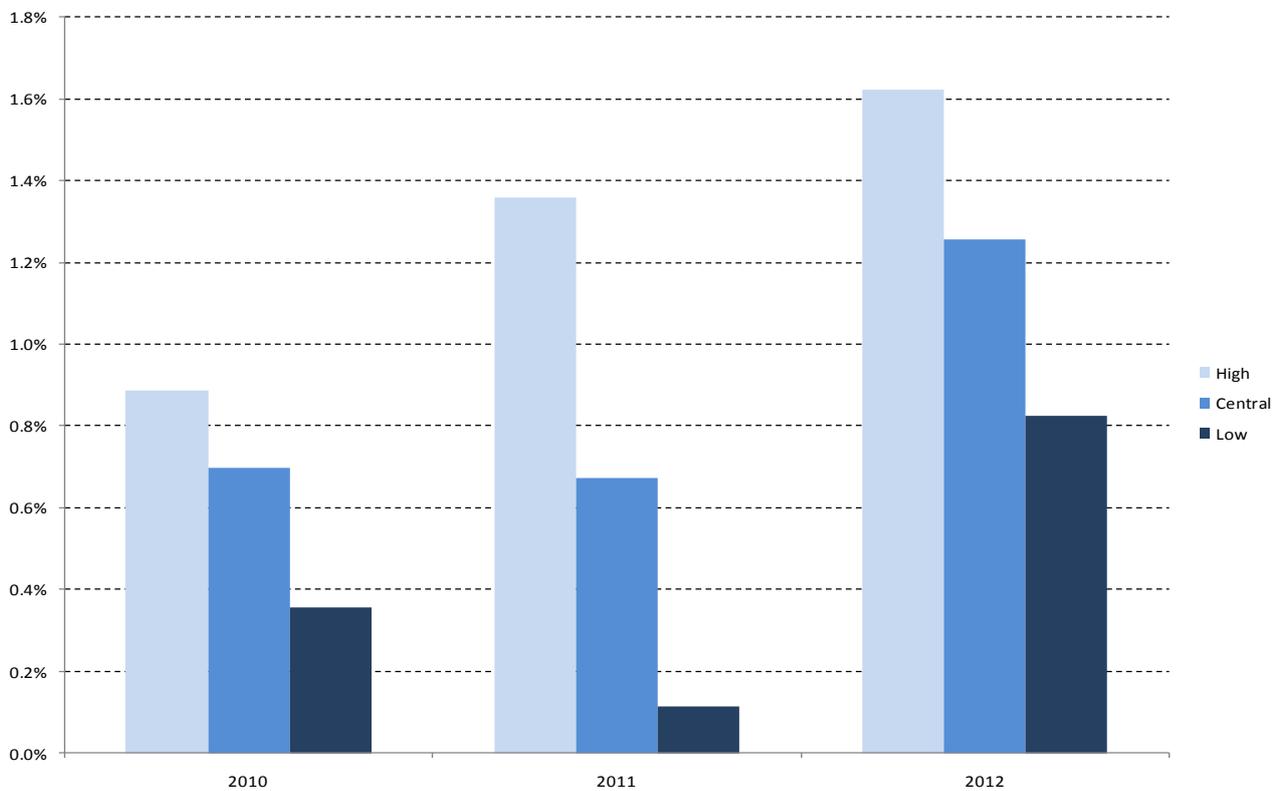


Figure 7: Forecasts of GVA growth in Construction, 2010-2012



recent forecast of UK growth in 2010 and 2011 from this sample is 1.6% and 2.0%.

We are forecasting that the Scottish economy will perform better than the OBR's forecasts for the UK in 2010 (1.2%) under the High growth scenario only, but less well under the most likely Central scenario. We anticipate the most likely outcome is for a slower return to growth in Scotland than the UK as a whole, with our Central scenario forecasting lower growth in Scotland than the OBR forecasts for the UK in each year from 2010 to 2012. While the gap between our (Scottish) and the OBR's (UK) forecasts for 2010 is relatively small (+1.0% against +1.2%), our forecasts estimate that the size of this gap will be larger in 2011.

Under the Central scenario, GVA growth returns to positive annual growth in 2010 (+1.0%) and 2011 (+1.1%). In 2012, Scottish growth is forecast to be 1.9%, around the long-term trend growth for Scotland, and marginally down from our forecast for 2012 in June 2010. Our headline forecast in the "Central" scenario, and the forecast for the broad sectors under this scenario are given in Table 2. Table 3 shows the GVA forecasts under each of the three scenarios. Under the Low growth scenario, smaller (but still positive) growth is seen 2010 and 2011, with 2011 seeing a slower rate of growth than 2010.

We present forecasts for GVA change in Scotland at broad industry levels for Production and Services, as well as the Construction sector under each of the three scenarios. Figure 5 shows the GVA change in Manufacturing under

each of these three scenarios, while Figure 6 shows the GVA change in Services. Figure 7 shows the change in forecasted GVA in the Construction sector between 2010 and 2012.

Across Production (shown in Figure 5), a recovery from the observed declines in GVA in 2009 occurs in 2010 in the Central and High scenarios. We forecast GVA growth of 2.9% for 2010 under the High growth scenario. The Low growth scenario on the other hand forecasts a growth of only 1.2% this year. In 2011 and 2012, all three scenarios forecast positive GVA growth in the Production sector, with growth ranging from 1.2% to 5.4% in 2011 and 2.3% to 5.8% in 2012.

Figure 6 shows that Service upturn GVA growth across the three scenarios is more insulated to the economic downturn than the Production figures seen in Figure 3. Services GVA growth in 2010 ranges from 0.4% to 1.0%, while in 2011 GVA growth is forecast in the range from 0.2% to 1.6%. The High forecast for Services has been revised (very slightly) upwards from that presented in June's *Forecast*. As previously noted, the recovery in consumer confidence and household spending (both in Scotland and in major, or new, export markets, particularly the rest of the UK) will drive the speed and duration of the recovery across the Scottish Service sectors.

Figure 7 shows that in our forecasts the declines in GVA in the Construction sector seen in 2009 do not continue into 2010. Having fallen 10.8% in 2009, we forecast that

Table 2: Forecasts of the Scottish economy (Central scenario), 2010-2012

	2010	2011	2012
Gross Value Added	1.0%	1.1%	1.9%
Manufacturing	2.2%	3.1%	4.8%
Construction	0.8%	0.8%	1.5%
Services	0.7%	0.7%	1.3%

Table 3: Forecasts for aggregate GVA growth in the Scottish economy under three scenarios, 2010-2012, %

	2010	2011	2012
High growth	1.3%	2.1%	2.4%
Central	1.0%	1.1%	1.9%
Low growth	0.5%	0.3%	1.0%

Construction GVA grows slightly from its current level across all three scenarios. The "Central" scenario sees the sector growing 0.7%, 0.7% and 1.3% over 2010, 2011 and 2012 respectively. Growth in 2010 is driven, in part, by government spending, but this, for the reasons discussed

above, will not continue into 2011 and beyond. Looking forward, large declines in public (capital) spending are anticipated, but we forecast some increasing demand from private business investment.

Table 4: Forecasts of Scottish employee jobs (000s) and net employee jobs change in central scenario, 2010-2012

		2010	2011	2012
Total jobs (000s), Dec		2,209	2,230	2,269
Net annual change (jobs)		-12,794	21,224	39,124
% change from previous year		-0.6%	1.0%	1.8%
Agriculture (jobs, 000s)		30	30	32
	<i>Annual change</i>	250	691	1,289
Production (jobs, 000s)		239	247	259
	<i>Annual change</i>	1,906	7,680	12,474
Services (jobs, 000s)		1,827	1,839	1,863
	<i>Annual change</i>	-13,928	12,097	23,936
Construction (jobs, 000s)		113	113	115
	<i>Annual change</i>	-922	757	1,425

Employment

Our forecasts for employment for each of the three scenarios are given in Table 4, along with the net aggregate employment change over the year. As in previous forecasts the employment figures relate to jobs, not FTEs, and are calibrated on the end-year (December) figures from the Employers' Quarterly Survey Series, as given in Table 6.06 of the Economic and Labour Market Review, published by National Statistics. This gave total employee jobs in Scotland at December 2009 as 2,221,500 (down 94,200 from December 2008). We anticipate in our Central scenario that total job numbers in Scotland will fall (-0.6%) in aggregate in 2010, and will grow in 2011 (+1.0%) and 2012 (+1.8%).

Notes: Figures are numbers of employee jobs, by industry, and not the numbers in employment, therefore these figures differ slightly from those reported in the labour market section of the Economic Commentary. As of October 2010, the most recent estimate of employee jobs was from June 2010, and was 2,220 thousand.

In "Central", the number of jobs is forecast to decline by 12,794 in 2010 (down on the number of jobs forecast in June's Forecast to be lost in 2010). Total employee job numbers, and jobs in all of these broad industrial sectors, are forecast to increase in 2011 and 2012. Total jobs in 2012 are forecast to be around 47,000 lower than the employee jobs total for 2008 (in which historic highs and lows respectively for the employment rate and unemployment rate were seen in Scotland).

In all scenarios, total job numbers in Scotland are forecast to continue to show a decline in 2010, following, but not as large as, the decline seen through 2009. Table 5 shows the forecasts for net annual growth in employee jobs in each of the three scenarios. The speed of the decline is however forecast to be much reduced. In the "Central" scenario, the forecast is for around 12,700 jobs to be lost in Scotland in 2010. Our "Low growth" scenario forecasts a fall of 22,700 jobs. The number of jobs in Scotland is forecast to increase across all scenarios in 2011. In our "Central

Table 5: Forecast Scottish net jobs growth in three scenarios, 2010-2012

	2010	2011	2012
High growth	-7,000	42,300	50,404
Central	-12,700	21,200	39,100
Low growth	-22,700	4,400	21,100

scenario" we forecast jobs growth of 21,200 in 2011, with an increase of 42,300 in the "High growth" scenario, and an increase of 4,400 in our "Low growth" scenario.

Looking at the sectoral breakdown for these employment changes, in all scenarios the Services sector sees the largest decline in job numbers in 2010. Overall, the number of service sector jobs are forecast to fall by almost 14,000 between December 2009 and December 2010. This is about

half the job lost forecast in June's commentary. In the "Central scenario" the most significant number of jobs are forecast to be lost in 2010 in "Health and Social work" (down 3,571), "Retail and wholesale" (down 2,968) and "Real estate and business services" (down 2,768). The Construction sector, which lost 16,861 jobs in 2009 is forecast to lose over 900 jobs in 2010, and see a slow growth in job numbers through 2011 and 2012.

Table 6: Forecasts of Scottish unemployment, central scenario 2010-2012

	2010	2011	2012
ILO unemployment	245,056	286,821	261,730
Rate1	9.3%	10.7%	9.7%
Claimant count	143,214	167,623	152,959
Rate2	5.2%	5.9%	5.4%

Notes: 1 = rate calculated as total ILO unemployed divided by total of economically active 16+ population. 2 = rate calculated as claimant count divided by sum of claimant count and total jobs. The latest estimates of the figures forecast in Table 6 were published in October 2010 in the Labour Market Statistics First Release for Scotland. These estimated the ILO unemployment levels and rates for the three months to August 2010 as 231,000 and 8.7% respectively. The same publication gave preliminary estimates of the claimant count and rate for September 2010 as 134,500 and 4.8%.

Table 7: ILO unemployment rate and claimant count rate measures of unemployment under each of the three forecast scenarios

	2010	2011	2012
ILO unemployment rate			
High growth	9.1%	9.6%	8.2%
Central	9.3%	10.7%	9.7%
Low growth	9.8%	11.8%	11.5%
Claimant count rate			
High growth	4.8%	5.1%	4.3%
Central	5.2%	5.9%	5.4%
Low growth	5.9%	7.2%	7.0%

Employee jobs in "Production" jobs fell by 11,000 in 2009. We forecast that the number of Production jobs in 2010 will increase slightly, up by just under 2,000 jobs. The forecasted job changes in the "High growth" and "Low growth" scenarios are 3,545 and -744 jobs respectively. Within the Production sectors in the Central scenario, the largest job growth is forecast in Mining and Quarrying (+478 jobs) and Textiles (+431 jobs), while the sector forecast to see the largest reductions in job numbers are Food and Tobacco (-109 jobs).

Unemployment

We present our 2010 to 2012 forecasts for unemployment, as measured by the ILO definition, as well as those claiming unemployment benefit in Table 6. The preferred measure of unemployment is the ILO definition, as given by the Labour Force Survey. This measure is preferred as it reveals the extent of labour which is unemployed and available for work, rather than that portion of the available Scottish labour force which is currently in receipt of unemployment benefit. As such, it is a better measure of the extent to which labour resources are not currently employed in productive activity in Scotland.

Of crucial importance to the realised levels of unemployment will be the extent to which people who lose employment switch into the unemployed, or move into labour inactivity, i.e. are unemployed but not available for work. One potentially important feature of the 2008-9 recession has been the extent to which the inactivity rate in Scotland has increased (up 1.5% points in the last year), and it currently stands at 37.0% for 16+, and 22.9% for working age people.

Table 7 shows the ILO and claimant count measures of unemployment under each of the three scenarios of our forecasts.

Grant Allan

5th November 2010

