Outlook and appraisal

Overview

As the Scottish economy emerges from recession a slowly strengthening recovery is threatened by the massive fiscal consolidation package introduced by the new Conservative/Liberal Democrat coalition government in the emergency Budget of 22nd June. We estimate that Scottish GDP growth will be 0.1% lower this year, 0.2% lower in 2011 and 0.1% lower in 2012 as a result of the additional fiscal tightening in the emergency Budget compared to the plans of the previous Labour government.

Our central forecast is for GDP growth of 0.7% this year, 1.1% in 2011 and 2.1% in 2012. That should be compared with our February forecast of 0.6% this year, 1.6% in 2011 and 2.2% in 2012. The changes introduced in the emergency Budget along with the postponement to 2011 of Scotland's share of the £6bn UK cuts introduced by the new government for 2010 and the fiscal tightening put in place in the March Budget of the Labour government, result in our central forecast for 2011 being 0.5% points lower than our forecast in February. This is despite the fact that wider economic forces driving recovery in 2011 are now considered to be somewhat stronger than was the case in February. On our low growth scenario, the economy teeters on the brink of recession for two years despite signs of stronger recovery worldwide.

The consequential real cuts to the Budget of the Scottish Parliament and government of around 14% may result, other things equal, in up to 126,000 economy wide job losses by 2014-15 comprising up to 90,000 in the public sector and 37,000 private sector job losses. However, if the resulting drop in demand and freeing up of resources leads to a moderation in Scottish real wages and lower purchased input and output prices then there will be a "crowding-in" effect as private sector activity, especially, benefits from improved competitiveness. In these

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Figure 1: Scottish and UK quarterly GDP growth, 1998q2 to 2009q4

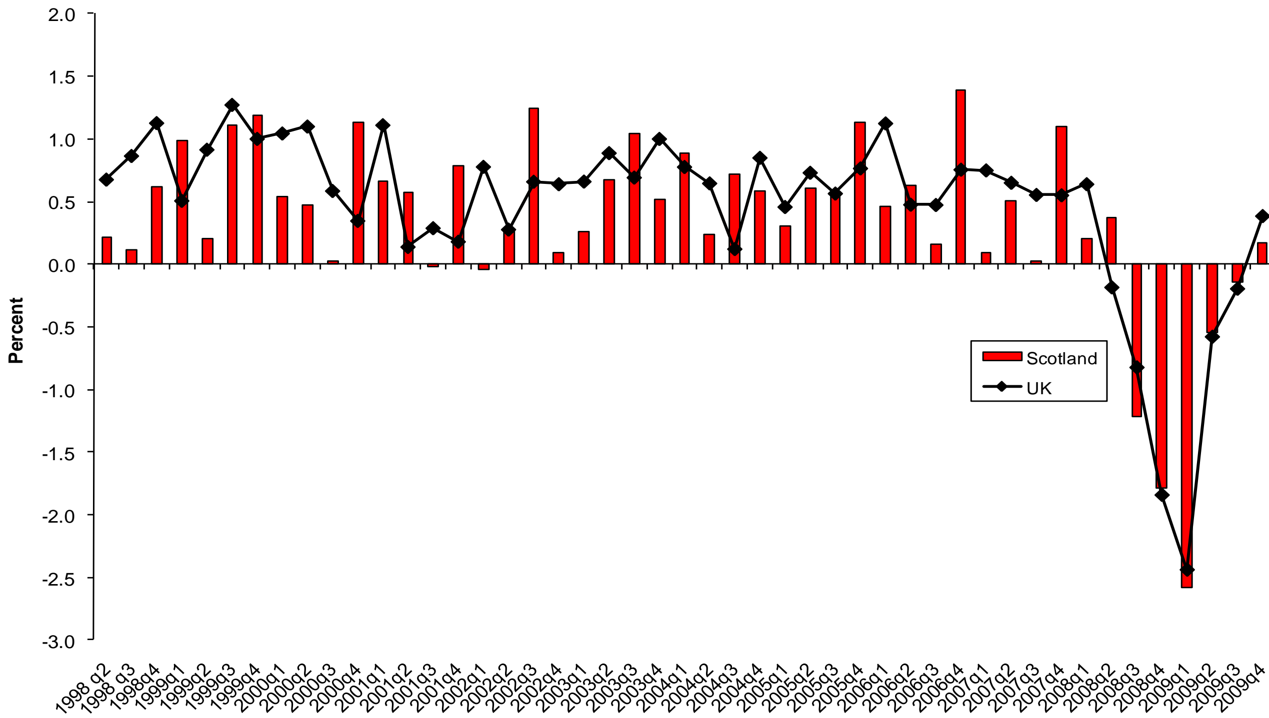


Figure 2: Scottish and UK services GVA growth at constant basic prices 1998q2 to 2009q4

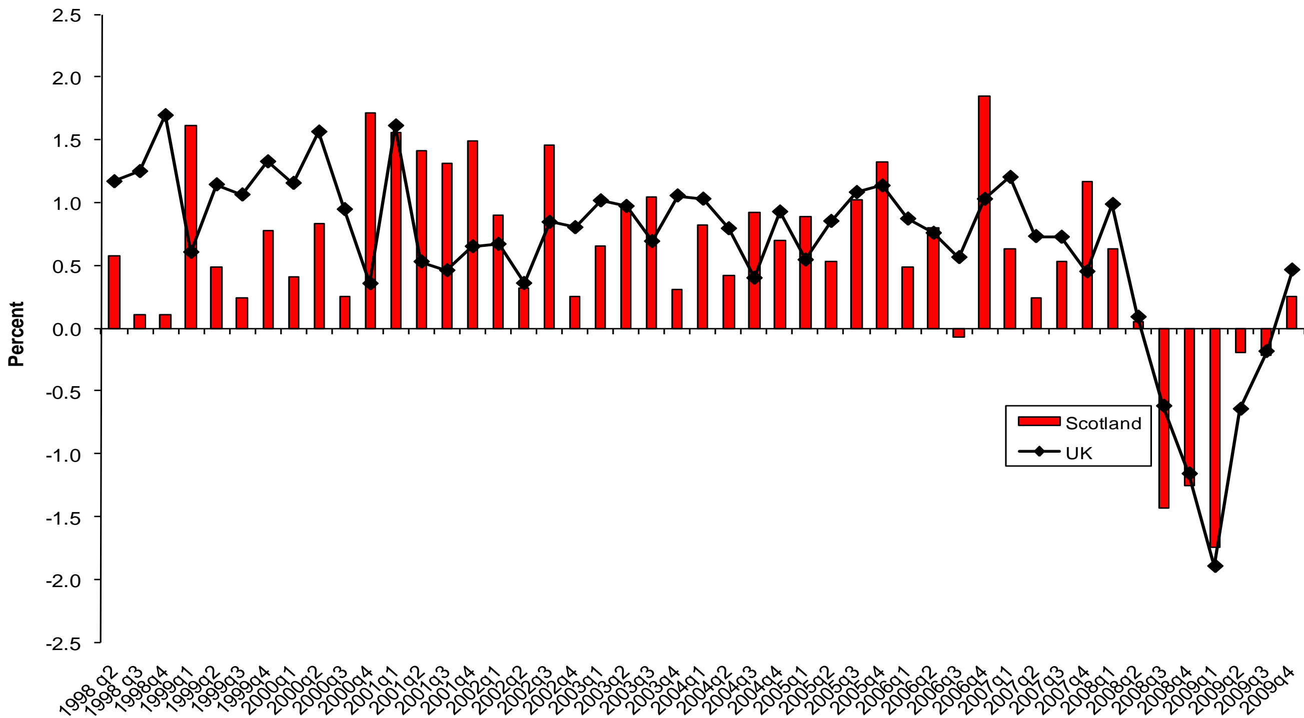


Figure 3: Scottish and UK manufacturing GVA growth at constant basic prices 1998q2 to 2009q4

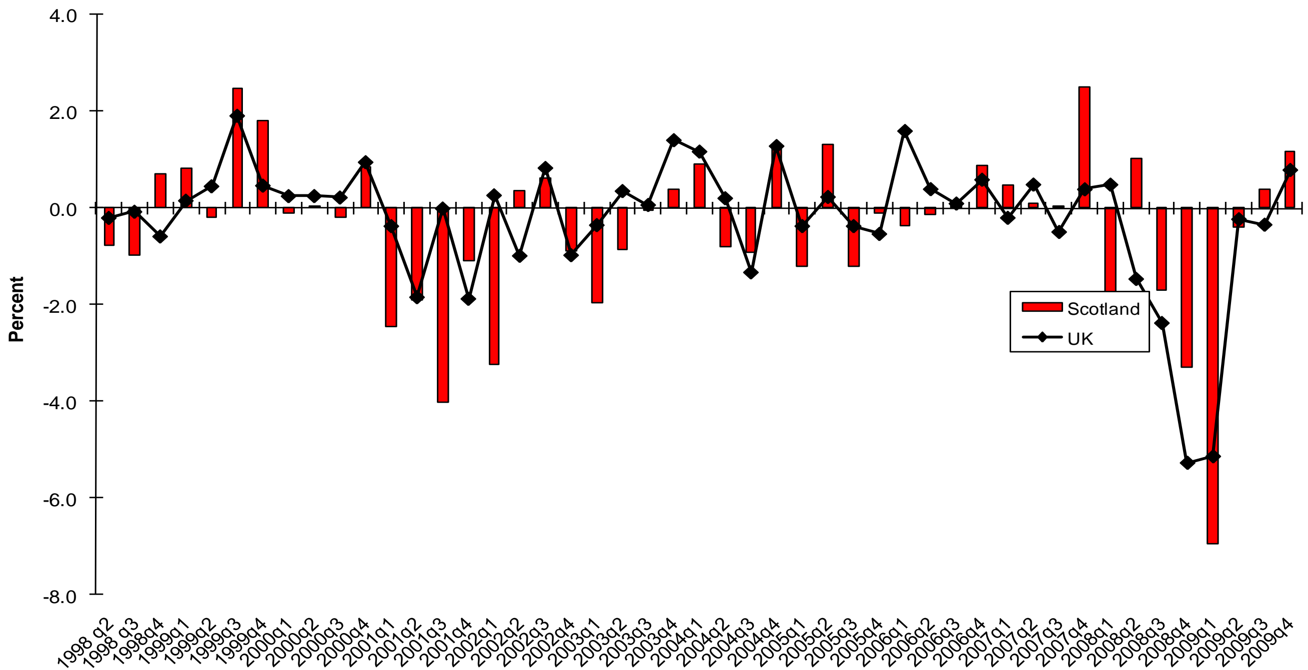
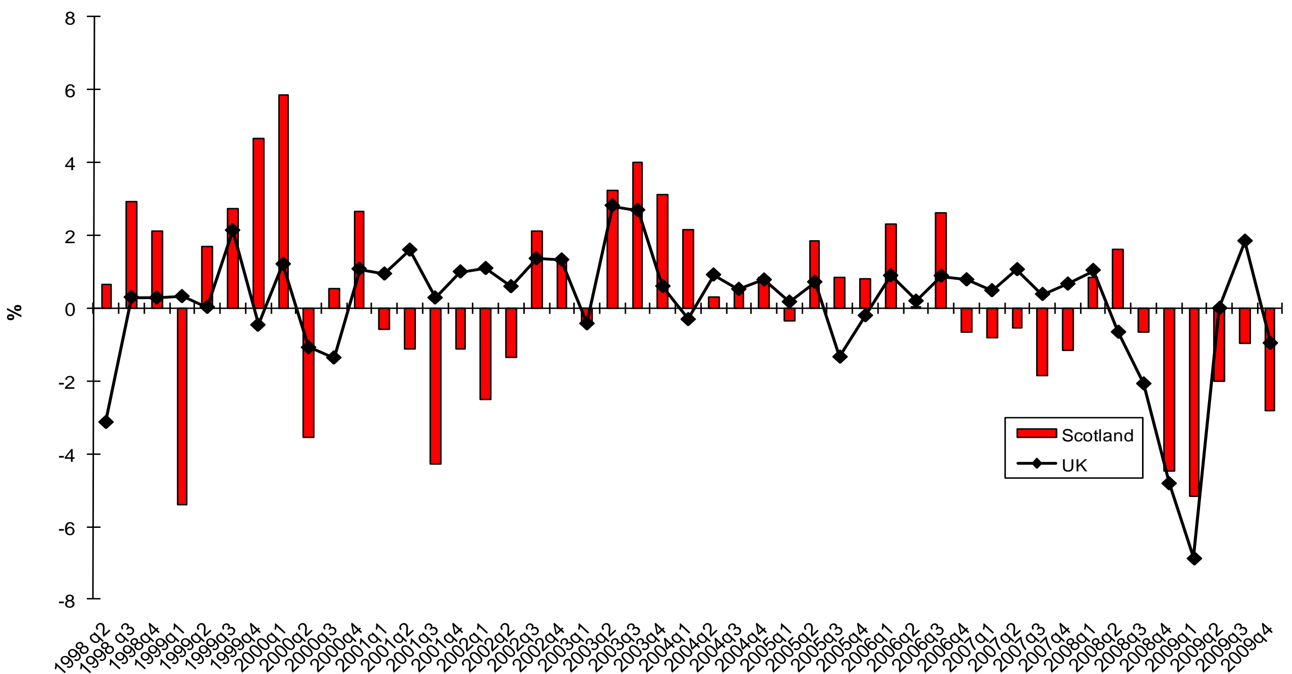


Figure 4: Scottish and UK construction GVA volume growth 1998q2 to 2009q4



circumstances of flexible wages and prices the shock will reduce jobs in the public sector by the slightly lower number of just under 78,000 while private sector employment rises by nearly 14,000. The overall job loss is thus just above 64,000, about half that in the fixed-price case. There is a "crowding in" effect on the private sector, but it is insufficient to offset the loss of activity in the public sector.

The potential cut to the Scottish Parliament and government budget is unprecedented. In such circumstances it is incumbent on the Scottish government to explore a range of options that can embrace cost savings and revenue raising as well as spending cuts. Moreover, the government will wish to identify those options that do the least damage to economic growth while preserving social justice. We hope that the Scottish Parliament and the wider public will have an opportunity to debate all of these options and build a countrywide consensus on the best way forward.

Recent GDP performance

GDP data for the Scottish economy for the fourth quarter of 2009 became available in late April. The Scottish economy finally exited the recession in the quarter growing at 0.2%, but the return to growth in Scotland was weaker than the UK at 0.4%. - see Figure 1. It is worth noting that Scotland's growth performance deteriorated relatively in the fourth quarter because in the third quarter the fall in GDP of -0.1% was a little better than the UK where the contraction was - 0.2%.

In the 4th quarter 2009, the service sector – accounting for 74% of overall GVA – came out of recession with output rising by 0.2% in Scotland but by almost 0.5% in UK – see Figure 2. Over the year to the fourth quarter service sector GVA fell by -3.6%, while the recession taken as whole led to fall of -4.76% in GVA compared to fall of -4.43% in the UK.

The service sector continued to perform less well in Scotland than in the UK in the fourth quarter, but *manufacturing* (14% of GVA) again did better. In the fourth quarter Manufacturing GVA rose by 1.2% in Scotland against a rise of 0.8% in manufacturing in the UK - see Figure 3. The stronger manufacturing output performance was mirrored in the fourth quarter export figures, with Scottish manufacturing exports rising by 2.9% in real terms, after a rise of 1% in the third quarter but a fall of -10.1% over the year to the fourth quarter.

The *construction* industry in Scotland continued to contract with GVA falling by -2.8% in the fourth quarter compared to a fall of 1% in the sector in the UK
– see Figure 4.

Within services, the main sectoral drivers of recovery in the fourth quarter were *public administration, education & health* (22% of overall GVA), *hotels & catering* (3% of GVA), *real estate & business services* (REBS) (18% of GVA) *financial services* (8% of GVA), and *retail & wholesale* (11% of GVA). The public sector grew by 0.2%, hotels and catering by 1.5%, REBS by 0.7%, financial services by 0.7% and retail and wholesale by 0.1%. Financial services grew by 0.7% in Scotland compared to a fall of -0.8% in the sector in the UK – see Figure 5. This is the first time that positive growth has been recorded in the sector for 6 quarters. We must hope that this presages a sustained recovery in the sector in Scotland. Since UK financial services went into recession later than in Scotland we might expect the sector to come out of recession somewhat later than its Scottish counterpart. One service sector experienced negative growth in the fourth quarter: *transport & communication* (7% of GVA). GVA in transport & communication services was marginally negative at -0.0% in Scotland, whereas the sector grew by 0.6% in the UK.

Manufacturing in Scotland continued its recovery still outperforming UK manufacturing. The main sectors driving the recovery and the stronger Scottish performance were *electronics, other manufacturing, paper, printing & publishing, transport equipment*, and *drink. Electronics* (2.8% of GVA) grew by 6.6% in the quarter compared to growth of 2.3% in its UK counterpart. *Other manufacturing* (1.7% of GVA) grew by 3.7% whereas the sector contracted by -0.6% in the UK. *Paper, printing & publishing* (1.4% of GVA) grew by 1.5% compared to a contraction of -1% in the sector in the UK. *Transport equipment* (1% of GVA) grew by 3% but this was much less than the growth of 8.3% recorded by transport equipment in the UK, which has now been growing for three successive quarters. Finally, the *drinks* industry (1.6% of GVA) continued to grow in the quarter with growth of 2.1% while the sector in the UK expanded by 0.3%.

Other Scottish manufacturing sectors either failed to recover or remained weak. The *chemicals* industry continued to display negative growth in Scotland with output falling by - 1.9% in the fourth quarter compared to growth of 0.2% in the sector in the UK. Over the year, output in the sector has fallen by nearly 20% and our hope that the significant contraction in output experienced in the 3 quarters to 2009Q3 had ceased has not been realised. *Mechanical engineering* reduced its output by -1.2% in the quarter a weaker performance than the rise of 2.5% experienced in the sector in the UK. The *metals* sector (1% of GVA)

Figure 5: Scottish and UK financial services GVA growth at constant basic prices 1998q2 to 2009q4

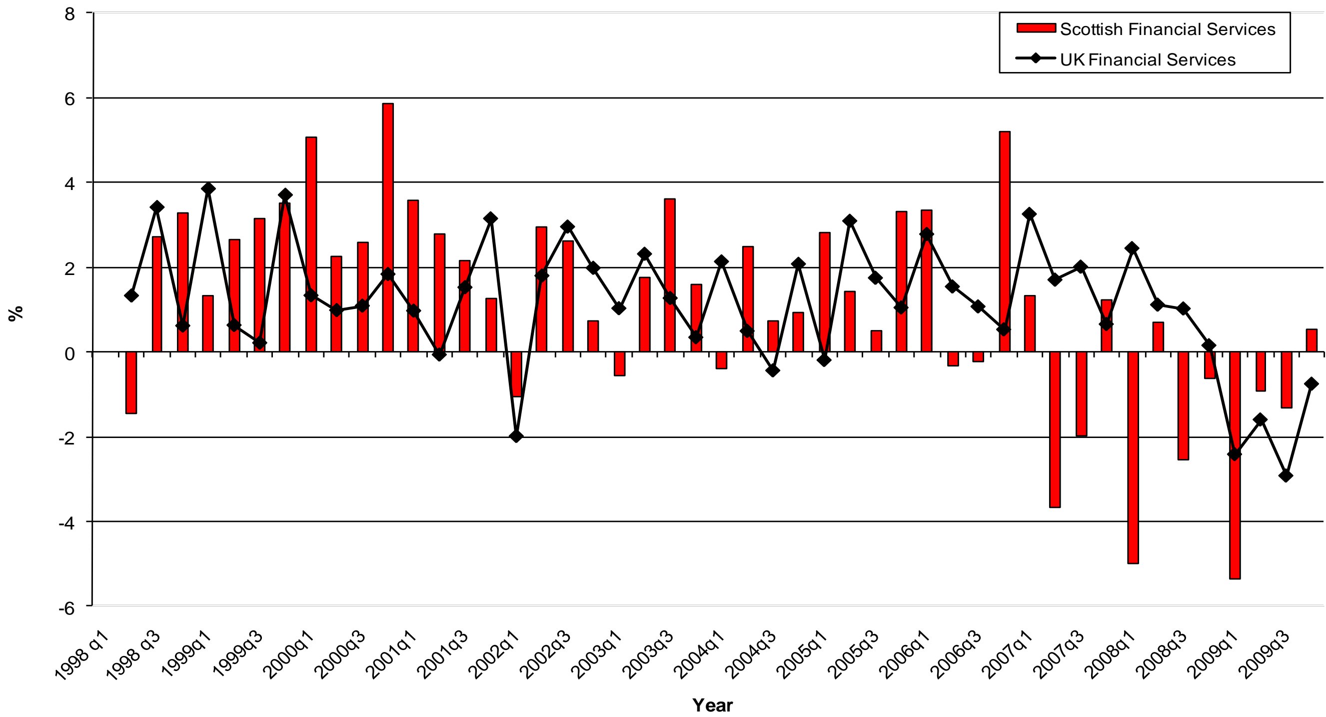
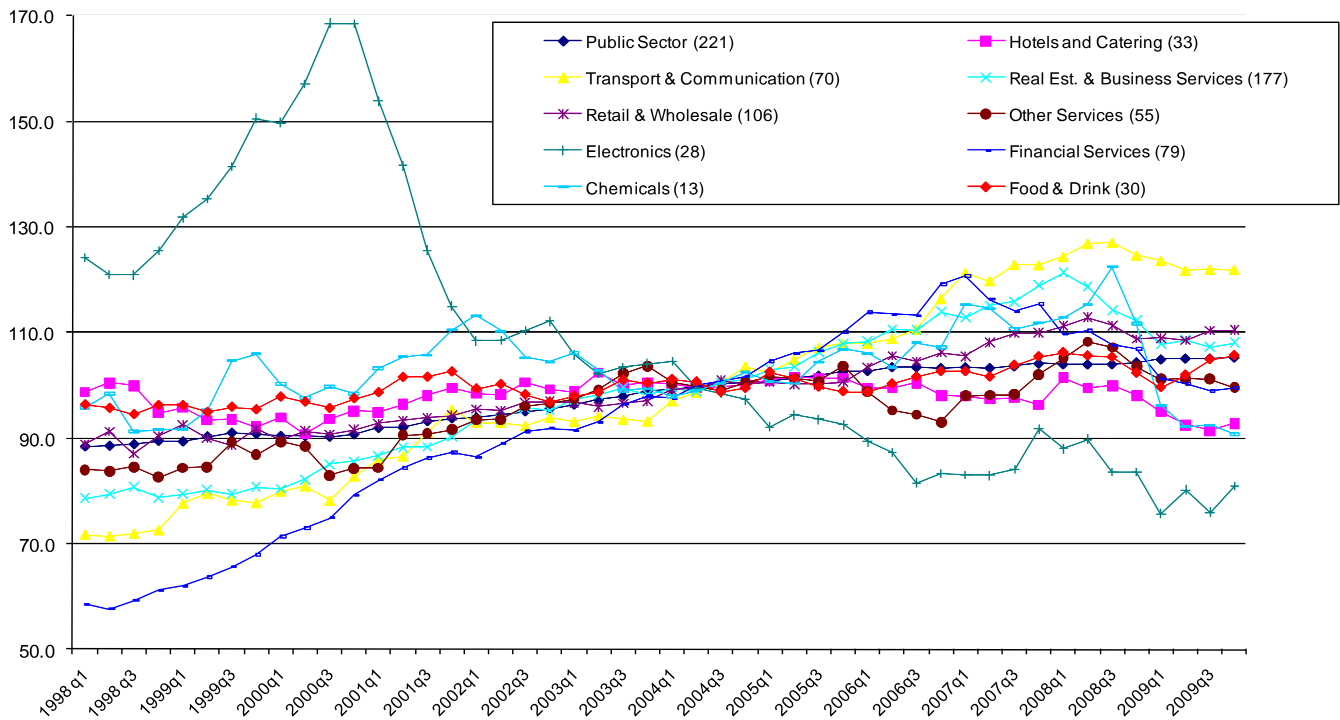


Figure 6: Growth of key sectors in Scotland 1998q2 to 2009q4



suffered a significant contraction of -8.9% compared to a rise of 0.7% in the UK. The sector has contracted by -10.4% in Scotland over the year. Finally, *Food* (1.4% of GVA) cut back production by -1% in Scotland, although this was better than the -2.4% reduction in output in the UK. Over the year the food industry in Scotland contracted by -1.7%, broadly similar to the fall in output in the sector in the UK.

Figure 6 charts the performance of key Scottish sectors over the past 12 years. The chart 6 indicates that all key growth sectors have been affected by the recession with the exception of the public sector. But most sectors are now recovering. One other point worthy of note is that some sectors have experienced a double-dip recession: transport & communication, REBS, other services, and chemicals.

Recent survey evidence

The GVA outturn data for the fourth quarter 2009 suggest that the Scottish economy is recovering from recession but at a slower pace than the UK. On top of this, as the *Review of Business Surveys* below notes, the interpretation of recent surveys is more difficult than usual. This is due to the effects of the unduly harsh winter, especially in Scotland, the re-introduction of the 17.5% VAT rate at the start of 2010, the ending of the car 'scrappage' scheme, and the effects on travel and trade of the volcano eruption in Iceland.

Almost all surveys report rising confidence, output and exports in Scottish manufacturing. Of the monthly surveys, the Bank of Scotland PMI was the most positive suggesting an acceleration in recovery right across the private sector. Furthermore, the Bank of Scotland Index of Leading Indicators similarly anticipated further recovery in GDP in ensuing quarters. However, the CBI survey - to end April - while anticipating rising output and orders, noted that uncertainty about future demand was likely to limit capital spending over the next twelve months. And the Scottish Chambers Business Survey highlighted the uncertainties posed by weak consumer spending, rising transport and energy costs, Government fiscal and monetary policies, especially the anticipated public spending cuts after the May election. Clearly, the strength and extent of the recovery from the recent major recession is by no means certain.

Forecasts

The Scottish economy came out of recession in the fourth quarter of last year with the recovery seeming weak over the winter months. *The Forecasts of the Scottish Economy* section of the Commentary below notes some evidence of recovery in nominal household expenditure and at a faster rate than we were predicting in February. This may in part be bolstered by evidence of gradually increasing activity in the housing market and some pick up in house prices. But housing market activity - lending for purchases, and house sales - remains weak. Retail sales growth is also not strong with the Scottish Retail Consortium reporting in June that like-for-like sales in May were 0.8% lower than in May 2009, when they had fallen 1.2%, the worst performance for almost 9 years. The comparable UK data indicated a rise of 0.8%. From this survey consumer confidence appears lower in Scotland than in the UK.

The supply of bank credit remains hesitant. Official Bank of England data for the UK released at the end of May reveals that M4 lending fell by 0.4% in April, with the twelve-month growth rate positive but falling to 2.8% from 3.2% in March. The *Financial Stability Report*, *June 2010* from the Bank of England indicates that UK banks have increased their resilience with average capital ratios now at their highest levels for more than a decade while leverage has declined considerably. The Bank rightly notes "There is a risk that banks alleviate their own funding pressures by further constraining credit conditions for customers. That would dent economic recovery and so raise credit risk for all banks." (page 10). Sovereign debt risk for the banks has also risen appreciably due to the Greek crisis as fears of spillover to other countries rose. A generalised retreat by the banks from risk-taking would put further pressure on the recovery.

Recovery in Scottish economic growth and jobs is also much dependent on growth in our major markets: the rest of the UK, mainland Europe and the US. Recovery in mainland Europe remains weak and this may be exacerbated by fiscal consolidations in Germany and other major economies. But the IMF is forecasting a significant pickup in world trade in 2010 and 2011 from a fall of -11% in 2009 to increases of 10.6% in 2010 and 8.4% in 2011. Tourism demand remains weak. Some pick up may be expected in 2010 due to the lower sterling exchange rate although recent increases may dampen that effect. We anticipate that tourism spending will remain flat in 2010 returning to growth in 2011 and 2012.

Investment was badly hit during the recession but business investment in the UK had begun to rise again at the beginning of the year. Clearly, the pace of recovery in investment demand will not only be driven by the expected growth of the demand for goods and services but also the availability and price of credit. Confidence remains weak in Scottish construction where much investment activity occurs. But we do expect investment to recover appreciably from the large contractions seen in 2009 but positive growth will not appear until 2011 and 2012.

In many respects the 'elephant in the room' affecting our forecasts for aggregate demand and GDP is the outlook for government spending. We note the expected scale of the spending adjustment below. Through cuts in spending on services, welfare benefits, cost savings and tax increases the government is seeking to rebalance the economy away from government consumption and debt. Government consumption will according to the OBR contribute -0.5% points to UK GDP growth between 2011-2015 compared to +0.5% between 2000 and 2008. But the contribution of private consumption is forecast to be +1.2% points per annum compared to +1.7% between 2000 and 2008. This,

as Martin Wolf points out in the Financial Times (25/06/2010), amounts to a significant increase in the contribution of net exports and investment to realise the OBR forecasts for the period. Specifically, the OBR predicts that net exports and investment will contribute +0.7% points and +1.2% points per annum respectively in the 2011-2015 period compared to +0.3% points and +0.5% points in the 2000-2008 period. It might be achieved but it poses a big challenge for the economy.

Against this background we are now assuming stronger household spending growth than we had assumed in the central forecast for February, export growth to the rest of the world is now significantly higher than previously assumed, while the growth of government spending is weaker.

GVA forecasts

The key forecasts for GVA/GDP are summarised in Table 1 along with our February forecasts for comparison. We shall primarily focus on our central forecast here. Scotland is forecast to return to positive growth in 2010. But the recovery over the year is weak, household spending strengthens and by more than we forecast in February but increases only slightly this year. Exports to the rest of the world continue to recover and at a faster rate than predicted in February. This along with some recovery of investment, helps raise the forecast to 0.7% growth compared to our prediction of 0.6% in February. Recovery is weaker in Scotland than the OBR's forecasts for the UK and the median of independent, private and institutional forecasts for the UK, for the reasons that were well rehearsed in previous Commentaries and we see no basis for altering that view. Scottish GVA growth is better than the UK in 2010 on the High growth scenario only. Trend growth is realised on our Central scenario in 2012 but there is a high degree of uncertainty surrounding our 2012 forecasts because of the large unknowns determining the consequences of the fiscal consolidation.

We have incorporated the decisions on government spending and tax in the emergency Budget into our forecasting model. The most significant changes affecting our forecasting horizon to 2012 are the increase in VAT to 20% and the additional cuts in government spending to that date. IFS analysis indicates that by 2012 less than half of the cumulative fiscal consolidation planned for 2015-16 will be in place. Taken together the consequences of the measures in the Budget lead to our GVA forecast being revised down by 0.1% points in 2010, 0.2% points in 2011, and 0.1% points in 2012 compared to what it would otherwise have been. These changes along with the postponement to 2011 of Scotland's share of the £6bn UK cuts introduced by the new government for 2010 and the fiscal tightening put in place in the March Budget of the Labour government, result in our central forecast for 2011 at 1.1% being 0.5% points lower than our forecast in February. This is despite the fact that wider economic forces driving recovery in 2011 are now considered to be somewhat stronger than was the case in February.

Employment forecasts

The key employment forecasts are summarised in Table 2. Job losses continue from 2009 into 2010, with a net 82,000 jobs lost in those two years and still not fully matched by job gains of 51,000 in 2011 and 2012. At the sectoral level, the service sector experiences the greatest decline in jobs in 2009 and 2010 with under 47,000 net jobs lost. With recovery the net gain in jobs in 2011 and 2012 of 20,000 means that it will take some time for services to recover 2008 jobs levels. Construction job losses amount to around 18,500 over the two years and as with services the number of construction jobs in 2012 remains below 2008 levels but there is recovery in 2011 and 2012 of more than 3,000 jobs. Finally, the production sector which principally includes manufacturing sheds around 13,000 jobs in 2009 and 2010 but through strong export growth net job creation in 2011 and 2012 is nearly 25,000.

Unemployment forecasts

The key unemployment forecasts are summarised in Table 3. On our Central forecast ILO unemployment is expected to peak at 228,000 or 8.9% this year falling to just under 224,000 or 8.7% in 2011 and further to 211,000 or 8.1% in 2012. Of major importance to the outcome for unemployment is not simply output and employment change but also the change in inactivity. That is, the extent to which people losing their jobs cease to look for work and so move into inactivity rather than unemployment. Recent changes in inactivity are documented in the *Overview of the Labour* Market section of the Commentary below. The rate of inactivity appears to have risen during the recent recession by 1.6% points in the last year, to stand at 21.7% for working age people.

Fiscal consolidation and the Scottish economy

The Chancellor's emergency Budget was unprecedented both in terms of the scale and nature of the fiscal adjustment proposed. The scheduled adjustment is significantly greater than that planned by the previous Labour government. The Labour Chancellor, Alastair Darling had aimed to achieve a small, 0.7% of national income, surplus on the cyclically-adjusted current budget by 2014-15. In the light of forecast growth and expected revenues, the Labour government had announced a fiscal tightening amounting to £51bn per year by 2014-15. Within this total, cuts - largely unspecified - of £33 billion were scheduled alongside tax increases of £18bn: a two to one ratio. The publication of the Office for Budget Responsibility (OBR) first set of official forecasts for the public finances and the economy in mid June, revealed that the growth outlook for the UK economy was judged to be weaker than forecast by the previous Labour government. This meant that a greater fiscal consolidation was required to achieve sustainable public finances than that targeted by the previous Labour government. Against this background, the Institute for Fiscal Studies (IFS) estimated that replicating labour's 0.7% surplus goal would

Table 1: Forecast Scottish GVA growth in three scenarios, 2009-2012

GVA Growth (% per annum)		**2009**	**2010**	**2011**	**2012**
High growth		-4.9	1.4	2.1	2.8
	February forecast	*-4.7*	*1.7*	*2.2*	*2.8*
Central		**-4.9**	**0.7**	**1.1**	**2.1**
	February forecast	*-4.8*	*0.6*	*1.6*	*2.2*
Low growth		-4.9	0.0	0.1	0.7
	February forecast	*-4.9*	*-0.7*	*-0.3*	*0.8*

Table 2: Forecast Scottish net jobs growth in three scenarios, 2009-2012

		2009	2010	2011	2012
High growth		-48,847	-20,399	35,142	53,059
	February forecast	-60,488	-9,785	30,253	57,213
Central		**-48,847**	**-33,546**	**14,856**	**36,111**
	February forecast	-64,218	-32,264	18,277	44,612
Low growth		-48,847	-48,129	-6,036	6,615
	February forecast	*-77,861*	*-57,002*	*-16,538*	*13,631*

Table 3: ILO unemployment rate and claimant count rate measures of unemployment under each of the three forecast scenarios

	2009	**2010**	**2011**	**2012**
ILO unemployment rate				
High growth	7.8%	8.4%	7.4%	6.2%
Central	**7.8%**	**8.9%**	**8.7%**	**8.1%**
Numbers	202,021	227,820	223,646	210,749
Low growth	7.8%	9.5%	10.1%	10.7%
Claimant count rate				
High growth	4.7%	5.0%	4.4%	3.9%
Central	**5.0%**	**5.3%**	**5.5%**	**5.1%**
Numbers	138,147	145,143	152,935	144,115
Low growth	5.3%	5.6%	6.0%	6.8%

require a further fiscal tightening of £34bn bringing the total to £85bn or 5.7% of national income. In the event Chancellor Osborne 's emergency Budget was even more restrictive with the planned adjustment amounting £113bn by 2014-15, more than 6% of national income.

Our forecasts in the previous section embraced the consequences for growth and jobs of this overall fiscal adjustment to 2012 within the context of other changes in the determinants of aggregate demand and supply over the forecast period. In the section below we report on our

modelling estimates of the possible consequences for public sector output, jobs and the wider Scottish economy by 2014-15 of that part of the fiscal consolidation that lowers by 14% the department expenditure limit (DEL) of the Scottish Parliament and government. In other words, other parts of the fiscal consolidation: tax rises and benefit cuts are ignored, and everything else is held constant i.e. no other changes in the wider economy are allowed such as technical progress and productivity change.

But before we discuss these estimates it is worth rehearsing the options that are available to governments when faced with the need for a significant fiscal consolidation. This is not simply an academic issue now that the broad thrust of the UK cuts have been announced because the Scottish government has still to acknowledge publicly how it will respond to the likely cut in the budget assigned to the Scottish Parliament by the UK government. And indeed, the full scale of the fiscal consolidation facing Scotland will not be known until the Comprehensive Spending Review findings are published by the UK government on October 20th of this year.

Policy Options

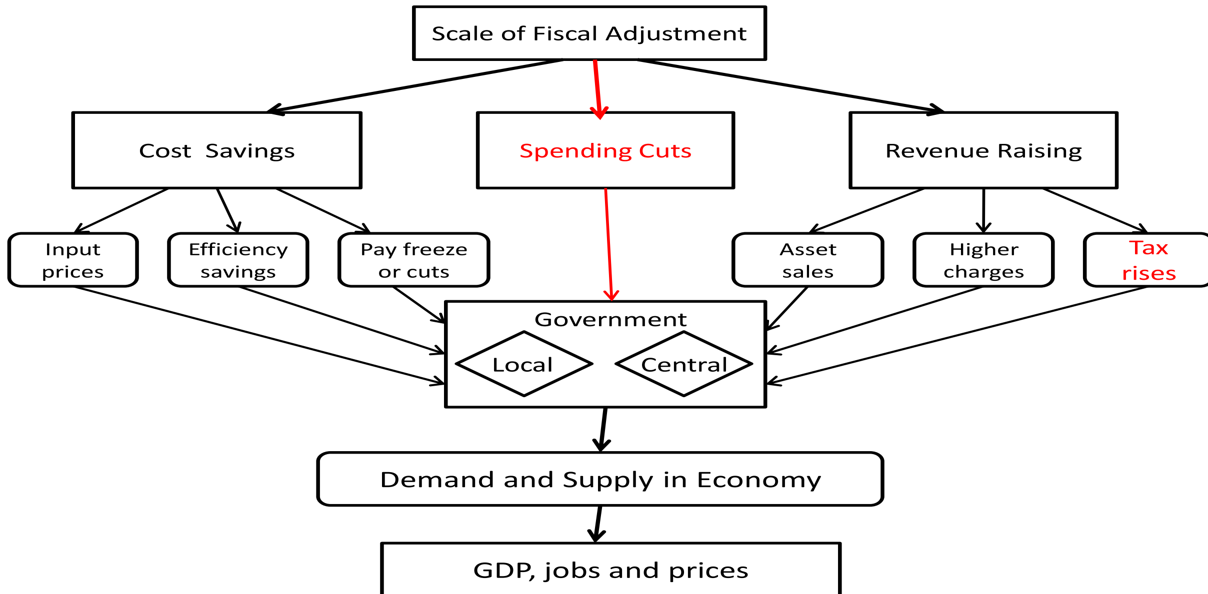
The UK government aims to reduce net borrowing from 11% of national income in 2009-10 to 1.1% in 2015-16. Within overall net borrowing it seeks to reduce the structural (cyclically adjusted) deficit from its 2009-2010 level of 8.4% of GDP to 0.3% by 2015-16. This is a massive exercise, with significant ramifications right across society. A clear consideration of the options available is imperative for both the UK and Scottish governments. In the UK this process had begun with emergency Budget and will continue in the Comprehensive Spending Review. In Scotland the Independent Review of spending chaired by Crawford Beveridge is due to report on spending options. It is to be hoped that the Scottish Parliament and the wider public will have an opportunity to debate not just spending options but some of the other options discussed below.

Figure 7 reveals the broad category options that face governments wishing to undertake a fiscal consolidation. Put simply, the deficit can be reduced by a mix of spending cuts, revenue raising actions and cost savings. Cost savings, in principle, preserve outputs but reduce input costs. Spending cuts cut both inputs and outputs. Most of the UK debate has focused on the balance between spending cuts and tax rises with some efficiency savings also programmed. The Coalition's plans put a greater emphasis on spending cuts with an overall ratio a little below four to one (77% to 23%). Figure 7 shows is that there are other options to add in to the mix.

Revenue raising can be secured by higher charges, asset sales and, of course, tax increases. However, asset sales do not reduce spending, or raise revenue recurrently, except marginally on outlays such as maintenance following a housing stock transfer; they are strictly a one-off exercise. Higher charges do not apparently promise much by way of increased revenue but they are clearly an option that should not be ruled out. Switzerland is one country that has ostensibly low tax rates but this is combined with a charging regime that is much more pervasive than in the UK, or many other countries. The Scottish government's revealed preference of reducing or removing charges - bridge tolls, student fees, prescription charges, travel concessions, care for the elderly - however merited, would appear to make it more difficult for the government to go back down this route. Finally, on revenues, while a debate is developing in Scotland about the case for further fiscal devolution and even full fiscal autonomy it is worth emphasising that under present powers the Scottish government has the option of raising income tax by up to 3p, which would raise more than £1bn. There would clearly be reasoned opposition to such a suggestion but it shouldn't be excluded as a potential option simply because of that. Much the same argument can be applied to business rates, which are also set by the Scottish government.

Cost savings are also possible and can be sizeable as is evident from the programme of public sector pay cuts introduced by the Irish government. Similarly, the UK government plans to freeze for two years the pay of public sector workers with salaries above £21,000 per year. Efficiency savings are realised by 'doing things better'. Such savings may not only be secured by enhanced efficiency in public sector production and/or delivery of services but by selective transfer of production and/or delivery to private sector entities though funded by the tax payer. The CBI has recently made proposals along these lines and the new Westminster Education Secretary's secondary school proposals are of this type, reflecting Swedish experience. In the latter case, the philosophical underpinning of the proposals is that outcomes may be better at given (or less) cost rather than a simple cost cutting exercise. The so-called 'shared-services agenda' at the local government level, as pioneered in the recent Clyde Valley Review chaired by Sir John Arbuthnott, is one way forward to make costs savings while preserving services. There would appear to be many other opportunities in both local and central government for making efficiency savings through the realisation of economies of scale and other efficiencies as the recent (March 2010) Advice Paper prepared by the *Royal Society of Edinburgh* and submitted to the Scottish Parliament's Finance Committee makes clear. For example, we can begin the process by raising the issue whether sufficient cost savings can be achieved by further collaboration and efficiency savings, a strategy noted by the Society of Local Authority Chief Executives in their report ‘After the Downturn’ and by the Association of Chief Police Officers in Scotland Annual Report 2009/2010, or should Scotland consider more radical options such as the merger of councils, polices forces and other public agencies? Several other questions could be posed in a similar vein.

Figure 7: Fiscal consolidation options



Finally, a reduction in *input prices* if the state exerts its power as monopoly buyer may bring some savings for the public sector if not for the economy as a whole.Nothing in this discussion is meant to pretend that spending cuts and tax rises are not the principal route to fiscal consolidation in the UK . But the issues determining the choice of options are more than simply fiscal efficacy. Political, social justice, income distribution and economic growth implications all need to be considered. Different governments may put a different weight on these objectives. Both the previous Labour government and the Conservative/Liberal Democrat coalition have vowed to ring-fence spending on the NHS, and international development aid. As the Emergency Budget revealed, the impact of the cuts on the other spending departments in London has been that much greater, up to 25% depending on the eventual scale of welfare benefit cuts. The IFS note that the cut in DELs born by unprotected departments would rise to 33% if the cuts on the schools and defence budgets are restricted to 10% by 2014-15.The Coalition has also been at pains to highlight the income distributional consequences of its programme for fiscal consolidation, highlighting the extent to which the burden of the adjustment falls more on high income households. The IFS, however, disputes this if the Coalition's additional fiscal consolidation measures are considered separately and when you look past 2012-13 when benefit cuts start to bite.

On top of this is the implication of the fiscal adjustment for the level and growth of output in the economy. Empirical research by Alesina & Perotti in 1996[1], recently updated and confirmed by two Goldman Sachs economists Broadbent & Daly, highlights the importance of the balance between both spending cuts and tax rises and between certain types of spending cut. Specifically, Alesina & Perotti conclude that "..fiscal adjustments that rely primarily on (current) spending cuts on transfers and the government wage bill..." were more successful in reducing the budget deficit and debt to GDP ratio. However, "....fiscal adjustments relying primarily on tax increases and cuts in public investment tend not to last and are contractionary." These findings offer some support for the Coalition's policy of weighting spending to tax cuts on a 4 : 1 basis. And these findings may even be reinforcing the government's willingness to take risks with the reduction in the demand for goods and services from the public sector in precipitating a double-dip recession. In other words, the research is not inconsistent with the view that the private sector will quickly pick up the released resources as long-term bond yields and the exchange rate falls. But it must be questioned how relevant such empirical research is to the present conjuncture with high levels of unemployment, a sizable output gap, structurally weak bank lending, historically low interest rates and a low sterling exchange rate. However, there may be more general agreement that cuts in public investment, while superficially attractive from a political standpoint with its reduced implications for current service provision and perhaps for jobs losses, could very well be damaging to economic growth. Hence, the previous Labour government's emphasis on cuts in investment in its fiscal consolidation plans, largely adopted by the present government, is to be regretted.

From the above discussion it is evident that the Scottish government has a range of options before it in the difficult

Table 4: Change in sectoral jobs and GVA by 2015 following 14% Scottish DEL cut

	JOBS		GVA/GDP %	
	Fixed Price	**Flex Price**	**Fixed Price**	**Flex Price**
Agriculture	-374	562	-1.1	0.9
Forestry	-14	66	-0.5	1.8
Sea fishing	-4	98	-0.1	2.4
Fish farming	-1	30	-0.1	1.9
Other mining and quarrying	-45	47	-1.8	1.2
Oil and gas extraction	-94	456	-0.4	1.3
Mfr food, drink and tobacco	-408	733	-0.9	1.1
Mfr textiles and clothing	-101	174	-1.0	1.5
Mfr chemicals etc	-108	166	-0.9	0.9
Mfr metal and non-metal goods	-400	927	-0.9	1.8
Mfr transport and other machinery, elec	-181	1,048	-0.3	1.2
Other manufacturing	-702	511	-1.9	1.1
Water	-207	-95	-4.9	-1.8
Construction	-5,003	667	-3.5	0.4
Distribution	-13,974	2,168	-2.6	0.2
Transport	-1,390	1,963	-1.5	1.9
Communications, finance and business	-13,514	3,979	-2.8	0.4
R&D	-384	-53	-4.2	-0.6
Education	-17,959	-14,977	-9.1	-7.4
Public and other services	-71,009	-62,817	-10.8	-8.8
Coal extraction	-30	22	-2.5	1.7
Oil refining and distribution	-36	16	-1.9	0.4
Gas supply	-69	-1	-3.4	-0.2
Electricity - Renewable (hydro and wind	-27	14	-2.4	0.5
Electricity - Non-renewable (coal, nuke	-205	120	-2.4	0.8
Total	**-126,240**	**-64,178**	**-4.2%**	**-1.6%**

decisions it is going to have make in response to an expected large cut in the assigned budget from Westminster. In addition, there is some, all be it limited, evidence on outcomes, not least the economy-wide implications of spending cuts that we present below. We hope that the Scottish Parliament and the wider public will have an opportunity to debate all of these options and build a countrywide consensus on the best way forward.

Impact of cuts in the Scottish DEL

We use a Computable General Equilibrium (CGE) model parameterised on Scottish data to identify the impact on the Scottish economy of the anticipated cuts to the Scottish departmental expenditure limit or DEL by 2014-15[2]. The anticipated reduction in Scottish DEL is taken to be a 14% real cut, which is the average cut to the UK DEL as estimated by the Institute for Fiscal Studies (IFS) in their post emergency Budget analysis[3]. The size of the actual reduction is unlikely to be known until the publication of the Comprehensive Spending Review on October 20th. It may differ from 14% somewhat depending on relative size of the cuts borne by the comparable programmes that drive the Barnett formula which allocate the assigned budget to the Scottish Parliament and the cuts borne by reserved programmes.

The CGE model captures the linkages between industries within Scotland and between purchasers of goods and services, including government, produced by industries in Scotland. The model also allows for flexibility in prices, especially wages through local bargaining, and so we offer two simulations: a fixed-price analysis, where the cut in DEL leads to a straight reduction in the demand for goods and services produced in the Scottish economy; a flex-price analysis, where wages and output prices respond to changes in demand. To a certain extent these two simulations can be viewed as limiting cases defining the likely limits of the economy-wide impacts.

A summary of the results is presented in Table 4. In the fixed-price case, the DEL cut leads to a fall in the demand for goods and services in the public sector and in the wider economy in sectors that are either directly or indirectly linked to the public sector though purchases of inputs or the spending of wages and salaries. The result is output and job losses in both public and private sectors. By 2014-15, public sector job losses amount to nearly 90,000, while private sector job losses stand at nearly 37,000, an overall job loss of 126,000, a reduction in GDP of -4.2% and a fall in investment of -2.9%.

In the flex-price case, the reduction in demand from the public sector will cause real wages and intermediate input prices to fall below what they otherwise would be. This would lower production costs in Scottish industries, improve competitiveness and lead to an increased demand for goods, services and employment, especially in the private sector, on that account, which may serve to offset the loss of demand from the public sector. The improvement in economy-wide competitiveness could, in principle, offset the reduction in output and jobs in the public sector as well. In the event our model estimates that the shock will reduce jobs in the public sector by the slightly lower number of just under 78,000 while private sector employment *rises* by nearly 14,000. The overall job loss is thus just above 64,000, about half that in the fixed-price case. The fall in GDP is -1.6% more than a third of the loss in the fixed price case. In addition, investment falls by -0.7% but exports rise by 2.1% because of improved competitiveness There is a 'crowding in" effect on the private sector, but it is insufficient to offset the loss of activity in the public sector.

Table 4 also provides a more detailed breakdown at the sectoral level of the DEL cut. In the fixed price case, the 6 manufacturing sectors lose 1,900 jobs but *gain* 3,559 jobs due to improved competitiveness in the flex price case. The construction sector loses -5,000 jobs in the former case but gains 667 jobs in the latter case. The much larger private service sector, loses 28,878 jobs when there is only a demand reduction effect of the DEL but if regional wages and prices also adjust across the economy then there are net job gains in the sector of 8,110.

Brian Ashcroft
27 June 2010

Endnotes

[1] A. Alesina & R Perotti (1996) "Fiscal adjustment in OECD Countries: composition and macroeconomic effects" National Bureau of Economic Research, Working Paper 5730, Cambridge , MA.

[2] A version of the AMOS – A Macro-Micro Model of Scotland – computable general equilibrium (CGE) model, which was developed by colleagues in the Fraser of Allander Institute, in the Department of Economics at the University of Strathclyde (Harrigan et al 1991, and Ferguson et al 2003). The AMOS model is a sophisticated simulation model of the Scottish economy with a fully specified supply side, incorporating capacity constraints and endogenous wage and price competitiveness effects.

[3]Rowena Crawford “Public services serious cuts to come” IFS, 23 June 2010..