The Scottish economy

Forecasts of the Scottish economy

Background

For four years through to mid 2007 the ‘global economy boomed’ (International Monetary Fund, October 2008), with world growth averaging some 5% per annum, the strongest sustained rate for some three decades. Growth in developing and emerging economies was pronounced with China, India and Brazil reporting amongst the strongest annual growth rates. At the same time inflation remained modest and an image of macroeconomic stability prevailed in both political and financial circles. In the UK policies of targeting inflation levels have been evident since 1997 and a policy of low and stable inflation was evident in the US where Alan Greenspan led the US Federal Reserve.

The general picture was one of relatively strong economic growth; low and stable inflation, matched by low interest rates. Unemployment was falling; investment was rising as were incomes and profits while home ownership was increasing. Fiscal rules were established in the UK so that borrowing would be prudent and only for investment (see the Golden Rule and the Sustainable Investment Rule). Soon global financial innovation led to strong growth in that sector (at the sector’s peak it represented 25 per cent of all firms in the Standard & Poor’s 500 index whereas at the time of writing it is in the low teens) but across the developed world the authorities favoured light touch regulation.

In these apparently benign conditions countries experienced economic prosperity and were able to pursue a range of social and domestic agendas. House prices, financial stocks and assets, commodity prices, tax revenues, profits, wages etc. all grew at a reasonable rate.

Despite some mild warnings on rising oil prices, the increasing need for financial regulation, rising global financial imbalances, the concerns as to the durability of low interest rates in the long term, as well as rapidly rising house and stock prices; governments, investors and consumers continued to take comfort on the perceptions of macroeconomic stability, continued global low real interest rates and sustainable growth.

In these global conditions household and corporate borrowing rose rapidly from 1998 onwards in the United Kingdom. As the Bank of England noted ‘over time, banks took on progressively more credit risk by lending to, for example, households with high loan to income ratios, leveraged buy out firms and, in the United States, to the sub prime market' (Bank of England, Financial Stability Report. October 2008).

Additionally, more complex financial products using leverage to improve returns emerged in the climate of rising financial liquidity, and as the Bank of England noted, in a context of 'lower discrimination between instruments of differing financial quality' (Bank of England, Financial Stability Report. October 2008). The internationalisation of finance and rising current account surpluses in oil producing and some Asian countries enabled UK banks to dramatically expand their lending. In 2001 UK customer lending was comparable to customer deposits, but 2008 the surplus of lending over deposits was £700 billion, and real leveraged buyout loan issuance rose from under $100 billion in 2004 to over $500 billion in 2007 (Bank of England Stability Report October 2008).

The vulnerabilities of these developments became increasingly evident as oil prices rose rapidly (peaking at $147 in June 2008) driving up energy and food prices and increasing numbers defaulted on sub prime mortgages. As these concerns and the underlying structural problems in the international financial system became apparent there was a sharp increase in financial instability and the 'credit crunch', 'toxic assets' and re-capitalising the financial sector emerged as a popular terms.

Scottish Forecasts – some scenarios

Introduction

The last time the FAI forecast was conducted on a scenario basis was in March 2003 to explore the possible outcome and impacts of the war in Iraq on the UK and Scotland. Due to the gravity of the current economic crisis it would be difficult to have a single point forecast due to the multiple competing factors that may influence the course of the world, UK and Scottish economies at this time. For these reasons the forecast has been conducted using four scenarios which have different underlying assumptions. The scenarios, with probabilities, are termed:

- Optimistic scenario (15 per cent probability);
- Central, our base scenario (40 per cent probability);
- Recession plus slow recovery, a worse scenario (35 per cent probability) and
- Sustained recession, a really poor scenario (10 per cent probability).

Each scenario is described in the text while the assumptions are fully documented in Appendix 1. The focus remains on GVA growth, employment and net job changes as well as unemployment.

Assumptions for final demand

The central case was used to define the most likely factors to be of importance going forward at this time. Thereafter for each scenario the different outcomes were considered and an interpretation given as to how that would fit with a particular scenario. The critical issues were deemed to be:

- Interest rates and monetary policy;
- Inflationary expectations;
- Re-capitalisation of banks and financial institutions;
- Lending behaviour;
- The impact of the finance sector on the real economy;
- The labour market;
- House prices;
- Government debt, imbalances and fiscal policy and
- Exports.

As usual the drivers of the FAI model are:

- Consumption (C);
- Government spending (G);
- Investment (I);
- Stocks (S);
- Tourism (T) ;
- Exports to the Rest of the UK (XRUK) and
- Exports to the Rest of the World (XROW).

In general terms our expectation is that consumption will contract in 2009 (-0.6 per cent) and only return to near trend by 2011-12. It is clear from UK data, from the relationship between Scottish and UK consumption and from retail sales data etc. that consumption in Scotland is falling.

Government spending is vital in 2009 to help support the economy. Particularly relevant of course is the Government intervention in banks and Bank of England schemes to help support the economy (although this is factored into the assumptions government spending growth rates are taken as that identifiable expenditure seen in Scotland). The UK and Scottish governments, would in the normal course of events, act in a counter cyclical fashion, thus even as signs of recovery are appearing then government spending would start to decline. This is a significant change in the scenarios because compared to the Central scenario there are times when government spending does not decline depending on the assumed economic conditions of the scenario and on timing.

Investment is the driver that is hit hardest by the current economic climate as most businesses have completely abandoned investment plans faced with spiralling costs and the difficulties of securing borrowing at affordable rates. Investment is expected to shrink by 6 per cent in 2009 and by a further 0.4 per cent in 2010. By 2012 it is only assumed to grow by 2.4 per cent in the Central scenario.

Stocks and tourism are relatively muted with stocks building up just as the turning point of the crisis emerged and tourism has been very poor since 2005 and estimates indicate it may be 2011 before any significant growth is seen.

Exports comprise of two components (XRUK and XROW). XRUK are expected to be poor in 2008 and 2009 but to pick up slightly in 2010. Export performance to the Euro Area and the US is expected to be at its lowest in 2009 (looking forward only) and to grow by 7.1 per cent in 2011. Even the sterling depreciation which should boost exports is more than offset by the decline in demand in the US, the Euro Area and other export markets.

Clearly all the evidence points to 2009 being a very poor year and the expectation is that economic growth will be low; trading conditions will be difficult and the labour market is definitely weakening. Co-ordinated fiscal and monetary policy will be crucial issues across the globe. At the beginning of each scenario there will be a brief explanation about how the drivers of final demand differ from the Central scenario. The Central scenario will be outlined in detail first.

Four scenarios of possible outcomes

The Central scenario in detail

The main scenario is one where interest rates are cut to about 3 per cent in 2009 (this scenario was started before the Bank of England cut rates by 150 basis points!) and inflation is relatively muted. 2009 is the year where most of the pain takes place with a sharp contraction in the finance and service sector affecting the rest of the economy. Lending eases after some12 months and the recapitalisation plan works well although companies (especially small and medium sized firms) find rescheduling debt etc. difficult. The Government's debt rises quickly but compared to other developed nations the debt to GDP ratio remains favourable. House prices contract sharply and continue falling and there is a period of 3-5 years where prices are stagnant. The labour market weakens and exports fall.

GVA and broad sectoral output

GVA growth is forecast to be 0.7 per cent in 2008 and -1.1 per cent in 2009. Growth in 2011 rises to 1.2 per cent and to 1.5 per cent in 2012. This is presented in Figure 1 and is compared to GVA growth in the other scenarios. This scenario is estimated to be the most probable outcome for the Scottish economy with a 40 per cent probability. Monetary policy, inflationary pressures and the government recovery plan push the probable outcome to between this scenario and the optimistic scenario. However, the fall in house prices, lending behaviour and labour market weakness pull the probable outcome down toward the recession scenario.

Figure 1 presents the probable path of the growth of GVA under the four scenarios and the Central scenario growth is for a relatively quick return to positive growth following this global shock. There have only been four years since 1964 when GDP growth was negative: 1974 (-0.04 per cent); 1975 (-1.47 per cent); 1980 (-1.93 per cent) and 1981 (-1.38 per cent) and in the years 1986 and 1991 GDP was less than 0.5 per cent. Otherwise the Scottish economy has enjoyed 40 years of economic growth which was strongest in 1964 at 7.57 per cent (Scottish Government GVA Index, 2004 prices).

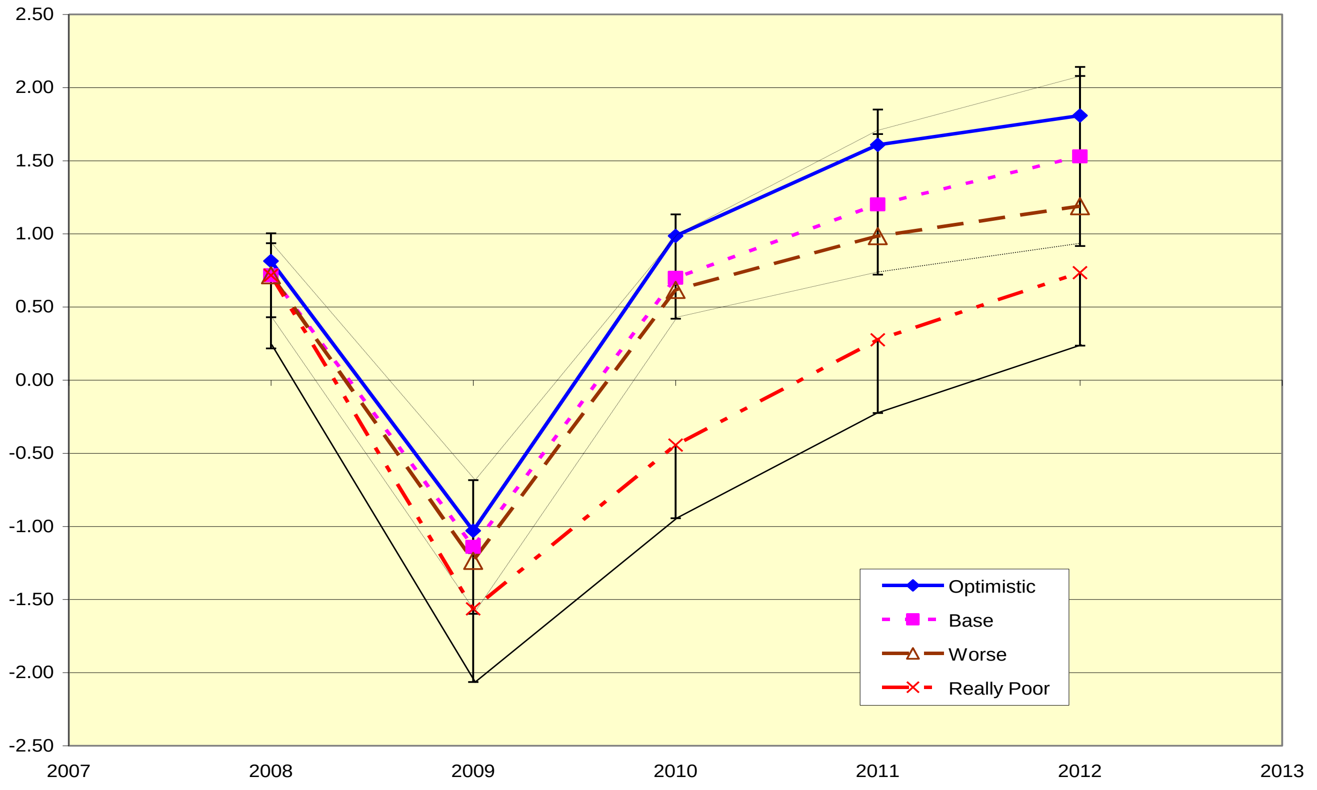
The service sector usually drives growth in the Scottish economy but due to the nature of the downturn the service sector is likely to bear the brunt of the recession along with construction. Manufacturing and agriculture, while still affected although by a lesser degree. Services are forecast to contract by 1.3 per cent after growth of 1.3 per cent in 2008. It is likely to be 2012 before growth of 1.6 per cent is seen again. It may be 2015 before growth of 2 per cent is experienced.

Manufacturing has had a difficult time over 2005-06 and in 2008. The sector is forecast to contract by 0.1 per cent in 2009 but to grow again by 0.5 per cent in 2010. Growth is forecast to be 1 per cent by 2012. Manufacturing is actually quite strong and resilient despite very difficult trading and lending conditions as firms have become accustomed to this. The sector has been shedding jobs continuously since 1998 but productivity remains good as the sector has had positive growth in 7 of the last 11 years. The main problem (ignoring cash-flow) for growth in this sector is the collapse of investment. Investment in plant & machinery, new technology, training, and productivity is key to the health of the sector. As yet it is unclear how the sector is faring but business survey evidence indicates that manufacturing is in for a difficult time and actual growth may be lower than the forecasts presented here.

Construction grew at a very strong pace in the period 2003-06 but has declined by 2 per cent in 2007 and is forecast to contract by 2.1 per cent in 2008. Growth could shrink by a further 2.4 per cent in 2009 and the sector is not forecast to recover to stronger growth until 2012 although modest positive growth is forecast for 2010

Agriculture, forestry and fishing is forecast to grow by 0.3 per cent in 2008 but to decline marginally in 2009. The sector is forecast to recover gradually through 2010 to 2012. Figure 2 presents growth for 2008-12 for the main sectors of the Scottish economy.

Figure 1: Comparison of GVA growth under the four scenarios, 2008-2012



Source: Fraser of Allander Institute, University of Strathclyde.

Note: The Central scenario shows two thin lines either side of it outlining the probable spread of forecasts. As time increases this dispersion becomes wider. This scenario is plotted in its mid range.

The optimistic scenario is plotted at the bottom of its range and the error bar shows the probable upward range (no line shown as this is quite small).

The sustained recession scenario is plotted at the top of its range and all the risks are to the downside with this scenario. It is shown with a probable boundary of outcomes by the slightly darker thin line at the very bottom of the chart. This demonstrates that GVA growth could contract at best by 1.56 per cent or at its worst by 2.06 per cent in 2009.

The recession case scenario has no probable outcome shown for the sake of clarity as it is similar to the central scenario probability.

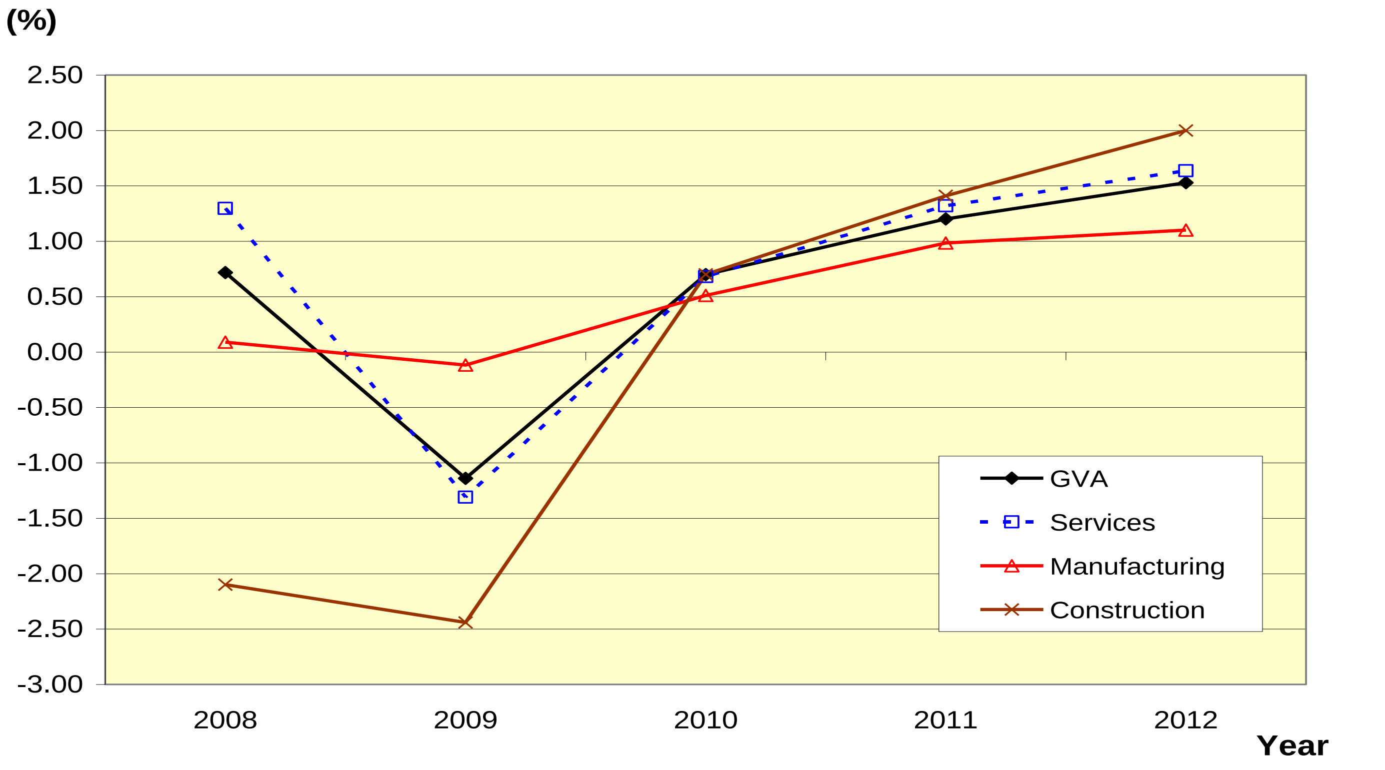
The Optimistic scenario

The next scenario considers a more optimistic outlook for the economy. Essentially most factors here are optimal e.g. policy, timing, lending behaviour, recapitalisation and in this scenario expectations are exceeded slightly. This scenario has the current Bank of England's monetary response with a deeper and earlier than expected cut in interest rates. It may be that a further 50 basis point cut, say in February, would firmly push this scenario more into the middle ground. The downside factors to this scenario are the apparent reluctance of financial institutions to deal more sympathetically with borrowers with difficulties; the weakening labour market especially the sharp shedding of labour and the problems in the housing market. This scenario has one additional assumption and that is that the homecoming is particularly successful and tourism, retail, transport etc. all benefit from this. The other scenarios assume that 2009 is a credit crunch year in external economies as well, and despite the weak pound travellers do not respond as anticipated due to falling disposable income and that they face rising costs.

GVA growth in this scenario is forecast to be -1 per cent in 2009 and 1 per cent in 2010. The economy recovers to 1.6 per cent in 2010 and 1.8 per cent in 2012. This is a quick but not a painless transition from the recession of 2009. Nevertheless, all the main sectors still contract in 2009 under these assumptions.

Services shrink by 1.2 per cent in 2009 but grow by 1 per cent in 2010. By 2012 growth in the service sector is close to 2 per cent. Manufacturing performs well with a small decline in 2009 but relatively strong growth in 2010 through to 2012. Investment is expected to pick up in 2011 by 2 per cent and export performance is also estimated to be relatively strong from 2010 onwards. While construction is forecast to decline by 2.4 per cent in 2009, it recovers well

Figure 2: Comparison of GVA and sectoral growth: Central scenario, 2008-2012



Source: Fraser of Allander Institute, University of Strathclyde

Recession plus slow recovery, a scenario where economic conditions are worse than expected

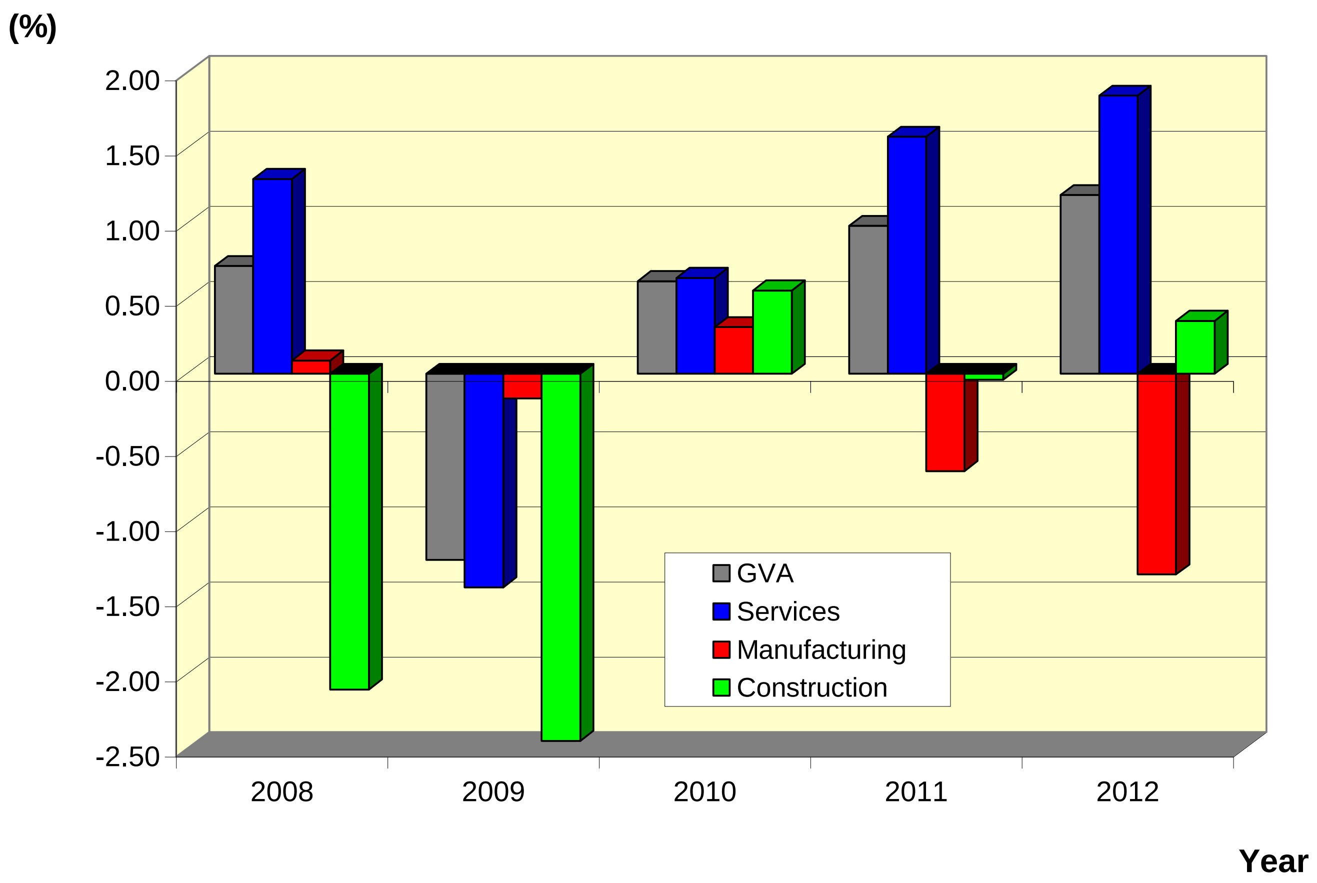
This scenario envisages a situation where the Bank of England takes a more cautious and stepwise approach to interest rate cutting while inflationary pressures begin to build due to fundamentals of oil supply and demand and OPEC action. While recapitalisation works there are some initial problems but crucially lending behaviour does not ease for some time, perhaps 12-18 months. The expectation is that the Bank of England base rate and the interbank lending rate do not converge quickly. These factors mean that the impact of the crisis across the real economy is more acute and particularly small and medium-sized businesses suffer. House prices remain flat for about 5 years as labour market support weakens considerably and unemployment increases more quickly than expected. Exporting firms also face considerable hardship under this scenario.

Growth of GVA in this case is -1.2 per cent for 2009 and recovery is slow with 0.6 per cent in 2010 and just over 1 per cent in 2012. The service sector declines by 1.4 per cent in 2009 and only grows by 0.6 per cent in 2010. By 2012 growth in services is 1.9 per cent. Manufacturing contracts slightly in 2009, has some small positive growth in 2010 but declines again in 2011 and in 2012. This is in part due to very tough trading conditions, slow investment but primarily because firms find it difficult or expensive to secure funding and capital. Companies in the export market are also more exposed and more likely to contract than grow. This is seen across the forecast horizon. Figure 3 depicts the forecast for the main sectors in this scenario. The plight of manufacturing can clearly be seen as is the obvious reverse in construction. Construction performs poorly in 2011 as this scenario does not have adequate lending, poor labour market opportunities and falling incomes so consumers are not yet ready to step onto the housing market in significant numbers. Furthermore there are significant bottlenecks as public investment projects go ahead (these will have had long lead times) and the situation is not resolved until late 2011 or 2012. Figure 3 also demonstrates the recovery of the service sector and how GVA follows it closely. The last scenario is the sustained recession outcome.

The Sustained recession scenario, the worst case scenario for the economy

The previous scenarios were relatively similar but did have different assumptions and these led to slightly different growth paths. The last scenario; the sustained recession outcome is not included to have something different but because all four scenarios are actual probable outcomes. This however, while having the smallest probability (10 per

Figure 3: Comparison of GVA and sectoral growth: Recession scenario, 2008-2012



Source: Fraser of Allander Institute, University of Strathclyde.

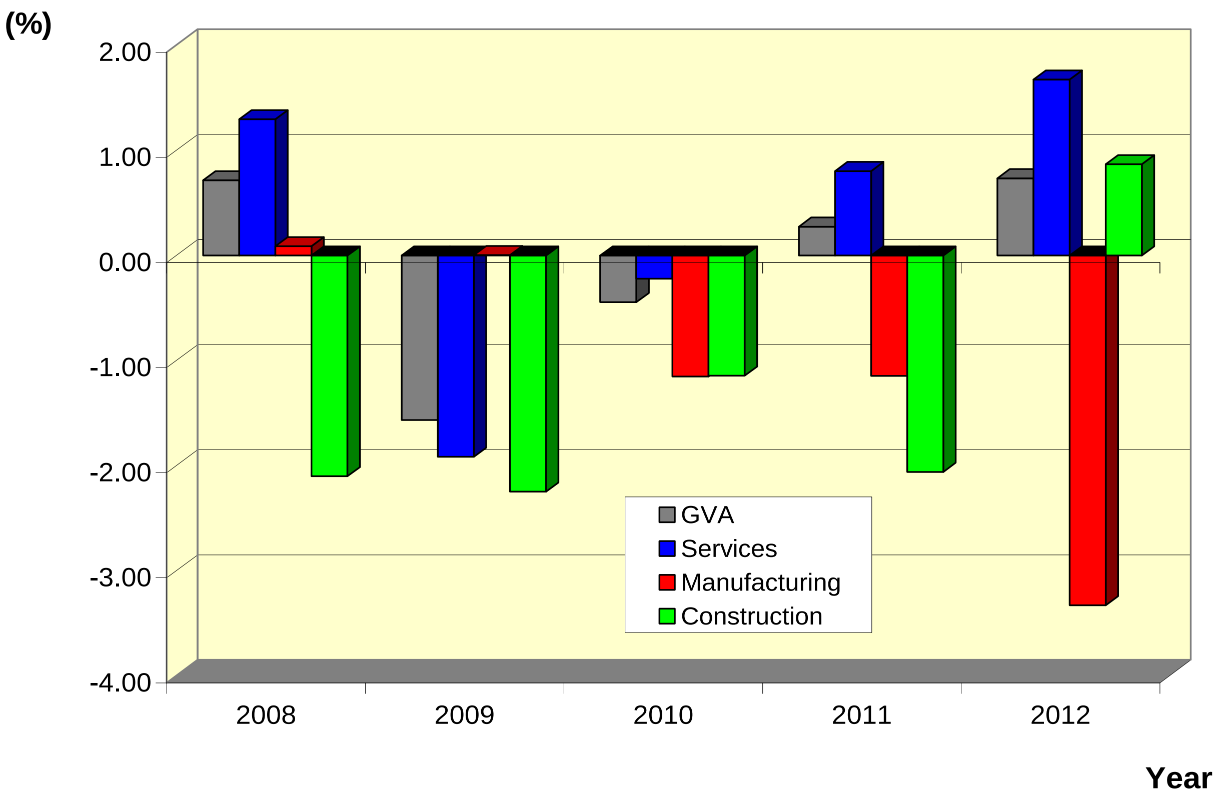
businesses and consumers wish to avoid. This will depend upon co-ordinated global monetary and fiscal policy appropriate to country circumstances as well as a domestic agenda that will deliver a recovery that does not simply exacerbate the current situation (as in Japan in the 1990s).

This scenario is real in that further undisclosed losses in the banking system are declared at different times (in the US, UK and Europe). The recapitalisation plan and the scheme on offer from central banks does not cope or is not used appropriately by financial institutions. More capital is required for the world financial system. Lending behaviour is poor and private capital is either slow to respond or is not offered. Thus re-capitalisation takes about 24-36 months before the system is functioning properly again and private capital is attracted back to institutions. Fiscal packages do not give the response required either and banks are unresponsive to business needs. This causes significant hardship in the business community with several large firms in trouble leading to further falls in business and consumer confidence. Cash-flow becomes absolutely critical and job losses are probably severe. The housing market undergoes a prolonged contraction while other asset prices continue to fall. Uncertainty prevails as disposable income drops sharply and wealth shrinks. The government debt and imbalances grow although they remain favourable compared to other countries. It may even be that the situation causes the government to fall but replacing the government in this way may actually make the situation worse due to catch-up, experience etc. However fear and psychological factors become more important. Exports continue to fall but the weakening pound does set the scene for an export led recovery. The Monetary Policy Committee faces a real dilemma as growth falters but inflationary pressure picks up significantly with oil prices rising to more than $100 per barrel due to supply and demand imbalances and OPEC action. In Scotland the finance sector may shed between 20-30,000 jobs alone.

In this scenario growth is forecast to be -1.6 per cent in 2009 and is also negative in 2010 (-0.4 per cent). Even by 2012 growth has not recovered to more than 1 per cent. Manufacturing is forecast to stall in 2009 and contracts every year thereafter up to 2012 due to the severe economic conditions. Construction is also negative for the period 2008-11 with growth of 0.9 in 2012.

The service sector decline in both 2009 and 2010 and forecast growth is only modest in 2011. The finance

Figure 4: Comparison of GVA and sectoral growth: Sustained recession scenario, 2008-2012



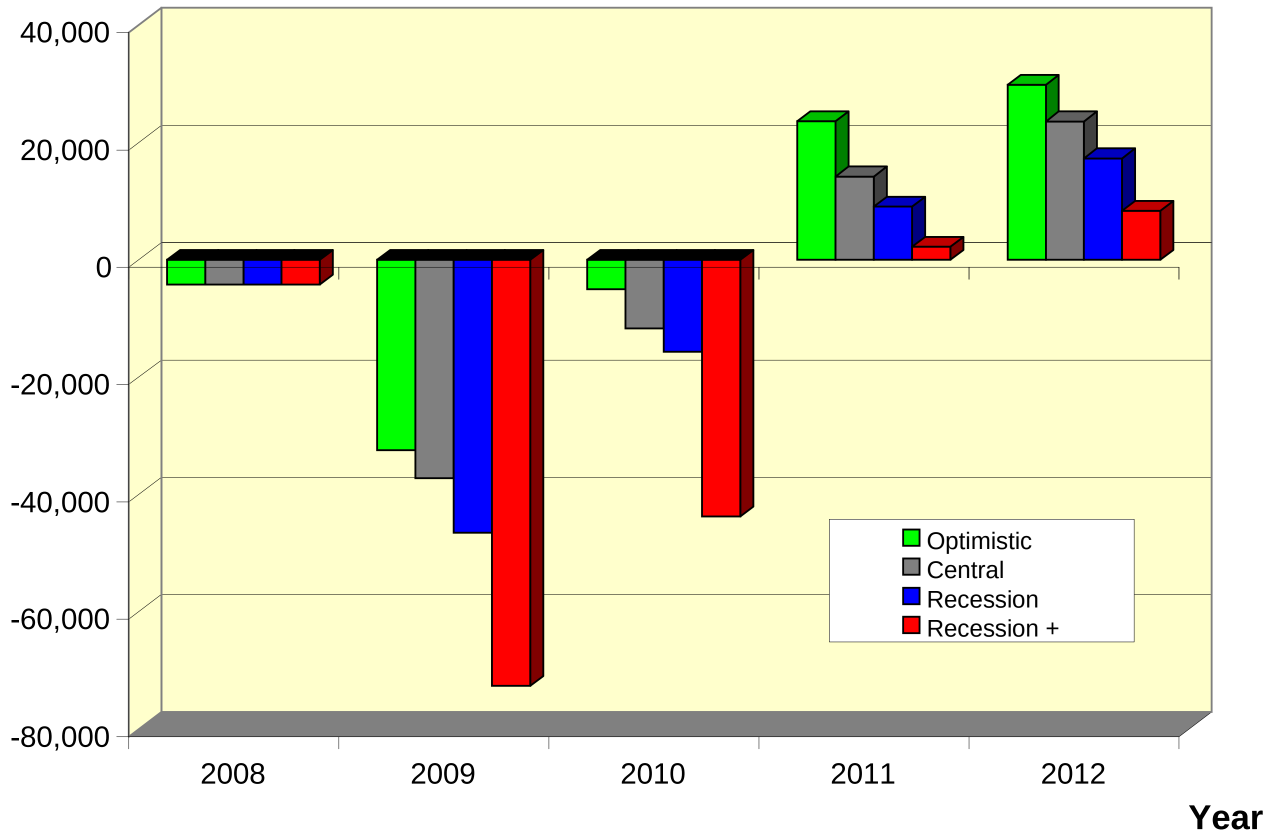
Source: Fraser of Allander Institute, University of Strathclyde

sector contracts sharply in 2008 and 2009. There is no return to strong growth in the forecast period under this scenario. The most important point, if this set of circumstances emerged, is that the economy can only recover slowly and it may take 4-6 years before steady growth is seen again.

This outcome highlights the vital importance of getting policy right and that consumers, businesses, financial institutions as well as government must act responsibly if the economy is to avoid a situation like this. Fortunately the probability of such an outcome is very low at 10 per cent but it still remains a very real possibility and has severe consequences for all concerned. There are several issues that come to light out of this:

- Tax cuts – these should be designed so that real benefits can be realised from cutting taxes. Simply hoarding the money or carrying on irresponsible spending by assuming this is a permanent change or increasing credit levels further will only bring more hardship in the future. Tax breaks for new jobs, retraining or other schemes that help the economy would be particularly useful as is the postponement of new taxes. Simplification of the tax system would also be welcome;
- Monetary policy – it is crucial that the Bank of England (as they have done) remain in control of the situation rather than being dictated to by economic conditions. They need to get in front of the curve, inter-bank lending rates have to converge while long run interest rates need to stop systemic bubbles as low long-term interest rates encourage low fixed rates on mortgages fuelling housing bubbles;
- Lending behaviour must respond to the needs of the real economy particularly the business sector. Failure to do this will simply drive more firms to insolvency (insolvencies have increased by 25 per cent in England & Wales). Rescheduling mortgage debt is also a priority especially if household income changes;
- The linkages in the economy are relatively fragile and once the credit crunch affects one part it will transfer to other parts due to supplier linkages and sub-contracting etc. Trying to preserve skills, retain labour and maintain orders will be difficult under these conditions and
- The labour market has been buoyant for several years with the Scottish employment rate outperforming the UK employment rate. The indications from economic data, surveys and the forecast demonstrate that jobs are not safe under considerable adverse economic pressure. Job losses are relatively widespread and can be

Figure 5: Forecasts of net job change: scenario comparison, 2008-2012



Source: Fraser of Allander Institute, University of Strathclyde.

particularly deep in the scenarios that are more problematic.

Employment forecasts

Each of the forecasts returned different employment outcomes. These are discussed here. The forecasts of net job changes under the four scenarios are presented in Table 1 and Figure 5.

The net job loss for the Central scenario for 2008 was 4,230 and 37,244 in 2009. Over 2007-12 15,300 jobs are lost in total. Clearly 2009 is the year of peak job loss. The strength of recovery in the years 2011 and 2012 also has marked differences. Over 2007-10 (when jobs are being shed in all scenarios) the job loss is 41,700 in the Optimistic case; 53,100 in the Central scenario; 66,400 in the Recession scenario and finally 110,000 in the final scenario. Similarly the only scenario which gives a positive net job change over the period 2007-12 is the Optimistic scenario where 11,900 jobs are created.

In the Central scenario the service sector supplies 27,900 jobs in 2011-12 compared to 40,400 in the Optimistic case and 23,500 in the Recession scenario while the Sustained recession scenario see 19,900 jobs created over 2011-12. Services gain 14,740 jobs over 2008-12 in the Optimistic scenario but lose 8,757 in the Central scenario; 22,422 in the Recession scenario and 71,089 in the Sustained recession scenario over the same period of time. Within services the forecast for the finance sector differs considerably according to the assumptions used. In both the Central scenario and the Optimistic case 10,000 jobs are lost whereas in the Recession scenario 14,900 jobs are shed and in the Sustained recession scenario 24,000 jobs are lost in 2009.

Manufacturing loses 1,500 jobs in 2009 and a small amount in 2010 but adds 500 jobs in 20111 and 2012 in the Central scenario. In the Optimistic scenario manufacturing loses the same amount of jobs as in the Central case in 2009 but thereafter job gains are slight greater being close to 1,000 jobs per year in 2011 and 2012. In the Recession scenario manufacturing sheds 3,500 jobs in 2008; 1,600 jobs in 2009 and a further 1,500 in 2011. In the last scenario this sector sheds a considerable amount jobs every year and in totals this amounts to 16,836 over 2008-12.

Table 1 Net Job Change Forecasts: Scenario comparison, 2008-2012

	2008	2009	2010	2011	2012	2007-10	2007-12
Optimistic	-4,230	-32,470	-4,992	23,669	29,876	-41,692	11,853
Central	-4,230	-37,244	-11,638	14,222	23,605	-53,112	-15,285
Recession	-4,230	-46,498	-15,662	9.081	17,318	-66,389	-39,991
Sustained recession	-4,230	-72,639	-43,776	2,236	8,371	-120,644	-110,038

Source: Fraser of Allander Institute, University of Strathclyde.

Table 2 Unemployment Forecasts: Scenario comparison, 2008-2012

	2008	2009	2010	2011	2012
ILO					
Optimistic	4.4%	5.6%	5.9%	5.4%	5.0%
Central	4.4%	5.7%	6.1%	5.7%	5.2%
Recession	4.4%	6.1%	6.2%	5.8%	5.3%
Sustained recession	4.4%	6.5%	7.1%	6.2%	5.8%
CC					
Optimistic	2.8%	3.3%	3.3%	3.1%	2.9%
Central	2.8%	3.1%	3.4%	3.3%	3.1%
Recession	2.8%	3.6%	3.7%	3.3%	3.2%
Sustained recession	2.8%	4.0%	4.3%	3.6%	3.4%

Source: Fraser of Allander Institute, University of Strathclyde

Unemployment forecasts

It has been some time since unemployment was relatively high in Scotland and even when electronics collapsed in 2001-02, the service sector took on a lot of workers and the rise in unemployment was relatively muted. There are clear signs of rising unemployment in the economy and of fewer vacancies while business surveys indicate employers' intentions on recruitment are currently negative. The forecasts of unemployment for ILO unemployment and the claimant count measure are presented below.

Unemployment on the claimant count measure is relatively benign in the Optimistic scenario although ILO unemployment peaks in 2010 at 5.9 per cent. 2010 tends to be the year that ILO unemployment peaks in for all of the other three scenarios as well. Unemployment at 7.1 per cent is particularly high in the Recession plus scenario. The significant difference between 6.2 per cent (Recession) and the 7.1 per cent (Sustained recession) is something that policymakers need to heed.

Claimant count unemployment is relatively muted in the Optimistic scenario and likewise does not pose too much of a problem in the Central scenario. In the Recession scenario and in the Sustained recession case it is more noticeable and may be a particular problem in the Sustained recession scenario if this actually came about.

Conclusion

The forecasts assumed four different outcomes for 9 factors which combined to give the forecasts as described above. The Optimistic scenario is where most factors are dealt with in an optimal way leading to the least disruption to the economy. The Central scenario (40 per cent probability and the outcome most likely to happen) indicates that 2009 is a problem year for output and that 2010 is the year in which unemployment peaks. Net job change is negative in 2008 and 2009 but recovers thereafter. The Recession scenario is one where economic conditions are worse than expected and some particular problems occur but overall there is a general worsening of conditions making it more difficult across the economy. Small and medium-sized businesses are expected to find this scenario tough with hiring, lending, cash-flow, job losses and exporting being problematic areas. In the last scenario, the sustained recession scenario, the main problem is that recapitalisation did not work as effectively as hoped while lending behaviour is poor and even large firms struggle. Inflationary pressures also return in this scenario giving it more problems. The outcome is that there is a sharp contraction in activity in 2009 and a very slow recovery that does not follow the paths of the other three scenarios. While it only has a 10 per cent probability it still remains a distinct possibility. All the risks in this scenario are on the downside. Policymakers need to guard against complacency and to watch that none of these factors come into play.

Kenneth Low
11 November 2008

Appendix 1

The assumptions for the four scenarios considered are presented here in the appendix.

Central scenario:

- Interest rates are cut in a cautious but responsive approach to around 3 per cent by 2009. The November cut is deeper than the others although a similar cut may be implemented in January or February. By mid 2009 the Bank of England will have reduced interest rate to about 3-3.25 per cent;
- Inflationary expectations are relatively muted as oil settles to approximately $90 per barrel;
- The banks take up the government re-capitalisation scheme as well as taking advantage of the Bank of England schemes. The period of re-capitalisation is expected to last for about 18-24 months. Private capital is also raised;
- Lending behaviour initially does not change significantly in the short run and despite interest rate cuts, interbank lending rates (Libor) do not converge on the base rate (set by the Bank of England) as quickly as the Government and the Bank of England would like. Lending eases somewhat however after about 12 months and definitely much more within 18 months;
- The impact of the financial sector crisis is felt across the real economy as investment rapidly shrinks and lending constraints hit small and medium-sized businesses particularly hard. Cash-flow for these firms becomes a critical issue in the struggle for survival. Only after prolonged lobbying and negotiation with government do financial institutions respond to the need for an improvement in helping companies with rescheduling debt, future funding and finance packages. Within the finance sector itself about 10,000 jobs are lost;
- Many firms experience financial hardship and lay off workers from the end of 2008 and throughout 2009. Unemployment rises considerably in 2009. Household disposable income tightens sharply and labour market opportunities become fewer;
- In the housing market prices continue to fall through 2009 and into 2010. House prices remain flat for about 3-5 years before growth is seen again;
- Government debt and imbalances widen as debt rises sharply in 2009. The planned economic recovery works relatively well however and government debt is

favourable when compared to some other developed nations (as a percentage of GDP) and

- Exports fall as domestic demand in the US and Euro Area contract quickly and substantially. Imports to the UK fall by a greater amount therefore there is a net gain. Although sterling depreciates the stimulus this gives to boosting exports is completely offset by the reduction in demand elsewhere.

Optimistic scenario:

- Interest rates are cut more sharply to 3 per cent by early to mid 2009 using an initial cut of 1 per cent in November. Subsequent cuts are smaller but may be of a further 50 basis points in December/January/February. By the middle, and certainly by the end of 2009, the Bank of England will have reduced the base rate to 2.5-3 per cent;
- Inflationary expectations remain low as oil prices are close to $80 per barrel throughout 2009. There is no evidence of previous higher prices feeding into wage claims;
- The banks eagerly take up the government re-capitalisation scheme as well as the Bank of England initiatives. The period of re-capitalisation is boosted by external private capital as well as a greater response by institutional investors. Banks with expected future prospects that are better than others benefit more and can redeem some preferences shares and re-negotiate dividends conditions. Share prices begin to rise more steadily by the end of 2009 as new management teams tackle the problems in the sector in an effective and efficient manner. A better performance is seen within 12 months although full recapitalisation still takes 12-18 months;
- Lending behaviour the very short-term remains constrained but by early 2009 business terms are beginning to ease, thus helping firms with significant cash-flow and funding issues. Interbank lending rates do not converge on the base rate as quickly as perhaps desired but there is a clear downward movement towards it. Lending eases significantly after about 12 months;
- The short-run impact of the financial sector remains sharp across the real economy and investment contracts quickly. Small and medium sized businesses do not experience any benefit until at least mid 2009. Cash-flow remains a key issue. The finance sector, independently and relatively quickly develop strategies to help businesses reschedule debt etc. Within the finance sector itself about 5-7,000 jobs are lost;
- Companies still experience financial hardship and lay off workers from the end of 2008 and throughout 2009. Unemployment rises significantly in 2009. Household disposable income tightens sharply and labour market opportunities become fewer, but there is an easing in the labour market towards the end of 2009 as the rate of job loss slows thus easing the pressure on unemployment;
- House prices fall through 2009 and into 2010. House prices remain flat for approximately 3 years rising again, although at a modest pace initially;
- Government debt and imbalances widen as debt rises sharply in 2009. Depending on whether or not the banking and the financial sector needs more debt which may be taken on by the government or the Bank of England as they help institutions through the crisis. It is not envisaged that this would be anything like the recent recovery plan just modest additional resources to smooth the current functioning of the current plan. The planned economic recovery works better than expected and government debt is still favourable when compared to some other developed nations (as a percentage of GDP). Financial institutions are in a much healthier and stronger position by the end of 2009 and certainly by mid 2010 and
- As in the previous scenario exports fall as domestic demand in the US and Euro Area contract quickly and substantially. Imports to the UK also fall by a greater amount giving a net gain. The sterling depreciation stimulates exports slightly more than expected but this is still completely offset by the reduction in demand.

Recession scenario:

- Interest rates are cut in a cautious approach to around 3.5 per cent by 2009. There is not a deep policy induced cut in November or February (although a cut of 50 basis points may take place in November). By mid 2009 the Bank of England will have reduced interest rate to about 3.5 per cent with the possibility of a further cut to 3.25 per cent;
- There is significant concern over inflationary pressures as OPEC push the price of oil towards $100 per barrel. Demand for oil remains high in China, India and the emerging economies while geopolitical factors hinder supply slightly;
- The banks and the government re-capitalisation scheme goes ahead with minor difficulties arising around the conditions of the offer. The Bank of England scheme is taken up without any problems. Private capital is slightly discouraged by future economic prospects and recapitalisation takes longer than expected, perhaps as long as 18 months or slightly more. Private equity returns to the banks after this period and share prices begin to rise significantly again;
- Lending behaviour does not change significantly and businesses are not given the chance to re-schedule debt or to obtain additional funding from the UK finance sector in either the first quarter or first half of 2009. The gap between the Bank of England base rate

and the Libor rate for bank inter-lending does not improve significantly with rates at around 1 percentage point above the base rate. Lending only improves after about 12-18 months;

- The impact of the financial sector crisis across the real economy is slightly more painful with sharp contractions in investment, consumption, lending and hiring which initially affects mostly small and medium-sized businesses, however now large firms are feeling a significant impact from this. Cash-flow becomes tighter and more firms fail. It takes longer for the financial sector to respond to the needs of business. Within the finance sector itself about 15,000 jobs are lost;
- Most firms experience financial hardship and lay off a considerable number of workers in 2009. Unemployment increases by more than expected in 2009. Household incomes drop and the labour market weakens considerably making conditions tougher throughout 2009 and into the early part of 2010;
- House prices fall more than expected in 2009 and weaken again in 2010. After this house prices remain flat for about 5 years before growth is seen again;
- Government debt and imbalances widen as debt increases but it only increases relatively slowly following the initial recovery plan. The planned economic recovery is slower than expected as confidence falls further. Government debt remains favourable when compared to some other developed nations (as a percentage of GDP) and
- Exports continue to fall as domestic demand in the US and Euro Area contract quickly and substantially. Imports to the UK fall by a greater amount therefore there is a net gain. Although sterling depreciates the stimulus this gives to boosting exports is completely offset by the reduction in demand elsewhere. It takes longer for exporting firms to recover from the crisis and a significant number go out of business.

A Sustained recession scenario:

- Interest rates are cut in a responsive approach to around 3-3.5 per cent by 2009. A cautious and stepwise approach is taken. The Bank of England fails to get in front of the curve;
- Inflationary expectations are a significant concern as demand for oil outstrips supply. The price of oil increases to above $100 per barrel in 2009 due to a combination of OPEC action and supply/demand fundamentals;
- The banks take up the government re-capitalisation scheme as well as taking advantage of the Bank of England schemes. A major problem remains exposure to toxic US assets and loans as well as how the sector deals with these. There is little response from private investors and further losses come to light. There is significant disquiet about dividends and institutional investors remain unhappy with performance. Relations between government and the finance sector worsen. Some institutions need further help from government. The period of re-capitalisation is expected to last for about 24-36 months;
- Lending behaviour does not change significantly causing problems in the real economy. Although the base rate is cut, interbank lending remains difficult causing financial institutions more difficulties. Lending only eases after about 18-24 months;
- The impact of the financial sector crisis is sharply felt across the real economy for a prolonged period of time. Confidence is badly shaken and consumption, investment, lending, hiring, training and exports are hit hard. Although small and medium-sized businesses suffer significant cash-flow problems with rising insolvencies, the main concern is over large firms and falling payrolls. Further government intervention is required to help financial institutions to cope with the increasing demands of companies. The finance sector may shed up to 20-30,000 jobs as there is a significant contraction in the sector. External takeovers cannot be ruled out;
- Firms shedding labour becomes a major problem from 2009 onwards. Unemployment rises considerably in 2009 and continues increasing into 2010. Households suffer a contraction in wealth as incomes fall and asset prices suffer;
- The housing market suffers a prolonged contraction through to the end of 2010 and perhaps into early 2011. House prices remain flat for about 5-8 years before growth is seen again;
- Government debt and imbalances grow in 2009 and in 2010. The planned economic recovery is not as effective as thought and takes significantly longer. Government debt is favourable when compared to some other developed nations (as a percentage of GDP) but is forecast to climb perhaps by a further 5 percentage points from its current forecast in the period 2010 to 2015 and
- Exports fall as domestic demand in the US and Euro Area contract. Imports to the UK fall by a greater amount therefore there is a small net gain. Sterling depreciates in 2008 but then falls further again as the economic crisis worsens. This gives the basis for an export led recovery as the Euro Area recovers slightly.