

QUARTERLY
ECONOMIC
COMMENTARY

Summer 2010

ALAN BARRETT
IDE KEARNEY
JEAN GOGGIN
THOMAS CONEFREY



THE ECONOMIC AND SOCIAL RESEARCH INSTITUTE

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*The forecasts in this Commentary are based
on data available by early July 2010*

SPECIAL ARTICLE

Recovery Scenarios for Ireland: An Update

Adele Bergin, Thomas Conefrey,
John Fitz Gerald, Ide Kearney

RESEARCH BULLETIN

10/2

Editor: Tim Callan

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SUMMARY TABLE

	2008	2009	2010	2011
OUTPUT				
(Real Annual Growth %)				
Private Consumer Expenditure	-1.5	-7.0	¼	1 ½
Public Net Current Expenditure	2.2	-4.4	-4	-3
Investment	-13.7	-31.0	-24	2 ¼
Exports	-0.8	-4.1	5	4 ¾
Imports	-2.9	-9.7	¾	3 ½
Gross Domestic Product (GDP)	-3.4	-7.6	¼	2 ¾
Gross National Product (GNP)	-3.5	-10.7	-½	2 ¼
GNP per capita (constant prices)	-5.3	-11.4	¼	2 ½
PRICES				
(Annual Growth %)				
Harmonised Index of Consumer Prices (HICP)	3.3	-1.7	-1 ½	¼
Consumer Price Index (CPI)	4.1	-4.5	-½	1 ¾
Wage Growth	2.9	-2.0	-3	-1
LABOUR MARKET				
Employment Levels (ILO basis (000s))	2,100	1,928.5	1,856.9	1,854.9
Unemployment Levels (ILO basis (000s))	141	258.6	285.7	279.7
Unemployment Rate (as % of Labour Force)	6.3	11.8	13 ¼	13
PUBLIC FINANCE				
Exchequer Balance (€bn)	-12.7	-24.6	-17.6	-19.9
General Government Balance (€bn)	-13.2	-23.4	-31.3	-16.5
General Government Balance (% of GDP)	-7.3	-14.6	-19 ¾	-10 ¼
General Government Debt (% of GDP)	44.4	65.6	85 ½	93 ½
EXTERNAL TRADE				
Balance of Payments Current Account (€bn)	-10	-4.9	0.0	0.3
Current Account (% of GNP)	-6.6	-3.7	0	¼
EXCHANGE RATES (annual average) AND INTEREST RATES (end of year)				
US\$/€ Exchange Rate	1.47	1.39	1.27	1.22
STG£/€ Exchange Rate	0.79	0.89	0.85	0.83
Main ECB Interest Rate	2.50	1.00	1.00	1.75

SUMMARY

In recent months, economic indicators and data have produced a mixed picture of the performance of the Irish economy. While data on retail sales, consumer confidence and exports all point to signs that a recovery is already underway, the numbers from the Live Register, income tax returns and the most recent estimates of quarterly GNP would suggest that the economy is still contracting. Coupled with the recent difficulties on sovereign debt markets in Europe, and the on-going crystallisation of the banking losses for the government estimated to be at least €25 billion, the short-term prospects for the Irish economy continue to be precarious. In particular the forecasts we present in this *Commentary* are critically based on the assumption that difficulties in international financial markets will be resolved swiftly.

Based on the most recent quarterly data from the CSO, we estimate that there could be marginal positive growth in GDP for 2010 of $\frac{1}{4}$ per cent. This is driven exclusively by a strong pick up in export growth, together with a very anaemic resumption of private consumption growth ($\frac{1}{4}$ per cent). Public consumption and investment are expected to continue to contract in 2010, and GNP is also likely to fall slightly by $\frac{1}{2}$ per cent.

We expect a resumption of growth in 2011, concentrated in growth in external demand, but also reflecting a modest resumption of domestic demand. The recession has led to a dramatic fall in investment's share of GNP, from over 30 per cent in 2006 to an estimated 14 per cent in 2010. We expect this adjustment to have ended in 2011, with total investment forecast to grow by $2\frac{1}{4}$ per cent. Overall we expect GDP to grow by $2\frac{3}{4}$ per cent, with GNP growing more slowly at $2\frac{1}{4}$ per cent.

The implications for employment of the recession have been dramatic. We now expect employment in 2010 to be 72,000 lower than in 2009, on an annual average basis. This implies a cumulative fall in employment of 266,000 since 2007. Corresponding to this fall in employment, we expect to see the number unemployed averaging 286,000 in 2010. This implies that the unemployment rate would average $13\frac{1}{4}$ per cent. For 2011, we expect employment to stabilise, with unemployment falling marginally to 13 per cent.

We expect the General Government Deficit to be $11\frac{1}{2}$ per cent of GDP in 2010. Including the cost of the bailout monies for Anglo Irish Bank and INBS, this figure would be $19\frac{3}{4}$ per cent. For 2011, we expect the deficit to fall to $10\frac{1}{4}$ per cent of GDP. This is based on the assumption that a full €3 billion package of austerity measures is implemented in the 2011 budget.

In the *General Assessment*, we discuss the government's plans for further fiscal austerity measures. Given the vulnerability of the Irish economy to the vagaries of market sentiment on our sovereign debt, we argue that it is imperative that the government adhere to its programme of fiscal consolidation. Within the confines of this austerity programme, it is vital that whatever resources are available be used strategically to help tackle the growing problem of unemployment. We argue that public funds would be better used in re-skilling and up-skilling people who are unemployed as opposed to using spending on infrastructure as a form of employment creation.

NATIONAL ACCOUNTS 2009 (Estimate)

A: Expenditure on Gross National Product

	2008 €bn	2009 Estimate €bn	Change in 2009				
			€bn		%		
			Value	Volume	Value	Price	Volume
Private Consumer Expenditure	94.8	84.3	-10.5	-6.7	-11.1	-4.3	-7.0
Public Net Current Expenditure	29.2	27.7	-1.5	-1.3	-5.1	-0.7	-4.4
Gross Fixed Capital Formation	39.8	24.7	-15.1	-12.3	-37.9	-10.0	-31.0
Exports of Goods and Services (X)	150.2	144.8	-5.4	-6.2	-3.6	0.6	-4.1
Physical Changes in Stocks	0.3	-2.3	-2.6	-2.5			
Final Demand	314.3	279.3	-35.0	-29.0	-11.1	-2.1	-9.2
less:							
Imports of Goods and Services (M)	133.9	120.4	-13.5	-13.0	-10.1	-0.4	-9.7
less:							
Statistical Discrepancy	0.4	-0.7	-1.2	-2.4			
GDP at Market Prices	180.0	159.6	-20.3	-13.6	-11.3	-4.0	-7.6
less:							
Net Factor Payments (F)	-25.3	-28.4	-3.1	-2.9	12.2	0.8	11.3
GNP at Market Prices	154.7	131.2	-23.4	-16.5	-15.1	-5.0	-10.7

B: Gross National Product by Origin

	2008 €bn	2009 Estimate €bn	Change in 2009	
			€bn	%
Agriculture, Forestry, Fishing	2.9	2.2	-0.7	-24.4
Non-Agricultural: Wages, etc.	79.4	72.7	-6.7	-8.5
Other:	60.5	53.9	-6.5	-10.8
Adjustments: Stock Appreciation	-0.2	1.0		
Statistical Discrepancy	0.4	-0.7		
Net Domestic Product	143.0	129.1	-13.9	-9.7
less:				
Net Factor Payments	-25.3	-28.4	-3.1	12.2
National Income	117.7	100.7	-17.0	-14.5
Depreciation	16.6	14.4	-2.3	-13.6
GNP at Factor Cost	134.3	115.0	-19.3	-14.4
Taxes less Subsidies	20.4	16.2	-4.2	-20.4
GNP at Market Prices	154.7	131.2	-23.4	-15.1

C: Balance of Payments on Current Account

	2008 €bn	2009 Estimate €bn	Change in 2009	
			€bn	%
Exports (X) less Imports (M)	16	24	8	
Net Factor Payments (F)	-25.3	-28.4	-3.1	
Net Transfers	-1.2	-0.9	0.3	
Balance on Current Account	-10.2	-4.9	5.3	
as % of GNP	-6.6	-3.7	2.8	

D: GNDI and Terms of Trade

	2008 €bn	2009 Estimate €bn	2009 Volume Change	
			€bn	%
Terms of Trade Loss or Gain		1.4		
GNP Adjusted for Terms of Trade	154.7	139.5	-15.2	-9.8
GNDI*	153.5	138.6	-14.9	-9.7
National Resources**	153.6	137.4	-16.2	-10.6

* GNDI is GDP adjusted for terms of trade and net international transfers.

** GNDI including capital transfers.

FORECAST NATIONAL ACCOUNTS 2010

A: Expenditure on Gross National Product

	2009 Estimate €bn	2010 Forecast €bn	Change in 2010				
			€bn		%		
			Value	Volume	Value	Price	Volume
Private Consumer Expenditure	84.3	83.5	-0.8	0.2	-1	-1 ¼	¼
Public Net Current Expenditure	27.7	25.6	-2.1	-1.1	-7 ½	-3 ½	-4
Gross Fixed Capital Formation	24.7	18.0	-6.7	-6.0	-27 ¼	-4	-24
Exports of Goods and Services (X)	144.8	151.8	7.0	7.3	4 ¾	- ¼	5
Physical Changes in Stocks	-2.3	-0.1	2.2	1.7			
Final Demand	279.3	278.9	-0.4	1.3	- ¼	- ½	½
less:							
Imports of Goods and Services (M)	120.4	120.7	0.3	0.8	¼	- ½	¾
less:							
Statistical Discrepancy	-0.7	-0.7	0.0	0.0			
GDP at Market Prices	159.6	158.9	-0.7	0.6	- ½	- ¾	¼
less:							
Net Factor Payments (F)	-28.4	-30.3	-1.9	-1.3	6 ½	2	4 ½
GNP at Market Prices	131.2	128.7	-2.6	-0.6	-2	-1 ½	- ½

B: Gross National Product by Origin

	2009 Estimate €bn	2010 Forecast €bn	Change in 2010	
			€bn	%
Agriculture, Forestry, Fishing	2.2	2.3	0.1	5
Non-Agricultural: Wages, etc.	72.7	68.2	-4.5	-6 ¼
Other:	53.9	58.7	4.8	8 ¾
Adjustments: Stock Appreciation	1.0	-0.2		
Statistical Discrepancy	-0.7	-0.7		
Net Domestic Product	129.1	128.2	-0.9	- ¾
less:				
Net Factor Payments	-28.4	-30.3	-1.9	6 ½
National Income	100.7	97.9	-2.7	-2 ¾
Depreciation	14.4	14.4	0.1	½
GNP at Factor Cost	115.0	112.4	-2.7	-2 ¼
Taxes less Subsidies	16.2	16.3	0.1	½
GNP at Market Prices	131.2	128.7	-2.6	-2

C: Balance of Payments on Current Account

	2009 Estimate €bn	2010 Forecast €bn	Change in 2010	
			€bn	%
Exports (X) less Imports (M)	24.4	31.1	6.7	
Net Factor Payments (F)	-28.4	-30.3	-1.9	
Net Transfers	-0.9	-0.9	0.0	
Balance on Current Account	-4.9	0.0	4.9	
as % of GNP	-3.7	0.0	3.7	

D: GNDI and Terms of Trade

	2009 €bn	2010 Estimate €bn	2010 Volume Change	
			€bn	%
Terms of Trade Loss or Gain		0.3		
GNP Adjusted for Terms of Trade	131.2	130.9	-0.3	- ¼
GNDI*	130.3	130.0	-0.3	- ¼
National Resources**	130.4	128.7	-1.6	-1 ¼

* GNDI is GDP adjusted for terms of trade and net international transfers.

** GNDI including capital transfers.

FORECAST NATIONAL ACCOUNTS 2011

A: Expenditure on Gross National Product

	2010 Estimate €bn	2011 Forecast €bn	Change in 2011				
			€bn		%		
			Value	Volume	Value	Price	Volume
Private Consumer Expenditure	83.5	85.6	2.1	1.3	2 ½	1	1 ½
Public Net Current Expenditure	25.6	24.6	-1.0	-0.8	-4	-1	-3
Gross Fixed Capital Formation	18.0	18.3	0.3	0.4	1 ¾	-¾	2 ¼
Exports of Goods and Services (X)	151.8	159.8	8.0	7.2	5 ¼	½	4 ¾
Physical Changes in Stocks	-0.1	0.0	0.1	0.1			
Final Demand	278.9	288.4	9.5	8.5	3 ½	¼	3
less:							
Imports of Goods and Services (M)	120.7	126.2	5.5	4.3	4 ½	1	3 ½
less:							
Statistical Discrepancy	-0.7	-0.7	0.0	0.0			
GDP at Market Prices	158.9	162.9	4.0	4.2	2 ½	-¼	2 ¾
less:							
Net Factor Payments (F)	-30.3	-32.4	-2.1	-1.5	7	2	5
GNP at Market Prices	128.7	130.5	1.9	2.8	1 ½	-¾	2 ¼

B: Gross National Product by Origin

	2010 Estimate €bn	2011 Forecast €bn	Change in 2011	
			€bn	%
Agriculture, Forestry, Fishing	2.3	2.4	0.1	5
Non-Agricultural: Wages, etc.	68.2	67.3	-0.9	-1 ¼
Other:	58.7	62.1	3.4	5 ¾
Adjustments: Stock Appreciation	-0.2	-0.2	0.0	0
Statistical Discrepancy	-0.7	-0.7	0.0	0
Net Domestic Product	128.2	130.8	2.6	2
less:				
Net Factor Payments	-30.3	-32.4	-2.1	7
National Income	97.9	98.4	0.5	½
Depreciation	14.4	14.7	0.3	2
GNP at Factor Cost	112.4	113.2	0.8	¾
Taxes less Subsidies	16.3	17.4	1.1	6 ¾
GNP at Market Prices	128.7	130.5	1.9	1 ½

C: Balance of Payments on Current Account

	2010 Estimate €bn	2011 Forecast €bn	Change in 2011	
			€bn	%
Exports (X) less Imports (M)	31.1	33.6	2.5	
Net Factor Payments (F)	-30.3	-32.4	-2.1	
Net Transfers	-0.9	-0.9	0.0	
Balance on Current Account	0.0	0.3	0.4	
as % of GNP	0.0	0.3	0.3	

D: GNDI and Terms of Trade

	2010 €bn	2011 Estimate €bn	2011 Volume Change	
			€bn	%
Terms of Trade Loss or Gain		-0.7		
GNP Adjusted for Terms of Trade	128.7	130.7	2.1	1 ½
GNDI*	127.7	129.8	2.1	1 ¾
National Resources**	127.9	129.9	2.1	1 ½

* GNDI is GDP adjusted for terms of trade and net international transfers.

** GNDI including capital transfers.

THE INTERNATIONAL ECONOMY

Main Developments

The recovery in the global economy continues to strengthen, albeit at a slow and uneven pace, and a number of international forecasters have revised their growth projections upwards since our last *Commentary*. The OECD now expects the world economy to grow by 4.6 per cent in 2010 and by 4.5 per cent in 2011. Underlying these forecasts, however, are significant regional differences. The recovery has been particularly buoyant in the emerging and developing economies, where domestic demand has been strong and external demand continues to be boosted by the recovery in world trade. Sustaining the recovery has proved somewhat more challenging in the advanced economies, where activity has been dependent on highly accommodative macroeconomic policies. The legacy of the crisis is manifested in high unemployment rates, weak private and public balance sheets and the increasingly urgent need for fiscal consolidation in a number of advanced economies. The slower recovery in advanced economies is reflected in the more modest growth forecasts for the OECD area, where GDP is expected to increase by 2.7 per cent in 2010 and by 2.8 per cent in 2011.

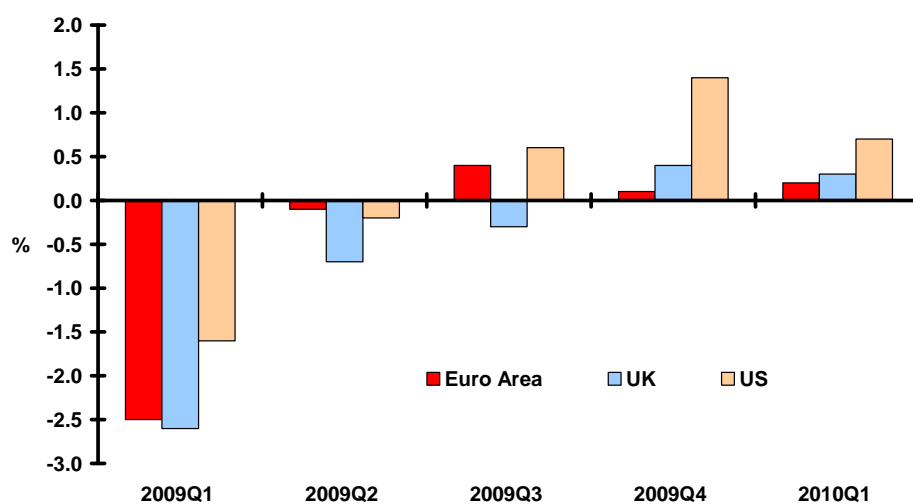
Among the advanced economies, the US appears to be leading the way and has registered relatively strong rates of growth in recent quarters. In the first quarter of 2010, GDP increased by 0.7 per cent, following growth of 1.4 per cent in the previous quarter.¹ The recovery has been largely stimulus-driven, with substantial monetary and fiscal easing providing a boost to the economy throughout 2009. The change in private inventories has also been a significant contributor to growth in recent quarters. Private consumption growth remains relatively subdued, largely due to ongoing balance-sheet adjustment by households and persistent labour market weakness. Financial market conditions have improved, although credit conditions remain tight and this may act as a drag on growth, in particular for small and medium-size enterprises that cannot access capital markets. Reflecting all these conditions, the recovery is expected to proceed at a more gradual pace over the coming quarters, particularly when the effects of the policy stimuli subside. Overall, GDP in the US is expected to grow by 3.2 per cent both in 2010 and 2011.

¹ In this section, growth rates which refer to the performance in a particular quarter are seasonally adjusted quarter-on-quarter growth rates.

Source: Eurostat http://epp.eurostat.ec.europa.eu/cache/ITY_PUBLIC/2-04062010-AP/EN/2-04062010-AP-EN.PDF

Having suffered a sharp contraction of 4.9 per cent in 2009, the UK has now enjoyed two consecutive quarters of growth, as shown in Figure 1. The pace of recovery has been slow, however, and ongoing weakness in consumption and investment continues to act as a drag on growth. Furthermore, the new government has recently announced a cumulative £120 billion fiscal consolidation plan for the period 2011-2015 in order to tackle the deficit, which is among the largest of the advanced economies. The National Institute of Economic and Social Research (NIESR) estimates that the announced consolidation plans will reduce GDP growth by 0.2 percentage points in 2010 and by 0.4 percentage points in 2011.² Household spending is likely to remain subdued into next year given the freeze in public sector pay, the VAT increase taking effect in January 2011, cuts to transfer payments and expected job shedding in the public sector. Current forecasts suggest that the UK economy will grow by 1.3 per cent this year, although much of this growth is expected to come from inventory accumulation. The VAT increase may lead to a surge in consumption in the fourth quarter of this year, prior to the introduction of the higher rate in January. Projections for next year suggest that the recovery will spread to most sectors of the economy, with the exception of government spending, bringing the overall rate of GDP growth to 2.5 per cent. Export volumes are expected to become the largest positive contributor to GDP growth, driven by the gain in competitiveness arising from the depreciation of sterling since the start of the crisis.

Figure 1: Quarter-on-Quarter GDP Volume Growth (%), Seasonally Adjusted



Source: Eurostat.

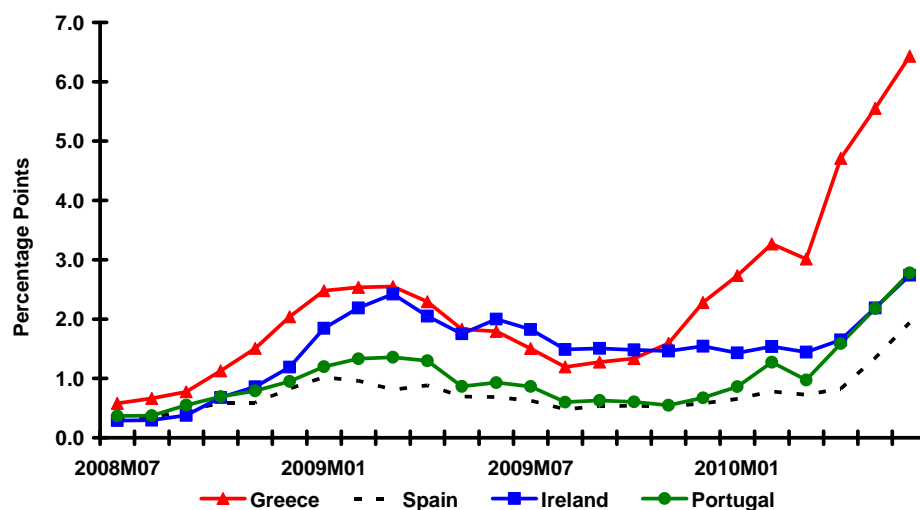
Sustaining and broadening the recovery has proved particularly challenging in the Euro Area and only modest rates of growth were recorded in recent quarters. The recovery continues to be supported by substantial macroeconomic and financial sector measures, as well as coordinated assistance from European and other international institutions, designed to strengthen the position of some of the hardest-hit economies in the Euro Area. The recovery in world trade and strong external demand should result in a pick up in activity throughout this year, although

² See http://www.niesr.ac.uk/pdf/220610_165331.pdf

domestic demand will continue to be constrained by modest income growth, high unemployment, continued balance sheet adjustments by households and banks, and significant fiscal consolidation in a number of member countries. Against this backdrop, Euro Area growth is likely to remain subdued over the forecast horizon. The OECD is projecting GDP growth of 1.2 per cent in 2010 and 1.8 per cent in 2011.

Although the recovery in the global economy is proving to be more robust than previously anticipated by observers such as the OECD, the downside risks are arguably greater now. Undoubtedly the biggest threat to the recovery, particularly in the Euro Area, is the growing market concern about long-term public debt sustainability in a number of countries. The associated solvency and liquidity risks have already caused severe disruption to the normal functioning of European financial markets. The rapid increase in risk premia in a number of Euro Area countries resulted in the announcement of a series of coordinated rescue measures between EU member countries, the IMF and the ECB. Following the implementation of these measures, the significant market volatility that characterised the first week of May has been contained. However, government bond yields remain elevated in some of the Euro Area's peripheral economies, as shown in Figure 2, and the long-run concerns about debt sustainability remain, with associated downside risks for the forecast pace of recovery. Failure on the part of high-risk countries to produce and implement credible consolidation plans may result in a further loss of confidence, raising the prospect of more widespread financial market instability. Increased borrowing costs could potentially crowd out private consumption and investment, further hampering the recovery process. In addition, the ECB has highlighted a concern that the sizeable near-term funding requirements of governments could potentially crowd out issuance of bonds by banks.³ The implications for bank funding costs could present a further setback to the recovery in this sector.

Figure 2: Ten Year Government Bond Spreads Relative to Germany (July 2008 – June 2010)



Source: Datastream.

³ ECB Financial Stability Review, June 2010.

Related to this point is the wider concern regarding the likely timing and nature of exit strategies from the range of exceptional policy measures, as highlighted in a number of previous *Commentaries*. In relation to fiscal policy, as outlined above, some countries have no choice but to curb their excessive borrowing immediately. For other economies, where fiscal sustainability is not in question and where the risk of default is essentially zero, the pace of fiscal consolidation should be sufficient to ensure continued credibility over the medium-term, while remaining supportive of the recovery in economic growth. Many commentators have argued that premature fiscal tightening is as big a danger as delayed tightening, particularly given the fragile nature of the recovery thus far. At the release of the IMF World Economic Outlook Update, Olivier Blanchard recently stressed that while fiscal adjustment should start soon, a sharp cut in deficits this year would be counterproductive. The focus should be on developing a credible plan to stabilise the debt to GDP ratio over the medium term, with the goal of decreasing it substantially over the longer term.

With regard to monetary policy, exit from the massive stimulus injected over the last two years is gradually starting. The exception to this is in the Euro Area, where the process of removing special liquidity provisions has been reversed in recent months, in an attempt to overcome the growing concerns about sovereign debt. In early May, the ECB decided to reactivate some of its longer-term refinancing operations (LTROs) at both three and six-month maturities. It also re-established the temporary foreign exchange swap lines with the US Federal Reserve and resumed US dollar liquidity-providing operations. Elsewhere, similar measures have been scaled back or withdrawn. Asset purchase programmes in the US and the UK are nearing an end, or have been put on hold indefinitely, while central bank-determined official interest rates have started to rise in a number of countries (such as Australia, Brazil, Norway and Sweden, among others). In the Euro Area, it is likely that monetary policy will remain highly accommodative for the remainder of the year. Recovery prospects are still sluggish and inflationary pressures remain subdued. In both the US and the UK, where there are indications that inflation expectations are increasing, it is possible that official interest rates will start to rise before the end of the year.

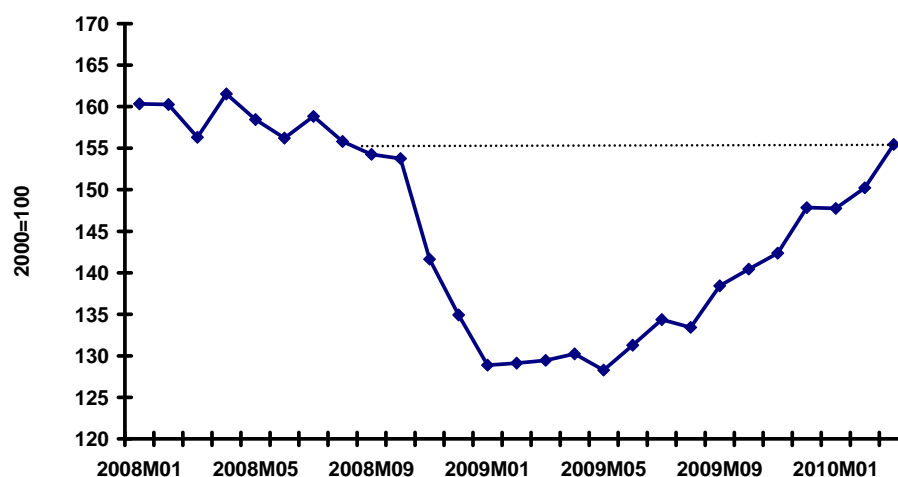
Implications for Ireland

EXPORTS

Irish exports continue to perform strongly, according to the latest *Quarterly National Accounts*. During the first quarter of 2010, exports of goods and services increased by almost 7 per cent in volume terms, compared to the previous quarter. Over the same period, total Euro Area exports grew by just 2.5 per cent. The outlook for Irish exports over the forecast horizon depends crucially on an ongoing recovery in the international economy, particularly in the economies of our main trading partners. Export prospects also rely on the recovery in world trade, following the unprecedented collapse at the end of 2008. As shown in Figure 3, world trade has rebounded strongly since the middle of 2009 and has essentially returned to pre-crisis levels. Research by the OECD into the drivers of the world trade collapse suggests that tight credit conditions and the sharp drop in world demand were the most important factors, and the reversal of

both of these now appears to be driving the recovery. Temporary factors are also playing a role, such as trade-intensive stock building and a variety of fiscal stimulus programmes, for example car scrappage schemes. Once these measures are phased out and the upturn in the inventory cycle starts to fade, it is likely that the rebound in trade will moderate somewhat, unless a strong pick-up in private final demand takes hold. Overall, world trade is projected to grow by 10.6 per cent in 2010 and 8.4 per cent in 2011. While this would obviously be a positive development from an Irish perspective, it should be noted that the acceleration of growth in trade is being driven by non-OECD countries, with whom Ireland has relatively little trade..

Figure 3: Index of World Trade



Source: World Trade Monitor, Centraal Planbureau (The Netherlands).

EXCHANGE RATES

The euro has fallen by almost 10 per cent on a trade weighted basis since the beginning of 2010, with a substantial part of this decline occurring in May, largely due to the sharp rise in the risk premium associated with Euro Area sovereign debt. The single currency fell to a four-year low of \$1.19 against the dollar and an eighteen month low of £0.82 against the pound in early June, and has weakened against the exchange rate of each of its main trading partners since the start of the year. Although the rapid decline in the value of the euro appears to have come to a halt, a further weakening of the single currency is possible. In spite of the introduction of the €750 billion support package from the European Union and the IMF, markets remain concerned about sovereign risk and the possibility of a debt default in one of the Euro Area's weakened economies. The forecasts in this *Commentary* assume that exchange rates are unchanged from their June 2010 levels. This implies annual average exchange rates of \$1.27 and £0.85 against the dollar and the pound respectively in 2010, and \$1.22 and £0.83 in 2011. The Irish economy should benefit from the currency's decline in recent months, as it may provide a further boost to exports outside the Euro Area. It could also be argued that the euro has fallen from an overvalued position against many currencies. In the 2001-2008 period, the average value of the euro against the dollar was \$1.19, and against the pound it averaged £0.68.

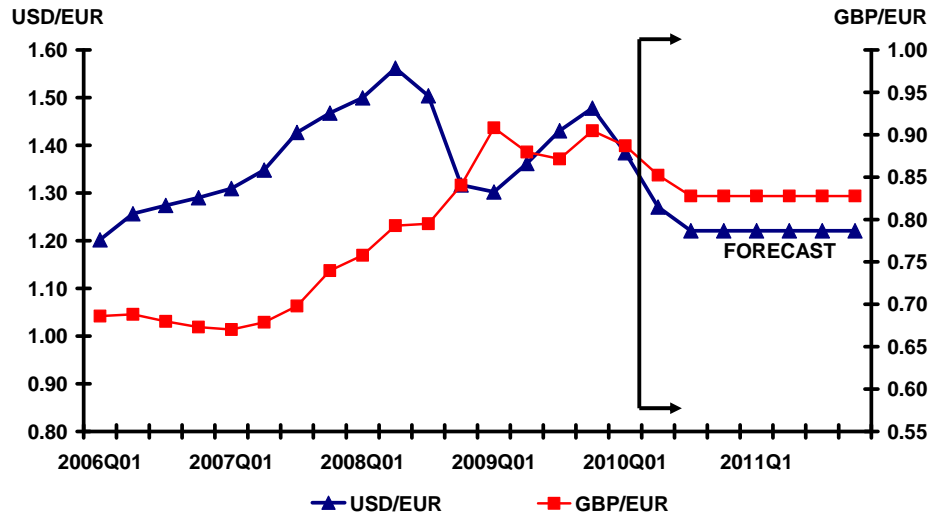
Table 1: Short term International Outlook

Country	GDP Output Growth			Consumer Prices* Inflation*			Unemployment Rate %			General Government Balance % of GDP		
	2009	2010	2011	2009	2010	2011	2009	2010	2011	2009	2010	2011
UK	-4.9	1.3	2.5	2.2	3.0	1.5	7.6	8.1	7.9	-11.3	-11.5	-10.3
Germany	-4.9	1.9	2.1	0.2	1.3	1.0	7.4	7.6	8.0	-3.3	-5.4	-4.5
France	-2.5	1.7	2.1	0.1	1.7	1.1	9.1	9.8	9.5	-7.6	-7.8	-6.9
Italy	-5.1	1.1	1.5	0.8	1.2	1.0	7.8	8.7	8.8	-5.2	-5.2	-5.0
Euro Area	-4.1	1.2	1.8	0.3	1.4	1.0	9.4	10.1	10.1	-6.3	-6.6	-5.7
USA	-2.4	3.2	3.2	-0.3	1.9	1.1	9.3	9.7	8.9	-11.0	-10.7	-8.9
Japan	-5.2	3.0	2.0	-1.4	-0.7	-0.3	5.1	4.9	4.7	-7.2	-7.6	-8.3
China	8.7	11.1	9.7	-0.7	2.5	2.5				-0.9	1.0	1.6
OECD	-3.3	2.7	2.8				8.1	8.5	8.2	-7.9	-7.8	-6.7
Ireland	-7.6	- ½	2 ¾	-1.7	-1 ½	½	11.8	13 ¼	13	-14.6	-19	-10 ¾

Source: OECD *Economic Outlook* No. 87, May 2010.

*HICP for UK and Euro Area countries.

Figure 4: Exchange Rates

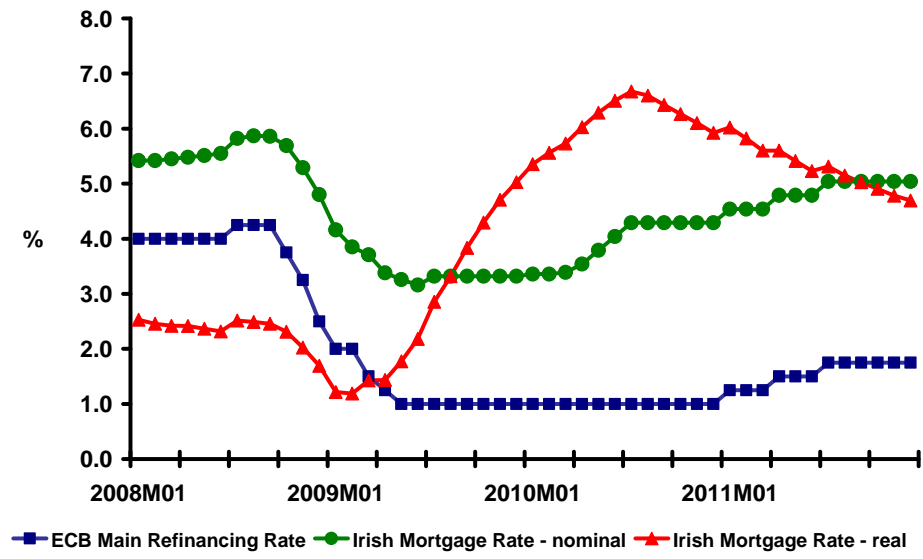


Sources: CBFSAI (historic).

INTEREST RATES

The ECB main refinancing rate has remained at a historic low of 1.0 per cent for over a year now. The Euro Area emerged from recession in the third quarter of 2009, but the pace of the recovery thus far has been slow and the outlook over the forecast horizon is subdued, as outlined above. The current OECD forecasts suggest an average HICP inflation rate of 1.4 per cent in the Euro Area in 2010. Given the anaemic growth prospects and the absence of any significant inflationary pressures, the ECB has shown no inclination to raise interest rates and has repeatedly stated that the refinancing rate is at an appropriate level. The ECB had begun the process of gradually withdrawing its long-term refinancing operations (LTRO's), however the impairments in financial markets arising from the Greek debt crisis forced a re-introduction of some of these measures. Given its assertions regarding the appropriateness of the current policy stance, combined with the likely ongoing fragility of market sentiment, it is unlikely that the ECB will consider raising interest rates until 2011 at the earliest. Therefore, our forecasts are based on the assumption that the refinancing rate will be held at 1.0 per cent for the remainder of the year, rising to 1.75 per cent by the end of 2011. From an Irish perspective, an unchanged rate in 2010 would certainly be welcomed, given the particularly fragile nature of the economic recovery here. In previous *Commentaries*, we have expressed a concern about the possibility of interest rate increases occurring at a time when the Euro Area recovery is well under way, but when activity in Ireland remains relatively subdued. Based on the current forecasts for a slow pace of recovery in the Euro Area, this outcome now seems increasingly unlikely.

Figure 5: Interest Rates



Source: CSO, ECB and own forecasts.

THE DOMESTIC ECONOMY

The most recent *Quarterly National Accounts* (QNA), for the first quarter of 2010, suggest that the economy may be starting to stabilise. In terms of GDP, the first quarter growth rate was a healthy 2.7 per cent, driven by very strong growth in exports (6.9 per cent). However, using GNP as a measure of growth, the first quarter results suggest a continuing decline in economic activity of 0.5 per cent as net factor income flows surged by 11 per cent. The underlying pattern of activity in the data confirms that domestic economic activity is still sluggish, with significant further falls in investment, particularly in the building and construction sector.

Using these first quarter figures, we have calculated the implied carryover growth rate for 2010, as shown in Table 2. This is the growth rate that would occur if economic activity were to remain unchanged from the level recorded in the first quarter of 2010. Based on pure carryover, the latest QNA estimates suggest GDP would increase marginally in 2010 by 0.4 per cent. Our estimate for 2010 GDP growth is very close to this, 0.3 per cent. We expect the domestic economy to continue to shrink, counterbalanced by growth in external demand as exports perform strongly.

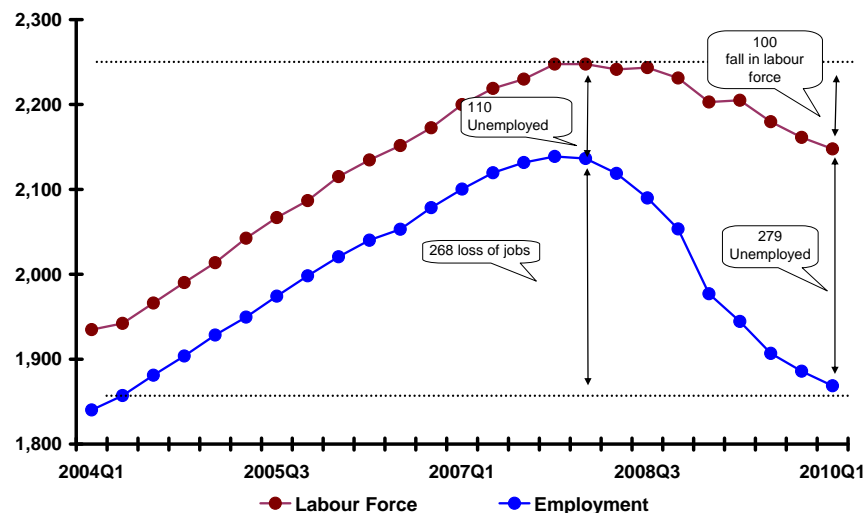
For 2011, we expect a resumption of more broadly-based growth, across all categories of expenditure with the exception of government consumption. For the latter category, we have revised downwards our numbers for 2010 and 2011. This adjustment partly reflects the very significant revision to the 2009 numbers, where the change in government consumption was revised from -1.3 per cent in March 2010 to -4.4 per cent in June 2010. However, while private consumption and investment are both forecast to grow in 2011, we expect that external demand will be significantly stronger than domestic demand, as further fiscal austerity measures restrain the growth in domestic demand.

Table 2: Revisions to QNA and Implied Carryover

	QNA March 2010 2009	QNA June 2010 ⁴ 2009	Revision	Implied Carryover from Q1 Data 2010	QEC Summer 2010	
					2010e	2011
Private Consumption	-7.2	-7.0	0.2%	-0.6	¼	1½
Government Consumption	-1.3	-4.4	-3.1%	-3.5	-4	-3
Investment	-29.7	-30.8	-1.2%	-24.4	-24	2¼
Exports	-2.3	-4.2	-1.8%	5.8	5	4¾
Imports	-9.3	-9.8	-0.5%	-0.3	¾	3½
GDP	-7.1	-7.6	-0.5%	0.4	¼	2¾
Net Factor Income	17.4	11.4	-6.1%	12.1	4¼	5
GNP	-11.3	-10.7	0.6%	-2.6	-½	2¼

In relation to unemployment, our latest forecasts imply a slight reduction in the unemployment rate for 2010 compared to our earlier estimates. As discussed in some detail in the previous *Commentary*, these changes reflect the very rapid fall in the labour force, with our estimates of total employment in 2010 broadly unchanged. Figure 6 illustrates how significant the fall in the labour force has been since the beginning of the recession. In 2008Q1 the labour force was 2.25 million, total employment was 2.14 million and the number unemployed was 110,000.⁵ By 2010Q1 total employment had fallen by 268,000, and if participation remained unchanged that would have led to unemployment of 378,000 and an unemployment rate of 16.8 per cent. However 100,000 left the labour force so total unemployment in 2010Q1 is 279,000, an unemployment rate of 12.9 per cent.

Figure 6: Changes in Employment, Unemployment and the Labour Force (000's)



⁴ These figures differ slightly from the annual National Income and Expenditure estimates used in this QEC. These differences are minor and are due to the fact that quarterly seasonally adjusted data do not exactly sum to annual totals.

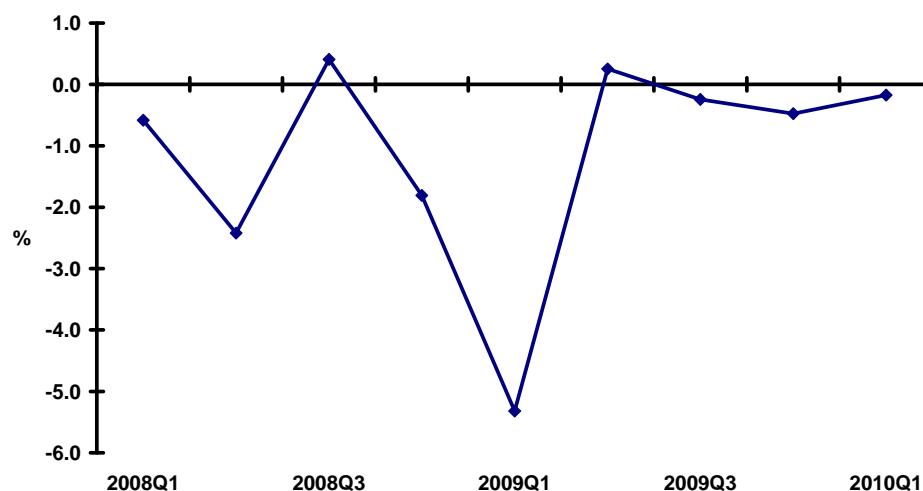
⁵ These are seasonally adjusted numbers from the CSO, total employment and unemployment numbers do not exactly sum to the labour force.

We have revised upwards our figures for net outward migration, to 70,000 in 2010 and 50,000 in 2011. Together with limited further declines in participation, this will be sufficient to see the unemployment rate decline marginally in 2011 to 13 per cent. However, these figures imply no increase in employment levels in 2011. This reflects our view that we expect the recovery to be driven by an increase in exports, which are less employment-intensive than consumption. We have implemented in full a package of €3 billion cuts, which includes €1 billion cuts in the capital programme, €1 billion cuts in current expenditure and €1 billion increase in taxation. This austerity package will ensure that domestic demand remains subdued in 2011. However it does help to reduce the general government deficit to 10¼ per cent of GDP. By the end of 2011 we forecast that the gross government debt will be equivalent to 94 per cent of GDP, compared to 44 per cent in 2008.

Consumption

The Quarterly National Accounts (QNA) for Q1 2010 show that consumption fell by 7 per cent in 2009. This was a small upward revision from the previous estimate contained in the QNA for Q4 2009, which was -7.2 per cent. In Figure 7, we show quarter-on-quarter changes in consumption (seasonally adjusted). The dramatic fall in consumption in Q1 2009 is very stark. Since then, the pace of decline moderated significantly but the trend has generally stayed in negative territory.

Figure 7: Quarter-on-Quarter % Change in Volume of Consumption, Seasonally Adjusted



Source: Quarterly National Accounts, CSO.

In Table 3, we show trends in a range of indicators of consumption. The data in this table show annual rates of change and this explains, for example, why large negative numbers appear under retail sales throughout 2009. The more moderate pace of annual decline in Q1 2010 reflects in part the lower base that resulted from the Q1 2009 decline. A recovery in car sales, possibly in response to the Government's scrappage scheme, also added a positive impetus.

Table 3: Recent Indicators of Consumption (Annualised Volume Growth Rates)

	Retail Sales (unadjusted)		Trips Abroad	New Vehicle Sales	All Vehicle Sales
	All Businesses	Excluding Motor Trade			
	%	%	%	%	%
2008Q1	4.8	5.9	11.6	-1.5	-2.6
2008Q2	0.6	3.5	8.3	-10.3	-13.7
2008Q3	-3.0	0.7	6.2	-12.8	-18.0
2008Q4	-6.4	-2.5	2.1	-15.4	-20.9
2009Q1	-11.4	-5.1	-3.1	-31.9	-44.7
2009Q2	-13.1	-6.6	-5.0	-37.3	-53.3
2009Q3	-14.1	-6.9	-9.6	-46.1	-62.2
2009Q4	-14.0	-6.8	-10.5	-47.1	-62.5
2010Q1	-8.6	-5.7		-32.1	-38.8

The latest readings from the KBC/ESRI Consumer Sentiment Index show improvements in consumer sentiment. The index, on a three month moving average basis, rose to 66.3 in June, up from 64.3 in May and from the historic low of 41.7 in August 2008.

Looking ahead, we now expect that the volume of consumption will increase marginally this year, by $\frac{1}{4}$ per cent, and that it will increase by $1\frac{1}{2}$ per cent in 2011. This relatively subdued rate of consumption growth is anticipated due to factors such as continued weakness in the labour market into 2011 and on-going expectations of tax increases. The subdued rate of growth is reflected in our forecast for the saving rate which we see remaining above 10 percent in both 2010 and 2011.⁶

Investment

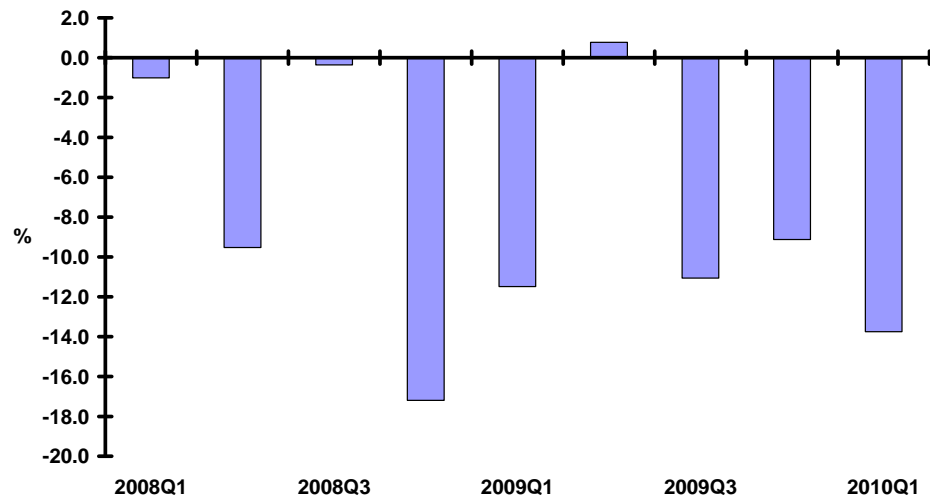
The pace of decline in investment accelerated in the first quarter of 2010, according to the *Quarterly National Accounts*, and is shown in Figure 8. The volume of investment fell by just under 14 per cent in Q1, compared to the final quarter of 2009. Looking at the various components, the decline in housing investment continues to drive the overall slump in gross fixed capital formation. In the first three months of the year, investment in dwellings fell by 53 per cent, compared to the same period in 2009. Other building and construction fell by 30 per cent over the same period, while investment in machinery and equipment declined by 17 per cent.

⁶ As recently as 2007, the savings rate was 2.7 per cent.

Table 4: Gross Fixed Capital Formation

	2008	% Change in 2009		2009	% Change in 2010		2010	% Change in 2011		2011
	€bn	Volume	Value	€bn	Volume	Value	€bn	Volume	Value	€bn
Housing	15.1	-41.0	-51.2	7.4	-43 ½	-46	4.0	2 ¾	-1 ¼	3.9
Other Building	12.9	-24.3	-33.1	8.6	-20	-28	6.2	-5 ½	-8 ¼	5.7
Transfer Costs	1.7	-62.4	-65.7	0.6	-20	-25	0.4	5	0	0.4
Building and Construction	29.7	-34.9	-44.2	16.6	-31	-35 ¾	10.6	-2	-5 ¼	10.1
Machinery and Equipment	10.1	-19.3	-19.4	8.1	-8	-9 ½	7.4	10	11 ¾	8.2
Total	39.8	-31.0	-37.9	24.7	-24	-27 ¼	18.0	2 ¼	1 ¾	18.3

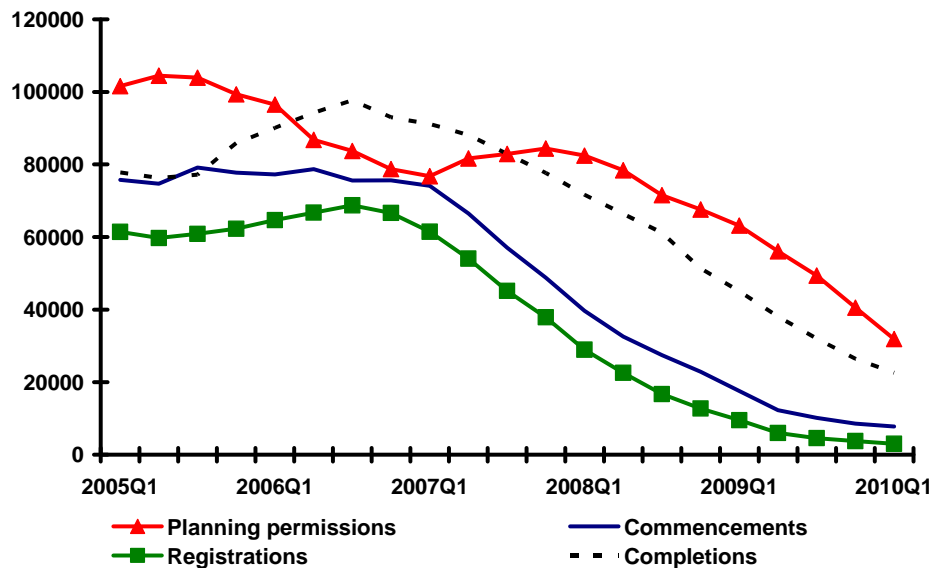
Figure 8: Quarter-on-Quarter Growth in Investment, Seasonally Adjusted



Source: Quarterly National Accounts, CSO.

The situation in the housing market continues to deteriorate and Figure 9 indicates the latest trends in activity in the sector. In the year ending April 2010, total house completions fell by 50 per cent, while registrations fell by 64 per cent. Data for the first three months of this year show total commencements of 1,706. Based on these latest indicators, we are forecasting total house completions of 10,000 in 2010 and this implies a fall of 43½ per cent in housing investment this year. For 2011, we expect the number of house completions to stabilise at 10,000 units. While the contraction in house building will no longer act as a drag on economic growth, this sector will not make any significant contribution to growth in

Figure 9: Housing Statistics, Annualised Numbers



Source: CSO and Department of the Environment, Heritage and Local Government.

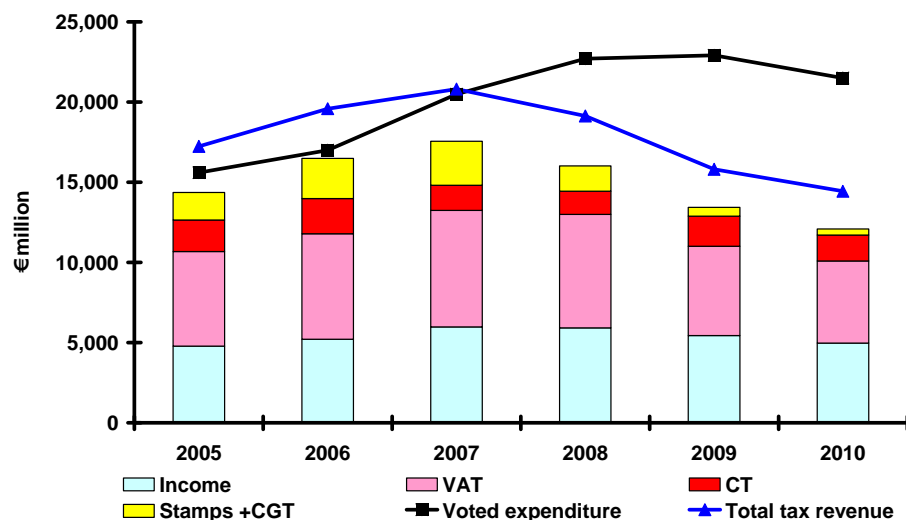
**Government
Spending
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Public
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2011.⁷ In relation to house prices, the pace of decline is showing no sign of slowing. In the first quarter of the year, house prices in Dublin registered their largest quarter-on-quarter decline, equivalent to 10.3 per cent, while house prices nationally fell by 4.8 per cent. At this time, house prices in Dublin were 42 per cent below their peak, and nationally they were 34 per cent below peak. We expect the cumulative fall in the price of new houses to be close to 50 per cent from the peak by the end of 2011.

Overall we expect the volume of investment to fall by 24 per cent in 2010. Underlying this is a fall in housing investment of 43½ per cent, a fall of 20 per cent in other building and construction and a fall of 8 per cent in investment in machinery and equipment. We are forecasting a return to growth in overall investment in 2011, although the pace of growth is expected to be a very modest 2¼ per cent. This will be driven by an increase of 10 per cent in the volume of investment in machinery and equipment. We expect to see a small increase in the volume of housing investment, although this growth is assumed to be in repairs and renovation, rather than an increase in house completions. Finally, we expect other building and construction to fall by 5½ per cent, partly as a result of the expected cuts to capital spending in Budget 2011.

The most recent exchequer returns for the first six months of 2010 recorded further declines in revenue across all of the major tax headings. Total tax revenue in June 2010 was €1.4 billion lower than in the same period in 2009. (The equivalent decline between June 2008 and June 2009 was €3.3 billion.) Figure 10 charts the exchequer receipts for the first six months from 2005 to 2010. The total tax take for the first six months of 2010 was €14.4 billion, a level last recorded in 2003. However in June 2003, voted expenditure was just €14 billion, while in June 2010 voted expenditure was €21.5 billion.

Figure 10: Exchequer Returns, €millions



Source: Department of Finance.

⁷ The volume growth of 2¾ per cent in housing investment indicated in Table 4 relates to investment in improvements in the existing housing stock, rather than an increase in house building.

Table 5: Public Finances

	2008	%	2009	%	2010	%	2011
	€bn	Change	€bn	Change	€bn	Change	€bn
Current Revenue	41.6	-18.6	33.9	3 ¼	35.0	- ¼	34.9
<i>of which: Tax Revenue</i>	40.8	-19.0	33.0	-1 ¼	32.6	3 ¾	33.8
Current Expenditure	44.7	1.2	45.2	4 ¾	47.4	2 ¾	48.7
<i>of which: Voted</i>	40.8	-1.2	40.3	0	40.3	¼	40.4
Current Surplus	-3.1		-11.4		-12.4		-13.8
Capital Receipts	1.4	4.8	1.5	14 ¼	1.7	-2 ½	1.6
Capital Expenditure	11.0	33.5	14.7	-53 ¾	6.8	12 ¾	7.7
<i>of which: Voted</i>	8.6	-19.3	6.9	-13 ¼	6.0	-16 ¼	5.0
Capital Borrowing	-9.6		-13.3		-5.2		-6.1
Exchequer Balance	-12.7		-24.6		-17.6		-19.9
as % of GNP	-8.2		-18.8		-13 ¾		-15 ¼
General Government Balance*	-13.2		-23.4		-31.3		-16.5
as % of GDP	-7.3		-14.6		-19 ¾		-10 ¼
Gross Debt as % of GDP	44.4		65.6		85 ½		93 ½
Net Debt as % of GDP**	22.6		38.2		56 ¼		63 ½

2010 and 2011 figures are based on National Accounts estimates.

**Net of NPRF, Social Insurance and Exchequer Balances.

Despite the very poor figures, the cumulative numbers show the first signs that the decline in total exchequer tax receipts may finally be stabilising. Figure 11 shows the rolling annual total between December 2005 and June 2010. It confirms the continued downward trend which began in the middle of 2007. For the year ended June 2010, total tax revenue was just below €32 billion, a fall of €15 billion from the peak in October 2007.

Our forecast of tax revenue for 2010 is for an overall decline of 1¼ per cent. This is equivalent to a full-year tax take of €32½ billion. Given that the current annualised number is below €32 billion, this estimate is based on a pick-up in revenue in the second half of this year as the economy begins to recover. If this forecast proves correct, and assuming budgetary targets for current and capital expenditure are met, then we estimate that the General Government Balance will be -11½ per cent of GDP in 2010. In Table 5 this figure is 19¾ per cent, this includes the €12.9 billion once-off cost of the promissory notes given to Anglo Irish Bank and Irish Nationwide.

Figure 11: Total Exchequer Tax Revenues, Rolling Annual Total⁸



Source: Department of Finance.

For 2011 we have implemented a stylised budget based on the pre-announced targets included in the *Budget 2010* document. In the document these include total cuts of €3 billion, with €2 billion targeted at the current side of the budget and a €1 billion reduction in capital expenditure. We have assumed an increase in €1 billion in taxation, split between increases in income tax (including PRSI) and some form of property taxation.⁹ On current expenditure we have assumed a freeze in welfare payments and public sector pay rates together with further reductions in the volume of public consumption which is forecast to fall by 3 per cent in 2011. It is important to stress that this is not a prescriptive recommendation; we have implemented these measures to estimate the impact of the pre-announced budget plans on the public finances and the wider economy.

We estimate that such a budget package would reduce the General Government Deficit by between 1½ and 2 percentage points of GDP. The impact on the wider economy is to reduce the growth rate by approximately one percentage point.¹⁰ In addition, the level of employment is lower and emigration flows higher than in the absence of such a package. These are real costs attached to the programme of fiscal consolidation being pursued by the government. Despite these costs it is the view of this *Commentary* that such measures are necessary to ensure the medium-term sustainability of the public finances.

For 2010, we have assumed that the Government will transfer €13 billion to fund the recapitalisation of Anglo Irish Bank and INBS. Since these monies are in the form of promissory notes, they will not increase the exchequer deficit in 2010 but are included in the General Government

⁸ There is a discrete shift in the last two months of each year. This reflects the impact of collection of capital gains tax and corporation tax, which are concentrated in the last two months of the year.

⁹ The Government has ruled out the possibility of a property tax being introduced. In the absence of firm information of what alternative might be implemented, we have opted to implement the same stylised budgetary package as in the last *Commentary*.

¹⁰ This estimate is based on comparing the “with budget” forecasts presented in this *Commentary* with the forecast growth rates which would arise given a neutral budget.

Deficit which we estimate to be 19 ³/₄ per cent of GDP in 2010. Excluding these transfers, the deficit would be 11 ¹/₂ per cent of GDP. At the time of writing it is not clear what the timing of further transfers of €8 billion to Anglo Irish Bank and INBS will be made. We have made a technical assumption that €0.6 billion will be transferred in 2011¹¹ and this figure is included in the Exchequer and General Government Deficit in 2011. In addition we assume that €1.3 billion of the promissory notes issued in 2010 will be drawn down in 2011, this increases the exchequer deficit in 2011. These figures are purely illustrative. In relation to interest payments, which will also increase due to the cost of the bank bailout, we forecast that gross interest payments on the debt¹² will be close to €6 billion, or 3¹/₂ per cent of GDP. For the purpose of reaching compliance with the *Stability and Growth Pact* (SGP) target, it is the general government deficit excluding the cost of the promissory notes given to the banks which is the relevant measure.

Exports

The *Quarterly National Accounts* for Q1 2010 indicate a fall in the volume of total exports of 4.1 per cent in 2009. While this decline indicates that Irish exports were not immune to the collapse in world trade, the performance of exports over the course of 2009 was resilient by international standards in comparison to the double-digit declines in exports recorded in other Euro Area countries such as Germany (-14 per cent), France (-12 per cent) and the UK (-11 per cent). Exports of goods and services recorded small quarter-on-quarter declines of 0.8 per cent and 1 per cent in Q3 and Q4 2009. The latest *Quarterly National Accounts* data indicate a reversal of this trend in Q1 2010 with exports of goods and services (seasonally adjusted) increasing by 6.9 per cent in volume terms compared to Q4 2009.

The fall in exports in Ireland has been significantly less than that being experienced in our major trading partners due to the concentration of Irish exports in sectors which have been less affected by the slump in international trade. Exports of chemicals and related products (mostly medical and pharmaceutical products and organic chemicals) accounted for over half of the total value of merchandise exports in 2009. This sector has continued to grow despite the slump in international trade, thereby helping to insulate Irish exports from the worst effects of the slowdown in world trade. In contrast, manufacturing sectors in our major trading partners which are more reliant on capital goods or automobile production have experienced much steeper declines in exports in line with the dramatic fall in world trade. Exports of chemicals and related products grew by 6.5 per cent in value terms in 2009 compared to 2008 according to the latest *External Trade* statistics and were 1.8 per cent higher in the year ending March 2010. The strong performance of chemicals exports has helped to offset some of the significant declines in exports which have occurred in other sectors of the economy. Exports of computers and electrical equipment fell by close to 30 per cent in the year ending February 2010. Exports from the traditional sector and exports to the UK also declined over the same period reflecting the difficulties created for Irish exporters by the weakness of sterling together with the weak performance of the UK economy.

¹¹ Assuming that further transfers will be issued in tranches over the coming ten years.

¹² These numbers exclude any interest costs related to funding NAMA.

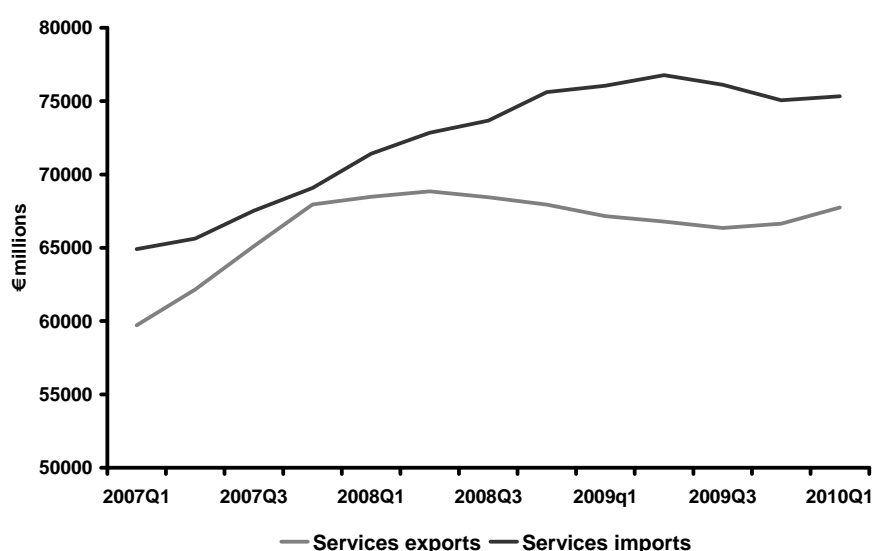
Table 6: Exports of Goods and Services

	2008		% Change in 2009		2009		% Change in 2010		2010		% Change in 2011		2011	
	€bn	Volume	Value	€bn	Volume	Value	€bn	Volume	Value	€bn	Volume	Value	€bn	
Merchandise	81	-5.2	-4.9	77	5 ½	5	81	4 ½	5	85				
Tourism	4	-16.5	-18.2	4	- ½	-1	3	5 ¾	8	4				
Other Services	64	-1.9	-0.8	63	4 ¾	5	66	5	5 ½	70				
Exports of Goods and Services	149	-4.1	-3.6	144	5	4 ¾	151	4 ¾	5 ¼	159				
FISIM Adjustment	1			1			1			1				
Adjusted Exports	150	-4.1	-3.6	145	5	4 ¾	152	4 ¾	5 ¼	160				

Services exports declined by 2 per cent in value terms in 2009 according to the latest data from the *Balance of Payments* (Figure 12). This aggregate figure masks significant variation in the performance of various components of services exports over the course of the year. Exports of financial services, insurance and tourism registered declines of 13 per cent, 7 per cent and 18 per cent respectively in 2009 compared to the previous year. In contrast, exports of I.T. services performed solidly last year and were 1.5 per cent higher for the year as a whole. There were also substantial increases in receipts from royalties/licences, business services and other services. The latest data for Q1 2010 indicate a continuation of the trend which emerged over the course of 2009 with increases in exports of I.T. services and business services offsetting substantial ongoing declines in exports of tourism and financial services. Services exports in the year ending Q1 2010 were almost 1 per cent higher compared to the figure for the year ending Q1 2009.

As discussed in the *International* section above, world trade recovered strongly during 2009 and that recovery has persisted into 2010. The latest data from the *Centraal Planbureau* (CPB) in the Netherlands indicate that following the collapse of late 2008, world trade has returned to its pre-crisis levels and is forecast to expand further over the coming months. We expect the upturn in the world economy and the recovery in world trade to boost demand for Irish exports over the forecast horizon. We estimate a return to export growth of 5 per cent this year following two years of contraction in export volumes. Having performed solidly in 2010, despite the slump in international trade, we expect the volume of merchandise exports to expand by 5½ per cent in 2010 and 4½ per cent in 2011. On the basis of recent trends in the manufacturing wholesale price index, which is a good leading indicator of merchandise export prices, we anticipate that exports will increase in value terms by 5 per cent in both 2010 and 2011.

Figure 12: Exports and Imports of Services, Current Prices, Annualised



Source: *Balance of Payments Statistics*, CSO.

Regarding our forecasts for services exports, we expect non-tourism services exports to grow by 4¾ per cent in 2010 and 5 per cent in 2011 in volume terms. Services exports declined only marginally in 2009 despite the upheaval in international financial markets and we expect the gradual

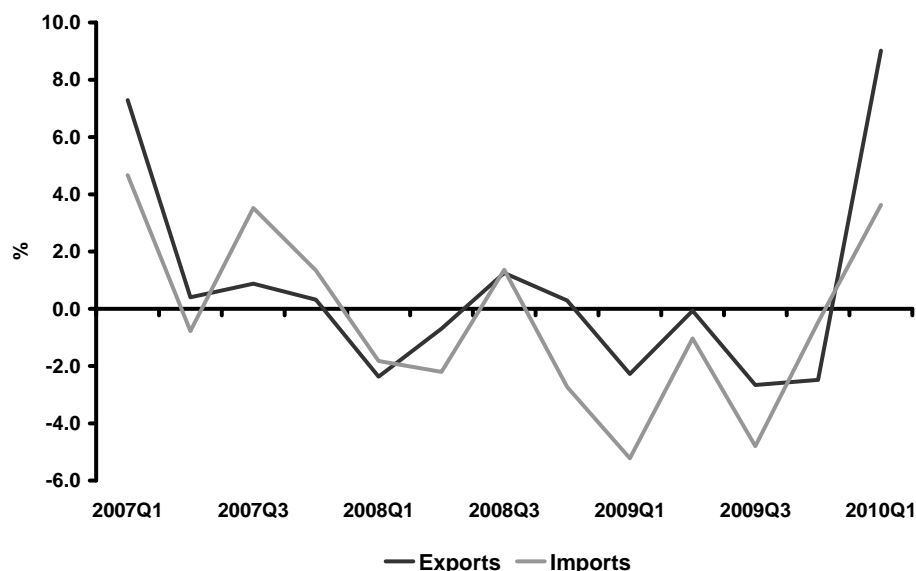
improvement in conditions in that sector to support the return to services export growth. Following large declines in both 2008 and 2009, we envisage a further contraction in tourism exports of ½ per cent in 2010. For 2011, the volume of tourism exports is expected to grow by 5¾ per cent.

Imports

Imports fell sharply in 2009 as a result of the collapse in consumption and investment. As shown in Figure 13, total imports declined by almost 10 per cent in 2009 with the volume of services imports shrinking by 2.6 per cent while merchandise imports fell by over 18 per cent. The volume of tourism imports fell by over 10 per cent. The decline in imports continued during the first quarter of 2010, with the volume of imports down over 2 per cent on a year-on-year basis.

The decline in imports has taken place across a range of categories, as shown in the latest *External Trade* statistics. Large year-on-year falls have been recorded in machinery and equipment (-31 per cent in value) and other manufactured goods. Large declines were also recorded in imports of consumption goods. Imports of road vehicles and other transport equipment fell by a massive 70 per cent in 2009 in value terms. Retail sales data for the first six months of the year have indicated a rebound in car sales and this is reflected in the merchandise imports data with imports of road vehicles and other transport equipment 102 per cent higher in March 2010 compared to March 2009. With domestic demand expected to remain subdued in 2010, we are forecasting a decline of 1½ per cent in the volume of merchandise imports. On the basis of our projections for consumption and investment, we expect merchandise imports to grow by 2 per cent in volume in 2011.

Figure 13: Exports and Imports, Seasonally Adjusted Quarterly Change, Per Cent



Source: Quarterly National Accounts, CSO

Current price data from the *Balance of Payments* (not seasonally adjusted) show a small decline in the value of services imports in 2009. On an annualised basis, services imports were 0.9 per cent lower in value terms in the year ending March 2010 with higher imports of royalties and business services being offset by reduced imports of financial services and tourism. Looking ahead, we expect a small volume increase in non-tourism services imports of 2½ per cent in 2010 and 4¾ in 2011. Following a 10 per cent decline in 2009, we are forecasting a further decline of 2½ in tourism imports in 2010 with a modest 2 per cent increase anticipated in 2011. Based on the projected recovery in economic activity, consumption and disposable income in 2011, we expect an increase of 3½ per cent in total imports of goods and services next year. We expect the increase in Irish exports in 2010 and 2011 to contribute to the expansion in imports given the high import intensity of Irish exports.

Balance of Payments

The sharp fall in the value of merchandise imports in 2009 of over 22 per cent greatly exceeded the reduction in merchandise exports giving rise to a substantial expansion in the merchandise trade surplus of €8.6 billion last year (Figure 14). The 2 per cent decline in the value of services exports in 2009 contributed to a widening of the services trade deficit of around €700 million over the course of the year. Our forecasts for services exports imply a reduction in this deficit in 2010 to €6.5 billion. On the basis of our projections for merchandise exports and imports, we envisage a further increase in the merchandise trade surplus both this year and next year. These projections should see the overall trade balance on goods and services increase from 18 per cent of GNP in 2009 to 23¾ per cent in 2010 and 25¼ per cent in 2011; the equivalent figure for 2008 was 10.4 per cent of GNP.

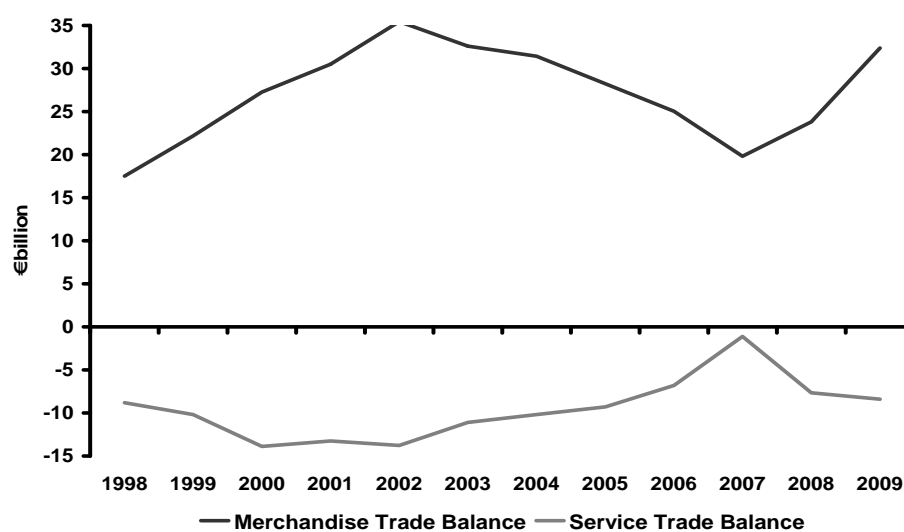
Table 8: Balance of Payments*

	2008 €bn	Change %	2009 €bn	Change %	2010 €bn	Change %	2011 €bn
Merchandise Trade Balance	23.8		32.4		37.1		39.4
Service Trade Balance	-7.7		-8.4		-6.5		-6.3
Trade Balance in Goods and Services on BoP basis	16.1		24.0		30.6		33.1
% of GNP	10.4		18.3		23 ¾		25 ¼
Total Debit Flows	109.2	-24.6	82.4	-9 ¼	74.7	-2 ¾	72.7
Total Credit Flows	84.0	-35.2	54.5	-17 ½	44.9	-9	40.9
Net Factor Flows	-25.2	10.9	-27.9	6 ¾	-29.8	7	-31.9
Net Current Transfers	-1.2		-0.9		-0.9		-0.9
Balance on Current Account	-10.2		-4.9		0.0		0.3
Capital Transfers	0.0		-1.3		0.1		0.1
Effective Current Balance	-10.1		-6.1		0.1		0.4
% of GNP	-6.5		-4.7		0		¼

*This table includes adjustments to *Balance of Payments* basis.

Balance of payments data show a sharp fall in 2009 in both factor inflows and factor outflows. Factor inflows fell by 35.2 per cent driven mainly by a sharp decline in portfolio investment income of over 43 per cent. Factor outflows declined by almost 25 per cent as the reduction in other debit flows (portfolio investment income and other investment income) exceeded the combined increase in outflows from the payment of national debt interest abroad as well as the increase in profit outflows. Our forecasts imply a further reduction in both factor inflows and factor outflows in 2010 and 2011. While profit outflows (reflecting the projected increase in exports) and national debt interest payments abroad are both expected to increase in 2010 and 2011, this will be offset by the reduction in other debit outflows. Factor inflows are expected to decline by 17½ per cent in 2010 and 9 per cent in 2011 as a result of ongoing falls in portfolio investment and other investment income.

Figure 14: Balance of Trade on Goods and Services, Current Prices



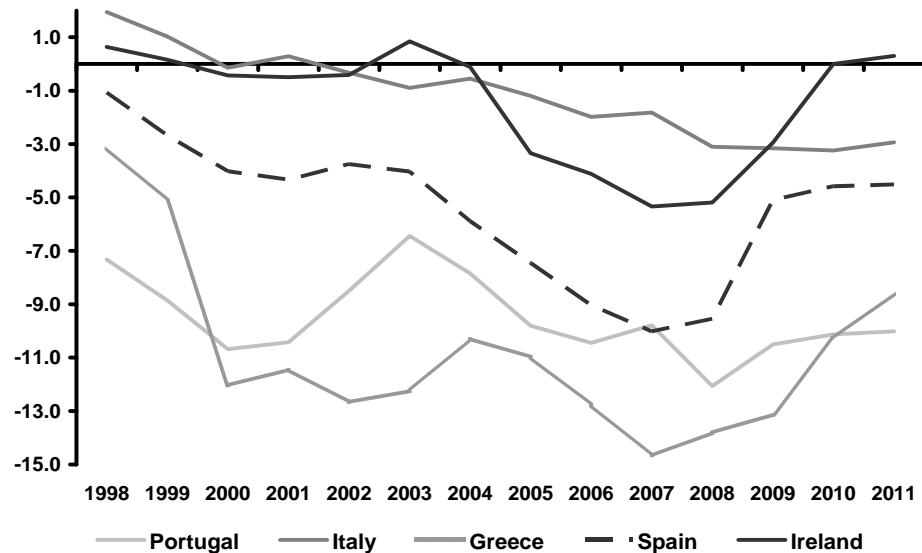
Source: *Balance of Payments Statistics*, CSO.

Despite the increase of almost 11 per cent in net factor income outflows in 2009, the expansion of the merchandise trade surplus gave rise to a rapid fall in the deficit on the current account of the balance of payments over the course of the year. The latest *Balance of Payments* statistics indicate that a small surplus of €17 million was recorded on the current account in Q4 2009, the first surplus since Q4 2003. As a result, the current account deficit for 2009 as a whole fell to €4.9 billion (4.7 per cent of GNP) compared to a deficit of €10.1 billion in 2008. The narrowing of the current account deficit which took place over the course of 2009 is expected to continue in 2010 with the result that we expect the current account to move into balance this year before recording a surplus of ¼ per cent of GNP in 2011. The movement into surplus of the current account is expected to be driven by the expansion in the merchandise trade surplus.

The expected emergence of a surplus on the current account of the balance of payments over the coming years is a symptom of the structural realignment currently underway in the Irish economy as it readjusts towards export-led growth. The emerging surplus on the current account of the balance of payments in Ireland stands in stark contrast to the situation in other Euro Area countries such as Portugal, Italy, Greece and Spain, all of which are expected to record large current account deficits

over the coming years (Figure 15). While the government sector is currently running a large deficit, the absence of a “twin deficits” problem in Ireland represents a significant strength of the Irish economy and provides reassurance as to the overall financial sustainability of the State. Changes in the flow of funds between sectors of the Irish economy, which match these developments in the balance of payments, are discussed in Box 1.

Figure 15: Current Account Balance, % of GDP



Source: European Commission Ameco Database and Own Calculations.

Box 1: Net Financial Position of Irish Households

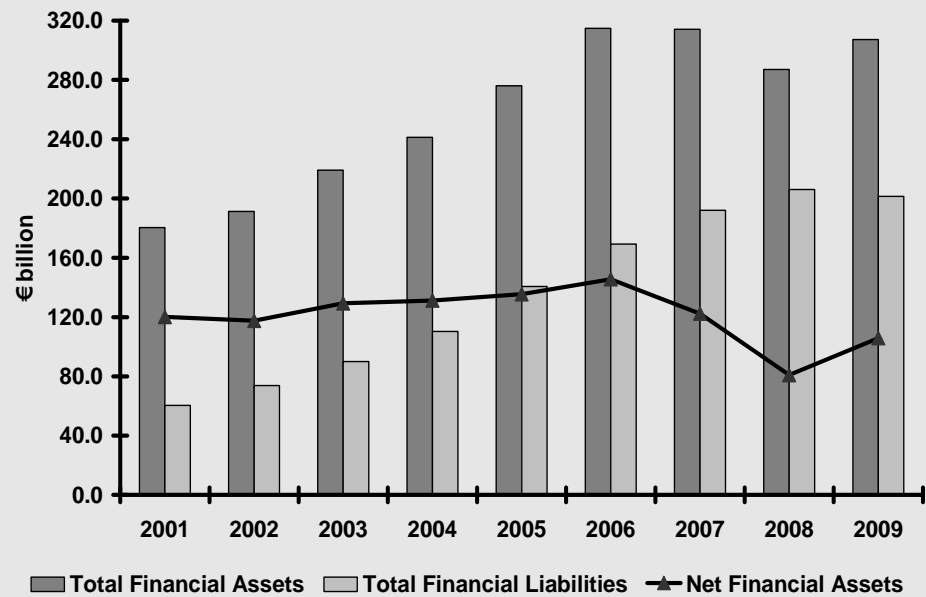
The Central Statistics Office Institutional Sector Accounts provide a comprehensive picture of Irish households’ net asset position by presenting a household balance sheet which shows household assets as well as household debt. While the growth in private sector credit and borrowing to fund housing investment has been well documented in recent years, the institutional sector accounts shed some extra light on the net worth of Irish households by allowing us to examine both sides of the balance sheet of Irish households.

The accounts show the dramatic rise in households’ indebtedness between 2001 and 2008. Over this period the financial liabilities of the household sector increased by almost 240 per cent (Table A). The increase in financial liabilities reflected the very large rise in borrowing by households for mortgages and other purposes. In the period 2001 to 2008, borrowing in the form of long-term loans accounted for over 90 per cent of the increase in total financial liabilities. Having increased each year over the period 2001 to 2008, due primarily to the rise in borrowing to fund housing investment, household financial liabilities declined for the first time in 2009 by €4.6 billion (Table A and Figure A)

Table A: Net Financial Position of Irish Households

	2001	2002	2003	2004	2005	2006	2007	2008	2009
Total Financial Assets	180.4	191.3	219.2	241.4	276.0	314.8	314.3	287.0	307.3
Total Financial Liabilities	60.4	73.8	90.0	110.3	140.6	169.3	192.0	206.1	201.5
Net Financial Assets	120.0	117.4	129.2	131.1	135.4	145.6	122.3	80.9	105.8

Figure A: Net Financial Assets, Household Sector



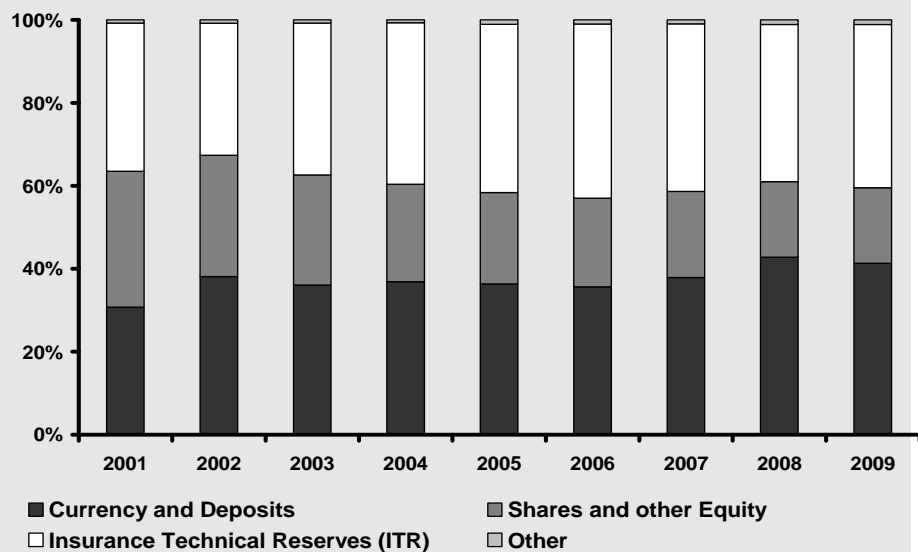
Source: CSO Institutional Sector Accounts 2009

The CSO sectoral accounts also provide information on the financial assets of Irish households. The composition of households' financial assets is illustrated in Figure B. In 2009, total financial assets consisted of currency and deposits (41 per cent), insurance technical reserves (39 per cent), shares and other equity (18 per cent) and other (2 per cent).¹³ The financial assets exclude housing and other physical assets. While the liabilities of Irish households increased sharply over the period 2001 to 2008, the financial assets also increased by 60 per cent over the same period. Financial assets declined by almost 9 per cent in 2008 driven by a 20 per cent fall in the value of households' holdings of shares and other equity and a 14 per cent fall in insurance policies and pension fund assets. Together with an increase in financial liabilities of around €14 billion, this resulted in a significant further deterioration in the net financial position of Irish households in 2008, following a decline of 16 per cent in households' net financial assets in 2007.

¹³ Insurance technical reserves covers the net equity of households in both life insurance and pension fund reserves.

The deteriorating trend in the net financial asset position of households which persisted since 2006 (Figure A) was reversed in 2009 according to the latest data, with the net financial assets of the household sector increasing by almost 31 per cent or €24.9 billion in the year. The increase in net financial assets in 2009 was due to a decrease in financial liabilities (mostly loans) of €4.6 billion and an increase in financial assets of €20.3 billion due largely to an increase in the value of insurance policies and pension fund assets. The fall in households' financial liabilities in 2009 was the first such decline since the series began in 2001.

Figure B: Composition of Household Financial Assets

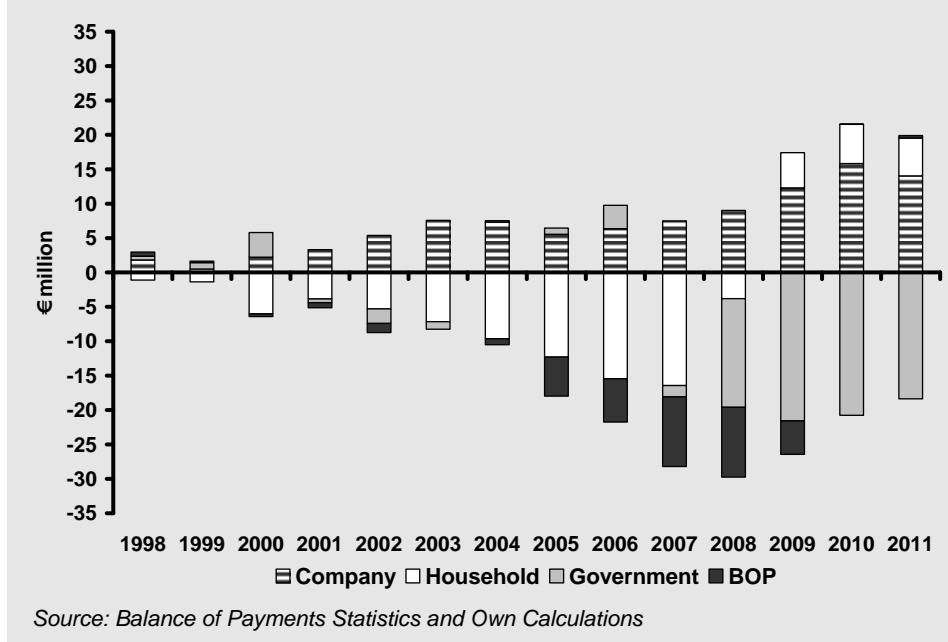


Source: CSO Institutional Sector Accounts 2009

While the financial position of households strengthened in 2009, with the majority of household liabilities in the form of property related loans, the continuing fall in house prices represents a threat to the net financial position of Irish households.

The decline in the financial liabilities of the household sector in 2009 noted above is reflected by developments in the flow of funds in the Irish economy (Figure C). Our forecasts imply that as a result of the decline in the financing needs of the household sector as well as the increase in the savings rate, the rate of net acquisitions of the household sector should remain in surplus in 2010 and 2011. Net acquisitions of the household sector refer to the difference between household savings and household investments in each calendar year. The movement of the household sector into surplus in 2010 and 2011, combined with the accumulated value of their financial assets, strengthens the position of Irish households faced with ongoing declines in the value of their physical assets and the burden of debts accumulated since 2001. It is important to note that there is likely to be significant variation between households in the distribution of financial assets and liabilities. Younger households, who face high debts as a counterpart to their acquisition of new dwellings in recent years, face a more difficult environment than older households with accumulated financial assets and lower debts.

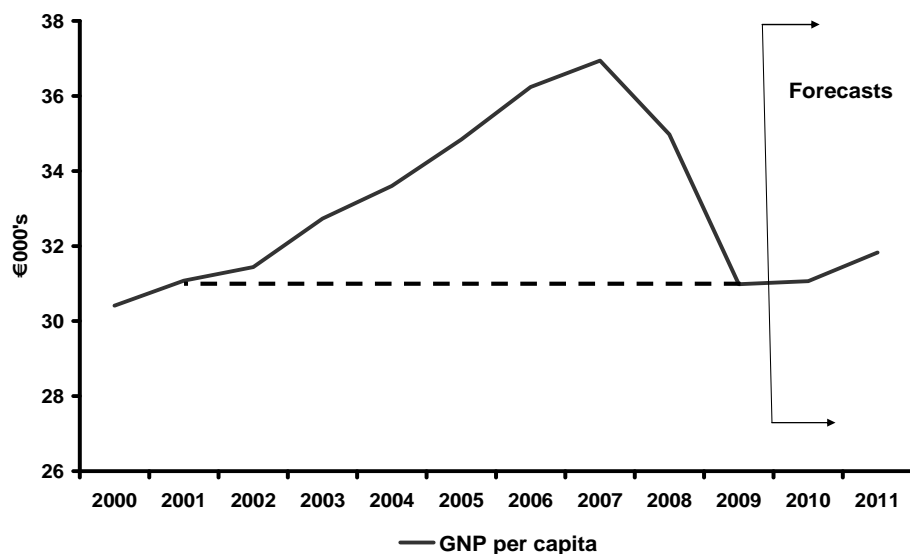
Figure C: Flow of Funds in the Irish Economy



Measures of Performance

Table 9 provides details on economic growth, living standards and the composition of growth for recent years and for the forecast period. Our forecasts imply that by the end of 2010, national income as measured by GNP will have contracted by a cumulative 15 per cent in volume terms over the period 2008-2010. By the end of 2009, GNP per head was back to its 2001 level. As shown in the Table and in Figure 16, the decline in volume GNP per capita is estimated to be steeper in 2009 and 2010. While outward migration will act to reduce the population in 2009 and 2010, the natural increase in the population is expected to be larger, resulting in the steeper fall in per capita GNP.

Figure 16: GNP Per Capita, Constant Prices



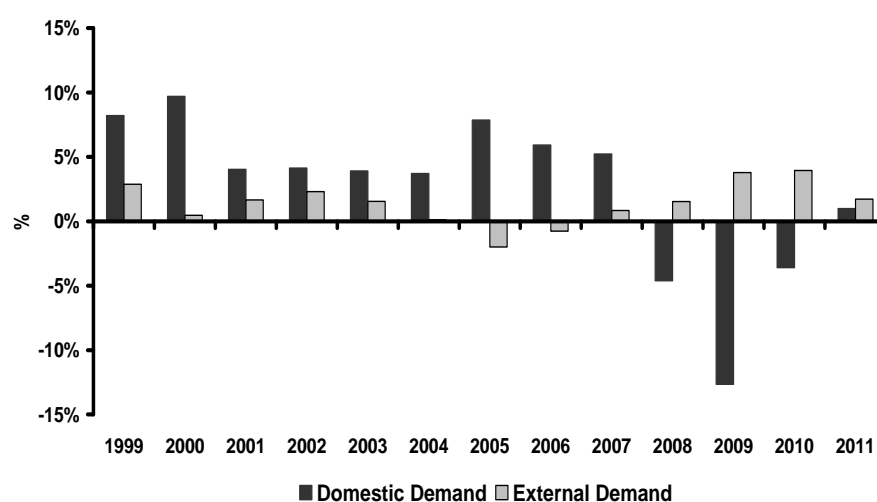
Gross national disposable income (GNDI) provides a comprehensive measure of the overall level of income by taking account of changes in the terms of trade and net international transfers. Improvements in the terms of trade are expected to lead to more modest declines in GNDI than in GNP in 2009 and 2010. Overall we expect a reduction in GNDI of ¼ per cent in volume terms in 2010 followed by a growth of 1¾ per cent in 2011. The cumulative fall in GNDI over the period 2008 to 2010 is estimated to amount to almost 16 per cent, providing a measure of the dramatic impact of the recession on living standards.

Table 9: Performance Indicators

	2006	2007	2008	2009	2010(f)	2011(f)
GNP, constant prices	6.0	6.5	4.5	-3.5	-10.7	- ½
GNDI, constant prices	5.1	4.9	2.8	-6.0	-9.7	- ¼
National Resources	5.0	4.9	2.6	-6.0	-10.6	¾
GNP per capita (constant prices)	3.7	4.0	1.9	-5.3	-11.4	¼
Consumption per capita (constant prices)	4.6	4.2	3.8	-3.3	-7.8	1
Investment in Housing/GNP	14.9	14.7	13.2	9.8	5.6	3
Investment/GNP	31.4	31.2	30.8	25.7	18.8	14
Domestic Demand	6.4	5.6	-5.0	-13.9	-4 ¼	1 ¼
Labour share of GNP	46.8	48.0	51.3	55.4	53	51 ½

Figure 17 shows the contribution of domestic and external demand to the overall rate of GDP growth.¹⁴ The data for 2008 and 2009, in addition to our estimates for 2010, suggest that the contractions in GDP in each of these three years are entirely driven by the contraction in domestic demand, with the external sector making a positive contribution to growth. In 2009, external demand contributed almost 4 per cent to overall GDP growth, its largest contribution since 1999. Our forecasts imply a similar contribution by the external sector to GDP growth in 2010.

Figure 17: Contributions to Growth, %



Source: National Accounts and Own Calculations.

¹⁴ The growth rates in external and domestic demand are weighted by their respective share in GDP. Therefore, these two growth rates sum to the overall growth in GDP.

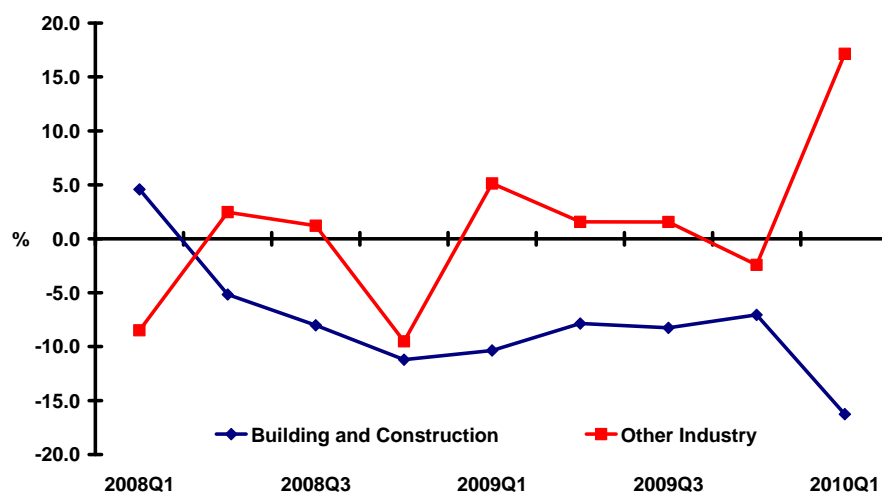
Sectoral Output

The collapse of the construction sector has contributed to the dramatic falls in investment recorded over the course of 2008 and 2009. The share of investment in GNP has more than halved since 2007 while our forecasts for housing investment imply a fall in the housing investment/GNP ratio to just 3 per cent in 2010, having peaked at close to 15 per cent. The contraction in investment since 2008 acted as a major drag on growth and our forecasts suggest that this painful adjustment is coming to an end.

Turning to competitiveness, if our forecasts for economy-wide wage reductions materialise, there would be a significant improvement in competitiveness as reflected in the decline in labour's share of GNP in 2010 and 2011. This issue is discussed further in the *Incomes* section.

The recent trends in industrial output revealed in the QNA for Q1 2010 are shown in Figure 18. Falling output in building and construction has, of course, been a feature of the economy since mid-2008. However, in the most recent quarter the fall in output has been at its steepest, with output falling by 16.3 per cent quarter-on-quarter, seasonally adjusted. For “other industry”, the picture that emerged from the QNA was very positive. The quarter-on-quarter growth rate in Q1 was 17.1 per cent and so well above recent readings.

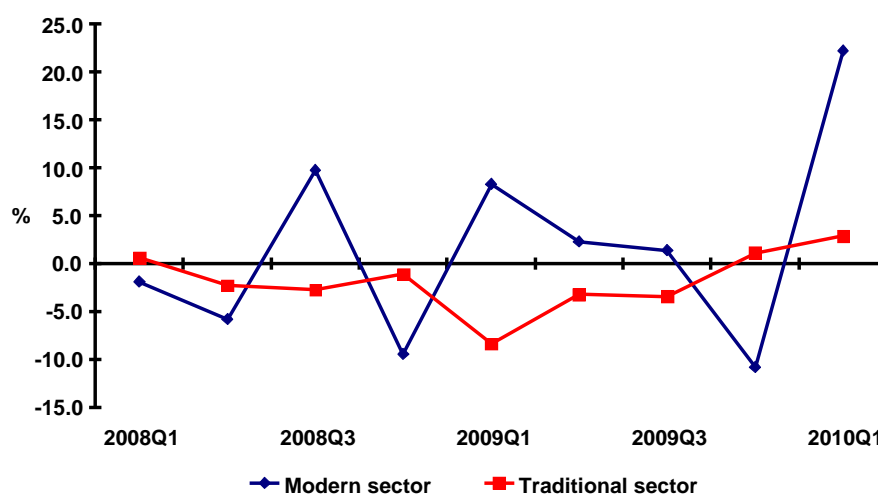
Figure 18: Quarter-on-Quarter Growth Rates in Industry, Seasonally Adjusted



Source: Quarterly National Accounts, CSO.

Just as there is a marked difference in the performances in the two broad industrial sub-sectors just discussed, there is also a marked difference seen in the relative performance of the modern and traditional sub-sectors within manufacturing. In Figure 19, we show quarter-on-quarter growth rates in the industrial production index for the modern and traditional sectors, seasonally. While the traditional sector did grow in Q1 2010, the pace of growth in the modern sector was vastly higher (2.8 per cent in the traditional sector as opposed to 22.2 per cent in the modern sector).

Figure 19: Quarter-on-Quarter Growth Rates in the Industrial Production Index, Traditional and Modern Sectors



Source: Industrial Production Index, CSO.

Turning to services, the QNA show that services output fell by 0.1 per cent in Q1 2010 relative to Q4 2009 (seasonally adjusted). Output in distribution, transport and communications rose by 1.2 per cent but output fell in public administration and defence, by 1.8 per cent. Output in other services was constant.

Looking ahead, we now expect that industrial output will fall by $\frac{3}{4}$ per cent in volume terms in 2010. Reflecting the discussion above on the divergent experiences across building and non-building industrial sub-sectors, we expect other industry to grow by 6 per cent in volume terms and for building and construction to fall by $31\frac{1}{4}$ per cent. For 2011, we expect industry to grow by 4 per cent in volume terms. The corresponding figures for the building and non-building sub-sectors are $-2\frac{1}{4}$ per cent and 5 per cent respectively.

For services, we expect total volume of output to grow by 1 per cent this year, driven largely by an increase of $1\frac{1}{4}$ per cent in other services. For 2011, our expectation is for services output to grow by $2\frac{1}{4}$ per cent. The volume of other services is expected to grow by $2\frac{1}{2}$ per cent but this will be offset slightly by a fall of 1 per cent in public administration and defence due to on-going cutbacks.

Employment

Above, in the section providing an overview of the domestic economy, we have already discussed falls in the number in the labour force and how this has impacted upon measured unemployment. Here, we develop the theme further. The Quarterly National Household Survey (QNHS) for Q1 2010 showed that employment had fallen by 5.5 per cent in the year ending Q1 2010. As shown in Figure 20, this represented a slowing in the pace of annual employment decline relative to recent quarters. Employment began to fall (on an annual basis) in Q2 2008 and the falls accelerated through to Q3 2009. At that point, the annual rate of decline reached 8.8 per cent but the pace of decline has eased since then.

Table 10: GDP by Sector

	2008		% Change		2009	% Change		2010	% Change		2011
	€bn	Volume	Value	€bn		Volume	Value		€bn	Volume	
Agriculture	3.7	-3.6	-19.5	3.0	2	5	3.1	2	5	3.3	
Industry:	49.7	-7.8	-8.4	45.6	- $\frac{3}{4}$	-2 $\frac{1}{4}$	44.5	4	3 $\frac{1}{4}$	46.0	
Other Industry	37.4	-0.1	0.2	37.5	6	5	39.4	5	4 $\frac{1}{2}$	41.1	
Building & Construction	12.3	-31.4	-34.3	8.1	-31 $\frac{1}{4}$	-36 $\frac{1}{4}$	5.1	-2 $\frac{1}{4}$	-5 $\frac{1}{2}$	4.9	
Services:	105.8	-3.8	-9.6	95.6	1	0	95.8	2 $\frac{1}{4}$	1 $\frac{1}{4}$	97.0	
Public Administration & Defence	6.4	-0.5	-1.2	6.4	-1	-4 $\frac{1}{2}$	6.1	-1	-2	6.0	
Distribution, Transport and Communications	24.1	-9.3	-9.7	21.8	1	-1 $\frac{1}{4}$	21.5	2	3	22.1	
Other Services (including rent)	75.3	-2.3	-10.3	67.5	1 $\frac{1}{4}$	1	68.2	2 $\frac{1}{2}$	1 $\frac{1}{4}$	69.0	
GDP at Factor Cost	159.2	-5.0	-9.4	144.2	$\frac{1}{2}$	- $\frac{1}{2}$	143.4	2 $\frac{3}{4}$	2	146.3	

Figure 20: Year-on-Year % Change in Employment



Source: Quarterly National Household Survey, CSO.

We can get a better sense of shorter run dynamics by looking at quarter-on-quarter changes in employment (seasonally adjusted) and we do this in Figure 21. We also show the trend in the rate of unemployment. The decline in employment in Q1 2010 relative to Q4 2009 was 0.9 per cent and so lower than any quarter since Q2 2008. In terms of unemployment, Figure 21 shows how a fall in the rate occurred between Q4 2009 and Q1 2010. The rate in Q1 2010 was recorded as 12.9 per cent but according to the Live Register for June 2010, the rate now stands at 13.4 per cent.

Table 11: Employment and Unemployment

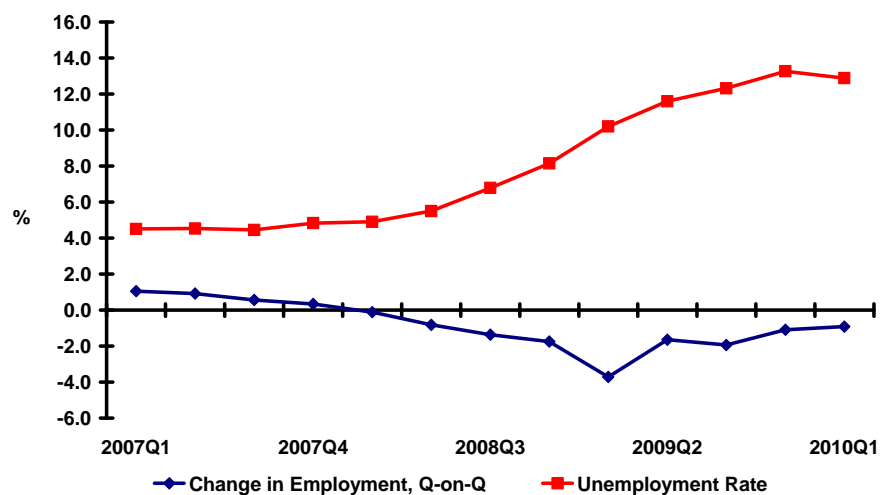
	Annual Averages 000s			
	2008	2009	2010	2011
Agriculture	115	96	85	88
Industry	520	411	372	370
Services	1,465	1,422	1,401	1,397
Total at Work	2,100	1,929	1,857	1,855
Unemployed	141	259	286	280
Labour Force	2,241	2,187	2,143	2,135
Unemployment Rate %	6.3	11.8	13 ¼	13
Net Migration	38.5	-7.8	-70.0	-50.0
of which: Inward Migration	83.8	57.3	10.0	10.0
Change in Participation Rate*	-0.3	-1.2	-1 ¼	¼

Note: Participation rate measured as share of population aged 15-64 years; based on Q2 figures as are migration figures.

This observed fall in the rate of unemployment, when combined with continuing falls in employment, suggest that rates of participation have been declining and/or that out migration is occurring. Both processes are evident in the QNHS data. Below, in a box on immigrants and the recession, we look at the issue of out-migration but here will we consider participation.

In Figure 22, we show the trend in the overall rate of participation between Q1 2007 and Q1 2010. The rate peaked at 64.6 per cent in Q3 2007 but has since fallen to 60.7 per cent. According to the CSO, 70 per cent of the fall in the labour force in the years ended Q1 2010 can be accounted for though falling participation. The actual fall in the labour force over this period was 55,700; 38,800 was the result of falling participation, with remaining 17,000 resulting from demographic shifts, in particular out-migration.

Figure 21: Quarter-on-Quarter Employment Change and the Unemployment Rate, Seasonally Adjusted



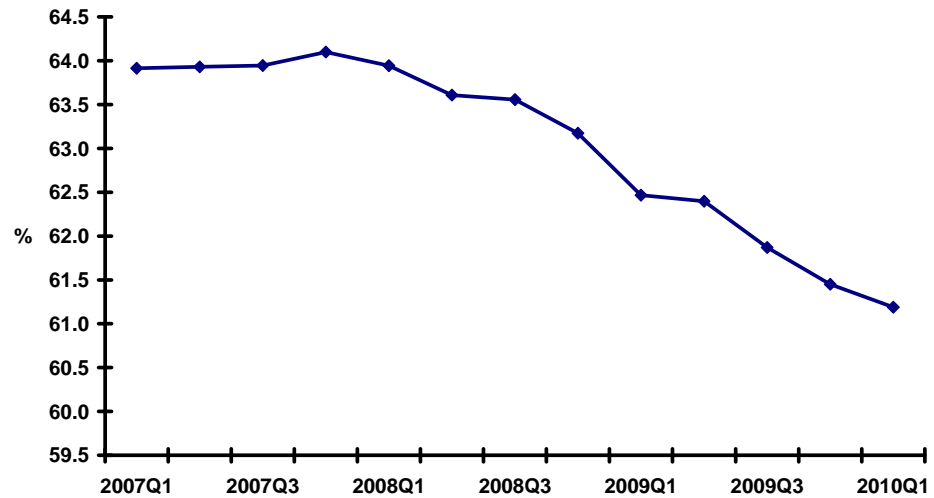
Source: Quarterly National Household Survey, CSO.

The aggregate fall in participation disguises large differences across age groups. The largest falls, by far, are among the youngest age groups. In the year ending Q1 2010, the overall fall in participation was 1.3 percentage points. However, the fall for those aged 15-19 was 4.4 percentage points; the corresponding figure for those aged 20-24 was 5.3 percentage points. When the rates of unemployment for these age groups are considered beside these falls in participation, it is clear that the recession has impacted severely on the labour market outcomes of younger people.¹⁵ The

¹⁵ As discussed in the previous *Commentary*, in cases where lower labour force participation is mirrored in higher rates of educational participation, this can be beneficial in the long-run for both individuals and the economy.

unemployment rate for those aged 15-19 is now 30 per cent; for those aged 20-24, it is 24.9 per cent. For males, the rate of unemployment is one third for both age groups.¹⁶ The recession has also impacted severely on the labour market outcomes of immigrants and we develop this point below.

Figure 22: Labour Force Participation Rate



Source: Quarterly National Household Survey, CSO.

Yet another dimension of the recent surge in unemployment is the fact that an increasing proportion of the unemployed are long-term unemployed, that is, unemployed for more than a year. In Q1 2009, when the unemployment rate was 10.2 per cent, the rate of long-term unemployment stood at 2.2 per cent. By Q1 2010, the overall unemployment rate had risen to 12.9 per cent but the rate of long-term unemployment had risen to 5.3 per cent. As the experience of long-term unemployment for an individual is a predictor of future labour market difficulties, this trend in long-term unemployment is a concern in terms of the impacts on individuals and also for the economy more broadly if it results in structural unemployment.

Turning to our forecasts, we expect the numbers employed to average 1.87 million this year; this would represent a fall of $3\frac{3}{4}$ per cent relative to 2009. We expect that the number employed will be essentially unchanged between 2010 and 2011. We expect the rate of unemployment to average $13\frac{1}{4}$ per cent this year, before falling to an average of 13 per cent in 2011. With employment forecast to be constant between 2010 and 2011, the expected fall in the rate of unemployment is related in part to an expected net outflow of 50,000 in the year ending April 2011, following an estimated net outflow of 70,000 in the year ending April 2010.

¹⁶ The unemployment rate for females aged 15-19 is now 25.9 per cent; for females aged 20-24, the unemployment rate is 16.3 per cent.

Box 2: Immigrants and the Recession

By Alan Barrett and Elish Kelly

The discussion in the section on employment above has shown that the recession has impacted more severely on the employment outcomes of younger people relative to others. Immigrants share with younger people a number of characteristics which may have made them similarly vulnerable such as shorter periods of labour market experience and tenure and a greater likelihood of being on temporary contracts. And immigrants are generally younger too. In this box, we report of on-going work in which we are exploring the extent to which immigrants have been affected by the recession, how they have reacted and whether any impacts were specifically related to being an immigrant as opposed to other characteristics, such as age.¹⁷

In Figure A, we show annual rates of employment change for immigrants and Irish-nationals between Q3 2005 and Q4 2009. Going back to the earlier period, we can see the dramatic rates of employment growth among non-nationals, exceeding 30 per cent through 2006. However, the turnaround in the trend for immigrants was equally dramatic. In Q3 2007, the annual rate of employment loss among non-nationals was 20 per cent, with the corresponding figure for Irish nationals being less than half of this.

Figure B shows the rates of unemployment among national and non-nationals, and also the rate of nationals of the EU's Accession States. Up to the end of 2007, the unemployment rates for all groups were clustered around 5 per cent and there even appeared to be a degree of convergence occurring around mid-2007. However, since then the pattern observed in Figure A is apparent, with the rate of unemployment rising more rapidly among immigrants relative to Irish-nationals and especially so for the new accession states.

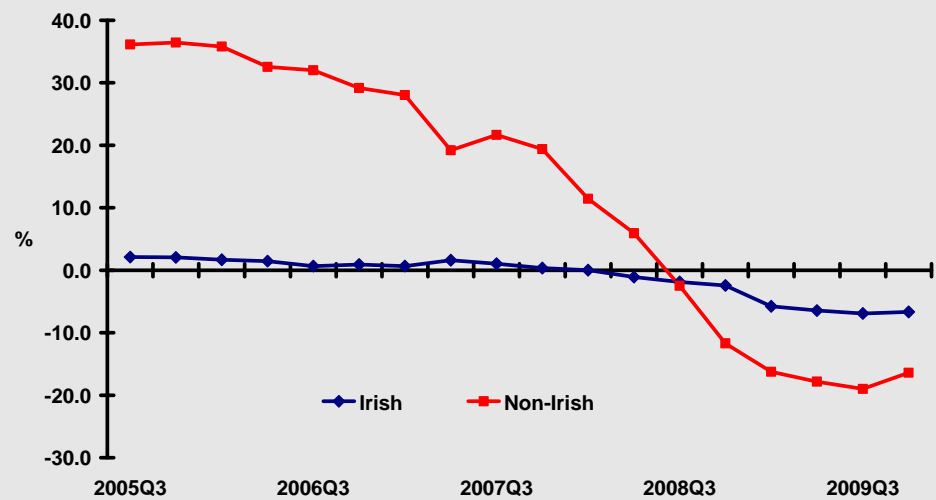
Given the fall in employment among immigrants and the rise in unemployment, an obvious question that arises is whether the negative turnaround in labour market outcomes has been reflected in out-migration and if so, to what extent. In Figure C, we use data from the QNHS to provide some insight. The figure looks at changes over the period Q1 2008 to Q4 2009 and shows the following. Over the period, the number of non-nationals employed in Ireland fell by 87,500 over the period in question, a

¹⁷ A working paper on this topic will be produced in the coming months.

fall of 25 per cent. The number unemployed grew by 24,500, an increase of over 100 per cent. The increase in the number who declared themselves as being inactive grew by just 2,700; this was an increase of just over 2 per cent. However, in absolute terms the biggest adjustment was in the number still in Ireland. It fell by 60,200 or 12 per cent.

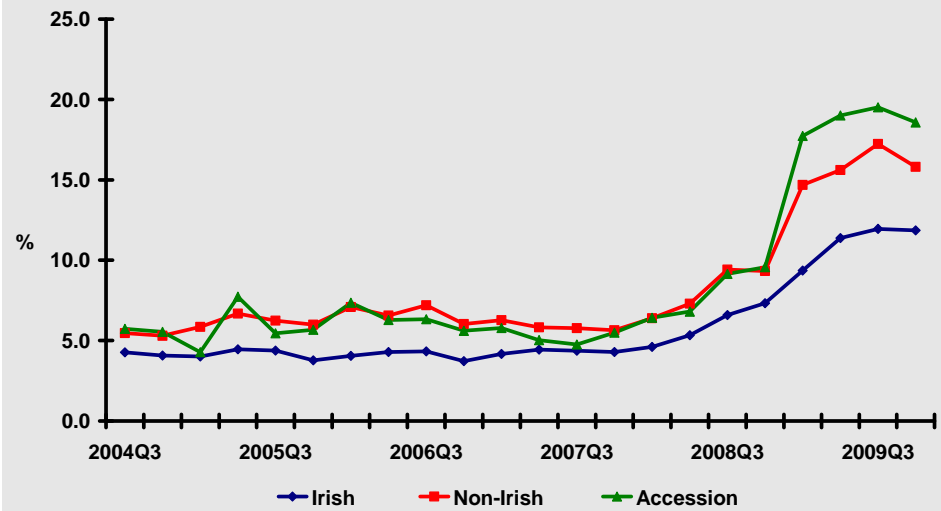
The discussion in the preceding paragraph could generate the impression that we are looking at the same people over time and assessing how those who lost their jobs reacted. It should be noted that the data being used here are not from a panel and so we need to be careful in making interpretations. However, these data are certainly consistent with a tendency for employment losses to have resulted in outflows.

Figure A: Year-on-Year % Change in Employment



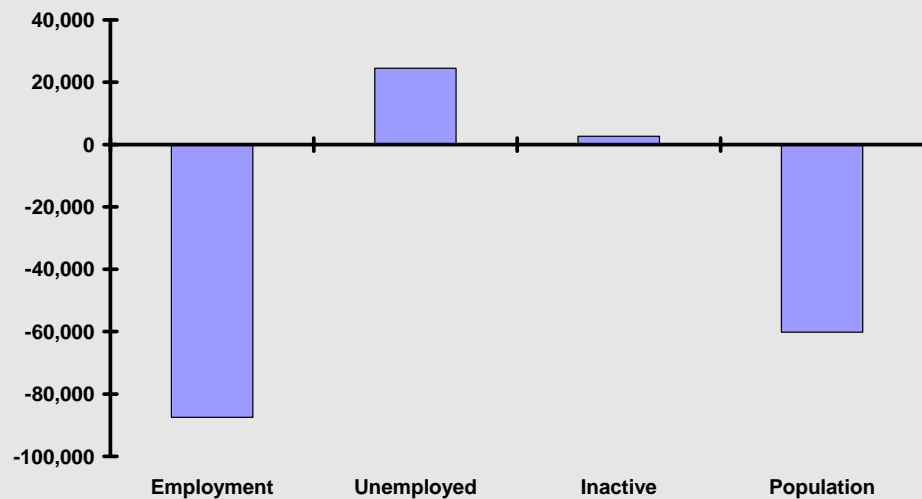
Source: Quarterly National Household Survey, CSO.

Figure B: Unemployment Rates



Source: Quarterly National Household Survey, CSO.

Figure C: Changes in Employment Status of Non-Irish Nationals Between Q1 2008 and Q4 2009



Source: Quarterly National Household Survey, CSO.

We noted at the beginning of this box that the employment of younger people has fallen more steeply in this recession relative to others. To the extent that immigrants are also younger on average relative to other workers, the effect we have been discussing could be the result of age as opposed to immigrant status. In order to explore this we conducted the following analysis.

We merged micro-data from the QNHSs of Q1 2008 and Q1 2009. For each individual, we constructed a dummy variable which was coded as 1 if the individual was employed and zero if unemployed or inactive. We then ran probit regressions in which the dependent variable was the dummy variable just described and the controls included variables such as age, education, whether the person was an immigrant or not and whether the person was observed in 2008 or 2009. By adding an interaction term between immigrant and year, we could assess whether the probability of being employed declined for immigrants relative to Irish-nationals between 2008 and 2009, as the recession deepened.

Our results suggest that there was indeed an independent effect of being an immigrant and that their employment chances fell between 2008 and 2009, relative to Irish-nationals and controlling for factors such as age and education. However, the effect was restricted to immigrants from the EU's accession states.

Incomes

According to the latest figures from the CSO, average economy-wide weekly earnings in the fourth quarter of 2009 were 0.6 per cent lower than in the fourth quarter of 2008. As shown in the first column of Table 12, nine of the thirteen sectors of the economy registered a decline over the

Table 12: Year-on-Year % Change in Earnings and Hours Worked, All Employees, 2009 Q4

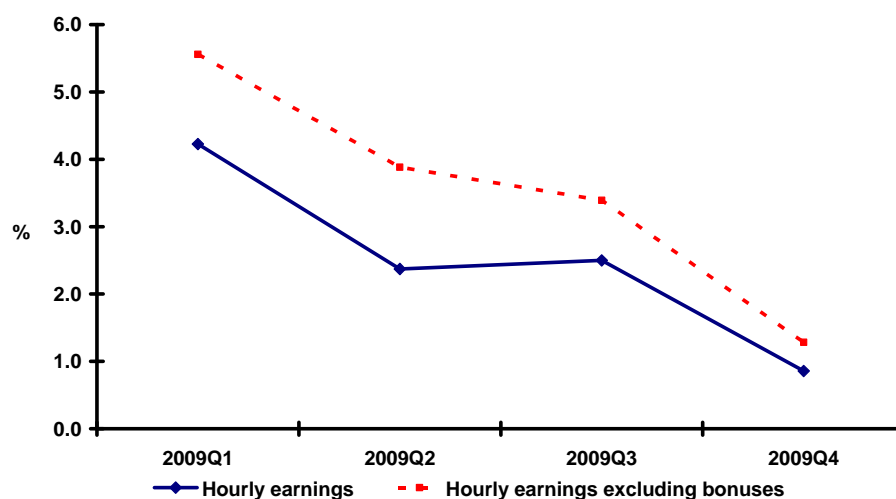
	Weekly Earnings	Hourly Earnings	Weekly Hours Worked
All sectors	-0.6	0.9	-1.5
Industry	1.5	3.3	-1.8
Construction	-4.0	0.6	-4.6
Wholesale and retail trade	-2.4	-2.0	-0.6
Transportation and storage	-8.7	-6.3	-2.4
Accommodation and food services	-2.8	0.2	-2.9
Information and communication	-7.1	-3.2	-4.2
Financial, insurance and real estate	-1.9	-0.8	-1.2
Professional, scientific and technical	-3.6	-3.0	-0.3
Administrative and support services	1.1	2.9	-1.6
Public administration and defence	2.2	-0.4	2.5
Education	-3.3	0.9	-4.0
Human health and social work	2.0	-0.2	2.3
Arts, entertainment, recreation, other service	-9.9	-3.5	-6.7

Source: Earnings, Hours and Employment Costs Survey (EHECS), CSO.

year, with the largest decreases in the transportation and storage, arts and entertainment, and information and communication sectors. Construction sector earnings continued to fall sharply, while weekly earnings fell by 2.4 per cent in the wholesale and retail trade sector, which accounts for approximately 14 per cent of total employment. However, weekly earnings continued to increase in industry, growing by 1.5 per cent in 2009, while health and social work earnings also increased by 2 per cent. These sectors account for approximately 13 per cent and 12 per cent of total employment respectively.

As we have highlighted in previous *Commentaries*, the trend that emerges from the earnings data varies depending on the measure of earnings used. While the latest data confirm that economy-wide average earnings are falling on a weekly basis, they also show an increase of almost 1 per cent in average hourly earnings in 2009. Wage growth was particularly strong in the industry sector, where hourly earnings increased by 3.3 per cent over the course of 2009. This evidence suggests that the fall in weekly earnings is reflecting a reduction in weekly hours worked, and this is confirmed by the *EHECS* data. Average weekly hours worked decreased by 1.5 per cent in Q4 compared to the same period in 2008, and as shown in Table 12 the vast majority of sectors registered a decline in hours worked. Aside from adjustments to hours worked, evidence from the *EHECS* data suggests that employers may also be cutting their labour costs by reducing or removing bonus payments. While hourly earnings increased by 0.9 per cent in Q4 year-on-year, hourly earnings excluding bonus payments increased by 1.3 per cent. Although this evidence on hourly earnings suggests that there have not yet been widespread nominal wage reductions, it should be noted that the pace of wage increase has moderated considerably throughout 2009 and this can be clearly identified in Figure 23.

Figure 23: Year-on-Year % Change in Hourly Earnings, All Sectors



Source: *Earnings, Hours and Employment Costs Survey*, CSO.

The *EHECS* series also provides an estimate of private sector and public sector wages. The data show that average weekly earnings in the private sector fell by 2.1 per cent in 2009, while in the public sector they increased by 0.6 per cent. However, on an hourly basis, earnings in the private sector increased by 0.1 per cent and in the public sector they fell by 0.3 per cent. The fall in weekly earnings in the private sector reflects a reduction in weekly hours worked – they fell by 2.4 per cent. By contrast, weekly hours worked in the public sector increased by 0.9 per cent over the course of the year. It should also be noted that earnings in the public sector are calculated before deduction of the pension levy that was introduced in March 2009.

For 2010, we estimate a fall in average earnings of 3 per cent. This is partly driven by the cuts in public sector pay in Budget 2010, but also by an expectation that the weak labour market will continue to put downward pressure on private sector wages. We are forecasting a further fall of 1 per cent in average earnings in 2011. Combined with our forecasts for an increase in both the CPI and HICP in 2011, as outlined below in the *Consumer Prices* section, this implies a significant reduction in real wages next year.

Taking account of our employment projections, these wage estimates imply a fall of $6\frac{1}{4}$ per cent in non-agricultural wage income in 2010. We expect current transfers to increase by $1\frac{1}{2}$ per cent and direct personal taxes to fall by $1\frac{3}{4}$ per cent. As a result, we estimate that personal disposable income will fall by $1\frac{1}{2}$ per cent this year. With consumption expected to fall by 1 per cent (in value terms) in 2010, our estimated fall in personal disposable income implies a marginal reduction in the savings rate, to $10\frac{1}{4}$ per cent.

For 2011, we are forecasting an additional fall of $1\frac{1}{4}$ per cent in non-agricultural wage income, while we expect direct personal taxes to increase by $3\frac{1}{2}$ per cent. These will be offset by a 1 per cent increase in transfer income and an increase of $22\frac{1}{2}$ per cent in other non-agricultural income. As a result, we are forecasting an increase of $2\frac{1}{2}$ per cent in personal disposable income in 2011. Our forecasts do not imply any change in the savings rate next year, as households are expected to remain cautious in the face of a challenging labour market environment and the need to repair their balance sheets.

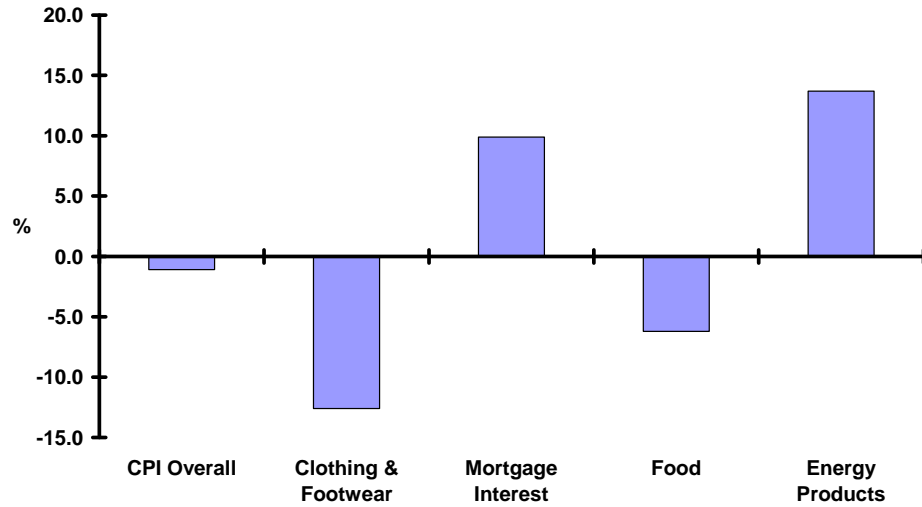
Consumer Prices

The pace of price decline continues to ease, according to the latest figures from the CSO. The Consumer Price Index (CPI) fell by 1.1 per cent in May, compared to May 2009. Year-on-year price deflation peaked in October 2009 at 6.6 per cent and has slowed considerably since then. The latest monthly figure represents the slowest pace of price decline in over a year. The Harmonised Index of Consumer Prices registered a year-on-year decline of 1.9 per cent in May.

Table 13: Personal Disposable Income

	2008		Change		2009		Change		2010		Change		2011	
	€bn	%	€bn	€bn	%	€bn	€bn	%	€bn	€bn	%	€bn	€bn	
Agriculture, etc.	2.9	-24.4	-0.7	2.2	5	0.1	2.3	5	0.1	2.4				
Non-Agricultural Wages	79.4	-8.5	-6.7	72.7	-6 ¼	-4.5	68.2	-1 ¼	-0.9	67.3				
Other Non-Agricultural Income	19.9	-29.7	-5.9	14.0	15 ¼	2.1	16.1	22 ½	3.6	19.8				
Total Income Received	102.2	-13.0	-13.3	88.9	-2 ½	-2.3	86.6	3 ¼	2.9	89.5				
Current Transfers	24.6	10.5	2.6	27.2	1 ½	0.4	27.6	1	0.3	27.9				
Gross Personal Income	126.8	-8.5	-10.7	116.0	-1 ½	-1.8	114.2	2 ¾	3.2	117.4				
Direct Personal Taxes	23.4	-7.7	-1.8	21.6	-1 ¾	-0.4	21.2	3 ½	0.7	21.9				
Personal Disposable Income	103.4	-8.6	-8.9	94.4	-1 ½	-1.4	93.0	2 ½	2.4	95.5				
Consumption	94.8	-11.1	-10.5	84.3	-1	-0.8	83.5	2 ½	2.1	85.6				
Personal Savings	8.5			10.1			9.5			9.9				
Savings Ratio	8.3			10.7			10 ¼			10 ¼				
Average Personal Tax Rate	18.5			18.6			18 ½			18 ¾				

Figure 24: Year-on-Year % Change in Consumer Price Index and Selected Sub-Indices, May 2010



Source: Consumer Price Index, CSO.

While the overall Consumer Price Index fell by 1.1 per cent in May, compared to May 2009, this figure masks the conflicting trends among some of the underlying components. Figure 24 shows the year-on-year change in a selection of the sub-indices of the CPI. The decline in the CPI relative to last May has been largely driven by a sharp decrease of 12.6 per cent in the price of clothing and footwear and a fall of 6.2 per cent in food prices. Both of these sub-indices represent goods that are heavily imported from the UK, and so their prices have been influenced by the weakness of sterling relative to the euro since late 2007. Prices of these goods have also been affected by ongoing sales and promotions, as retailers have attempted to stimulate demand among increasingly price-conscious consumers.

By contrast, the mortgage interest component and energy products have been exerting upward pressure on consumer prices. These sub-indices have been the main contributors to CPI volatility over the last two years. The mortgage interest component increased sharply in 2007 and for much of 2008, before falling by 40 per cent in 2009 following the aggressive cuts to ECB interest rates starting in October 2008. However, mortgage interest has started to increase again and since the end of 2009 the mortgage interest sub-index has grown by 12.6 per cent. Similarly, energy prices peaked in July 2008 before falling back sharply in 2009. They have crept back up in the first five months of 2010 as international oil prices have increased, and in May energy prices were almost 14 per cent higher than a year previously. Petrol, diesel and home-heating oil have been particularly affected, registering year-on-year increases of 22 per cent, 24 per cent and 49 per cent respectively.

Looking ahead, we expect the CPI to fall by $\frac{1}{2}$ per cent this year. This figure represents a downward revision to our projection from the last *Commentary*, when we expected inflation to be positive for the year. This is largely due to a slower than anticipated increase in mortgage interest rates. A significant number of Irish mortgage lenders have signalled their intention to increase their standard variable rates for mortgage holders. Based on the latest figures from the CSO on the average house purchase

loan interest rate, much of this adjustment has yet to occur and we expect further increases over the coming months. We expect the prices of food, clothing and footwear to continue falling for the remainder of the year, although the pace of price decline is likely to slow as the effect of a weakened sterling is reversed. We expect the HICP to fall by 1¾ per cent in 2010. For 2011, we are forecasting a CPI inflation rate of 1¾ per cent. This will be partly driven by an expected increase in ECB interest rates as the Euro Area recovery takes hold. Our forecasts are based on the assumption that the ECB will raise its main refinancing rate to 1.75 by the end of 2011. The UK VAT increase and the weakening of the euro should also help to stem the flow of crossborder shopping and support demand on the domestic front. For the HICP we are forecasting an increase of ¼ per cent.

Table 14: Inflation Measures (%)

	2007	2008	2009	2010	2011
CPI	4.9	4.1	-4.5	- ½	1¾
Mortgage Interest	40.4	15.0	-40.0	14¼	31½
HICP (Ireland)	2.9	3.1	-1.7	-1¾	¼
HICP (Euro Area)	2.1	3.3	0.3	1.4	1.0

*Euro Area HICP forecasts are from OECD *Economic Outlook* No. 87, May 2010.

Monetary Sector Developments

PRIVATE SECTOR CREDIT

The decline in the annual rate of change in headline private sector credit (PSC), which began in June 2009, continued during the first five months of 2010. The ongoing falls in private sector credit reflect the tightening in credit supply due to the balance sheet constraints of lenders as well as the weak demand for credit, discussed in the section on Credit Conditions below. Headline private sector credit declined by over 7.5 per cent in the year ending December 2009 with over two-thirds of this decline due to valuation effects, including write downs of loans, increased bad debt provisions and exchange rate effects (Table 15). The pace of decline in private sector credit accelerated during the early months of 2010, declining by almost €12.8 billion between January and May 2010.

The factors accounting for the fall in private sector credit have changed over the course of 2009 and 2010. During 2009, the largest component of the year-on-year changes in credit outstanding to the private sector was valuation effects with the underlying stock of private sector credit only declining marginally. Since December 2010, this trend has been reversed with over two-thirds of the decline in credit to the private sector in March due to underlying transactions as debt repayment exceeded the drawdown of new credit.

Table 15: Private Sector Credit

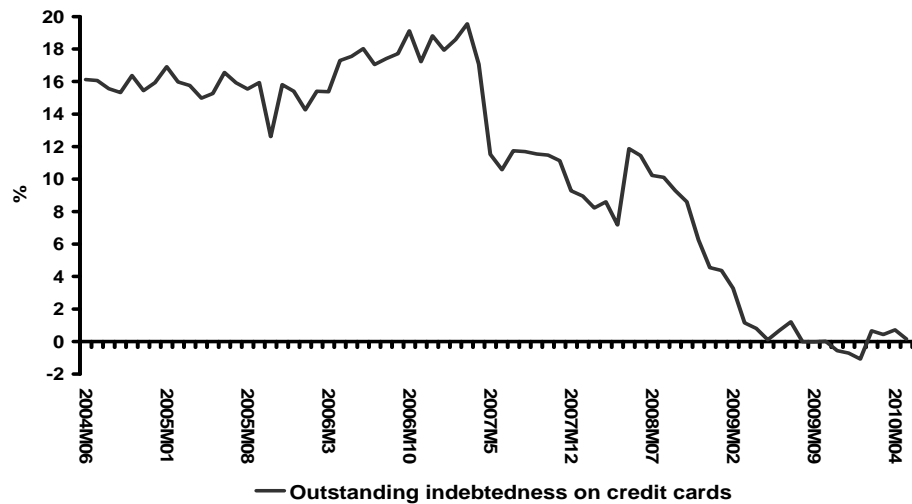
	End Month	Private Sector Credit € million	Unadjusted	Adjusted	Residential	Adjusted
			Growth Year-on-Year % %	Year-on-Year % %	Mortgage Lending € million	Year-on-Year % %
2008	March	384,340	17.1	17.1	142,403	11.6
	June	392,937	14.6	14.1	145,341	10.2
	September	399,143	10.8	10.5	147,550	8.5
	December	395,070	4.9	7.3	148,115	5.9
2009	March	392,258	2.1	2.4	148,542	4.3
	June	387,350	-1.3	-0.8	148,349	2.1
	September	378,086	-5.3	-3.4	147,969	0.3
	December	366,246	-7.3	-7.6	147,623	-0.3
2010	January	363,872	-8.6	-8.6	147,356	-0.7
	February	359,749	-9.7	-8.9	147,190	-0.9
	March	355,008	-9.5	-9.3	146,473	-1.4
	April	352,775	-9.6	-9.3	146,125	-1.6
	May	351,112	-9.7	-10.4	145,773	-1.8

Source: Central Bank Monthly Statistics.

The level of residential mortgages outstanding (which accounts for around 40 per cent of total private sector credit outstanding) peaked in March 2009 at €148.5 billion. The latest data indicate that residential mortgages (including securitised mortgages) declined by €352 million during May and stood at €145.8 billion at the end of the month (Table 15). The decline in mortgage lending in May 2010 was the fourteenth consecutive monthly fall in mortgage debt outstanding. On a year-on-year basis, mortgage debt outstanding fell by 0.1 per cent in November 2009, the first annual decline in mortgage lending since the series began in the early 1990s. As shown in Table 15, the pace of decline in mortgage lending accelerated during May 2010 with the annual rate of change falling to -1.8 per cent by the end of the month. A continuation of this trend of debt repayment exceeding the drawdown of new credit would reduce the overall liabilities of the banking system, both domestic and foreign. Deleveraging by the household sector is also reflected in the data from the Institutional Sector Accounts discussed in Box 1.

Turning to credit card statistics, the number of credit cards in issue declined in February 2009 for the first time since September 2005. The number of cards declined for 16 consecutive months between February 2009 and April 2010 reflecting the contraction in consumer spending and the weakness of the domestic economy. An increase of 14,000 in the total number of cards in May 2010 reversed this pattern leaving the total number of credit cards in issue at 2.3 million by the end of the month, a reduction of around 2 per cent in the number of cards in circulation compared to May 2009. Personal indebtedness on credit cards fell to just under €3 billion in May 2010 as repayments on credit cards exceeded new spending by over €57 million in the month. The year-on-year growth in credit card indebtedness moderated sharply over the course of 2009 with the annual rate of change turning negative during the last two months of the year (Figure 25). Outstanding indebtedness on credit cards increased marginally by 0.2 per cent on an annual basis in May 2010.

Figure 25: Outstanding Indebtedness on Credit Cards, Annual % Change



Source: Central Bank Monthly Statistics

CREDIT CONDITIONS

The developments in private sector credit are consistent with the latest Irish results of the euro area Bank Lending Survey for Q1 2010 which point to an ongoing weakness in credit demand while credit supply remains tight. The contraction in credit supply reflects the balance sheet constraints of lenders and the higher cost of sourcing funds. The results of the latest Bank Lending Survey (Table 16), which is based on the responses of senior lending officers in the participating banks, indicate that credit standards on loans to enterprises tightened further during Q1 2010 continuing a trend which has been evident since mid 2007. The tightening of credit standards in the first quarter of the year was attributed to the balance sheet constraints of banks and their cost of accessing funds.

Table 16: ECB Bank Lending Survey, Change in Credit Standards

		Q1 2009	Q2 2009	Q3 2009	Q4 2009	Q1 2010
Enterprises	Overall	2.20	2.40	2.60	2.40	2.60
	Loans to SMEs	2.20	2.75	3.00	2.75	3.00
	Loans to large enterprises	2.00	2.25	2.50	2.25	2.50
	Short-term loans	2.20	2.40	2.60	2.40	2.60
	Long-term loans	2.20	2.40	2.60	2.40	2.60
Households	House purchase	2.75	2.50	2.75	3.00	2.75
	Consumer credit and other lending	2.75	2.75	3.00	3.00	2.75

1 = tightened considerably; 2 = tightened somewhat; 3 = basically unchanged;
4 = eased somewhat; 5 = eased considerably

Credit standards on loans to households for the purpose of both house purchase and consumer credit also tightened during Q1 2010. The tightening of standards on loans to households was attributed to heightened risk perception on the part of the banks who participated in the survey. Banks also reported a further weakening in credit demand during

the first quarter of 2010 related to concerns over housing market prospects and lower levels of investment.

BANK FUNDING

In discussing the liabilities of the banking system, it is important to distinguish between the liabilities of Irish owned banks and the liabilities of all credit institutions located in Ireland. In May 2010, the liabilities of all financial institutions resident in Ireland amounted to €1,330 billion. However, the liabilities of Irish-owned banks were €585 billion, less than half of the total, and not all of these are covered by the government guarantee.¹⁸ The large difference between the figure for the total liabilities and the liabilities of Irish banks is due to the presence of foreign credit institutions in Ireland, mostly IFSC companies.

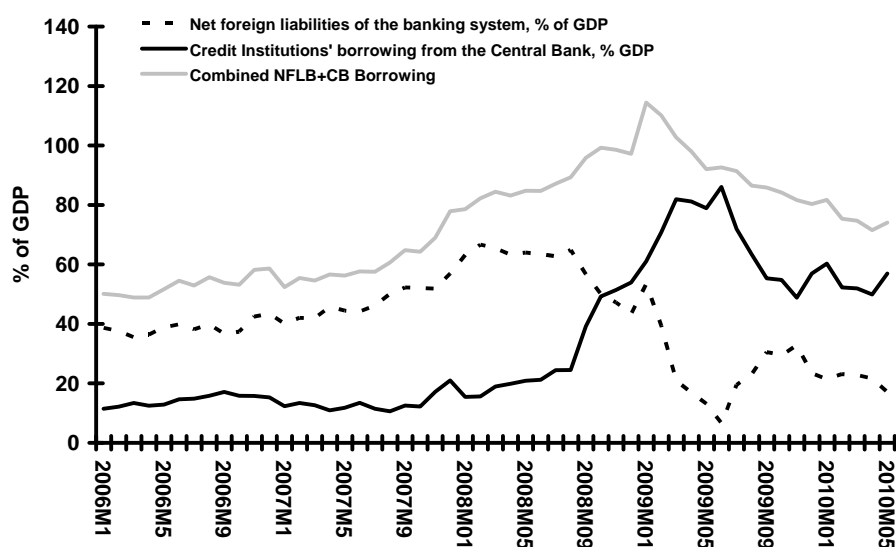
Tensions in interbank markets during late 2008 resulted in the adoption of a series of non-standard measures by the Eurosystem aimed at restoring normality to wholesale bank funding markets. The Eurosystem has provided liquidity to Central banks through its Longer Term Refinancing Operations (LTRO) and these measures contributed to a general improvement in money market conditions over the course of 2009 and 2010. Three LTROs were offered in June, October and December 2009 with €442 billion, €75.2 billion and €96.9 billion allotted respectively.

Lending to credit institutions by the Irish Central Bank as part of the Eurosystem's monetary policy operations peaked in June 2009 at over €130 billion, equivalent to over a fifth of total Eurosystem lending to credit institutions in the euro area (Figure 26 and Table 17). As access to wholesale funding improved with the gradual return to normality in international money markets and the fall in interbank lending rates, credit institutions reduced their dependence on Central Bank funds with credit institutions' borrowing from the Central Bank falling consecutively for 6 months from mid 2009. Lending to credit institutions by the Central Bank increased again in December 2009 coinciding with the offering of the final 12 month LTRO.

Borrowing by credit institutions from the Central Bank declined between January and April 2010 before increasing by €11.1 billion to over €90 billion in May. As part of the gradual withdrawal of the non-standard measures introduced during the financial crisis, the ECB announced the winding down of the LTROs at the 12 month and 6 month horizon, with the final 12 month LTRO offered in December 2009. The ECB will continue to provide funds to Eurosystem Central Banks through its 3 month LTRO.

¹⁸ The total value of the liabilities covered by the Credit Institutions (Financial Support) Scheme (CIFS) and the Eligible Liabilities Guarantee (ELG) Scheme stood at €269 billion as of end-March 2010. Liabilities guaranteed under the CIFS amounted to €130 billion while liabilities under the ELG amounted to €139 billion.

Figure 26: Net Foreign Liabilities of the Banking System and Credit Institutions Borrowing from the Central Bank, % of GDP



Source: Central Bank Monthly Statistics.

With the ECB's June 2009 12 month LTRO having expired on June 30th 2010, and with other exceptional policy measures being withdrawn as part of the exit strategy from the financial crisis, it is expected that credit institutions' borrowing from the Central Bank will decrease in the months ahead. However, with tensions still remaining in interbank money markets as reflected in current high interbank lending rates, the liquidity provided to credit institutions in Ireland by the Central Bank through the Eurosystem's monetary policy operations is likely to remain important. Given that a significant proportion of the liabilities of the Irish banking system are contingent liabilities of the Irish State, ensuring the orderly roll-over of the Irish banking system's liabilities will remain a priority over the coming months.

Table 17: Central Bank Lending to Credit Institutions in Ireland

		Lending by the Irish Central Bank to Credit Institutions in Ireland in Euro	Eurosystem Lending to Euro Area Credit Institutions in Euro, related to MPO	Irish Share	Credit Institutions' Borrowing from the Central Bank, % of GDP
2007	March	24,020	421,633	5.7	12.7
	June	25,535	438,038	5.8	13.5
	September	23,751	420,169	5.7	12.5
	December	39,449	475,324	8.3	21.0
2008	March	34,395	483,600	7.1	19.0
	June	38,373	460,645	8.3	21.2
	September	58,671	471,362	12.4	39.2
	December	88,562	613,857	14.4	54.0
2009	March	120,628	607,356	19.9	79.8
	June	130,423	615,980	21.2	83.9
	September	91,573	583,939	15.7	53.9
	December	90,899	564,495	16.1	56.9
2010	March	82,573	511,471	16.1	51.6
	May	90,473	534,859	16.9	56.6

GENERAL ASSESSMENT

Although the economy has emerged from recession, in the sense of GDP having grown in the first quarter, it is clear that the risks and challenges facing the economy are still immense. The sovereign debt crisis of recent weeks illustrated how some of the risks facing the Irish economy are beyond our control. It appeared to be the case that rising concerns about the capacity of Greece to avoid default led to a change in sentiment towards other peripheral EU countries, including Ireland. Further threats to Ireland's recovery arise through accelerated programmes of fiscal austerity now being adopted in countries such as the UK and Germany. We have noted in previous *Commentaries* that any premature withdrawal of fiscal and monetary supports in the major world economies could lead to the so-called double-dip recession, with negative consequences for Ireland. Some commentators, notably Paul Krugman, are arguing that the actions of the British and German governments are indeed unwarranted at this time so the risk of an Irish recovery being stalled through a return to recession in our larger trading partners remains.

While some factors are beyond our control, others are within our control and so it is imperative that the correct policy choices are taken. Comments on fiscal austerity as applied to Ireland have given rise to some debate on whether the government's programme of fiscal austerity is still the appropriate course of action. We would argue that it is. As noted above, recent weeks have shown how fragile market sentiment is with regard to Ireland's sovereign debt. Even in the context of an austerity programme that has been heralded internationally as being a model for countries in financial difficulties, the spread on Irish government bonds relative to German bonds points to the need for on-going caution. Were the government's fiscal targets to be scaled back, this would likely spark further concerns and hence lead to widening spreads and an increase in our costs of borrowing.

While adherence to the programme of fiscal adjustment is crucial, it is clear that this remains a huge challenge. As the IMF recently noted, the possibility of "consolidation fatigue" exists, whereby the general willingness on the part of the public to accept the fiscal measures may diminish.¹⁹ In this context, we would hope that the widespread political consensus that existed prior to Budget 2010 on the broad fiscal parameters will remain. One of the many lessons from the 1980s is that the absence of political consensus made the task of dealing with the public finances substantially more difficult relative to the situation when such consensus was in place.

¹⁹ IMF (2010), Ireland – Concluding Statement for the 2010 Article IV Consultation

At a more micro-level, the discussion in this Commentary on the growing problem of unemployment, and in particular youth and long-term unemployment, prompt us to re-iterate points that we have made previously on the need to manage active labour market policies in the most efficient and effective ways possible. ESRI research in this area has identified two strands to the management of active labour market programmes.²⁰ One strand is concerned with how people should be selected for participation on schemes, while the second strand is concerned with “what works” once people have been selected.

A number of principles have emerged from this work. With regard to selection, more highly educated people and people with longer periods of previous labour market experience are more likely to move back from unemployment to employment without intervention relative to other groups. In a context of limited resources, this implies that resources should be focused on those who are most likely to need interventions, such as younger and less-educated workers.

With regard to the second strand of “what works”, evidence accumulated during the 1990s suggests that the most effective programmes were those that were linked closely to demand in the labour market. In situations where individuals may not have had the levels of skills needed to participate in the most effective programmes, the lesson from this research was to provide progression routes through levels of training, and education where needed. Clearly, this is resource intensive and so reinforces the need for the appropriate targeting of resources if progression routes are to be used. Yet another dimension to policy in this area was highlighted by the OECD²¹ recently when it argued that job-search and other activation incentives which form part of the benefit and assistance system need to be strengthened. While there can be a trend towards a weakening of benefit conditionality during a recession, enforcements of the requirements to participate in training and employment programmes can yield benefits in the long-run

It appears to us that public funds would be better used in re-skilling and up-skilling people who are unemployed as opposed to using spending on infrastructure as a form of employment creation. As argued by Morgenroth²², public capital projects should be undertaken on the basis that they have a long-run return to the whole economy and not because they create short-term employment. This is because of a relatively high cost per job created via public investment.

It is clear that the labour market may well be the area where the legacy effects of the recession are highest in terms of the human cost. For this reason, enlightened policy in this area is critical.

²⁰ O’Connell *et al.* (2009), National Profiling of the Unemployed in Ireland, ESRI Research Series No. 10; P.J. O’Connell (2002), “Are they Working? Market Orientation and the Effectiveness of Active Labour Market Programmes in Ireland”, *European Sociological Review*, Vol. 18.

²¹ OECD Employment Outlook 2010 – How Does Ireland Compare?, published July 2010.

²² Morgenroth, E. (2009), “Irish Public Capital Spending in a Recession”, ESRI Working Paper No. 298.

SPECIAL ARTICLE

RECOVERY SCENARIOS FOR IRELAND: AN UPDATE¹

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Thomas Conefrey
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¹ This paper was prepared as part of an IRCHSS-funded project “Turning Globalization to National Advantage: Economic Policy Lessons from Ireland’s Experience”.

SUMMARY

This paper explores a number of scenarios for future economic recovery and considers the implications of these scenarios for policy, in particular fiscal policy. The results for the main macroeconomic aggregates are summarised in Table A and Table B.

Under all scenarios it is clear that the economy has experienced a permanent major loss of output relative to what might have happened if more sensible policies had been pursued over the past decade and the full severity of the recession had been avoided. Output could end up 15 to 20 per cent below where it would have been without the crisis. Income per head is to-day back to where it was in 2000 and, even under our more optimistic scenario, it will be the middle of the coming decade before income per head will be back to its 2007 level.

If the Irish economy responds to world economic growth and changes in competitiveness in the same way as it has done over the last twenty years there could be a vigorous recovery over the period 2012 to 2015, as set out in our *High Growth* scenario. Such a recovery would gradually move the economy back towards full employment. However, even with the cuts of €7.5 billion planned for the period 2011-14, the government deficit could still be 2 per cent of GDP in 2015.

On the other hand, the Irish economy could record lower rates of growth over the medium-term for a number of reasons: for example, because the export sector had suffered long-term damage or because a continuing high interest premium seriously affected future investment or because structural unemployment remained high due to a failure of labour market policy. While under such a *Low Growth* scenario there would still be significant growth over the period 2012-15, it would not be enough to return the economy to full employment and, in 2015, the government deficit would still be around 4 per cent of GDP, even after the planned four years of cuts.

We estimate that the austerity measures undertaken in the 2009 and 2010 budgets have already achieved much of the heavy lifting in relation to reducing the structural deficit. However, the challenge of restoring order to the public finances has been aggravated by the direct fiscal cost of funding the losses in the banking system. The high risk premium facing Irish borrowers, including the government, also makes the cost of delaying further fiscal action much higher than it would have been in the past. It also raises the question as to whether a more rapid fiscal adjustment than currently planned would have a more beneficial outcome for the economy.

Because of the uncertainty about the future and because of the asymmetric nature of the costs of being too optimistic relative to those arising from excessive prudence, the current situation calls for the full implementation of the Government's programme of substantial further fiscal consolidation of €7.5 billion over the period 2011-14. Even under the

more optimistic *High Growth* scenario this would be the minimum needed to restore the public finances to a sustainable trajectory. If the economy were to evolve in line with our *Low Growth* scenario, further cutbacks would be essential to minimise the long-term damage to income and employment.

While past experience suggests that the labour market is sufficiently flexible to eventually return the economy to full employment, it is possible that labour market policy failures could instead leave Ireland with a legacy of unskilled long-term unemployment. To avoid such an eventuality, which could result in an outturn closer to our *Low Growth* scenario, it will be important that labour market policies, broadly defined, are developed to re-skill the unemployed for the kind of jobs which will be available over the coming decade and to minimise the danger of poverty traps of the type experienced in the 1980s occurring in the future.

The very high contingent liabilities that the State assumed as part of the banking 'bail-out' have greatly exacerbated the difficulties facing the Irish economy over the medium-term. However, without a banking system which is able to finance the economic recovery the very recovery itself will be put in doubt.

Table A: High Growth Scenario, Major Aggregates

	2009	2010	2011-15	2016-20
Growth Rate	Annual %		Average Annual %	
GDP	-7.1	-0.4	4.6	3.0
GNP	-12.2	0.0	4.2	3.1
Non-agricultural Wage Rates	-1.5	-3.0	2.4	4.2
Year End:	2009	2010	2015	2020
General Govt. Deficit, % GDP, excluding special payments to banks	11.8	11.3	1.8	-0.1
Net Government Debt, % of GDP	32.1	51.2	63.1	51.2
General Government Debt, % GDP	64.0	83.4	91.1	76.0
Balance of Payments, % GNP	-3.2	0.9	1.7	1.9
Unemployment Rate, % of labour force	11.9	14.0	4.8	4.4

Table B: Low Growth Scenario, Major Aggregates

	2009	2010	2011-15	2016-20
Growth Rate	Annual %		Average Annual %	
GDP	-7.1	-0.4	3.2	2.1
GNP	-12.2	0.0	3.0	2.2
Non-agricultural Wage Rates	-1.5	-3.0	2.2	3.8
Year End:	2009	2010	2015	2020
General Govt. Deficit, % GDP, excluding special payments to banks	11.8	11.3	4.1	4.5
Net Government Debt, % of GDP	32.1	51.2	73.6	80.7
General Government Debt, % GDP	64.0	83.4	102.5	106.9
Balance of Payments, % GNP	-3.2	0.9	-1.3	-4.0
Unemployment Rate, % of labour force	11.9	14.0	7.1	7.1

1. INTRODUCTION

In late 2008, when the full impact of the financial crisis hit Ireland, it took some time to assess what was happening and what were the full implications of the disaster. Economic forecasts were changing frequently and the huge uncertainty about what was actually developing made policy-making exceptionally difficult. Because of a growing dependence of the public finances on transaction taxes on the property sector in recent years (Addison-Smyth and McQuinn, 2010), the severe economic shock had a catastrophic impact on the public finances. Having averaged a small surplus on the public finances over most of the period 2000-7, government borrowing shot up to 14 per cent of GDP in 2009 and for 2010 estimates suggest that the deficit will average around 19 per cent of GDP if special payments to the banks are included.²

In May 2009 we published a paper, *Recovery Scenarios for Ireland*, which considered possible paths to recovery for the Irish economy. This analysis suggested that the Irish economy would suffer serious permanent damage as a consequence of the recession. Nevertheless, Ireland could return to a period of quite rapid growth if the world economy itself entered the recovery phase. However, if the world recovery were postponed, this could have a further negative impact on the domestic economy.

We now return to this work to provide an update one year on. Our approach revises this earlier work in relation to three specific areas: (1) forecasts for the world economy, (2) the size of medium-term fiscal measures to be adopted over the period 2011-2014, and (3) the long-run cost of the bank bailout to the Irish economy. In forming a fiscal policy response, the uncertainty concerning the future must be taken into account. As a result, in this paper we consider two main medium-term scenarios for the economy rather than presenting a single forecast. The objective of this analysis is to assess what would be a “no regrets” approach to tackling the current crisis, especially in terms of fiscal policy.

In relation to the world economy, at the time of publishing in May 2009, recovery was only a gleam in economists’ eyes. Since then there have been increasing signs of a return, if not to business as usual in the world

² These figures include exceptional items – a €4 billion transfer of money to Anglo Irish Bank to cover its losses in 2009. Excluding that transfer the deficit was 11.8 per cent of GDP. When further exceptional bank bailout transfers to Anglo Irish Bank and Irish Nationwide Building Society in 2010 are excluded, the figure for the debt will be around 11.3 per cent of GDP. For the purpose of meeting compliance with the *Stability and Growth Pact* (SGP) target, it is the general government deficit excluding exceptional transfers to the banks which is the relevant measure. As much of this paper is concerned with assessing the stance of fiscal policy under different scenarios, the discussion in later sections of the paper focuses more on the measure of the general government deficit excluding these exceptional bank payments.

economy, at least to significant growth. While the current liquidity problems in the Euro area (affecting both governments and banks in particular countries) could significantly impact on progress over the coming year, the most recent comprehensive forecasts for the world and the EU economy (the IMF, OECD, the EU and the UK *National Institute for Economic and Social Research*, NIESR) see a return to growth in the coming years at a faster rate than that envisaged when we published in May of last year. Because of concerns about the current turmoil on financial markets we also consider the sensitivity of our results to a less benign outcome for the international economy.

In addition to the uncertainty about developments in the outside world and how it will affect the Irish economy, there is also significant uncertainty as to the long-term damage done directly to the economy by the recession and the related financial collapse. Many firms have closed as a result of the recession and will not be around to benefit from a recovery. The increased risk premium on borrowing is affecting the cost of capital and, hence, investment. Also the substantial burden arising from the dramatic increase in government debt will affect the economy for the foreseeable future. The cumulative impact of these shocks will permanently reduce the level of potential output in the economy.

As a result of the uncertainty about the future, in this paper we consider two medium-term scenarios for the Irish economy – a *High Growth* scenario and a *Low Growth* scenario. These two scenarios differ significantly as to the future growth in potential output in the economy. The *High Growth* scenario assumes that, in response to renewed growth in the world economy and an improvement in competitiveness, over the next five years individual sectors of the Irish economy will respond in the same way as they have done over the last twenty years to such stimuli and that the labour market will also prove as flexible as in the recent past. While we have derived the *Low Growth* scenario by assuming a much lower responsiveness of Irish output with respect to world output than in the past, the resulting slower growth in potential output could also be produced by a range of other factors, such as a higher long-term cost of capital, a poorly functioning financial system, or problems in the labour market resulting in structural unemployment. What is important is that the two scenarios reflect the uncertainty about the future and that they can be used to test the robustness of any policy response in the face of such uncertainty. It should also be recognised that both a more favourable outcome (than in the *High Growth* scenario) as well as a less favourable outcome (than in the *Low Growth* scenario) are possible.

In relation to fiscal policy, in the two main scenarios we implement in full the medium-term fiscal consolidation package, equivalent to €7½ billion, which was announced by the Irish government in December 2009. In the case of the banking bailout, we include in the government deficit and debt figures the effects of an estimated deadweight loss of €25 billion as a result of the losses incurred on Anglo-Irish Bank and in the Irish Nationwide Building Society.

Section 2 summarises the assumptions underlying the scenarios presented in this paper. In Section 2.1 we discuss the recent experience of the Irish economy and the factors that are likely to drive output in the medium term. In Section 2.2 we outline the forecasts for the world economy which are used to develop both the *High Growth* and the *Low*

Growth scenarios. In Section 2.3 we set out our assumptions on the public finances and the cost of borrowing. In Section 3 we then spell out the two scenarios for the economy. The first of these scenarios is based on a growth path which sees the labour market clearing over the medium-term and the economy returning to its potential growth rate. The second scenario, the *Low Growth* scenario, considers an alternative growth path, which assumes that the growth potential of the economy, for whatever reason, has suffered even greater damage than in the *High Growth* scenario as a result of the crisis with one of the effects being an augmented level of unemployment. In Section 3 we also consider the sensitivity of these results to alternative assumptions on future world growth and alternative assumptions on the fiscal response by the Irish authorities. Using the results from these simulations we present estimates of the size of the structural deficit under alternative growth paths in Section 4. Section 5 presents our conclusions.

2. UNDERLYING ASSUMPTIONS

2.1 Modelling the Behaviour of the Irish Economy

In our publication last year (Bergin *et al.*, 2009), we discussed the origins of the current crisis. Over the course of the last decade the Irish economy had steadily lost competitiveness. This loss of competitiveness was fuelled by a growing bubble in the housing market and the wider domestic property market. With expenditure on new housing reaching a peak of over 15 per cent of GNP by 2006, the building and construction sector gradually crowded out the tradable sector of the economy. The huge increase in output in the building and construction sector required a major reallocation of resources within the economy. This was achieved by raising the rate of inflation in domestic costs, especially that of labour. This reduced the demand for labour and other factors of production in the tradable or export sector, releasing resources demanded by the non-tradable (building) sector. In turn, output in the tradable sector was reduced below the level it would otherwise have achieved.

The consequence for the balance of payments of this loss in tradable output (and hence exports) was compounded by the huge demand for imports needed to sustain the boom in domestic demand. The result was a rapid rise in the balance of payments deficit. From a surplus in 2003, the balance of payments was in deficit by almost 6 per cent of GNP by 2006. While the public finances continued in surplus, the growing balance of payments deficit was the clearest indicator that the economy was on an unsustainable trajectory.

The damage done to the Irish economy by the loss of competitiveness, consequent on the property market bubble, has been greatly aggravated by the related collapse in the financial sector. The failure to adequately regulate that sector (Honohan, 2010) facilitated the housing bubble. However, the ensuing collapse of the Irish financial sector has had much wider economic implications. As discussed later, the direct fiscal cost of the losses in the banking sector is very substantial. While the loss of competitiveness may, in time, be reversible, this wider damage will continue to affect the level of potential output for the next decade.

Much of this damage to the economy, and the consequential dramatic rise in unemployment, was avoidable. If fiscal policy had been used to reduce demand rather than to exacerbate the inflationary pressures it could have defused the property bubble well before it became dangerous. This would have required budgetary policy to have targeted an increasing surplus over the period of at least 2003-2007. In addition, instead of using taxation policy to stimulate investment in building and construction it should have been used specifically to discourage such investment (Conefrey

and Fitz Gerald, 2010). The inappropriate nature of fiscal policy over this period was signalled as far back as 2001 (Fitz Gerald, 2001) and was repeated subsequently in a range of publications (see Fitz Gerald, 2009).

Now that the crisis has happened, with the very serious consequences outlined above, a key factor in repairing some of the damage is for competitiveness to improve, so that the Irish tradable sector will gain an increasing share of the recovering world market. To a significant extent this will be delivered by the operation of the normal adjustment mechanisms in the economy. However, public policy can significantly speed this adjustment by tackling the lack of competition in key parts of the non-tradable sector.

The restoration of competitiveness will result in a gradual increase in output in exporting industries, an increase in profitability in the economy, and the movement of the balance of payments into surplus. This will eventually provide the platform for a recovery in domestic demand.

However, output in the tradable sector tends not to be very employment intensive. It is only when demand for the output of the non-tradable sector recovers that substantial employment growth will return. At present domestic demand is very weak. Consumers are depressed and many of them are, naturally, worried about their future employment status and future real disposable income. The result is a high rate of personal savings and a low level of consumption. The consequence of the housing bubble bursting is that the demand for new houses is at an all-time low and there are many vacant dwellings.

When the economy eventually turns up as a result of increased external demand, confidence will begin to return to the domestic market. Employment will begin to rise rather than to fall. Then consumers will be prepared to reduce their current high rate of precautionary saving. In addition, as the stock of vacant dwellings in desirable areas declines (through new household formation) the decline in rents will eventually be halted and reversed. When that happens a return to a moderate rate of investment in building and construction, including housing, will be possible. (See Bergin *et al.*, 2009, for an analysis of the factors affecting the demand for housing over the period to 2020.)

Once domestic demand returns to growth, there is likely to be a much more vigorous increase in employment. This is because, as noted above, the major elements of domestic demand are more employment intensive than the export sector of the economy. In particular, a gradual return to a more “normal” level of activity in building and construction (albeit well below that seen over the last decade) will have a significant impact on numbers unemployed, especially on those with more limited levels of educational attainment.

As outlined here, a key element in the recovery process will be the restoration of competitiveness through a real depreciation of the currency. Within a monetary union this can only be achieved through a fall in wage rates and other domestic costs relative to those in Ireland’s competitors. With a very low rate of inflation in Ireland’s Euro zone competitors this requires a fall in nominal wages or a very protracted adjustment period. Bergin *et al.*, 2009, suggested that there was some uncertainty whether such a fall in nominal wage rates would actually occur as it has not been

experienced in the recent past in Ireland or other EU countries. However, over the past year a 15 per cent fall in wage rates in the public sector has been implemented and there is growing evidence of falling nominal wage rates across a proportion of the private sector.³ Our model of the labour market suggests that the current problems in the economy will result in a cumulative fall in nominal wage rates of 6 per cent over the period 2009-11 (Barrett *et al.*, 2010b). In addition, a wide range of other costs, such as rent, which affect the tradable sector, are showing a decline in nominal terms.

In this paper we use the *HERMES* macroeconomic model of the Irish economy to examine the two scenarios for the medium term. *HERMES* treats the output of the tradable sector as a function of world output (especially in our main trading partners), technical progress, and the overall cost of production in Ireland relative to that in its main competitors (see Appendix 1 for details). Output in the non-tradable sector is modelled as a function of domestic demand, the cost of capital, and government demand. Domestic demand is also affected by consumers' expectations, as reflected in the personal savings rate.

A key feature of this model is its treatment of the labour market. In particular, the supply of labour through migration is highly elastic (Fitz Gerald, *et al.*, 2008). The labour market in *HERMES* is modelled as clearing in the long term – wages and labour supply adjust over time to ensure full employment in the long term (Bergin, *et al.*, 2010b). While this model has worked well in describing labour market experience over the last fifteen years, it is possible that policy failures could result in a permanent increase in the unemployment rate. For example, a combination of failures, e.g., to match the income support measures to labour market developments, to match training to the needs of the unemployed, and to implement appropriate activation policies, could interfere with the normal operation of the labour market, resulting in a permanently elevated level of structural unemployment.

An important factor, not incorporated directly into the current version of the *HERMES* model, is the unquantifiable effect on “confidence” of changes in key aggregates. For example, the rapid deterioration in the government's financial position had an impact on confidence, affecting interest rate premia paid by the State to finance its debt. Because of a paucity of data points it is not possible to directly model the relationship between this “risk premium” and developments in government borrowing or the national debt. Instead the approach taken has been to provide a calibration of this relationship and the results from the scenarios using this calibration, discussed below, must be considered in this light. For example, because the structural budget deficit is higher in the *Low Growth* scenario than in the *High Growth* scenario the risk premium is also assumed to be higher. We discuss in more detail the assumptions on the risk premia in the two main scenarios in Section 2.3.

³ Here we treat the public sector pension levy, introduced in February 2009, as an effective reduction in nominal wage rates in the public sector.

2.2 International Assumptions

The forecasts for the world economy underpinning the *High Growth* and *Low Growth* scenarios considered in this paper come from the *National Institute Economic Review* of April 2010.⁴ Following a decline in world output of around 1 per cent in 2009, the global economy is emerging from recession but the pace of recovery is more muted within the Euro Area bloc and the UK than in the US, where the rebound in activity has been quite strong. Countries outside of the OECD, especially China, but also India, Taiwan, Hong Kong and Korea have emerged from the global crisis relatively unscathed. Most of the world's economies are forecast to grow at rates close to potential over the medium to long term. China and India are forecast to continue growing rapidly over the medium-term, accounting for an increasing share of foreign trade and global growth. Table 2.1 summarises the growth prospects for the international economy over the medium-term.⁵

Table 2.1: Real GDP Growth

	2009	2010	2011	2011-2015	2016-2020
USA	-2.4	2.9	2.7	2.8	2.3
UK	-4.9	1.0	2.0	2.8	2.7
Euro Area	-4.0	1.2	1.8	2.2	2.5
World	-1.0	3.9	3.8	4.1	3.8

Source: NIESR.

The risks to the international forecast tend to be on the downside. Concerns about sovereign liquidity and the risk of a debt crisis remain. The steep increase in public debt in many OECD economies may hamper medium-term growth prospects if risk premia on government debt (that are evident in many countries) remain high or if these premia spread to the private sector, raising the user cost of capital. The issue of country risk particularly affects the Italian, Spanish, Irish, Greek and Portuguese economies within the Euro Area – together these countries account for around one-third of Euro Area GDP. As a result of their size, slower growth in these economies could impact on the wider Euro Area in a negative fashion. Because of the weakness of the financial system generally, there may also be negative consequences in these economies, not just from a higher interest rate on government debt, but also from a higher interest rate for all domestic activity. There may also be knock on consequences for the financial systems of the rest of the EU.

In relation to fiscal policy, some countries, like Ireland, have no choice but to curb their excessive borrowing immediately. For other economies, where fiscal sustainability is not in question and where the risk of default is essentially zero, the pace of fiscal consolidation should be sufficient to ensure continued credibility over the medium-term, while remaining supportive of the recovery in economic growth. Many commentators have argued that premature fiscal tightening is as big a danger as delayed

⁴ The forecasts contained in the April 2010 *National Institute Economic Review* for Ireland's main trading partners are broadly comparable to those in the April 2010 IMF *World Economic Outlook*, but the NIESR forecast covers a longer period.

⁵ Section 2.3 outlines our fiscal assumptions and the assumptions for the risk premium on Irish government debt. The risk premium on Irish debt is measured relative to the interest rate on German debt.

tightening, particularly given the fragile nature of the recovery thus far. At the release of the IMF World Economic Outlook Update, Olivier Blanchard recently stressed that, while fiscal adjustment should start soon, a sharp cut in deficits this year would be counterproductive. The focus should be on developing a credible plan to stabilise the debt to GDP ratio over the medium term, with the goal of decreasing it substantially over the longer term. As an export-led economy, the decisions taken by these countries, will have a major impact on our pace of recovery.

Given the risks to the international economy, in Section 3.4 we consider the international and domestic impacts of an International Risk Premium Shock, where the risk premium on government debt is assumed to be 2 percentage points higher from 2011 in the Euro Area, UK and US.

2.3 Fiscal Assumptions

In the scenarios outlined in this paper, we assume that the government implements a series of austerity budgets in the period 2011-2014 as set out in the *Stability Programme Update* December 2009 (SPU) published in the Budget 2010 booklet. These budgets are equivalent to a cumulative *ex ante*⁶ retrenchment of €7½ billion over a four year period. The SPU provides no detail on the breakdown of the numbers across revenue, current and capital expenditure programmes⁷. In order to implement these cuts we have assumed a *stylised* package of fiscal measures spread over the years 2011-14. It is assumed that in 2011 the government will reduce the borrowing requirement by close to the €3 billion announced at the time of the 2010 budget. For 2012 we have assumed a further package of fiscal measures of around €1.8 billion. Additional measures to save a total of €1.4 billion are assumed to be implemented in 2013, and €1.2 billion in 2014.

Table 2.2: Assumed Discretionary Fiscal Policy Action 2011-14: Changes in Taxes and Expenditure, €billions

	2011	2012	2013	2014	Total 2011- 2014
Revenues	1	0.6	0.8	0.2	2.5
Property tax etc.	0.4	0.4	0.3		1.1
Carbon Tax	0.2				0.2
Tax on income	0.4				0.4
Water charges			0.3	0.2	0.5
Carbon auctions ⁸		0.2	0.2		0.4
Capital expenditure	1	0.4			1.4
Current expenditure	1	0.9	0.7	1	3.6
Current expenditure on goods and services	1	0.9	0.7	0.7	3.3
Transfers (Pension age)				0.3	0.3
Total	3	1.8	1.4	1.2	7.4

⁶ Because of the deflationary implications of such cuts the level of economic activity will be reduced so that the *ex post* reduction in borrowing will be somewhat lower than the €7.5 billion. Using the *HERMES* model it is possible to estimate the *ex post* effect of different budgetary measures.

⁷ With the exception of the 2011 budget where €1 billion in cuts on the capital programme are included in the figures.

⁸ This figure includes a temporary windfall levy on free carbon credits in 2012.

It should be stressed that the composition of the fiscal package assumed here is not normative. In the absence of a fully spelt out government programme we have included a range of measures which might be considered as being consistent with the broad parameters of government policy and with the taxation measures recommended by the Commission on Taxation.⁹ These tax and expenditure measures should not be seen as a “desirable” or part of an “optimal” package.¹⁰

Details of the stylised budgetary changes are set out in Table 2.2. This Table shows the increases in taxation and cuts in expenditure assigned to individual years. In each case it is assumed that these higher rates of taxation or cuts in expenditure are maintained in subsequent years and the cumulative total increase in taxation or reduction in expenditure is shown in the final column. As shown at the bottom of the Table, the cumulative *ex ante* cut in the deficit anticipated from this package is €7.4 billion by the end of 2014, consistent with the proposals in the SPU.

The cuts assumed in capital expenditure would still leave government capital expenditure, excluding special payments to cover losses in the banking system, at around 4.5 per cent of GNP in 2015. The cuts in current expenditure on goods and services would involve a cut in public service employment of approximately 40,000 (largely achieved through natural wastage) bringing total public service employment back to 2006 levels by the end of the period. No further cuts in public service wage rates are assumed for 2011 and subsequent years.

The cut in expenditure on pensions in 2014 arises from the government decision to extend the retirement age for public old age pensions from 65 to 66. This saving in expenditure takes no account of the additional savings that might be expected through higher labour force participation by this cohort. By working a year longer the tax revenue accruing to the state would also be significant, as would the effect on output. For example, Barrell *et al.* (2010) have estimated the effects of an extension in the pension age in the UK in 2015; their estimates would suggest a bigger long-term economic impact than we have assumed here.

We have assumed that over the course of the years 2011 through to 2013 additional tax revenue of around €1.1 billion would be raised from a tax on property of a person’s primary residence. In addition, some limited changes in taxes on income in 2011 would raise just under €400 million and an increase in the carbon tax in 2011 would raise additional revenue of €160 million. We further assume the introduction of water charges in 2013 and 2014, delivering an additional €500 million in revenue on an annual basis. And finally we include an estimate of €200 million in revenue from the auctioning of carbon credits beginning in 2013.

⁹ We recognise that some of these measures (e.g. property tax) are no longer consistent with short-term government policy as recently announced.

¹⁰ Bergin *et al.* (2010a) examines the macroeconomic impact of changes to various fiscal policy instruments. To the extent that the incidence of a tax lies with households and is not passed on, the output effects are minimised. In the case where the tax change results in changes in behaviour, such as higher wage rates, the costs are increased. Thus different packages could have somewhat different implications for future growth.

In the case of the costs of the banking crisis we have assumed that the final cost to the state of the losses in Anglo-Irish Bank and the Irish Nationwide Building Society is €25 billion, as suggested by the Minister for Finance in March 2010. This loss will be covered by exceptional payments to these institutions and these payments are excluded from the numbers on fiscal policy action in Table 2.2. However, for accounting reasons, they are included as exceptional items in the General Government Balance (GGB).

Specifically we have taken account of a payment of €4 billion made to Anglo-Irish Bank in 2009 in respect of the loss and a further €11 billion paid in 2010 in the form of a promissory note.¹¹ This promissory note is to be gradually redeemed for cash over the forecast period (other government borrowing would be substituted for it). We have also assumed that this promissory note will attract a market interest rate, with the resulting interest payments being added to national debt interest.

The additional €10 billion to cover the rest of the eventual expected loss is assumed to be paid to these institutions over the coming decade, partly as interest on the promissory note and partly as an exceptional additional payment of €0.8 billion a year. This latter payment is included in the figures for the General Government Balance.¹² As a result, the General Government Balance shown in this paper for the years 2010-2020 must be adjusted to exclude these exceptional payments to arrive at the deficit covered by the SGP. (These “exceptional” payments are not considered part of the deficit target set by the government for 2014, though the interest payable on them is considered part of that deficit.)

In the case of the recapitalisation of the banks, this is assumed to be part of the investment of the National Pension Reserve Fund (NPRF). It is also assumed that the state receives a normal return on this investment when it comes to sell off the shares in the performing banks. Thus it is assumed that there is no net effect on government borrowing or the national debt.

Finally, in the case of NAMA, to simplify the exposition, we have assumed that all the assets (loans) are realised in 2020 and all NAMA’s liabilities are paid off with the proceeds. Thus we are assuming no net profit or loss for NAMA over its lifetime and consequently that there is no net effect on the national debt. However, the NAMA bonds are clearly a contingent liability of the State.¹³ Because of the large size of the NAMA balance sheet and the fact that its liabilities are guaranteed by the state, the inevitable uncertainty about the eventual return (or cost) of these investments is affecting the cost of borrowing by both the Irish government and Irish banks. As a result, while technically not part of the national debt, for some purposes it is useful to consider the pattern of the national debt with the NAMA liabilities included.

¹¹ Since completing the numbers this figure has been revised upwards to €13 billion. However, this involves bringing forward some of the expenditure we had assumed for later years. As a result, it does not significantly alter our analysis.

¹² Even if the timing of this payment proved rather different than we have assumed it would not greatly alter the numbers for the underlying structural deficit.

¹³ As discussed elsewhere, we assume that in the long run there is no net cost to the state from NAMA.

The perceived higher level of risk pertaining to lending to the Irish government relative to Germany has resulted in a very substantial premium payable on such borrowing. The risk premium assumed for Irish borrowing is set out in Table 2.3, along with the forecast German long-term bond rate and the resulting forecast for the Irish bond rate. In the *High Growth* scenario the profile assumes that the government takes the planned fiscal action for 2011 with a further commitment to the necessary action for 2012 and subsequent years. It also assumes that by the end of 2010 the liabilities and assets of the Irish banking system have become much more transparent. The bulk of the non-performing property loans will have been taken off the banks' books at an appropriate "market" valuation. The banks will have been recapitalised and the likely magnitude of the losses in Anglo-Irish and Irish Nationwide will be clearer, with the bulk of the cost having been already transferred to the state.

Table 2.3: Risk Premium Relative to Germany Assumed for Irish Borrowing

	German	Irish <i>High Growth</i>		Irish <i>Low Growth</i>	
	Interest Rate	Risk Premium	Interest Rate	Risk Premium	Interest Rate
2008	4.0	0.6	4.6	0.6	4.6
2009	3.3	1.9	5.2	1.9	5.2
2010	3.2	2.0	5.2	2.0	5.2
2011	3.6	1.5	5.1	2.0	5.6
2012	3.9	1.3	5.2	1.8	5.7
2013	4.2	1.0	5.2	1.5	5.7
2014	4.3	1.0	5.3	1.5	5.8
2015	4.4	0.8	5.2	1.3	5.7
2016	4.5	0.5	5.0	1.0	5.5
2017	4.6	0.5	5.1	1.0	5.6
2018	4.6	0.5	5.1	1.0	5.6
2019	4.6	0.5	5.1	1.0	5.6
2020	4.6	0.5	5.1	1.0	5.6

In the case of the *Low Growth* scenario, as discussed below, the planned fiscal action would not be enough to eliminate the structural deficit by 2015. As a result, lending to the Irish government would be perceived as being more risky than under the more benign *High Growth* scenario and this is assumed to be reflected in a permanent increase in the risk premium of half a percentage point.

3. MEDIUM-TERM SCENARIOS

Due to the uncertainty surrounding the future behaviour and growth path of the Irish economy we explore two main scenarios over the period 2010-2015. We refer to these as the *High Growth* Scenario and the *Low Growth* Scenario.

The *High Growth* scenario assumes that the financial system is rehabilitated and restructured so that it responds to the recovery in the economy in 2011 by providing adequate credit. The analysis in Bergin, Conefrey, Fitz Gerald and Kearney (2010a) highlights the sensitivity of Irish output with respect to changes in world demand. The *High Growth* scenario assumes that the structural behaviour of the Irish economy is not fundamentally altered as a result of the current crisis. In particular, the scenario is based on the assumption that the key drivers of output in the tradable sector of the economy do not change as a result of the current recession.

The *High Growth* scenario is a relatively benign scenario and, because of the uncertainty about the future growth path of the Irish economy, it is prudent to consider an alternative scenario in which the economy underperforms over the medium-term. There are many reasons why the economy might perform worse than in the *High Growth* scenario. For example, if the world recovery is increasingly driven by economies that Ireland does not have traditional trade links with, this could hamper future domestic export growth. Performance could also be negatively affected if the Irish tradable sector had experienced permanent damage as a result of the crisis or if there was a permanent major rise in the cost of capital facing the Irish economy. Yet another potential impediment to the economy realising its growth potential would be the failure of labour market policy to adapt to meet the new needs of the economy (Grubb, 2009). In this paper, we generate a *Low Growth* scenario by assuming that the Irish economy does not respond in a similar manner, as it has in the past, to an upturn in world demand.

The *HERMES* macroeconomic model of the Irish economy has been used to develop these scenarios. The behaviour of this model is discussed in Bergin, Conefrey, Fitz Gerald and Kearney, 2010a. The two scenarios

are calibrated to the Spring *Quarterly Economic Commentary* (QEC) numbers for 2010 and 2011, published in April 2010.¹⁴

In both scenarios we assume that the world economy recovers in 2010, as described in Section 2.2, and that the government implements a package of fiscal cuts equivalent to €7½ billion over the period 2011 to 2014, as outlined in Section 2.3. We also assume that Irish risk premium is 0.5 percentage points higher in the *Low Growth* scenario than in the *High Growth* scenario. In Section 4, we use these two scenarios to examine various recovery strategies from the current public finance problems, assessing the extent to which the deficit in the public finances is structural.

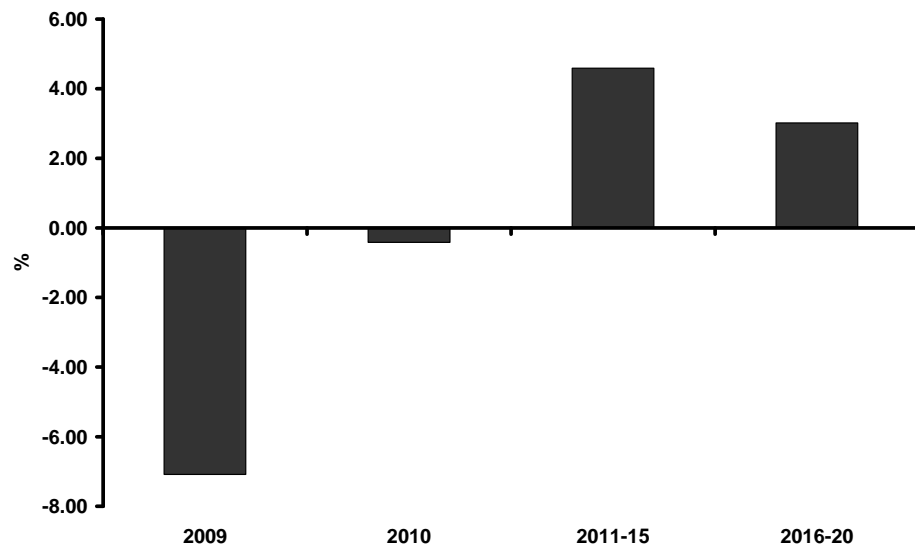
Some of the general conclusions from these two scenarios are considered in Section 3.3. We also consider some sensitivity analysis around the *High Growth* scenario. (The results would be very similar if we used the *Low Growth* scenario as a basis.) Given the very high degree of uncertainty surrounding events in financial markets so far this year, Section 3.4 describes the effect of an increase in the risk premium in the international economy on the world economic forecasts. It then uses these *International Risk Premium Shock* figures to explore the impact that this would have on the path to recovery in the *High Growth* scenario. Finally, in Section 3.5 we describe the impact on the *High Growth* scenario if the government had adopted a neutral fiscal policy since the advent of the recession in 2008 – postponing the necessary fiscal adjustment for a number of years. Such a postponement would, *inter alia*, have involved a significantly higher risk premium for all borrowing, public and private.

3.1 *High Growth* Scenario

This scenario assumes that the Irish economy's relationship with the outside world is maintained after the current crisis, assuming that the behaviour of the Irish economy over the last twenty years provides a valid basis on which to formulate forecasts of the likely future path of the economy. As discussed in the recently published *Quarterly Economic Commentary*, following a major contraction in economic activity, we expect economic growth to resume from 2011 onwards (Figure 1). Our forecasts for economic growth out to 2015 in this scenario are lower than those contained in the *World Recovery* scenario of *Recovery Scenarios for Ireland* publication of May 2009. The reasons for the differences between our latest projections and those of May 2009 are discussed in Box A. Initially the recovery will be driven by exports. The combined effect of a return to growth in Ireland's external markets and the significant improvement in competitiveness which is under way should see Irish exporters gaining an increased share of a growing export market.

¹⁴ Some of the numbers for 2010 differ from those in the latest QEC published in July. However, even if the latest QEC had been used as a basis for this exercise it would not have significantly affected the results.

Figure 1: GDP, % Change



The strong recovery in the Irish economy after 2011 envisaged in this scenario can be explained by two factors. First, the openness of the Irish economy, with over 80 per cent of manufacturing output being exported, means that an increase in world demand has a substantial effect on Irish output. Our estimates suggest that an increase in world output of 1 per cent in the long run increases the demand for Irish output by around 1.3 per cent (Bergin, Conefrey, Fitz Gerald and Kearney, 2010a). Growth in world trade directly affects the Irish economy through the manufacturing, business and financial services and tourism sectors. A growing share of the output of the business and financial services sector is internationally traded which substantially increases the effect of growth in world demand on the Irish economy. This high degree of responsiveness to changes in world activity contributed to the depth and severity of the downturn in the Irish economy since 2008. In the same way this high sensitivity to world activity gives rise to the strong recovery in the Irish economy from 2011 in this scenario.

The second factor, which explains the growth in the Irish economy after 2011 in this scenario, is the expected improvement in competitiveness in Ireland relative to the rest of the world. Ireland's competitiveness relative to the rest of the world drives the output of the tradable sector in the domestic economy. Our estimates suggest that, if wage rates and input prices were one percentage point lower relative to our main competitor economies GNP would be around 0.2 per cent higher in the medium term (Bergin, Conefrey, Fitz Gerald and Kearney, 2010a). The combination of a fall in the cost of living in Ireland (including the cost of accommodation) and the increase in unemployment associated with the contraction in the economy over the period 2008-2010 is expected to lead to wage moderation in the private sector, as discussed in the latest *QEC*.

As discussed in the latest *QEC* for 2010, we expect a further small contraction in GNP this year followed by a modest recovery in output in 2011. Assuming that the elasticity of Irish output with respect to output in the outside world is maintained as it was in the past, and also assuming that competitiveness improves as the model would suggest, the recovery in the

international economy is expected to give rise to a strong recovery in output in the manufacturing and market services sectors over the period 2011-2015, as illustrated in Table 3.1.

Table 3.1: High Growth Scenario, Major Aggregates

	2009	2010	2011-15	2016-20
Growth Rate	Annual %		Average Annual %	
GDP	-7.1	-0.4	4.6	3.0
GNP	-12.2	0.0	4.2	3.1
Total Employment	-8.6	-4.2	1.9	1.1
Output, industry	-8.6	-3.7	8.3	3.4
Output, market services	-6.3	2.1	4.4	3.2
Consumer Prices	-3.4	-1.9	2.0	2.7
Non-agricultural Wage Rates	-1.5	-3.0	2.4	4.2

Year End:	2009	2010	2015	2020
Personal Savings Ratio	11.2	10.7	8.3	8.5
General Govt. Deficit, % GDP, including special payments to banks ¹⁵	14.3	18.2	2.4	0.5
General Govt. Deficit, % GDP, excluding special payments to banks	11.8	11.3	1.8	-0.1
General Government Deficit, including special payments to banks % GNP	17.8	22.7	3.1	0.7
Net Government Debt, % of GDP	32.1	51.2	63.1	51.2
General Government Debt, % GDP	64.0	83.4	91.1	76.0
General Government Debt, % GNP	79.9	104.1	116.5	96.8
Balance of Payments, % GNP	-3.2	0.9	1.7	1.9
Unemployment Rate, % of labour force	11.9	14.0	4.8	4.4
Net Emigration, 000s	7.8	60.0	-1.1	-17.4
Participation Rate, PES Basis	70.4	69.7	69.6	70.6
Investment / GNP ratio	19.3	15.2	19.8	20.4

Because of fears for their future, many households are saving at an exceptional rate. In addition, investment in housing by the household sector has been dramatically reduced. However, once an export driven recovery becomes established in 2012 it is likely that the savings rate will fall gradually towards its long run equilibrium level. In addition, once the excess of dwellings in the major urban areas are occupied through sale or rental in 2012 or 2013, rents will begin to rise and investment in housing will show a limited recovery. This delayed recovery in domestic demand will be particularly important for employment growth in later years.

Similarly, in the company sector, businesses are currently concentrating on reducing their balance sheets with the result that investment has fallen

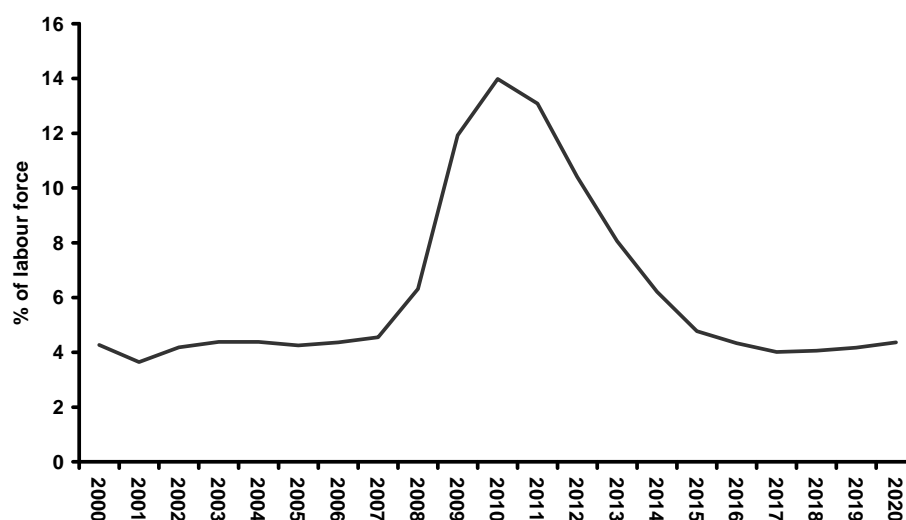
¹⁵ As discussed in Section 2.3, to facilitate comparison with the Stability Programme Update figures we exclude the exceptional items, specifically the once off payments to the banks.

to a low level. Once a recovery becomes well established and company profitability is re-established, a recovery in private sector non-housing investment is also anticipated.

As shown in Table 3.1, the increase in output from the tradable sectors of the economy is expected to drive annual average GNP growth of 4.2 per cent over the period 2011 to 2015. Beyond 2015, growth is expected to moderate to an annual average rate of 3 per cent, close to the economy's long run potential rate of growth (see Bergin *et al.*, 2009 and Bergin *et al.*, 2010b, for details).

The sharp contraction in the economy over the period 2008 to 2010 has resulted in a dramatic rise in the unemployment rate, as illustrated in Figure 2. As a result of lower levels of activity in the building, manufacturing and market services sectors, total employment fell by almost 9 per cent in 2009 and it is expected to contract by a further 3.7 per cent in 2010. The unemployment rate rose to almost 12 per cent in 2009 and is projected to stabilise at just over 13 per cent in 2010 and 2011. In line with the anticipated recovery in economic activity from 2011 onwards in this scenario, employment growth is expected to resume and average 2 per cent over the period 2011 to 2015. As a result, the unemployment rate is expected to fall to just under 5 per cent by 2015, a rate consistent with full employment.

Figure 2: Unemployment Rate (ILO), Per Cent of the Labour Force



The fall in the unemployment rate to below 5 per cent by 2015 would reflect the rapid adjustment of the labour market which occurs in this scenario. This rapid clearing of the labour market contrasts with the experience of the Finnish economy in the 1990s where the unemployment rate still stood at 11 per cent in 1999, five years after economic growth had resumed. The difference reflects the observed flexibility of the Irish labour market. However, to ensure that the labour market clears and that those who are long-term unemployed find jobs in the recovery phase a more active labour market policy will be required (OECD, 2010 and O'Connell, 2009).

Throughout these simulations migration is assumed to be driven by movements in after-tax wage rates and the unemployment rate in Ireland relative to the UK. As a result, the rise in unemployment would lead to substantial outward migration in this scenario. There would be cumulative net emigration of over 160,000 over the period 2009 to 2013, this is crucial to the rapid decline in the unemployment rate in this scenario. If migration were not to resume to this extent, this would lead to a higher unemployment rate and a slower decline in the unemployment rate in the recovery period than we have assumed here. This adjustment to the labour force through net emigration is likely to be completed by the end of 2014. In later years of the decade some return to limited net immigration might be expected.

As discussed, households have reacted to the current economic crisis by increasing their personal savings rate. As shown in Table 3.1, the savings rate reached 11 per cent in 2009, significantly above its long run average of around 8 per cent. As the economy recovers, the savings rate is expected to fall back gradually to reach just over 8 per cent in 2015. The fall in the savings ratio and the associated rise in consumption in this scenario add further impetus to the recovery in the economy after 2011.

As shown in Bergin *et al.* (2010a), for every 1 percentage point reduction in government borrowing through discretionary fiscal action the balance of payments current account deficit (surplus) also tends to fall (rise) by around 1 percentage point. The package of fiscal policy measures implemented in this scenario will tend to move the current account of the balance of payments into surplus in 2010. In addition, the recovery in world demand and the increase in Irish exports after 2011 envisaged in this scenario would together be likely to result in a substantial continuing surplus on the balance of payments current account over the medium term. The delayed recovery in domestic demand would contribute to this process.

The emerging surplus on the current account of the balance of payments would, in turn, be matched by developments in the flow of funds. As noted in Barrett *et al.* (2010b) this has significant implications for the banking system, which are teased out further in Section 3.3.

Turning to the public finances, the decline in economic activity has led to a collapse in government receipts from a range of taxes. At the same time government expenditure has risen due to higher welfare payments as a result of higher unemployment and a major increase in debt interest payments related to the borrowing undertaken to fund the resolution of the banking crisis. Based on the assumptions on the public finances discussed in Section 2.3, as well as the return to strong growth and the associated fall in unemployment envisaged in this scenario, the general government deficit is expected to improve significantly over the medium term, falling to 2 per cent of GDP by 2015 excluding special payments to banks, as shown in Figure 3. (While the borrowing including special payments to banks is shown in Table 3.1, here we exclude these payments to allow a comparison with the numbers agreed with the EU Commission in the Stability Programme Update.) This is the deficit which would remain assuming a normal world recovery and the full implementation of the package of fiscal measures outlined in Section 2.3.

Figure 3: General Government Deficit, Per Cent of GDP

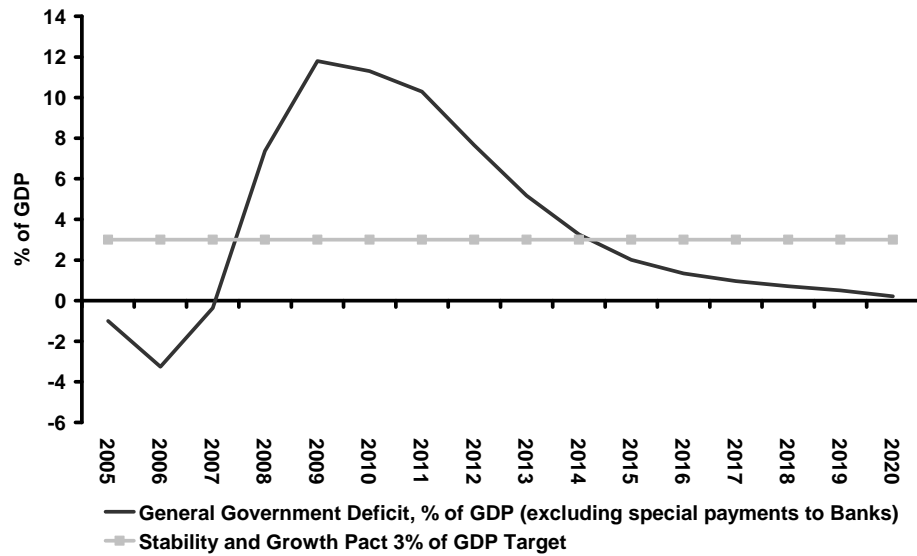


Figure 4 shows the share of Government expenditure (current and capital) and revenue (current and capital) as a percentage of GNP. The dramatic increase in the share of expenditure in GNP over the 2008-2010 period reflects both the fall in nominal GNP over the period as well as increases in welfare payments, due to the rise in unemployment, and in national debt interest payments. The fall in the revenue share in GNP from 2007 to 2008, was driven by the fall in property related taxes and income taxes. Assuming the budgetary packages, outlined above for the period 2011-2014, are implemented in full, the Figure shows that the gap between the share of expenditure and revenue in GNP will narrow over time.

Figure 4: Total Government Expenditure and Revenue as a Percentage of GNP

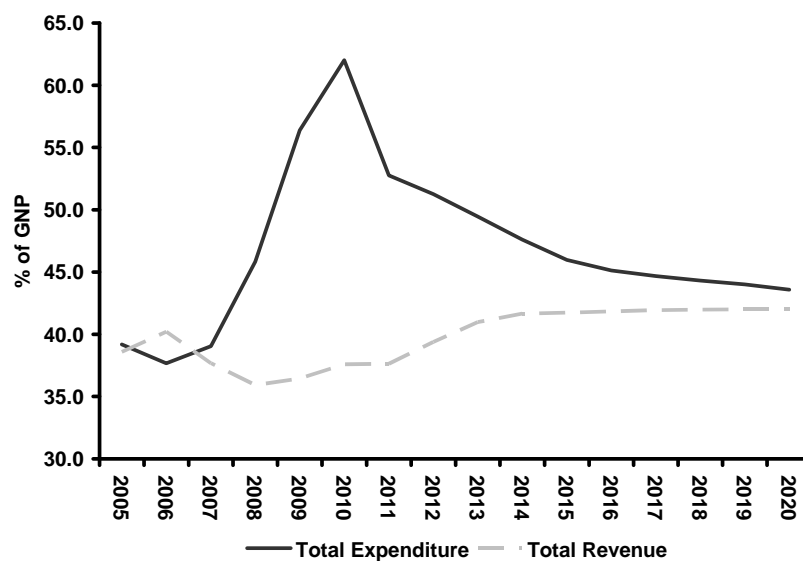
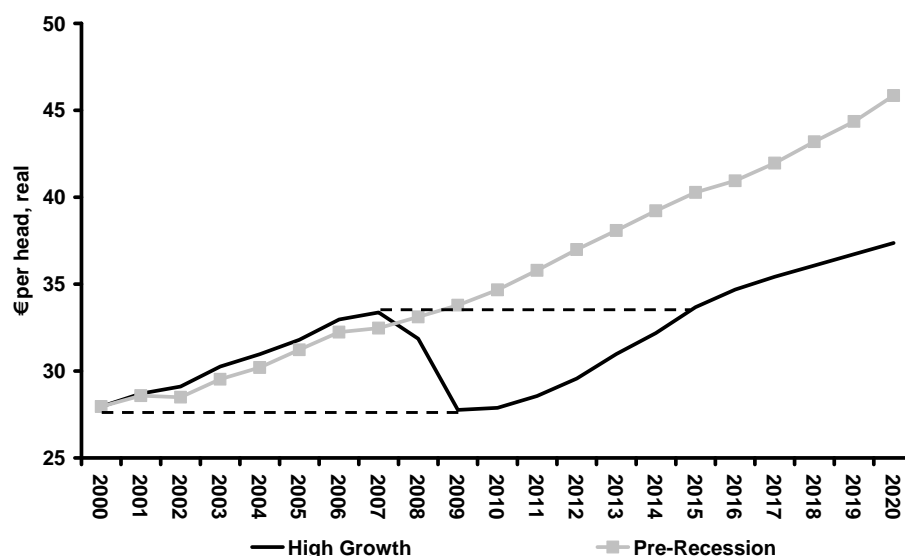


Figure 5: Permanent Loss of Output in Terms of GNP Per Head



This scenario suggests that once the world recovery gathers momentum, which according to current forecasts could happen in 2011, growth rates in the recovery phase of 4 to 5 per cent would be likely. While this would represent a return to strong rates of growth, it should be noted that growth rates of this magnitude would be sufficient to restore only some of the losses sustained over the period 2008-2010. Set out in Figure 5 is a comparison of the path of GNP per head in this scenario compared to the forecasts before the advent of the crisis. In this case we use the housing shock scenario from the 2005 *Medium-Term Review* to represent the pre-recession base. We estimate that by the end of 2010, as a consequence of the severe contraction in the Irish economy over the period 2008 to 2010 and the associated rise in unemployment, output per head will have fallen back to its 2000 level. On the basis of the growth rates envisaged in this scenario, output per head would not be restored to its 2007 level until 2015. The pattern shown in Figure 5 implies a permanent loss of output per head of over 15 per cent in 2015 relative to the pre-recession base, a very painful permanent scar on the economy arising from the current recession.

Box A: Comparison with *World Recovery* Scenario from May 2009

In May 2009, the ESRI published a paper (Bergin *et al.*, 2009) which set out possible paths to recovery for the Irish economy. In that paper we argued that if the world economy recovered significant momentum by 2011, the Irish economy, as long as it regained competitiveness, could grow quite rapidly in the period 2011-2015 and recover some of the lost ground of the current severe recession. We remain of the view that this outcome is still possible but the extent of recovery of lost ground is more muted. The projections in the 2009 paper did not take account of likely further fiscal adjustment in 2011 and subsequent years. Nevertheless, the current scale of the structural deficit in the public finances, combined with the deadweight costs of the banking bailout, currently estimated at 15 per cent of GDP, means that further fiscal consolidation will be necessary in the

period out to 2014. This in turn will reduce the growth path of the economy out to 2015.

Since the publication of *Recovery Scenarios for Ireland*, more detail has emerged on the likely scale of government funding required to resolve the banking crisis. In particular, it has now become clear that the State is likely to have to transfer an estimated €25 billion to the banking system. As a result, in developing the scenarios in this paper we have included an additional funding cost of €25 billion. These exceptional payments to the banks involve a medium-term cost to the economy in terms of output, income and employment. These costs are reflected in the normal government borrowing through a significant increase in debt interest payments required to remunerate this additional debt.

Table 1A compares our projections for GDP and the public finances based on the *World Recovery* scenario (May 2009) with our revised projections based on the *High Growth* scenario. The principle reason for the differences between these numbers relates to our assumptions on fiscal policy over the medium-term. Underpinning the scenarios presented in this paper is the assumption that the government will implement fiscal policy action to reduce expenditure or increase taxation by around €7½ billion between 2011 and 2014. In *Recovery Scenarios for Ireland*, we assumed that no further fiscal policy interventions would occur beyond 2010. The implementation of the €7½ billion programme of spending cuts and tax increases (equivalent to around 4½ per cent of 2009 GDP) contributes to a significant reduction in our current forecasts for economic growth compared to *Recovery Scenarios*. This is because the implementation of the package of fiscal cuts directly reduces demand in the economy and results in a lower level of employment and higher emigration flows than in the absence of such a package. For example, the government plans to introduce a €3 billion package of austerity measures in the 2011 budget. We estimate that such a budgetary package would reduce the growth rate by approximately one percentage point.

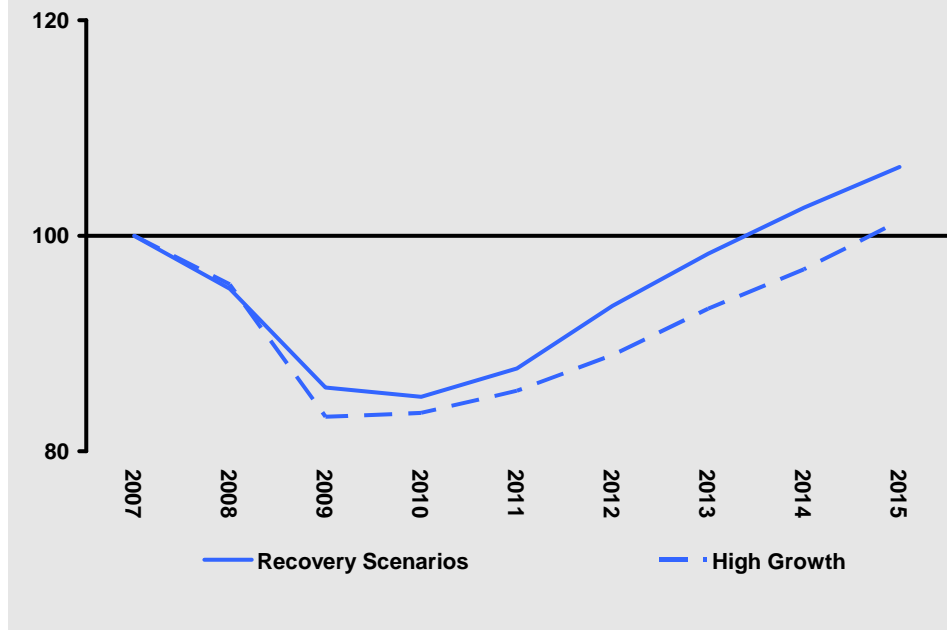
Table 1A: Comparison of *High Growth* Scenario with *World Recovery* Scenario Projections Prepared in May 2009

	2010	2011-15	2016-2020
GDP Growth Rates		Average Annual % Growth	
<i>World Recovery</i> Scenario, May 2009	-1	5 ½	3 ¼
<i>High Growth</i> Scenario, July 2010	-½	4 ½	3
General Government Deficit, % of GDP, year end	2010	2015	2020
<i>World Recovery</i> Scenario, May 2009	11 ¼	3 ¼	2 ½
<i>High Growth</i> Scenario, July 2010	12	2	0

The fiscal consolidation package reduces our forecasts for average annual GDP growth over the period 2011 to 2015 by one percentage point compared to the figures published last year. Total employment is 63,000 lower by 2015, and the gross debt to GDP ratio is 17 percentage points

higher. Income per head in 2015 is 5 per cent lower, see Figure 1A. Our analysis here indicates that the full implementation of the budgetary package outlined in section 4.1 would ensure full compliance with the 3 per cent Stability and Growth Pact (SGP) target by 2015 (the cost of the remaining exceptional transfers to the banking system is excluded from the borrowing for the purpose of comparison with the SGP). Nevertheless, these figures confirm that implementation of this package of fiscal consolidation, of necessity, imposes real costs on the economy.

Figure 1A: GNP Per Head, Constant Prices, 2007=100. Comparison of Forecasts



3.2 *Low Growth* Scenario

The *High Growth* scenario assumes that the Irish economy will react to the international recovery in the same way as in the past. In particular, it assumes that output in high-tech manufacturing and business and financial services, which is largely driven by world demand, will grow strongly. In this scenario we consider the medium-term trajectory for the Irish economy if the relationship between output in the traded sectors and world growth is weaker than in the past. The fiscal assumptions are the same as in the *High Growth* scenario but the assumed risk premium on government borrowing is 0.5 percentage points higher. As discussed in Appendix 1, the scenario is generated by permanently reducing the elasticity of output in these sectors to world growth by around one percentage point. Reducing the elasticity of output in these sectors is purely a mechanism to generate a scenario with lower growth; as discussed earlier, there is a multitude of other factors that could generate such a scenario.

Table 3.2 summarises the impact of this change on the key economic aggregates. As a result of the lower response to world output, external demand for Irish exports is lower than in the *High Growth* scenario resulting in lower output and employment. In this scenario output in the industrial sector would grow by 5.4 per cent per annum over the period 2011 to 2015, compared to 8.3 per cent in the *High Growth* scenario. Output growth in the market services sector would be 3.4 per cent compared to 4.4 per

cent in the *High Growth* scenario. Average GNP growth over the period 2011 to 2015 would be more moderate at 3 per cent, relative to 4 per cent in the *High Growth* scenario.

Table 3.2: Low Growth Scenario, Major Aggregates

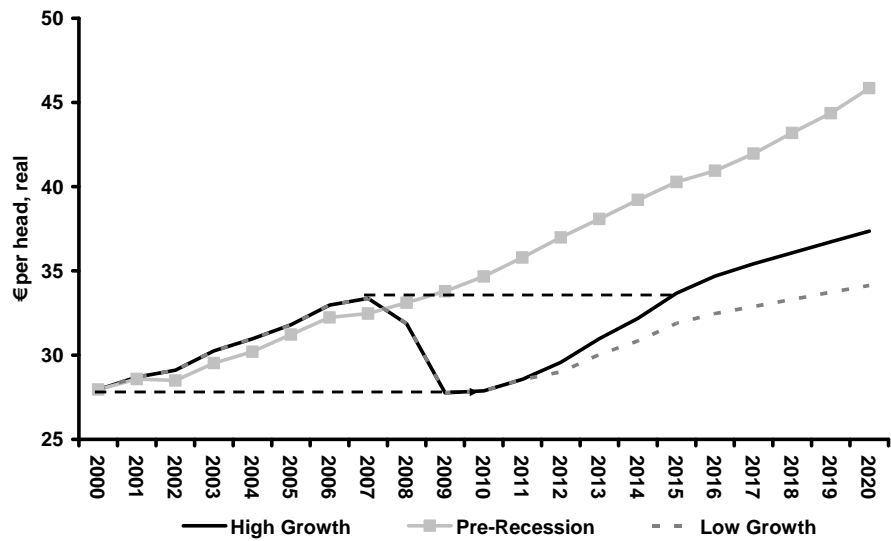
	2009	2010	2011-15	2016-20
Growth Rate	Annual %		Average Annual %	
GDP	-7.1	-0.4	3.2	2.1
GNP	-12.2	0.0	3.0	2.2
Total Employment	-8.6	-4.2	1.3	0.9
Output, industry	-8.6	-3.7	5.4	2.3
Output, market services	-6.3	2.1	3.4	2.1
Consumer Prices	-3.4	-1.9	1.9	2.6
Non-agricultural Wage Rates	-1.5	-3.0	2.2	3.8

Year End:	2009	2010	2015	2020
Personal Savings Ratio	11.2	10.7	8.1	8.4
General Govt. Deficit, % GDP, including special payments to banks ¹⁶	14.3	18.2	4.8	5.2
General Govt. Deficit, % GDP, excluding special payments to banks	11.8	11.3	4.1	4.5
General Government Deficit, including special payments to banks % GNP	17.8	22.7	6.1	6.5
Net Government Debt, % of GDP	32.1	51.2	73.6	80.7
General Government Debt, % GDP	64.0	83.4	102.5	106.9
General Government Debt, % GNP	79.9	104.1	129.4	134.1
Balance of Payments, % GNP	-3.2	0.9	-1.3	-4.0
Unemployment Rate, % of labour force	11.9	14.0	7.1	7.1
Net Emigration, 000s	7.8	60.0	5.1	-12.5
Participation Rate, PES Basis	70.4	69.7	69.7	70.6
Investment / GNP ratio	19.3	15.2	19.8	20.8

In this case the permanent loss of output per head relative to the pre-recession base is more severe than in the *High Growth* scenario. By 2015 GNP per head is still 4.5 per cent below the 2007 level. In this scenario the permanent loss of employment amounts to 245,000 by 2015 relative to the pre-recession base, with GNP per head over 20 per cent below its pre-recession base (Figure 6).

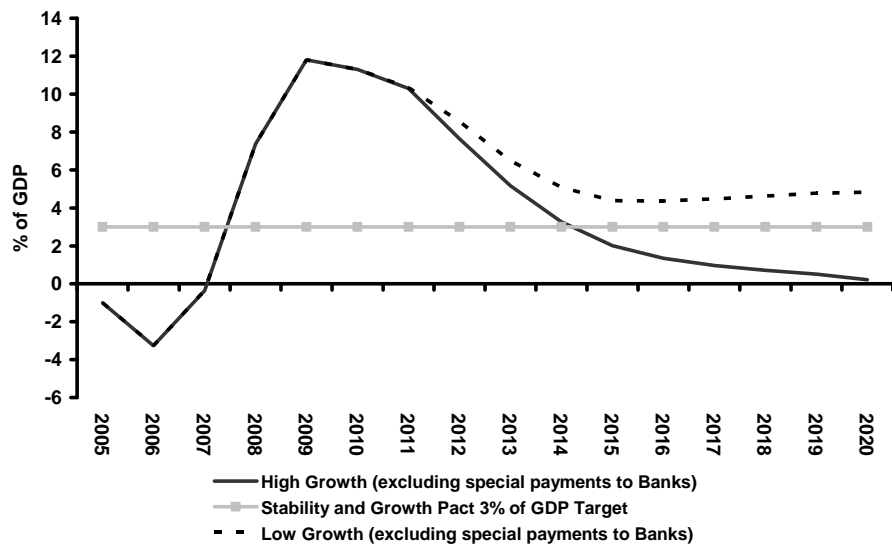
¹⁶ To facilitate comparison with the Stability Programme Update figures we exclude the exceptional items, specifically the once off payments to the banks.

Figure 6: GNP Per Head – Permanent Loss of Output



Such a permanent reduction in output would have a significant additional impact on the public finances. The lower level of economic activity would reduce government revenue from taxation while the higher unemployment rate and borrowing would increase government expenditure on welfare payments and interest payments. This would result in a significant deterioration in the general government balance compared to the *High Growth* scenario, as shown in Figure 7. By 2015, excluding special payments to the banks, the general government deficit as a percentage of GDP under the *Low Growth* scenario would stand at 4.1 per cent compared to 2 per cent in the *High Growth* scenario. As discussed in Section 3.3, this implies that further fiscal action would be required to ensure compliance with the SGP guidelines. The deficit in the *High Growth* scenario would meet the 3 per cent Stability and Growth Pact (SGP) limit by 2015. However, with a lower response to world activity there would be a substantially higher deficit by the end of the period. By 2015 the net debt to GDP ratio would be 10.5 percentage points higher under the *Low Growth* scenario compared with the *High Growth* scenario.

Figure 7: General Government Deficit as % of GDP



In this scenario the economy would under-perform relative to its potential and this would mean that the unemployment rate would remain persistently high. In fact, these average growth rates for the period 2011-2015 are of a similar order of magnitude to those attained in second half of the 1980s. As discussed in Section 4, were the economy to record such sluggish growth levels, then the resultant deficit and debt levels would require further fiscal consolidation to achieve the Stability and Growth Pact 2014 target.

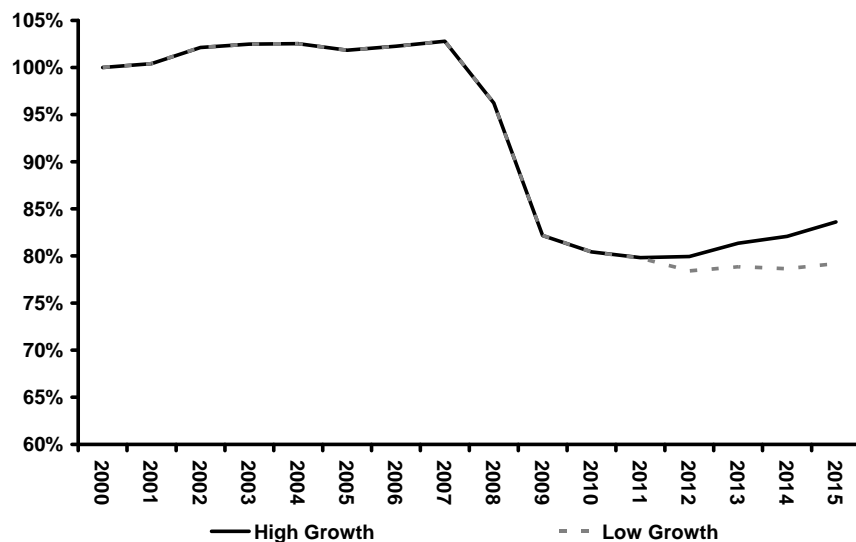
3.3 Some Implications of Medium- Term Scenarios

POTENTIAL OUTPUT

Under the two scenarios discussed above the long-term impact of the current crisis on the potential output of the economy is very substantial. As shown in Figure 8, in the *High Growth* scenario output is expected to end up in 2015 over 15 per cent below where it might have been without the crisis. This provides a measure of the dramatic impact of the severe recession in Ireland on incomes and living standards. To the extent that the severity of the crisis in Ireland has been heightened as a result of past policy mistakes, the loss of output as a result of the crisis (Figure 8) captures the cost of these past policy failures. While under this scenario the rate of future growth in potential output is unchanged from before the crisis at around 3 per cent for the next decade, the catch up process anticipated for the years 2012-15 would not be sufficient to restore the losses in the level of output sustained over the period 2008-10.

Figure 8 shows how under the *Low Growth* scenario the loss in potential output (the permanent scar on the economy) might be closer to 20 per cent. In this scenario, it is assumed that additional damage has been sustained as a result of the recession, which changes the resilience of individual sectors of the economy. As a result, in the case of this scenario the actual rate of growth in potential output after the recession is also estimated to be below the 3 per cent suggested in the *High Growth* scenario. It will be the end of 2011 or 2012 before there will be sufficient evidence to establish with any certainty which of these two scenarios for potential output is likely to be correct.

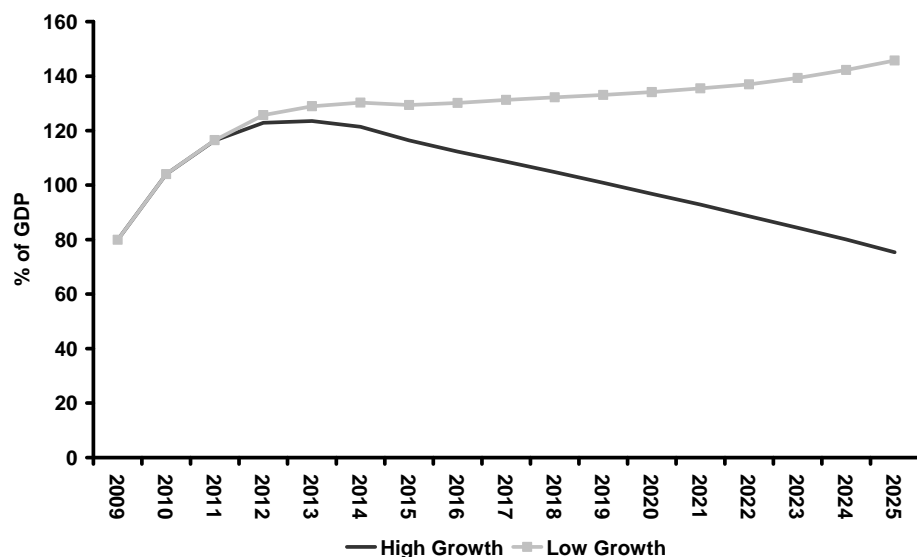
Figure 8: Permanent Loss of Output as a Result of Recession



DEBT SUSTAINABILITY

In undertaking this analysis an important question is whether the fiscal policy stance planned for the period 2011-14 is appropriate. A key test of this is whether it will result in a sustainable path for the national debt in the future. Figure 9 shows that under the *High Growth* scenario the planned cuts of €7½ billion would be sufficient to restore the public finances to a sustainable growth path. Under this scenario the gross debt/GNP ratio would peak at just below 120 per cent in 2013 before steadily falling back in subsequent years to under 100 per cent in 2020.¹⁷ If the cash holdings of the State and the assets of the NPRF are netted off the debt, the ratio would peak at 100 per cent of GNP before falling back to under 80 per cent in 2020 (Figure 10). This path for the debt, while high, would be sustainable, with the ratio gradually falling over time.

Figure 9: Gross Debt/GNP Ratio Under Different Scenarios

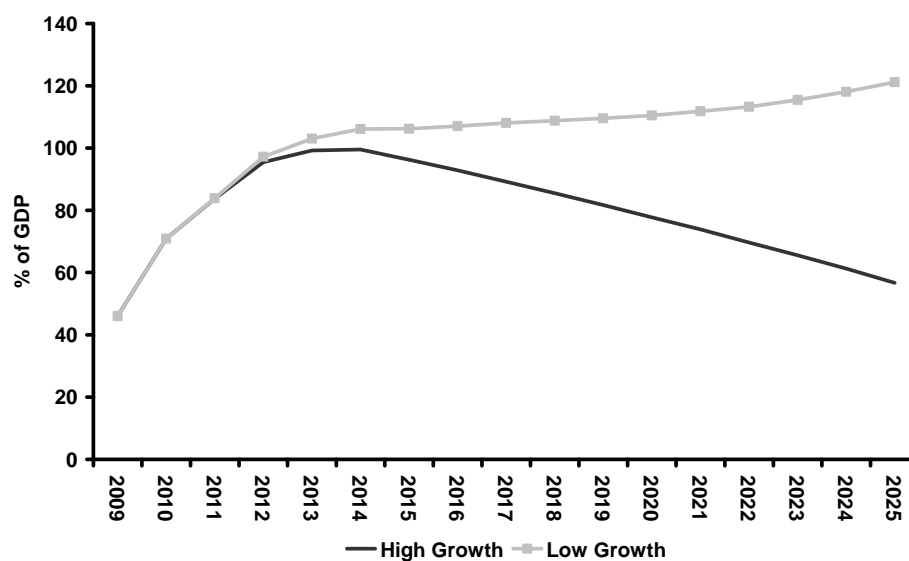


However, in the case of the *Low Growth* scenario the debt/GNP ratio would be around 130 per cent in 2015 and would continue to rise slowly thereafter. This trajectory would not be sustainable indefinitely. Under this scenario any new shock in the future could see a rapid further deterioration in the public finances. As a result, if this scenario proved correct, additional fiscal tightening would be required over the period 2011-14 to move the economy back onto a sustainable growth path.

In addition to the national debt as conventionally defined, the bonds issued by NAMA are fully guaranteed by the State. While in last year's publication we included this borrowing in the national debt, accounting conventions, as currently applied, suggest that they should be excluded from the headline numbers. However, as the NAMA bonds are a contingent liability of the State, they affect decision making. As bond markets take account of them when considering the liabilities of the state

¹⁷ This is before deduction of cash and the NPRF assets held by the state. It also excludes the liabilities of NAMA.

Figure 10: Net Debt / GNP Ratio Under Different Scenarios



their presence undoubtedly contributes to the current high risk premium on Irish borrowing.

If the NAMA bonds¹⁸ are added to the national debt, as conventionally defined, under the *High Growth* scenario the augmented debt to GNP ratio would peak at just over 150 per cent of GNP in 2012/3 (just over 125 per cent of GDP) before falling back over the rest of the decade. When NAMA is finally wound up, on the assumption that its assets then cover its liabilities, the debt to GNP ratio would revert to the pattern shown in Figure 9. Under the *Low Growth* scenario the augmented ratio would peak at just under 160 per cent of GNP and it would remain above 150 per cent until NAMA is eventually wound up.

THE BALANCE OF PAYMENTS AND THE FLOW OF FUNDS

The latest forecast for the economy sees a return to a small balance of payments surplus this year with a slightly larger surplus next year. As shown above, under the *High Growth* scenario the economy should experience a continuing balance of payments surplus over the period to 2015. With the government continuing to borrow substantial sums out to 2015, albeit at a declining rate, and with a continuing balance of payments surplus, the counterpart to this borrowing by the government will be a large repayment of debt (or acquisition of financial assets) abroad by the private sector. Over the six years 2010-15 this repayment of foreign debt (acquisition of financial assets) should average over 12 per cent of GNP each year or a cumulative 75 per cent of GNP over the six years.

Some of this repayment of foreign borrowing by the private sector will most likely take place by companies, especially multinationals, repaying foreign creditors or the parent company directly. However, much of it will

¹⁸ Here we are assuming that the total amount of the NAMA liabilities peaks at around €40 billion.

pass through the banking system as firms repay borrowings. In the case of the household sector, the vast bulk of the funds are likely to pass through the banking system as households repay loans or hold their savings on deposit.

To the extent that this repayment of foreign debt passes through the banking system it will serve to reduce the banking system's net foreign liabilities. Total net foreign liabilities of the banking system (including borrowing from the ECB) stand at around 70 per cent of GDP. If more than half of this repayment of private sector foreign borrowing were effected through the banking system it would dramatically reduce the exposure of the Irish financial system to foreign markets in the medium term.

In the case of the *Low Growth* scenario the results are very similar. This reflects the fact that investment by the private sector under that scenario is significantly lower than in the *High Growth* scenario resulting in greater availability of funds for repayment of foreign debt. Thus under that scenario there would also be likely to be a very substantial reduction in the dependence of the financial system on funding from the European inert bank market.

THE FISCAL COST OF THE CRISIS IN THE BANKING SECTOR

There are a number of channels through which the banking crisis directly affects the public finances on an ongoing basis: through the interest on the money lost in the banks, which has to be made good by government borrowing; through the higher cost of borrowing for the State as a result of the increase in perceived risk; and through the interest cost of holding additional liquidity. In the long run these costs are likely to be much less than the indirect costs for the economy of the banking crisis. In particular, the crisis has contributed to the dramatic fall in potential output.

Under both scenarios the major direct fiscal cost of the financial crisis will be the estimated once-off loss of €25 billion in Anglo-Irish Bank and Irish Nationwide Building Society, which the State has to fund. The ongoing cost to the exchequer of this loss will be the interest on borrowing the €25 billion. Given the current level of interest rates for government borrowing, once this sum is finally paid to the banks the interest bill will amount to around €1.25 billion or around 1 per cent of GNP a year for the foreseeable future.¹⁹

The increase in the risk premium payable on borrowing by the government is at least partly attributable to the massive increase in the State's contingent liabilities as a result of the banking crisis. It is not clear how much of the risk premium payable by Irish borrowers today is due directly to the crisis in the financial sector as opposed to being due to the related crisis in the public finances. If half of the premium under the *High Growth* scenario were directly attributable to the crisis, with interest payments likely to account for over 5 per cent of GNP by 2012 (and the risk premium standing at 0.75 percentage points by 2015), this additional

¹⁹ This cost, which is a flow, is not additional to the once-off cost of €25 billion. Instead it is a measure of the long term impact on the output of the economy of this once-off cost.

cost could amount to over 0.35 per cent of GNP. However, the indirect effects of the higher risk premium, applying to most Irish borrowers, could be substantially higher through its effects on investment and output.

Finally, because of the extreme uncertainty in financial markets the Irish government has been holding a very large sum in cash since the end of 2008. This cash provides a partial cushion insulating the Irish government from the short-term volatility on financial markets. It means that, unlike some other governments, the Irish government, through the NTMA, has considerable flexibility in terms of when it borrows on financial markets and through what instruments. However, this cushion of liquidity comes at a price. The Irish government is currently holding around €20 billion in cash or on very short-term deposit. This asset attracts only a small interest payment. However, the funds to provide this liquidity have been borrowed at an interest rate of between 4.5 per cent and 5 per cent. Thus the total “excess” interest payments could amount to around €800 million or around 0.6 per cent of GNP. While under normal circumstances the government would still hold some cash, the amount would be very much less than at present so that the bulk of this additional interest cost is probably attributable to the current financial crisis. However, this need to hold “excess” liquidity will decline as the volatility in the financial markets declines and as the government’s borrowing requirement also declines.

Taken together, these three effects may result in a direct financial cost to the exchequer arising from the banking crisis of between 1.5 per cent and 2 per cent of GNP per year over the medium-term. However, these direct costs are likely to be dwarfed by the indirect costs. If only a fraction of the 15 per cent to 20 per cent permanent loss in output, discussed above, were attributable to the banking crisis it would be dramatically larger than the direct financial cost for the public finances estimated here.

3.4 Sensitivity of Economy to *International Risk Premium Shock*

Given the risks to the international economy, we also consider an *International Risk Premium Shock*, where the risk premium on government debt is assumed to be permanently higher from 2011 by 2 percentage points in each of the Euro Area, the UK and the US. This is not intended as a forecast but rather to highlight the sensitivity of the Irish economy to events in the international economy. Table 3.3 shows the growth rates for the international economy under such a scenario and Figure 11 shows the impact on the **level** of output (not the growth rate) in the US, UK and Euro Area – it reduces the level of GDP by around 1.5 per cent below where it otherwise would have been over the medium term.

Table 3.3: Real GDP Growth, *International Risk Premium Shock*

	2009	2010	2011	2011-2015
USA	-2.4	2.9	2.0	2.5
UK	-4.9	1.0	1.3	2.5
Euro Area	-4.0	1.2	1.4	1.9
World	-1.0	3.9	3.6	4.1

Given Ireland’s heavy exposure to the world economy, the effect of the shock would be to significantly reduce the external demand for Irish output and exports leading to lower employment and output in the medium term. In this scenario, employment would be around 16,000 lower than in the

High Growth scenario by 2015, while the unemployment rate would be around $\frac{3}{4}$ of a percentage point higher. Figure 12 shows the impact on the level of GDP over the medium term. By 2015 the level of GDP would be around 2 per cent lower than in the *High Growth* scenario.

Figure 11: The Impact on the Level of GDP of the *International Risk Premium Shock*

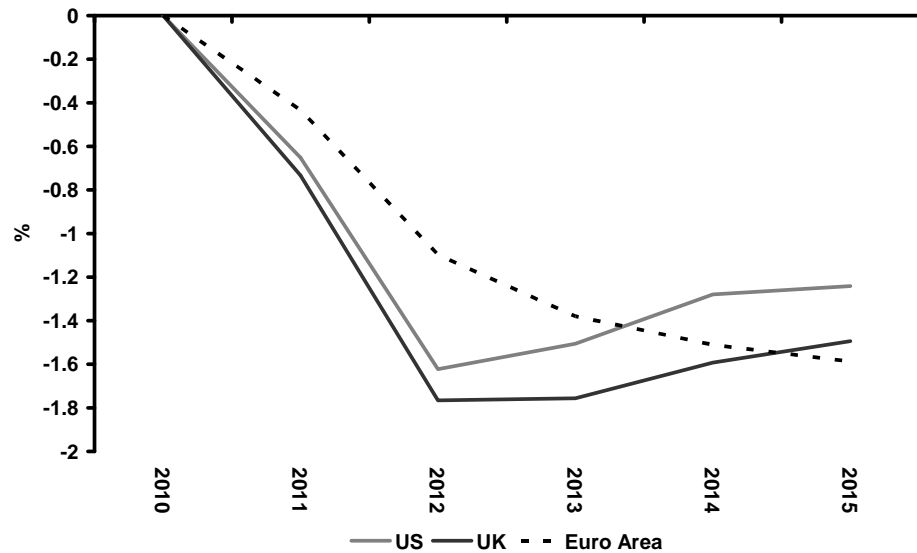
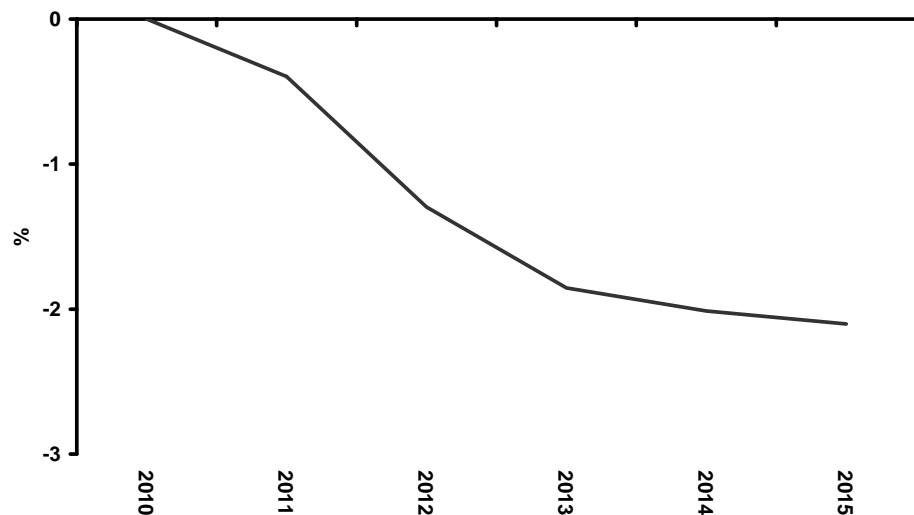


Figure 12: Effect on Level of GDP of *International Risk Premium Shock*, %

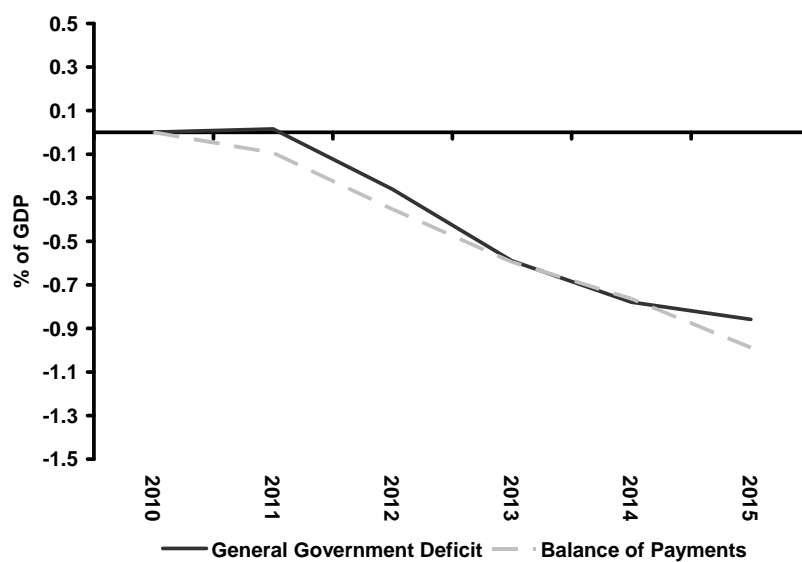


One of the most significant effects of this shock would be its impact on the public finances, the General Government Balance would be almost one percentage point worse than in the *High Growth* scenario by 2015 (Figure 13). The lower level of economic activity as a result of the financial market shock would reduce government revenue from taxation while the higher unemployment rate and borrowing would increase government expenditure on welfare and interest payments. The balance of payments

surplus would also deteriorate by around one-percentage point relative to the *High Growth* scenario.

The effects would be very similar when applied to the *Low Growth* scenario. In both cases further fiscal action would be required to restore the public finances to sustainability, with further negative consequences for growth and employment.

Figure 13: Effect on Balance of Payments and General Government Balance of Financial Market Shock



3.5 What If There Was No Fiscal Action?

From late 2008, when the financial crisis hit, there was significant international debate about the need for a fiscal stimulus to prevent the world economy falling into prolonged recession. This approach was taken in many developed economies such as the US, Germany and the UK. While the size of the stimulus applied in each case differed, the cumulative effect was significant and it played a role in moderating the depth of the world recession.

However, in Ireland it was clear from late in 2008 that this was not an option. The severity of the deterioration in the public finances meant that a failure to take remedial action could have left government borrowing on an explosive trajectory. The borrowing requirement for 2009 was heading over 15 per cent of GDP in the absence of fiscal action. Even with the very tough remedial action undertaken, the risk premium attaching to Irish borrowing rose to very high levels in 2009 and it has remained high in 2010. In the absence of an adequate fiscal response this risk premium would clearly have been much higher. There could well have been significant difficulties for the government in financing such an exceptional level of borrowing at any price. While it is not possible to estimate how much higher the risk premium would have been, we here simulate the effects of a moderate additional premium of 1.5 percentage points combined with a failure to take fiscal action in 2009 and subsequent years.

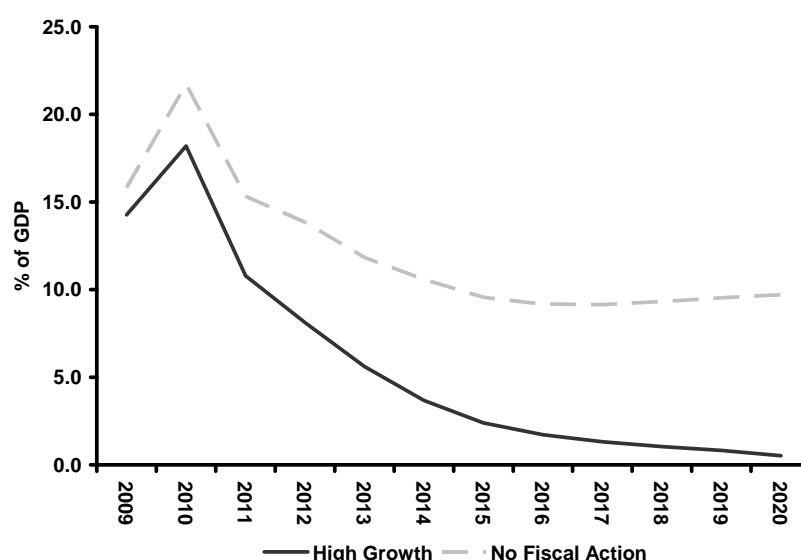
The fact that, for economies such as Ireland, the risk premium is itself affected by the level of borrowing and debt (and by the direction of fiscal

action) changes the way that discretionary fiscal action impacts on the economy. While a cut in taxation or an increase in expenditure would normally stimulate the economy in the short run, if it causes a substantial rise in the interest rate this can more than offset any short-term benefits. The corollary to this, as noted by Alesina (2010), is that if agents believe that the authorities' stabilisation plan is credible and avoids or reduces the chances of default, international markets can ask for a lower premium on government bonds. If the reduction in the interest rate paid on government bonds in turn leads to a reduction in the real interest rate charged to consumers and firms, the decrease in interest rates can have a positive effect on economic activity. The current circumstances facing the Irish economy (and quite a number of other economies in the Euro Area) means that the benefits of early fiscal action are likely to be considerably enhanced and the costs of delay also considerably increased because of the sensitivity of this interest rate channel.

In this section we consider in a stylised way what might have happened if there had been a failure to tackle the fiscal crisis at the end of 2008. Based on the results for the *High Growth* scenario, we assume that the government adopted a neutral fiscal policy after the advent of the recession in 2008 (i.e. from 2009 onwards).²⁰ The results of this simulation illustrate some of the costs that would have arisen if no action had been taken. As indicated above these costs are, if anything, on the low side as the risk premium could have been even higher in the face of such a policy.

Figure 14 shows the path of the General Government Deficit as a share of GDP in the case of no fiscal action compared to the trajectory in the *High Growth* scenario. From 2012 onwards borrowing would have been over 5 percentage points of GDP higher than in the case where the problem is tackled up front.

Figure 14: General Government Deficit as % of GDP, No Fiscal Action



²⁰ This is implemented in the *HERMES* macroeconomic model through a series of detailed indexation rules for individual tax rates and discretionary expenditure items. For details see Kearney *et al.* (2001).

The consequence of a failure to tackle the fiscal crisis and the greatly elevated borrowing requirement would have been a very rapid rise in the debt/GNP ratio. Figure 15 shows the debt/GNP ratio for the *High Growth* scenario and for this no fiscal action scenario. The impact would have been dramatic, with the debt ratio being almost doubled to close to 180 per cent of GDP by 2020.²¹ While under the *High Growth* scenario the debt/GNP ratio would decline from 2013 onwards, under the *No Fiscal Action* scenario it would remain on a steadily more explosive upward path out to 2020 and beyond. Even under the *Low Growth* scenario the debt/GNP ratio, by contrast, grows relatively slowly.

This signals the fact that, while fiscal action may be delayed, it is inevitable. Also when fiscal action was eventually taken, it would have had to be even more severe than today because of the greatly elevated level of debt, debt interest payments and the interest rate itself.

Figure 15: General Government Debt to GNP Ratio

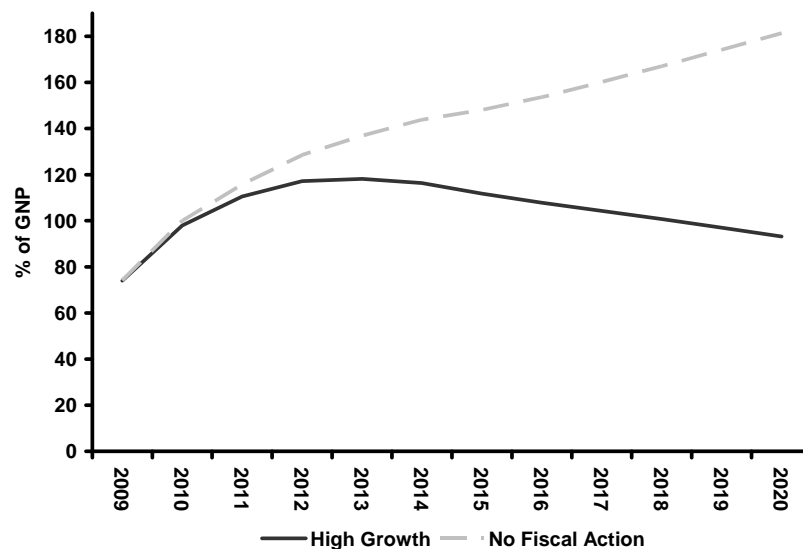
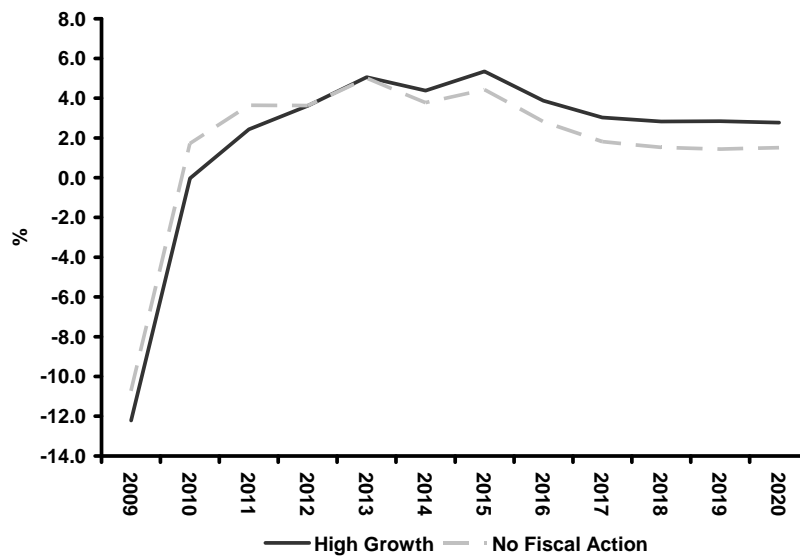


Figure 16 shows the effect on GNP of such a policy of delaying fiscal action. Because debt interest payments rise rapidly, due to the much higher borrowing and higher interest rates on that borrowing, the gap between GDP and GNP widens rapidly. This is because interest payments paid abroad are part of the wedge between GDP and GNP – net factor income paid abroad. While in the first few years with no fiscal action the growth rate of GNP would have been slightly higher than under current circumstances, the rapid rise in debt interest payments would have caused the growth in GNP to fall back. By 2014, even with the prolonged tightening in fiscal policy, the growth of GNP would be higher where fiscal action was taken than in the case of no fiscal action. Thereafter the benefits of early action will grow. After 2015 in the *No Fiscal Action* scenario GNP growth would slow further so that by the latter years of the decade growth would be around three-quarters of that where early action was taken.

²¹ During the fiscal crisis of the 1980s, the debt/GDP ratio peaked at 111 per cent in 1987.

Figure 16: GNP, Real Growth, %



In addition, as indicated earlier, the economy cannot postpone indefinitely a fiscal adjustment. In the case of the *No Fiscal Adjustment* scenario, whenever the adjustment was undertaken it would have had to be much more severe than the adjustment we are currently experiencing and the resulting loss of output would have been much greater. In the absence of a fiscal adjustment, by 2020 GNP would already be 3 percentage points below the level under the early action scenario. As indicated above, even under the *High Growth* scenario, by 2010 the GGD would be over 9 per cent of GDP. To eliminate such a deficit would require more dramatic cuts in expenditure and increases in taxation than we are currently experiencing. When account is taken of the further damage which would arise from a very belated, and hence very large, fiscal adjustment, the final cost to the economy of delayed fiscal action could have amounted to at least 10 per cent of GNP.

The assumptions concerning the risk premium and the willingness of markets to support a do nothing scenario are quite moderate. In experimentation, with a risk premium two and a half percentage points higher than in the base case, the reduction in the level of GNP in 2020 relative to the base case would be closer to 5 per cent and the size of the fiscal deficit would have been further increased.

4. ESTIMATES OF THE STRUCTURAL DEFICIT

Here we define the structural deficit as the deficit which would remain when the economy has returned to long-term equilibrium in the goods and the labour market. In that case actual output will have returned to its potential level and further growth will be constrained by the future growth in that potential. By implication, over and above the structural deficit the rest of the deficit today is then considered to be essentially cyclical in nature, deriving from the fact that actual output is below its potential. With a recovery in the economy this cyclical element could be expected to disappear as a result of revenue buoyancy. (For a more extensive discussion of this issue see Bergin *et al.*, 2010b.)

The structural deficit, thus defined, is the most appropriate measure to use when quantifying the fiscal adjustment task which remains to be accomplished in Ireland – the reduction in the deficit to be accomplished by further cuts in expenditure or increases in taxation. In this paper we use the *HERMES* model to derive estimates of the structural deficit of the Irish economy.

In the case of the *High Growth* scenario, equilibrium in the economy is estimated to be reached in 2015, when the labour market would have returned to full employment and output and the capital stock in the tradable sector would also be close to its equilibrium value. Thus, in the discussion below, we define the structural deficit to be the deficit for 2015 in the relevant scenario.

In calculating the structural deficit exceptional items, such as the once off payments to cover the losses in the banks, should be excluded. This is because these payments will end when the losses are fully paid for, though they will, of course, leave a legacy of debt and interest payments. As a result of the once off nature of these payments they are excluded by the EU Commission when considering compliance with the SGP.

In Table 4.1 we show at the top the structural deficit or General Government Deficit (GGD) as a percentage of GDP in the *High Growth* scenario.²² In this case the deficit takes account of the planned package of fiscal cuts amounting to €7.5 billion over the period 2011-14. Once these

²² In this case we show the relevant aggregates as a percentage of GDP so that a direct comparison can be made with the commitments under the SGP. Generally in this paper we use GNP as it is a more appropriate aggregate for measurement in Ireland reflecting better the underlying national income.

cuts have been implemented in 2014 it is estimated that the structural deficit will be reduced to around 2 percentage points of GDP – below the SGP threshold of 3 per cent. However, if the deficit is to be eliminated altogether further fiscal action would still be required, though that action would be limited relative to the scale of the cuts that are currently planned. Under the *Low Growth* scenario, even with the planned cuts of €7.5 billion, the structural deficit would only be reduced to 4.1 per cent of GDP, significantly above the SGP threshold of 3 per cent. Eliminating this structural deficit would take substantial further cuts.

This analysis indicates that the planned fiscal action for the period 2011-14 is likely to be the minimum necessary to restore the public finances to a sustainable path. If the development of the economy over the period were to follow the less optimistic *Low Growth* scenario, then significant further cuts would be needed.

Table 4.1: Estimates of the Structural Deficit

Deficit as % GDP	Structural Deficit
HIGH GROWTH SCENARIO	
High Growth	1.8
Neutral Fiscal policy from 2010	4.8
No Fiscal Action	9.2
LOW GROWTH SCENARIO	
Low Growth	4.1
Neutral Fiscal policy 2010	7.2
No Fiscal Action	12.1

The row in Table 4.1 entitled “Neutral Fiscal policy from 2010” shows what the structural deficit is today, before the proposed package of fiscal cuts for the years 2011-14 is implemented. In the absence of this proposed package of cuts the structural deficit is estimated to be around 4.8 per cent of GDP under the *High Growth* scenario and around 7.2 per cent under the *Low Growth* scenario.

The row entitled “No Fiscal Action” shows what the structural deficit would have been if a neutral fiscal policy had been adopted from 2009 onwards, involving no cuts at all (and no stimulus). In that case it is estimated that the structural deficit would have been between 9 per cent of GDP and 12 per cent of GDP under the *High* and *Low Growth* scenarios respectively. However, as discussed in the previous section, this is a rather unrealistic scenario. Such a course of action would have left the public finances on an explosive growth path. With the benefit of hindsight, it can be seen that such a policy would have had very serious consequences on the bond markets and, as a result, it probably would not have been possible to finance a “do nothing” approach. Clearly Ireland had no choice but to take urgent action to cut the deficit.

The EU Commission uses an alternative methodology to calculate the structural deficit for Ireland and other countries. In its most recent forecasts (May 2010), the EU Commission estimates that the Irish

structural deficit in 2010 is 9.3 per cent of GDP.²³ This number can be compared directly with the structural deficit under the assumption of a “Neutral Fiscal Policy from 2010” in Table 4.1 above. As shown in the table, in the *High Growth* scenario the current structural deficit, absent new fiscal measures, is estimated to be 4.8 per cent of GDP. Even in the *Low Growth* scenario the estimated structural deficit, using the *HERMES* methodology, is estimated at 7.2 per cent of GDP, very much lower than the EU estimate. Thus the analysis in this paper suggests that the EU Commission is too pessimistic concerning the future path of the public finances in Ireland.

The EU estimate is based on an estimated Non-Accelerating Wage Rate of Unemployment (NAWRU) of 10.9 per cent – the level of unemployment which would leave the economy with a stable rate of increase in wages. This estimate does not fit with the extensive research into the past behaviour of the Irish economy embodied in the *HERMES* model. This research indicates that the rate of increase in wages would stabilise at a much lower level of unemployment. With a total deficit in 2010 (excluding the cost of the bank bailout) of 11.3 per cent, this would imply that, notwithstanding the significant fiscal consolidation measures undertaken in 2009 and 2010, almost 80 per cent of the deficit in 2010 is not related to the cyclical downturn. We consider this estimate to be much too high.²⁴ O’Leary (2010) outlines some of the other problems with the methodology used by external institutions (IMF, OECD, EU Commission) to assess Ireland’s fiscal stance in the years preceding the crisis.

²³ This is similar to the estimate of the Department of Finance in the *Stability Programme Update*.

²⁴ In Bergin *et al.* (2010b) we examine in some detail the measurement of potential output implicit in the *HERMES* model and its relationship to the *HERMES* model of the Irish labour market. This is critical to understanding the differences between our estimates of the structural deficit and those of the EU Commission.

5. CONCLUSIONS

The experience of recent years shows the very high cost of pursuing bad economic policies. The depth of the recession in Ireland, and the massive funding crisis in the Irish banking system, have necessitated swingeing interventions on the part of the authorities to stabilise the government deficit. We estimate that the austerity measures undertaken in the 2009 and 2010 budgets have already achieved much of the heavy lifting in relation to reducing the structural deficit. Indeed, even if the economy were to record sluggish growth rates out to 2015, with persistent unemployment, we estimate that the structural deficit, while still substantial, would be significantly less than that estimated by the EU Commission. We estimate that the fiscal adjustment planned by the Government of a further €7.5 billion over the period 2011-14 would be almost enough to produce compliance with the SGP by 2014 under the *High Growth* scenario. Nevertheless, further measures will be necessary to bring the deficit within the SGP target by 2014 and to eliminate the deficit altogether by 2015. The deadweight cost of the banking crisis has significantly added to the burden of fiscal adjustment, raising the estimate of the structural deficit relative to that in Bergin *et al.*, 2009.

The implementation of this programme of fiscal cuts imposes real costs on the economy in terms of lower output and employment; however we believe they are necessary to ensure the long-run sustainability of the public finances. If a more sluggish recovery in the Irish economy were to materialise over the coming years, as reflected in the *Low Growth* scenario, additional fiscal action would be required just to keep the debt on a sustainable path and to produce compliance with the debt target agreed with the EU Commission.

We echo the findings of Bergin *et al.* (2009) in arguing that, if the world economy recovers significant momentum by 2011, the Irish economy, as long as it regains competitiveness, could grow quite rapidly in the period 2011-2015. Even in the less optimistic *Low Growth* scenario there would be a significant recovery over the period 2012-2014. If the economy proves as flexible as it did in the past, there will be a major adjustment in the cost base driven by market forces. Already there is some evidence that this is happening in terms of wages, but more will be required. It is clearly happening in the case of other costs, such as rent and the cost of accommodation. This re-pricing will be an important factor in returning the economy to growth and public policy can play an important role through the implementation of measures which improve competitiveness in the area of State-provided services and policies to enhance competition in the non-tradable sector. The recovery under the *High Growth* scenario will see some recovery of lost ground, while still leaving the level of output in 2015 15 per cent or more below what it would have been without the recession and

the related financial crisis. The assumption that the economy will behave as it did before the recession underpins the *High Growth* scenario.

While the current evidence suggests that the *High Growth* scenario may be the more likely of the two, there is a wide range of factors which could result in the actual outturn being closer to the *Low Growth* scenario. For example, if the future path of world growth were to prove less favourable than currently forecast, or if the Irish tradable sector were to prove much less responsive to world demand than it did in the past, the permanent loss of output would be significantly greater than in the *High Growth* scenario and the restoration of full employment would take much longer. This possible outcome is explored in the *Low Growth* scenario. Such an outcome would hamper the recovery in the Irish economy and it would require more painful fiscal action than currently planned by the authorities.

Because of the uncertainty about the future and because of the asymmetric nature of the costs of being too optimistic relative to those arising from excessive prudence, the current situation calls for the full implementation of the Government's programme of substantial further fiscal consolidation. This represents a "no regrets" policy in the face of considerable uncertainty about the future growth path of the economy. If the outturn proves to be in line with the *High Growth* scenario then little additional action would be needed over and above that already planned by the government. If the economy grows in line with the *Low Growth* scenario, while further fiscal action would definitely be needed over and above that already planned, it would still be consistent with an economic recovery, though not enough to restore full employment by the middle years of the decade.

Recent experience shows that the risk premium attaching to borrowing in Ireland, and in a number of other Euro area economies, is very significant. Experience also shows that the risk premium is affected by the extent of government borrowing, the fiscal stance (whether government is acting to reduce borrowing) and the level of the debt, including contingent liabilities. In an economy as open as Ireland's, the fiscal multipliers are already much smaller than in large more closed economies such as the US, the UK and Germany. This means that action to reduce borrowing, which would otherwise still be deflationary, could actually increase domestic activity if it produced a sufficient reduction in the risk premium (Alesina, 2010). Even if it were not sufficient to fully offset the initial deflationary impact of a fiscal tightening it would certainly moderate its negative impact. This is an important channel which, when taken into account, can substantially change estimates of the economic impact of fiscal action derived from more traditional models. This endogeneity of the risk premium means that if Ireland had failed to tackle its public finance crisis over the last two years the economic prospects in the immediate future would have been much worse than is actually the case. It also raises the question as to whether a more rapid fiscal adjustment than currently planned would have a more beneficial outcome for the economy.

While past experience suggests that the labour market is sufficiently flexible to eventually return the economy to full employment, it is possible that labour market policy will not be adequate, which could leave Ireland with a legacy of unskilled unemployment. To avoid such an eventuality it will be important that labour market policies, broadly defined, are developed to re-skill the unemployed for the kind of jobs which will be

available over the coming decade and to ensure that individuals are incentivised to retrain and to take up employment. Previous research on the labour market (Grubb, 2009) shows the importance of raising the skill level of those who have lost their jobs or exited the labour force in order to minimise the risk of long term unemployment. It will also be important that labour market policies and general policy on support for the unemployed will be tailored to ensure a rapid return to employment (O’Connell, 2002 and O’Connell, 2009) and to minimise the danger of poverty traps occurring in the future which might prevent the unemployed from accessing future jobs.

The very high contingent liabilities that the State assumed as part of the banking bail out have greatly exacerbated the difficulties facing the Irish economy over the medium-term. The subsequent approach taken by the Irish government has been to try and crystallise the losses in the financial system reasonably quickly. The objective in bringing up front the losses is to increase the certainty about the future. It now looks likely that the state will end up paying around €25 billion to cover the losses for which it has become directly responsible. The deadweight cost of this payment, while manageable under the scenarios presented here, represents an enormous cost to the Irish public in a time of unprecedented fiscal difficulties. In addition, the government is likely to end up with over €50 billion invested in the rest of the banking system, through recapitalisation and the purchase by the State of non-performing property loans at discounted prices. While we have assumed that these latter investments will cover their costs in the long run, the size of the implicit balance sheet of the Irish government leaves open the possibility that under-performance (over-performance) could translate into further significant costs (benefits). Nonetheless it was essential that action was taken to ensure that Ireland has a working banking system. Without a banking system which is able to finance the economic recovery the very recovery itself would be put in doubt.

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APPENDIX 1: OUTPUT DETERMINATION IN THE *HERMES* MODEL

A key factor in determining the growth rate of the Irish economy is its responsiveness to changes in world output. Over the last twenty five years we have developed our understanding of how the share of world output produced in Ireland is a function of competitiveness and technical progress (Bradley and Fitz Gerald, 1988 and Bradley, Fitz Gerald and Kearney, 1993). This model has been re-estimated with more recent data and it forms a central part of the *HERMES* macroeconomic model of the Irish economy which we use to develop the scenarios outlined in Section 3 of this paper. The behaviour of the model is discussed in Bergin *et al.* (2010a). The *HERMES* macro-economic model was first developed in the late 1980s (Bradley, Fitz Gerald, Hurley, O’Sullivan and Storey, 1993).²⁵ Since its inception the model has undergone substantial further development to improve its treatment of how the Irish economy works, taking account of advances in economic research, and also to keep pace with the changing structure of the economy.

HERMES is a model of the supply side of a small open economy. The determination of output is modelled separately for the manufacturing sector and the services sector. In the manufacturing sector the share of world output located in Ireland is modelled as a function of Irish competitiveness, broadly defined²⁶, relative to Ireland’s competitors. This specification encompasses both Irish firms who are competing for market share on what is essentially a world market and foreign firms who choose where to locate their production to service the world market. In this model of manufacturing the demand for labour, materials and capital is then a function of Irish output, the costs of these factors of production in Ireland and technical progress.

In the original version of *HERMES* output in the services sector²⁷ was driven solely by domestic demand. More recently this specification has been revised as set out in Conefrey and Fitz Gerald, (2008) to reflect the growing importance of traded services. This revision to the business and financial sub-sector of market services mirrors the specification of the

²⁵ *HERMES* – Ireland was originally developed jointly with the Department of Finance and it replaced an earlier model, MODEL80 (Fitz Gerald and Keegan, 1982), used by the Department for policy analysis in the early 1980s.

²⁶ It is the unit cost of production covering the cost of labour, capital and inputs.

²⁷ See Bradley, Fitz Gerald and Kearney (1993) for details.

manufacturing sector, with Irish output of business and financial services being sensitive to world demand and Ireland's international competitiveness, broadly defined.

Using the model, our estimates for the economy as a whole suggest that a fall in world output of 1 per cent in the long run reduces the demand for Irish output by around 1.3 per cent. (Bergin, Conefrey, Fitz Gerald and Kearney, 2009). This implies that Irish output is relatively sensitive to global activity.

Table A1 reports the *HERMES* estimates of the elasticity of output from each of the tradable sectors of the Irish economy with respect to changes in world output. Within the *HERMES* model, both the equation for high tech manufacturing output and exports of tradable services (driving output in the professional and financial services sector) include a post-1990 Foreign Direct Investment (FDI) dummy on world output. Effectively this raises the elasticity of output with respect to world demand in the post 1990 period, better reflecting the recent experience of the economy. The *Low Growth* scenario, which we develop in this paper, is generated by permanently reducing the elasticity of output to world growth in these sectors by around one percentage point. This scenario allows us to examine how the Irish economy might evolve over the medium-term if its sensitivity to changes in world demand is greatly reduced as a result of the current crisis.

In the *HERMES* macro-economic model manufacturing is divided into three sectors, high-tech, traditional and food processing. High-tech covers chemicals and pharmaceuticals with the traditional sector covering the rest of the manufacturing sector.

Manufacturing - High Tech Sector

$$q^* = a_1 + a_2 q_w + a_3 q_w d + a_4 \frac{c_i}{c_w} + a_5 \frac{w_i}{w_u} \quad ^{28} \quad (A.1)$$

where:

- q_w = US GDP
- d = dummy between 1990 and 1998 is one, zero otherwise
- c_i = unit cost of production in Ireland
- c_w = unit cost of production abroad (proxied by OECD manufacturing prices)
- w_i = wage rates in Ireland
- w_u = wage rates in the UK in euros

Manufacturing - Food Processing.

$$q^* = a_1 + a_2 q_w + a_4 \frac{c_i}{w_g} \quad (A.2)$$

where:

- q_w = UK GDP
- c_i = unit cost of production in Ireland
- w_g = wage rates in Germany in euros

²⁸ Lowercase letters in equations denote logarithms.

Manufacturing – Traditional Sector.

$$q^* = a_1 + a_2 q_w + a_4 \frac{c_i}{c_w} + a_5 \frac{w_i}{w_g} \quad (\text{A.3})$$

where:

q_w	=	OECD GDP
c_i	=	unit cost of production in Ireland
c_w	=	unit cost of production abroad (proxied by EU manufacturing prices)
w_i	=	wage rates in Ireland
w_g	=	wage rates in Germany in euros

Traded services Exports

In the case of the professional and financial services sector exports of non-tourism services are a function of world activity and Irish competitiveness (equation A.4) and the output of that sector is function of both exports and domestic demand. The effect of changes in wage rates on output occurs through its effect on the volume of relevant exports.

$$x_s^* = a_1 + a_2 q_w + a_3 q_w d + a_5 \frac{w_i}{w_u} + a_6 t_x \quad (\text{A.4})$$

where:

x_s	=	Services (non-tourism) Exports
q_w	=	US GDP
t_x	=	corporation tax rate in Ireland
w_i	=	wage rates in Ireland
w_u	=	wage rates in UK in euros
d	=	dummy from 1990 onwards is one, zero otherwise

Table A1: Estimation of Output Equations in the Tradable Sector²⁹

Variable	Equation	(A.1)	(A.2)	(A.3)	(A.4)
Constant	a_1	12.88 (19.0)	9.91 (161.8)	- (-11.2)	14.64 (21.8)
World Output	a_2	3.40 (15.5)	1.52 (9.9)	1.74 (43.8)	3.80 (15.3)
World Output from 1990 onwards	a_3	0.40 (3.3)			0.92 (4.9)
Unit Costs	a_4	-0.61 (-2.7)	-0.30 (-4.2)	-1.23 (-11.1)	-1.29 (-5.7)
Relative Wages	a_5	-0.67 (-3.4)		-0.14 (-2.5)	
Corporation Tax	A_6				-2.21 (-4.9)
	Rho(1)				
	R^2	0.99	0.99	0.99	0.99
	std.err.	0.08	0.04	0.03	0.11
	D.W.	1.05	0.57	1.76	1.68
	from	1975	1975	1980	1970
	to	2005	2005	2005	2005

²⁹ t-statistics in parentheses, estimation by least-squares, Rho(1) denotes estimated first-order autocorrelation coefficient using Cochrane-Orcutt techniques.

MANAGING HOUSING BUBBLES IN REGIONAL ECONOMIES UNDER EMU: IRELAND AND SPAIN

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The international financial crisis has inflicted substantial damage on many economies around the globe. In Ireland and Spain, the impact has been particularly severe, due largely to the collapse of housing bubbles in both economies. The significant economic instability caused by the abrupt ending of such housing market bubbles highlights the importance of developing policy instruments to manage housing markets and to prevent dangerous bubbles from emerging. Our recent paper** shows how the advent of EMU relaxed financial constraints in Ireland and Spain, allowing for a more rapid expansion of the housing stock in those countries to meet their specific demographic circumstances. If this process had been properly managed there would have been significant benefits for both economies. However, because the housing boom was not controlled by governments these two economies have suffered serious damage. Due to the idiosyncratic nature of housing markets, monetary policy, as implemented by the ECB, cannot be used to manage housing markets within regional economies in EMU. However, the paper argues that fiscal policy instruments can and should be used to manage housing bubbles and thereby avoid the severe damage caused to economies by their collapse.

The Drivers of the Housing Market

The rapid rise in house prices in Ireland over the past decade has meant that adults continued to share accommodation (either with parents or friends) to an extent that was unusual by EU standards at a time when living standards, measured in terms of real disposable income, rose dramatically. The natural increase in the adult population alone means that around 20,000 additional dwellings a year are needed in Ireland to take account of the rising number of adults. The role of demographic factors, in addition to variables such as disposable income, the per capita housing stock and the user cost of housing, is reflected in the model of house prices for Ireland and Spain which is specified in the paper.

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EMU and the Cost of Capital

The advent of EMU had a major impact on the cost and availability of credit in many member states of the Euro Area. Prior to EMU countries such as Ireland and Spain faced a significant exchange risk premium attached to borrowing in their own currency relative to borrowing in Deutschemarks. This raised the cost of capital for housing in these countries relative to Germany and meant that, prior to EMU, even with similar income levels and demographics, the optimal long-run stock of dwellings would have been lower than in Germany or the Netherlands. The advent of EMU, reducing the cost of capital permanently for households, raised the optimal long-run stock of dwellings.

The liberalisation of credit markets following EMU had a second important implication. It allowed the domestic banking systems in Ireland and Spain to borrow substantially from abroad without any exchange rate risk. This borrowing from abroad, as reflected in the rapid increase in the net foreign liabilities of the banking system after 2003, was used to finance the domestic housing booms in both Ireland and Spain. This increase in foreign borrowing through the domestic banking system was the counterpart to the major increase in the balance of payments deficit which emerged in Ireland after 2003. It should be noted, however, that while EMU played an important role in relaxing credit constraints in Ireland and Spain, the wider liberalisation of financial markets also had an effect in countries outside the Euro Area.

The Role of Building in the Economy

The rapid expansion of the building and construction sector in Ireland and Spain resulted in a sharp increase in the share of housing investment in GDP. For Ireland and Spain, housing investment in 2005 accounted for record shares of GDP of 14 and 9 per cent respectively compared to a more normal 5-6 per cent of GDP in countries such as France and Germany. The housing price and output booms in Ireland and Spain had a major impact on both these economies. High prices for housing and the enhanced profitability of the sector resulted in a dramatic increase in the labour force employed in that sector. While an influx of immigrants moderated the impact on wage rates, it was not sufficient to prevent wage rates throughout the two economies from rising much more rapidly than in the rest of the EU, so that both economies lost competitiveness. The crowding out of the tradable sector of the economy by the building and construction sector was reflected in the rapid decline in the export market share for both economies and in the increase in their balance of payments deficits.

Managing the Housing Market under EMU: Policy Issues

Prior to EMU, countries could use monetary policy to manage the domestic housing market. However, under EMU monetary policy is targeted at the Euro Area inflation rate and, because of the idiosyncratic nature of the housing sector across the Eurozone, the stance of monetary policy will only help to control housing bubbles by accident. While more vigilant financial regulation should play a crucial role in ensuring the stability of the financial system, in a financially integrated world where banks operating in one economy are regulated by different national authorities, better financial regulation may not be sufficient to manage the domestic housing market. This paper argues that, under these circumstances, the best instrument available to governments to manage regional housing markets is fiscal policy. For countries such as Ireland

and Spain, this may entail a shift in focus away from the Stability and Growth Pact target of not running a deficit to the requirement to run large surpluses for a number of years where there is a housing boom. In addition, more active use of taxation would manage risks to the wider economy arising from housing market bubbles by specifically targeting the housing sector.

**CONEFREY, T., J. FITZ GERALD, 2010. [Managing Housing Bubbles in Regional Economies Under EMU: Ireland and Spain](#), *National Institute Economic Review*, No. 211, January 2010.

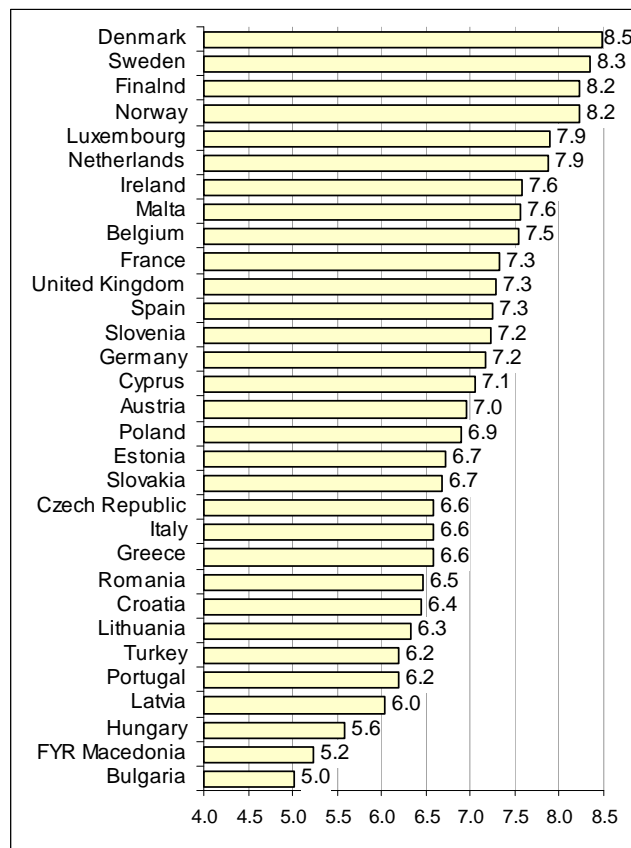
SATISFACTION WITH LIFE IN EUROPE

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What makes Europeans satisfied with their lives? Do supportive relationships and the quality of public services matter? Do some things matter more to poor than to rich European citizens? These were some of the questions addressed in a recent report** using data on 31 countries from the 2007 European Quality of Life Survey (EQLS).

Figure 1: Average Life Satisfaction by Country



Source: EQLS 2007, Satisfaction with life: “All things considered, how satisfied would you say you are with your life these days?” Scale: 1=lowest level of satisfaction to 10 is highest level.

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It is now generally recognised that it is not enough to focus on wealth and economic growth in order to improve the quality of life: health, relationships, social participation, education, work and the quality of public services also need to be taken into account. Indicators of life satisfaction have a key role to play in this process as they directly capture people's experience and draw attention to aspects of people's lives that matter to them.

There are important differences in life satisfaction by country, with the highest levels in the Scandinavian countries and the lowest in Bulgaria, FYR Macedonia and Hungary (Figure 1). Ireland is in the top third of countries in terms of overall life satisfaction.

Health is very important to life satisfaction. Compared to those who report good health, those who report bad health are less satisfied by 1.1 points on the 10-point satisfaction scale, when other factors are controlled.

Living standards matter a great deal in all countries. This is captured by a measure counting which of the following six basic items the household does not have because of lack of resources: keeping the home adequately warm, having an annual holiday, replacing worn-out furniture, having a meal with meat, chicken or fish every second day, buying new rather than second hand clothes, having friends or family for a meal or drink once a month. In all countries, those who cannot afford two or more of these six basic goods and services are less satisfied (by 1.7 points, on average) than those who have access to all six.

Unemployment has a negative impact on life satisfaction, over and above its effect on income levels and standard of living. Those who are unemployed are less satisfied than those at work by 0.6 points. Retirement, on the other hand is associated with slightly higher satisfaction levels than being at work, as long as income is adequate and health is good.

Relationships matter as well. With other factors controlled, those who are separated, divorced or widowed are 0.3 to 0.5 points less satisfied than those who are married, and those parenting alone are 0.4 points less satisfied. We also examined *social support* more generally, based on asking people from whom they would get support if they needed to urgently raise €1,000 to face an emergency (financial support); if they were feeling a bit depressed and wanted someone to talk to (moral support) and if they needed help around the house when ill (practical support). Not surprisingly, those who have nobody they can rely on for support have lower levels of life satisfaction. Social support matters most to people who are materially deprived. Support from family members is even more important than support from other people in buffering the impact of deprivation on quality of life.

Gender and age differences in life satisfaction are small, when other factors (including marital status, income, living standards, health and economic status) are taken into account. Women are slightly more satisfied than men and younger and older adults are slightly more satisfied than people in the 35-64 age group.

We measure the quality of public services using a 10-point index, representing people's average rating of the quality of six public services: health, education system, public transport, child care, care services for the elderly and state pension system. People who give a high rating to the quality of public services tend to be more satisfied with their lives by between 0.8 and 1.4 points on the ten point satisfaction scale. Even more important, however, is the finding that the quality of public services matters most to people who are materially deprived. This is understandable: people with greater resources can more readily insulate themselves from the impact of poor quality public services.

To return to the questions we asked at the beginning, material living standards, good health, access to employment and social relationships all matter to people's quality of life. Supportive social relationships, particularly from family, can buffer the impact of poor living standards on life satisfaction. The quality of public services also matters, and it matters most to those who are economically vulnerable.

It is important to note that the data were collected in 2007, months before the crisis in the world economy. This has brought rising unemployment and pressure to cut public spending throughout Europe. The results reported here indicate that both of these changes are likely to further reduce the quality of life among the most vulnerable European citizens.

**WATSON, D., F. PICHLER and C. WALLACE, 2010. [*Second European Quality of Life Survey: Subjective Well-being in Europe*](#), Dublin: European Foundation for the Improvement of Living and Working Conditions.

STUDENT EXPERIENCES OF THE LEAVING CERTIFICATE APPLIED PROGRAMME

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Some countries incorporate all young people into a comprehensive school system and others divide students into different educational ‘tracks’ based on levels of ability. The relative merits of these different approaches have been a central focus of international academic and policy debates on second-level education. Traditionally, the Irish second-level education system has been characterised as a general education system, which deals more with academic than vocational learning. In 1995, however, the Leaving Certificate Applied (LCA) programme was introduced to provide an alternative to the Leaving Certificate Established (LCE) and the Leaving Certificate Vocational Programme (LCVP). The aim of the LCA is to prepare students for the transition from the world of education to that of adult and working life including further education; however unlike the LCE/LCVP there is no direct access to third level with an LCA qualification. Since its introduction, participation has increased and LCA students now make up seven per cent of the Leaving Certificate cohort. A new study[†] examines students’ experiences of the LCA and explores the processes involved in Irish students choosing or being assigned to the different Leaving Certificate programmes. The study draws on information about student experiences of school prior to entering the LCA, their learning experiences during the programme, and their educational and occupational experiences when they leave school.

International research has shown the process of placing young people into programmes according to their ability can have two sets of effects: firstly that programmes provide a safety-net for young people who are at risk of leaving school early or academic underachievement, or secondly, that the process of tracking students channels working class students into subordinate roles and limits their educational opportunities. This research shows clear social class inequalities in the take-up of LCA and highlights how the option of a differentiated curriculum at senior cycle attracts a distinct social profile of students who are predominantly working class. The report finds that LCA students are quite different from students in the LCE and the LCVP, before

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reaching senior cycle. Students' negative academic and school experiences formed during junior cycle determine their entry into the LCA and the programme appears to attract a diverse group of students, which includes those who struggle with schoolwork, experience behavioural problems, wish to enter the labour market when they leave school (particularly males), have special needs or learning difficulties, and those who feel 'misdirected' by the school into taking the programme.

The report shows that a discussion of the LCA cannot be carried out in isolation but must incorporate the wider educational context in which the programme operates. Findings highlight how junior and senior cycle programmes could benefit from the teaching approaches and methodologies used in the LCA. The ways in which students re-engage with the school process is evident in how they respond to small class sizes, modular credit accumulation, work experience and an interactive teaching style. Findings also show, however, that issues exist for students around lack of challenge in LCA, in particular Maths and English, which some young people found too easy and repetitive of junior cycle subject content. Moreover, feelings of exclusion and in some cases segregation from their peers in the LCE/LCVP programmes are compounded by the lack of flexibility in moving between programmes and the limited choice of subjects available to them.

The report provides a valuable insight into the post-school transitions of young people who participated in the LCA programme. In particular, the analyses point to the channelling of LCA participants into the labour market upon leaving school with a high proportion of LCA students entering unemployment relative to LCE/LCVP students. Furthermore, the research highlights relatively low levels of progression to post-school education and training. Where such transitions are made, they are highly gendered and, due to a lack of recognition for direct entry to third-level institutions, restricted to courses in further education. Among labour market entrants there are also difficulties, with LCA school leavers often confined to distinct sectors such as construction for young men, and personal service jobs for young women.

The findings of this research suggest that the LCA can re-engage young people with school and, in many ways, act as a safety-net for those at risk of early school leaving. However, the study also shows that the 'ring-fenced' nature of the LCA programme may facilitate the reproduction of social inequalities. In addition to attracting students from predominantly working class backgrounds, the way in which LCA is provided in schools means that students often feel excluded from other Leaving Certificate groups and, in some cases, segregated from the main student body. In line with findings from international research on the effects of curriculum differentiation (Gamoran, 1987; Oakes, 1985; Ayalon, 2006), this report suggests that the differences in post-school outcomes between LCA and LCE/LCVP students are attributable, in part, to the nature of the LCA curriculum and its restrictions in accessing third level. In addition, however, there is evidence that students self-select into LCA as a result of low achievements, aspirations and overall negative experiences of school during junior cycle which has important policy implications for all of second-level.

The analyses presented in this report are based on survey data of young people leaving school over the 2001-2005 period and qualitative interviews with young people in the summer of 2008. This period was, for the most part, an era of exceptionally rapid economic growth and (almost) full employment. The situation has changed dramatically since then. Unemployment in general and youth unemployment in particular have risen at an unprecedented rate, making new entrants to the labour market extremely vulnerable. The position of school leavers from the LCA programme is likely to be particularly problematic today, given that these groups have been traditionally concentrated in the construction and services sectors. Their low levels of post-school educational participation relative to other LCE/LCVP school leavers are likely to leave them further exposed in the current climate. Economic changes are also likely to impact on the ability of current LCA participants to secure work experience placements and thereby gain the full benefits from participation in the programme.

[†] BANKS, J., D. BYRNE, S. MCCOY and E. SMYTH, 2010. [*Engaging Young People? Student Experiences of the Leaving Certificate Applied Programme*](#), Dublin: The Economic and Social Research Institute and the National Council for Curriculum and Assessment.

BASE-BROADENING TAX REFORMS

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At given levels of economic activity, increases in tax revenue require either higher tax rates or a wider tax base. Higher tax rates cause greater distortions to economic decisions, so widening of the tax base is preferred on efficiency grounds. But considerations of fairness and ability to pay are also relevant, as pointed out by Geary Lecturer, James Poterba: “There is often a trade-off between an efficient tax system which has a very broad base and low rates and a tax system whichdoes not put substantial burdens on those with relatively low ability to pay”. (Poterba, 2010, p. 135) The balance between these considerations cannot be decided on a purely theoretical basis: careful analysis of particular proposals for widening of the tax base or changes in tax structure are needed. Recent research under the Institute’s programme for Taxation, Welfare and Pensions has helped to clarify the impact of alternative base-widening options in three areas: property tax, the tax treatment of pension contributions, and the tax treatment of child benefit. Brief summaries of the findings of each of these pieces of research are given here, and links to the full publications are to be found at the end of this article.

Property Tax

Annual taxes on property make a significant contribution to tax revenues in many OECD countries. In the Irish context, taxes on property have been focused on stamp duties, payable when a property is changing hands. There are two major drawbacks to this transactions-based approach. First, stamp duties put barriers in the way of mobility and distort decisions about whether to move or to refurbish/extend an existing home in the face of changed circumstances. Second, a transactions-based tax is vulnerable to cyclical variation, as evidenced by the collapse of stamp duties from the housing market in the recent past. An annual property tax, of the type proposed by the Commission on Taxation, could provide a more stable source of revenue while encouraging efficient use of the housing stock.

How could a property tax be designed to take account of ability to pay? Callan *et al.* (2010) show that a property tax could be designed to take account of the income of property-owners, and still raise substantial revenue. For example, a tax which provided full or partial relief to the poorest one-third of the population could still raise revenue of close to €1 billion per year.

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An annual property tax would widen the tax base from one consisting of sales and purchases of property, to one including all residential property. Instead of a high rate on infrequent transactions, there would be a low rate for an annual tax. There are strong efficiency arguments in favour of this approach. But there are also issues of fairness involved in the transition from a long-standing regime based on stamp duties to one based on an annual property tax. The Commission on Taxation recommended an exemption from the annual property tax for a fixed, seven-year period from the date of purchase. An alternative would be to vary the length of the exemption to take account of the rate of stamp duty paid, and the point in the house price cycle at which it was paid. Consequently those who paid most stamp duty during the years of rapidly rising house prices would obtain greatest relief.

**Tax
Treatment of
Pension
Contributions**

Currently, pension contributions are excluded from taxable income. The National Pensions Framework contains a commitment to change the tax treatment of pension contributions. Instead of providing relief on pension contributions at the taxpayer's marginal rate (either the standard rate of 20 per cent or the top rate of 41 per cent) the Framework envisages a matching contribution equivalent to tax relief at a hybrid rate of 33 per cent (with the delivery mechanism yet to be determined). Recent ESRI research (Callan *et al.*, 2009b) helps to identify the potential impact of this approach.

The rationale for a standardized rate of relief or support for pension contributions is that under current arrangements there are strong incentives for high income earners to participate in pension schemes, but a weaker incentive for those with low and middle incomes. The proposed changes would tilt this balance, with a reduction in the incentive for those on high incomes and an increased incentive for those on low and middle incomes. Analysis of a shift towards relief at a single 30 per cent rate – similar to that proposed in the National Pensions Framework – shows that the immediate impact would involve gains for standard rate taxpayers and losses for top rate taxpayers, and a net gain to the Exchequer in the region of €500m per year.

Evidence from the UK and the US suggests that much of the saving by high income households would take place even without the incentive (what economists call “deadweight loss”) – although it might take place in different forms. There is also growing evidence that decisions on pensions can be strongly influenced by non-economic factors, at lower cash cost to the Exchequer. For example, pension schemes in which the default option is to enrol in the scheme (“auto-enrolment”), but with an option for individuals to withdraw (sometimes called “soft mandatory”), have been found to be effective in other countries. The National Pensions Framework also contains a commitment to the introduction of an “auto-enrolment” scheme.

Child Benefit

Currently child benefit is not included in the definition of income for taxation purposes. Widening the income tax base to include child benefit could allow the net benefit to be better targeted, ensuring that the greatest net benefit is obtained by those with the lowest incomes. A key advantage of the taxation approach is that it would not involve new benefit withdrawal rates but would instead use the existing tax rates to improve targeting. Means-testing, on the other hand, would involve new benefit withdrawal rates which would operate in addition to the income tax rates. These issues were explored by Callan *et al.* (2009a) in the context of the choices facing government in framing cuts in expenditure in Budget 2010, and remain relevant today.

The Commission on Taxation advised that Child Benefit should be included in taxable income, but that this suggestion should be compared to the alternatives, such as means testing. The Report of the Special Group on Public Service Numbers and Expenditure Programmes also suggested either making Child Benefit taxable, making it a means-tested benefit or reducing rates to arrive at a 20 per cent cut in expenditure. Budget 2010 opted to reduce Child Benefit payment rates by 10 per cent, with a compensating increase in the child dependant additions for recipients of social welfare payments.

A means test on Child Benefit would involve a new “benefit withdrawal rate” which acts to increase effective marginal tax rates (i.e., the proportion of an increase in gross income which is deducted either in the form of increased tax and social insurance or withdrawal of welfare benefits). Thus it would tend to boost out-of-work income relative to in-work income, and would certainly lead to higher marginal tax rates facing some of those in work. Making the payment taxable would also have some impact on marginal tax rates, as some of those with children would move to a higher tax rate, or into the tax net – but the net impact on incentives would be lower. The “rate cutting” option would reduce income in work and in unemployment by the same amount, leaving the gap between the two unchanged. Cutting rates of Child Benefit while providing compensation through child dependant addition payments – the option chosen in Budget 2010 - tends to narrow the gap between in-work and out-of-work incomes. Looking to the future, the option of broadening the base to include Child Benefit as part of taxable income offers a structure which could help to balance the objectives of providing greater support at lowest income levels, moderate effective tax rates, a payment which reaches all children, and a sustainable overall Exchequer cost.

Conclusion

Efficiency considerations point towards the advantages of low tax rates on a wide base. Tax policy must also take into account other considerations, including concerns for fairness and ability to pay. Where these goals come into conflict, careful analysis of the options is needed to inform judgements as to the best balance. The research summarised here illustrates how the issues vary depending on the nature of the base-broadening proposal – there is no short-cut method which can provide easy answers or avoid difficult judgements.

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