

Quarterly Economic Commentary

David Duffy
Joseph Durkan
Eddie Casey

Summer 2012



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Quarterly Economic Commentary

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Research Notes

Eddie Casey

Joseph Durkan and Niall O'Hanlon (CSO)

Pete Lunn

Special Articles

David Duffy and John FitzGerald

Research Bulletin

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Detailed Forecast Tables are contained in an Appendix.

Summary Table

	2009	2010	2011	2012	2013
Output (Real Annual Growth %)					
Private Consumer Expenditure	-6.9	-0.8	-2.7	-2.0	-0.5
Public Net Current Expenditure	-4.5	-3.8	-3.7	-2.3	-2.2
Investment	-28.7	-24.9	-10.6	-2.7	4.3
Exports	-4.2	6.3	4.1	3.3	3.5
Imports	-9.3	2.7	-0.7	0.9	2.6
Gross Domestic Product (GDP)	-7.0	-0.4	0.7	0.6	2.2
Gross National Product (GNP)	-9.8	0.3	-2.5	0.0	0.5
Prices (Annual Growth %)					
Consumer Price Index (CPI)	-4.5	-1.0	2.6	1.7	1.5
Growth in Average Hourly Earnings	2.5	-1.5	-0.2	0.5	0.5
Labour Market					
Employment Levels (ILO basis (000s))	1,929	1,848	1,810	1,797	1,792
Unemployment Levels (ILO basis (000s))	259	292	304	315	308
Unemployment Rate (as % of Labour Force)	11.8	13.6	14.4	14.9	14.7
Public Finance					
Exchequer Balance (€bn)	-24.6	-18.7	-24.9	-16.0	-14.4
General Government Balance (€bn)	-22.5	-48.6	-20.5	-13.3	-12.5
General Government Balance (% of GDP)	-14.0	-31.2	-13.1	-8.3	-7.5
General Government Debt, % of GDP	65	93	108	115	121
External Trade					
Balance of Payments Current Account (€bn)	-4.7	0.8	0.1	4.7	5.0
Current Account (% of GNP)	-3.6	0.6	0.1	3.7	3.8

Note: Detailed forecast tables are contained in an Appendix to this Commentary

Summary

As at the time of the last *Commentary*, uncertainties in the eurozone remain and, despite progress made domestically in terms of fiscal consolidation, financial sector reforms and a reversal of competitiveness losses, the scale of the challenges facing the monetary union have the potential to suppress any significant Irish recovery further into the future. In addition, subdued growth in the UK also signals difficulties for immediate growth prospects. Recovery in Ireland in the near term remains tied to developments elsewhere. Current forecasts for the eurozone economy predict a recovery in the second half of this year and into next year.

With domestic demand still expected to act as a drag on the economy in 2012, albeit a moderating one, the external sector is again likely to be the principal factor determining growth in the Irish economy. As a result of external weaknesses and increased uncertainty relating to the international environment, growth forecasts for this year have been revised downwards modestly. GNP growth is expected to be flat and GDP is expected to rise by 0.6 per cent. Turning to 2013, increased export volumes following the predicted recovery in the eurozone and the impact on exports of new firms, and a less negative domestic environment are expected to aid growth, with GNP likely to improve slightly, increasing by 0.5 per cent, while GDP is expected to expand by 2.2 per cent.

Household consumption is expected to weaken further in 2012 and 2013 as disposable incomes continue to decline, albeit at a moderating rate. New insights from the CSO's *Household Budget Survey* also indicate that private consumption spending may not benefit from a rapid expansion as the extent of precautionary savings may well be less than previously thought.

In terms of public finances, despite some rigidity in current expenditure, we expect that the EU/IMF programme targets will be met comfortably for this year. Targets for 2013 will prove more challenging, however, even with stronger economic growth. Unemployment in the Irish labour market remains at high levels and the growing share of those in long term unemployment is a serious and on-going concern. Emigration levels, particularly amongst young Irish, are expected to limit the impact of falling employment on the unemployment rate over the next two years. Employment opportunities should improve in 2013 as economic growth picks up.

National Accounts 2011

A: Expenditure on Gross National Product

	2010	2011	Change in 2011		
	€ bn	€ bn	Value	Price	Volume
Private Consumer Expenditure	82.6	81.1	-1.8	1.0	-2.7
Public Net Current Expenditure	26.2	25.1	-4.2	-0.6	-3.7
Gross Fixed Capital Formation	18.1	15.9	-11.9	-1.5	-10.6
Exports of Goods and Services	157.7	165.3	4.8	0.7	4.1
Physical Changes in Stocks	-0.9	0.5			
Final Demand	283.7	288.0	1.5	0.6	0.8
less:					
Imports of Goods and Services (M)	127.9	131.7	3.0	3.7	-0.7
Statistical Discrepancy	0.2	0.2			
GDP at Market Prices	156.0	156.5	0.3	-0.4	0.7
Net Factor Payments (F)	-27.8	-32.6			
GNP at Market Prices	128.2	123.9	-3.4	-0.9	-2.5

B: Gross National Product by Origin

	2010	2011	Change in 2011	
	€ bn	€ bn	€ bn	%
Agriculture	2.7	3.0	0.3	9.8
Non-Agriculture: Wages, etc.	68.8	69.0	0.2	0.3
Other	53.2	53.0	-0.1	-0.2
Adjustments: Stock Appreciation	-0.3	-0.3		
Statistical Discrepancy	-0.2	0.2	0.4	-200.2
Net Domestic Product	124.2	124.9	0.7	0.6
Net Factor Payments	-27.8	-32.6	-4.8	17.3
National Income	96.4	92.3	-4.1	-4.2
Depreciation	16.2	15.2	-1.0	-6.3
GNP at Factor Cost	112.6	107.5	-5.1	-4.5
Taxes less Subsidies	15.6	16.4	0.8	5.0
GNP at Market Prices	128.2	123.9	-4.3	-3.4

C: Balance of Payments on Current Account

	2010	2011	Change in 2011
	€ bn	€ bn	€ bn
X – M	29.4	33.2	4
F	-27.8	-32.6	-5
Net Transfers	-1.2	-0.9	0
Balance on Current Account	0.8	0.1	-1
as % of GNP	0.6	0.1	-0.6

National Accounts 2012

A: Expenditure on Gross National Product

	2011	2012	Change in 2012		
	€ bn	€ bn	Value	Price	Volume
Private Consumer Expenditure	81.1	80.7	-0.5	1.5	-2.0
Public Net Current Expenditure	25.1	24.8	-1.2	1.1	-2.3
Gross Fixed Capital Formation	15.9	15.5	-2.8	-0.1	-2.7
Exports of Goods and Services	165.3	175.3	6.1	2.7	3.3
Physical Changes in Stocks	0.5	-0.1			
Final Demand	288.0	296.2	2.9	2.1	0.7
less:					
Imports of Goods and Services (M)	131.7	136.0	3.3	2.4	0.9
Statistical Discrepancy	0.2	0.2			
GDP at Market Prices	156.5	160.4	2.5	1.9	0.6
Net Factor Payments (F)	-32.6	-33.5			
GNP at Market Prices	123.9	126.9	2.4	2.4	0.0

B: Gross National Product by Origin

	2011	2012	Change in 2012	
	€ bn	€ bn	€ bn	%
Agriculture	3.0	3.1	0.1	3.5
Non-Agriculture: Wages, etc.	69.0	68.9	-0.1	-0.2
Other	53.0	57.3	4.2	8.0
Adjustments: Stock Appreciation	-0.3	-0.3		
Statistical Discrepancy	-0.2	-0.2	0.0	19.6
Net Domestic Product	124.9	128.7	3.8	3.1
Net Factor Payments	-32.6	-33.5	-1.0	3.0
National Income	92.3	95.2	2.9	3.1
Depreciation	15.2	15.2	0.0	0.0
GNP at Factor Cost	107.5	110.4	2.9	2.7
Taxes less Subsidies	16.4	16.5	0.1	0.6
GNP at Market Prices	123.9	126.9	2.9	2.4

C: Balance of Payments on Current Account

	2011	2012	Change in 2012
	€ bn	€ bn	€ bn
X – M	33.2	38.9	5.7
F	-32.6	-33.5	-1.0
Net Transfers	-0.9	-1.1	-0.2
Balance on Current Account	0.1	4.7	4.5
as % of GNP	0.1	3.7	3.5

National Accounts 2013

A: Expenditure on Gross National Product

	2012	2013	Change in 2013		
	€ bn	€ bn	Value	Price	Volume
Private Consumer Expenditure	80.7	81.6	1.1	1.6	-0.5
Public Net Current Expenditure	24.8	24.6	-0.9	1.3	-2.2
Gross Fixed Capital Formation	15.5	16.2	4.4	0.1	4.3
Exports of Goods and Services	175.3	183.7	4.8	1.3	3.5
Physical Changes in Stocks	-0.1	1.0			
Final Demand	296.2	307.1	3.7	1.3	2.3
less:					
Imports of Goods and Services (M)	136.0	141.0	3.7	1.0	2.6
Statistical Discrepancy	0.2	0.2			
GDP at Market Prices	160.4	166.3	3.7	1.5	2.2
Net Factor Payments (F)	-33.5	-36.5			
GNP at Market Prices	126.9	129.7	2.3	1.8	0.5

B: Gross National Product by Origin

	2012	2013	Change in 2013	
	€ bn	€ bn	€ bn	%
Agriculture	3.1	3.2	0.1	4.0
Non-Agriculture: Wages, etc.	68.9	69.0	0.1	0.2
Other	57.3	61.3	4.1	7.1
Adjustments: Stock Appreciation	-0.3	-0.3		
Statistical Discrepancy	-0.2	-0.2	0.0	0.0
Net Domestic Product	128.7	133.0	4.3	3.4
Net Factor Payments	-33.5	-36.5	-3.0	8.9
National Income	95.2	96.5	1.3	1.4
Depreciation	15.2	15.2	0.0	0.0
GNP at Factor Cost	110.4	111.7	1.3	1.2
Taxes less Subsidies	16.5	18.0	1.5	9.4
GNP at Market Prices	126.9	129.7	2.9	2.3

C: Balance of Payments on Current Account

	2012	2013	Change in 2012
	€ bn	€ bn	€ bn
X – M	39	42	3.4
F	-34	-37	-3.0
Net Transfers	-1	-1	-0.1
Balance on Current Account	4.7	5.0	0.3
as % of GNP	3.7	3.8	0.2

1

Introduction

Ireland is a small very open economy. The structure of the sections in the *Quarterly Economic Commentary* reflects the importance of the international economy to exports and investment as the main drivers of sustainable growth and potential recovery.

The International Economy¹

The international economy is marked by very large differences in performance. At one level the two big emerging economies of Asia: China and India, are experiencing substantial growth as convergence and good domestic policy together have produced impressive economic growth. While Japan is now experiencing faster growth, partly due to reconstruction expenditure, the overhang of the fiscal and banking crisis of the past two decades remains a significant drag on its economy.

The US economy is in recovery, but as we have noted in earlier *Commentaries*, the recovery has been muted, given the large costs of the financial sector recapitalisation. There are initial signs, notably in private investment, that the recovery may have moved beyond the fiscal stimulus and the economy may be moving towards faster growth. Much depends on maintaining the present fiscal stance, allowing the public finances to improve as the economy grows rather than eliminating special measures introduced to mitigate the worst effects of the recession. As it stands, public expenditure on goods and services, both current and capital, will fall this year, but remain relatively unchanged in 2013. Private non-residential investment grew rapidly in 2011; its growth has moderated this year but current forecasts indicate a faster increase again in 2013. Unemployment has continued to fall, albeit more moderately than had been expected, from the peak level experienced in 2010.

GDP in the UK fell in the final quarter of 2011 and again in the first quarter of this year. The UK government strategy has been to correct the fiscal imbalances in the hope that a fiscal contraction which leads to a reduction in domestic demand would result in switching from the domestic market to overseas markets, with reasonable growth expected to follow. The weakness in the international

¹ This section depends very heavily on the OECD, *Economic Outlook*, May 2012

economy, most particularly in the eurozone, has made it difficult to realise this objective. The UK government is determined to meet its fiscal target, though there is some debate about whether in the current situation it would be better to alter the pace of adjustment. Monetary policy has maintained relatively low interest rates to support the economy and open-market operations (quantitative easing) have continued to provide liquidity to financial markets and to maintain a competitive exchange rate. Current forecasts for the UK economy expect a recovery in the second half of this year - partly driven by the impact of lower inflation on real incomes and consumption, and by increased exports if the eurozone economy picks up.

The eurozone economy remains weak. Output fell in the final quarter of 2011 and early estimates for the first quarter (data from some countries were not yet available) indicate no growth. Leading indicators suggest a poor second quarter. There is still uncertainty about the continuance of the eurozone as presently constituted. The fundamental problems of generally poor fiscal numbers, large public and private debt levels, inadequate bank capital, a non-functioning inter-bank market, and a central bank that appears unwilling to countenance further non-traditional approaches to the crisis remain. In these circumstances it is difficult to see any recovery. Yet in spite of this most forecasts expect a second half recovery, though this recovery is likely to be very slow with GDP at end 2012 only marginally above that of end 2011. Underlying all forecasts is an assumed return of confidence followed by increased private sector activity with a background of increased external demand. It is unclear how improved confidence is expected to appear. One view is that sticking to budget targets will increase private sector confidence, yet the very act of fiscal consolidation will restrict domestic demand and weaken the investment incentive over the period of adjustment. Nor is it obvious where external demand is coming from. Most trade of the eurozone is within the eurozone itself. Nevertheless, it is mistaken to consider the eurozone as a block as there are significant differences in economic performance across individual members and, unlike the situation in a single country, there are no internal transfers from good performing areas to poor performing areas. Even if eurozone GDP does recover in the second half of this year, growth forecasts for 2013 remain very modest at about 1 per cent.

2

Exports of Goods and Services

Preliminary data for 2011 indicate that Irish exports of goods and services increased by 4.1 per cent in volume terms. Exports of goods increased by 3.4 per cent, while exports of services increased by 4.9 per cent. Goods exports were affected by the slowdown in some major markets in the second half of the year, and as such, exports fell by 0.7 per cent, seasonally corrected, between the first and second halves of the year. Exports of services increased during the year - some part of this was due to an improvement in tourism services, but exports of other services grew reflecting continued growth in the number of firms in the sector and in employment in existing export services firms.

The factors affecting growth in exports are the development of the world economy, the extent of any increase in supply capacity and any change in competitiveness. The usual measure of competitive trends, unit labour costs (ULCs), is limited in that it takes no account of other non-wage factors, such as quality and delivery, which can be important, and the trend in unit labour costs itself is a summary measure of an outcome rather than a driving force itself. Nevertheless, it is useful to look at developments in unit labour costs. The accompanying research note "Unit Labour Costs in Irish Manufacturing" discusses developments in detail.

The general picture over an extended time frame gives a sense of the loss of competitiveness over the period of the expanding credit and property bubble in the Irish economy, followed by the contraction in unit labour costs thereafter. As can be clearly seen, from Figure 1.2 in the accompanying note, the increase in Irish ULCs over this period was concentrated in the traditional sector, i.e. the food and drink sectors mainly, with costs in the modern sector, pharmaceuticals, falling to less than half of the base year level, whereas the traditional sector ULC remains slightly higher. The development of ULCs in the modern sector perhaps goes some way to explain the continued investment in Ireland by overseas firms. The performance of the traditional sector since the onset of the financial crisis is somewhat subdued. Despite having declined from its peak level in the third quarter of 2008, the ULC index for the sector still remains high, when compared against earlier levels.

Looking now at exports this year and next, data for the first quarter 2012 for merchandise exports indicate the continued weakness in the international economy. Traditional sector exports from the food and drink sectors have remained very static, while the data on modern sector pharmaceutical exports have been affected by major products coming off patent. What is critical for the economy is the impact that a drug coming off patent has on output and employment, as the reduction in the value of exports because of a price fall will have a counterpart in a reduction in profit and in net factor outflows. There will also be a reduction in corporation tax receipts, although the extent of this also depends on how much additional "tax sheltering" firms engage in. The weakness of the euro will improve competitiveness of domestic costs, particularly vis-à-vis the US in the short run. This will have a positive effect on export volumes via the effect on decisions regarding the location of production by multinationals. In addition, if the assumed recovery in the eurozone economy does materialise there could be a recovery in exports of goods continuing into 2013. There has also been a steady increase in the number of new overseas firms and an expansion of existing firms, for example, Amazon, Sky, Google in the services sector and Intel in the manufacturing sector; both factors have the potential to contribute to increase exports.

Exports of services are not affected just by growth in the world economy. They are also influenced by location decisions on the supply side by multinationals. The increase in the numbers of firms and in employment geared to overseas services has continued throughout this recession. This will add to output and employment both this year, where we are forecasting a volume rise of 3.8 per cent in other service exports, and next year where the volume rise could be 4 per cent.

TABLE 1 Exports of Goods and Services, Volume % Change

	2011	2012	2013
	%	%	%
Merchandise	3.4	2.8	3.1
Tourism	7.4	2.8	3.5
Other Services	4.8	3.8	4.0
Exports of Goods and Services	4.1	3.3	3.5

Source: Central Statistics Office and ESRI Forecasts

Tourism receipts have been affected by the slowdown in GDP in major markets, with the final quarter of 2011 and the first quarter of this year adversely affected. The latest data, covering the February-April period show some pick-up, but it is very modest. Weakness in the euro may lead to some improvement in numbers from the United States. Accordingly, our forecast is for some growth for the year of 2.8 per cent, while next year it could be 3.5 per cent.

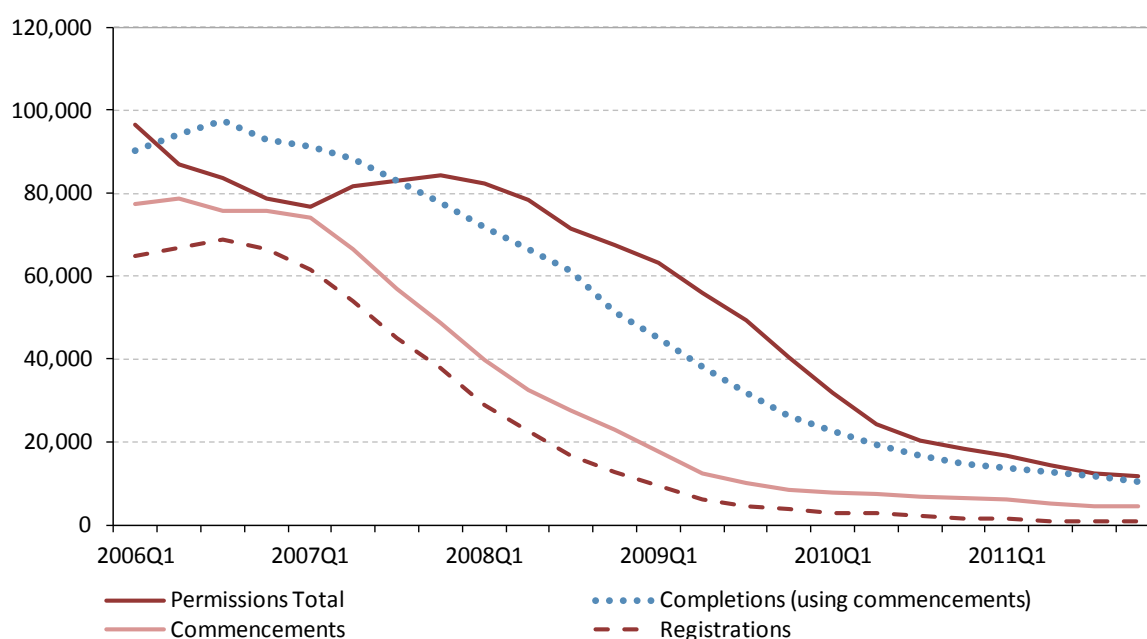
Exports of goods and services are forecast to grow by 3.3 per cent in volume terms this year and by 3.5 per cent in 2013. Given the weakness of the euro we expect export prices to increase by about 2.7 per cent in 2012 and 1.3 per cent in 2013.

3

Investment

On the basis of the currently available data investment contracted in 2011 for the fourth consecutive year, although the decline was more moderate than that recorded in 2009 and 2010 at about 10.6 per cent.

With house prices weak and demand levels remaining low, available indicators to date, see Figure 1, support the view that it is unlikely that there will be growth in the volume of house building over the forecast period. In an accompanying article there is some indication that adverse factors affecting the housing market may be moderating, particularly in urban areas. It is difficult to be more precise as to when the bottom of the cycle will be reached but an important factor in any stabilisation will be price expectations. Continued uncertainty about prices, combined with a desire to see a sustained stabilisation before people enter the market means that housing demand is likely to remain weak in 2013. This, in conjunction with credit constraints on purchasers and builders, means that we do not expect any growth in house building levels in 2013. Uncertainty may also affect other building and construction by the private sector this year. There has been a steady flow of inward investment and expansion announcements, including that of Intel, particularly notable because of its size, and the National Asset Management Agency (NAMA) has indicated that it will undertake a significant amount of commercial and residential construction investment over the next four years. Thus, the volume levels of other building and construction are expected to increase by 3.8 per cent next year. Taking account of transfer costs of land and buildings means that we expect an increase in activity in total building and construction next year of approximately 1.6 per cent. This, coupled with the constraints on government spending, means that we expect investment in building and construction will decline by 8.4 per cent in 2012 in volume terms.

FIGURE 1 Housing Market Indicators

We also suspect that uncertainty about the international environment will result in some re-assessment of investment decisions by companies and so growth in the components of investment in machinery and equipment will be more moderate than we had previously thought. We now expect that growth in this component of investment will be 5 per cent in volume in 2012. Notwithstanding this investment is expected to continue to decline in 2012, by 2.7 per cent in volume terms. Based on the forecasts for the components of building and construction outlined above, which coupled with stronger investment in machinery and equipment, means we are now forecasting that investment will grow by 4.3 per cent in volume terms in 2013.

TABLE 2 Gross Fixed Capital Formation, % Change in Volume

	2011	2012	2013
	%	%	%
Housing	-28.2	-4.6	0.0
Other Building	-7.6	-10.5	3.8
Transfer costs	-4.5	-10.0	-12.0
Total Building and Construction	-16.0	-8.4	1.6
Machinery and Equipment	-2.0	5.0	7.5
Total	-10.6	-2.7	4.3

Source: Central Statistics Office and ESRI Forecasts

4

Household Consumption

Preliminary annual data for 2011 show a decline in the volume of private consumption spending for the fourth year in a row. The average level of spending in 2011 was marginally above that of 2005 in real terms. In an accompanying note we look in more detail at a variety of data in relation to household spending and saving. This adds to our understanding of the factors affecting saving and consumption. Previously the decline in consumption was seen as deriving from the fall in income as a result of the decline in output. This was compounded by a rise in the savings rate as households simultaneously reduced their borrowing and increased saving because of uncertainty about future employment prospects and post-tax income as the fiscal consolidation proceeded. More recently available data from the latest *Household Budget Survey (HBS)* indicate that the situation may be more complex. Over the pre-recession period and the present, nominal incomes in the economy as a whole increased very marginally. However increases in mortgage repayments more than absorbed the modest increase in incomes and consequently household expenditure on all other items, with the exception of fuel and light, experienced declines. The *HBS* data also indicate a modest increase in household savings, much less than that shown from other measures of savings, where mortgage repayments and increases in pension funds appear as savings. It also echoes the qualitative evidence from the Nationwide UK (Ireland)/ESRI Savings Index which has shown a broadly stable attitude amongst savers in recent years in relation to their own savings behaviour and their perception of the amount they save. The extent of precautionary saving may be less than previously thought and consequently a reduction in such savings, while it would certainly add to domestic demand, may offer much less hope for a return to much more rapid growth. Of course, while this is the situation for average households - clearly some are experiencing extreme difficulties and have little scope for either saving or increased consumption. Others may be in a stronger position, though still affected by uncertainty about the future course of taxation, public expenditure and employment.

Against this background it is easy to see how household expenditure has continued to decline. Quarterly data are very volatile, occasionally indicating an increase in household spending, followed by a further decline, against a background of a downward trend since the peak level in the first quarter of 2008, see Figure 2.

FIGURE 2 Volume of Personal Consumption, Level, € millions

For 2012 we expect a continuation of this downward trend. Retail sales, the short-term indicator of consumer spending, were very weak in the first quarter. The volume of retail sales fell by 2.4 per cent compared with the final quarter of 2011, and was 2 per cent below the average level of 2011. The preliminary estimate for April showed a further decline. This may well reflect the bringing forward of consumer purchases in advance of the anticipated VAT increase that came into effect in January of this year. It is also likely that renewed concerns about wider economic developments, visible in the latest decline in the KBC/ESRI Consumer Confidence Index, may have dampened retail spending once again. The basic underlying problem, however, is that disposable incomes are set to fall again this year. Income from employment will increase very moderately, while transfer income from welfare payments will decline following changes in the welfare code. Overall personal income will decline, while taxes on personal income and wealth will increase. As a consequence household spending may fall by about 2 per cent in volume terms this year.

In terms of the time path, we expect the first quarter household spending to show a decline of about 2 per cent, followed by a further decline of about 1 per cent in the second quarter, followed by stability for the second half of the year. This is heavily conditional on the assumed slow recovery in the eurozone economy and increased exports from Ireland. This feeds into employment, gross earnings and disposable income.

Turning to 2013 we are assuming the international situation remains positive from the latter half of this year, even if very muted, so that export growth and hence, output, employment and incomes in the export sector increase leading to an increase in personal income. As taxes are set to increase under the consolidation programme, real personal disposable income will remain very flat compared with 2012. Household spending may decline by only 0.5 per cent in real terms, the lowest decline since the recession started. We are expecting price inflation of about 1.5 per cent, though this could be less if oil prices weaken.

5

Public Finances

The recently published *Stability Programme Update* (Department Of Finance, April 2012) shows a more positive outcome to the public finances in 2011. While the headline deficit is recorded as reaching -13.1 per cent of GDP, this reflects monies used in the July 2011 recapitalisation of the banking sector. The outturn for the underlying general government deficit was -9.4 per cent of GDP. The better performance reflects a number of factors including higher than expected revenue, lower voted expenditure and a better than expected outturn for the Local Government Sector. On first viewing, this positive revenue performance has continued into this year, data for the first five months of the year shows the public finances are performing well. At the same time current expenditure is forecast to be broadly unchanged compared to the Budget forecast. Once we take account of our forecasts on the capital side, where we expect some reductions in capital expenditure, (including lower non-voted capital spending to take account of the agreement with regard to the March promissory note payment), the exchequer deficit will be lower than previously anticipated at €16 billion.

The more important measure, and the one used for the targets under the EU/IMF programme, is the General Government Balance. The General Government Balance (GGB) measures the fiscal performance of all arms of government, takes account of the impact of various funds, including extra budgetary funds, non-commercial State sponsored bodies, the Social Insurance Fund and the net borrowing of the local government sector, as well as the impact of the National Pension Reserve Fund, and accrual adjustments. Although economic activity is forecast to show only moderate growth, we expect that the fiscal targets for 2012 will be met. This is based on the view, expressed in our previous *Commentary*, that the negative impact of new taxation measures on revenue would be less than anticipated at the time of the Budget. In addition, the public finances will also benefit this year from higher income from Emergency Liquidity Assistance interest, paid initially to the Central Bank in 2011 and then transferred to the Exchequer this year. Thus, the final outturn for 2012 will meet the revised target of 8.3 per cent. The referendum result means that the fiscal profile over the next four to five years can follow the path set out in the *Stability Programme Update*.

Turning to 2013, we expect that higher tax revenue from economic growth and consolidation measures combined with a moderate reduction in expenditure should result in an exchequer balance in line with current projections.

At present a consolidation package of €3.5 billion is targeted for 2013. However, the ending of the interest payment holiday will mean that the impact on the general government balance will be much lower than the total consolidation amount. Although we expect stronger economic growth next year compared with this year we have revised our forecast for growth down compared with the *Spring Commentary*. These factors will make the target for 2013 more difficult to achieve.

TABLE 5 Exchequer Finances

	2010	2011	2012	2013
	Outcome €bn	Outcome €bn	Forecast €bn	Forecast €bn
Net current expenditure	47.0	48.0	49.6	49.4
<i>Net voted expenditure</i>	40.5	41.4	41.0	40.0
<i>Non-voted expenditure</i>	6.5	6.6	8.6	9.4
Current Revenue	34.4	36.8	38.5	40.5
<i>Tax revenue</i>	31.8	34.0	35.5	37.5
<i>Non-Tax revenue</i>	2.7	2.8	3.0	3.0
Current Budget Balance	-12.6	-11.2	-11.1	-8.9
Capital Resources	1.8	2.5	1.8	1.8
Capital Expenditure	8.0	16.2	7.0	7.6
<i>Capital Expenditure - Voted</i>	5.9	4.3	3.6	3.0
<i>Capital expenditure - non voted</i>	2.0	11.9	3.4	4.6
Capital Budget Balance	-6.2	-13.7	-5.2	-5.9
Exchequer Balance	-18.7	-24.9	-16.3	-14.8
as % of GDP	-12.0	-15.9	-10.0	-8.7
General Government Balance	-48.6	-20.5	-13.3	-12.5
as % of GDP	-31.2	-13.1	-8.3	-7.5

Note: The Exchequer Balance figure for 2012 is adjusted to take account of the arrangement made for the March promissory note payment of €3 billion.

Source: Stability Programme Update and own forecasts.

6

Population and the Labour Market

Both the *Live Register* and the *Quarterly National Household Survey (QNHS)* show that unemployment remains at a very high level. *QNHS* data for 2011 show that the numbers at work in 2011 fell by 38,000 and the labour force fell by 26,000. At the same time the participation rate stabilised at just over 60 per cent and the numbers unemployed rose by close to 13,000 with the unemployment rate measured at 14.4 per cent in 2011.

It is clear from the data that the labour market continued to weaken in 2011, with another large fall in the numbers employed and an increase in the numbers unemployed. The latest *QNHS* data for quarter 1, 2012 suggests that this weakening has continued, with the unemployment rate rising to 14.8 per cent. With employment across most sectors continuing to weaken, albeit at a more moderate pace, an annual average level of employment in 2012 of 1,797,000 is forecast. This represents a fall of 13,000. Although aggregate employment is expected to fall, we expect that 2012 should see stabilisation in some sectors, for example, industrial employment should stabilise on the back of continued growth in industrial output and exports. With stronger economic growth in 2013 the falls in employment should be much more moderate at just 5,000 and could be seen to represent a stabilisation of the overall labour market.

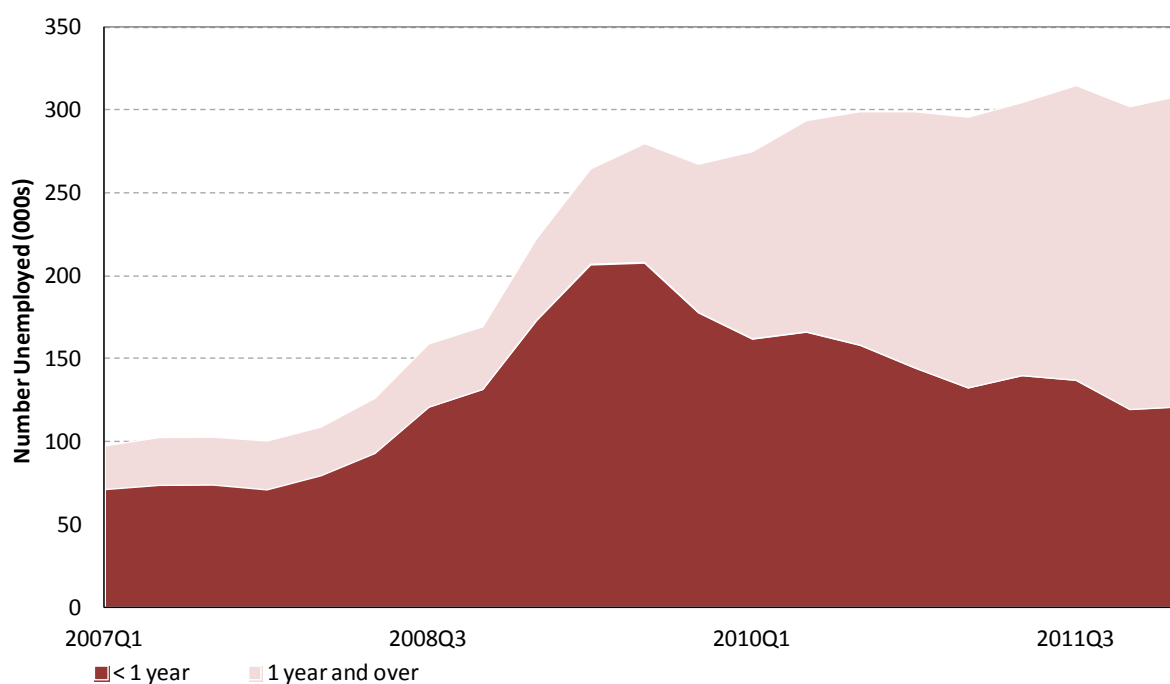
The annual average number of unemployed in 2012 is expected to be higher than in 2011 at 315,000 and is expected to decline in 2013 to 308,000. Unfortunately much of the decline over the two years is due to high emigration levels and an unchanged participation rate. The accompanying note "The Impact of Recession on Migration" makes the point that between 2006 and 2011 net emigration among young members of the native Irish population was substantially greater than it was among any other groups defined by age or ethnic background. As employment opportunities remain weak, migration will remain high and the proportion of immigrants in unemployment will increase, as recent data indicates. If our forecasts of employment and unemployment levels are correct they imply that the labour force will continue to contract over the next two years.

TABLE 6 Employment and Unemployment

	Annual Averages, 000s			
	2010	2011	2012	2013
Agriculture	85	83	81	81
Industry	360	342	338	339
of which: Construction	120	107	103	102
Services	1,403	1,385	1,376	1,371
Total at work	1,848	1,810	1,797	1,792
Of which: non-agri. employees	1,446	1,427	1,420	1,420
Others	317	300	295	290
Unemployed	292	304	315	308
Labour Force	2,140	2,114	2,112	2,100
Unemployment Rate, %	13.6	14.4	14.9	14.7

Source: Central Statistics Office and ESRI Forecasts

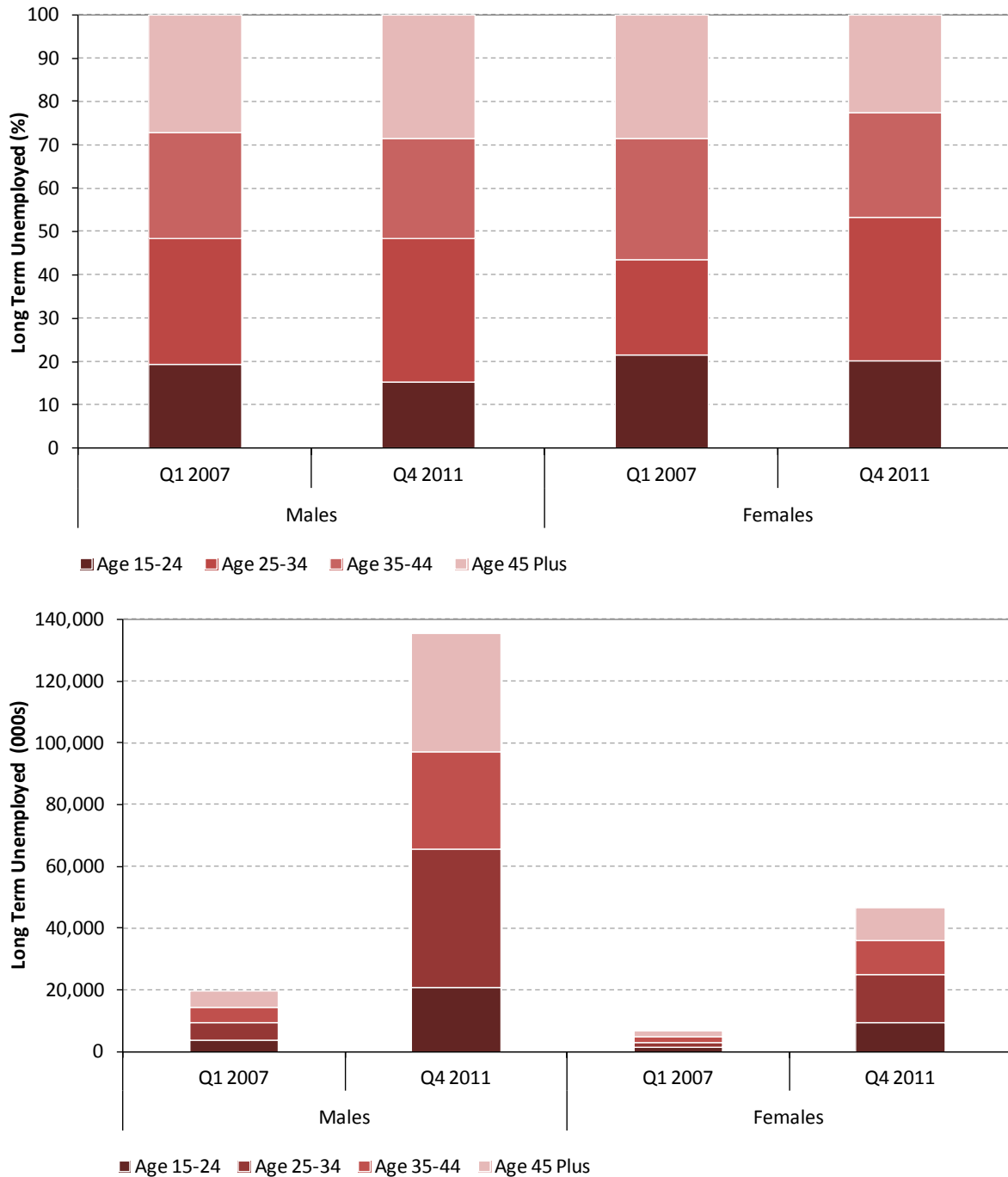
Of particular concern is the on-going rise in the numbers who are unemployed for over a year. In the first quarter of 2007 the long-term unemployment rate was 1.2 per cent, approximately 26,000 persons. By the first quarter of 2012 this had risen to 8.9 per cent, increasing to over 187,000 persons. Those who are long-term unemployed now account for nearly 61 per cent of total unemployment, see Figure 3.

FIGURE 3 Numbers Unemployed By Duration

Source: Central Statistics Office, Quarterly National Household Survey.

Data from the QNHS provides us with some more detail on those who are long-term unemployed. While there have been increases in the number of those unemployed for over a year across gender and available age bands, the main increase is in those aged between 25-44 years, primarily males, see Figure 4.

FIGURE 4 Long-Term Unemployed by Age and Gender, Percentage Distribution and 000s



Source: Constructed with data from the Quarterly National Household Surveys, CSO.

Table 7 updates analysis by Kelly *et al.* (2012)² showing the educational attainment of those who are long-term unemployed separately by gender. Prior to the current crisis, the education profile of long-term unemployed (LTU) males and females was quite similar, with over 50 per cent of both groups having low levels of educational attainment (i.e. Junior Certificate or less). However, the education composition of the long-term unemployed has changed considerably since the commencement of the recession. Now less than half of long-term unemployed males and females have low levels of educational attainment, while there has been a rise in the percentages with higher levels of education. In relation to males, there has been a big increase in the proportions with Post-Leaving Certificate qualifications, which is most likely due to the downturn in the construction sector. Regarding females, there has been a large rise in the percentages with a Leaving Certificate and Third-level qualification. Based on the numbers (see Table 7), it would appear that in the current recession females with low levels of educational attainment are withdrawing from the labour force, while those with higher levels of education are remaining in the labour market.

TABLE 7 Educational Attainment of the Long-Term Unemployed: Q1 2007 and Q4 2011 (Per Cent)

	Males				Females			
	Q1 2007		Q4 2011		Q1 2007		Q4 2011	
	%	Number	%	Number	%	Number	%	Number
Lower Secondary or Less	63.5	11,836	40.9	53,962	58.1	3,913	25.6	11,610
Higher Secondary	20.4	3,804	29.3	38,666	19.5	1,314	34.0	15,415
Post Leaving Cert	5.9	1,108	17.7	23,351	11.3	762	15.2	6,879
Third-level	10.2	1,895	12.1	16,034	11.1	747	25.2	11,413
Total	100	18,642	100	132,031	100	6,736	100	45,318

Source: Constructed with data from the *Quarterly National Household Surveys*, CSO.

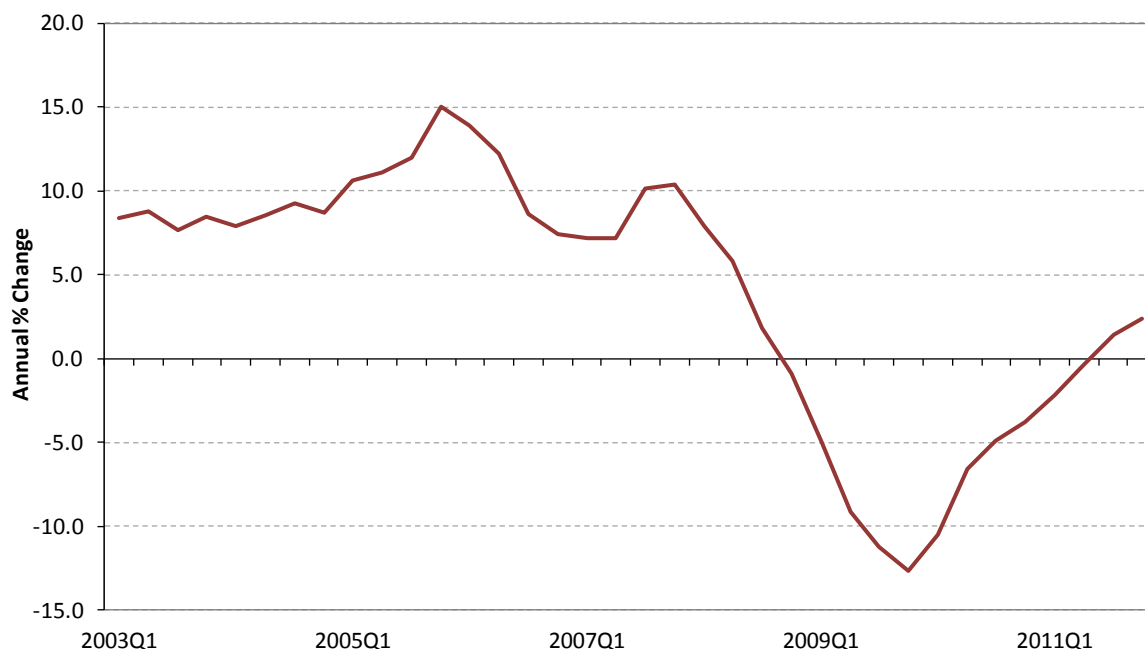
² Kelly, E., S. McGuinness and P. O'Connell, (2012) "Submission to the Joint Committee on Jobs, Social Protection and Education on Unemployment and Youth Unemployment", April.

7

Incomes and Prices

Data from the *Institutional Sector Accounts* on aggregate income of employees provides information for 2011 that is consistent with the National Accounts. Figure 5 shows the annual rate of change in each quarter and illustrates the extent to which household incomes fell during the downturn. The data shows that economy wide earnings remained broadly unchanged in 2011, although the annual number masks the fact that earnings started to increase slightly in the second half of the year, the first increase since the end of 2008. Although the economy and labour market remain weak there has been a steady flow of job announcements, primarily in the modern sector. On the expectation that many of these jobs will have pay rates higher than the jobs that have been lost, hence raising average earnings in the economy as a whole, we would expect that aggregate non-agricultural wages will remain unchanged in 2012, at a time when employment continues to fall.

FIGURE 5 Annual Percentage Change in Compensation of Employees



Source: Central Statistics Office, *Quarterly Institutional Sector Accounts*.

TABLE 8 Personal Disposable Income

	2010	2011	2012	2013
	€ bn	€ bn	€ bn	€ bn
Agriculture, etc	2.7	3.0	3.1	3.2
Non-Agricultural Wages	68.8	69.0	68.9	69.0
Other Non-Agricultural Income	16.7	15.1	17.1	18.0
Total Income Received	88.2	87.1	89.1	90.2
Current Transfers	26.5	26.6	25.9	25.6
Gross Personal Income	114.7	113.7	114.9	115.9
Direct Personal Taxes	20.8	22.2	23.1	23.9
Personal Disposable Income	93.9	91.5	91.8	91.9
Consumption	82.6	81.1	80.7	81.6
Personal Savings	11.3	10.4	11.1	10.3
Savings Ratio	12.0	11.4	12.1	11.3
Average Personal Tax Rate	18.1	19.5	20.1	20.6

Source: Central Statistics Office and ESRI Forecasts

Taking account of transfers and taxes means that we estimate personal disposable income fell by 2.5 per cent in 2011. Although personal consumption is still contracting, the personal saving rate fell from about 12 per cent in 2010 to 11.4 per cent in 2011. As shown in the accompanying note on the savings rate during the recession the fall in household income, at a time when housing related expenditure has risen, has reduced the available resources for households. However, if our forecast improvement in activity occurs then we would expect to see a moderate increase in personal disposable income of approximately 0.3 per cent in 2012 and 0.1 per cent in 2013.

Consumer Prices

The annual rate of increase in the consumer price index (CPI) has averaged 2.0 per cent in the first five months of this year. More interestingly the CPI has been unchanged for April and May. While energy prices contributed to inflation in 2011 and remain high, there are unlikely to be further increases. Indeed, weaker world economic activity may result in some downward pressure on energy prices and we could see some declines. In an Irish context, weak domestic demand levels may also contribute to lower inflation in services. However, current euro weakness may contribute to higher import costs and so we have revised our inflation forecast for this year, increasing it marginally to 1.7 per cent. Although we expect activity levels to increase next year inflation will be marginally lower at 1.5 per cent as a result of a small decline in energy prices.

8

Imports and the Balance of Payments

The weakness in the domestic economy is reflected in the performance of imports of goods and services last year. Based on the preliminary National Accounts, imports of goods and services contracted by 0.7 per cent in volume terms in 2011.

Trade statistics show that visible imports rose by 5.2 per cent in value, although they declined by 3.1 per cent in volume terms. Within this, the value of imports of capital goods fell, while both consumer goods and intermediate goods increased. Given the weakness of the personal sector, the increase in consumer goods imports is somewhat surprising, although the increase in intermediate goods is in line with the performance of production and exports. Based on data from the Balance of Payments, payments of royalties and other service imports showed a modest rise in 2011.

Given our expectation of a weaker external environment with consequent slower growth in production and exports, and continuing weakness in consumer demand, we anticipate that merchandise imports will decline by approximately 1 per cent this year. The continuing contraction in personal consumption is expected to feed through into imports of consumer goods, while recovery in investment in machinery and equipment and continuing export growth will be reflected in imports of capital and intermediate goods. Tourism imports are expected to contract at broadly the same rate as in 2011, but with manufactured exports likely to grow marginally slower, a more moderate rate of growth in royalties and other services seems likely. On this basis, we expect that total imports of goods and services will return to moderate growth in 2012, increasing by 0.9 per cent in volume terms and by 3.3 per cent in value.

The forecast strengthening of activity in 2013 means that we have revised upwards our forecasts for import volumes. We now expect that the increase in domestic activity levels will result in merchandise import growth of approximately 2 per cent and imports of other services will increase by 3.5 per cent in volume. In contrast, we still expect some decline in tourism imports as Irish households remain constrained. Overall, we forecast growth in the volume of imports of goods and services in 2013 of 2.6 per cent and by 3.7 per cent in value, see Table 9.

TABLE 9 Imports of Goods and Services, % change, Volume

	2011	2012	2013
	%	%	%
Merchandise	-3.1	-0.9	2.0
Tourism	-6.0	-7.0	-5.0
Other Services	1.1	2.5	3.5
Imports of goods and services	-0.7	0.9	2.6

Source: Central Statistics Office and ESRI Forecasts

On the basis of the preliminary Balance of Payments, the merchandise trade surplus was unchanged in 2011 at €36.4 billion. The service trade balance remained in deficit, although more moderate than the previous year. Taking account of both these components the surplus on trade in goods and services rose by nearly 14 per cent to €33.2 billion. Once account is taken of income flows a marginal surplus of just €0.1 billion was recorded.

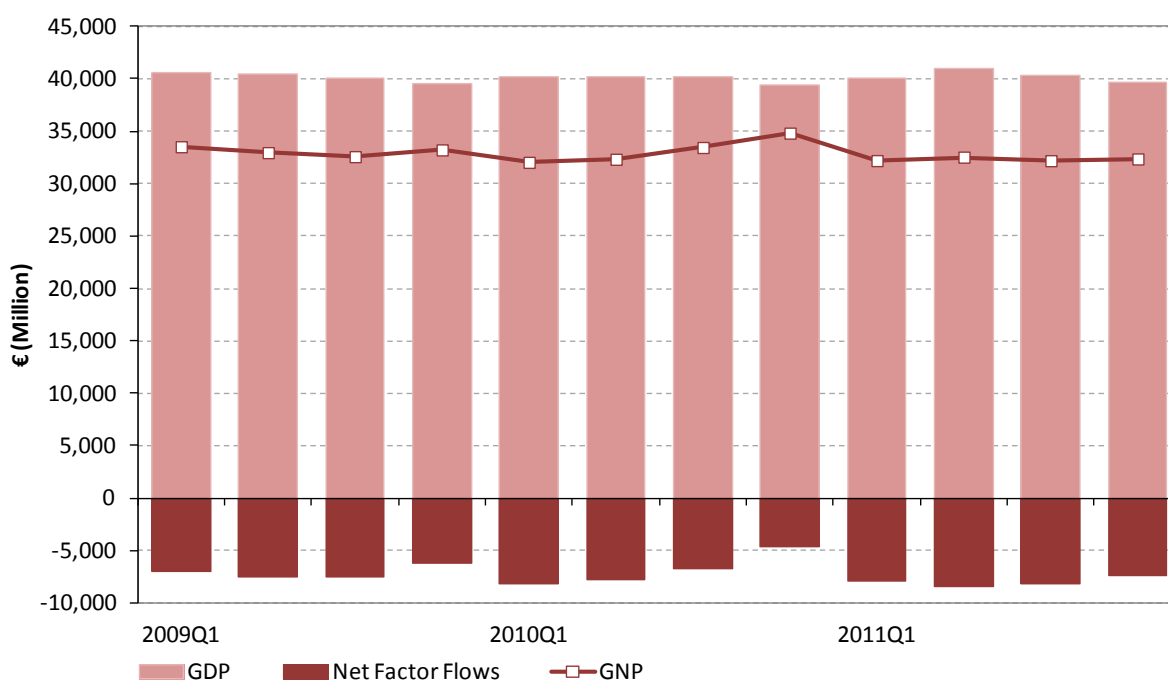
Reflecting the external environment, credit flows are expected to be unchanged this year, while debit flows will show only moderate growth. Net factor outflows should amount to approximately €33 billion in 2012. Both debit and credit income flows will grow in 2013, in the case of debit flows primarily as a result of higher national debt interest payments. Net factor outflows are expected to be €36 billion. Even when these net factor flows are taken into account, we expect that the current account will be surplus in each year, perhaps to the extent of 3.8 per cent of GNP in 2013. While the surplus may appear large it reflects the fact that we expect a moderate improvement in Ireland's terms of trade, following a sharp dis-improvement in 2011.

9

GDP and GNP

Preliminary estimates from the CSO show that GDP in volume terms grew by 0.7 per cent in 2011. In contrast, GNP declined by 2.5 per cent in the year. In previous *Commentaries* we have discussed the alternative measures of output available.³ While GDP measures the total value of output of goods and services produced in a country, GNP subtracts net income flows between Ireland and the rest of the world. What is striking is the gap between the two measures, with one suggesting marginal growth while the other would indicate that the economy contracted in 2011. The main factor underlying this difference is a large increase in net factor flows. The quarterly data shows that this was particularly pronounced in the final quarter of 2011, although this is compared with much lower flows in the fourth quarter of 2010, see Figure 6.

FIGURE 6 Expenditure on GDP, Net factor Flows and GNP, Quarterly Data, Constant Prices



Turning to this year and next we expect GDP to increase in 2012 at about the same rate as in 2011, at 0.6 per cent but to increase faster in 2013, at 2.2 per cent on the assumption of a better international environment. GNP is forecast to remain unchanged this year and to increase by 0.5 per cent in 2013.

³ For example, see Box 2: Measures of Output, *Quarterly Economic Commentary*, Spring 2011.

On the output side net agricultural output is likely to increase marginally in volume terms in both years. In industry output is likely to fall this year, primarily because of a fall in construction activity, though other industrial output may remain relatively unchanged this year. First quarter manufacturing output was very weak, so that the pick-up in April needs to be sustained. If the international profile outlined is correct we expect output in manufacturing to rise by 2 per cent next year. Total services output is forecast to increase marginally this year, and by 1.8 per cent in 2013. Non-market services are likely to be seriously constrained, but market services could improve as international services grow, and perhaps with some substitution between public and private services in healthcare.

10

Monetary Sector Developments

Bank Funding

Looking at evidence relating to the liabilities of the Irish banking system, the overall picture of recent Irish deposit movements that emerges is one of a stabilisation in mid-to late-2011, followed by a steady increase in private deposits held at covered banks thereafter (see Appendix 1 on Developments in Irish Private Sector Deposits). Market-based funding pressures remain elevated, however, and despite successful deleveraging progress made in 2011, Irish banks face a sizeable task in reducing their balance sheets amidst an increasingly less benign international environment.

Irish bank deleveraging required in the EU-IMF programme is effectively intended to wean Irish credit institutions off the substantial provision of Exceptional Liquidity Measures (ELM) currently availed of. Reduced borrowing from the ECB is primarily targeted for the covered (non-IBRC) banks, with further reductions likely to depend on what happens to IBRC rather than the act of deleveraging alone.⁴ It is also expected that more sustainable sources of market-based funding will become available to Irish institutions once their loan books are more closely aligned with stable sources of funding like those of customer deposits (both retail and corporate) and once the sovereign begins to return to the market. This access to funding depends on the eurozone interbank market beginning to function smoothly once again. However, as of yet, this seems far off.

Total emergency funding measures stood at close to €118 billion as of end-April 2012, roughly 65 per cent (€77 billion) of which was ECB funding with the remainder coming from the Central Bank of Ireland.⁵ This represents a decline in overall ELM provided to Irish banks of €40.5 billion from the €158.8 billion peak reached in February 2011 shortly after the EU-IMF programme was agreed. While deleveraging targets for 2011 were exceeded with terms that were better than anticipated, the environment for asset disposals is expected to worsen over the

⁴ The Covered Banks include AIB Group (including EBS Building Society), Bank of Ireland Group, Permanent TSB and IBRC.

⁵ This includes Emergency Liquidity Assistance provided by the Central Bank of Ireland which makes up the majority of 'other assets' in the financial statement of the Central Bank. A recent reclassification of 'other assets' means that these amounts are now recorded under 'other claims on eurozone credit institutions'. It also includes borrowings from the eurosystem relating to monetary policy operations for the domestic group of banks (i.e. those which have significant business with Irish resident households and non-financial corporations in terms of credit and deposits).

next two years.⁶ As much as €2 trillion in balance sheet reduction measures across the EU banking system are expected during 2012 and 2013, with up to three-quarters of the reduction measures expected to come from sales of subsidiaries, securities and noncore assets.⁷ Such measures are likely to impact on the capacity of Irish banks to sell assets and the sale prices achieved. They are also likely to result in more widespread negative impacts on economic activity, particularly in terms of global credit supply.⁸

In addition, the latest IMF staff report noted concerns that targets for banks loan-to-deposit ratios have bid up deposit rates, thus undermining bank income, while larger than expected run-offs of banks' non-core loan portfolios are also threatening to constrain domestic credit conditions. Existing deleveraging targets may, therefore, be altered later this year in order to separate out the targets into those for core and non-core assets so as to minimise such negative side-effects. Any engagement in substantial new lending will be to the detriment of the loan-to-deposit ratio target of 122.5 per cent being achieved by end-2013.

Given the requirement for further deleveraging to the tune of some €36 billion over the remainder of 2012 and 2013, along with an increasingly less accommodating international environment for asset disposals, a danger to the Irish recovery is that of Irish banks failing to replace maturing loans with new lending as an alternative means of achieving their official balance sheet reduction targets. This could potentially stifle the economic recovery further over the next two years as the deleveraging process continues. The rationale for the policy of deleveraging is ultimately to reduce the reliance on ECB funding and to make banks more attractive to market-based forms of financing. Current EU policies appear to be failing to relieve pervasive stresses in eurozone money markets, however. On this basis, it is worth considering whether the end-2013 target for the deleveraging programme will actually yield a banking system that is more conducive to sustainable market-based financing at that time, given the current likelihood that these stresses are likely to remain in the near future.

⁶ See IMF staff report: *Ireland: Fifth Review under the Extended Arrangement*, International Monetary Fund, February 2012.

⁷ *Global Financial Stability Report*, International Monetary Fund, April 2012, pp.6,33.

⁸ See also the Euroframe report: 'Economic Assessment of the Euro Area: Winter 2011/2012 Report', Euroframe Network, January 2012. This estimates the impact of banking recapitalisation measures in the first half of 2012 as potentially lowering euro area growth by 0.8 percentage points.

Recent Lending Developments:

Private Sector Credit

After adjusting for non-transaction related effects, private sector lending conditions were seen to have deteriorated significantly during the first three months of 2012, with overall lending down 5.2 per cent, when compared to the same period of 2011 (see Table 10).⁹ In terms of the average pace of contraction for the first three months of the year, lending fell at its fastest annual rate in any quarter since overall lending began to fall in August 2009, down by 5.4 per cent. Within the overall fall in lending, loans to households declined at a slower pace than the experience in late 2010, yet the average pace of contraction over the past three months remained quite brisk. Mortgage lending, in particular continues to shrink rapidly, while consumer credit returned to a sharp rate of contraction after a slowdown in December 2011. The slowdown in December was largely the result of a base effect following a sharp decline in lending in the same month of 2010. However, the recent trend is still one of sustained declines.

TABLE 10 Private Sector Credit and Small and Medium Enterprise Lending, Annual % change

	End-Month	Private Sector Credit				Small and Medium Enterprise Lending		
		Total	Household Credit	Residential Mortgage Lending	Consumer Credit	Total excl. Financial Intermediation & Property Related Sectors	Total excl. Financial Intermediation	Total
2009	Mar	3.8	6.0	7.8	-0.6	-	-	-
	Jun	0.5	2.9	4.8	-3.6	-	-	-
	Sep	-2.3	0.2	1.9	-5.4	-	-	-
	Dec	-2.6	-1.1	0.6	-7.3	-	-	-
2010	Mar	-4.0	-2.6	-0.2	-10.6	-	-	-
	Jun	-3.7	-4.5	-0.8	-13.1	-	-	-
	Sep	-3.8	-4.5	-0.9	-14.1	-	-	-
	Dec	-4.5	-5.5	-1.4	-21.1	-	-	-
2011	Mar	-3.9	-5.0	-2.0	-15.0	-9.2	-11.3	-8.8
	Jun	-4.7	-3.9	-2.2	-14.4	-10.6	-12.5	-9.1
	Sep	-4.6	-4.0	-2.5	-13.7	-9.0	-8.4	-5.6
	Dec	-5.2	-3.6	-2.5	-6.9	-6.4	-5.7	-3.3
2012	Mar	-5.2	-3.9	-2.4	-11.6	-	-	-

Source: Central Bank of Ireland *Money and Banking Statistics*.

Looking at corporate lending, in particular lending to Small and Medium Enterprises (SMEs), the rate of contraction appears to have slowed somewhat during the final quarter of 2011.¹⁰ Total SME lending declined by 3.3 per cent

⁹ The adjustment reflects changes in non-transaction related reporting population, revaluations, exchange rates.

¹⁰ As noted by Lawless, McCann and McIndoe-Calder (2012), Central Bank of Ireland (*Quarterly Bulletin 2*, April 2012), the significance of the SME sector in Ireland is evident from employment statistics which reveal that the sector accounts for 72 per cent of private sector employment outside of construction and agriculture, while 63 per cent are employed in indigenous SMEs.

year-on-year, yet core lending (i.e. that which excludes financial intermediation and property related sectors) continues to indicate substantial rates of decline, albeit slower than in any other period in 2011.

The latest ECB Bank Lending Survey suggests that, across all categories of enterprises, both rising credit standards and reduced demand have begun to contribute to a modest deterioration in average lending.¹¹ In this survey, changes in credit standards over the past three months are examined, with respondents indicating to what extent they feel that credit standards have deteriorated or eased over the recent quarter. Commercial respondents had previously reported that credit conditions in Irish banks were broadly stable for nearly two years after a more difficult lending environment emerged around mid-2007. Generalised risk perceptions (e.g. economic, collateral-based and industry or firm specific risks) appear to have been the foremost issues reported amongst borrowers during the past two years as impacting on credit standards. Terms and conditions attached to lending are reportedly now less benign than they have been in the past year. Recent research on Irish SME lending conditions based on the ECB survey on access to finance of SMEs in the eurozone also shows that, while demand for credit is relatively similar to that in other EU member states, Irish SMEs face significantly tighter financing conditions, by comparison.¹²

A recently increased sensitivity to risk, however, has also seen a corresponding fall in reported demand from businesses for credit. The latest survey indicates that financing needs, in particular those relating to investment, are now more subdued than in 2011. As such, recent uncertainties relating to wider economic developments may be dampening both the demand and supply of credit. A strong correlation between the survey's reported change in demand for loans and credit lines for Irish SMEs and the index of consumer expectations on a quarterly basis over the period (Q1 2003 to Q1 2012) lends some support to the idea that weakening economic expectations amongst Irish residents may be impacting on demand for credit from indigenous enterprises.¹³

The survey also suggests that household credit has tightened further more recently, with both supply of and demand for credit reportedly deteriorating. Conditions attached to loans have been more stringent over the last three

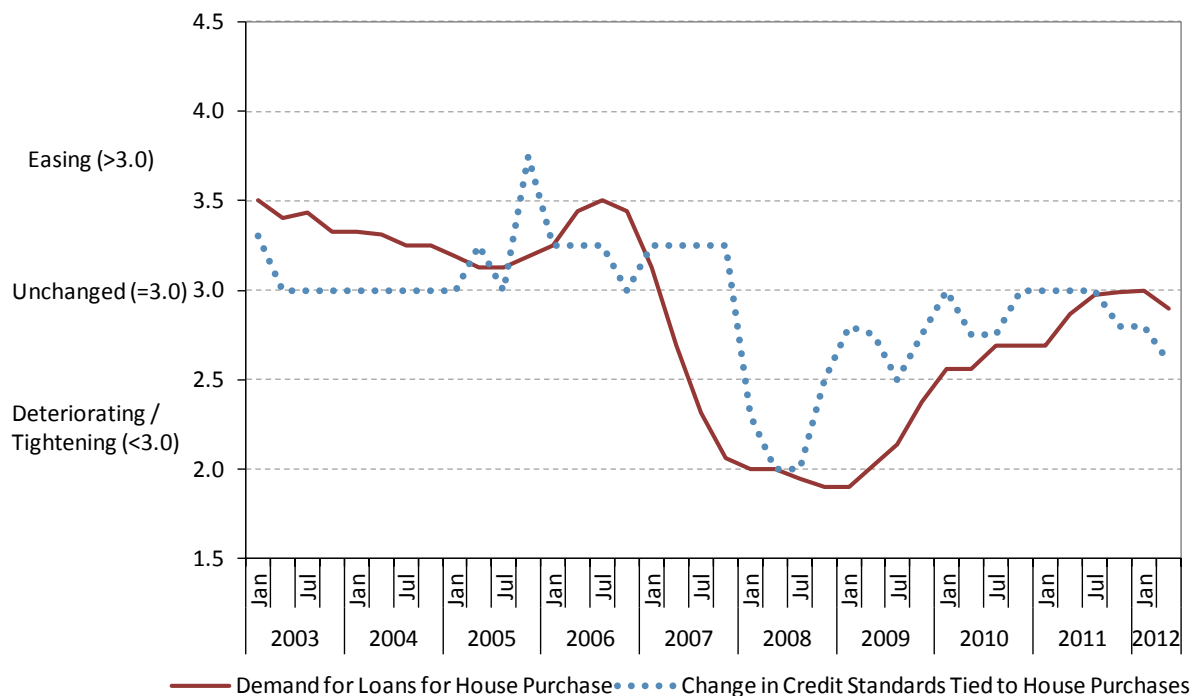
¹¹ The ECB's Euro Area Bank Lending Survey supplements existing quantitative data by giving some impression of the willingness of banks to lend, reflected in changes in their credit standards and in terms and conditions attached to loans or lines of credit. It is addressed to senior lending officers in participating banks, with over 100 euro area banks participating in the survey on a voluntary basis each three month period, of which 5 are from Ireland.

¹² Holton, S., M. Lawless and F. McCann (2012). 'Credit demand, supply and conditions: A tale of three crises'. Paper presented to the Central Bank of Ireland conference, 'The Irish SME Lending Market: Descriptions, Analysis, Prescriptions'. Central Bank of Ireland, March 2012.

¹³ Analysis indicated a strong, positive correlation coefficient of 0.77 for the variables over the stated period.

periods observed, driven by stricter mortgage lending requirements, mainly in terms of loan-to-value ratios, but also maturity lengths. Again, this is reportedly due to heightened risk perceptions related to economic activity as well as housing market prospects. The deterioration in reported demand for loans for house purchases, which had moderated gradually from late-2008 onwards and actually recorded a modest improvement in mid-2011, is again contributing negatively to new lending. However, the demand for loans, when considered in terms of a twelve month moving average, remains far closer to neutral, when compared to recent years. As Figure 7 shows, the extent to which funding conditions are tightening relative to demand conditions appears to have been more significant of late in determining new lending.

FIGURE 7 Reported Change in Funding Conditions (12 Month Moving Average)



Source: ECB Bank Lending Survey.

11

General Assessment of the Irish Economy

Economic Growth

The preliminary *National Accounts* for 2011 show much weaker growth than we had anticipated at the start of the year. The main cause of this was the deterioration in the international environment during the second half of last year and the deterioration in the terms of trade. Concerns about the international environment heightened uncertainty. The recovery in activity in the first half of 2011 gave way to a subsequent contraction.

Since our last *Quarterly Economic Commentary*, forecasts for the international environment have been revised downwards and a contraction in eurozone activity is now expected this year. In recent years most, if not all, of the growth in the Irish economy has been due to the external sector. All indications are that domestic demand will contract again this year, the fifth consecutive year of contraction. Once again the principal factor determining the performance of the Irish economy will be the export sector. On the basis of the forecasts outlined in this *Commentary* we expect that the Irish economy will show only very moderate GDP growth in 2012 in volume terms. Taking account of our estimates for net factor flows means that we expect GNP to be unchanged this year.

The current view is that there should be a recovery in economic activity levels internationally in 2013. The openness of the Irish economy coupled with the steady inflows of FDI and the gains in competitiveness in recent years means that Ireland should, as in the past, benefit from any international upturn. On the assumption that the international recovery starts in the second half of this year and is sustained into 2013 we would expect that domestic demand, including stocks, should show moderate growth next year. Combined with an upturn in export volumes we anticipate that the Irish economy will grow by 2.2 per cent in 2013, as measured by GDP, and by 0.5 per cent when measured by GNP.

Unfortunately, the economic growth we forecast is insufficient to result in any increase in employment. The unemployment rate may fall marginally because of emigration and reduced participation. Of particular concern is the rise in the numbers of long-term unemployed. The experience of the 1980s and 1990s suggests that long-term unemployment rates will fall, but with a significant lag on the rise in employment. However, the fall will be somewhat dependent on the

policies that are put in place to deal with the long-term unemployment issue (see Kelly *et al.*, 2012)¹, along with the extent of competition from new entrants to the Irish labour market.

Confidence and Consumption

In previous *Commentaries* we had argued that a fall in the savings rate could help to boost personal consumption. Within the Irish economy personal consumption levels have fallen in recent years and continue to contract. At the same time the savings rate has risen sharply, as households seek to pay down debt and build up precautionary savings in an uncertain environment. It is hoped that an increase in consumer confidence will result in households starting to spend, thereby bringing about a stabilisation in and a consequent recovery in personal consumption. However, the analysis in the accompanying Research Note, "The Savings Rate during the Recession" suggests that any sustained upturn in confidence may only bring about a moderate improvement in consumer spending. Using data from the recent *Household Budget Survey* the note shows that, in addition to the falls in income, household resources have been reduced by the rise in mortgage repayments over the period 2004/05 to 2009/10. Expenditure on other items fell as households sought to maintain mortgage repayments. Thus, our view is that the current weakness of consumer spending combines both weak confidence and reduced resources. In recent months we have seen consumer sentiment improve somewhat. A closer examination reveals that this has primarily been the result of improving expectations while consumers remain concerned about their current situation. Ultimately improvements in sentiment will feed through into consumer spending. However, the relationship is more complex and may not bring about a significant rise in consumer spending in the short term, until improvements in disposable income occur.

The Eurozone Crisis

Given the risks posed to our forecasts stemming from renewed tensions in the eurozone, it is worth reflecting on the broader developments in recent times. We have remarked before that as the current situation represents an extraordinary set of circumstances it requires an extraordinary solution. We have argued that one element of the solution involves direct recapitalisation of the eurozone banking system. This would restore confidence to the eurozone banking system and lead to the interbank market functioning again. This is an essential requirement to restore confidence in the banking system and to provide funding for credit. Two arguments against this have been produced viz. the inflation impact and the moral hazard issue. Recapitalisation may lead to an increase in

¹ Kelly, E., S. McGuinness and P. O'Connell, 2012, "Submission to the Joint Committee on Jobs, Social Protection and Education on Unemployment and Youth Unemployment", April.

M1 but will not enter the broader money supply process. Even if recapitalisation was excessive and the monetary base was added to by 2-5 per cent the inflationary impact of this over 2-3 years would be low.² The loss of output from the continued high level of unemployment in a single year dwarfs any potential output loss from a temporary rise in the inflation rate. The moral hazard argument must confront the reality that this crisis has seen the fall of governments, inaction may lead to further falls, but more importantly no government could wish to visit the collapse in real incomes that has afflicted so many countries. The moral hazard argument is essentially about the future and it is possible to set up structures to limit the impact caused by the consequences of moral hazard. The Fiscal Compact is an example of this. It is necessary, however, to accept that there is an actual crisis today that needs an immediate solution. The provision of funds to Spain for recapitalisation has the potential to do this but it looks like an ad hoc approach and somewhat different in the terms and conditions that applied to others in receipt of funding.

A Stimulus Package

We have also argued before that, given the circumstances in the eurozone - the level of unemployment and the stagnation in output - expansionary fiscal and monetary policies are needed. At the fiscal level this requires coordinated policies, with those governments capable of providing a stimulus doing so. This is what a single government would do. This approach, taken in conjunction with a recapitalisation of the eurozone banking system discussed above, offers the best hope for dealing with the output, unemployment and financial crises. The actual approach within the eurozone seems to rely on structural adjustment in labour and product markets as the sole means of dealing with the output and unemployment crisis, without accepting that the "internal devaluation" required by some countries involves cuts in incomes that are outside any previous ranges. Structural adjustment requires a long-term perspective to be successful so that looking to structural adjustment in the face of stagnant demand is likely to fail as a policy for the eurozone as a whole. At the present stage of the crises it seems unlikely that a coordinated set of fiscal policies will be adopted. Unfortunately, if any single government attempts a fiscal expansion alone, it would find it difficult if not impossible to finance. Thus, for a single country within the eurozone, economic growth is not a policy option. The debate "austerity or growth" is not a real debate as no government would prefer austerity to growth. Governments individually do not have the option to choose. In reality coordinated fiscal policies across the eurozone, recapitalisation of the eurozone banking system and a looser monetary policy, with some imaginative measures designed to reduce

² For example, the recent discussion of the impact of quantitative easing policy in the UK by Joyce, M., M. Tong and R. Woods (2011) "The United Kingdom's Quantitative Easing Policy: design, operation and Impact", Bank of England *Quarterly Bulletin*, shows moderate increases in inflation resulting from policy measures adopted by the Bank of England.

long-term interest rates in the crisis countries, offer the best hope of moving the eurozone economy out of recession and onto a path of self-sustaining growth. If coordinated policies were adopted at EU level and not just in the eurozone this would strengthen the recovery. It is this approach that would reduce the impact of the government and private debt crisis now afflicting so many countries in the eurozone. Without this the multiple crises will continue.

A Stimulus Package for Ireland

Within a coordinated stimulus package for the eurozone we would not expect that this country would be providing any direct stimulus as the fiscal adjustment required over the next few years is so large. However, faster growth in the eurozone economy and hence in the Irish economy would limit the extent of the expenditure cuts and taxation increases within the Troika programme, would restore balance earlier to the public finances, and lead to growth rather than the stagnation that the economy has experienced since the collapse in output in 2009. We would be very cautious about a domestic fiscal stimulus in Ireland, however funded, as history and experience shows that such a stimulus would have little effect on the domestic economy, but would lead to a worsening of the balance of payments. The crises of the 1950s and the 1970s-1980s provide sufficient cautionary evidence that, given the openness of the Irish economy, a large portion of any stimulus would go directly into imports.

There is a view, incorporated in an agreement between the Government and the Troika, that some part of the sale of state assets will provide funds that could be used to finance a local stimulus package. There are three main arguments for selling state assets. First, there may be efficiency gains that only freedom from bureaucratic or political control can realise. There are also potential efficiency losses if a new ownership structure limits the potential for development. Second, the funds released may be used for additional public sector investment where the rate of return is greater. This would apply in a situation where government is cash-constrained. Third, the funds may be used to run down public debt. This makes sense if the cost of funds to government is greater than the return on state assets or the return on new state capital. Selling of State assets may also make some perverse sense where the emphasis of financial markets is on gross debt, where no allowance is made for the value of marketable state assets (and indeed cash balances), irrespective of the relative cost of funds and the return on state assets.

The objective of a domestic fiscal stimulus is to increase demand in the belief that this will lead to self-sustaining growth in the domestic economy. As we have pointed out in previous *Commentaries*, this is most unlikely in an Irish context

where the domestic market is small. Selling state assets to provide a limited, in extent and time, stimulus is not obviously an efficient use of funds. There is a marked degree of unused capacity in the economy following the collapse in output, so that investment driven by domestic demand is unlikely to pick up for some time. Growth in the economy will come from exports and export driven investment.

Personal Debt Writedown

Clearly, the funding situation in the banking sector remains precarious and the notion of pervasive debt relief being granted to those in arrears is certainly not practicable if banks are to be put on a sustainable path and if the state is to return to self-financing outside of the EU-IMF programme in the foreseeable future. Unfortunately, additional resources may be needed by the banking system to meet new capital requirement rules, and the poor macro-economic environment may result in additional corporate and household sector losses.

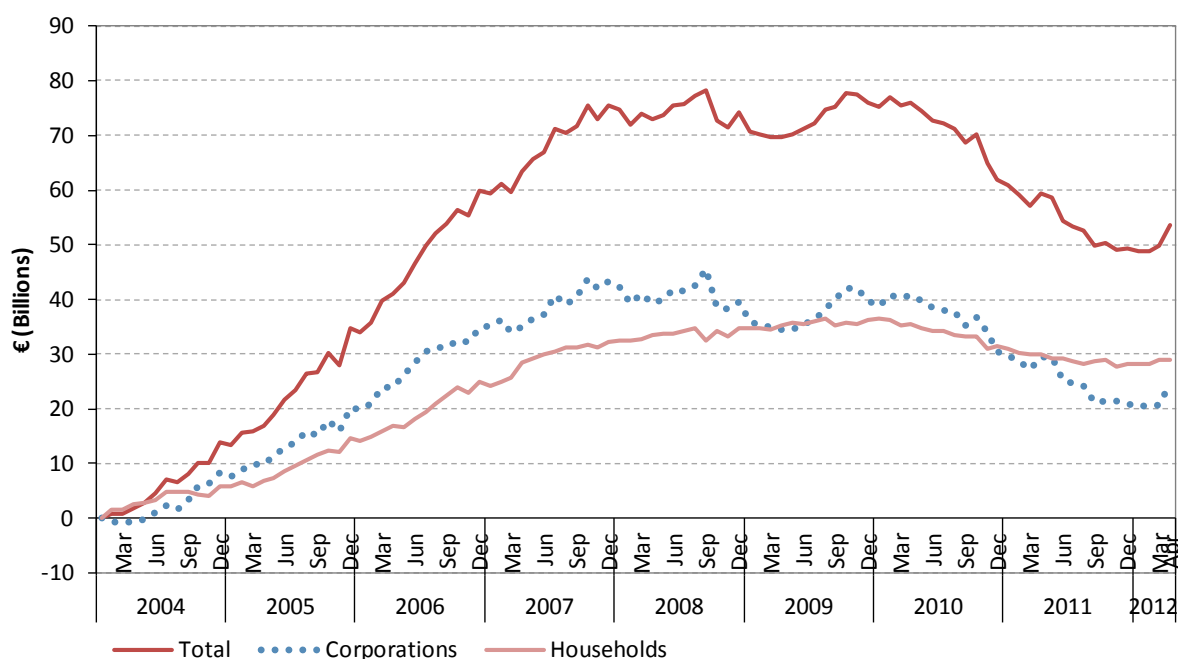
The desire to relieve borrowers, who are obviously and irredeemably over-indebted, therefore, should recognise that the currently adequate capital resources provided by the state to banks are not unlimited. It is with that in mind that the forthcoming personal insolvency legislation must be framed in such a way as to best target those that are most at risk from unsustainable debt levels as opposed to those that are simply in arrears. There are legitimate concerns about a blanket application of debt writedown, which encourages strategic non-repayment of debt, creates difficulty for future borrowings by those affected, and which ignores the question of who bears the losses.

Nevertheless, some borrowers are clearly not in a position to maintain full or even partial repayments. Debt writedown in these circumstances recognises the reality of the situation and takes these inevitable losses upfront. Given the dominance of state ownership of banking, in effect this amounts to losses to taxpayers through reduced bank profits or a reduced market value of the banks when sold in the future. To go beyond recognising and accepting inevitable losses would not be in the best interest of taxpayers.

Appendix 1: Developments in Irish Private Sector Deposits

Many commentators use the outstanding amounts provided by the Central Bank of Ireland when reporting on the change in deposits over a period. These are subject to a number of distortions arising from issues such as changes in exchange rates, other revaluations, reclassifications, NAMA transfers and other securitisations that do not necessarily reflect underlying flows over a period. By summing the underlying, adjusted transactions for a given number of months, however, it is possible to derive the net flow of deposits for the reporting institutions over that time period. Figure A1 shows these transactions on a cumulative basis between January 2004 and April 2012, where the starting point January 2004 is set as equal to zero.

From the end of September 2008, at the time of the Lehman Brothers collapse, to end-January 2012, Irish private sector deposits saw a net outflow of almost €29.5 billion, the equivalent of 18.3 per cent of 2011 GDP, when one includes institutions at the International Financial Services Centre (IFSC). The vast majority of this related to corporate deposits, while the remainder related to households. Of the corporate sector deposits, almost 60 per cent of the net decline was due to transactions from those operating in the financial sector, mainly insurance companies and pension funds. Corporations outside of the financial sector also reduced their holdings, albeit at a more gradual pace. What is remarkably clear from the data is that deposit flows relating to Irish households were far less volatile than the corporate equivalent while, within the corporate sector, deposit flows relating to firms operating outside of financial services were also less volatile.

FIGURE A1 Cumulative Irish Private Sector Deposit Flows, Jan 2004 - Apr 2012 (where Jan 2004 = €0bn)

Note: Data are non-consolidated and cover all credit institutions operating in Ireland.

Source: Central Bank of Ireland, *Money and Banking Statistics*.

Research on corporate and retail deposits drawing on daily net deposit flows on a consolidated basis (i.e. excluding inter-bank deposits and inclusive of deposits from non-Irish residents such as those held in foreign subsidiaries of Irish banks), over the period February 2009 to December 2010 for the Irish banks from the Central Bank (McQuinn and Woods, 2012) suggest that August 2010 was a pivotal month for private sector deposits, with a trend of marked declines visible in both retail and household deposits from 20th August of that year. A major reason posited for the contraction commencing during this month relates to the anticipated expiry of the original bank guarantee scheme, the Credit Institutions (Financial Support) Scheme 2008. This scheme was due to terminate by end-September and provided a state guarantee for all covered liabilities of covered institutions with no monetary limit. In anticipation of this expiry, numerous term deposits appear to have fallen due in August 2010 and were subsequently removed from the system as appetite waned for rolling over deposits in light of the scale of Irish banks refinancing pressures.

The significant contraction in private sector deposits during the period that followed was also aggravated by increased concerns relating to Irish fiscal pressures and the capacity of the Irish state to support the liabilities of banks in Ireland. Long-term sovereign credit rating downgrades from Moody's and Standard and Poor's in July and August reflected the deterioration in market sentiment. These concerns ultimately resulted in a stronger reliance on liquidity support from the ECB and the Irish Central Bank in the form of emergency

liquidity measures, measures which would eventually accelerate the state's entry into the EU-IMF programme in late November.

Returning to the IFSC inclusive and non-consolidated banking data, more recent developments in Irish private sector deposit flows have been more favourable across all sectors. Net outflows slowed during the second half of 2011 and remained broadly steady despite heightened eurozone tensions in the final quarter of the year. Since then, net deposit flows relating to both households and corporations experienced a small combined increase of almost €5 billion since the end of January. Gains in corporate deposits made up the majority of this, up by €4.2 billion over the same period, although household deposits began to increase earlier, rising by about €1.2 billion since the end of November last year.

Newer data from the Central Bank of Ireland and the Department of Finance (DoF) which look at consolidated banking data, thus providing a more accurate assessment of the developments in private sector deposits, support the evidence of recent improvements in the deposit base of Irish institutions. In particular, covered banks appear to have shown an increase of between €5.1 billion and €7 billion in outstanding private sector deposits from their respective troughs up until the end of 2011. The latest DoF data available to end-April 2012 indicates that deposits have also increased since the beginning of the year by an additional €4.3 billion, with the recent increases partly owing to a weakened euro which has boosted the value of UK-sourced deposits. They report that a little more than half of the increase during April came from the non-resident base.

Research Notes

Unit Labour Costs in Irish Manufacturing

Eddie Casey

Introduction

In an economy such as Ireland's which is heavily dependent on exports as a determinant of economic performance, competitiveness is a key variable for consideration. One way of assessing competitiveness is to look at unit labour costs (ULCs), typically calculated as the ratio of compensation per employee to the unit of value added by each employee. This measure is widely used – a long running series on the unit wage costs in Irish manufacturing has been produced by the Central Bank of Ireland (see various *Quarterly Bulletins*, Table E.4).¹ As broad competitiveness developments across all manufacturing firms can often mask very different shifts in underlying manufacturing sectors, this note seeks to estimate the underlying changes in two commonly identified sectors in Irish manufacturing, the 'modern' sector and the 'traditional' sector.

Underlying Manufacturing Unit Labour Costs

It is possible to obtain an up-to-date measure of underlying manufacturing ULCs derived from the overall manufacturing ULC series produced by the OECD, EU-KLEMS industry level data, the latest data from the CSO on manufacturing earnings per hour and industrial production output volumes (see Appendix for methodology). On the basis of this measure, one can chart the progress of both the 'modern' and 'traditional' sectors in terms of the implied competitiveness developments since 2000. The terms 'traditional' and 'modern' used within the context of Irish manufacturing primarily relate to the nature of the final output produced by each sector as opposed to the actual origin of firms involved or technological means of production employed.² The former primarily comprises of more indigenous manufacturing industries, such as the food and beverage subsectors, while the 'modern' sector is comprised of a number of high-technology and chemical sectors. While the overall trend that emerges is one of broadly improving competitiveness levels in Irish manufacturing, developments in the 'modern' sector appear to have flattered the overall progress made in recent years and softened the impact of weaker competitiveness developments in 'traditional' sectors. It is worthwhile noting that ULC's are driven by labour cost developments, which in turn give rise to competitiveness gains and hence greater output. As such, the components of the ULC are interlinked. For example,

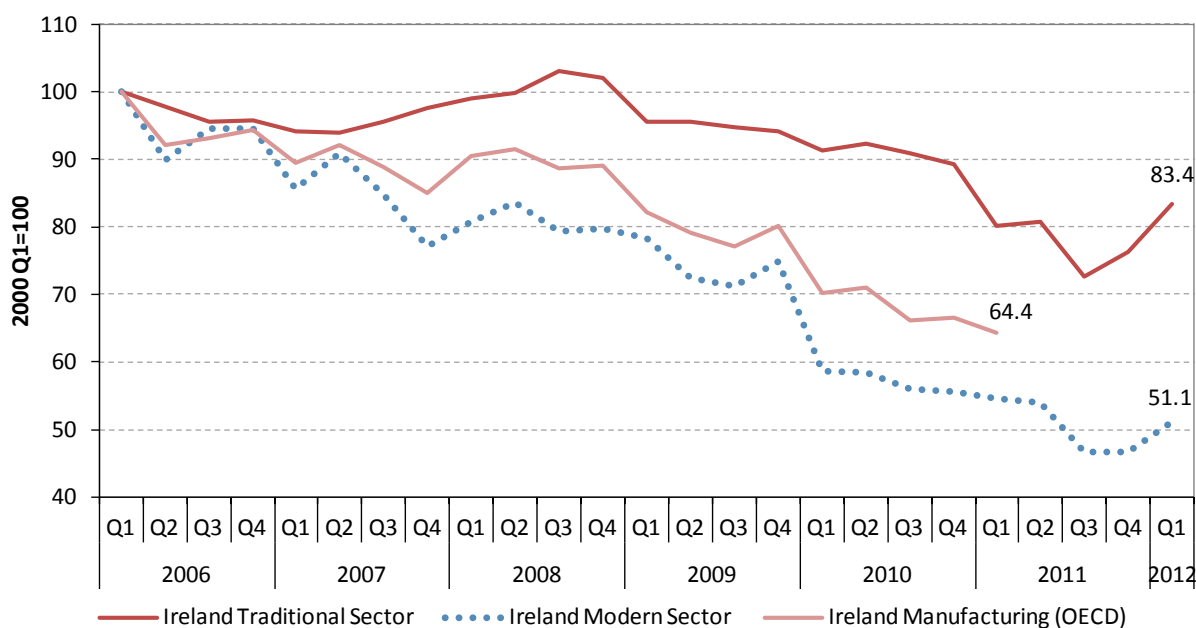
¹ For an excellent discussion of labour cost competitiveness measures in Ireland, see O' Brien, D. (2011).

² For a further detail, see the appendix below or the CSO's 'Industrial Production and Turnover' publication.

improved labour costs are liable to attract further investment from firms, thereby expanding output, resulting in an improvement to both sides of the ULC variable.

Looking at the change in the seasonally adjusted ULCs from the time of the overall Irish manufacturing ULC's pre-crisis peak, it is clear that both underlying sectors have experienced considerable competitiveness gains since the first quarter of 2006. Figure 1.1 reveals that the progress of the 'traditional' sector, while slower than that of the 'modern' sector, is still noteworthy, having fallen by almost one-fifth from its peak. The 'modern' sector has made far more progress, however, largely due to on-going productivity gains in the sector, whereas the 'traditional' sector has experienced sharp declines in output, relying heavily on reductions in total labour costs since early 2008 to improve competitiveness (see Table 1.1). The 'modern' sector ULC for the first quarter of this year stood at almost half of the value of its recent peak, in seasonally adjusted terms.

FIGURE 1.1 Comparison of ULCs in Irish Manufacturing (Seasonally Adjusted, Base: 2006 Q1 = 100)



Source: OECD, CSO, EU-KLEMS and own calculations.

More recently, improvements in ULCs for the both the 'modern' and the 'traditional' sector appear to have lost some momentum and have actually risen since late 2011. Under the assumption that earnings remained unchanged over the first quarter of 2012 (the average quarterly change in the earnings data over the length of the available series is an increase of 0.3 per cent), the recently changed trend in the ULCs is likely to reflect a substantially poorer output performance in both the 'modern' and 'traditional' sectors during the final quarter of 2011 and the first quarter of this year. In the 'modern sector', output

volumes in the large and volatile chemicals and pharmaceuticals subsectors declined by 3.7 per cent over the first three months of 2012, when compared to the previous quarter, in seasonally adjusted terms. This followed a quarterly decline of 1.0 per cent in the fourth quarter of 2011. Similarly, a recent weakening in the 'traditional' sector ULC partly reflected recent contractions in the volume of output from the food and beverage subsectors. Declines in these subsectors for the last quarter of 2011 and the first quarter of 2012 were 3.9 per cent and 7 per cent, respectively.

TABLE 1.1 Estimated Sectoral Developments in Irish Manufacturing since Q1, 2006

	Modern	Traditional
ULC, % change	-48.9	-16.6
Total Labour Costs, % change	-25.9	-18.6
Volume of Output (CSO figures)	25.1	-16.0
Employment, % change	-19.7	-11.4
Change in Employment ('000's)	-16.9	-22.7

Source: CSO, OECD, EU-KLEMS and own calculations

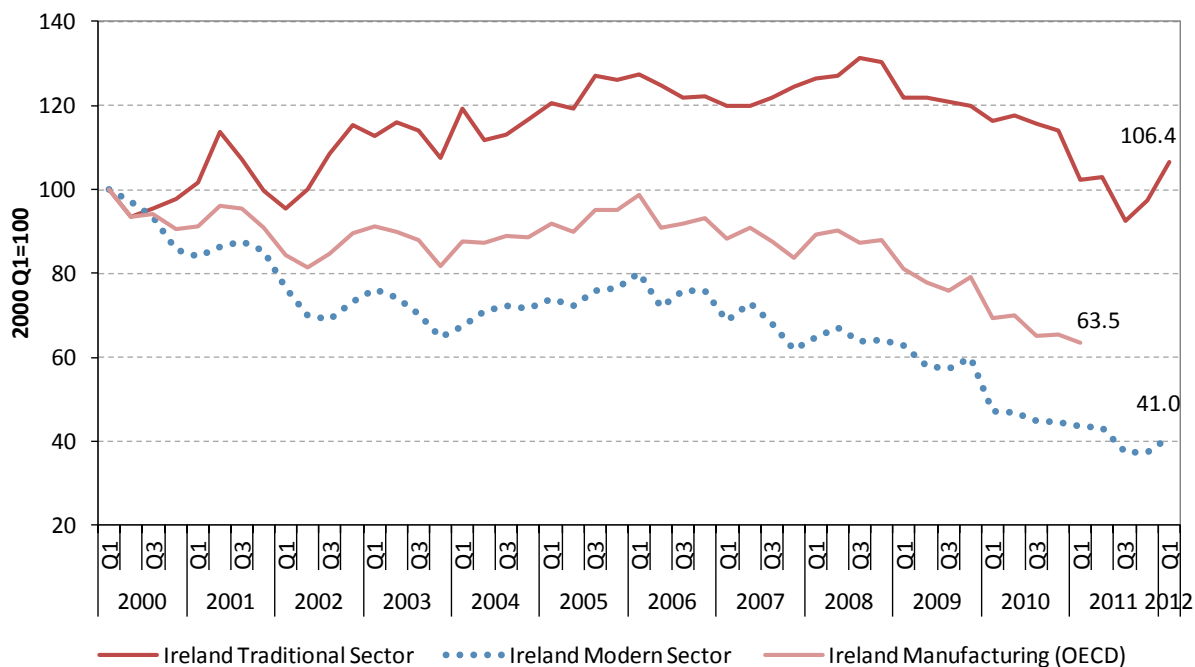
Note: Employment figures are for industry overall, not just manufacturing and are available up to the last quarter of 2011. Output volumes, ULC and labour cost estimates are available to the first quarter of 2012.

Looking more closely at the underlying developments in the determinants of the ULC, it is clear that the 'modern' sector has been more aggressive in strides to improve competitiveness. As shown in Table 1.1, firms have reduced employment and total labour costs much more than in the 'traditional' sector, without impacting negatively on output volumes. Output volumes in the sector were actually up by 25.1 per cent from the first quarter of 2006 (the quarter of the peak in the overall Irish manufacturing ULC) to the first quarter of this year. The 'traditional' sector, by contrast, has seen declines in output volumes of some 16 per cent to coincide with relatively lower reductions in both staffing levels and total labour costs.

Figure 1.2 looks at the long-run changes for the same underlying manufacturing series in Figure 1.1 using the first quarter of 2000 as the base year for each series. The longer run-series gives a sense of the loss of competitiveness over the period of the expanding credit and property bubble in the Irish economy, followed by the contraction in unit labour costs thereafter. As can be clearly seen, the increase in Irish ULCs over this period was concentrated in the 'traditional' sector with the 'modern' sector resuming its improvement long before a correction took hold in the 'traditional' sector. As of the first quarter of 2012, the 'modern' sector ULC has fallen to just 41 per cent of its original level, whereas the 'traditional' sector ULC remains more than 6 per cent higher. The performance of the 'traditional' sector since the onset of the financial crisis, while more subdued than

the 'modern' equivalent, is still lower than levels visible from 2002 onwards and has declined from a peak of 131.5 in the third quarter of 2008.

FIGURE 1.2 Long-Run ULCs in Manufacturing (Seasonally Adjusted, Base: 2000 Q1 = 100)



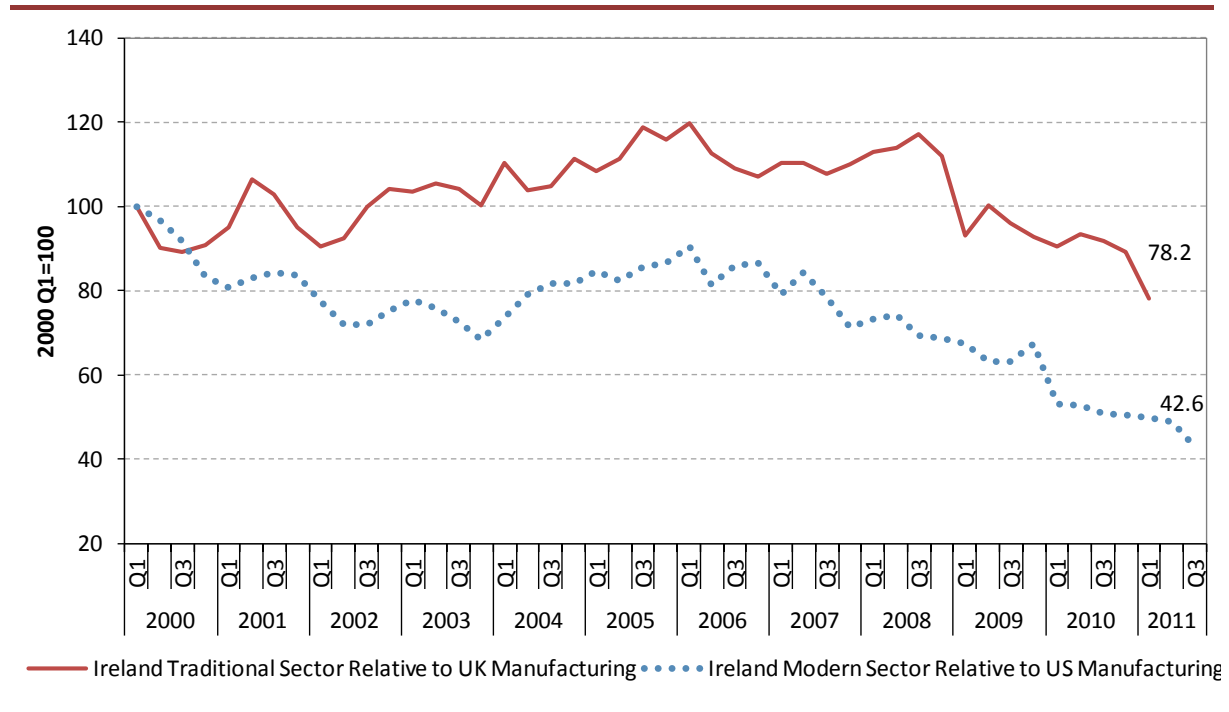
Source: OECD, CSO, EU-KLEMS and own calculations.

It is also worth considering the ULC measure in terms of relative developments using major trading partners for comparative purposes. Specifically, Figure 1.3 portrays the relative movements of the Irish 'traditional' ULC with that of the UK manufacturing sector and the Irish 'modern' sector with that of the US manufacturing sector, based on levels in 2000. The comparison is judged to be useful given that the UK has been the predominant overseas market for final output similar to that produced in the 'traditional' sector, while US manufacturing industries are the main focus of the Irish 'modern' sector.

The correction since then has been marked, however, with relative levels falling below 80 per cent of the UK manufacturing sector as of the last available reading in the first quarter of 2011. When the Irish 'modern' sector is compared with the performance of total manufacturing in the US over the same timeframe, it can be seen that the 'modern' sector began to adjust downwards at a much earlier stage, albeit more gradually. It reveals a considerable improvement in relative terms, down to 42.6 per cent of the US manufacturing ULC as of the third quarter of 2011. These results are partly due to the steep rise in the UK manufacturing ULC over the same period aiding the subdued improvement in the 'traditional'

sector, whereas a modest decline in the US manufacturing ULC lessens the improvement of the 'modern' sector's gains in implied competitiveness.

FIGURE 1.3 Relative Manufacturing ULCs (Seasonally Adjusted, Base: 2000 Q1 = 100)³



Source: OECD, CSO, EU-KLEMS and own calculations.

While the results for the Irish 'modern' sector are particularly striking, especially when compared against other countries, there are reasons to suggest why this may be the case. First of all, if one were to only take account of those sectors which were most productive in comparative economies, then presumably, the results would also be quite strong over several years. When the 'traditional' elements of manufacturing, which are typically less productive and more labour-intensive, are combined with the performance of the 'modern' sector, the overall result is a manufacturing ULC decline that is less pronounced on a national basis. Secondly, as noted by Forfás (2005), high Irish productivity levels in 'modern' manufacturing may reflect the considerable advantages from research and development, marketing and management practices undertaken by multinationals in other countries outside of Ireland. By virtue of this arrangement, the structure of the 'modern' sector in Ireland lends itself to far greater advances in productivity. Other economies that rely to a greater extent on labour-intensive manufacturing industries would be expected to exhibit a relatively less competitive manufacturing sector overall, by comparison.

³ Note that early ULC estimates from the OECD for 2011 Q4 appear to indicate that the Irish 'traditional' sector has continued its correction when compared with the UK manufacturing sector falling by as much as an additional 6 percentage points according to the latest relative ULC estimates, whereas the 'modern' sector measure is unchanged.

Conclusions

The acute decline in the Irish manufacturing ULC visible in recent years is indicative of labour productivity growth outstripping that of average compensation levels for employees, thus lowering costs faced by producers and providing an increasingly more favourable labour environment. Underlying sectoral developments, however, show that very different levels of progress have been made, with average labour costs and productivity improvements in the typically more labour-intensive 'traditional' sectors seemingly much slower to recover than in their 'modern' equivalent. Given that much of the improvement in the 'traditional' sector has been due to falling labour costs, further measures to boost productivity combined with continued wage restraint would clearly provide a further impetus for the recovery in overall manufacturing competitiveness. As it stands, this has been largely driven by advances in the 'modern' sector to date.

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Appendix: Construction of the Sectoral Unit Labour Costs in Manufacturing

As one of the most common measures of labour competitiveness, the Unit Labour Cost (ULC) is typically calculated as the ratio of compensation per employee to the unit of value added by each employee. It is frequently expressed as in the formula:

$$\text{Unit Labour Cost} = \frac{\frac{\text{Compensation of Employees}}{\text{Number of Employees}}}{\text{Value Added Employment}}$$

The OECD provides a useful dataset on ULCs by economic sector, with data available for Ireland as far back as the first quarter of 1998 on a quarterly basis. In forming the ULC for the manufacturing sector, the OECD obtains the ratio of total labour costs to total real manufacturing output, thus bypassing the need for employee numbers in their calculation. Total labour costs here comprise total compensation of employees in return for work done over the specified period and include the value of the social contributions payable by employers:

$$\text{Unit Labour Cost (OECD definition)} = \frac{\text{Total Labour Costs}}{\text{Total Real Output}}$$

Unfortunately, the overall series is only available after a considerable lag. However, as the series is described as the equivalent of the ratio between labour compensation/hour and labour productivity (i.e. real output), it is possible to update the available data using information available from the CSO's quarterly *Earnings, Hours and Employment Costs Survey* (EHECS) and the *Industrial Production and Turnover* (IPT) release. This relies on the assumption that the increase in industrial production volumes equates to the increase in real output in the manufacturing sector and that hourly earnings equate to labour compensation per hour. The Irish manufacturing sector is typically further subdivided into the so-called 'modern' and 'traditional' sectors. The latter comprises of what are considered to be more indigenous manufacturing industries, mainly including the food and beverage subsectors. The 'modern' sector is comprised of a number of high-technology and chemical sectors and is far larger than the 'traditional' sector in value terms. Based on gross value added data from 2005 updated using the volume of production data from the CSO's *Industrial Production and Turnover* release, the 'modern' sector represents 71 per cent of all manufacturing (Q1 2012).

In order to obtain a ULC series for the 'modern' and 'traditional' manufacturing sectors, the gross value added series used in the formation of initial weights for the industrial production series is first extended using the latest volume of industrial production data from the CSO for each sector. This gives two series of

weights for the manufacturing sector that correspond to the 'modern' and 'traditional' sectors, which are then multiplied by the total labour cost series for manufacturing as a whole from the OECD data to give two new value series in real terms that represent the relative size of each sector. Both series are still limited by the length of the OECD data, however. Therefore, the quarterly growth for the volume of production series are applied once more to the remaining quarterly periods of the individual real output series in order to provide a more up-to-date estimate of output in the 'modern' and 'traditional' sectors. In effect, this covers the denominators for both sectors in the ULC calculations.

The next step relates to the labour cost side of the ULC measure. Using industrial level data from the EU-KLEMS database (available up to 2007), average levels of compensation per employees in representative sectors of both the 'traditional' and 'modern' sectors are obtained. These are then assumed to move broadly in line with one another and are supplemented with quarterly CSO data on average hourly earnings for the remaining period. This is judged to be a reasonable assumption given that compensation per employee data for both sectors exhibits a strong positive correlation in the initial EU-KLEMS dataset. Research by Baccaro and Simoni (2004) also shows that hourly wages per employee in the 'modern' and 'traditional' sectors trended very closely over the period 1985-1998. Using employment data from the CSO for the 'modern' and 'traditional' sectors, total labour costs are then computed for each sector as the product of the numbers employed and the compensation per employee.⁴ This enables one to obtain an evolving share of total labour costs for each sector which is applied to the original OECD total labour costs for manufacturing.

Finally, the ratios of the updated manufacturing labour costs series and the updated real output series are then rebased to reflect the peak in both series, which coincided in the third quarter of 2005. One caveat worth mentioning is that the production of ULCs typically employs compensation costs as the numerator in their calculation. These comprise pay, employers' social security contributions and other labour taxes and provide a more comprehensive measure of true labour costs experienced by businesses, when compared to average hourly earnings data from the CSO used here to augment the OECDs ULC series. The CSO earnings data only look at the sum of regular earnings, irregular earnings, overtime earnings and payment for days not worked for the quarter divided by total paid hours for the quarter and, therefore, has little to say in relation to business costs incurred in the form of employers' PRSI and other labour taxes.

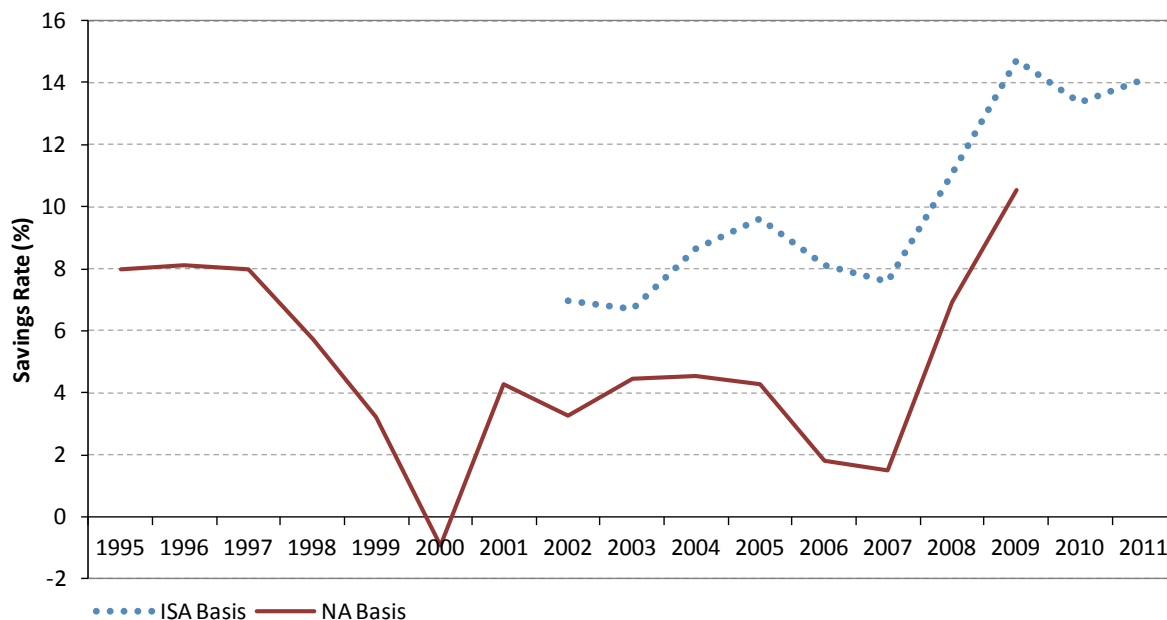
⁴ Ideally, data on employees rather than total employment would be used for each sector, but it is quite likely that this will not impact on the ultimate shares that are used in the construction of the index.

The Savings Rate during the Recession

Joe Durkan (ESRI) and Niall O'Hanlon (CSO)¹

A major feature of the economy since the crisis began has been an increase in the personal savings rate from very low levels estimated during the 2000s. Figure 2.1 shows the estimated savings rate from *National Accounts* data and from *Institutional Sector Accounts*, where the data overlap. The traditional measure comes from the *National Accounts* and this source has a much longer run of data.

FIGURE 2.1 The Savings Rate 1995 – 2011



Source: CSO National Accounts (NA) and Institutional Sector Accounts (ISA)

Looking at the *National Accounts* data first, the level of the savings rate during the period 1998-2007 was low relative to those estimated for earlier periods and were associated with significant increases in the level of real household consumption, averaging 6.3 per cent from 1997-2007. The negative savings rate in 2000 was associated with a volume increase in consumption of 10.5 per cent between 1999 and 2000. In 2008 and 2009 the savings rate increased to 6.9 per cent and 10.5 per cent respectively from a level of 1.5 per cent in 2007 and these increases were associated with a decline in real household spending. For 2010 our estimates put the rate at about 12.4 per cent. In the current situation one hypothesis is that the increase has been due to increased uncertainty re incomes, employment, and taxation arising from the crisis directly and the associated

¹ We wish to acknowledge the assistance of Gerard Reilly, CSO, in the preparation of the data and tables.

public finance crisis. This has been the basis for encouraging government to articulate its spending and taxation plans in detail, rather than presenting broad macro-aggregates. This also lies behind the belief that once households have realised a desirable net debt situation there will be a reduction in the savings rate, an increase in consumption and household investment, and a return to growth in domestic demand. Unfortunately, this hypothesis cannot be tested. However, there are different measures of the savings rate and some data from other sources which provide some insights into what has happened since the crisis emerged.

The *Institutional Sector Accounts* (CSO, 2012) and the *Household Budget Survey 2009-2010, First Results* (CSO, 2012) are both useful sources of new data. The former is available quarterly and is more up to date than the annual National Accounts measure. The latter provides information on the pattern of expenditure and changes in the pattern over time.

The institutional sector accounts also provide a different measure of household savings and of household disposable income. One advantage of the new definitions is that the savings, investment and net borrowing/lending of the household sector can be identified. The main adjustment to the National Accounts definition of savings is in relation to household depreciation, while on the disposable income side an adjustment is made for changes in equity of households in pensions. Figure 1 also shows the pattern of the savings rate using the data from the *Institutional Sector Accounts* for 2002-2010.

The broad pattern from 2002 is similar to that from the *National Accounts* though the data is available up to 2011. The data show that the savings rate peaked in 2009 and has fallen back since then.

The *Household Budget Survey 2009-2010* is designed to provide information on the pattern of expenditure by households. One objective of such surveys is to provide weights for indices of consumer prices, while another is to examine changes in expenditure patterns, picking up changes that are taking place in society, e.g. the emergence of mobile phone usage. The 2009-2010 survey provides comparable data from the 2004-2005 *Household Budget Survey* by average household at an aggregate level which allows us see the direct impact on households of the first years of the recession. Table 2.1 summarises the data for 2004-2005 and 2009-2010. The *HBS* is concerned primarily with determining patterns of expenditure by households rather than income or income distribution. Nevertheless, given the representative nature of the sample the main income and expenditure numbers are relatively close to those of macro

aggregates when grossed up. The savings rate estimated from *HBS* data is conceptually different to that estimated from the *National Accounts* as the latter includes the capital element of mortgage repayments and the *HBS* savings rate is a cash based measurement.

TABLE 2.1 Average Weekly Household Income, Expenditure and Savings 2004-2005 and 2009-2010 (€)

Income	2004-2005	2009-2010	% change
	€	€	
Direct Income	862.55	809.56	-6.1
State Transfers	125.41	217.20	73.2
Direct Taxation	144.98	141.05	-2.7
Disposable Income	842.98	885.72	5.1
Expenditure			
Food	142.74	131.28	-8.0
Alcoholic drink and tobacco	47.18	39.48	-16.3
Clothing and footwear	42.67	40.11	-6.0
Fuel and light	30.65	35.35	15.3
Housing	94.51	147.73	56.3
Household non-durable goods	17.42	16.49	-5.3
Household durable goods	35.55	30.06	-15.5
Transport	122.74	116.31	-5.2
Miscellaneous	253.61	253.81	0.1
Total	787.07	810.61	3.0
Total excluding housing	692.56	662.88	-4.3
Savings	55.91	75.11	-
Savings Rate	6.6	8.5	-

The most striking aspect of the data is not the information we already know - the fall in income from employment, the increase in transfer income and the increase in the savings rate - but the very large increase in housing related expenditure. This, dominated by mortgage repayments, rose over the period by over 50 per cent, while most other categories of expenditure fell. Excluding housing, total other expenditure fell by 4.3 per cent. It is possible to see from these data what was going on as the economy moved from boom to recession. Households experienced a fall in income from employment, with social transfers helping to maintain aggregate income. However, mortgage repayments had increased sharply and absorbed an increasing amount of expenditure - increasing from 12.0 per cent to 18.2 per cent of expenditure. Other expenditure fell. The picture it gives is of households increasing savings slightly, increasing mortgage payments but reducing other expenditure. The driving force behind the reduction in other expenditure was the need to maintain mortgage repayments. Consequently, other expenditure declined.

These are aggregate figures for households as a whole. More detailed analysis of the *2009-2010 HBS* where the data are broken down by age and housing tenure is instructive (Tables 2.2 and 2.3).

TABLE 2.2 Household Income and Selected Expenditure by Age of Reference Person € Per Week

Age	% of H/Hs	No. in H/H	Disposable Income	Total Expenditure	Housing & Childcare	Disposable Income- Housing & Childcare	Disposable Income- Expenditure	Savings Rate %
<25	3.9	0.73	551.49	674.25	180.71	370.78	-124.76	-22.6
<35	23.5	1.24	898.45	799.70	219.78	678.67	98.75	11.0
<45	24.0	1.19	1001.54	944.99	236.00	765.54	56.55	5.6
<55	18.4	1.35	1078.47	1004.07	164.78	913.69	74.40	6.9
<65	14.3	1.0	899.02	808.66	110.61	788.41	90.36	10.1
>64	15.9	.23	561.44	450.79	53.12	508.32	110.65	19.7

TABLE 2.3 Household Income and Selected Expenditure by Tenure € Per Week

Tenure	% of H/H	Disposable Income	Total Expenditure	Housing & Childcare	Disposable Income- Housing & Childcare	Disposable Income- Expenditure	Savings Rate %
Owned outright	30.6	793.69	683.02	58.98	734.71	110.67	13.9
Owned with mortgage- paid last mortgage	35.5	1209.81	1153.72	301.75	908.86	56.09	4.6
LA rented	9.8	504.77	448.84	69.86	434.91	55.93	11.1
Private Rent	20.8	723.3	673.08	183.06	540.24	50.22	6.9
Rent Free	1.3	619.38	544.54	32.06	587.32	74.84	12.1
Owned with mortgage and did not pay last mortgage	2.0	900.59	734.79	79.03 (398.02)	821.56 (423.54)	165.80 (-153.19)	18.4 (-17.0)

Note: Figures in brackets are estimated on basis that the main mortgage payment was made.

Table 2.2 shows that for many households housing costs and childcare costs take up a very significant portion of disposable income. Where the reference person is less than 25 years of age the average number at work is less than 1, while the average household size is almost 2.7. These households spend about one-third of disposable income on housing and childcare, and their weekly expenditure exceeds income significantly. These households account for 3.9 per cent of households in 2009-2010. Housing and childcare costs amount to 20-25 per cent of income for those aged 25 to less than 45. For older age groups these costs taper away sharply, as does income and the average number employed. Nevertheless, the excess of disposable income over expenditure is relatively modest except where the reference person is over 64 when the rate is almost 20 per cent.

Table 2.3 looks at the tenure status of households. The most interesting feature is in relation to those with mortgages. It is worth remembering that not all

households have mortgages, from the sample only 37.5 per cent have mortgages, though some have more than one. A distinction is made in the table between those who have paid their most recent mortgage (35.5 per cent of all households) and those who have not (2 per cent of all households). Households in arrears in 2009-10 amounted to over 5 per cent of all mortgage holders. This is roughly in line with estimates at the time though clearly the situation has worsened since then. Comparing the two type of households the former have average household income that is significantly greater, have higher average income per person employed, have on average slightly less people in employment, though household size is roughly the same. We have estimated what the repayments would be for households who had not made their last payment, based on payments for mortgage protection policies. If the latter households did pay their mortgage their expenditure would exceed income by about 17 per cent. Clearly for these households something had to give.

Conclusion

This research note has provides some new insights into savings behaviour in the early stages of the recession based on a comparison between the Household Budget Survey of 2004-2005 and that of 2009-2010. What the comparison shows is that there was a very large increase in housing related expenditure, mostly mortgage payments, while most other categories of expenditure experienced declines.

It is clear that two types of households were experiencing difficulties in 2009-2010 viz. younger households and households where making the mortgage payment was beyond the financial capacity. However the bulk of households were staying within budgets even if there were limited new savings. These data are potentially very rich and will warrant further more detailed study.

This of course relates to the situation that prevailed up to 2009-10. Since then interest rates have dropped dramatically and this has eased the situation, though for those in arrears it must still be challenging. This has created the potential for increased savings, both to meet future uncertainty, and to provide for future increases in interest rates.

The Impact of Recession on Migration: A Preliminary Analysis of *Census 2011*

Pete Lunn, ESRI¹

This research note presents a preliminary analysis of data relating to migration from the earliest statistical releases of *Census 2011* (Central Statistical Office, 2012). The aim is to exploit the new data to draw inferences about the extent and composition of net migration associated with Ireland's deep recession, which began almost midway through the intercensal period of 2006-2011. It is hoped that the analysis offers some insight into the impact of the recession on different sections of Irish society, at least with respect to people's decisions to relocate to and from Ireland.

The method employed is to infer net migration from differences in the size of matched subgroups of the population in successive Censuses. The intention is to exploit the comprehensive coverage of the Census. Its immunity to many sampling issues means that the quantitative picture produced by the Census may be a more reliable guide than attempts to track migration through smaller sample surveys. The downside, however, is that while the patterns described below offer insights, they are limited to calculations of net migration over five years, i.e. it is not possible to separate the relative contribution of immigration and emigration, or to compare non-Census years. This is important, because during this five-year period Ireland changed from a country with net inward migration to one with net outward migration (Central Statistics Office, 2011).² The results reported can only reveal the combined effect. Thus, while the method illuminates aspects of recent migration, it would be a mistake to interpret the findings as latest or, worse, ongoing trends.

Net Migration by Single Year of Age, 2006-2011

The basic method is exemplified by Figure 3.1, which shows the population of Ireland by single year of age as enumerated in *Census 2011* and, for comparison, the population enumerated in 2006 aged by five years, i.e. with the population

¹ *Acknowledgements:* I thank Alan Barrett, Adele Bergin, David Duffy, Joe Durkan, John FitzGerald, Petra Gerlach, Stefanie Haller, Philip O'Connell and an anonymous referee for helpful comments.

² Estimates of population and migration by single year are contained in this CSO release, but it is recognised that the estimates do not match the results of Census 2011. The discrepancy may reflect the difficulty of using a sample survey to estimate migration (the Quarterly National Household Survey is the primary source for the annual figures), or may be due to improvements in the Census coverage between 2006 and 2011. Resolving this issue is beyond the scope of this short note, which limits itself to the comparison of Census data. Revised annual figures are expected to be published by the CSO later this year.

profile recorded in 2006 shifted five years to the right.³ The difference between the two profiles therefore represents population change by single year cohort.

FIGURE 3.1 Population Enumerated in *Censuses 2006 and 2011*, Matched by Single Year of Age in 2011



Before proceeding to a more detailed comparison between the two profiles, Ireland's unique population profile is worthy of note. The sharp peak at approximately 30 years is in part due to historic patterns of family formation and fertility, but was accentuated by the age profile of immigrants during the boom, who were mostly in their twenties and early thirties. The scale and sharpness of this peak is truly striking. In 2011, Ireland had around 63,000 45 year-olds, 83,000 30 year-olds, yet just 57,000 15 year-olds. Hence, the 30 year-old cohort is 32 per cent and 44 per cent larger again than the cohorts just 15 years older and younger respectively. Since immigration of young adults may be less likely in the future than in the recent past, the potential consequences of this steep fluctuation being maintained in the population profile merit consideration. Most obviously, while the profile explains the recent surge in the number of births, it strongly suggests that the number will fall again in coming years too. Over coming decades, it may also have implications for, among other things, the composition of tax revenues, the funding of pensions, and the demand for various health services.

³ The population used for this analysis is the *de facto* population, which includes visitors on Census night. In comparison with the size of the effects reported here, the inclusion of visitors makes only a very marginal difference to the population profile by age, especially with respect to changes in the population profile between successive Censuses.

Notwithstanding marginal changes in the accuracy of Census coverage, once matched by cohort, population change is down to two factors: net migration and deaths. Since the aim here is to use population change to estimate the former, the potential impact of the latter needs to be understood. Deaths mean that any increase in the enumerated population is an underestimate of net inward migration. But by how much? Figure 3.2 uses data on death rates from the CSO's *Vital Statistics* series to compare raw population change, i.e. the difference between the curves in Figure 3.1, with an estimate of inward net migration that adjusts conservatively for the possible impact of deaths.⁴ Hence true net migration, which cannot be determined with perfect accuracy, lies somewhere between the two lines. The chart reveals that population change for cohorts up to 50 years in 2011 is dominated by net migration – deaths have only a marginal effect. Beyond age 50 the two lines would separate rapidly and the method used here would be inappropriate. Given this marginal impact of deaths, for the remainder of this analysis population change is employed as an estimate of net inward migration for cohorts up to 50 years, while recognising that the estimate is marginally on the low side among those over 30 years.

Figure 3.2 reveals population growth for almost all cohorts, as the number of immigrants exceeded the number of emigrants. The highest net inward migration occurred among adults aged between their late twenties and late thirties in 2011, with the difference in net migration between people in their mid-twenties and those in their late twenties being particularly sharp. This age is the most likely time in the life-course to form long-term partnerships. Net inward migration was also high among children. Thus, while migration during the period was doubtless primarily driven by labour market conditions, family structures may have mattered too. The data suggest that, in the face of economic adversity, young families were either less likely to leave Ireland, more likely to arrive, or both, compared with the rest of the population. Families may be less inclined than single people to uproot and leave, though it is possible also that the higher net inward migration was partly caused by partners and children relocating to join family members who had arrived previously to work.

⁴ The adjustment overestimates the impact of deaths because it employs a linear interpolation based on death rates by ten-year age categories in 2009. In reality, the probability of death accelerates with age, so ignoring the acceleration slightly widens the gap between the two data series in Figure 2. Hence the assumption is conservative in the present context and true net migration lies between the two series. An alternative adjustment employing an approximation of the number of deaths derived from the CSO's Life Tables produces an almost identical result.

FIGURE 3.2 Estimated Net Inward Migration by Single Year Cohort, With and Without Adjustment for Estimated Death Rate, 2006-2011



Net Migration by Single Year of Age, 1996-2011

Greater insight into migration in recent times can be had by performing a similar analysis for the three most recent intercensal periods: 1996-2002, 2002-2006, 2006-2011. This is done in Figures 3.3 and 3.4. The changing population profiles in Figure 3 show how the peak in the cohort aged around 30 years in 2011 was evident in the number of 15 year-olds in 1996, but was made much steeper by immigration. The chart also underlines the mobility of those who were relatively young workers during the boom. The separation between the lines, mostly indicating strong net inward migration, is greatest among this cohort and their children.

Nevertheless, this cohort were not always net immigrants. Figure 3.4 replots the data as estimated net migration, similarly to Figure 2 above. (The delayed 2001 Census, postponed to 2002 because of foot-and-mouth disease, necessitates a slight presentational change, such that the figures given are average annual net migration for each intercensal period.) The cohort who were teenagers in 1996 had in fact shrunk by 2002, corresponding to net emigration, but then expanded dramatically between 2002 and 2006, boosted by a combination of new immigrants and returning emigrants. This period included the entry to Ireland's labour market in 2004 of workers from the then new EU accession states. It is notable that the scale of net inward migration among working-age adults fell back considerably during the 2006-2011 period, compared with the 2002-2006 period, although less so among children.

FIGURE 3.3 Population Enumerated in Censuses 1996, 2002, 2006 and 2011, Matched by Single Year Cohort (single year of age in 2011)



FIGURE 3.4 Estimated Annual Average Net Inward Migration by Single Year Cohort, 1996-2002, 2002-2006 and 2006-2011



Net Migration by Gender, 1996-2011

The available data make it possible to conduct the same analysis separately by gender. Figure 3.5 shows that the most recent intercensal period saw a change in the relationship between migration and gender. For the two periods 1996-2002 and 2002-2006, gender differences were small. Among the cohort aged 27-35

years in 2011, marginally more men had left towards the end of their teenage years (dotted line) and/or arrived in their early twenties (dashed line), but the overall patterns for men and women differed little for the earliest two periods. Between 2006 and 2011, however, the pattern altered. Net inward migration among working-age men fell substantially, with those in their twenties becoming net emigrants. Yet net migration among women changed far less. They remained net immigrants at almost all ages, but especially at 25-35 years. Net inward migration among women in their early twenties actually increased.

FIGURE 3.5 Annual Average Net Inward Migration by Single Year Cohort and by Gender, 1996-2002, 2002-2006 and 2006-2011



It is not possible with the present data to test hypotheses regarding the cause of this differential pattern of migration by gender. Yet the obvious candidates are the concentration of job-losses in the construction sector and the tendency for family members to come to Ireland to join those immigrant workers who were faring well despite the recession.

Net Migration by Ethnicity, 2006-2011

It seems likely that incentives and disincentives to migrate during the recession might differ considerably between the long-term native Irish population and more recent arrivals. The published *Census 2011* tables permit some insight into this issue, because they provide a breakdown of broad ethnicity by five-year age groups, allowing cohorts again to be matched between 2006 and 2011.⁵ The Census records ethnicity in three main categories with further subdivisions: White (subdivided into Irish, Irish Traveller or Other); Black or Black Irish (subdivided into African or Other), Asian or Asian Irish (subdivided into Chinese or other); and Other. While ethnicity and immigration history in Ireland are not coterminous, they are highly correlated. Figure 3.6 compares the size of population subgroups enumerated in 2006 and 2011 for White-Irish, White-Other and the four Black and Asian categories combined. (Note that while the results for the two White groups are plotted on the same scale, the positive scale for the combined Black or Asian group is four times smaller).

⁵ The definition of the population employed in this section is no longer the de facto population, but the population of usual residents. Again, this makes only a marginal difference to the analysis.

FIGURE 3.6 Estimated Net Inward Migration by Five-Year Age Cohort and Ethnicity, 2006-2011

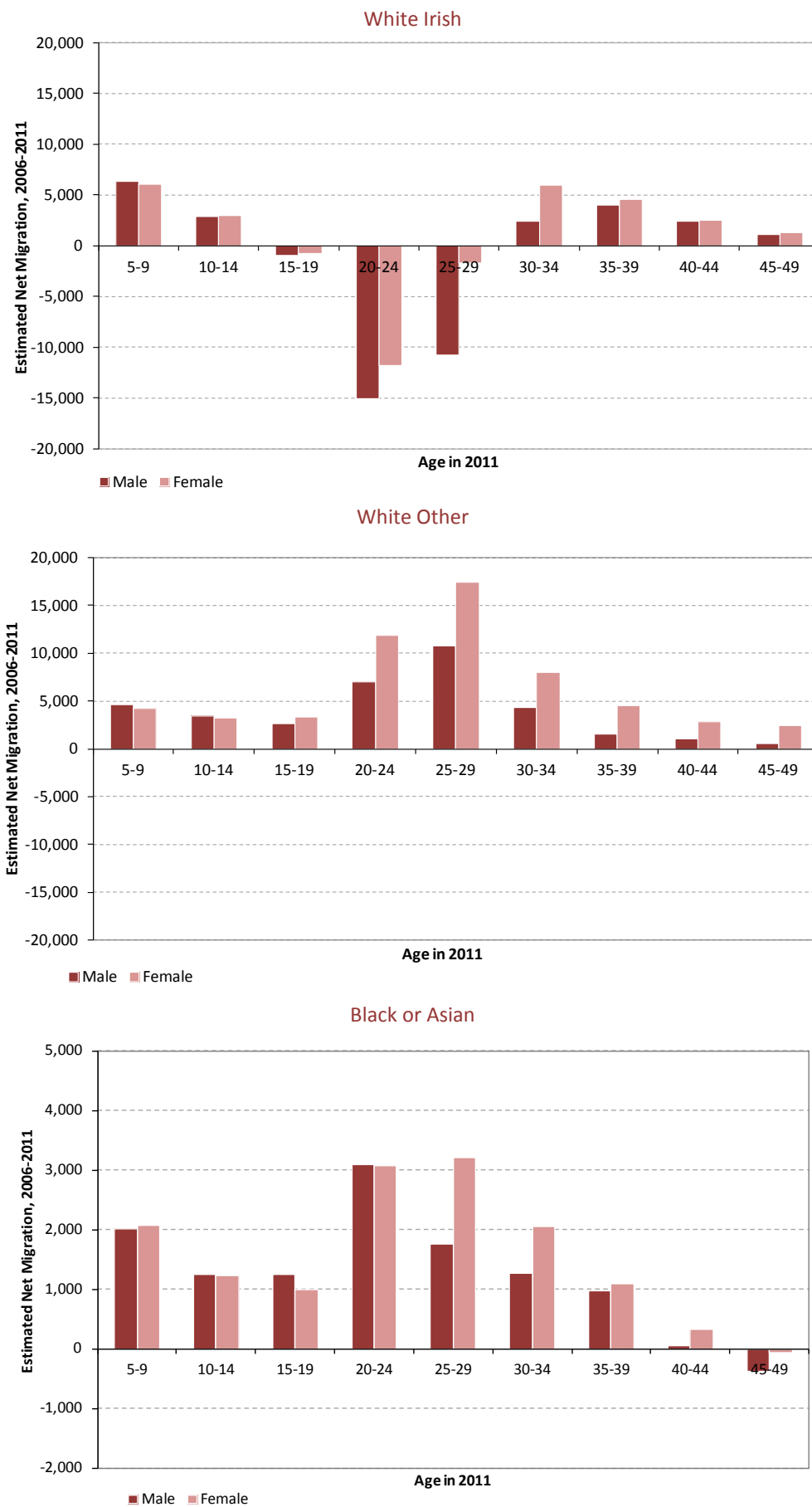


Figure 3.6 reveals a contrasting picture. Members of the long-term native Irish population in their twenties in 2011 were substantial net emigrants; especially (but far from exclusively) the men. Between 2006 and 2011, almost 40,000 more of them left the country than arrived, equivalent to 10 per cent of men and 5 per cent of women aged 20-29 years. Note that this does not equate to one-in-ten men and one-in-twenty women in this group emigrating during the period, because the figures correspond to net migration and are thus reduced by any immigration for this cohort. Thus, substantially more than one-in-ten and one-in-twenty emigrated.

The comparison with the other ethnic groups is striking. New arrivals in the White-Other group were overwhelmingly immigrants from Eastern Europe. Immigration dominated emigration for this group and for the Black-Asian group. Furthermore, the age profile of net migration for these two groups is radically different from that for the White-Irish group. Much of the difference is due to substantially higher immigration in these groups between 2006 and 2008, rather than to the pattern of emigration following recession. However, the latter may have played a role too. Although likely to be revised (see footnote 1), the annual figures in the *Population and Migration Estimates* (Central Statistics Office, 2011) suggest that Irish nationals accounted for roughly half of net outward migration between 2009 and 2011, despite evidence showing that recent immigrants experienced higher levels of job loss (Barrett and Kelly, 2012). Considering this pattern alongside the large differences by ethnicity apparent in Figure 6, it is possible that factors outside the labour market were also important. The family situations and expectations of young adults who arrived in Ireland from elsewhere during the boom may have been quite different from those of their native counterparts. Most non-Irish immigrants to Ireland originate from countries with considerably lower per capita incomes and from cultures where people are inclined to marry and to have children at a younger age (Lunn and Fahey, 2011). Thus, despite their more recent arrival in Ireland, some incentives faced by non-Irish immigrants may have made them less inclined to leave than young Irish adults.

Conclusions

Despite the deep recession, for the period 2006 to 2011 as a whole, Ireland experienced further net inward migration. Net inward migration was higher among those between their late twenties and late thirties, as well as among children. In addition to labour market incentives, therefore, family circumstances may have been important in migration decisions.

From 1996 to 2006, the migration patterns of men and women were similar. In contrast, 2006-2011 witnessed a strong gender difference, with net inward migration higher among women. One cause was doubtless changed job prospects in male dominated industries, especially construction, which boomed in the two previous intercensal periods but contracted sharply after 2007 when the property bubble burst. But this may not be the only cause. Family members arriving in Ireland to join working immigrants who had established themselves may also have contributed.

Recent years have seen marked differences too between people of different ethnicity. In the White-Irish category, those aged 20-29 were significant net emigrants over the five year intercensal period, in contrast to any other age group of any other ethnicity. Within this native ethnic group in their twenties, more than one-in-ten men and one-in-twenty women emigrated between 2006 and 2011.

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Special Articles

The Irish Housing Market

David Duffy and John FitzGerald

Introduction

The future development of the Irish housing market will play a significant role in determining the pattern of the long-term recovery of the Irish economy. While the housing market may never return to where it was in the boom years, some recovery will eventually take place. The timing of this recovery, including the timing of the turnaround in house prices, will play a role in determining when output in the economy returns towards its long-term potential. Activity in the housing market is influenced by a range of factors including incomes, prices, price expectations, interest rates and affordability. It is not possible to forecast when a turning point will take place but this note considers evidence on some of the variables which might help bring about a stabilisation in the market.

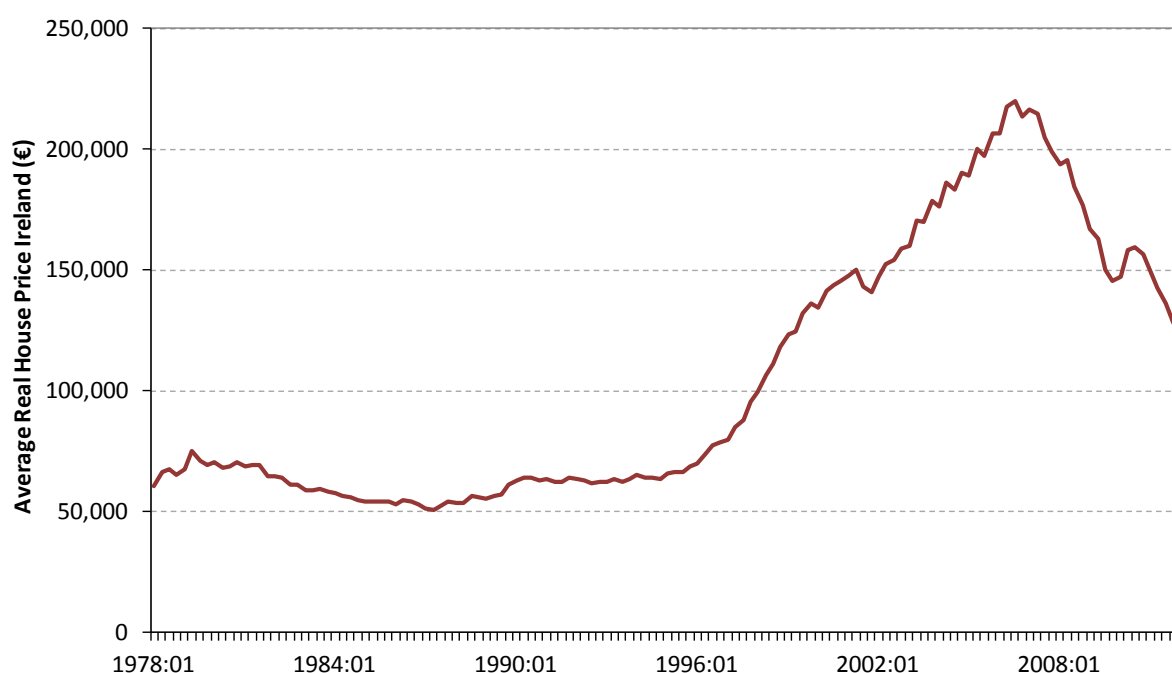
Since 2007 the housing market has collapsed and prices have fallen continually since then. This collapse of the housing market reflected the wider recession in the economy, in particular rising unemployment and increased uncertainty about the future. At least initially, many new dwellings failed to find an owner as they were completed. The related rise in the vacancy rate and the consequential collapse in prices saw housing completions fall from a peak of over 90,000 to less than 10,000 last year. However, over time, the vacant dwellings located in major urban areas have been rented out so that, as discussed below, today there are a limited number of vacant dwellings in the major urban areas.

With house building almost halted an important question is how much longer house prices will continue to fall and where the floor in the market will lie. This note does not seek to answer this question: determining the timing of turning points in the economic cycle is notoriously difficult. However, a range of recent information and research provides useful information in helping to understand the factors that might drive the housing market over the next few years.

Although more detail will follow in later publications, the recently released *This is Ireland: Highlights from Census 2011, Part 1* does offer us some insights into Ireland's housing market. It provides information on the stock of dwellings, where they are located and the vacancy rate. This affects our understanding of the supply of housing in the short to medium term. In addition, the Census data allow an examination of the population changes over the last five years, which is also useful in understanding the demographic factors that are likely to drive demand in the future.

Recent work by Kennedy and McQuinn (2012), provides additional useful evidence in understanding the working of the housing market. Their finding was that house prices are today below their long-run equilibrium. However, as was to be expected, their analysis does not tell us when a turning point in the dynamics of prices is to be expected. A paper by Kelly (2007), looked at the experience of previous house price crashes in other countries. This evidence suggested that during a housing bust prices fall by about 10 percentage points each year. Today we are five years into the fall in prices and prices are around 50 per cent below their peak – roughly what might have been anticipated based on the experience in other countries.¹ Initially prices may just stabilise. Real Irish house price data shows that after the last downturn in real house prices, in the late 1980s, the decline was followed by a number of years of stagnant prices, see Figure 4.1. Analysis by Bénétrix *et al* (2011) finds that "...house price slumps can be extremely long-lasting once they become entrenched." In addition, they present data on 59 house price slumps which show that in the four quarters following the slump, in many cases, any house price growth can be moderate.

FIGURE 4.1 Average Real House Price Ireland



Source: Based on data from Dept. of Environment *Housing Statistics* and CSO *Residential Property Price Index*.

This paper first considers the factors affecting housing supply, in particular the details of the stock of existing housing and its current utilisation. We then consider the factors driving housing demand, in particular the potential impact of

¹ See Reinhart and Rogoff (2009), for a comparison of historical real house price declines.

demographic change. We then consider the factors affecting households' decision to rent or to buy and how this may affect the dynamics of house prices.

Supply of Housing

An important issue for the recovery of the housing market will be how rapidly the absorption of the vacant housing stock takes place. With very few dwellings being built today, future demand will initially be met from this fixed supply. With fixed supply, regional variations in demand will potentially see regional differences in the timing and the nature of any stabilisation. In high demand regions, such as Dublin, prices may stabilise before they do so in other regions, where there is an excess supply of vacant dwellings. In these latter cases it may take some considerable time for the current excess supply to be absorbed. Thus, looking at regional vacancy rates and how they are moving is important in understanding where the current trend in falling prices is likely to halt first.

The Census estimate of vacant dwellings does not include dwellings under construction or derelict properties.² Using the Census definition of vacant dwellings, including holiday homes, almost 290,000 homes were vacant at the time the Census was taken in April 2011, giving a national vacancy rate of 14.5 per cent. Of the vacant dwellings, just over 58 per cent were vacant houses, 21.3 per cent were vacant flats and 20.5 per cent were holiday homes.

The data in Appendix Table 1 show that the national vacancy rate has not changed much since 2006. However, there is significant regional variation. In Dublin, Cork, Galway and their environs the vacancy rate has fallen since 2006, although it still remains above the 2002 rate. Analysis of the data shows the role played by holiday homes in the overall vacancy rate. For example, holiday homes accounted for over 48 per cent of the vacant stock in Westmeath in 2011, but just 0.5 per cent in South Dublin County. While the current economic situation means that some people would like to sell their holiday home, most holiday homes will not help in meeting the needs of new household formation. The very wide regional variation in vacancy rates indicates that, while in Dublin the vacancy rate is now closer to what it was in a "normal year", such as 1996, it remains exceptionally high in Connaught and the three counties of Ulster. Thus, outside the main urban centres, it is likely to be quite some time before new houses will need to be built.

² A dwelling was classified as under construction if it was unfit for habitation because the roof, doors, windows or walls had not yet been built or installed.

It is also important to look at the vacancy rates separately for houses and for apartments. Appendix Table 2 shows a low vacancy rate for houses in the Dublin region in 2011, down from 9.6 per cent in 2006 to 4.9 per cent in 2011. This would be close to the overall vacancy rate (including apartments) for Dublin shown in Appendix Table 1 for 1996 and 2002.

The vacancy rate for apartments is high throughout the country. Even in the Dublin area there was still quite a high proportion of vacant apartments, though still lower than the national average. Of course, the Dublin market is not homogenous and there are big variations between city areas in the availability of apartments. While a greater vacancy rate may be normal for apartments catering for a rental market, the 2011 rates still look high. Thus, there may be less upward pressure on rents for apartments, even with an increase in the number of households. Certainly outside Dublin vacancy rates for apartments are very high and it will be some time before the stock of vacant apartments in high demand locations is exhausted.

Tenure

Traditionally in Ireland the rate of home ownership has been very high. However, between 2006 and 2011 there was a dramatic increase in the share of households in private rented accommodation (Appendix Table 3). Between 2006 and 2011 the number of households in Ireland increased by 187,000 or almost 13 per cent, to 1,649,000, while the number of households renting increased by 160,000. *Quarterly National Household Survey (QNHS)* data suggests that new households continued to form even as the market experienced sharp falls in prices over the latter half of the period. However, nearly all the net new households formed were renting. This is probably due to a number of factors. For example, the sudden drop experienced by the housing market from 2007 onwards gave rise to the expectation of further house price falls. In addition, affordability has been an issue, initially due to high house price levels. In the current period affordability would also be affected by income cuts and the need to repay existing debts.

As a result of this change in tenure pattern, according to the *2011 Census*, 18.5 per cent of households were in private rented accommodation, compared with 9.9 per cent in 2006. The change is particularly marked in the urban areas: for example, the proportion in private rented accommodation in Galway city was 37.5 per cent (up from 24.9 per cent in 2006) and in Dublin city it stood at 32 per cent compared to 19.2 per cent in 2006. The effect of the housing crisis on households' preferences could see a long-term increase in the share of households preferring to rent than to buy. While data are not yet available from

the Census for tenure by age, we suspect that the increase in households renting is concentrated among households in their late twenties or early thirties.

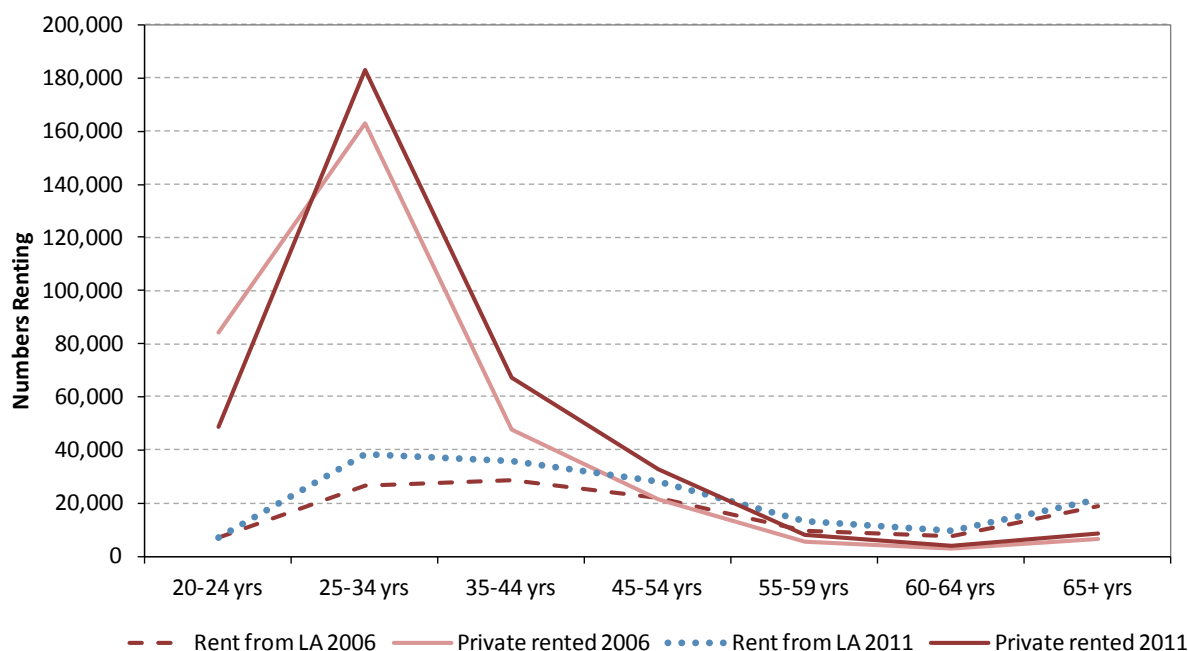
Age data from *Census 2011* shows that the absolute numbers aged 30 years is much higher than those aged either 20 or 40 years, see Figure 4.2. In the absence of Census micro-data we rely on data from the *QNHS* to get some insights into the characteristics of those who are renting. The *QNHS* data suggest that a majority of those renting are aged under 35 years. In Figure 4.3 it is also interesting to note that the number renting private accommodation is generally higher by 2011, with those aged 35-44 years increasing from 14.4 per cent in 2006 to 19 per cent in 2011.

FIGURE 4.2 Population by Year of Age



Source: CSO, *Census 2011*.

As discussed above, once the economy recovers and expectations about house prices change, it would be anticipated that a proportion of those renting would seek to buy a dwelling. A number of key factors will influence this decision, including the availability of mortgage finance. Given the impact of the crisis on incomes, the ability of households to repay any new mortgage debt will also be an important factor. Finally, the depth and duration of the crisis, in addition to widespread negative equity means it is possible the crisis will have changed the perceived attractiveness of the rental tenure choice.

FIGURE 4.3 Numbers Renting by Age Cohort

Source: Author's estimates using QNHS micro-data. Based on response of family unit head and those not in a family unit.

Whether a household rents or owns a dwelling they still occupy an independent dwelling. Thus, a switch in tenure from renting to owning or vice versa need not affect the number of dwellings needed to house the population. However, if a switch in tenure choice occurs, for whatever reason, it may also be combined with a change in preference for type of dwelling. While decisions about housing tenure ultimately do not affect the demand for dwellings they may, as a result, affect the demand for different types of dwelling.

Demographic Factors Affecting Household Numbers

Having considered changes in the vacancy rate and the tenure decision of households we now turn to the factors affecting the demand for dwellings over the next few years. The demand for dwellings in Ireland is affected by a range of issues. We first focus on demographic factors. The natural increase in the population, affects the number of potential households. Migration, whether immigration or emigration, also affects potential household numbers. The final "demographic" factor is the timing of the decision by an individual or individuals to jointly establish an independent household, which is affected by preferences and, of course, by the cost of housing.

In addition to these demographic factors the demand for housing is affected by two other drivers: depreciation in the housing stock and the changes in the number of vacant dwellings and the number of holiday homes. In this Section we

first consider the demographic factors driving household formation and we will leave till later the other factors which, together, will determine the total demand for dwellings.

We analyse the drivers of household formation using the ESRI's demographic model.³ This model forecasts the population by single year of age using assumptions about survival rates, birth rates and migration rates. By applying age-specific headship rates⁴, the number of households for each year is derived. Here we first use this model to decompose the change in the number of households over the period 1991-2011 into the different demographic components (Figure 4.4). We then use the model to estimate the future increase in household numbers over the next decade based on a set of assumptions about migration and assuming unchanged headship rates.⁵

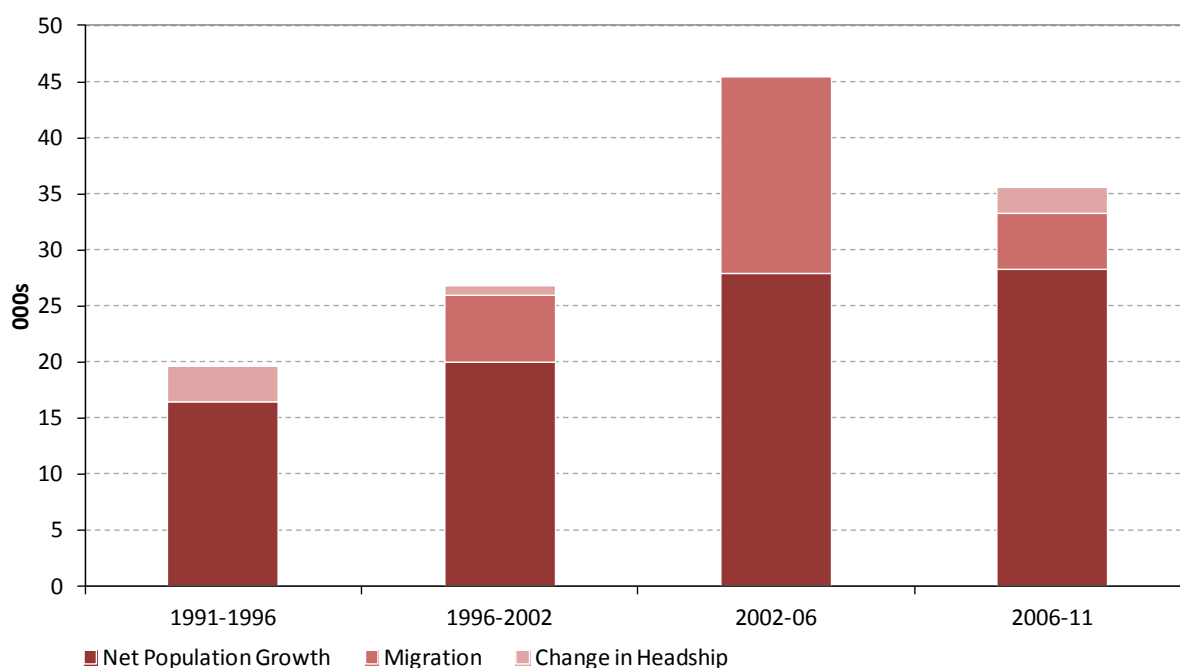
Figure 4.4 shows this decomposition of new household formation for the intercensal periods since 1991. The effect of the very high birth rate up to 1980 shows up as a big increase in new households in the period 1996-11. As with earlier generations, the children of the 1970s have moved to set up independent households as they reach their late twenties. At its peak, the excess of new households over households disappearing due to deaths added around 28,000 a year to the total stock of households over the period 2002-11. The very high level of immigration over the period 2002-6 meant that an additional 17,500 dwellings a year were needed to house the inflow of new households. Even with the reversal of migration from 2009, the net effect of migration between 2006 and 2011 was to add 4,900 households a year.⁶ Thus, the underlying increase in demand for housing from demographic factors averaged 45,000 dwellings per annum between 2002 and 2006, and 33,200 dwellings per annum between 2006 and 2011.

³ An outline of the model is given in Byrne, Znuderl and FitzGerald (2011).

⁴ The proportion of a cohort heading up an independent household.

⁵ Over this horizon assumptions about birth rates and death rates make little difference to the numbers.

⁶ Duffy (2007), showed that headship rates for immigrants were similar to that for natives.

FIGURE 4.4 Demographic Drivers of the Demand for Dwellings⁷, Thousands per Year

The Census data also provide some insights into a number of other factors that contribute to the demand for housing. Headship rates in Ireland are low by the standards of other rich countries in the EU 15. Table 4.1 shows that the number of houses per adult is lower in Ireland and Spain than in a sample of other EU-15 countries such as the Netherlands, Germany or the UK. A comparison of age specific headship rates for Ireland, Germany and the UK in Conefrey and FitzGerald (2009), shows that this difference arises especially for households in their 20s and their 30s. Even with the housing boom of the last decade this difference in headship rates remains the case for Ireland. While this could be due to different preferences,⁸ it is more likely to be because of the rapid rise in the cost of having an independent household, observed over the period 1991-2006. It is interesting that, even with the severe economic difficulties faced by households over the period 2006 to 2011, as shown in Figure 4.4 headship rates actually increased, resulting in a need for an additional 2,400 dwellings a year. Such a rise in headship could be explained by the fall in the cost of renting over that period, which made the establishment of an independent household by those in employment more affordable than in earlier years. Against that the rise in unemployment militated against household formation. As a result, this factor was quite minor in driving household numbers. Nonetheless, it is interesting that it was positive for the first time since 1996.

⁷ A dwelling refers to a house or apartment.

⁸ For example, Irish people may be later to leave home or they may be more prepared to share a dwelling when they are not a couple than is the case elsewhere.

The difference between the change in the number of dwellings recorded in successive Censuses and the change in total number of dwellings built over the same period provides an estimate of depreciation, or dwellings which went out of use over the same period. Thus, in addition, to the increase in the number of households each year, around 9,000 houses a year disappeared from the housing stock. This can be explained by a number of factors – redevelopment (e.g. Ballymun); conversion of multi-occupation dwellings to single occupation; dereliction (e.g. old farmhouses). On top of that, as outlined in Section 2, a significant number of houses were built that did not find occupants – they were vacant.

For the period 2011-21 we use the demographic model to estimate the potential increase in the number of households. The single most important factor is the demographic pressure stemming from the natural increase in the population. A number of other important assumptions are made in undertaking this work. First, and probably most uncertain, is the assumption of significant but limited outmigration over the period 2011 to 2015.⁹ The actual outturn will, inter alia, depend on what happens over the coming years in the real economy. Past forecasts of migration have proved very unreliable. However, our emigration assumption is broadly consistent with what we know about the pattern of migration in recent years.

The second simplifying assumption we make is that there will be no change in headship over the rest of the decade. This could prove to be a conservative assumption given the relatively low headship rates today in the under 35s, the dramatic reduction in the cost of housing in recent years and the prospect of some recovery in the economy and fall in unemployment over the rest of the decade.

On the basis of these assumptions we estimate that there will be some slowdown in the "natural increase" in the number of households, reflecting a fall in the birth rate in the 1980s. However, it could still give rise to an increase in household numbers of between 15,000 and 20,000 a year up to the early years of the next decade. Obviously, with higher levels of emigration household formation would be slower to increase. The assumption of no change in headship, in other words, a constant share of each age group heading up an independent household, and assuming a constant rate of obsolescence of 5,000 units per annum (low by historic standards), would suggest a need for an additional 20,000 dwellings a year over the period to 2016 to house the additional households and an

⁹ It is assumed that net emigration runs at 25,000 a year to 2015 and zero thereafter.

additional 25,000 a year in the subsequent five year period.¹⁰ To the extent that there are vacant dwellings available the need for new dwellings will be reduced. If housing costs do not rise rapidly in the coming years, with a recovery in the economy and a gradual fall in unemployment, a rise in headship rates could be anticipated which would put further pressure on the housing stock in the medium term.

TABLE 4.1 Numbers of Dwellings per Thousand Adult Population, 2001

	Total Dwellings	Occupied Dwellings
Denmark	620	595
Estonia	599	521
France	634	526
Germany	599	
Hungary	519	475
Ireland 2001	467	467
Ireland 2006	574	478
Ireland 2011	600	499
Poland	454	421
Portugal	633	448
Spain	655	444
UK	575	551

Source: Eurostat and Census of Ireland.

With fewer than 10,000 houses a year being built, the anticipated increase in household numbers should initially result in some reduction in the number of vacant dwellings. However, some regional variations may occur. If, for example, the increase happens in the Dublin area, where there are relatively few vacant houses, this may require more houses to be built later in the decade. As of today the prospect of a rise in house building seems some way in the future.

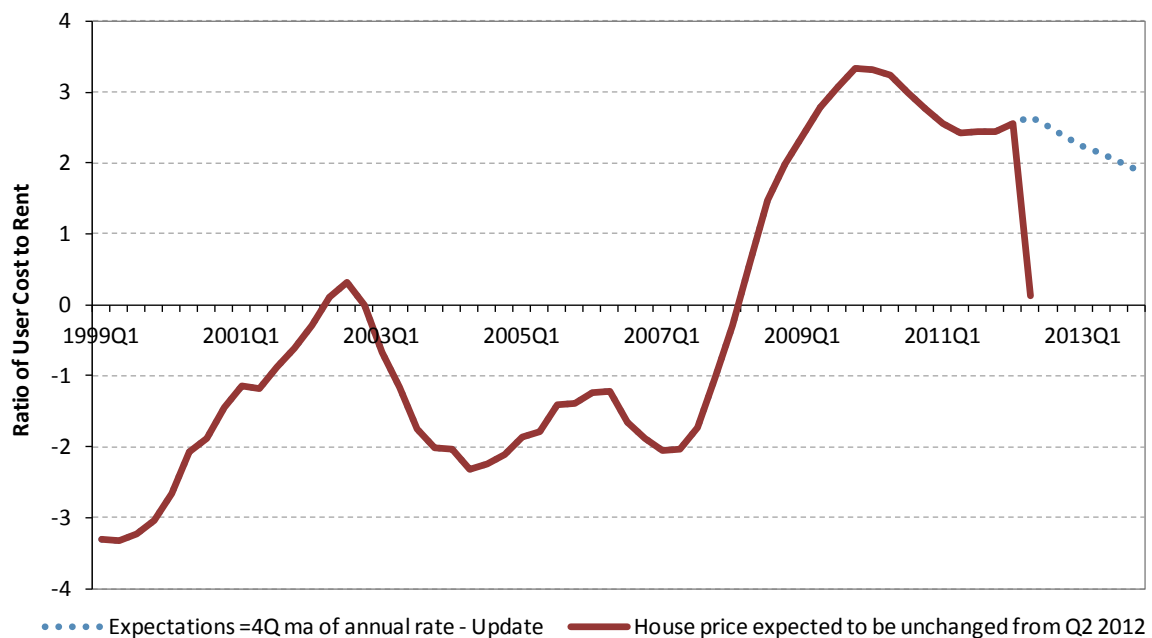
The User Cost of Housing

Section 4 explored the potential demand for housing units arising from demographic factors. However, a key determinant of whether or not this potential demand will be realised are price expectations. In both a housing market that is growing dramatically, a bubble, and in a collapsing market, expectations about future price changes have a big effect. It is difficult to predict the floor in a collapsing market because this will also be determined by expectations. Given that so much depends on expectations of households about the future, expectations that are difficult to model, it is difficult to predict when the market will reach a floor and just how low that floor will be.

¹⁰ If emigration ran at twice this level this would reduce the increase in household numbers to around 10,000 a year in the period to 2016.

A useful framework to consider the role of expectations as they affect the decision by households to buy a dwelling rather than to rent is provided by Duffy (2011). Decisions by households on whether or not to buy a dwelling depend, to a significant extent, on whether purchase is likely to be better value than renting in the immediate future. As discussed above, there is a large stock of people who are renting who are facing this choice today. Central to the decision whether to buy or to continue to rent will be expectations of future price changes as these determine whether the potential buyer considers themselves to be facing a capital gain or capital loss. Even if households believe that, in the long run, prices will be stable in real terms, if they believe that prices will fall in the coming year then there is a benefit to the household from waiting by avoiding any expected capital loss.

FIGURE 4.5 Ratio of the User Cost of Housing Relative to Renting



The role of expectations as they affect the decision to buy in the coming year rather than to rent is reflected in Figure 4.5. Here we use a measure of the user cost of housing which includes expectations of changes in capital values. This allows the comparison of the annual cost of owning a house to the annual cost of renting. The user cost is the notional price an owner-occupier pays for the housing services provided by their dwelling, the rate of return or the cost of owning a house. The user cost measure takes account of tax, mortgage borrowing, maintenance and depreciation costs as well as house price expectations. The Figure shows the ratio of the user cost of buying a house relative to the cost of renting on the basis of a range of different expectations about the change in house prices in the coming year. The dotted green line in Figure 4.5 shows the user cost to rent ratio where future house price

expectations are assumed to be based on the experience of the previous year. As can be seen in the Figure, for much of the period, when house prices were increasing high expected house price appreciation meant that the user cost of housing was negative, as large capital gains made home acquisition attractive. From 2007 onwards the fall in house prices, leading to the expectation of further house price falls, reversed this and the user cost to rent ratio rose dramatically, peaking in quarter 4, 2009. The extent to which the ratio rose during the housing market downturn reflects the capital loss experienced by homeowners.

Since quarter 4, 2009 the ratio has fallen. In our base scenario, where house price expectations are assumed to be based on the experience of the previous year, the user cost-to-rent ratio gradually moves downwards. However, today, it still remains well above the level that would make it profitable to buy unless households expect house prices to stabilise or to begin to increase again. The solid blue line shows what would happen if expectations suddenly changed so that households expected no change in real house prices next year and into the future. In that case it would be profitable to switch immediately from renting to buying.

This makes for a rather unstable and unpredictable environment. While Kennedy and McQuinn (2012) may consider the "fundamentals" of the housing market, suggesting that house prices may have fallen too far, because an end to the trend of falling prices depends on changed expectations it is much more difficult to predict when any turnaround will occur. Of course any change in expectations needs to be combined with house prices at affordable levels for those currently renting. *Census 2011* contains data on the distribution of weekly rents. Assuming a 25 year mortgage, a 90 per cent loan-to-value ratio and based on the current average interest rate for mortgages, approximately 4.25 per cent, we can estimate a house price level consistent with current rental payments. This suggests that current house price levels would only allow approximately 40 per cent of those renting to buy, and this is on the assumption that they have saved the required deposit.

Conclusions

The recent publication of some details from *Census 2011* Census provides us with some insights into the current state of the housing market and into some of the factors that will determine its path over the next few years. The data suggest that, in key urban areas, the stock of vacant houses is not very large. This is particularly the case for houses in the greater Dublin area. A significant increase in demand to buy houses in these urban locations could exhaust the vacant stock and, given a very low level of house-building, this would begin to put upward

pressure on prices. In addition, assuming significant emigration until 2015, demographic pressures will mean that dwellings will have to be found for a minimum of around 15,000 to 20,000 new households each year over the coming decade. (If emigration proved higher or lower than this it would clearly affect the change in household numbers.) Given the limited stock of vacant dwellings in high demand locations, and given the low level of new build, even if there is no change in the perceived incentives to buy, the increase in household numbers, driven by demographic change, will eventually begin to put upward pressure on rents, provided there is not large scale net migration.

The data also show an unusually high proportion of households who are renting today – probably because it is more profitable to rent than to buy in a market that was seen as over-valued or, now, in a falling market. Should their expectation of future prices change there could be quite a number of households who would quickly find it profitable to buy rather than to rent though, even then, they would need to be convinced that property prices had really stabilised. However, it is very difficult to predict when expectations of prices will change. While the experience of the crisis may mean that not all of these households will look to buy a dwelling in the future, it is expected that a proportion of these would seek to buy once their price expectations change.

While property prices may never return to anywhere near where they were in real terms in the past, when expectations change it is likely that the recent sharp fall in house prices will be halted. This will lead to some increase in the numbers of households seeking to buy rather than rent. Whether this demand will materialise in practise will depend on the availability of mortgage finance from the banking system. In a somewhat longer time scale, there will also probably be some pressure to increase the level of building from the current very low level. However, such a change would also depend on the availability of finance for building.

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APPENDIX TABLE 1 Vacancy Rate by County

	1996	2002	2006	2011
State	8.4	9.8	15.0	14.5
Leinster	5.5	6.7	11.6	10.3
Carlow	6.2	7.8	12.3	13.8
Dublin	4.3	5.0	9.7	8.3
Dublin City	5.7	6.1	11.7	10.2
Dún Laoghaire-Rathdown	2.2	2.8	6.2	7.7
Fingal	3.4	4.9	8.8	7.0
South Dublin	3.2	4.3	8.9	5.4
Kildare	3.6	5.8	9.9	8.0
Kilkenny	6.4	6.6	12.0	11.9
Laois	7.9	9.0	15.7	12.5
Longford	10.8	12.8	22.2	21.6
Louth	6.5	6.4	13.4	12.2
Meath	6.1	8.2	10.6	8.9
Offaly	6.9	7.7	12.9	11.8
Westmeath	8.1	9.7	15.3	13.4
Wexford	10.6	16.6	21.5	21.0
Wicklow	8.0	7.2	11.4	9.9
Munster	10.4	11.5	16.5	16.5
Clare	12.8	16.1	20.1	21.2
Cork	9.6	10.4	15.3	14.6
Cork City	5.7	6.0	12.0	11.1
Cork County	11.3	12.1	16.5	15.8
Kerry	17.3	18.5	24.8	26.4
Limerick	7.9	8.2	12.6	12.3
Limerick City	6.2	5.6	12.7	12.3
Limerick County	8.7	9.4	12.6	12.3
North Tipperary	8.4	10.1	13.4	14.7
South Tipperary	7.6	7.4	12.7	12.6
Waterford	9.0	11.5	16.8	16.4
Waterford City	5.5	7.1	14.3	14.8
Waterford County	11.7	14.8	18.7	17.6
Connacht	12.9	15.3	21.4	21.3
Galway	10.6	12.6	17.9	16.9
Galway City	6.0	7.7	13.0	11.2
Galway County	12.5	14.7	20.1	19.4
Leitrim	18.6	21.7	29.3	30.5
Mayo	15.8	18.4	24.4	24.7
Roscommon	12.0	15.4	21.8	23.2
Sligo	12.4	13.9	23.1	22.2
Ulster (part of)	13.2	16.7	23.1	24.3
Cavan	11.2	12.8	21.2	21.6
Donegal	15.6	20.9	27.0	28.6
Monaghan	8.9	8.1	12.8	13.6

APPENDIX TABLE 2 Vacancy Rate by Broad Property Type

	Apartments		Houses	
	2006	2011	2006	2011
	%	%	%	%
State	19.4	25.2	11.8	13.4
Leinster	23.9	21.1	13.4	8.4
Carlow	17.9	41.1	8.2	12.2
Dublin	18.5	18.6	9.6	4.9
Dublin City	11.4	19.1	7.0	5.7
Dún Laoghaire-Rathdown	15.2	20.1	8.6	4.5
Fingal	25.5	15.5	6.4	5.4
South Dublin	24.1	17.9	9.7	3.4
Kildare	20.1	21.6	13.4	6.7
Kilkenny	39.2	31.8	17.3	11.0
Laois	38.2	35.5	27.6	11.4
Longford	30.8	50.5	14.3	20.2
Louth	20.0	36.7	11.3	10.4
Meath	24.5	25.9	14.2	7.4
Offaly	32.7	35.9	16.5	10.7
Westmeath	29.5	32.9	27.2	11.8
Wexford	15.5	43.7	12.6	20.2
Wicklow	26.1	19.4	19.2	9.2
Munster	25.1	32.2	25.3	15.7
Clare	25.9	38.2	17.3	20.6
Cork	24.6	28.4	10.8	13.7
Cork City	27.3	25.6	19.3	8.0
Cork County	30.0	31.5	33.6	15.3
Kerry	23.4	42.2	13.3	26.2
Limerick	26.8	29.6	10.5	10.7
Limerick City	18.3	30.8	14.4	7.6
Limerick County	24.8	27.1	15.2	11.9
North Tipperary	26.0	35.6	13.9	14.0
South Tipperary	30.5	33.8	19.1	11.9
Waterford	30.2	40.5	13.9	14.7
Waterford City	31.7	42.8	22.9	10.2
Waterford County	28.6	32.2	27.1	17.6
Connacht	23.8	35.6	21.4	20.8
Galway	19.5	27.5	13.3	16.4
Galway City	32.8	21.6	24.5	8.8
Galway County	44.7	40.0	40.4	18.9
Leitrim	35.1	57.0	32.0	29.6
Mayo	35.4	45.5	27.5	24.1
Roscommon	35.1	52.8	29.6	22.5
Sligo	32.2	41.9	29.9	21.4
Ulster (part of)	31.0	49.5	26.6	23.5
Cavan	37.2	50.9	37.0	20.3
Donegal	19.3	53.7	14.4	28.0
Monaghan	21.9	35.1	17.0	12.5

APPENDIX TABLE 3 Share of All Households that are in Private Rented Accommodation, %

	2002	2006	2011
	%	%	%
State	11.1	9.9	18.5
Leinster	11.7	10.8	20.3
Carlow	10.8	8.8	15.8
Dublin	14.5	13.8	25.1
Dublin City	21.0	19.2	32.0
Dún Laoghaire-Rathdown	11.3	11.1	20.0
Fingal	8.2	9.5	21.5
South Dublin	6.6	7.7	16.8
Kildare	9.2	8.5	17.3
Kilkenny	7.9	6.9	13.6
Laois	7.3	6.0	13.2
Longford	7.1	7.6	16.0
Louth	9.0	7.0	14.9
Meath	5.9	5.8	13.7
Offaly	6.7	6.4	13.6
Westmeath	10.8	8.8	18.1
Wexford	8.2	7.6	14.5
Wicklow	8.2	7.5	14.9
Munster	10.6	9.1	16.6
Clare	9.1	7.7	14.2
Cork	11.8	10.2	18.8
Cork City	18.4	15.4	27.0
Cork County	9.1	8.3	16.0
Kerry	9.2	7.6	14.3
Limerick	11.8	10.3	17.9
Limerick City	17.4	14.3	24.3
Limerick County	9.0	8.5	14.9
North Tipperary	7.7	6.8	13.1
South Tipperary	7.8	6.9	13.7
Waterford	9.9	8.8	14.7
Waterford City	13.4	12.9	20.1
Waterford County	7.0	5.5	10.5
Connacht	10.9	9.8	17.4
Galway	13.9	12.7	20.9
Galway City	27.7	24.9	37.5
Galway County	7.3	6.9	13.3
Leitrim	7.1	7.0	14.2
Mayo	9.1	7.6	14.5
Roscommon	6.8	6.2	13.0
Sligo	10.4	8.5	16.6
Ulster (part of)	8.2	6.8	13.5
Cavan	7.2	7.0	15.1
Donegal	8.8	6.5	12.9
Monaghan	7.5	7.3	13.4

Detailed Forecast Tables

FORECAST TABLE A1 Exports of Goods and Services

	2010	% change in 2011		2011	% change in 2012		2012	% change in 2013		2013
	€ bn	Value	Volume	€ bn	Value	Volume	€ bn	Value	Volume	€ bn
Merchandise	82.9	2.8	3.4	85.3	5.6	2.8	90.1	4.3	3.1	94.0
Tourism	3.1	8.5	7.4	3.3	4.3	2.8	3.5	5.2	3.5	3.7
Other	70.8	7.0	4.8	75.7	6.7	3.8	80.8	5.2	4.0	85.0
Exports Of Goods and Services	156.8	4.8	4.1	164.3	6.1	3.3	174.3	4.8	3.5	182.7
FISM Adjustment	0.9			1.0			1.0			1.1
Adjusted Exports	157.7	4.8	4.1	165.3	6.1	3.3	175.3	4.8	3.5	183.7

FORECAST TABLE A2 Investment

	2010	% change in 2011		2011	% change in 2012		2012	% change in 2013		2013
	€ bn	Value	Volume	€ bn	Value	Volume	€ bn	Value	Volume	€ bn
Housing	4.4	-31.5	-28.2	3.0	-6.5	-4.6	2.8	-1.0	0.0	2.8
Other Building	5.8	-11.3	-7.6	5.1	-10.1	-10.5	4.6	5.5	3.8	4.9
Transfer Costs	0.4	-9.3	-4.5	0.4	-8.9	-10.0	0.4	-10.7	-12.0	0.3
Building and Construction	10.7	-19.6	-16.0	8.6	-8.8	-8.4	7.8	2.4	1.6	8.0
Machinery and Equipment	7.4	-0.9	-2.0	7.3	4.2	5.0	7.6	6.5	7.5	8.1
Total Investment	18.1	-11.9	-10.6	15.9	-2.8	-2.7	15.5	4.4	4.3	16.2

FORECAST TABLE A3 Personal Income

	2010	% change in 2011		2011	% change in 2012			2012	% change in 2013			2013
	€ bn	%	€bn	€ bn	%	€bn	€ bn	%	€bn	€ bn		
Agriculture, etc	2.7	9.8	0.3	3.0	3.5	0.1	3.1	4.0	0.1	3.2		
Non-Agricultural Wages	68.8	0.3	0.2	69.0	-0.2	-0.1	68.9	0.2	0.1	69.0		
Other Non-Agricultural Income	16.7	-9.7	-1.6	15.1	12.8	1.9	17.1	5.4	0.9	18.0		
Total Income Received	88.2	-1.3	-1.1	87.1	2.2	1.9	89.1	1.3	1.2	90.2		
Current Transfers	26.5	0.5	0.1	26.6	-2.7	-0.7	25.9	-1.1	-0.3	25.6		
Gross Personal Income	114.7	-0.9	-1.0	113.7	1.1	1.2	114.9	0.8	0.9	115.9		
Direct Personal Taxes	20.8	6.6	1.4	22.2	4.2	0.9	23.1	3.3	0.8	23.9		
Personal Disposable Income	93.9	-2.5	-2.4	91.5	0.3	0.3	91.8	0.1	0.1	91.9		
Consumption	82.6	-1.8	-1.5	81.1	-0.5	-0.4	80.7	1.1	0.9	81.6		
Personal Savings	11.3	-7.9	-0.9	10.4	6.8	0.7	11.1	-7.0	-0.8	10.3		
Savings Ratio	12.0			11.4			12.1			11.3		
Average Personal Tax Rate	18.1			19.5			20.1			20.6		

FORECAST TABLE A4 Public Finances, Exchequer

	2009	2010	2011	2012	2013
	Outcome, €bn	Outcome, €bn	Outcome, €bn	Forecast, €bn	Forecast, €bn
Net Current Expenditure	45.2	47.0	48.0	49.6	49.4
Net Voted Expenditure	40.3	40.5	41.4	41.0	40.0
Non-Voted Expenditure	5.0	6.5	6.6	8.6	9.4
Current Revenue	33.9	34.4	36.8	38.5	40.5
Tax Revenue	33.0	31.8	34.0	35.5	37.5
Non-Tax Revenue	0.8	2.7	2.8	3.0	3.0
Current Budget Surplus	-11.4	-12.6	-11.2	-11.1	-8.9
Capital Resources	1.5	1.8	2.5	1.8	1.8
Capital Expenditure	14.7	8.0	16.5	7.0	7.6
Capital Expenditure – Voted	6.9	5.9	4.3	3.6	3.0
Capital Expenditure - Non Voted	7.8	2.0	12.2	3.4	4.6
Capital Borrowing	-13.3	-6.2	-14.0	-5.2	-5.9
Exchequer Balance	-24.6	-18.7	-24.9	-16.0	-14.4
as % of GDP	-15.3	-12.0	-15.9	-10.0	-8.7
General Government Balance	-22.5	-48.6	-20.5	-13.3	-12.5
as % of GDP	-14.0	-31.2	-13.1	-8.3	-7.5

FORECAST TABLE A5 Public Finances, National Accounts

	2005	2006	2007	2008	2009	2010	2011	2012	2013
	€ bn	€ bn	€ bn	€ bn	€ bn	€ bn	€ bn	€ bn	€ bn
Total Receipts : Current	51.1	57.7	60.3	56.8	49.7	49.6	50.7	51.4	53.9
Total Receipts : Capital	4.0	5.6	6.0	3.6	1.9	1.6	1.8	1.7	1.7
Total Receipts - Current And Capital	55.1	63.2	66.3	60.4	51.7	51.2	52.4	53.0	55.6
Total Expenditure – Current	45.3	49.9	55.6	60.8	62.7	61.8	60.9	61.3	63.1
Total Expenditure – Capital	7.2	8.2	10.7	12.8	11.5	38.1	12.1	5.1	4.9
Total Expenditure - Current And Capital	52.4	58.1	66.2	73.6	74.2	99.8	73.0	66.4	68.0
General Govt. Balance	2.7	5.2	0.1	-13.2	-22.5	-48.6	-20.5	-13.3	-12.5
As % of GDP	1.6	2.9	0.1	-7.3	-13.9	-31.2	-13.1	-8.3	-7.5

FORECAST TABLE A6 Imports of Goods and Services

	2010	% change in 2011		2011	% change in 2012		2012	% change in 2013		2013
	€ bn	Value	Volume	€ bn	Value	Volume	€ bn	Value	Volume	€ bn
Merchandise	46.4	5.2	-3.1	48.9	1.6	-0.9	49.6	3.0	2.0	51.1
Tourism	5.8	-4.9	-6.0	5.5	-6.1	-7.0	5.2	-3.8	-5.0	5.0
Other Services	75.1	2.2	1.1	76.7	5.1	2.5	80.6	4.5	3.5	84.3
Imports of Goods and Services	127.4	3.0	-0.7	131.2	3.3	0.9	135.5	3.7	2.6	140.4
FISM Adjustment	0.5			0.5			0.6			0.6
Adjusted Imports	127.9	3.0	-0.7	131.7	3.3	0.9	136.0	3.7	2.6	141.0

FORECAST TABLE A7 Balance of Payments

	2011	2012	2013
	€ bn	€ bn	€ bn
Exports of Goods and Services	165.3	175.3	183.7
Imports of Goods and Services	131.7	136.0	141.0
Net Factor Payments	-32.2	-33.1	-36.0
Net Transfers	-0.9	-1.1	-1.2
Balance on Current Account	0.1	4.7	5.0
As a % of GNP	0.1	3.7	3.8

FORECAST TABLE A8 Employment and Unemployment, Annual Average

	2010	2011	2012	2013
	000s	000s	000s	000s
Agriculture	85	83	81	81
Industry	360	342	338	339
Of which: Construction	120	107	103	102
Services	1403	1385	1376	1371
Total at Work	1848	1810	1797	1792
Unemployed	292	304	315	308
Labour Force	2140	2114	2112	2100
Unemployment Rate, %	13.6	14.4	14.9	14.7

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Pharmaceuticals: Getting Better Value for Money

Paul K. Gorecki, Anne Nolan, Aoife Brick and Seán Lyons¹

The Irish health-care system is under severe budgetary pressure. Pharmaceutical expenditure is no exception. During the 2000s Ireland experienced one of the highest annual growth rates in pharmaceutical expenditure of any OECD country. In 2009 Ireland spent more on pharmaceuticals per capita than any other OECD country (with the exception of the US, Canada and Greece).

The onset of the financial crisis has seen a number of austerity budgets, which will continue until at least 2015. Public expenditure is being tightened. Households, whose incomes are being squeezed, are likely to be asked to make greater out-of-pocket contributions towards pharmaceuticals. Budget 2012, for example, raised the monthly threshold for the Drug Payment Scheme by €12 to €132 and retained the 50c charge per prescription item for medical card patients, which was introduced in October 2012.

Nevertheless, significant progress has been made in recent years in reducing the cost of delivery of pharmaceuticals in Ireland, both to the Health Services Executive (HSE) and the cash paying customer. For example, wholesale margins have been reduced and pharmacy mark-ups have declined, at least for pharmaceuticals paid for by the state. However, more can and needs to be done to take these reforms forward.

The Health Service Executive asked the ESRI to undertake a study of the pharmaceutical delivery system with a view to ensuring better value for money, while assuring security of supply. The report, *Delivery of Pharmaceuticals in Ireland. Getting a Bigger Bang for the Buck*[†], made a wide ranging set of recommendations and suggestions on how Ireland can obtain better value for money in its pharmaceutical expenditure. These recommendations covered all stages in the delivery system from the manufacturer through to the pharmacist and the prescriber. In this Research Bulletin some of the major recommendations are highlighted.

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The expiry on 1 March 2012 of the agreement between the state and the Irish Pharmaceutical Healthcare Association, which represents the international research-based pharmaceutical firms, provides an opportunity to set lower ex-factory prices for new pharmaceuticals. The ex-factory price is that charged by the manufacturer at the factory gate, while new pharmaceuticals are those recently introduced pharmaceuticals subject to patent protection with no direct competition. The ex-factory price of new pharmaceuticals is currently set as the average across a basket of nine EU Member States: Belgium, Denmark, France, Germany, Netherlands, Spain, the UK, Finland, and Austria. If instead of the average the lowest price was used, then the ex-factory would be reduced by between 20 to 25 per cent. Other Member States typically use the lowest rather than the average price.

The Department of Health is to introduce the Health (Pricing and Supply of Medical Goods) Bill later in 2012 which is designed to encourage generic substitution and reference pricing. Generic substitution allows the pharmacist to select a different, usually lower priced, product from that prescribed. A reference price sets for brands of the same pharmaceutical which have been certified as interchangeable pharmaceutical products, the ex-factory price for that particular group. For high volume interchangeable pharmaceutical products the reference price should be set by competitive tendering. The winner of the tender (i.e. the lowest priced bid) would set the reference price and supply the market. If the prescriber decides to select a different – usually the higher-priced originators – brand for the patient, then the prescriber would be required to: (i) specify the medical reason for their decision; and (ii) write in their own hand 'no substitution' on the prescription. This should provide valuable feedback on the implementation of generic substitution and reference pricing.

The pharmacy market is marked by a lack of information available to patients on not only pharmaceutical prices, mark-ups and dispensing fees, but also the services supplied by pharmacists. These services have been expanding with the administration of the seasonal influenza vaccine and the dispensing of emergency hormonal contraception. In other professions such as dentistry and medicine in Ireland, as well as pharmacy in other jurisdictions, patients are provided with information that assists them in deciding which provider to choose. Despite the marked reluctance of the industry regulator, the Pharmaceutical Society of Ireland, the same should apply for pharmacy in Ireland. Dispensing fees, services offered and mark-ups should be posted in pharmacies, and pharmacists should have the option of using media to disseminate such information. New forms of retailing such as the internet should – under the appropriate regulatory conditions – be considered by the HSE, perhaps on a trial basis. The result should

be a more competitive, efficient and vibrant pharmacy sector that is more responsive to patient preferences and needs.

The prescriber, typically the family doctor, acts on the patient's behalf in making decisions concerning the appropriate course of treatment in addressing the patient's condition. This may involve selection of a pharmaceutical. In writing a prescription the international non-proprietary name (INN) – atorvastatin, rather than Lipitor, fluoxetine rather than Prozac – should be used by the prescriber. The INN identifies the pharmaceutical substance or active pharmaceutical ingredient. Each INN is a unique name that is globally recognised and is public property. A non-proprietary name is also known as a generic name. INN prescribing is safer as it reduces the potential for confusion when prescribing or when seeking to identify a pharmaceutical that a patient has been taking. There are likely to be exceptions to INN prescribing such as that referred to above in the discussion of no-substitution prescriptions. The evidence suggests low levels of INN prescribing in Ireland.

In designing ways of achieving better value for money, the recommendations are based on evolution, rather than revolution. In part this approach has been driven by the observation that variation within health care systems is much greater than between them. Thus, by reforming the current model of pharmaceutical delivery, better value for money can be realised, while at the same time the costs and unintended consequences of large changes can be prevented. This minimises the chances that there will be an adverse impact on security of supply.

The recommendations contained in the ESRI report commissioned by the HSE are designed to ensure that taxpayers get better value for money from the €1.9 billion public pharmaceutical budget, but also that the cash paying patients benefits too. They are also designed to ensure that patients, irrespective of whether or not the state pays for the pharmaceutical, receive safe and effective pharmaceuticals without interruption to supply.

[†]Paul K. Gorecki, Anne Nolan, Aoife Brick and Seán Lyons, *Delivery of Pharmaceuticals in Ireland. Getting a Bigger Bang for the Buck*. Research Series Number 24, Dublin: ESRI. January 2012.



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