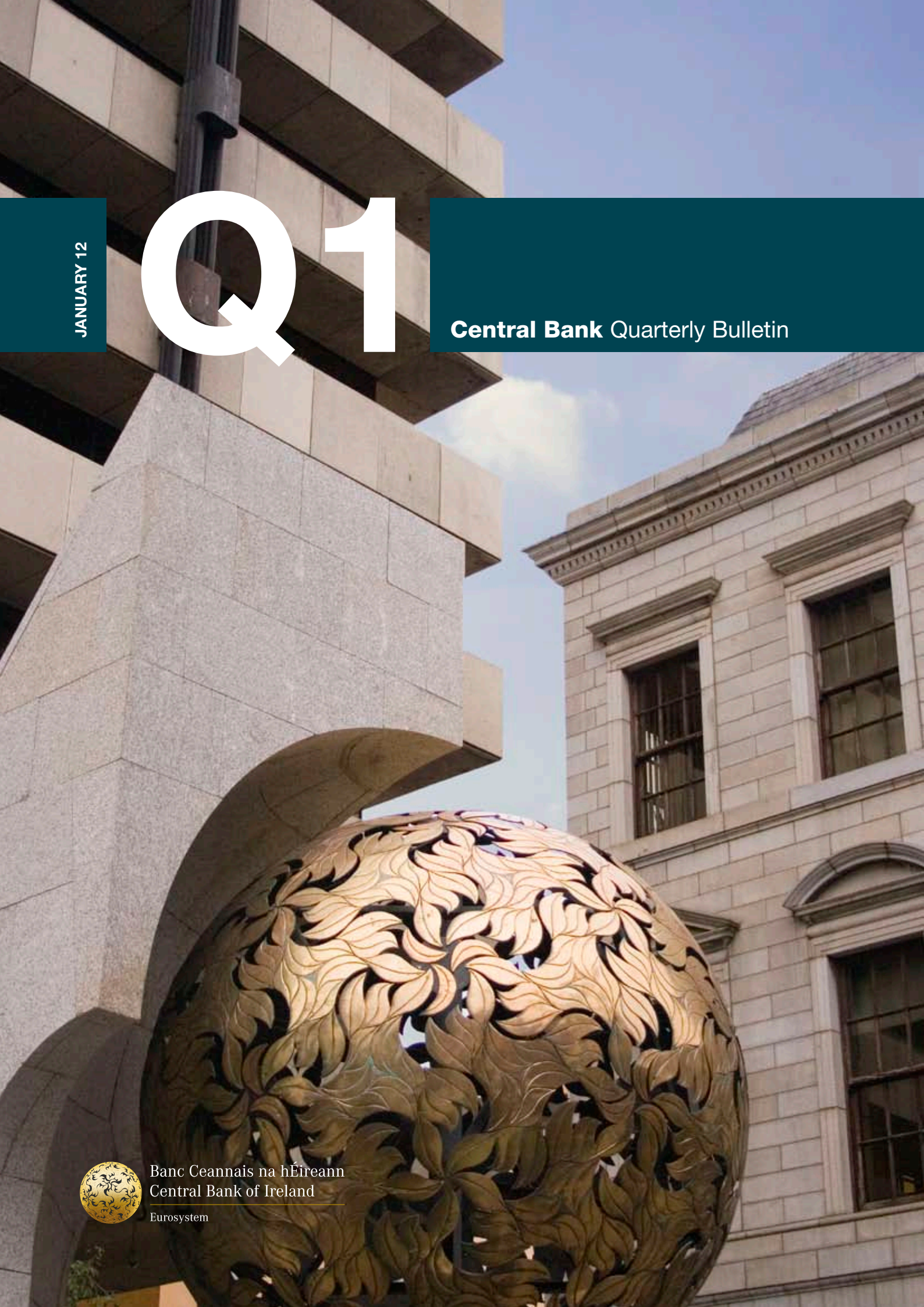

JANUARY 12

Q1

Central Bank Quarterly Bulletin

Banc Ceannais na hÉireann
Central Bank of Ireland
Eurosystem

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Notes

1. The permission of the Government has been obtained for the use in this Bulletin of certain material compiled by the Central Statistics Office and Government Departments. The Bulletin also contains material which has been made available by the courtesy of licensed banks and other financial institutions.

2. Unless otherwise stated, statistics refer to the State, i.e., Ireland exclusive of Northern Ireland.

3. In some cases, owing to the rounding of figures, components do not add to the totals shown.

4. The method of seasonal adjustment used in the Bank is that of the US Bureau of the Census X-11 variant.

5. Annual rates of change are annual extrapolations of specific period-to-period percentage changes.

6. The following symbols are used:

e estimated	n.a. not available
p provisional	. . no figure to be expected
r revised	– nil or negligible
q quarter	f forecast

7. As far as possible, data available at mid-December 2011 are included in the Statistical Appendix (Section 3).

8. Updates of selected Tables from the Statistical Appendix, concerning monetary and financial market developments, are provided in *Money and Banking Statistics*. Data on euro exchange rates are available on our website at www.centralbank.ie and by telephone at 353 1 2246380.

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Forecast Summary Table

	2009	2010	2011[e]	2012[f]	2013[f]
Real Economic Activity					
(% change)					
Personal consumer expenditure	-6.9	-0.8	-2.9	-1.5	0.2
Public consumption	-4.5	-3.8	-3.4	-4.2	-2.0
Gross fixed capital formation	-28.7	-24.9	-14.9	-5.5	-0.6
of which: Building and construction	-31.1	-30.3	-21.7	-11.1	-5.2
Machinery and equipment	-19.7	-14.5	-5.0	1.0	4.0
Exports of goods and services	-4.2	6.3	4.4	3.9	5.0
Imports of goods and services	-9.3	2.7	1.1	1.8	3.6
Gross Domestic Product (GDP)	-7.0	-0.4	0.8	0.5	2.1
Gross National Product (GNP)	-9.8	0.3	-0.6	-0.7	1.0
External Trade and Payments					
Balance-of-Payments Current Account (€ million)	-4,697	761	248	3,056	4,940
Current Account (% of GNP)	-3.6	0.6	0.2	2.4	3.9
Prices, Costs and Competitiveness					
(% change)					
Harmonised Index of Consumer Prices (HICP)	-1.7	-1.6	1.1	1.6	1.0
of which: Goods	-4.2	-2.4	1.5	1.7	0.6
Services	1.2	-0.7	0.9	1.5	1.4
HICP excluding energy	-1.0	-2.7	0.0	1.2	1.2
Consumer Price Index (CPI)	-4.5	-1.0	2.6	1.1	0.7
Nominal Harmonised Competitiveness Indicator Nominal HCI)[a]	1.0	-4.2	0.8	n.a.	n.a.
Compensation per non-agricultural employee	-1.4	-3.2	-0.3	0.2	0.6
Labour Market					
(% change year-on-year)					
Total employment	-8.1	-4.2	-2.2	-0.6	0.4
Labour force	-2.4	-2.2	-1.1	-0.4	-0.1
Unemployment rate (ILO)	11.8	13.6	14.5	14.6	14.1
Technical Assumptions[b]					
(Annual average)					
EUR/USD exchange rate	1.39	1.33	1.39	1.30	1.30
EUR/GBP exchange rate	0.89	0.86	0.87	0.83	0.83
Oil price ($ per barrel)	61.9	79.6	111.8	107.6	102.5
Interbank market – Euribor[c] (3-month fixed)	1.22	0.81	1.39	1.12	1.13

a Based upon the annual change in the average nominal HCI for the first eleven months of 2011.

b The technical assumption made is that exchange rates remain unchanged at their average levels in late-December and early-January. Oil prices and interest rates are assumed to move in line with the futures market.

c Euribor is the rate at which euro interbank term deposits are offered by one prime bank to another, within the euro area. Daily data from 30 December 1998 are available from www.euribor.org.

Comment

Following stronger than expected growth in the first two quarters of 2011, the Irish economy slowed markedly in the second half of last year. This reflected a significant moderation in both external and to a lesser extent, domestic demand. The weakness in the external environment is the key development of recent months and its depth and duration will be central to the prospects for the Irish economy over the next year or so. For last year as a whole, GDP is estimated to have expanded by about 0.8 per cent with GNP contracting by about 0.6 per cent. This is broadly in line with projections made at the start of the year, although with a more uneven quarterly pattern.

For this year, GDP growth is projected to moderate to about 0.5 per cent in 2012 with GNP declining by about 0.7 per cent. This represents a significant downward revision on the previous projections for this year and reflects, in the main, the weaker short-term prospects for external demand. This is expected to be followed by a pick-up in growth in 2013, to around 2.1 per cent in GDP terms and 1.0 per cent in GNP terms, based on a recovery in external demand from the second half of this year, alongside a gradual stabilisation in the domestic economy. Uncertainty remains high, however, and a wide range of outcomes is possible, including one in which the domestic economy is held back by weaker external demand for a longer than expected time.

The slowdown in the external environment has occurred against the background of an intensification of the sovereign debt crisis, the effects of which has now broadened beyond the financial system to the wider economy. In particular, concerns have escalated about the impact on the public finances of the financial crisis, either directly or indirectly through slower growth, across a range of countries. The likely true scale of this impact has only recently become apparent in many cases. This increased pressure on the public finances is having particular consequences in the euro area, where it has exposed short-comings in European economic governance which were not evident during more favourable times. These short-comings led to the accumulation of imbalances that are now difficult to deal with in a smooth, rapid and orderly manner.

A wide of range of actions has been taken to address the crisis. The Eurosystem has significantly increased the maturity of its liquidity provision to the market and eased access, by making available funding for up to three years. Increased support has also come from an expansion of its range of eligible collateral, reductions in reserve requirements and continued purchases under the Securities Markets and Covered Bond Purchase Programmes. European governments have also committed increased resources to the EFSF and ESM arrangements for supporting the financing of stressed Governments, as well as through bilateral loans to the IMF. Steps have also been taken to confirm the commitment of member states to budgetary discipline and to improve co-ordination of fiscal policies in the future. Nevertheless, markets remain tense and output growth is weak. It is clear that the cumulative impact of all these actions is not yet sufficient to convincingly dispel uncertainty about the ability of Europe to deal effectively with the challenges posed by the crisis.

Domestically, there continues to be good progress on the key policy issues. In the financial sector, banks are following deleveraging plans agreed as part of the Programme, although it is recognised that progress in this area has to take account of adverse market conditions in the short term. Loan to deposit ratios are also improving, largely as a result of deleveraging. The IBRC and NAMA also continue to manage down their balance sheets through selected asset disposals. The next PCAR/PLAR exercise is scheduled to take place later in the year and

will retain the same rigorous features as in 2011. Actions have also been taken to bolster the credit union sector with the establishment of a resolution fund by the Minister and the exercise by the Central Bank of some of its powers under the resolution regime.

Fiscal developments have remained essentially on track with all the targets set out under the Programme being met with some margin in 2011. On the face of it, the consolidation measures announced in the Budget, and the somewhat better starting position for 2012, should allow the targeted reduction of the deficit to 8.6 per cent of GDP to take place, but the pattern of growth will clearly determine developments to a degree. While the fiscal outturn cannot be tied too closely to overall economic activity, the external weakness with its knock on effect on domestic growth is a concern, particularly if the external slowdown persists longer than currently projected. This would make the fiscal targets for this year and 2013 more difficult to attain. Any developments in Europe that contributed to improving growth conditions or that effectively provided Ireland with better financing conditions would be important in improving the prospects for the debt ratio to commence a steady decline to more comfortable levels.

Competitiveness developments continue to show a general improvement. The composition of changes, however, is somewhat different. Much of the improvement is now due to exchange rate depreciation. In fact, the data for the latter part of last year indicates that wages may no longer be declining, although wage developments continue to be moderate relative to the situation in most trading partners. Productivity growth continues to be favourable but the sectoral shift away from low productivity sectors still leads to some overstatement of the gains using standard economy-wide measures, as pointed out in previous Bulletins. This sectoral shift will have less of an impact this year and next year, however, reflecting the fact that the construction sector has reached a point where further significant declines are unlikely. Progress on structural reforms is also needed, including measures to improve efficiency in the provision of public services, against a backdrop of tighter resources, as well as greater competition in some private sector services. Both of these developments would help to further improve competitiveness, a development which is even more important now. Weaker external demand means that making gains in market shares is more critical than ever in terms of generating significant overall export and output growth.

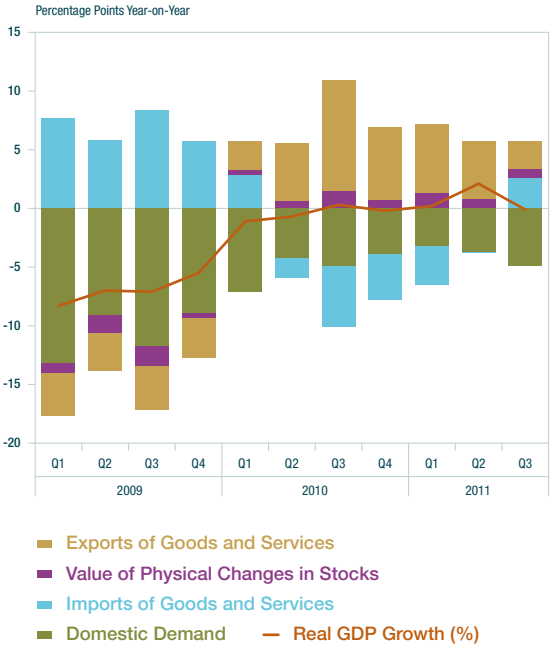
The Domestic Economy

Overview

- *The Irish economy slowed markedly in the second half of last year reflecting a significant moderation in both external and domestic demand. Following two consecutive quarters of growth, seasonally adjusted real GDP declined by 1.9 per cent in the third quarter. For 2011 as a whole, GDP is estimated to have expanded by about 0.8 per cent with GNP contracting by about 0.6 per cent. GDP growth is projected to moderate to about 0.5 per cent in 2012 with GNP declining by about 0.7 per cent. This represents a significant downward revision compared to the previous Bulletin and reflects, in the main, the very poor near-term prospects for external demand. The domestic components of expenditure have also been revised down somewhat.*
- *A projected pick-up in growth in 2013 to about 2.1 per cent in GDP terms and 1 per cent in GNP is predicated on a recovery in external demand from the second half of this year and a gradual stabilisation in activity in the domestic economy. Taking account of the high degree of uncertainty regarding prospects for world demand, a range of outcomes is possible, including one in which a pick-up in growth is further delayed.*
- *The performance of exports last year tracked the trend in external demand with a relatively strong performance in the first quarter followed by a significant slowdown in the remainder of the year. In the third quarter, the year-on-year increase in exports, at 2.4 per cent, was less than half the increase recorded in the first quarter of 2011. A slowdown in export growth is also likely this year reflecting the muted near-term outlook for growth in Ireland's main trading partners. A pick-up in export growth in 2013 is in prospect if the projected recovery in world demand from the second half of this year materialises. Notwithstanding the less benign outlook for external demand, net exports will continue to contribute positively to overall GDP growth offsetting the continued contraction of domestic demand.*
- *Domestic demand excluding stocks is estimated to have declined last year across all components of expenditure although its negative contribution to GDP growth was less than in the previous two years. The decline in investment probably slowed to about 15 per cent from 25 per cent in the previous year reflecting a moderation in the decline of both machinery and equipment and in construction. A further moderation in the rate of decline in investment is likely this year. This mainly reflects the limited scope for further declines given the exceptionally low share in overall GDP which dipped below 10 per cent last year compared to a peak of over 27 per cent in 2006. Housing output was down by over 30 per cent to around 10,000 units compared to an, albeit unsustainable, peak of about 90,000 units at the height of the boom. A further decline to about 8,000 units is projected for 2012 with output stabilising at this level in 2013.*
- *Declining disposable incomes and a persistence in precautionary savings weighed heavily on consumer spending with the pace of decline picking up through the year to the third quarter. A further decline in consumption is projected for 2012 due partly to Budget 2012 measures affecting purchasing power and notwithstanding some stabilisation in wages and employment. The prospect of some stability in disposable incomes in 2013 may give scope for a marginal increase in consumption next year.*
- *Labour market conditions remained exceptionally weak last year with employment declines across most sectors, particularly in those sectors most dependent on domestic demand. It is estimated that employment fell by about 2.2 per cent and the rate of unemployment increased to an average of about 14.5 per cent. A further decline in employment of about 0.6 per cent is in prospect for this year. Its impact on the unemployment rate, which is expected to increase marginally to 14.6 per cent, is expected to be mitigated, however, by a contraction in the labour supply due to lower participation rates and increased outward migration. A pick-up in output growth in 2013 may allow for a modest increase in employment of about 0.4 per cent with unemployment easing to about 14.1 per cent.*

- *The annual rate of HICP inflation in 2011 was 1.1 per cent, with the pass-through of higher international commodity prices the main driver. Looking through external pressures, annual core inflation, as measured by HICP excluding energy and unprocessed food, was flat on average last year reflecting weak labour market conditions and falling disposable incomes. Energy prices will continue to contribute significantly to annual headline inflation in the coming quarters due to a carryover from increases in utility charges and further increases in indirect taxes on energy products.*
- *On a constant tax basis, inflation is expected to remain muted during 2012. However, the impact of Budget 2012 on inflation is substantial, adding an estimated 0.8 percentage points, with the increase in the standard VAT rate having the biggest single impact. Accordingly, the annual HICP inflation rate is projected to average about 1.6 per cent while the annual CPI inflation rate is expected to be somewhat lower at 1.1 per cent. Assuming no unexpected changes in exchange rates or commodity prices, domestic factors will dominate next year and a stabilisation in consumer demand will be reflected in modest annual average HICP and CPI inflation of 1.0 per cent and 0.7 per cent, respectively, in 2013.*
- *The overall competitiveness of the Irish economy continued to improve in the third quarter of 2011 but at a more moderate pace than previously experienced. While the improvement is to be welcomed, it should be noted that the improvement in headline productivity may be partly due to compositional factors, as alluded to in previous Bulletins. The depreciation of the euro relative to both the dollar and sterling should assist Irish firms exporting to those markets. All-in-all, the latest competitiveness developments continue to remain reasonably favourable, which should continue to provide a boost to exporters this year, and mitigate somewhat the less favourable growth in our trading partners. A continued improvement in cost competitiveness along with broader competitiveness enhancements will enhance the resilience of the exporting sectors in the face of a more challenging external environment.*

Chart 1: Contributions to GDP Growth



Source: Central Bank of Ireland calculations and CSO.

Demand

Consumer spending

Personal consumption continued to be constrained by falling real disposable incomes and a weak labour market outlook. According to the latest Quarterly National Accounts, personal consumption fell by 1.3 per cent on a seasonally adjusted basis in the third quarter of 2011, following a modest rise of 0.1 per cent in the previous quarter. The expiry of the car scrappage scheme explains some of the volatility in the consumption data with the temporary boost from the scheme unwinding in the third quarter. It is also worth noting that spending by visitors to Ireland was relatively strong in the summer, boosting retail sales. However, tourism related spending is excluded from personal consumption in the National Accounts. Instead, it is recorded as a service. More recently, there were tentative signs that consumer spending may have picked up slightly. Sentiment recovered somewhat during October, before falling back only marginally in November, as the cuts in the ECB policy rates benefitted a large cohort of heavily indebted consumers. The latter appeared to be enough to offset the adverse impact on sentiment of heightened international turmoil

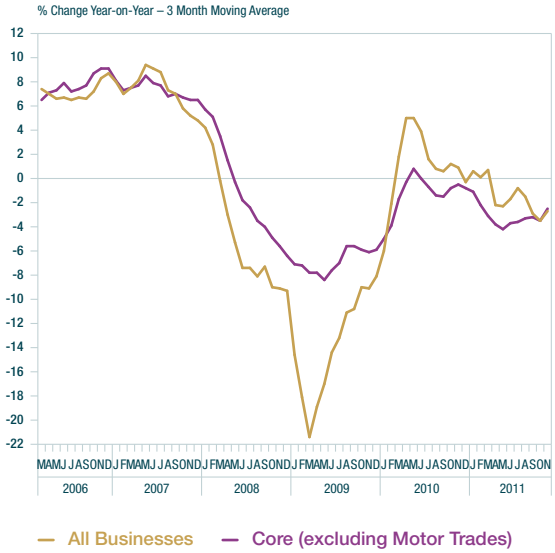
Table 1: Expenditure on Gross National Product 2010, 2011[e], 2012[f], 2013[f]

	2010	Percentage change in		2011[e]	Percentage change in		2012[f]	Percentage change in		2013[f]
	EUR millions	volume	price	EUR millions	volume	price	EUR millions	volume	price	EUR millions
Personal Consumption Expenditure	82592	-2.9	1.1	81095	-1.5	1.6	81162	0.2	1.0	82107
Public Consumption	26222	-3.4	0.7	25508	-4.2	0.3	24522	-2.0	0.5	24158
Gross Domestic Fixed Capital Formation	18074	-14.9	-1.8	15115	-5.5	-0.2	14258	-0.6	0.3	14217
Building and Construction	10672	-21.7	-3.5	8062	-11.1	-1.0	7092	-5.2	0.0	6720
Machinery and Equipment	7402	-5.0	0.3	7053	1.0	0.6	7166	4.0	0.6	7497
Value of Physical Changes in Stocks	-852			800			500			500
Statistical Discrepancy	184			184			184			184
GROSS DOMESTIC EXPENDITURE	126220	-3.4	0.7	122702	-2.8	1.1	120626	-0.4	0.8	121166
Exports of Goods & Services	157673	4.4	0.4	165184	3.9	1.1	173627	5.0	1.0	184057
FINAL DEMAND	283893	0.9	0.5	287886	1.1	1.1	294253	2.8	0.9	305223
Imports of Goods & Services	-127901	1.1	3.1	-133231	1.8	1.1	-137056	3.6	0.8	-143119
GROSS DOMESTIC PRODUCT	155992	0.8	-1.6	154655	0.5	1.2	157197	2.1	1.0	162104
Net Factor Income from Rest of the World	-27786			-29853			-31824			-34199
GROSS NATIONAL PRODUCT	128206	-0.6	-2.1	124803	-0.7	1.2	125373	1.0	1.0	127905

and weaker prospects for external demand. An improvement in sentiment does not necessarily translate into higher spending, but some stronger hard data have also emerged. Indeed, there were signs of a broad-based pick-up in retail sales for October and November, with retail sales excluding motor trades up 1.9 per cent when seasonally adjusted. In addition, the VAT rate increase in January may have resulted in some consumers bringing forward their purchases to late last year, particularly for certain consumer durables.

Turning to the outlook for this year, personal consumption is likely to continue to decline significantly due partly to Budget 2012 measures weighing on purchasing power and notwithstanding some stabilisation in wages and employment. The quarterly profile of personal consumption may see a sharp fall in the first quarter as the VAT increase and certain other budgetary measures take effect. Thereafter, consumer spending is likely to remain sluggish and there may be some downward pressure on household incomes and spending due to negative spillovers from weaker external demand. Heightened uncertainty about prospects for future incomes may persist such that consumers may continue to maintain buffers to protect against adverse income shocks. Tighter credit conditions will remain but consumers are in any case less inclined to finance consumption via debt, particularly short-term consumption related debt that tends to carry higher interest costs than longer-term financing such as mortgage debt. The savings rate is set to remain elevated with heavily indebted consumers continuing to deleverage. That said, lower mortgage interest rates may bring some solace and if uncertainty were to ease then the precautionary element of savings may decline. Overall, consumption is expected to decline further by 1.5 per cent in 2012, with the large budgetary consolidation the principal explanatory factor behind the fall. Consumption may rise next year, albeit modestly, as real disposable incomes begin to stabilise.

Chart 2: Index of Volume of Retail Sales



Source: CSO.

Investment

Declining investment in physical infrastructure continued to depress domestic demand last year. The building and construction sector declined by 21.6 per cent, year-on-year, in the first three quarters of 2011. Despite the positive performance of the exporting sector last year, machinery and equipment investment fell by 6.3 per cent in the first three quarters, year-on-year, due mainly, but not wholly, to reduced expenditure in the exceptionally volatile aircraft sector. Within the building and construction sector, housing activity continued its decline – down 18.8 per cent, year-on-year, for the first three quarters, as new activity and improvements both decreased substantially. The other building and construction components registered declines of 23.8 per cent for the same period, year-on-year, reflecting, in large part, the consolidation of public capital expenditures. Excluding the aircraft component, machinery and equipment investment was flat after a disappointing third quarter reversing previous increases.

The residential sector seems to have declined to a record low of about 10,000 units last year, as expected. Given the overhang in supply and the continuing weakness in demand, further decline in housing output seems likely this year to about 8,000 units with the prospect of stabilisation at this low level in 2013. Expenditures on home improvements are likely to remain weak given the poor near-term outlook for disposable incomes.

On the non-residential side, expectations are for continued declines, driven mainly by reductions in government expenditure, as the commercial market decline may have bottomed out. The latest Ulster Bank Construction PMI, relating to December 2011, points to a pick-up in housing output for the first time since October 2006 and a reduction in the rate of decline in commercial activity, with the civil engineering sector posting the largest declines. Overall, the other building and construction component of investment is likely to decline by about 11 per cent and 9 per cent, respectively in 2012 and 2013 – with risks on the downside.

On the machinery and equipment side, we expect investment activity to remain broadly flat or up marginally, while increasing next year by about 4 per cent as the domestic and international outlook improves somewhat – the usual caveat relating to the volatility of the aircraft component applies, however. Overall, investment expenditure is forecast to decline by 3.4 per cent this year and 0.6 per cent in 2013.

Stock Changes

Stock changes, which were positive for the first three quarters of 2011, seem to have made a positive contribution to overall growth last year of close to 1 per cent. The impact of stock building to GDP growth is assumed to be slightly negative in 2012 and broadly neutral in the following year, although given the heightened uncertainty regarding near-term growth prospects, there must be some down side risks to this assumption particularly for 2012.

Government Consumption

Quarterly National Accounts data for the first three quarters of 2011 point to an average year-on-year decline in the volume of government consumption of 3.1 per cent and a decline of 3.4 per cent is estimated for the year as a whole. On the basis of expenditure plans set out in the Budget, a decline in real government consumption of about 4.2 per cent is forecast for 2012 with a further decline of about 2 per cent assumed for 2013.

External Demand and the Balance of Payments

Merchandise Trade

Following a pronounced weakening in the second quarter of 2011, exports of goods and services slowed further in the third quarter, with a seasonally adjusted increase of 0.8 per cent. While exports of both goods and services slowed annually in the third quarter, merchandise exports proved somewhat weaker recording an increase of 4.2 per cent over the first three quarters of 2011 compared to an increase of 4.8 per cent in services exports over the same period. Initial indicators for the final quarter of last year are consistent with a further muted merchandise export performance. The new export orders index of the Manufacturing Purchasing Managers' Index signalled a contraction during both October and November before recovering in December to marginally exceed the expansion/contraction threshold of 50. Indicators of external demand also weakened during the fourth quarter[1]. Sizable base effects arising from adverse weather during the final quarter of 2010 are, however, expected to support the year-on-year change in the final quarter of 2011, to yield an average annual increase of 4.2 per cent.

The outlook for the external environment has deteriorated dramatically since the last Quarterly Bulletin, with the adverse impact on merchandise exports expected to be particularly pronounced in 2012. The impact of slower external demand is however likely to be partly mitigated by a further improvement in cost competitiveness. Reflecting such a combination of factors, some slowing of merchandise export volumes is projected in 2012, with an average annual increase of 3.4 per cent. Consistent with the prospects for some recovery in external demand during 2013, merchandise export growth is expected to increase in volume terms by around 4 per cent. Considerable downside risks are however attached to the outlook for merchandise exports arising from uncertainty surrounding the prospects for external demand. In addition, the highly specialised nature of merchandise exports increases exposure to sector-specific risks. Most noteworthy in this regard is the sustainability of the recent impressive performance of the pharmaceuticals sector as output from this sector tends to prove quite volatile due to firm-specific developments in patents and product cycles.

Merchandise imports weakened considerably in the third quarter, with a year-on-year decline of 6.9 per cent. As a result, the estimated outturn for 2011 as a whole has been revised downwards to a decline in volume terms of 0.2 per cent. Given the backdrop of weak domestic demand and slowing export-induced demand in 2012, a modest increase in merchandise import flows is expected, with a projected increase in volume terms of 0.4 per cent. Merchandise import growth is, however, expected to gain momentum in 2013 amid the recovery in export-driven demand and the projected stabilisation in domestic demand, with an estimated increase of around 1.8 per cent.

Services, Factor Incomes and International Transfers

A pronounced deceleration in services export growth in volume terms was recorded in the third quarter of 2011 to yield an increase of 4.8 per cent during the first three quarters of the year. The computer services sector was the dominant source of services export activity during the first three quarters of 2011, as illustrated by the fact that this sector alone accounted for 5.4 percentage points of the 7 per cent increase in the value of services exports over this period. Short-term indicators suggest that the pace of services export growth was quite muted in the final quarter of 2011. As with merchandise exports, services export growth is expected to decelerate somewhat in 2012, albeit to a lesser extent, amid weakened external demand. The combination of a further improvement in cost competitiveness and a healthy pipeline of services-related foreign direct investment projects is, however, expected to prove supportive of services export activity in 2012. Looking ahead to 2013, some upward momentum in services exports is projected, driven by the expected recovery in external demand.

1 The Centraal Plan Bureau world trade momentum measure declined by 1 per cent month-on-month in October.

Table 2: Merchandise Trade (Adjusted) 2010, 2011[e], 2012[f], 2013[f]

	2010	Percentage change in		2011[e]	Percentage change in		2012[f]	Percentage change in		2013[f]
	EUR millions	volume	price	EUR millions	volume	price	EUR millions	volume	price	EUR millions
Merchandise Exports	82944	4.2	-1.3	85309	3.4	0.7	88817	4.0	0.5	92846
Merchandise Imports	46448	-0.2	7.1	-49648	0.4	1.0	-50341	1.8	0.7	-51589
Merchandise Trade Balance (Adjusted)	36495			35661			38476			41257
%GNP	28.5			28.6			30.7			32.3

Table 3: Balance of Payments 2010, 2011[e], 2012[f], 2013[f]

Current Account Items	2010	2011[e]	2012[f]	2013[f]
Merchandise Trade Balance	36495	35661	38476	41257
Services	-7095	-4661	-2896	-1368
Net Factor Income from Rest of the World	-27415	-29483	-31454	-33829
Current International Transfers	-1222	-1270	-1070	-1120
Balance on Current Account	761	248	3056	4940
(% of GNP)	0.6	0.2	2.4	3.9

Services imports rose by 1.6 per cent in volume terms during the first three quarters of 2011. The bulk of this increase emanated from the business services sector, which accounted for around 90 per cent of the growth in the value of services imports over the first three quarters of 2011. Further growth in services imports is estimated for the final quarter of 2011. The performance of services imports in 2012 is expected to be broadly in line with that of last year followed by some pickup in 2013 reflecting the prospects for a recovery in services exports.

Net factor income outflows rose sharply in the year to the third quarter of 2011 reflecting a pronounced falloff in factor income inflows and to a somewhat lesser extent, income outflows. A further increase is estimated to have occurred during the final quarter. Net factor income outflows are projected to rise gradually over the forecast horizon as activity amongst the foreign-owned exporting sectors seems set to grow. The negative contribution to the current account arising from international transfers is expected to continue throughout the projection horizon. The trade surplus is set to improve during both 2012 and 2013, as export growth is expected to outpace that of imports. In line with the projected trends of its various components, an improvement in the current account balance is expected throughout 2011 to 2013. A current account surplus in the region of 0.2 per cent of GNP is estimated for 2011, rising to about 2.4 per cent in 2012 and further to around 3.9 per cent in 2013.

Chart 3: Volume of Exports

Source: CSO Quarterly National Accounts.

Table 4: Industry and Manufacturing Output, Annual Percentage Change

	Modern	Other	Manufacturing	Total Industry
2000	19.1	5.5	14.6	14.3
2001	16.3	1.9	11.4	11.0
2002	13.0	-1.4	8.5	8.2
2003	7.0	2.1	5.6	5.7
2004	0.3	2.5	1.1	1.2
2005	5.2	0.5	4.1	4.0
2006	4.1	1.6	3.3	3.1
2007	6.9	3.0	5.6	5.2
2008	-0.8	-4.1	-2.6	-2.5
2009	2.2	-14.1	-4.1	-3.8
2010	10.5	2.4	8.1	7.5
2011[e]	3.1	0.3	2.6	2.0
2012[f]	2.6	0.1	2.3	1.6
2013[f]	3.2	0.4	3.0	2.0
Average 2000-2010	7.6	0.0	5.1	4.9

Note: Industrial production indices are produced by the CSO and report output volumes excluding the effect of price changes. To remove the impact of prices Wholesale Price Indices (WPIs) are used as deflators. These WPIs were updated in June 2010 and have resulted in revisions to the series back to 2006. Overall these changes served to dampen output growth relative to what was published in Bulletins prior to Q4 2010 (particularly relating to the Modern sector).

Supply

Industry and Services Output

Evidence from the latest industrial output data suggests that the manufacturing sector continues to show some resilience amid challenging economic circumstances. Following an apparent slowdown in the pace of growth during mid-year, the manufacturing sector recovered slightly in recent months to register an expansion of 3.1 per cent in the first ten months of the year, when compared to the same period of 2010. Notwithstanding this improvement, the level of expansion remains below last year's performance, when the manufacturing sector recorded growth of 6.6 per cent over the same period.

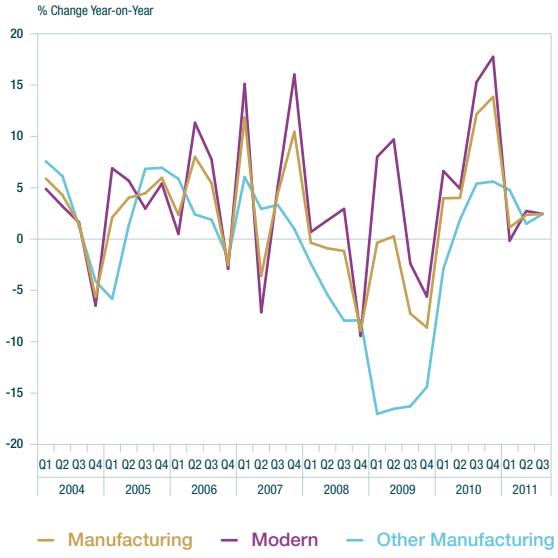
Output in the modern sector was boosted in recent months by an upsurge in the large and volatile broad chemicals subsector, which is estimated to have expanded by 6.2 per cent in annual terms in the year-to-October. While this expansion is an improvement from the relatively lacklustre performance of mid-year, the equivalent outturn at the same time of 2010 was considerably stronger at 16.2 per cent. Continuing weaknesses are also evident in the remaining components of manufacturing. When the broad chemicals subsector is excluded, volumes are seen to have contracted more recently, although the pace of decline has lessened from last year. Helping to bolster manufacturing growth more recently were signs of renewed strength in the food and beverage subsector. It should be noted that growth in this subsector, often referred to as part of the 'traditional sector', was partly the result of an exceptional outturn in the 'other foods' component in August that is unlikely to be continued. As such, the improvement in growth prospects for the traditional sector remains somewhat modest.

Qualitative evidence from the NCB Purchasing Managers Index (PMI) points to persistent, albeit modest, weaknesses in the production of Irish manufacturing firms, with contractions in the index signalling poorer business conditions for the sector during six of the last seven months of 2011. Overall new business orders were weak, while new orders from overseas have also eased markedly from earlier in the year.

With the pace of expansion in the modern sector having moderated during the year, manufacturing output is now expected to increase by 2.6 per cent in 2011. The impact of the slowdown has been mitigated to some extent by a more stable traditional sector which has weighed less on the performance of the sector as a whole, when compared to previous years.

Turning to the services sector, the latest Quarterly National Accounts for the third quarter of 2011 reveal that, in year-on-year terms, the volume of output in the Other Services subsector fell by 3 per cent. Declines in the demand for Irish services have eased somewhat, however, from recent years despite the poor outturn for the third quarter. Evidence from the NCB Services PMI (which excludes the retail and wholesale sectors) also supports this view for 2011 as a whole, yet a return to slightly contractionary territory (i.e. a reading just below 50) in December for the first time in twelve months highlights the fragility of the demand environment both domestically and internationally.

Chart 4: Volume of Industrial Production



Source: CSO.

Agricultural Output

Advance CSO estimates on output and income for 2011 point to another favourable year for the agricultural sector in 2011. While output in the sector is estimated to have remained relatively unchanged for 2011, rising by 0.8 per cent year-on-year, incomes (as measured by operating surplus) are expected to have increased substantially, up by an estimated 33.4 per cent. This follows a solid rise of 27.4 per cent in 2010. The increase in incomes in 2011 clearly owes much to a more favourable trading environment for farmers. This is supported by preliminary price data from the CSO that indicate a sustained widening between farm-gate prices and farming costs for last year. Initial projections suggest that output prices were up 13.6 per cent for 2011, while input prices rose by 10.6 per cent, when compared to 2010. These price increases were driven primarily by cereal, cattle and milk prices on the output-side and by fertiliser, feed and energy costs on the input-side. A delay in subsidy payments for 2010 served to add further buoyancy to the 2011 income outturn. Accounting for these timing issues suggests that the actual increase in incomes for 2011, while lower, is still very strong at close to 20 per cent. A depreciation in the euro against sterling during 2011 also served to relieve pressure on indigenous exporters by enhancing competitiveness.

The latest available Quarterly National Accounts data on the broad agricultural, fishing and forestry sector in 2011 provide further evidence of an upturn in 2011. In terms of volume of output, an expansion in the order of 10.9 per cent was registered over the first three quarters of the year, when compared with the same period of 2010.

Looking forward to 2012, recent price rises for farming produce are expected to moderate as international supply conditions ameliorate. Any negative impact on trade terms may be offset by a slowdown in input cost increases as frailties in demand conditions persist, however. On balance, incomes are projected to fall by 2.9 per cent in 2012, while the volume of output appears set to rise at a similar pace to last year. The usual caveats apply to this forecast, with downside risks relating to exchange rate movements, commodity price volatility, weakening demand and adverse oil price developments of particular note.

Table 5: Summary of Agricultural Output and Income 2010, 2011[e], 2012[f], 2013[f]

	2010	% change in			2011[ab]	% change in			2012[f]	% change in			2013[f]
	€ million	Value	Volume	Price	€ million	Value	Volume	Price	€ million	Value	Volume	Price	€ million
Goods Output at Producer Prices[a]	5,329	16.2	2.4	13.4	6,190	0.9	0.8	0.1	6,245	-0.2	0.8	-1.0	6,233
Intermediate Consumption	4,161	11.7	3.1	8.3	4,646	0.5	0.2	0.3	4,669	-1.0	0.4	-1.4	4,622
Net Subsidies plus Services Output less Expenses	1,688	15.0			1,942	-4.5			1,854	-0.9			1,837
Operating Surplus	1,967	33.4			2,625	-2.2			2,567	0.3			2,575

a Including the value of stock changes.

b CSO estimates.

The Labour Market

Following a consistent slowing in the pace of employment decline over the past two years, the contraction in employment gathered pace in the third quarter of 2011. In unadjusted terms, the number of persons employed decreased by 2.5 per cent annually in the third quarter; this compares with a year-on-year decline of 2 per cent in the previous quarter. When seasonal factors are taken into account, employment contracted by 1.1 per cent quarter-on-quarter following a 0.2 per cent decline in the second quarter. This quarterly decrease represented the largest recorded since the third quarter of 2009. A noteworthy development at a sectoral level was the fact that the third quarter of 2011 represented the first quarter since the second quarter of 2008 that the construction sector did not record the single largest year-on-year decline. Initial indicators for the final quarter of 2011 are consistent with further labour market weakness. The number of persons on the Live Register, in seasonally adjusted terms, declined by an average of around 200 persons per month in the final quarter of 2011; this compares with an average monthly decline of 1,100 persons in the previous quarter. In view of this and given that the labour market outturn for the third quarter was considerably weaker than anticipated, the estimated employment decline for 2011 as a whole has been revised to 2.2 per cent.

The contraction in labour demand continued to have a dampening effect on the size of the labour force over the year to the third quarter of 2011, with a fall of 1.4 per cent. Over half of the year-on-year decline in the labour force in the third quarter related to a fall in labour force participation, as illustrated by the 0.8 percentage point decline in the participation rate to 60.4 per cent. The fall in the labour force annually in the third quarter was also driven by demographic factors and specifically net outward migration. It is estimated that the negative demographic effect accounted for almost 44 per cent of the overall decline in the size of the labour force over this period. The falloff in the labour force is expected to have continued in the final quarter of 2011 to yield an average annual decline of 1.1 per cent. When adjusted for seasonal factors, the unemployment rate rose quarter-on-quarter, increasing from 14.2 per cent to 14.4 per cent in the third quarter of 2011. The long-term unemployment rate rose by almost 2 percentage points annually in the third quarter of 2011 to reach 8.4 per cent. As regards the unemployment outturn for 2011 as a whole, the unemployment rate is expected to have averaged around 14.5 per cent.

In terms of the outlook for labour demand, weakness is expected to persist throughout the projection period. A further fall in employment is projected in 2012, albeit slowing relative to the estimated 2011 outturn, with a projected average annual decline of 0.6 per cent. This further contraction in employment reflects the downward pressure on employment levels arising from public sector redundancies, the restructuring of the banking sector and the persistent weakness of labour-intensive domestic demand. A return to employment growth is expected in 2013, with an increase of 0.4 per cent. The modest

Table 6: Employment and Unemployment 2010, 2011[e], 2012[f] and 2013[f]

	2010	2011[e]	2012[f]	2013[f]
Agriculture	85	84	84	85
Industry (including construction)	360	339	335	334
Services	1,403	1,385	1,379	1,387
Total Employment	1,848	1,808	1,798	1,806
Unemployment	291	307	307	297
Labour Force	2,140	2,115	2,105	2,103
Unemployment Rate (%)	13.6	14.5	14.6	14.1

Note: Figures may not sum due to rounding.

employment increase projected in 2013 is in line with both the projected export-led nature of the recovery in output and the expectation that the recovery in the labour market will lag that of economic activity.

Weak labour demand conditions are expected to weigh upon the labour force in 2012, which is projected to fall by around 0.4 per cent. As regards the composition of this labour force decline, it is expected that it will increasingly reflect net outward migration. The negative contribution from participation effects is expected to continue as some unemployed people become discouraged and stop searching for work. Labour force levels are expected to be broadly flat in 2013. Taking account of the outlook for employment and the labour force, the unemployment rate is expected to rise further in 2012 to around 14.6 per cent followed by a decline to around 14.1 per cent in 2013.

Box A: Boston or Berlin: how has the Irish labour market responded to the Great Recession?

By Mary Ryan and Geraldine Slevin[2]

During the so called Great Recession, contrasting responses were observed in the magnitude of output declines relative to employment losses between the US and Germany (see Table 1). For the US, declines in output translated into increasing unemployment while the German labour market response was much more muted relative to its fall in output[3]. Various reasons put forward to explain these divergent outcomes include the nature of the shocks that hit these economies, differing labour market institutions and how labour is adjusted in the face of a downturn. This box examines these explanations in more detail and assesses developments in Ireland in this context.

Table 1: Growth in GDP and Unemployment Rate

	GDP growth			Unemployment Rate			
	2008	2009	2010	2008	2009	2010	*Change 2005-10*
US	-0.4	-3.5	3.0	5.8	9.3	9.6	*4.5*
Ireland	-3.0	-7.0	-0.4	6.3	11.8	13.7	*9.3*
Germany	1.1	-5.1	3.7	7.6	7.7	7.1	*-4.1*
EU	0.4	-4.2	1.8	7.7	9.6	10.1	*0.9*

Source: OECD.

2 Economic Analysis and Research Department.

3 The muted labour response in Germany has drawn much comment. See **ECB** July 2010, "Labour Market Adjustments to the Recession in the Euro Area" ECB Monthly Bulletin July 2010, **Elbsy W.L.**, **Bart Hobijn**, **Aysegul Sahin** (2010), "The Labour Market in the Great Recession", Brookings Papers on Economic Activity, Spring 2010, **Burda, Michael C. and Jennifer Hunt** (2011), "What Explains the German Labour Market Miracle in the Great Recession", Brookings Papers on Economic Activity, Spring 2011, **OECD** (October 2011), "OECD Economic Surveys Ireland".

Box A: Boston or Berlin: how has the Irish labour market responded to the Great Recession?
By Mary Ryan and Geraldine Slevin[2]

Both the US and Ireland suffered a property crash that also severely compromised the financial system. Labour intensive sectors such as construction and retail were badly affected, with a resulting pronounced fall in employment (see **Chart 1**). Construction alone accounted for roughly half the rise in Irish unemployment[4]. In contrast, the shock that hit the German economy was primarily cyclical: a contraction in world demand in the wake of the Lehman Brothers collapse resulted in a shrinking of its less labour-intensive export sector. Employment growth in Germany was stable in 2009 in response to negative output growth, while the unemployment rate declined in 2010 when output rebounded.

Labour market outcomes are also affected by institutional factors such as employment protection legislation and the cost of hiring and firing. Moreover, labour input can be reduced along two margins: through individuals being laid off and/or hours being reduced. Historically, US firms were more likely to reduce numbers of persons employed than adjust hours worked, while the euro area response is more a combination of the two (Ohanian and Raffo, 2011)[5].

In Germany, institutional factors such as the "Kurzarbeit" (short-term working) subsidy scheme and working time accounts[6] have facilitated labour market adjustment more through hours worked rather than numbers employed. Two-thirds of the US labour market adjustment comes from reductions in the numbers employed, with just one-third in the form of reductions in hours per worker (Burda and Hunt 2011 and Elbsy et al. 2010). Hiring and firing costs are also notably higher in Germany than the US, with lengthy severance periods, which serves to discourage adjustment via widespread redundancies. In the US, "just in time" employment practices are more prevalent. The US experienced an increase in worker productivity[7], which allowed for reduction in numbers during the Great Recession and also a reoccurrence of a "jobless recovery", while in Germany output per worker has fallen. In addition, the absence of significant employment expansion in Germany during the preceding boom, due to a lack of confidence that the boom would last, accounts for 40 per cent of the "missing" employment decline in the recession according to Burda and Hunt (2011). In contrast, Elbsy et al. (2010) note that the long-term unemployment rate in the US has jumped, driven by a sharp increase in inflows into unemployment and prolonged declines in the rate at which workers flow out of unemployment.

In its labour market response to the Great Recession, Ireland has displayed characteristics more in line with the US than the euro area average. Irish firms hire and fire relatively quickly compared with many other euro area countries (NESC, 2011)[8], although the effective cost of firing has been increased in the recent Budget and so this may be subject to change. While there has been some labour input adjustment in Ireland in terms of average hours worked, most of the adjustment has been in terms of numbers employed: similar to the US, the ratio is in excess of 2:1. Productivity per worker has risen, as in the US. Long-term unemployment is now common, having jumped from just over 20 per cent of unemployment in early 2009 to over 50 per cent throughout the past year. In labour force terms, the long-term unemployment rate has increased over the same period from just over 2 per cent to about 8 per cent.

4 Looking to euro area comparators, the labour market response in Spain is most similar to Ireland: following a construction boom which accounted for over 13 per cent of total employment, the Great Recession had a severe impact on GDP growth and employment there, pushing the unemployment rate to over 20 per cent.

5 **Ohanian, Lee E. and Andrea Raffo** (2011), "Aggregate hours worked in OECD countries: new measurement and implications for business cycles", NBER Working Paper 17420.

6 Working time accounts allow for an averaging of surplus and deficit of hours worked.

7 Noted by Elsby et al (2010), IMF (World Economic Outlook, April 2010) and Daly and Hobijn ("Okun's Law and the unemployment surprise of 2009", FRBSF Economic Letter, March 2010).

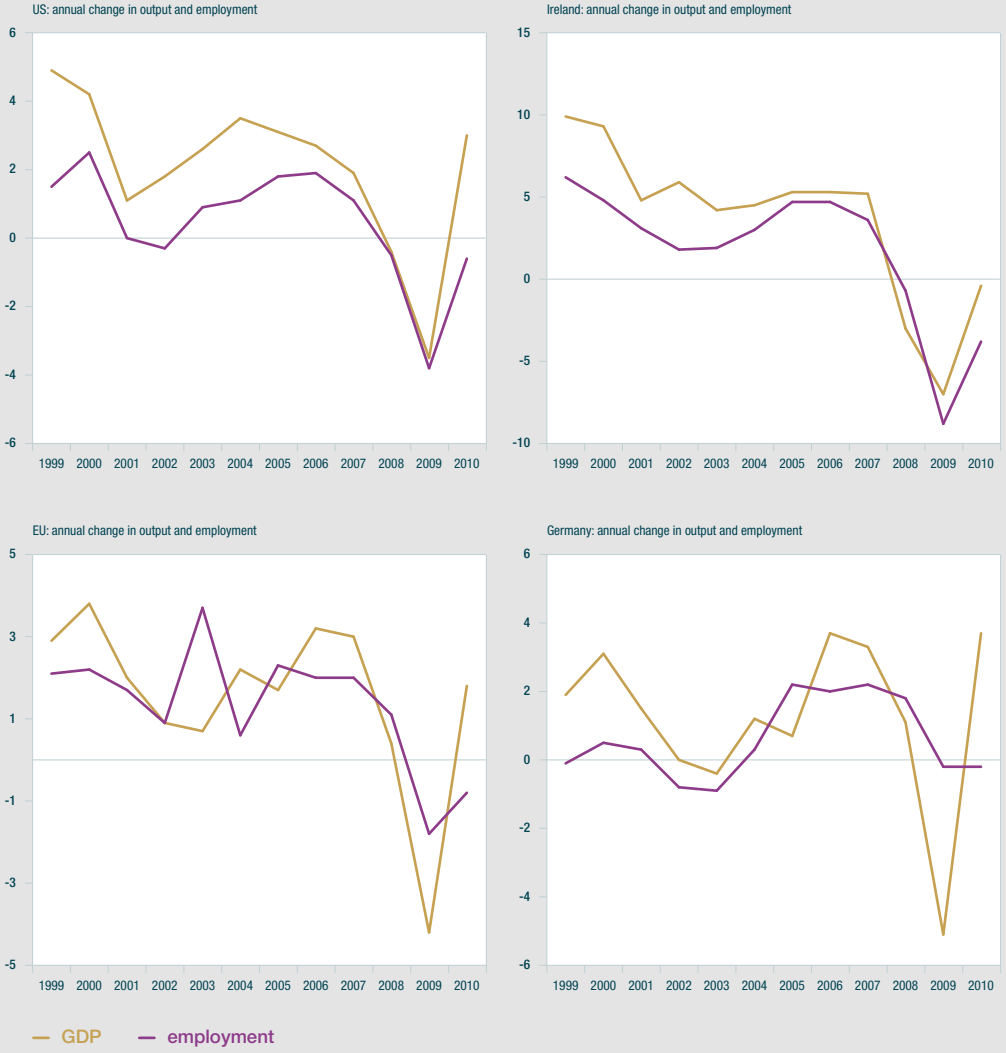
8 NESC (August 2011), "Support and Services for Unemployed Jobseekers: Challenges and Opportunities in a Time of Recession".

Box A: Boston or Berlin: how has the Irish labour market responded to the Great Recession?

By Mary Ryan and Geraldine Slevin[2]

In conclusion, the labour market adjustment in Ireland has been severe, seeing the unemployment rate rise to over 14 per cent throughout 2011. This reflects in part our similarity to the US labour market with reductions in numbers employed far outweighing adjustments to hours worked but also the nature of the shock that hit the economy.

Box A Chart 1: Annual percentage change in real GDP at 2005 constant prices and number of persons employed: 1999-2010



Source: OECD.

Pay

The downward trend in whole economy wages observed since mid-2009, reversed in the third quarter of 2011 as average weekly earnings rose by 1.4 per cent year-on-year. Such an outturn contrasts sharply with the 0.8 per cent annual decline recorded in the previous quarter. A decomposition of the third quarter increase into average weekly earnings reveals that it solely related to an increase in hourly earnings – average hourly earnings rose by 1.5 per cent while average weekly hours worked fell marginally, with a decline of 0.3 per cent. At a sectoral level, the upward pressure in whole economy average weekly earnings during the year to the third quarter solely reflected developments in private sector wages. While a downward adjustment of 0.5 per cent took effect in the public sector over this period, a pronounced increase of 2 per cent in average weekly earnings was recorded within the private sector. As regards the wage outturn for 2011 as a whole, compensation per non-agricultural employee is estimated to have declined by around 0.3 per cent reflecting the downward pressure on wages.

Amid weak domestic economic activity and considerable spare capacity in the labour market, wage pressures are expected to remain muted in 2012. Looking ahead to 2013, it is envisaged that wages will increase modestly in line with the recovery in output and the stabilisation of labour market conditions. As a result, compensation per non-agricultural employee is expected to rise by around 0.2 per cent followed by a further increase of around 0.6 per cent in 2013. Wage developments across the public and private sector seem set to be broadly similar in 2012 and 2013. In accordance with the pay policy element of the 'Public Service Agreement', no further public sector wage cuts are expected, while annual salary increments are expected to provide some support to public sector pay over the projection period. Private sector wage levels are expected to be broadly unchanged in 2012 followed by a modest increase in 2013 as the backdrop of labour market weakness seems set to continue to weigh. When the outlook for wages is combined with that for non-agricultural employees, it suggests that the non-agricultural pay bill declined by 2.4 per cent in 2011 followed by a further reduction of 0.4 per cent in 2012 and an increase of 1 per cent in 2013.

Inflation

The annual rate of HICP inflation in 2011 was 1.1 per cent. The main driver behind inflation was international oil prices, which increased by 32.6 per cent on average in euro terms. Higher energy prices reduced households' real incomes and bore down on domestically generated inflation. Other international commodities also rose sharply, particularly in the case of food, while market specific factors, such as in medical insurance, pushed up the annual inflation rate further. Looking through external pressures, annual core inflation, as measured by HICP excluding energy and unprocessed food, was flat on average last year reflecting weak labour market conditions and the heightened price sensitivity of more financially constrained consumers.

As supply chain inflationary pressures continue to dissipate, inflation on a constant tax basis is expected to remain muted during 2012. However, the impact of Budget 2012 on inflation is significant, adding an estimated 0.8 percentage points. The increase of two percentage points in the standard VAT rate is likely to have the biggest single impact. Notwithstanding weak consumer demand conditions, the pass-through of the VAT rate increase may be high, particularly where there may be limited buffers provided by retailer's margins. Unit labour costs may be stabilising following sharp declines while other costs are rising, for example in the case of energy related costs, so there may be less scope for absorbing the VAT increase. According to analyses by other EU central banks of recent VAT increases, there is some evidence to suggest that the pass-through may be stronger and faster for goods items than services items partly as price changes in the latter tend to be less frequent. It should be noted that, even in ex-post assessments, there generally remains considerable uncertainty surrounding the extent of the pass-through of a change in VAT.

Table 7: Inflation Measures – Annual Averages, Per Cent

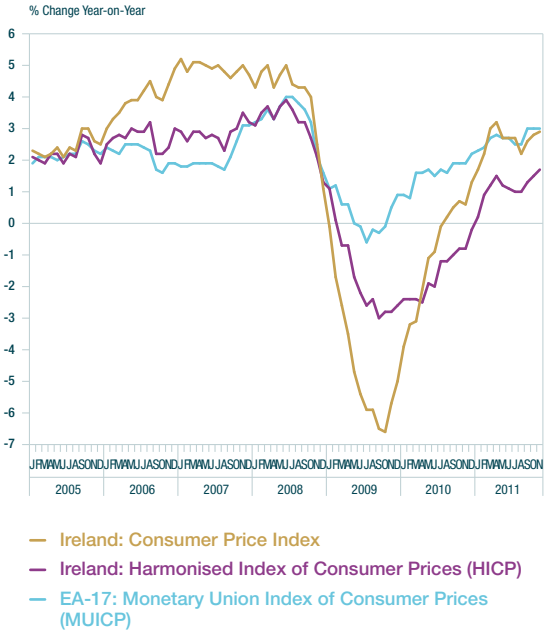
Measure	HICP	HICP excluding Energy	Services[a]	Goods[a]	CPI
2008	3.1	2.6	3.4	2.9	4.1
2009	-1.7	-1.0	1.2	-4.1	-4.5
2010	-1.6	-2.7	-0.7	-2.4	-1.0
2011	1.1	0.0	0.9	1.5	2.6
2012[f]	1.6	1.2	1.5	1.7	1.1
2013[f]	1.0	1.2	1.4	0.6	0.7

a Goods and services inflation refer to the HICP goods and services components.

Energy inflation will continue to make a substantial impact but will be driven by indirect tax increases along with the carryover of utility price hikes rather than the pass-through of international oil prices to liquid fuel prices as oil prices in euro terms have been broadly stable in recent quarters. Food commodity price pressures also eased during the second half of last year and the pass-through may have largely run its course so that domestic market influences and the standard VAT increase will be the predominant factors affecting food price trends. The euro has depreciated against sterling recently and this may apply some upward pressure on inflation, particularly for food and for clothing and footwear. In this regard, a stronger sterling vis-à-vis the euro along with higher transport costs may mitigate to a degree the impact of the higher standard VAT rate on cross-border shopping. Annual core inflation is likely to converge to headline HICP inflation towards the end of the year as the larger energy price hikes fall out of the year-on-year comparison.

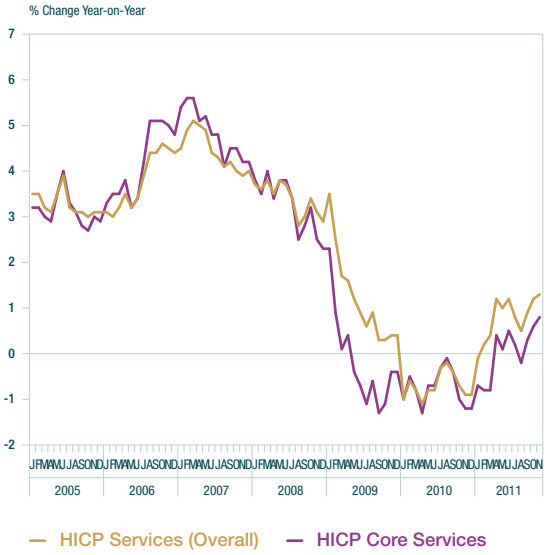
The annual average CPI inflation rate for 2012 is projected to be about 1.1 per cent. This is significantly lower than the projected annual average HICP inflation rate of 1.6 per cent despite an increase in motor tax of an estimated 7.5 per cent, and largely reflects developments in mortgage interest costs. The Central Bank uses a purely technical assumption for interest rates that is based on market expectations for the path of ECB policy rates. The ECB cut policy rates in November and December 2011 by a total of 50 basis points, and with a benign outlook for interest rates, the annual CPI inflation is projected to average 1.1 per cent for this year. Turning to next year, technical assumptions normally indicate a marginal direct impact of exchange rates and international commodity prices on the domestic price level beyond a one year horizon. As such, domestic factors will tend to dominate and a stabilisation in consumer demand will be reflected in modest annual average HICP inflation of 1.0 per cent in 2013 while annual CPI inflation may be slightly lower at 0.7 per cent.

Chart 5: Consumer Prices



Source: CSO.

Chart 6: Services Sector Inflation



Note: Core Market Services equals HICP services excluding telecommunications, alcohol-related and administered services.

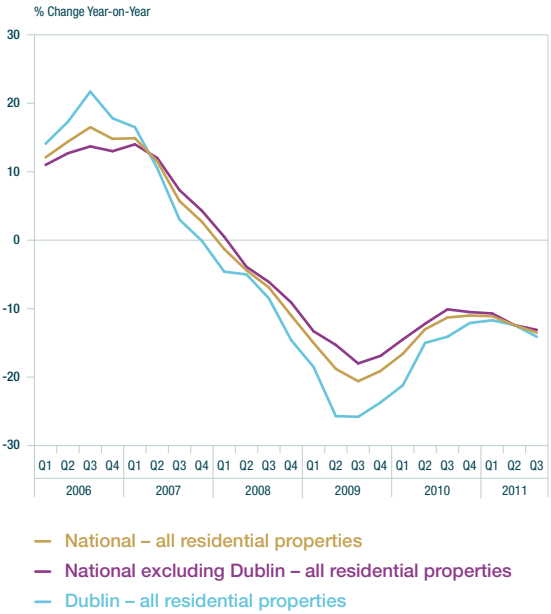
Source: CSO.

Property Prices

The CSO's monthly Residential Property Price Index indicated a monthly price decline of 1.5 per cent in November 2011, following declines of 1.5 and 2.2 per cent in September and October, respectively. In the year to November, residential property prices, at a national level, fell by 15.6 per cent. Overall, the national index is down 46 per cent from its peak in 2007. Property prices in Dublin have fallen by more than the rest of the country – ostensibly because they increased by a greater margin during the boom and are still at a premium relative to the rest of the country. House prices in Dublin are 52 per cent lower than their peak, while apartment prices are 58 per cent lower than the February 2007 peak. Evidence from the Daft house price measure points to an acceleration in house price declines in the fourth quarter of 2011. The continued falls in property prices have led to improvements in affordability, with the EBS DKM Affordability Index suggesting that the proportion of net income required to fund a mortgage by a first-time buyer couple fell to 12.7 per cent in October 2011, down from a peak of over 26 per cent at end-2006. Weak income and employment prospects, with expectations of future property price falls, however, continue to dominate the demand. Moreover, ECB rate cuts are not necessarily being fully passed on by some mortgage lenders. Reflecting the reluctance of potential buyers to enter the property market, private sector rents have increased in some areas, with the CSO's rental index pointing to an increase of 3 per cent year-on-year in December 2011. Overall, the housing market continues to be characterised by a high degree of uncertainty, with increasing polarisation and market segmentation meaning that some sectors are likely to stabilise before others.

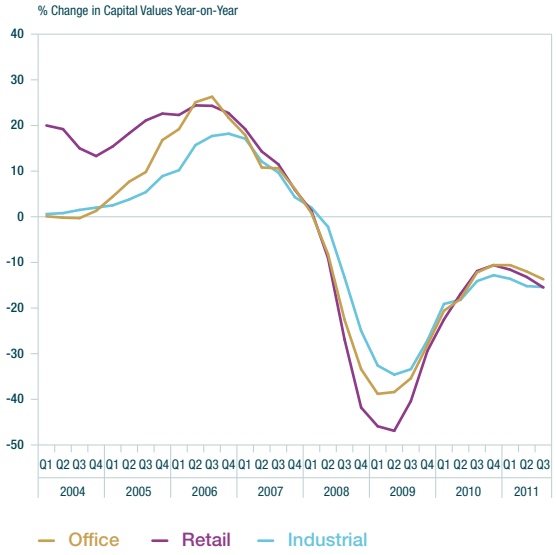
On the commercial front, capital values fell by 4.6 per cent in the third quarter of the year according to the Society of Chartered Surveyors/Investment Property Databank, with capital values in retail, office and industrial sectors recording declines of 5.2 per cent, 4.1 per cent and 4.3 per cent, respectively. This is corroborated by the Jones Lang LaSalle index for Q3 2011 where capital values for all three commercial property sectors (offices, retail and industrial) fell by 4.1 per cent, 4.3 per cent and 4.6 per cent, respectively. There was, however, a marginal increase in commercial rents in the third quarter of 1.1 per cent, although in the year to September rents were down 7.9 per cent. There are some positive signs emanating from the sector with an increase in uptake in prime office areas by large IT firms.

Chart 7: Residential Property Price Indices



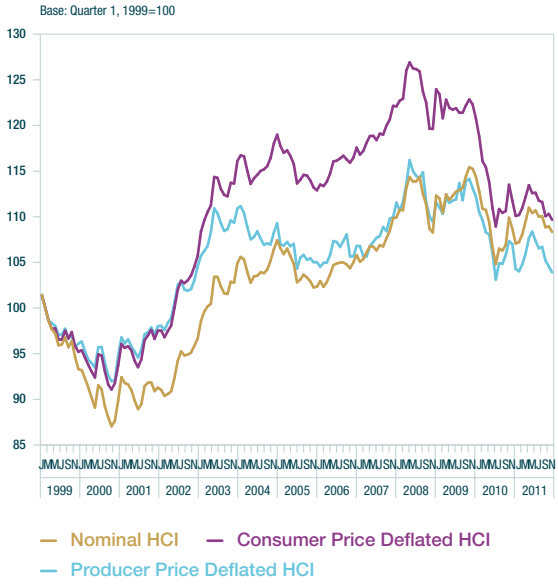
Source: CSO.

Chart 8: SCS/IPD Irish Commercial Property Index



Source: SCS/IPD.

Chart 9: Harmonised Competitiveness Indicators



Sources: Central Bank of Ireland and ECB.

Competitiveness

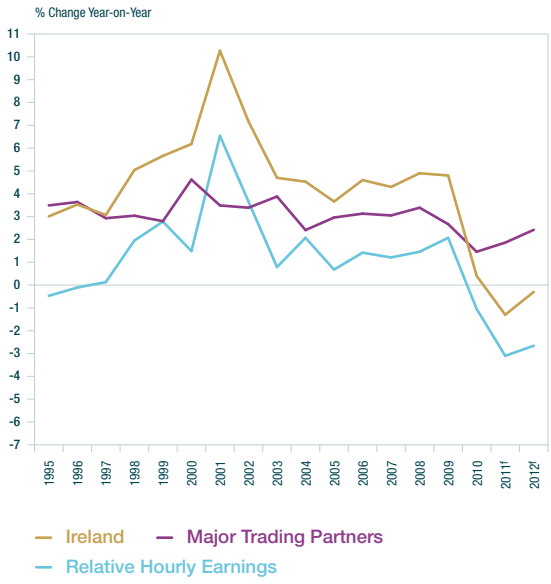
Exchange Rate Developments

Following a brief rally in October, the euro exchange rate has depreciated significantly against the dollar and sterling in the months up to January as the financial markets reacted negatively to efforts to resolve the Eurozone debt crisis, depreciating by almost 10 per cent to January 2012 compared to end-October 2011. This should be of some benefit to Irish exporters. Similarly, sterling has fallen by 8.6 per cent since July of 2011. The latter will have had a disproportionately beneficial effect on indigenous Irish exporters, whose principal export market is the UK. The euro weakness is mirrored in developments in the nominal Harmonised Competitiveness Indicator (HCI), which is a trade weighted exchange rate. The downward trend throughout much of 2011 is illustrated in Chart 9. The nominal HCI was down by 2.5 per cent in November 2011 compared to mid-year, while the consumer price deflated HCI was down 3.3 per cent in November compared to mid-year, reflecting slightly weaker inflation in Ireland than in our main trading partners.

Productivity and Cost Competitiveness

Productivity figures based on full-year estimates for 2011 point to further improvements on 2010, with productivity on a GDP basis increasing annually by 3 per cent and by 1.9 per cent on a GNP basis (this figure was weakened by higher net factor income outflows). As previously explained, there were likely two factors at play here: firstly, strong growth in the high-value added, mostly foreign-owned export orientated manufacturing sectors and, secondly, a sharp fall in activity in lower productivity sectors such as construction and services. For this year and next, these compositional effects are likely to play less of a role, as much of the structural change in the construction sector has already occurred, with it now accounting for a much smaller share of output. In light of the overall economic and labour market outlook set out above, average annual productivity growth of 1.1 per cent on a GDP basis is projected for this year, increasing to 1.7 per cent in 2013. On a GNP basis, progress is likely to be more modest with no increase projected for this year and a moderate increase of 0.6 per cent forecast for 2013.

Chart 10: Hourly Earnings in Manufacturing (in Local Currency)

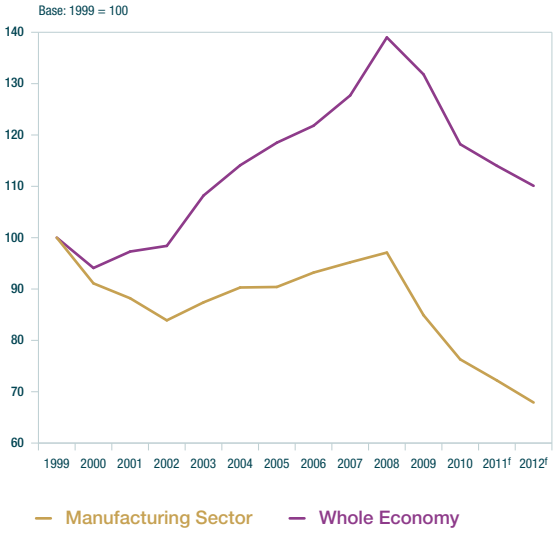


Source: Central Bank of Ireland calculations.

In light of the projected more modest increase in productivity, and an end to significant cuts in compensation per employee, the large declines in unit labour costs in previous years are forecast to temper over the projection period. Unit labour costs on a GDP basis are projected to have declined by 3.2 per cent in 2011, with further more moderate declines of 0.9 per cent and 1.1 per cent forecast for 2012 and 2013, respectively. Much of the improvement in unit labour costs is set to come increasingly from the productivity side rather than the compensation side, as most firms have already completed their rounds of wage reductions and, indeed, the forecast includes modest compensation increases this year and next. According to European Commission projections, labour cost competitiveness in Ireland relative to the euro area is set to improve this year and next.

In terms of the other competitiveness indicators, the CSO's experimental Services Producer Price Index continued to point to downward pressure on business-to-business services prices in Ireland, with prices down 1.1 per cent in the year to the third quarter of 2011. There were, however, significant increases in transportation costs, but these were offset by decreases in employment and human resource services and architecture and engineering services. The National Competitiveness Council's Competitiveness 2011 Scorecard for the third quarter identified seven areas of concern, including; access to credit, long-term unemployment, punitive taxes on labour income, education (particularly in the areas of science and maths) and the IT infrastructure.

Chart 11: Irish Unit Wage Costs Relative to Main Trading Partners (in Common Currency)



Note: The series in the chart are influenced by compositional effects. For a more detailed discussion, see Box A: Compositional Effects in Recent Trends in Irish Unit Labour Costs, Quarterly Bulletin 2011 1.

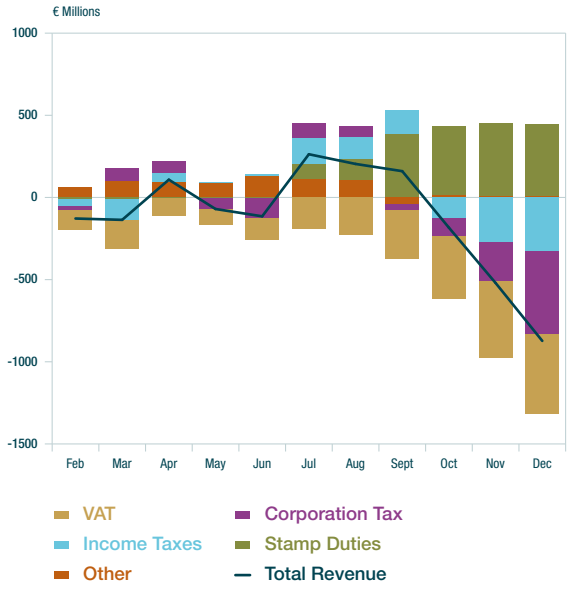
Source: Central Bank of Ireland, European Central Bank and AMECO.

The Public Finances

The 2011 Outturn

End-year Exchequer returns, released in early January reveal a 2011 Exchequer deficit of €24.9 billion, compared with a figure of €18.7 billion in 2010 (Table 8). The 2011 outturn was €290 million better than projected in Budget 2012, despite the end-year tax outturn registering some €150 million weaker than Budget day expectations[9]. The €6.2 billion year-on-year deterioration in the Exchequer deficit mainly reflects the rise in non-voted capital expenditure due almost exclusively to banking-related payments, which in net terms amounted to €9.7 billion. Excluding the effect of banking related impacts, the 2011 Exchequer deficit was some €2.75 billion lower than the 2010 outturn, evidence that consolidation efforts continue to deliver with sustained momentum.

Chart 12: Cumulative Exchequer Revenue Performance Relative to Target, 2011



Note: 'Other' tax items here comprise of Capital Acquisitions Tax, Capital Gains Tax, excise duties, customs and a minor balancing item for unallocated tax revenues.

Source: Central Bank of Ireland calculations and Department of Finance profiles.

In terms of the broader General Government Balance (GGB), Budget 2012 estimated a deficit of 10.1 per cent of GDP (€15.6 billion), down from 31.3 per cent (11.5 per cent underlying) in 2010 (Table 8). Given the better end-year Exchequer deficit outturn, together with the receipt of delayed corporation tax receipts, a further improvement in the nominal general government deficit (GGB) outturn for 2011, all else unchanged, is likely. The next formal estimate of the 2011 GGB outturn will be in the context of the March 2012 EDP returns.

On the revenue side, tax receipts amounted to €34 billion in 2011, up 7.2 per cent year-on-year, compared with annual declines of almost 4 per cent in 2010 and 19 per cent in 2009. The 2011 increase is boosted by the impact of measures introduced in 2011 (including the *Budget 2011* Universal Social Charge and the May 2011 *Jobs Initiative* Pension Fund Levy). Abstracting from revenue increases resulting from the reclassification of the health levy to form part of the USC, underlying tax revenues were more muted, recording a 0.8 per cent increase in annual terms. Moreover, taxes weakened as the year progressed, ending the year 2.5 per cent or €873 million below profile[10]. Income tax receipts ended the year approximately €330 million (or 2.3 per cent) behind target, with VAT some €490 million or 4.8 per cent behind target. Some €261 million in corporation tax returns, received in early January, were not received in time to be captured in the end-year outturn, however once account is taken of these receipts, corporation taxes ended 2011 5.9 per cent behind target. Including these belated corporation tax receipts, adjusted end-year tax revenue stood at €34.3 billion, some €100 million better than envisaged in Budget 2012, with the overrun driven largely by a positive capital gains tax (CGT) surprise. Abstracting from this corporation tax timing issue, end-year returns are largely in line with the Budget 2012 outlook. In terms of non-tax revenues, receipts increased marginally year-on-year to reach €2.8 billion. The main sources of non-

9 Some €261 million in corporation tax receipts expected to be received into the Exchequer Account in December were not received in time to benefit the end-year outturn, but the bulk were subsequently received in early January. Accounting for these receipts, the adjusted end-year tax total was over €100 million better than anticipated in Budget 2012.

10 Adjusting for the corporation tax payments timing issue at end-December, referred to already, total tax revenues were €612 million or 1.8 per cent below profile in 2011.

Table 8: Budgetary Outturn for 2011

	2010 €m	2011 €m	% Change
Current Expenditure			
– Non voted Central Fund Services[a]	6,503	6,606	1.6
– Net Voted Expenditure[b]	40,517	41,419	2.2
Total	**47,020**	**48,025**	**2.1**
Current Revenue			
– Tax revenue	31,753	34,027	7.2
– Non-tax revenue[c]	2,687	2,774	3.2
Total	**34,440**	**36,801**	**6.9**
Current Budget Balance	**-12,580**	**-11,224**	
Capital Budget Balance	**-6,164**	**-13,693**	
Exchequer Balance	**-18,774**	**-24,917**	
General Government Balance (% of GDP)[d]	**-31.3**	**-10.1**	
Source and Application of Funds			
Total Borrowing/Repayments	-12,493	-27,046	
Total Increase in Exchequer Deposits	-6,215	2,129	
Exchequer Balance	**-18,774**	**-24,918**	

Note: 2011 outturn based on end December Exchequer returns rather than Budget 2012 estimates.

a Includes debt servicing, judicial salaries and pensions and EU Budget contribution.

b Government voted current expenditure on areas such as Social Welfare, Health, etc.

c Includes Central Bank surplus income, National Lottery surplus, interest and dividends. The increase in 2010 is primarily driven by receipts from the Credit Institutions Scheme 2008.

d Budget 2012 estimate, for 2011.

tax revenue in 2011 were fees from the Bank Guarantee Schemes (higher on account of commercial bank downgrade in July), and Central Bank surplus income.

On the expenditure side, total net voted expenditure amounted to €45.7 billion in 2011, down 1.6 per cent year-on-year largely due to the significant decline in capital spending. Net voted expenditure adjusted for the reclassification of the health levy to form part of the USC, fell in year-on-year terms by 5.7 per cent. Net voted current expenditure at end-December amounted to €41.4 billion, marking an increase of 2.2 per cent (€903 million) on 2010 levels. Current spending also ended the year 0.9 per cent lower than provisioned in the July *Revised Estimates Volume* (REV) target (€377 million), due mainly to underspend on the Agriculture and Social Protection Votes.

Net voted capital spending in 2011 amounted to €4.3 billion, an annual fall of 27.5 per cent (down €1.6 billion), coming in 1.4 per cent behind expected profile. The cost of servicing the National Debt increased by over €1.1 billion last year to reach €5.4 billion, thus accounting for 16 per cent of overall tax receipts.

EU-IMF Programme Compliance

The quarterly performance criteria set out in the Technical Memorandum of Understanding (TMU) of the EU-IMF Programme set an end-December unadjusted primary Exchequer balance (PEB) target of €15 billion. Provisions within the TMU permit the floor of this target to be adjusted downwards by the net amount of bank restructuring and credit union resolution support undertaken under the auspices of the Programme[11]. The €7.6 billion in Exchequer

11 PCAR related assistance is recorded as part of the net bank/credit union support adjustor, but the €3.1 billion promissory note payment made in March 2011 does not, as it relates to recapitalisation assistance agreed prior to commencement of the EU-IMF programme.

assistance granted in July to assist in meeting PCAR recapitalisation requirements, together with the €250 million in credit union related assistance granted in December are netted off the target, with the €1 billion in proceeds from the sale of the State's share in Bank of Ireland serving to tighten the latter. Overall, the end-2011 net banking/credit union support adjustment amounted to €6.8 billion. The TMU also provisions a loosening (tightening) in targets in the event of gross revenue under (over) shooting the TMU estimate. Exchequer tax revenue and PRSI receipts combined ('gross revenue') amounted to €41.9 billion, as against a TMU target of €42.4 billion, meaning the unadjusted PEB target was further loosened, beyond the €6.8 billion banking/credit union adjustment, by an additional €500 million. The adjusted PEB target is €22.3 billion whilst the PEB outturn recorded €21 billion, indicating compliance with end-year Programme fiscal targets. The unadjusted net central government debt target of €116.9 billion was adjusted to €117.2 billion on account of the €250 million credit union assistance. Against an outturn of €115.7 billion the end-year debt target was also met. Formal confirmation of compliance with the structural benchmark on binding expenditure ceilings, together with compliance with fiscal targets, was secured with Troika officials at the January mission meetings.

Exchequer Financing

The Exchequer deficit of €24.9 billion last year was financed almost exclusively through programme borrowing of €34.5 billion in 2011[12], with some slight offset by net retail funding. Net financing needs were greater than the funding requirement to support exchequer cash deficit alone, as borrowing was also needed to support short and long term securities maturing throughout 2011 (amounting to €9.1 billion in total).

Budget 2012

In a break with precedent, Budget 2012 as part of the new budgetary process was presented to the Dáil in two parts on December 5th and 6th, in which respective Ministers outlined expenditure and revenue based savings in separate addresses. The Budget followed the publication of the *Medium Term Fiscal Statement* (MTFS) in November, which set out a €12.4 billion consolidation package from 2012 to 2015, of which Budget 2012 was the first step. Budget 2012 culminated in the delivery of binding current expenditure ceilings over 2012-2014 as set out in the accompanying *Comprehensive Expenditure Report* (CER). In conjunction with capital spending ceilings elaborated in November's *Infrastructure and Capital Investment Plan 2012-2016*, these details fulfil the EU-IMF Programme end-December structural benchmark to provide a multi-annual expenditure framework by end-2011.

As signalled in the MTFS, Budget 2012 delivered on its commitment to implement a €3.8 billion fiscal adjustment intended to reduce the General Government Deficit to 8.6 per cent of GDP in 2012 (Table 9). As regards the composition of the €3.8 billion adjustment, new measures amount to €3.2 billion with the remainder relating to carryover from measures undertaken in 2011 (excluding USC carryover). Of these new measures, expenditure-based elements contribute €2.15 billion, with tax and PRSI related revenue measures accounting for €1.1 billion. Of the total expenditure reductions, €1.4 billion relate to current cuts, alongside a €755 million reduction in the capital envelope. Gross revenue effort of €1.24 billion is partially offset by the provision of €170 million in targeted reliefs and concessions for low income earners, commercial property activity, mortgage holders and SME start-ups. The majority of new tax measures provisioned for 2012 relate to indirect taxes. A number of measures to enhance progressivity of the tax code were introduced, including revisions

12 Net cash amounts received as of 31st December 2011 include EFSF (€7.6bn), EFSM (€13.9bn), IMF EFF (€12.6bn) and UK bilateral loan (€0.5bn). Total nominal loan amount (including all fees, adjustments and negative carry costs) on which interest is paid is €35.7bn (Source NTMA, January 2012).

Table 9: Budgetary Projections to 2015

	2011	2012	2013	2014	2015
Macroeconomic (% change)					
GDP (real)	1.0	1.3	2.4	3.0	3.0
GNP (real)	0.4	0.7	1.7	2.3	2.3
Employment	-1.9	-0.2	0.8	1.2	1.6
Unemployment rate	14.3	14.1	13.5	12.9	11.6
HICP inflation	1.2	1.9	1.4	1.5	1.9
Fiscal (% of GDP)					
Exchequer Balance (€ billions)	-25.2	-18.9	-14.1	-10.2	-7.0
General Government Balance	-10.1	-8.6	-7.5	-5.0	-2.9
General Government Debt	107	115	119	118	115

Source: Budget 2012.

to DIRT, and both capital gains and capital acquisitions tax codes. Of the €1.4 billion in current expenditure cuts for 2012, almost 30 per cent relate to savings in the public pay bill. Almost 80 per cent of current savings will derive from departmental vote savings in health, social protection and education.

Budgetary projections for 2011-2012

The MTFS envisaged a 2011 general government deficit ratio of 10.3 per cent GDP, alongside a gross debt ratio of 105 per cent. On the basis of an unchanged GDP outlook, the Budget 2012 estimate of the 2011 deficit was some 0.2 per cent of GDP better than the MTFS November outlook. This reflected the fact that in spite of accelerated tax slippage provisions in the Budget, social contributions were profiling higher than previously anticipated, together with savings in government investment, intermediate consumption and a lower interest bill than foreseen in November. The deterioration in the 2011 gross debt outlook, which worsened from 105 per cent of GDP in the MTFS to 107 per cent of GDP in the Budget, largely reflects provision of higher cash balance holdings than foreseen in early November.

The projected macro outturn for 2012 has deteriorated in real terms since the MTFS publication with real growth lower by 0.3 percentage points. In spite of this, nominal GDP for 2012 in Budget 2012 is €250 million stronger.

In 2012, gross voted current spending is expected to fall to €51.9 billion, a decrease of 2.2 per cent in year-on-year terms, with a 15.1 per cent reduction in gross voted capital spending. However, significant pressures remain on the current expenditure side reflecting the continued operation of automatic stabilisers and the elevated, albeit now relatively lower, national debt interest burden.

On the revenue side, tax-raising measures announced in Budget 2012 were expected to support a 4.8 per cent increase in exchequer tax revenues in annual terms this year[13], with annual increases of 2.7 per cent for excise duties and 8.4 per cent for income tax anticipated. As year-end tax outturns differed marginally from those expected at the time of Budget 2012, growth rates may now be slightly different. The introduction of a 2 percentage point increase in the VAT rate is expected to generate €560 million, whilst the introduction of a flat-rate household charge and changes to excise duty are each expected to generate in the region of €160 to €180 million respectively. As a result, excluding the impact of the household charge and PRSI measures, tax revenues are expected to amount to €35.8 billion this year, representing a 5.3 per cent increase on the actual 2011 outturn.

13 Excluding the impact of the household charge and PRSI measures as these revenues are already captured in the Comprehensive Expenditure Report 2012-2014(CER).

Budget 2012 projects that the General Government Deficit will improve to 8.6 per cent of GDP this year, with the debt-to-GDP ratio expected to reach 115 per cent.

Budgetary and Economic Outlook to 2015

The Budget also sets out revised projections for the economy over 2013 to 2015, in light of further €8.6 billion (5 per cent of GDP) in consolidation over the period. The outlook envisages a gradual recovery in economic growth, with a relatively high average annual GDP growth rate of 2.4 per cent per annum foreseen for the period 2012-15 (Table 9)[14]. The labour market outlook is projected to improve, albeit gradually with the unemployment rate remaining in double digits throughout the horizon. Consumer price (HICP) inflation is projected to average 1.7 per cent over the 2012-2015 period, with particularly high inflation expected in 2012, partially reflecting tax measures introduced in the Budget helping to improve the outlook for nominal growth. Domestic demand is expected to re-commence contributing positively to growth from 2014 onwards.

The Budget profiles sustained improvement in the General Government Balance facilitated by further consolidation efforts of €3.5 billion in 2013, €3.1 billion in 2014 and €2 billion in 2015 with most of the remaining adjustment on the expenditure side, alongside tax savings relating to both direct and indirect taxes. The General Government primary balance, that is the difference between revenue and expenditure, excluding debt interest payments, is projected to move into surplus from 2014 onwards. The economy is projected to remain heavily indebted over the period with the General Government debt peaking in percentage GDP terms at 119 per cent of GDP (€196 billion) in 2013 before declining thereafter.

14 This compares to an equivalent figure of 2.25% from both the European Commission and the IMF in their most recent December projections.

An Timpeallacht Gheilleagrach

I ndiaidh fáis ní ba láidre ná mar a bhíothas ag súil leis sa chéad dá ráithe de 2011, tháinig moilliú suntasach ar gheilleagar na hÉireann sa dara leath den bhliain. Léiríonn sé seo maolú suntasach ar éileamh seachtrach agus, go feadh méid is lú, ar éileamh intíre. Ba í an laigeacht sa timpeallacht sheachtrach an phríomhfhorbairt le míonna beaga anuas agus beidh tionchar aici sin ar na hionchais do gheilleagar na hÉireann sa bhliain atá romhainn. Maidir leis an mbliain seo caite ina hiomláine, meastar gur tháinig leathnú timpeall 0.8 faoin gcéad ar OTI agus crapadh timpeall 0.6 faoin gcéad ar OTN. Tá sé seo ag teacht, a bheag nó a mhór, leis na hionchais a rinneadh ag tús na bliana, ach go bhfuil an pátrún ráithiúil níos míchothroime ná mar a bhíothas ag súil leis.

Don bhliain reatha, meastar go maolóidh fás OTI go dtí thart ar 0.5 faoin gcéad in 2012 agus go dtiocfaidh laghdú timpeall 0.7 faoin gcéad ar OTN. Is ionann é seo agus athbhreithniú suntasach anuas ar na meastacháin a rinneadh cheana féin don bhliain seo agus léiríonn sé na hionchais ghearrthéarmacha níos laige atá ann maidir le héileamh seachtrach. Meastar go leanfar é seo le méadú ar fhás in 2013 go dtí tuairim is 2.1 faoin gcéad i dtéarmaí OTI agus tuairim is 1.0 faoin gcéad i dtéarmaí OTN, ag brath ar théarnamh ar éileamh seachtrach ón dara leath den bhliain seo ar aghaidh, mar aon le cobhsú de réir a chéile sa gheilleagar intíre. Tá éiginnteacht i réim fós, áfach, agus tá raon leathan torthaí féideartha ann, lena n-áirítear go gcuirfidh an t-éileamh seachtrach níos laige srian ar an ngeilleagar intíre go gceann tréimhse is faide ná mar a bhíothas ag súil leis.

Is i bhfianaise ghéarú na géarchéime fiachais cheannasaigh a tharla an moilliú sa timpeallacht sheachtrach agus tá iarmhairt na géarchéime sin leathnaithe anois ón gcóras airgeadais go dtí an geilleagar i gcoitinne. D'fhormhéadaigh an imní maidir le hiarmhairt na géarchéime airgeadais ar an airgeadas poiblí i dtíortha éagsúla, cibé acu go díreach nó go hindíreach trí fhás níos moille. I mórán cásanna, níor tháinig scála ionchasach iomlán na hiarmhairte seo chun solais go dtí le déanaí. Maidir leis an mbrú breise seo ar an airgeadas poiblí, tá a iarmhairt le brath go háirithe sa limistéar euro, áit inar nochtaigh sé easnaimh i rialachas eacnamaíoch na hEorpa nár léir le linn tréimhsí ní b'fhabhraí. De thairbhe na n-easnamh sin, tá carnadh míchothromaíochtaí ann ar dhoiligh déileáil leo ar bhealach gasta, rianúil, ordúil.

Chuathas i mbun raon gníomhaíochtaí chun dul i ngleic leis an ngéarchéim. Tá an tEurochóras tar éis fadú suntasach a chur le haibíocht na leachtachta a sholáthraíonn sé don mhargadh agus tá sé tar éis rochtain ar an leachtacht sin a éascú trí mhaoiniú a chur ar fáil go ceann suas le trí bliana. Cuireadh tacaíocht bhreise ar fáil freisin trí raon a chomhthaobhachta cáilithe a leathnú, trí cheanglais cúlchiste a laghdú agus trí cheannach leanúnach faoin gClár um Margaí Urrús agus faoin gClár um Cheannach Bannaí faoi Chumhdach. Ina theannta sin, tá acmhainní breise curtha in árach ag na rialtais Eorpacha do chomhshocraíochtaí EFSF agus ESM chun tacú le maoiniú Rialtas anáis, mar aon le hiasachtaí déthaobhacha chuig an gCiste Airgeadaíochta Idirnáisiúnta. Glacadh bearta freisin chun tiomantas na mBallstát do smacht buiséadach a dheimhniú agus chun comhordú beartas fioscach amach anseo a fheabhsú. Ar a shon sin, tá teannas sna margaí fós agus tá an fás aschuir lag i gcónaí. Is léir nach leor fós iarmhairt charnach na ngníomhaíochtaí seo go léir chun an ruaig a chur ar an éiginnteacht faoi chumas na hEorpa déileáil go héifeachtach leis na dúshláin a thig ón ngéarchéim.

Ar bhonn intíre, leanann an dul chun cinn fiúntach ar na príomh-shaincheisteanna beartais. San earnáil airgeadais, tá bearta díghiarála arna gcomhaontú mar chuid den Chlár á leanúint ag na bainc, cé go n-aithnítear go gcaithfear dálaí contrártha margaidh a chur san áireamh sa ghearrthéarma. Tá feabhas ag teacht ar an gcóimheas iasacht-le-taisce freisin de thoradh na díghiarála don chuid is mó. Leanann an Chorparáid Éireannach um Réiteach Banc agus an Ghníomhaireacht Náisiúnta um Bainistíocht Sócmhainní dá gcláir chomhardaithe a bhainistiú trí bhíthin diúscairtí sócmhainní roghnaithe. Beartaítear an chéad chleachtadh eile PCAR/PLAR a sheoladh níos déanaí i mbliana agus beidh na gnéithe diana céanna i gceist leis agus a bhí in 2011. Rinneadh gníomhaíochtaí chun earnáil na gcomhar creidmheasa a neartú freisin lena n-áirítear bunú ciste réitigh banc ag an Aire agus feidhmiú cumhachtaí faoin réim réitigh ag an mBanc Ceannais.

Leanann na forbairtí fioscacha mar a bhí beartaithe agus in 2011 baineadh amach na spriocanna go léir a bhí leagtha amach faoin gClár. Ba cheart go bhféadfaí an laghdú atá beartaithe ar an easnamh go dtí 8.6 faoin gcéad de OTI a bhaint amach trí bhíthin na mbeart comhdhlúthúcháin a fógraíodh sa Bhuiséad ach beidh forbairtí ag brath ar phátrún an fháis. Cé nach féidir an t-aschur fioscach a cheangal go ródhlúth leis an ngníomhaíocht fhoriomlán eacnamaíoch, is díol imní í an laigeacht sheachtrach agus an éifeacht iarmhartach a bhíonn aici ar fhás intíre, go háirithe má leanann an moilliú seachtrach go ceann tréimhse is faide ná mar a mheastar faoi láthair. Sa chás sin, bheadh sé níos deacra na spriocanna fioscacha don bhliain seo agus don bhliain 2013 a bhaint amach. Aon fhorbairtí san Eoraip a chuirfeadh le feabhsú na ndálaí fáis nó a chuirfeadh dálaí maoiniúcháin ní b'fhearr ar fáil d'Éirinn, bheadh tábhacht ag baint leo i dtaca leis na hionchais go laghdófaí an cóimheas fiachais go dtí leibhéil ní b'fhearr.

Leanann feabhas ginearálta ar fhorbairtí san iomaíochas. Tá comhdhéanamh na n-athruithe éagsúil, áfach. Is mar gheall ar dhímheas ráta malairte atá an feabhas don chuid is mó. Go deimhin, tugtar le fios sna sonraí don dara leath den bhliain nach bhfuil pánna ag laghdú a thuilleadh, cé go leanann na forbairtí maidir le pá de bheith measartha i gcoibhneas leis an staid i gcomhpháirtithe trádála. Leanann táirgiúlacht de bheith fabhrach ach bíonn ráiteas áibhéalach ann fós maidir leis na gnóchain nuair a úsáidtear bearta caighdeánacha uile-gheilleagar mar gheall ar an aistriú earnála ó earnálacha ísealtáirgiúlachta, mar a tugadh le fios i bhFeasacháin roimhe seo. Is lú an tionchar a bheidh ag an aistriú earnála seo i mbliana agus an bhliain seo chugainn, áfach, rud a léiríonn go bhfuil pointe sroichte ag an earnáil foirgníochta inar dócha nach mbeidh ísliú suntasach eile ann. Tá dul chun cinn ag teastáil maidir le hathchóirithe struchtúracha freisin, lena n-áirítear bearta chun éifeachtúlacht a fheabhsú i soláthar seirbhísí poiblí, i bhfianaise acmhainní níos teinne, mar aon le níos mó iomaíochais i seirbhísí áirithe de chuid na hearnála príobháidí. Leis an dá fhorbairt seo, feabhsófar tuilleadh an t-iomaíochas, rud atá níos tábhachtaí fós anois. I bhfianaise an éilimh sheachtraigh níos laige, tá sé ríthábhachtach anois go méadófar an sciar den mhargadh chun go nginfear fás foriomlán onnmhairí agus aschuir.

Financing Developments in the Irish Economy

Overview

The closing months of 2011 have been dominated by heightened turbulence in international financial markets. The downgrading of US government debt in August, the escalation of the sovereign debt crisis in the euro area and downward revisions in growth expectations for developed countries all contributed to worsening market perceptions. However, in contrast to developments for other peripheral euro area economies, Irish bond yield spreads relative to Germany remained stable or narrowed until early October. This trend was reversed in October, following the downgrades of a number of euro area countries, and increasing negative sentiment towards the eurozone.

Irish bond yields have however continued to fluctuate in late-2011, although they have showed signs of easing again in late-November amid a number of new international policy initiatives. These include measures to strengthen fiscal and economic governance in the EU and to enhance stabilisation tools. In addition, the Governing Council of the ECB adopted several non-standard monetary measures such as the use of refinancing operations with a maturity of 36 months and the easing of collateral requirements for such operations.

The negative international backdrop exacerbated the funding difficulties of Irish resident credit institutions, leading to an increase in recourse to Eurosystem funding in the three months to end-November 2011. These funding difficulties were reflected in deposit outflows and net redemptions of securities issued. While there were deposit outflows in overall terms, inflows were recorded for longer-term products reflecting the higher rates now offered to attract savers. Equity in Irish resident banks grew in the period from end-Q2 to October 2011, following further government injections into domestically-owned banks in July in line with the Prudential Capital Assessment Review (PCAR) requirements, and some new share issuance by banks.

Annual growth rates in credit advanced by resident credit institutions to the domestic private sector, which had been positive throughout 2011 due to the acquisition of NAMA securities, turned negative in November as the transfer of loans to NAMA has been largely completed. Meanwhile the provision of credit in the form of loans continued to fall on an annual basis, albeit at a slower rate for non-financial corporations (NFCs). Credit to non-residents has also declined, reflecting ongoing deleveraging by the domestic banks. This deleveraging is highlighted by the annual reduction in foreign claims of domestic banks measured on a consolidated basis.

Similar trends are occurring in relation to lending to households, with loans outstanding for housing and other purposes continuing to fall. Within housing loans, there are some compositional changes, however, with the proportion of standard variable rate mortgages increasing at the expense of tracker mortgages. This is not unexpected as the latter category is no longer available to new borrowers. On the basis of the latest data available, the overall wealth of households continued to decline during Q2 2011, following further reductions in housing assets and declines in the value of financial assets, particularly insurance technical reserves. Households were again net savers as they continued to reduce their outstanding debt levels.

The recent market turmoil explains the first quarterly fall in the value of resident investment funds since the series began in 2008. The decline is smaller than for the euro area as a whole, due to lower relative exposures to those euro area assets under most downward price pressures. The data indicate portfolio shifts into safe haven assets over the period. Inflows into money market funds resident in Ireland continued to be positive in the months to November 2011 – this is probably because most investors are non-euro area residents and assets are largely located outside the euro. Conversely, the total assets of financial vehicle corporations fell as in previous quarters, following trends evident in the euro area as a whole.

Foreign direct investment remained strong in Q3 2011, with direct investment inflows of €6.8 billion, financed largely through reinvested earnings. The related direct investment income payments to overseas parent companies remained broadly in line with the same quarter in 2010. Foreign investment by Irish-owned multinational companies was also strong over the period, although the value of overseas assets declined due to negative valuation effects of approximately €14.6 billion.

Monetary Financial Institutions

Credit Institutions' Funding

The three months up to end-November 2011 have seen a renewed increase in credit institutions' recourse to Eurosystem refinancing operations, against the backdrop of the continuing difficulties in obtaining deposit and non-deposit sources of funding. Borrowing from the Eurosystem by all resident credit institutions increased in each of these three months bringing the total outstanding amount to just under €104 billion at end-November. However, of the cumulative increase of €9.1 billion in these three months, just €2.6 billion is accounted for by the group of domestic market credit institutions[1]. The remaining €6.5 billion, or 71 per cent, of the increase in the three months to end-November is accounted for by IFSC banks. The outstanding stock of borrowing from the Eurosystem by domestic market credit institutions was €73.1 billion at end-November 2011.

The downward trend in the outstanding amount of debt securities issued by the Irish banking sector that was witnessed during the first half of 2011 has continued in recent months with the value of outstanding debt securities falling to €118.1 billion by end-September 2011 (compared to €123.3 billion at end-June 2011). The decrease over Q3 was driven by net redemptions of approximately €5.3 billion, with redemptions of short-term securities accounting for some 66 per cent of the reduction in the amount outstanding for the MFI sector. This compares with net redemptions of €5.7 billion in Q2. However, the rate of net redemptions has slowed considerably in Q3 when compared to the same period in 2010 (€32.8 billion). Developments in October followed the trend of previous months with net redemptions of €1.7 billion, reducing the outstanding amount of debt securities issued by the Irish banking sector further to €116.4 billion.

By end-Q3 2011, equity for the Irish banking sector had an outstanding value of €14.5 billion; this represents a rise of almost 55 per cent since end-Q2 2011. This development partially reflects positive inflows (€5.5 billion) in the MFI sector on foot of the ongoing recapitalisation of domestically-owned banks during Q3 2011 to strengthen their capital ratios and underpin their future operations. By end-October, the equity for all resident banks had risen further to €16 billion, driven by the issuance of new shares in addition to increases in market valuation.

Recent months have been characterised by further outflows of deposits from Irish resident credit institutions. Deposits held by the Irish private sector fell by an average annual rate of 10.2 per cent for the three months ending

1 Domestic market credit institutions are those that have a significant level of retail business with Irish households and NFCs, and would exclude the more internationally focussed banks in the IFSC. A full list of these institutions is available in the Credit, Money and Banking section of the Statistics portal of the Central Bank of Ireland website.

November 2011.[2] The monthly net flow of deposits averaged minus €1.1 billion in these three months. This largely reflected intra-group transactions between credit institutions and affiliated other financial intermediaries (OFIs). However, deposits from households and NFCs also fell over the same period, by €183 million and €37 million respectively, based on the average for the three months ending November 2011. There was a particularly sharp fall in household deposits in November, when they recorded a net monthly outflow of €1.2 billion, although some of this can be explained by seasonal factors, as household deposits traditionally decline in November. This trend was reflected across almost all resident credit institutions.

Private-sector overnight deposits declined at an average annual rate of 7 per cent in the three months ending November. The average net monthly decline in overnight deposits during these three months was €658 million, although this was partly due to transactions with affiliated OFIs. Overnight deposits from households also fell by €382 million, based on the average monthly flow for the three months ending November. Household term deposits with agreed maturity up to two years increased by €255 million over the same period, reflecting an uptake of attractive term deposit products being offered by a number of banks. NFC deposits with agreed maturity up to two years increased moderately, by €44 million, based on the average for the three months ending in November. However, deposits in this category from OFIs and insurance corporations and pension funds (ICPFs) fell over the same period, by €403 million and €324 million, respectively.

Outflows of deposits held by the non-resident private sector have slowed in recent months. Based on the average for the three months ending November 2011, deposits from the non-resident private sector fell by an annual rate of 11.2 per cent. This compares to an average annual decline of 20.7 per cent for the same three-month period in 2010. Outflows of deposits held by the non-euro area private sector in particular, have not been as pronounced throughout 2011, as those recorded in 2010. While the net monthly flow of deposits from the non-euro area private sector averaged minus €1.9 billion in 2010, the equivalent figure for the first eleven months of 2011 is minus €200 million.

Chart 1: Monthly Net Flows of Private-Sector Deposits in All Irish Resident Credit Institutions

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

Continued outflows of deposits have resulted in a further decline in both Irish resident M1 and M2. Currency in circulation increased at an annual rate of 6.8 per cent, based on the average for the three months ending November 2011. However, this was more than offset by the decline in overnight deposits outlined above, resulting in an annual rate of decline in Irish resident M1 of 5.7 per cent, based on the average for the three months ending November. Developments in term deposits with agreed maturity up to two years have contributed to an easing of the pace of decline in Irish resident M2 in recent months. The average annual rate of decline was 10.2 per cent in the three months ending November. The Irish contribution to euro area M3 fell at an annual rate of 7.8 per cent, based on the average annual rate for the same period. In contrast, during this three-month period, the equivalent measure for the euro area M3 is an annual increase of 2.5 per cent.

2 The flows and growth rates for deposits and loans in this chapter are fully adjusted to exclude the impact of non-transaction related effects, such as changes in the reporting population and valuation changes due to fluctuations in exchange rates.

While the domestic banks continue to source their funding largely outside of the interbank markets, the cost of borrowing in these markets has eased moderately in recent months, following significant increases in the first half of the year. At end-November, the one-month, three-month and twelve-month EURIBOR were 22, 14 and 14 basis points lower, respectively, than their 2011 peaks recorded at end-July 2011. Meanwhile, retail interest rates on deposits in Ireland have largely increased throughout 2011, as the domestic banks in particular, have increased their efforts to secure deposit funding. The weighted average interest rate on outstanding household deposits with agreed maturity up to two years was 3.18 per cent at end-November 2011, having increased by 38 basis points since end-December 2010. The equivalent rate for NFC deposits was 3.13 per cent – an increase of 87 basis points since end-December 2010.

Aggregate Credit Developments

Credit advanced to the Irish Government by resident credit institutions has remained broadly stable in recent months, both in terms of loans to Government and holdings of Government securities by resident credit institutions. The outstanding amount of loans to Government was €29.6 billion at end-November 2011, compared to €29.4 billion at end-July. Holdings of Irish Government securities stood at €12.3 billion at end-November, compared to €10.5 billion at end-July.

The annual growth rate of Irish private-sector credit (including holdings of securities issued by residents), turned negative in November 2011, and declined by 0.3 per cent based on the average for the three months ending November. The amount of outstanding loans to the private sector on the balance sheets of Irish resident credit institutions continued to decline in recent months, falling by an annual rate of 5.2 per cent based on the average for the three months ending November. Meanwhile, growth in holdings of securities issued by the private sector, which has been the main driver of growth in private-sector credit over the last two years, has moderated considerably in recent months. Growth in credit institutions' holdings of private-sector securities has been largely related to holdings of debt securities issued by OFIs, which includes special-purpose vehicles (SPVs) such as NAMA. The pace of growth has eased considerably in recent months as the process of transferring loans to NAMA in return for bonds has largely ended. Credit institutions' holdings of private-sector securities increased at an annual rate of just 11.6 per cent, based on the average for the three months ending November 2011. This compares to an average rate of 32.8 per cent for the same three-month period in 2010.

Credit advanced to non-residents continued to fall sharply in recent months. Total lending to all non-resident sectors by resident credit institutions declined at an annual rate of 17.2 per cent, based on the average for the three months ending November 2011. Lending to the non-resident private sector fell by an average annual rate of 8.6 per cent during the same period, with the net monthly flow of private-sector loans averaging minus €1.7 billion. This decline largely reflects developments in lending to non-euro area residents. Conversely, lending to the euro area private sector increased by €102 million, based on the average flow for the three months ending November.

Credit advanced to non-residents by the consolidated operations of domestically-owned banks has also been declining since 2008. Developments in the foreign claims of these banks are elaborated on in Box 1.

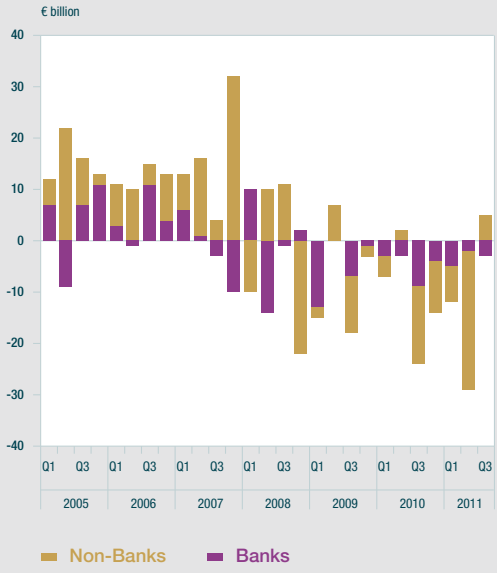
Box 1: Geographical and Sector Analysis of Consolidated External Claims of Domestic Banks

By Aisling Menton

Consolidated banking statistics of domestic banks[3] detail the claims of the Irish-owned domestic banks on non-Irish residents, by counterpart country and sector, on an ultimate risk basis i.e. according to the country and sector where the ultimate guarantor of the risk resides. This data series is useful for examining the foreign claims of the domestically-owned banking system. The data used for this Box is compiled on the same basis as the Consolidated Banking Statistics published by the Bank for International Settlements (BIS). The level of claims recorded in this Box is significantly lower, however, as there are differences in population arising from the classification of some IFSC banks as Irish by the BIS for technical statistical reasons.

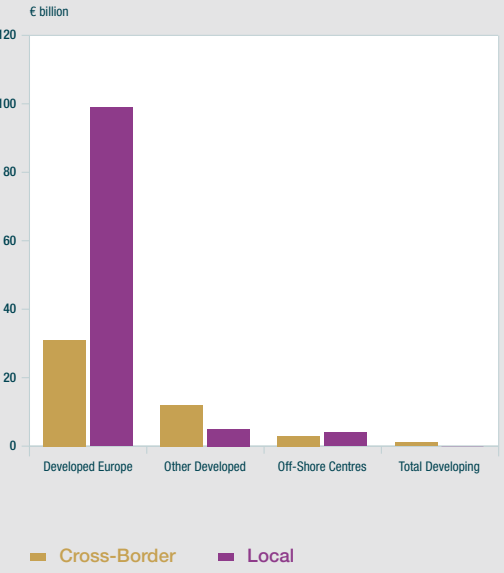
The largest foreign claims by domestic banks are on the non-bank sector, (which includes claims on sovereigns), accounting for 88 per cent of all exposures at end-September 2011. Claims on this sector have been declining since the end of 2008, until an increase was recorded during Q3 2011. Claims on banks accounted for just 12 per cent of all claims at end-September 2011, and have also been falling since the end of 2008. Claims on banks have declined at a faster rate than claims on non-banks since the start of the financial crisis in September 2008. Claims on banks have declined by 72 per cent, while claims on non-banks have declined by 39 per cent over this period. However, claims on both the bank and non-bank sectors in developing countries each declined by around 85 per cent since September 2008.

Box 1 Chart 1: Quarterly Change in Claims on Banks and Non-Banks



Source: Consolidated Banking Statistics, Central Bank of Ireland.

Box 1 Chart 2: Cross-Border and Local Claims by Geographical Region, end-September 2011



Source: Consolidated Banking Statistics, Central Bank of Ireland.

Domestic banks have most claims on the region 'developed Europe' which largely comprises western European countries.[4] Total foreign claims by domestic banks have declined by 47 per cent since September 2008. Claims declined across all regions with developed Europe down by 43 per cent, while claims on 'other developed countries', 'developing countries' and 'off-shore centres' fell by 59 per cent, 85 per cent and 23 per cent, respectively. Over the twelve months to September 2011, off-shore centres were the only country grouping to record an increase in foreign claims.

3 In this case, the Central Bank of Ireland defines *domestic banks* as those banks guaranteed by the Irish Government under the Credit Institutions (Eligible Liabilities Guarantee) Scheme 2009.

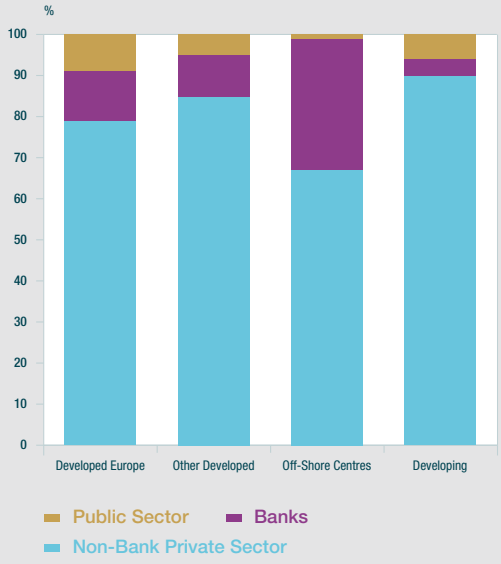
4 The country grouping 'developed Europe' also contains international institutions; however these account for a small proportion of the volumes presented here. The country classifications used are largely based on the IMF categorisation which is available from the World Economic Outlook, September 2011 at http://www.imf.org/external/pubs/ft/weo/2011/02/index.htm.

Box 1: Geographical and Sector Analysis of Consolidated External Claims of Domestic Banks

By Aisling Menton

Local claims exceed cross-border claims in developed Europe and off-shore centres. Local claims refer to lending by non-resident affiliates of domestic banks in the country where the affiliate is located. Claims on the US, however, differ from most other countries in that the majority of claims are not provided by bank affiliates resident in the US but by affiliates based in other countries. This means that the claims are granted by branches of domestic credit institutions that are located outside the US. This use of non-US based affiliates for lending into that country, largely explains why cross-border claims exceed local claims in other developed countries.

Box 1 Chart 3: Claims on Sectors by Geographical Region, end-September 2011

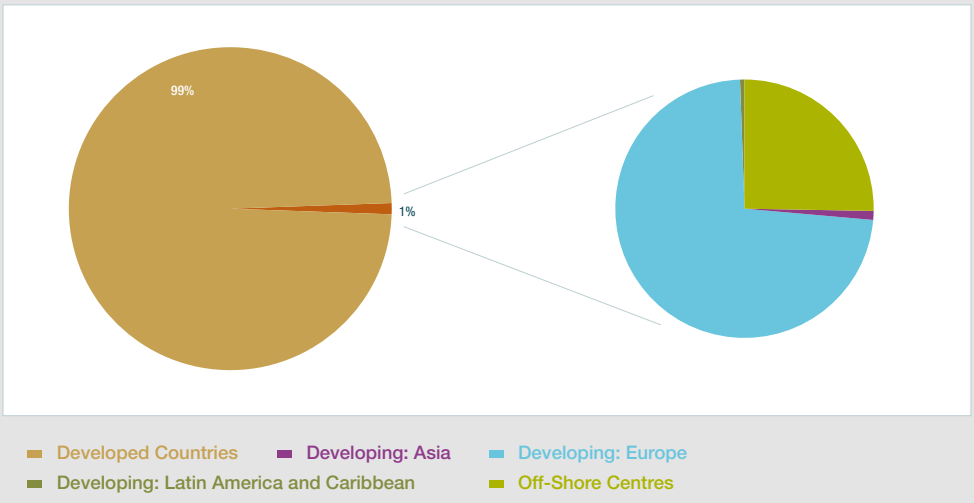


Source: Consolidated Banking Statistics, Central Bank of Ireland.

Chart 3 again shows that domestic banks have greater claims on the non-bank private sector in the four broad geographical regions listed: developed Europe, other developed countries, off-shore centres and developing countries. Only in the case of off-shore centres do claims on banks account for a sizeable proportion – roughly one third of total claims on the region as at end-September 2011.

Chart 4 shows the claims of domestic banks on the public sector of foreign countries. Claims are overwhelmingly vis-à-vis developed countries, notably the United Kingdom. Countries other than developed countries account for only 1.4 per cent of total claims on sovereigns and, of these, the largest claims are on sovereigns located in developing Europe, in particular Poland and Hungary.

Box 1 Chart 4: Claims on the Public Sector of Foreign Countries, end-September 2011

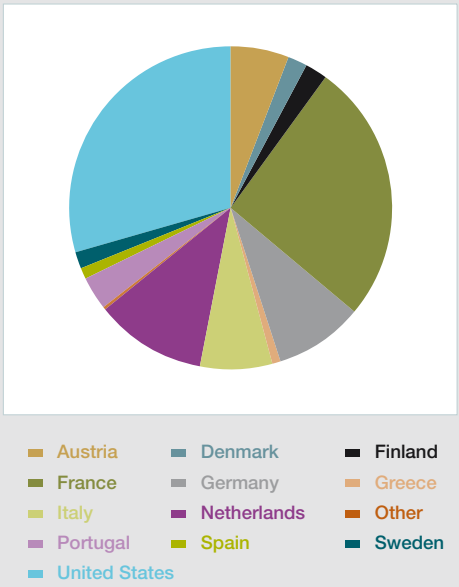


Source: Consolidated Banking Statistics, Central Bank of Ireland.

Box 1: Geographical and Sector Analysis of Consolidated External Claims of Domestic Banks

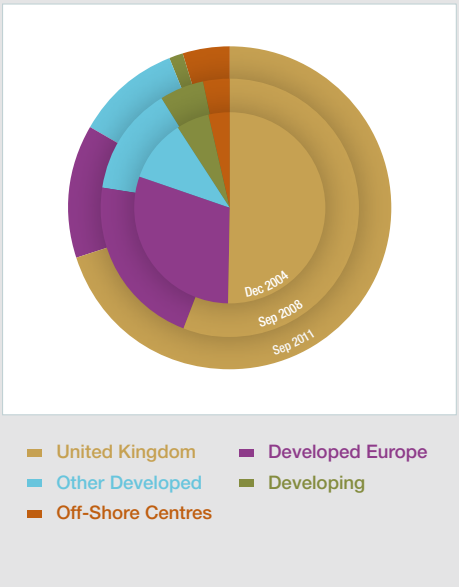
By Aisling Menton

Box 1 Chart 5: Claims on Sovereigns in Developed Countries (Excluding UK), end-September 2011



Source: Consolidated Banking Statistics, Central Bank of Ireland.

Box 1 Chart 6: Change in Geographical Distribution of Domestic Banks' Foreign Claims, end-September 2011



Source: Consolidated Banking Statistics, Central Bank of Ireland.

Claims on sovereigns in developed countries (excluding the UK) are represented in Chart 5. From the chart it can be seen that Irish-owned banks have little exposure to euro area countries that have received IMF support, i.e. Greece and Portugal. It should be noted, however, that claims on sovereigns of developed countries other than the UK are not significant, representing just 2 per cent of total foreign claims.

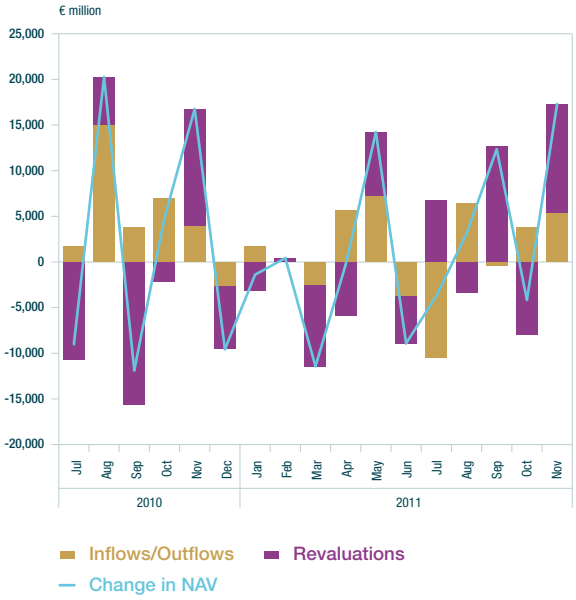
Finally, Chart 6 shows that while claims on the UK were always significant, they have grown as a proportion of total foreign claims since 2004. This can be accounted for, in part, by significant retrenchment by Irish credit institutions in recent years. For example, claims on Poland dropped significantly in Q2 2011 after one credit institution divested its interests located there.

Money Market Funds

There were sizeable inflows into money market funds (MMFs) resident in Ireland over the four months to November 2011, bringing the total net asset value (NAV) of Irish resident MMFs to €375 billion. The NAV of MMFs increased by €11.9 billion in September 2011, consisting of an increase in shares held by rest of the world residents of €16.5 billion, which was partially offset by a decline in the shares held by Irish and euro area residents of €4.6 billion.

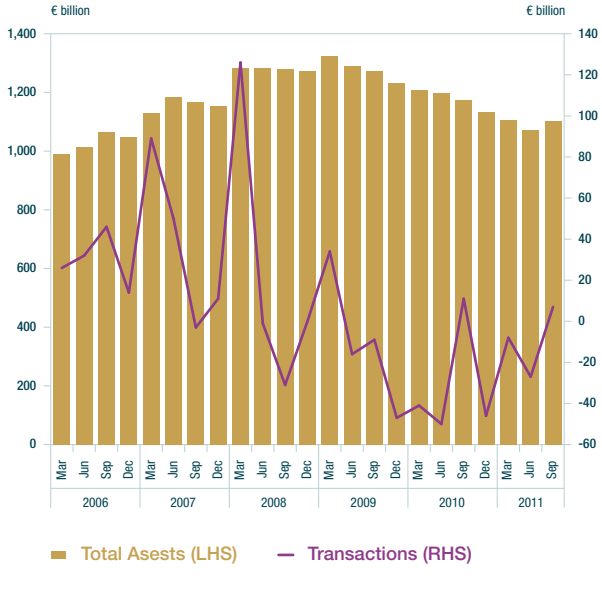
This trend continued in November 2011, with inflows of €17 billion recorded. The NAV of MMFs can fluctuate depending on either purchases or sales of the shares, or the revaluation of assets. Over the four months to November 2011, there were net purchases of €15.4 billion, and positive revaluations of €13 billion. The NAV of MMFs can fluctuate considerably, and as can be seen from Chart 2, there were negative revaluations in August and October 2011.

Chart 2: Monthly Change in Money Market Funds' Net Asset Value



Source: Central Bank of Ireland.

Chart 3: Total Assets of Euro Area Money Market Funds



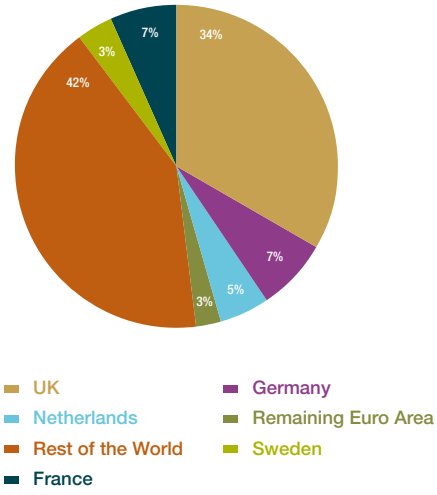
Source: European Central Bank.

In the euro area, the value of MMF shares/units in issue has been falling steadily since March 2009, and the value of shares in issue reached their lowest level since end-2006 in July 2011. While an increase in MMF shares in issue was recorded in both August and September 2011 in the euro area aggregate, there was a large decline in October. Ireland however, experienced inflows of €4 billion in October and accounted for 34.4 per cent of MMF shares in issue in the euro area at the end of the month. While the positive inflows in October were more than offset by negative valuation changes, the smaller decline in the value of shares issued in Ireland compared to other euro area countries in October saw Ireland increase its share of euro area MMFs. Irish resident MMFs now constitute the largest proportion of MMF shares in issue in the euro area. The continued withdrawals from MMFs shares/units in the euro area as a whole have largely been funded by the selling of monetary financial institutions' (MFI) securities.

In Ireland, MMFs primarily invest in money market instruments, repurchase agreements or bank deposits, or pursue a rate of return that approaches the interest rates of money market instruments. Irish resident MMFs invest mostly in debt securities or bonds issued by residents outside the euro area, with short maturities of up to one year. There have been a number of reclassifications in Irish MMF data during 2011, from securities other than shares into deposits with MFIs. This was the result of repurchase agreements being incorrectly classified in some cases as securities other than shares. The effect of these reclassifications is that the composition of assets on the aggregate MMF balance sheet has changed, with securities other than shares now accounting for two thirds of MMFs' assets under management (AUM) in November 2011, and deposits increasing to a third of total assets. Together, these two asset categories accounted for 99.5 per cent of all AUM in November 2011. Despite these reclassifications, Irish MMFs have increased their holdings of securities other than shares issued by non-MFIs in the rest of the world by €8.4 billion in November 2011, and €11.7 billion over the four months to November 2011.

Chart 4 shows a further country breakdown of securities other than shares held by MMFs for September 2011. Irish MMFs invested heavily in securities issued outside the euro area, particularly by UK and US residents.

Chart 4: Securities Held by Irish Resident MMFs, by Country of Issuer, end-September 2011



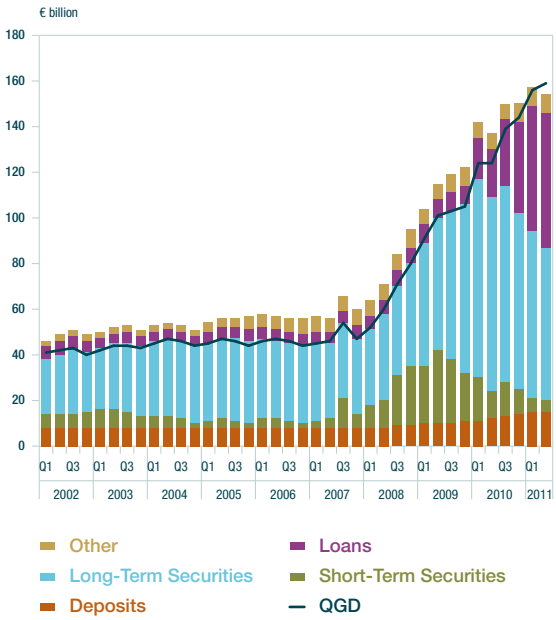
Source: Central Bank of Ireland.

Government

Debt and Deficit Developments

The Central Bank publishes the liabilities and financial surplus/deficit of the government sector as part of the Quarterly Financial Accounts (QFA) series[5]. Government liabilities, depicted in Chart 5, fell to €152.8 billion during Q2 2011, representing a decline of 2.3 per cent from the previous quarter. The fall largely reflects a reduction in debt securities, as outstanding securities issued by the government sector were redeemed. Valuation effects also contributed to the decline in debt securities, as the market value of securities issued continued to fall on account of the sovereign debt crisis. Loans to the government sector continued to increase during Q2 2011, as the State received further funding from the EU/IMF programme. Up to end-June 2011, the State had received nearly €23 billion in funding from the EU/IMF. By end-June 2011, EU/IMF funding accounted for 15 per cent of total government liabilities. Chart 5 also shows that the Quarterly Government Debt (QGD), which is the standard quarterly measure of debt consistent with Excessive Deficit Procedure (EDP) methodology[6], continued to increase over the quarter. As the QGD measures debt at nominal value, it is currently higher than the quarterly government accounts liabilities, which measure debt at market value and has been declining due to the sovereign debt crisis.

Chart 5: Government Liabilities



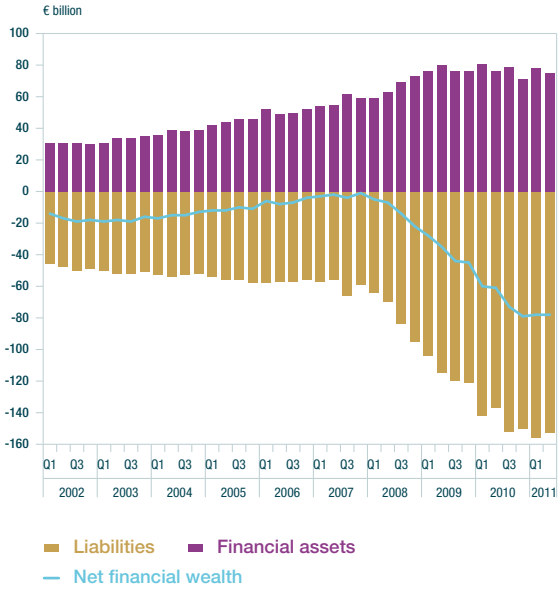
Sources: Quarterly Financial Accounts for Ireland, Central Bank of Ireland and Quarterly Government Debt, Eurostat.

Government's net financial wealth, the difference between the government sector's financial assets and liabilities, increased slightly by €296 million and €479 million during Q1 2011 and Q2 2011, respectively. The increases in net financial wealth largely reflected the reduction in the value of government liabilities due to the effect the sovereign debt crisis has had on the market. This marked the first rise in net financial wealth since Q4 2007, as depicted in Chart 6.

5 The QFA data is available on the Central Bank of Ireland's website at http://www.centralbank.ie/polstats/stats/qfaccounts/Pages/releases.aspx.

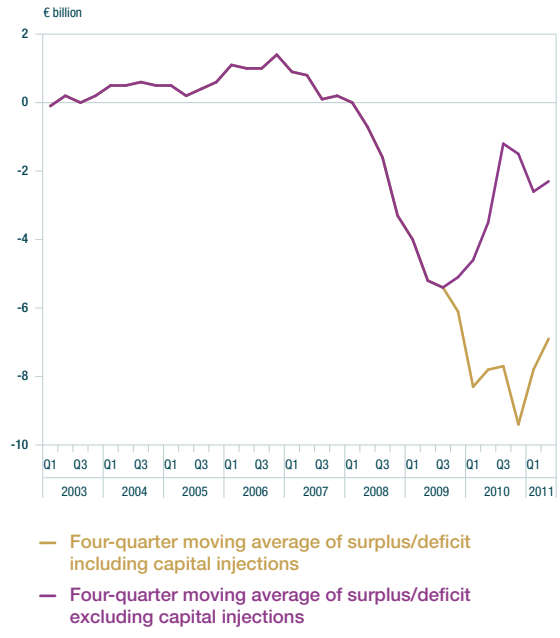
6 Government liabilities in QFA differ from the EDP measure of debt as they are calculated on a non-consolidated basis, and employ different coverage and valuation criteria.

Chart 6: Government Net Financial Wealth



Sources: Quarterly Financial Accounts for Ireland, Central Bank of Ireland and Quarterly Government Debt, Eurostat.

Chart 7: The Four-Quarter Moving Average of the Government Surplus/Deficit



Sources: Quarterly Financial Accounts for Ireland, Central Bank of Ireland and Quarterly Government Debt, Eurostat.

The evolution of the surplus/deficit as a four-quarter moving average is depicted in Chart 7. The deficit fell during Q2 2011, both when capital injections are included and when they are excluded. During Q1 2011 and Q2 2011, there were no capital injections into the banking sector by the Government. In July 2011, the Government injected €17.6 billion into AIB/EBS, Bank of Ireland and Irish Life & Permanent. The impact of these injections on the debt will be captured in the Q3 2011 government accounts.

Sovereign Debt Market

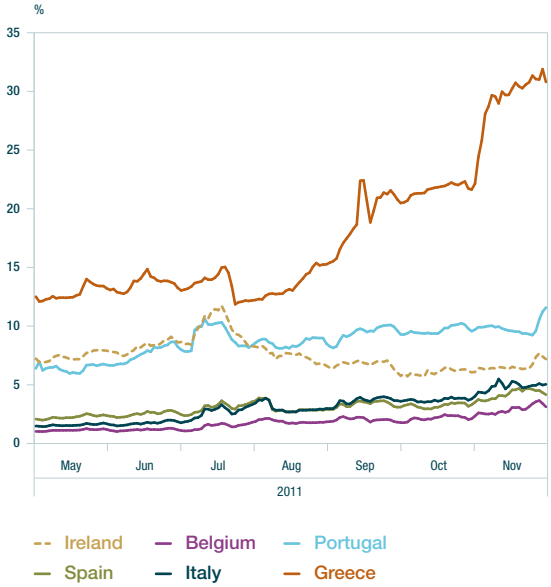
The tensions in euro area sovereign debt markets have heightened in recent months in response to ongoing uncertainty and poor market sentiment throughout Q3 and into Q4 2011. As Q3 2011 progressed, the sovereign debt crisis in the euro area entered a new phase as market concerns spread to the larger economies. This occurred against the backdrop of negative reaction to the downgrading of US sovereign debt in August 2011 followed by a series of economic data releases which reflected downward revisions of growth expectations for major developed economies.

Investor uncertainty about near-term bond market developments, growing fears about the resolution of the euro area sovereign debt crisis and a growing appetite for safer assets was reflected in the widening of intra-euro area sovereign bond yield spreads for most countries in Q3 2011. By August, tensions had spread increasingly to Italy and Spain with the yield spreads for Belgium and France also experiencing significant increases as liquidity conditions deteriorated in the bond markets of several euro area members. Yield spreads relative to German Bunds widened for all countries, except Ireland, in August. In response to announcements from the Governments of Italy and Spain concerning new fiscal and structural policy reforms, the ECB announced its intention to actively implement the Securities Market Programme in early August.

Despite the turbulence in the markets, the reduction of the yields on ten-year Irish government debt witnessed during mid-2011 continued throughout July and August with these yields falling to 10.8 per cent by early-August and 8.6 per cent by early-September (compared to 14.4 per cent in mid-July). Indeed, by early October, these bond yields had fallen to 7.6 per cent. However, this process was reversed during October as outlined below, with yields rising to 8.2 per cent by the end of the month.

Throughout October and November 2011, developments in government bond yields were shaped by continuing concerns about the euro area sovereign debt crisis and expectations in advance of the meeting of euro area Heads of State in late-October. During this period, demand for highly liquid government bonds continued to rise as market sentiment was further depressed by the downgrades of Spain, Belgium and Italy alongside the speculation that France's rating outlook could be changed to negative within a matter of months.

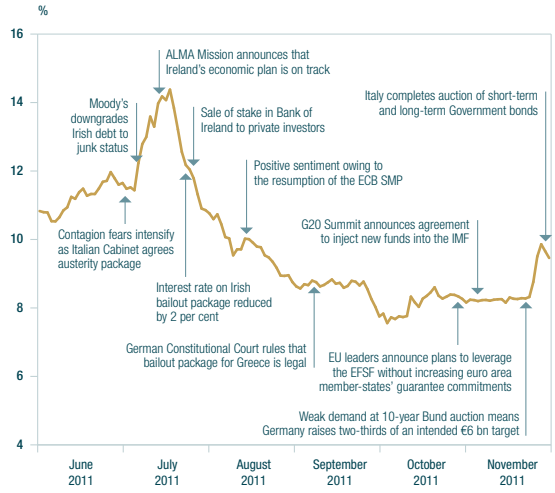
Chart 8: Selected Euro Area Ten-Year Sovereign Bond Spreads over German Bunds



Source: Thomson Reuters Datastream.

In the immediate aftermath of the meeting of euro area Heads of State or Government (including the announcement of plans to leverage the European Financial Stability Facility (EFSF) in late-October) other euro area sovereign yield spreads vis-à-vis, German bunds temporarily narrowed as market sentiment improved; Ireland's sovereign bond yield spread relative to German bunds fell by almost thirty basis points over the following days. However, this development proved short-lived and the spread began to widen again in the aftermath of the announcement of a proposed referendum by the Greek Prime Minister. This continued uncertainty into Q4 2011 was reflected in the ongoing rise in the ten-year bond yields on Irish government debt and a widening in Ireland's yield spread. Indeed, ten-year bond yields on Irish government debt increased to almost 9.9 per cent in the aftermath of the inability of the German Government to complete a targeted auction of €6 billion of ten-year bonds in late-November due to weak demand, see Chart 9. In late-November, there was a rise in the spread of Irish government debt relative to German bunds of almost one hundred basis points, although this fell off slightly in the following days. Irish bond yields have fallen again in late 2011 amid a number of new international policy initiatives announced in December, including policy decisions to improve fiscal and economic governance in the EU and to strengthen existing stabilisation tools. The Governing Council of the ECB also adopted several non-standard monetary measures such as the use of refinancing operations with a maturity of 36 months and the easing of collateral requirements for such operations, while new currency swap arrangements between the Federal Reserve and other major central banks including the ECB were also announced.

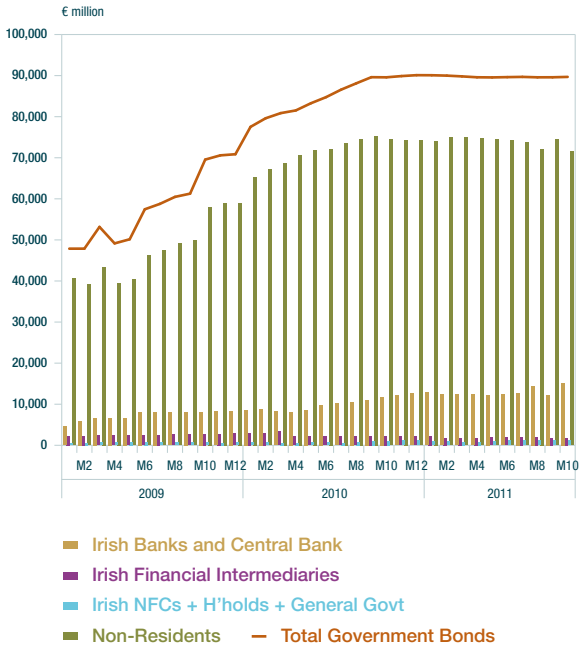
Chart 9: Irish Government Ten-Year Bond Yields



Source: Thomson Reuters Datastream.

The outstanding nominal volume of existing Irish government long-term bonds in issue remained at €89.7 billion at end-September 2011. At end-October, the holders of government bonds continued to be predominantly non-resident, with 80 per cent of the issued government bonds held by foreign investors. Resident holders predominantly comprise banks (17 per cent) whilst financial intermediaries hold a further two per cent.

Chart 10: Holders of Long-Term Irish Government Bonds



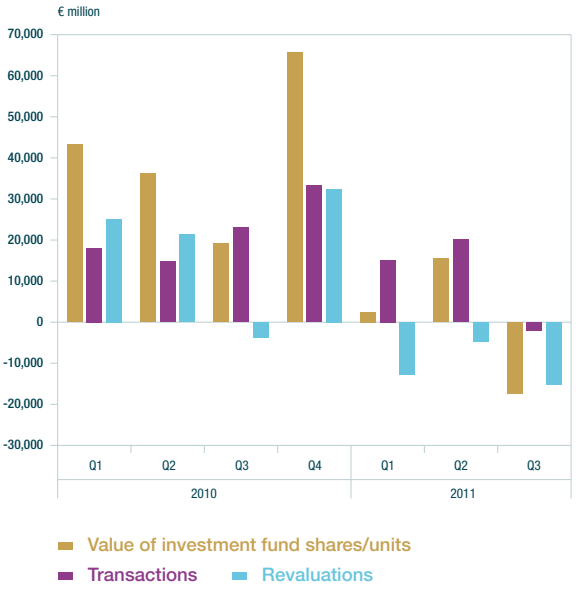
Source: Securities Holdings Statistics, Central Bank of Ireland.

Institutional Investors: Investment Funds, Financial Vehicle Corporations and Insurance Corporations & Pension Funds

Investment Funds

The value of the resident investment fund industry, measured by total shares/units in issue, declined by €17.4 billion in Q3 2011, the first quarterly decline since the data series began in the final quarter of 2008. This was driven by negative revaluations of €15.3 billion, which were concentrated in the value of shares and other equity. Quarter 3 saw net transactions outflows of €2.1 billion, though this follows several quarters of strong transactions inflows, as Chart 11 illustrates. These developments took place amid considerable financial market volatility in the quarter and are examined in more detail in Box 2.

Chart 11: Change in Value of Shares in Issue for Irish Resident Investment Funds



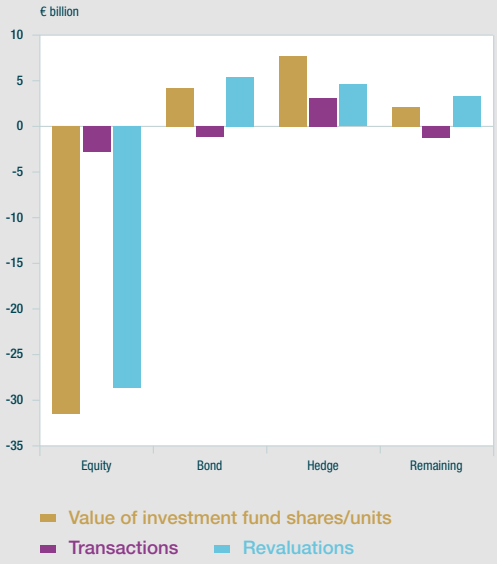
Source: Investment Funds Statistics, Central Bank of Ireland.

Box 2: How Investment Funds Performed Amid the Intense Volatility of Q3 2011

By Brian Golden

The third quarter of 2011 was particularly challenging for market participants. A sharp decline in investor appetite for risk was centred on the euro area debt crisis, leading to some unusual asset price movements. Equity prices declined significantly across the world though the extent of deterioration in euro area equity prices, and particularly those of banks with exposure to European sovereign bonds, was reminiscent of late 2008. Bond markets normally tend to benefit from safe haven flows, but in this period, a number of euro area sovereign bond prices were subject to sustained and unprecedented downward pressures. Strong portfolio shifts were, unsurprisingly, a significant feature of the quarter. This saw quite varied developments and performances across the main fund types, as shown in Box 2 Chart 1.

Box 2 Chart 1: Change in Value of Shares/ Units by Investment Category During Q3 2011



Source: Investment Funds Statistics, Central Bank of Ireland.

The Irish funds industry performed positively relative to the euro area funds industry as a whole in Q3 2011. This mainly reflects the structure of the Irish funds industry, with 77 per cent of assets under management (excluding unclassified assets) issued by non-euro area residents. A similar pattern exists on the liabilities side with non-euro area residents owning 63 per cent of total shares/units in issue. As such, the Irish funds industry was relatively less exposed to those euro area assets suffering the sharpest price declines. Transactions flows suggest, however, that investor concerns were more global than simply managing their euro area exposures. The Irish funds industry experienced net transaction outflows, which though not large, were roughly in line with those of the euro area funds industry as a whole. Furthermore, this came after a number of quarters of strong transactions inflows to the Irish funds industry, averaging almost €23 billion in new shares/units per quarter.

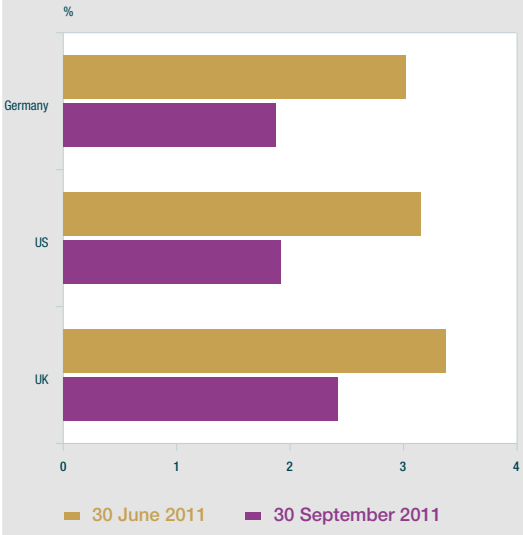
Resident equity funds declined in value by almost 12 per cent in the quarter, though portfolio adjustments appear to have shielded some losses. For example, in the US, the S&P 500 index declined by 13 per cent and, in Europe, the Dow Jones Euro Stoxx 50 index declined by 30 per cent in the quarter. Funds reduced their holdings of euro area financial shares by 19 per cent through transactions outflows, in addition to a negative revaluation of 18 per cent. There are also some indications of the extent to which investors see the euro area crisis as a global rather than a euro area specific risk. Developments in shares of non-financial euro area firms and share holdings in rest of the world entities were remarkably similar, with transactions outflows of 6 to 7 per cent and revaluations of 12 per cent in both cases. This coincides with substantial declines in the equity prices of non-euro area financial institutions, though this breakdown is not available in the data.

Box 2: How Investment Funds Performed Amid the Intense Volatility of Q3 2011

By Brian Golden

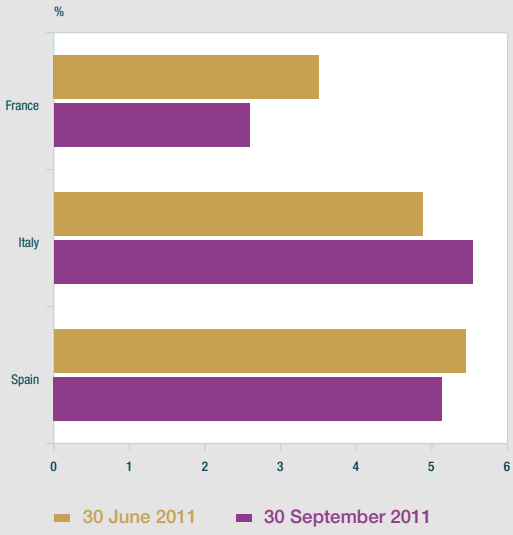
Bond funds saw significant portfolio shifts from the euro area to the rest of the world in the third quarter, mainly related to holdings of securities. Despite a substantial net transactions inflow into overall securities holdings, there were net transactions outflows from euro area financial and sovereign bonds. Though funds' holdings of euro area financial bonds are relatively small, these were reduced by over 9 per cent. Meanwhile, euro area sovereign bonds recorded transactions outflows of €250 million, which, though limited on holdings of €17 billion, occurred despite positive overall revaluations totalling €320 million. There was little discernible difference in investor sentiment between euro area countries. For example, German and French bonds experienced similar net transactions outflows to Italian sovereign bonds, of around 2.5 per cent of total holdings, despite positive revaluations in the former and negative revaluations in the latter. Holdings of bonds outside the euro area increased by 10 per cent due to transactions inflows of €3.8 billion and positive revaluations of €9.9 billion. Though a detailed breakdown is not available, this is consistent with overall market trends of safe haven flows into US treasury bonds in particular.

Box 2 Chart 2(a): Safe Haven Sovereign Bonds – Ten-Year Yields



Source: Bloomberg.

Box 2 Chart 2(b): Key Euro Area Sovereign Bonds – Ten-Year Yields



Source: Bloomberg.

Hedge funds benefitted significantly from volatility in the quarter, taking advantage of flexible investment strategies, alongside favourable currency movements. The overall value of hedge funds' shares/units in issue increased by €7.7 billion or 13 per cent in the quarter, of which €3.1 billion were new subscriptions for shares/units in these funds and €4.6 billion were positive valuation changes. A complicating factor in looking at the activities of hedge funds is the fact that much of their activity involves trading in the shares/units of other investment funds. Nevertheless, hedge funds significantly outperformed other funds in comparable investment classes, managing a positive revaluation, of 2.6 per cent, on holdings of shares and other equity (excluding the shares/units of other funds) while also enjoying an 11 per cent gain on bond holdings.

Similarly, remaining funds, which mostly consist of mixed funds with the ability to invest in bonds and equities, showed the value of flexible investment strategies by engaging in significant portfolio shifts which delivered a small positive revaluation despite a sharp decline in the value of their euro area equity holdings.

Box 2: How Investment Funds Performed Amid the Intense Volatility of Q3 2011

By Brian Golden

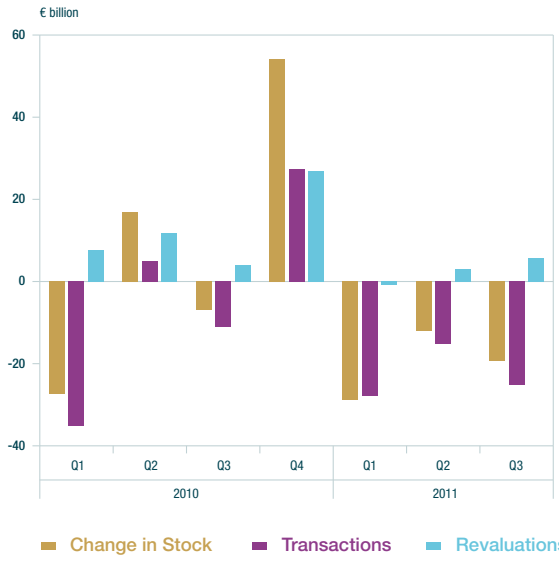
Overall, investment funds behaved largely in line with the market as a whole and those funds that were least constrained coped best with the market turbulence. The data indicate that the main emphasis was on limiting losses rather than taking positions in distressed asset prices during the quarter. Nevertheless, it is difficult to draw definitive conclusions as there could possibly be timing issues. Data for the fourth quarter will provide a more complete picture. Most importantly, the data will provide more information as to whether or not the decline in the value of the investment funds industry in Ireland in the third quarter was a temporary break in the trend of strong growth.

Financial Vehicle Corporations

Total assets for financial vehicle corporations (FVCs) resident in Ireland continued to decline in Q3 2011, falling to €514.5 billion, reflecting the downward trend evident since the start of the year. In the third quarter, this fall was due to a net outflow of €25.1 billion, which was mainly attributable to large negative transactions in securitised loans, and deposits and loan claims of €11.9 billion and €8.4 billion, respectively. On the liabilities side, the quarterly decline was mainly reflected in a large net outflow of €19 billion in debt securities issued with a maturity of over two years. Total outflows were partially offset by a positive revaluation of €5.7 billion over the quarter, as highlighted in Chart 12, which was mainly due to an increase in the value of securitised loans of €3.3 billion.

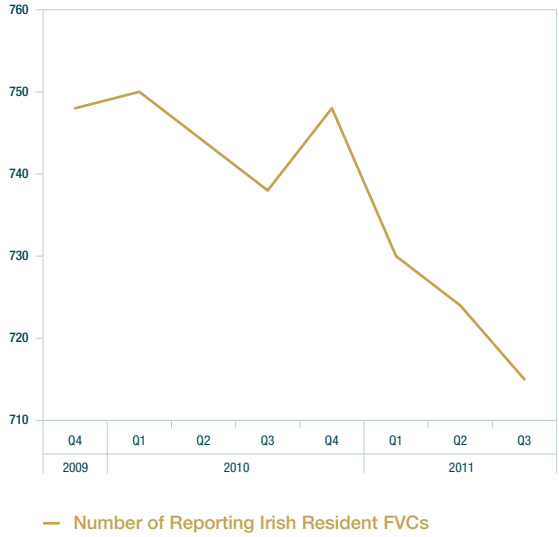
The cumulative outflows of €68.2 billion in Irish FVC assets for 2011 has followed the euro area trend, where there have been net transactions of minus €160.2 billion since the start of the year, offset slightly by positive valuation effects of €12.1 billion over the last two quarters. These large negative transactions also reflect a decline in the number of reporting FVCs resident in the euro area, with the number of reporting Irish FVCs falling to 715 in Q3 2011 from a peak of 750 in Q1 2010. The largest fall in numbers was from vehicles involved in residential mortgage-backed securities, cash collateralised debt obligations and multi-issuance. The decline in Irish assets has brought Ireland's share of total euro area FVC assets to 23.4 per cent down from 24.5 per cent at the start of the year.

Chart 12: Quarterly Change in Total Assets of Irish Resident FVCs



Source: Financial Vehicle Corporation Statistics, Central Bank of Ireland.

Chart 13: Number of Reporting Irish Resident FVCs



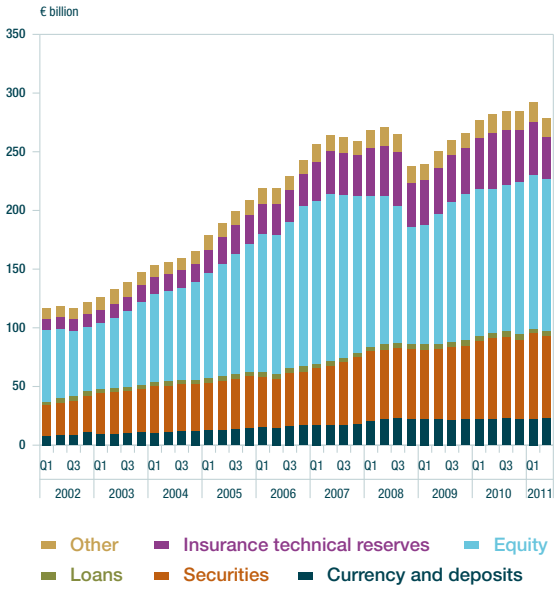
Source: Financial Vehicle Corporation Statistics, Central Bank of Ireland.

Insurance Corporations and Pension Funds

Irish resident insurance corporations and pension funds (ICPFs) accounted for just over 8.3 per cent of the total financial assets of the Irish financial sector at end-June 2011. In addition to its domestic activities, the insurance sector has increasing links with the rest of the world through the expansion of the domestic reinsurance industry and the number of general insurers locating in Ireland.

During Q2 2011, ICPFs' assets recorded a 4.5 per cent decrease, falling to €279 billion, as depicted in Chart 14. Changes in the balance sheet position of the ICPF sector can be influenced by two factors: financial transactions and other changes. Chart 15 shows that the decline in assets during Q2 was as a result of the former. The decrease in assets over the quarter of €13 billion primarily reflected a €9.9 billion disinvestment in insurance technical reserves by ICPFs. This decline in assets was somewhat offset by an increase in the value of ICPFs' assets of nearly €6 billion during Q2 2011.

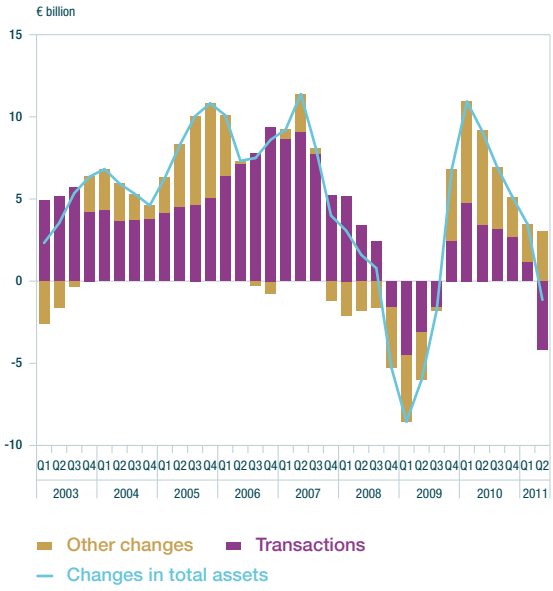
Chart 14: Insurance Corporations & Pension Funds' Asset Portfolio



Source: Quarterly Financial Accounts for Ireland, Central Bank of Ireland.

Despite the fall in financial assets, the net financial wealth of the ICPF sector increased by 17 per cent over the quarter. The increase in net financial wealth occurred as ICPFs' liabilities contracted by more than their assets during Q2 2011, largely due to a decline of over €12 billion in insurance technical reserves issued by ICPFs.

Chart 15: Contribution of Transactions in Assets and Valuation Changes to ICPFs' Assets, Four-Quarter Moving Average



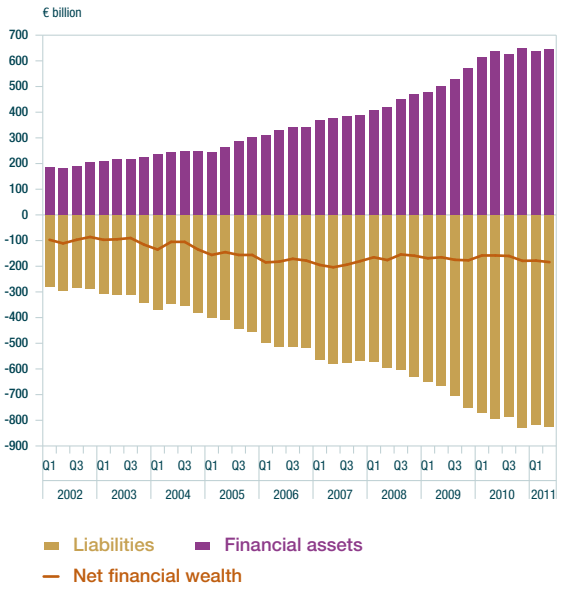
Source: Quarterly Financial Accounts for Ireland, Central Bank of Ireland.

Non-Financial Corporations

The non-financial corporation (NFC) sector's financial assets and liabilities have increased rapidly between Q1 2002 and Q2 2011, as seen in Chart 16. During Q2 2011 however, the sector experienced a slight increase in the stock of assets of 0.7 per cent to €643 billion, while the stock of total liabilities also increased, by 1.3 per cent, to €826 billion over the quarter. The NFC sector's net financial wealth[7] decreased by 3.6 per cent to minus €184 billion reflecting the higher growth in liabilities compared to assets over the second quarter. This compares to minus €178 billion in the previous quarter.

7 Net financial wealth is defined as the difference between financial assets and liabilities. It should be noted that net financial wealth does not include non-financial assets.

Chart 16: Non-Financial Corporations' Net Financial Wealth

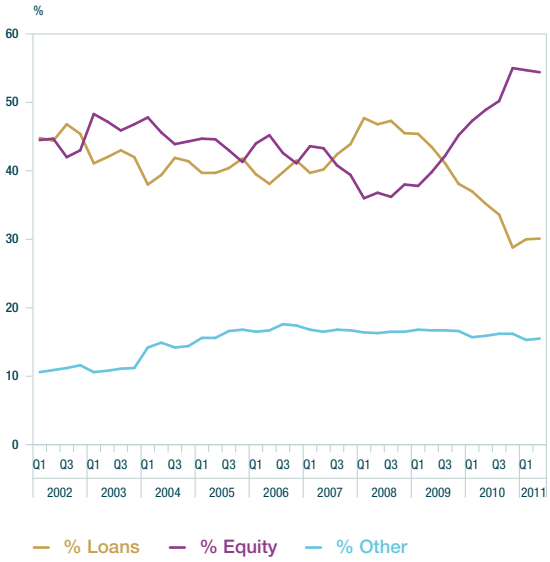


Source: Quarterly Financial Accounts for Ireland, Central Bank of Ireland.

There were flows of almost €13.3 billion of financial assets and €13.5 billion of financial liabilities relating to the NFC sector in Q2 2011. Financial assets experienced a greater decline in value compared to the financial liabilities. In Q2 2011 the financial assets of the NFC sector were revalued downwards by €8.8 billion. The main contributor to this reduced value in the NFC sector's financial assets was the lower valuation of the instrument 'unquoted shares and other equity'. Despite this, the NFC sector was on average a net lender, as its net lending/net borrowing position[8] was positive. This indicates that the NFC sector was providing financing to the other sectors in the economy.

Chart 17 presents the contribution of each of the NFC sector's main sources of funding. The NFC sector consists of both indigenous domestic industry and multinational companies located in Ireland, who have very different profiles in terms of funding. The primary funding instruments of the NFC sector are: 'loans'; 'shares and other equity'; and 'other' (composed of securities other than shares and other accounts receivable/payable). From Q3 2007 onwards, funding through loans tended to be proportionately higher than equity funding. This trend was reversed however in Q3 2009, as credit from monetary financial institutions declined. Equity funding relative to loans continued to be the main source of funding for the NFC sector in Q2 2011 at 54.4 per cent, although this was a decrease of 0.5 per cent from the previous quarter. The NFC sector obtained 30.1 per cent of its funding from loans and 15.5 per cent from the 'other' category at end-Q2 2011.

Chart 17: Non-Financial Corporations' Sources of Funding



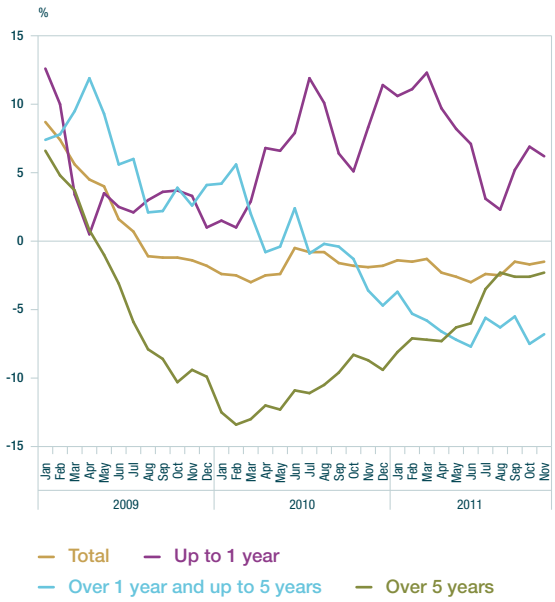
Source: Quarterly Financial Accounts for Ireland, Central Bank of Ireland.

Credit Advanced to the NFC Sector by Resident Credit Institutions

Credit advanced to the resident NFC sector, which includes loans to NFCs and credit institutions' holdings of securities issued by NFCs, declined at an annual rate of 1.8 per cent, based on the average for the three months ending November 2011. The monthly net flow of credit to the NFC sector, based on underlying transactions, averaged €35 million during this three-month period.

8 The net lending/net borrowing figures are examined in terms of the four-quarter moving average position to adjust for seasonality.

Chart 18: Loans to Irish Resident NFCs, Annual Rates of Change



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

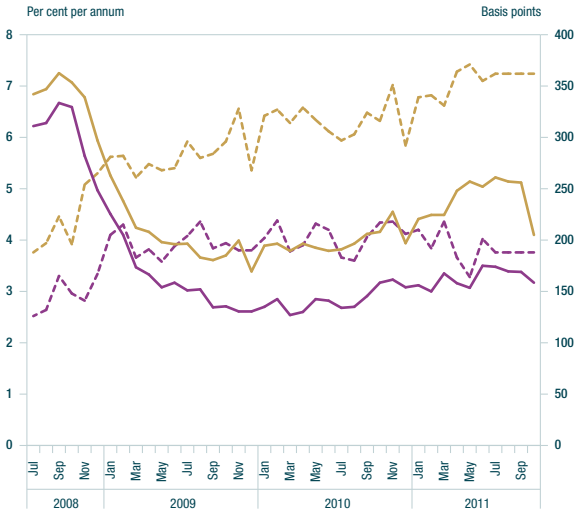
The annual rate of change in loans to Irish resident NFCs averaged minus 1.6 per cent in the three months ending November 2011. Loans issued by credit institutions are the primary source of funding for indigenous industry, primarily SMEs, unlike the multinational sector which has greater access to market capital. Longer-term loans with an original maturity over five years, which had been the main component of the overall contraction in lending to NFCs throughout 2010 and early 2011, recorded a slower pace of decline in recent months. In the three months ending November, the average annual decline was 2.5 per cent. The annual rate of decline in medium-term loans to NFCs has accelerated however, averaging minus 6.6 per cent in these three months. By contrast, short-term loans to NFCs with an original maturity up to one year, which includes the use of overdraft facilities, recorded an average annual growth rate of 6.1 per cent.

Turning to developments in credit by sector of economic activity, the most recent data show that the annual rate of change in non-financial private-sector credit was minus 3.6 per cent at end-September 2011, equivalent to a net flow of minus €4.2 billion. The construction sector accounted for approximately 39 per cent of this overall decline over the year, and outstanding credit to this sector was 40 per cent lower on an annual basis. Meanwhile, the underlying annual growth rate in real estate, land and development credit (which adjusts for the impact of transfers to NAMA) was 1.1 per cent at end-September. The total amount of credit advanced to the non-property, non-financial business sectors stood at €40.3 billion at end-September, a decline of 7 per cent (€3.1 billion) on an annual basis. Credit advanced to the wholesale/retail trade sector had the largest share in the outstanding amount of credit to non-property, non-financial enterprises at 23 per cent, followed by the hotels and restaurants sector at 19.6 per cent. Credit to these sectors was 8.3 per cent and 4.1 per cent lower on an annual basis, respectively, at end-September 2011.

Loans outstanding to Irish SMEs by resident credit institutions totalled €61.3 billion at end-September 2011, excluding loans to the financial intermediation sector. This represents an underlying increase of €76 million during the third quarter of the year, but a decline of €4.1 billion over the year ending September 2011, equivalent to an annual decline of 8 per cent. Gross new lending (i.e. drawdowns of new facilities, excluding restructuring or renegotiations of existing facilities) to non-financial SMEs totalled €763 million during the third quarter of the year, bringing total new lending to these sectors to €3.3 billion in the last year to end-September 2011. New lending to non-financial SMEs during the third quarter of 2011 was concentrated in real estate activities (€174 million), agriculture (€135 million) and wholesale/retail trade (€120 million).

Interest rates on new loans to NFCs, applied by resident credit institutions, have generally been increasing throughout 2011. In the case of NFC loans up to €1 million, the weighted average interest rate was 5.38 per cent at end-November 2011, having increased by 144 basis points since end-December 2010[9]. The increase in new business rates on NFC loans over €1 million has been much more moderate. The weighted average interest rate was 3.38 per cent at end-November, compared to 3.08 per cent at end-December 2010. However, interest rates on the stock of outstanding NFC loans have remained broadly unchanged over the last three months, across all maturity categories, reflecting the subdued levels of new lending.

Chart 19: Interest Rate on New NFC Loan Agreements



— New loans up to and including €1 million, interest rate (LHS)

— New loans over €1 million, interest rate (LHS)

-- New loans up to and including €1 million, margin over 3 month Euribor (RHS)

-- New loans over €1 million, margin over 3 month Euribor (RHS)

Source: Retail Interest Rate Statistics, Central Bank of Ireland.

Multinational NFC Developments

The trend of foreign investment by Irish-owned multinational NFCs continued during Q3 2011, when €4.3 billion was invested abroad over the quarter. This increase in foreign assets was largely offset by valuation and other changes of over €14.6 billion, which resulted in the total stock of foreign investment declining from €256 billion at end-June 2011 to €245 billion at end-September 2011. Meanwhile, foreign-owned multinational NFCs continued to reinvest in their Irish operations, with inflows amounting to €6.8 billion during Q3 2011. These inflows comprised reinvested earnings of €7.5 billion, which were partially offset by intercompany lending outflows amounting to €846 million. The volume of foreign investment in Irish-based foreign-owned multinational NFCs was €213 billion at end-September.

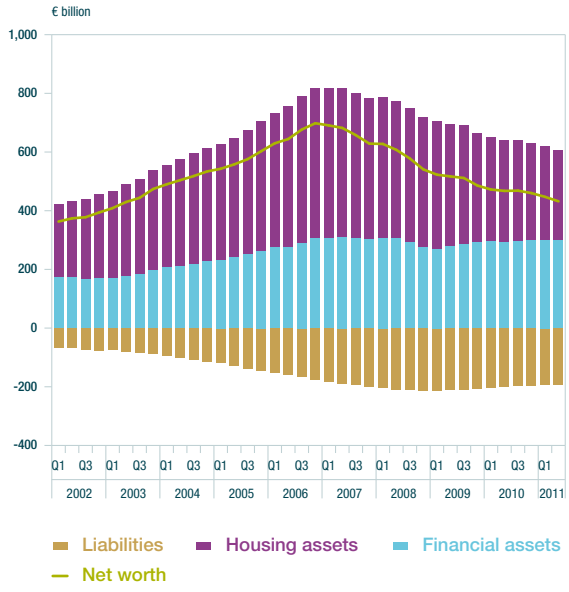
Direct investment income earned abroad by Irish-owned multinational NFCs declined by €488 million to €3.8 billion during Q3 2011 compared with Q3 2010. A significant portion of direct investment income earned is attributable to multinational NFCs who have established their headquarters in Ireland, with the remaining income related to foreign earnings of Irish-owned multinational NFCs. Investment income paid abroad to foreign direct investors of €10.9 billion during Q3 2011 was broadly in line with foreign payments over the previous two quarters. This reflects the type of investment by foreign-owned multinational NFCs in Ireland, particularly in the pharmaceutical and high technology sectors, where high rates of return are generated. Internal Central Bank estimates indicate these rates of return to be around 5.4 per cent. In contrast, the equivalent rate of return on direct investment abroad by Irish multinational NFCs, primarily in more traditional industries, is much more modest at around 1.5 per cent.

9 It should be noted that new business volumes have been low throughout 2010 and 2011 and, as a result, the interest rates on new business can be quite volatile. These interest rates and volumes are published in Table B.2.1 in the Retail Interest Rates section of the Statistics portal of the Central Bank of Ireland website.

Households

Households' net worth continued to decline during Q2 2011, falling to €413 billion or €92,149 per capita. Overall, net worth has fallen by 36 per cent from its peak of €641 billion at Q4 2006, largely as a result of declining housing asset values. During Q2 2011, net worth fell by 3 per cent, as depicted in Chart 20. The decline largely reflected the further reduction in the value of housing assets over the quarter, and, to a lesser extent, a slight fall in the value of financial assets. The latter was largely as a result of a reduction in the value of insurance technical reserves (ITRs)[10], due to weaker performance in the international bond and equity markets. Household liabilities continued to decline over the quarter, albeit at a slower rate than in previous quarters. Overall, liabilities have declined by €19.9 billion since their peak of €212.2 billion in Q4 2008. Households' liabilities stood at €192.4 billion or €42,896 per capita at Q2 2011.

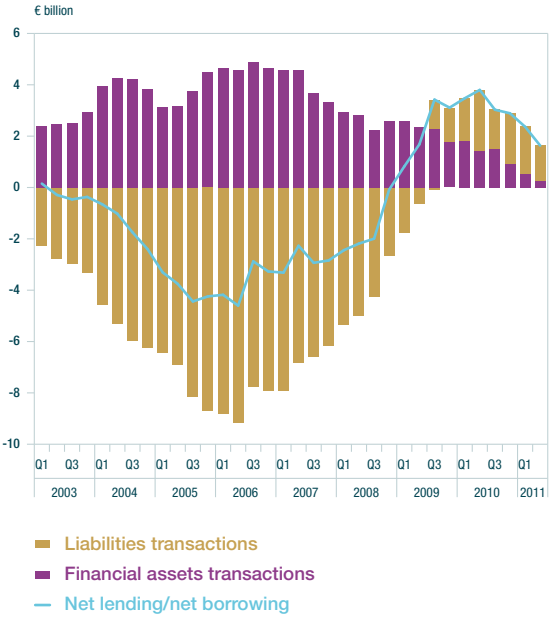
Chart 20: Household Assets, Liabilities and Net Worth



Source: Quarterly Financial Accounts for Ireland, Central Bank of Ireland.

Households continued to be net lenders, when measured as a four-quarter moving average to adjust for seasonality, during Q2 2011, albeit at a lower level than in previous quarters, as depicted in Chart 21. Net lending is influenced by two factors: households' financial asset transactions and liabilities transactions. Since late 2009, households have been deleveraging, thereby reducing their high debt levels. This trend is primarily responsible for households' net lending position. Household net lending was at its peak during Q2 2010, but has declined every quarter since then. For the most recent quarter this reduction in household net lending reflects lower levels of investment in financial assets, in addition to deleveraging.

Chart 21: Household Net Lending/Net Borrowing, Four-Quarter Moving Average



Source: Quarterly Financial Accounts for Ireland, Central Bank of Ireland.

10 'Insurance technical reserves' include life assurance policies and pension funds.

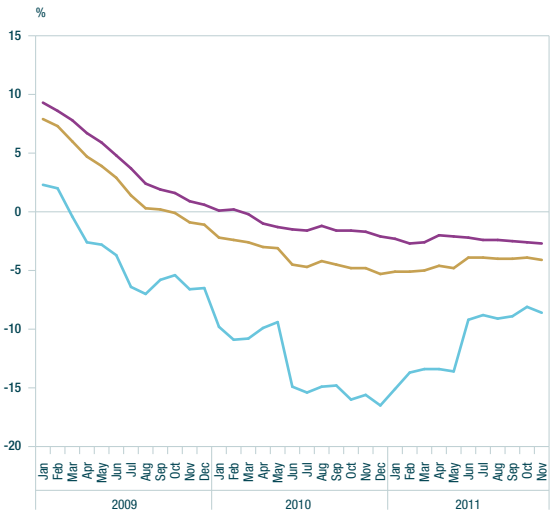
Chart 22 shows that the decline in investment in financial assets by households in recent quarters largely reflects reduced investment in 'currency and deposits'. Since late 2010 households have been on aggregate disinvesting in 'currency and deposits'. The chart however, depicts that investment in ITRs remains largely unchanged. This may be because these instruments are extremely illiquid, with households generally unable to withdraw funds until retirement.

Lending to Households by Irish Resident Credit Institutions

Loans to Irish households advanced by Irish resident credit institutions continued to decline in recent months, falling at an annual rate of 4 per cent, based on the average for the three months ending November 2011. The monthly net flow of loans to households averaged minus €388 million in these three months.

Loans for house purchase, which account for over 70 per cent of on-balance sheet lending to households in Ireland, have been declining on a monthly basis for 21 consecutive months. The monthly net flow of loans for house purchase averaged minus €208 million in the three months ending November, while the annual rate of change averaged minus 2.6 per cent. Quarterly data, which provide a breakdown of loans for house purchase by interest rate type, show that floating rate mortgages[11] accounted for 87 per cent of the outstanding amount of loans for house purchase on the balance sheet of Irish resident credit institutions at end-September 2011. The share of standard variable rate mortgages in the total increased to 32 per cent at end-September, reflecting a net increase of €700 million during the quarter. Tracker mortgages declined by €600 million over the same period, bringing their share in the total outstanding amount down to 53 per cent.

Chart 22: Loans to Irish Households, Annual Rates of Change



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

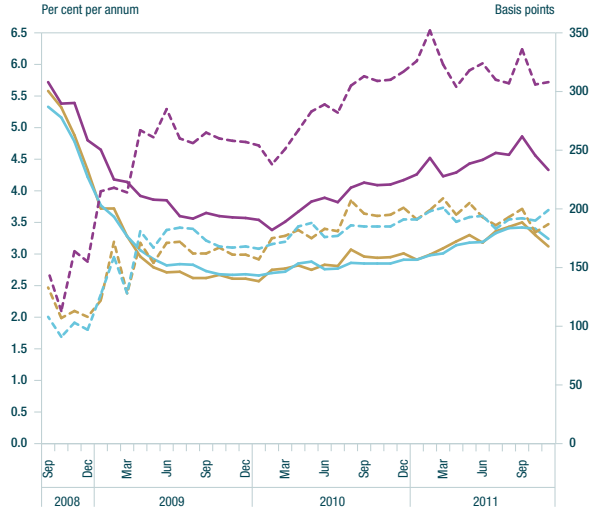
Lending for consumption purposes has continued to fall sharply in recent months, recording an annual rate of decline of 13.2 per cent, based on the average for the three months ending November 2011. Loans for other purposes, which include business loans, loans for education, debt consolidation etc., fell by an average annual rate of 0.7 per cent over the same period.

Interest rates on new mortgages with floating rates and up to one year initial rate fixation rose steadily throughout much of 2011, but declined again in each of the last two months, falling to a weighted average of 3.12 per cent at end-November, following the reduction in key ECB interest rates by 25 basis points on 3 November 2011. Interest rates on new mortgages fixed for more than one year also declined in recent months, to a weighted average of 4.33 per cent. The average rates of interest on outstanding mortgages have also begun to decline in recent months, following a period of sustained increases throughout the first nine months of 2011.

11 Floating rate mortgages include standard variable rate, tracker rate and mortgages with a fixed rate up to one year, in line with international practice.

At end-November, the weighted average interest rate on outstanding mortgages with an original maturity over five years was 3.23 per cent, having reached 3.42 per cent at end-September.

Chart 23: Mortgage Interest Rates to Households



— New floating rate mortgages, interest rate (LHS)
— New mortgages, fixed for over one year, interest rate (LHS)
— Outstanding mortgages, interest rate (LHS)
-- New floating rate mortgages, margin over ECB MRO (RHS)
-- New mortgages, fixed for over one year, margin over ECB MRO (RHS)
-- Outstanding mortgages, margin over ECB MRO (RHS)

Source: Retail Interest Rate Statistics, Central Bank of Ireland.

Developments in the International and Euro Area Economy

Overview

Over the past year, the global economy has experienced significant headwinds from the deleveraging in financial and government sectors, while imbalances within the euro area have become more evident, reflecting structural, fiscal and financial problems. As a result, the recovery is expected to be slow and uneven. Recently, risks have increased in an environment of increased uncertainty stemming from the intensification of the euro area sovereign debt crisis and ongoing political impasse over fiscal consolidation in the US. This has generated considerable financial market tensions, with implied volatility across all market segments, and in particular in the euro area, remaining at high levels in the final months of 2011. Reflecting recent developments, international authorities have revised down their economic growth forecasts, particularly for a number of advanced economies and, looking ahead, structural headwinds, specifically related to the further repairing of public and private balance sheets, are expected to restrain the global economy in the medium term. Given the financial constraints in the euro area and the US, much of the support to growth is likely to come from the emerging and developing economies. Following several months which saw global inflation rates creeping up in advanced and emerging economies, there has either been a stabilisation or modest decline in inflation recently, although inflationary pressures still remain more pronounced in the emerging economies. Looking ahead, inflationary pressures are expected to decline.

In recent months the global economy has continued to lose momentum due to renewed financial market tensions – primarily related to the deepening of the euro area sovereign debt crisis – which thwarted any positive impulse from the unwinding of temporary factors earlier in the year. Political gridlock over US fiscal consolidation measures has added to global uncertainty. As a result, we have seen an erosion of consumer and business sentiment while, at the same time, trade related indicators point to weaker growth in this area in the near term. The loss in business confidence is evidenced by the global all-industry PMI Index, which stood at a level of just 50.4 on average in the final quarter of 2011, well below the average in the first half of the year, while the deterioration in consumer confidence has also been widespread, as highlighted in the relevant sections of this chapter.

Both the advanced and emerging economies have seen a slowdown in growth recently, the former associated with a sharp fall in confidence, and the latter reflecting policies to limit inflationary pressures and to mitigate financial imbalances. In the US, following very slow growth in the first half of 2011, activity picked up in the third and final quarters, supported by buoyant consumer spending and business sentiment. However, weak sentiment indicators and low personal disposable income growth suggest some moderation in economic activity in early 2012. Meanwhile, a gradual recovery in Japan is proceeding, growth in China remains resilient, albeit easing somewhat in recent quarters, while economic activity remains weak in the UK. Finally, euro area activity eased in the second half of 2011, reflecting a moderation in the pace of global demand growth and unfavourable effects on overall financing conditions and confidence.

Table 1: Changes in Real GDP in Selected Economies

	Percentage Change		
	2011	2012[f]	2013[f]
Global	3.8	3.4	4.3
United States	1.7	2.0	2.5
Euro Area	1.6	0.2	1.4
United Kingdom	0.9	0.5	1.8
China	9.3	8.5	9.5
Japan	-0.3	2.0	1.6

Source: OECD Economic Outlook no.90.

f Forecast.

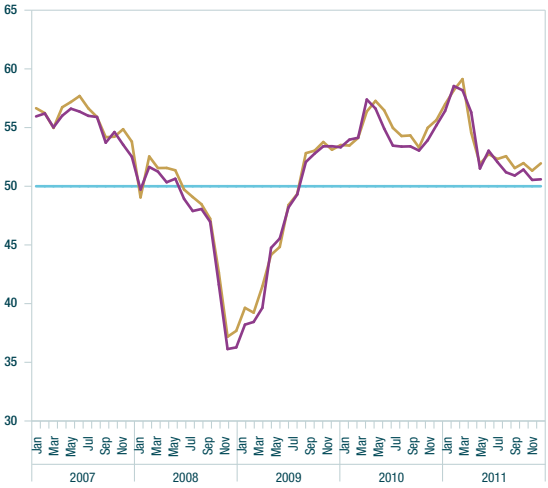
Looking ahead, structural headwinds are expected to restrain the global recovery in the medium term, possibly leading to a prolonged period of sluggish growth. These headwinds mainly relate to the continued need to repair public and private balance sheets, while persistently depressed housing markets and sluggish labour market developments in a number of advanced economies compound the lacklustre outlook for the global economy. As in the recent past, emerging economies are projected to continue supporting global growth more than the advanced economics over the coming years.

As doubts about the future path of economic growth have increased recently, reflecting low economic sentiment readings and weak fundamentals, a number of international institutions have significantly revised downwards their projections for economic growth in 2012 and 2013. According to the OECD November Economic Outlook, the world economy is now forecast to expand by 3.4 per cent in 2012 and 4.3 per cent in 2013, with particularly sharp downward adjustments to a number of advanced economies[1].

At present, the outlook for the global economy is surrounded by exceptionally high uncertainty and risks to growth are clearly tilted to the downside. The primary downside risk relates to the precarious fiscal positions of major advanced economies, with the possibility of rapidly changing market sentiment intensifying global financial tensions. In addition, there are a number of other specific downside risks and fragilities that could weaken growth if they were to materialise, including the possibility of a disorderly unwinding of global imbalances and a sharper slowdown in Chinese activity than projected.

Following a broad-based increase in global inflation rates over the course of 2011, mostly driven by rising commodity prices, there has been some evidence of either a stabilisation or modest decline recently. Notwithstanding this, price increases in key emerging economies remain more pronounced than in advanced economies given that they operate closer to full capacity and respond strongly to food and energy movements, reflecting the higher weight of commodity prices in these countries' consumption baskets. Going forward, less buoyant economic activity and an easing in commodity prices (unless geopolitical tensions or adverse weather shocks were to occur) may result in a gradual decline in the rate of inflation.

Chart 1: Global PMIs



Source: Markit.

Note: For PMI indicators, above 50 represents expansion, below 50 represents contraction.

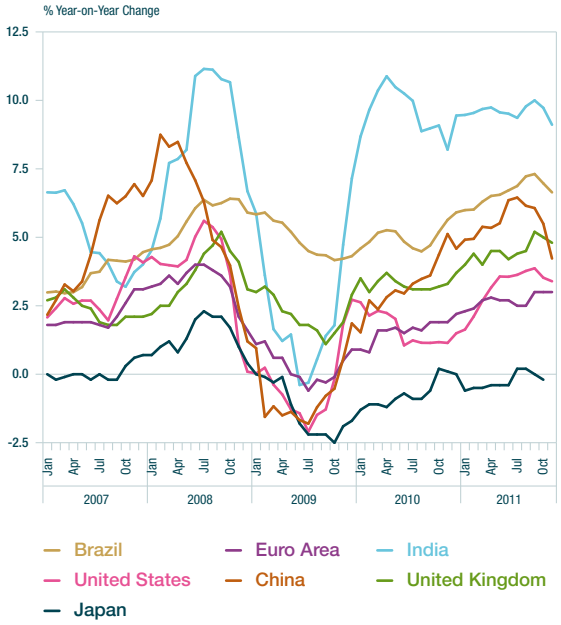
1 These projections rest on the assumptions that monetary policy remains very supportive, the sovereign debt and banking sector problems in the euro area are contained and that excessive fiscal tightening will be avoided.

Table 2: Contributions of Expenditure Components to Change in Euro Area GDP (Q-on-Q)

	2010	2011		
	Q4	Q1	Q2	Q3
Consumption	0.2	0.0	-0.3	0.1
Government	0.0	0.0	0.0	0.0
Investment	-0.1	0.4	0.0	0.0
Inventories	0.1	0.1	0.2	-0.1
Exports	0.6	0.8	0.5	0.5
Imports	-0.5	-0.4	-0.2	-0.3
GDP	**0.3**	**0.8**	**0.2**	**0.1**

Source: Eurostat.

Chart 2: Selected Global Inflation Rates



Source: Reuters EcoWin.

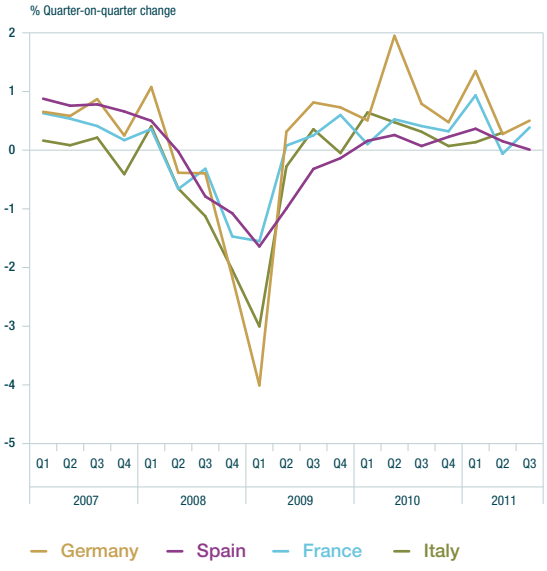
Section 1: Euro Area

Economic Growth – Recent Developments

In the third quarter of 2011, euro area real GDP growth was 0.1 per cent, down from 0.2 per cent in the previous quarter. Better than expected developments in Germany and France provided support to euro area growth, but a poor performance in Portugal, the Netherlands and Belgium held activity back. As Table 2 outlines, consumer spending was the only element of domestic demand to make a positive contribution to the expansion in the third quarter of 2011, following a very poor performance in the previous three months. Net trade also contributed positively to euro area GDP between July and September, while inventories subtracted from growth.

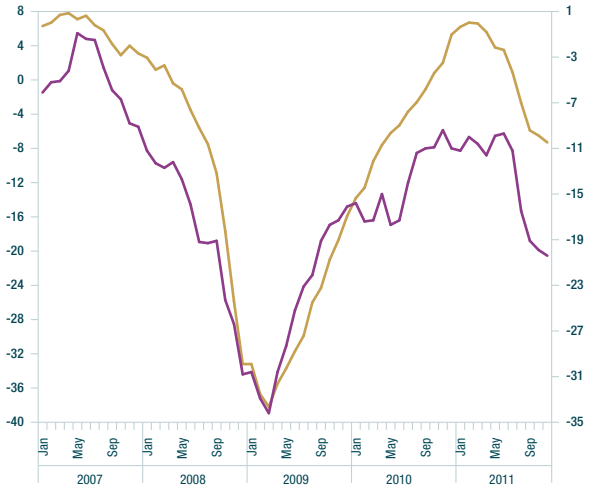
Survey indicators in the euro area have weakened significantly since early 2011, with confidence in the manufacturing and services sectors, as well as amongst consumers and retailers, all considerably more downbeat than in the same period of last year. The widespread deterioration in sentiment highlights the general weakness in private sector business activity that continued into the final quarter of 2011. Real GDP is expected to have slowed further, and quite possibly have contracted, during the final months of 2011, as a moderation in the pace of global demand growth and ongoing tensions in euro area sovereign debt markets weighed on activity.

Chart 3: Euro Area GDP Growth



Source: Reuters EcoWin.

Chart 4: Euro Area Confidence Indicators



— European Commission Business Confidence Indicator (Left Axis)
— European Commission Consumer Confidence Indicator (Right Axis)

Source: Reuters EcoWin.

With respect to labour market developments, the unemployment rate has been increasing steadily since June 2011, rising to 10.3 per cent in October 2011, while total employment decreased by 0.1 per cent in the third quarter. Unemployment rates vary significantly across the euro area and divergent trends have been observed, with rates continuing to decline in Germany and Belgium, while the numbers unemployed have been increasing in Spain and Italy. In October, Austria recorded the lowest unemployment rate at 4.1 per cent, while Spain recorded the highest rate at 22.8 per cent. The euro area unemployment rate is expected to rise somewhat during the course of 2012 and to decline only slowly thereafter.

Economic Growth – Outlook

Growth in the euro area is expected to pick up during the course of 2012 and to improve somewhat further in 2013. The latest ECB staff projections have revised downwards the outlook for the euro area and now anticipate real GDP growth between -0.4 per cent and 1.0 per cent in 2012, followed by an expansion of between 0.3 per cent and 2.3 per cent in 2013. These forecasts are based on the assumption that the financial crisis does not intensify further. The ECB forecasts are broadly in line with the latest OECD GDP projections for the euro area of 0.2 per cent in 2012 and 1.4 per cent in 2013, contained in their November 2011 Economic Outlook. Domestic demand is expected to remain subdued in the euro area, as consumer and business sentiment has been dented by the ongoing uncertainty surrounding the sovereign debt crisis. Fiscal consolidation efforts in a number of euro area countries will also weigh on the growth outlook in the short-term. Net trade will offer little support over the forecast horizon as external demand is also slowing sharply.

Looking at the core economies, growth rates for 2012 were revised down significantly by the OECD since their previous estimates were released in June 2011, highlighting how quickly the situation has deteriorated in the euro area. The German economy is now expected to grow by 0.6 per cent in 2012, which is considerably lower than June's estimate of 2.5 per cent growth. The slowdown in world trade is expected to have a significant impact on exports and investment in the euro area's largest economy, but overall activity is set to recover gradually throughout the year as confidence improves, and growth of 1.9 per cent is expected in 2013. French and Spanish GDP growth has also been revised down sharply for 2012, with output expected to expand just 0.3 per cent in both economies, before improving to 1.4 per cent and 1.3 per cent, respectively, in 2013. The OECD's downward revisions to the outlook were most severe in Italy, with the economy now expected to contract by 0.5 per cent in 2012. A number of emergency austerity measures have been introduced, in order to balance the budget by 2013, which will hold back domestic demand, while slowing world trade and poor competitiveness will also be a drag on growth. The recovery is set to be slow and weak, with output forecast to increase by 0.5 per cent in 2013.

Risks to the outlook remain firmly on the downside and relate to a further intensification of the tensions in euro area financial markets and their potential spill-over to the euro area real economy. A related risk is that the implementation of the requirements for banks to increase capital buffers leads to pro-cyclical deleveraging involving constraints in the supply

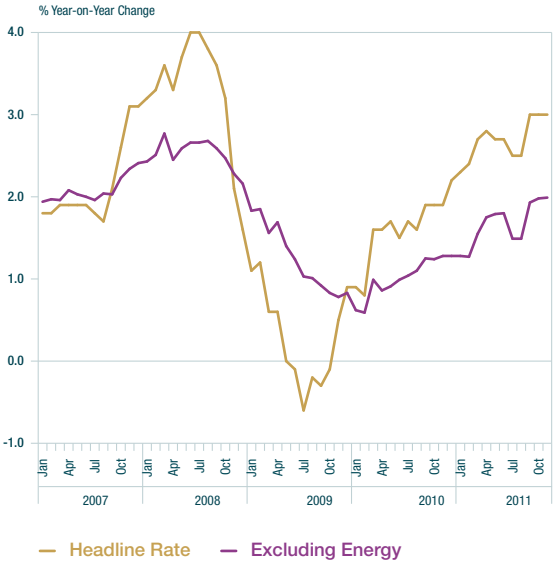
of credit to the real economy. The effects of euro area banks deleveraging would also likely extend to newer member states of the European Union.

Inflation – Recent Developments

Euro area headline HICP inflation increased by 2.8 per cent year-on-year in December, according to an initial estimate from Eurostat, down from 3.0 per cent, where it stood for the previous three months. The elevated inflation rates recorded in 2011 were primarily driven by the energy and food components, reflecting sharp commodity price increases in the second half of 2010 and first few months of 2011. Increases in indirect taxes and administered prices also contributed to the higher inflation rates. The breakdown for November indicates that the energy component declined marginally from the previous month, increasing by 12.3 per cent year-on-year. Food inflation remained unchanged at 3.4 per cent but has been trending upwards in recent months, driven by fruits, vegetables and meat and also reflecting the pass through of past increases in international food prices. The non-energy industrial goods component remained unchanged, while services increased marginally in November.

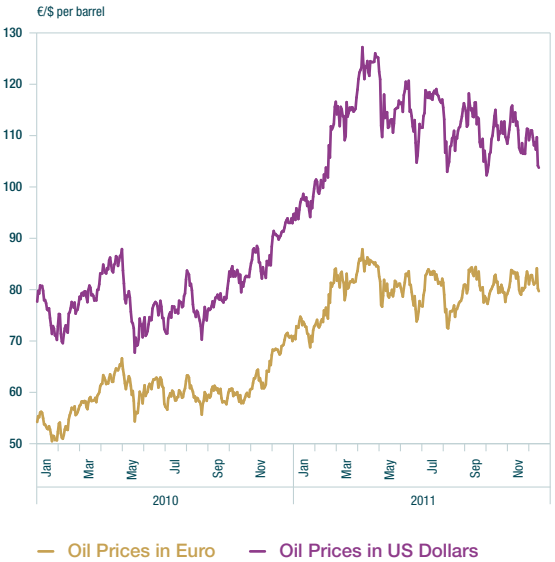
Pipeline pressures in the production chain have eased somewhat in recent months. Producer prices excluding construction stood at 5.3 per cent in November, down from its March peak of 6.8 per cent, while producer prices excluding construction and energy declined for the eighth consecutive month, increasing by 3.0 per cent. The decline in producer prices has been driven by prices at the early stage of the production chain, largely reflecting the moderation in commodity price pressures. Price survey measures have also declined markedly from the March 2011 peak, particularly for input prices. While the composite PMI input price index increased marginally in both November and December and the index remains above 50, indicating that prices are increasing, they are increasing at much weaker rates than in early 2011. The PMI output price index dipped below 50 in December, indicating that prices being charged declined on average. Meanwhile, labour cost dynamics are beginning to show signs of weakening with total hourly labour costs rising by 2.7 per cent year-on-year in the third quarter, following a downwardly revised second quarter increase of 3.3 per cent. However, unit labour costs increased to 1.7 per cent from 1.3 per cent, reflecting both a rise in compensation and a decline in productivity.

Chart 5: Euro Area Inflation



Source: Reuters EcoWin.

Chart 6: Oil Prices – Brent Crude



Source: Reuters EcoWin.

Oil and other commodity prices

Prices of Brent crude oil have generally declined in dollar terms since mid-November, although they remain quite volatile. The International Energy Agency has revised down demand projections for 2012 every month since September, reflecting a weaker global economic outlook. However, market fundamentals have remained relatively tight, with sporadic supply disruptions and low OECD inventories helping to support prices. Brent crude oil closed at $109 per barrel at the end of December, 15 per cent below its peak in May but 16 per cent higher than prices a year earlier.

International food prices have fallen somewhat in recent months. The United Nations FAO index in November was 1 point below the average in October and 10 per cent below the peak reached last February. Of the commodities that make up this index, sugar prices have declined the sharpest in recent months. Meanwhile, the HWWI non-energy commodity index has fallen markedly since early September, reflecting price declines in base metals and food.

Box 1: Estimating the impact of base effects from energy on euro area HICP inflation in 2012
By John Larkin[2]

Annual headline HICP inflation in the euro area increased sharply in 2011, rising from 2.2 per cent in December 2010 to 3.0 per cent in September 2011 and remaining at that level in October and November. A significant driver of this increase was the energy component, reflecting the spike in international oil prices at the end of 2010 and the first few months of 2011. However, the increase attributable to the energy component should prove transitory, as the month-on-month energy price increases from 2011 fall out of the annual measurement twelve months later. The impact of price volatility from the previous year on annual inflation is often referred to as a base effect. Base effects from other commodity prices will also affect annual inflation rates in 2012, especially from the food component. However, given that the greatest potential impact is expected to come from the energy component, this Box will concentrate on energy base effects.

When referring to inflation rates, it is usual to do so in terms of a year-on-year percentage change, or annual percentage change. The annual percentage change can be considered as an accumulation of 12 month-on-month percentage changes. Therefore, the annual percentage change can be influenced by both the latest additional month-on-month percentage change and the month-on-month percentage change from 13 months earlier, which drops out of the calculation. Base effects materialise when the annual rate of change is impacted by an atypical pressure that affected inflation a year earlier. Given that oil prices have been particularly volatile in recent years, base effects from the energy component have increasingly exerted both upward and downward pressure on annual HICP inflation rates.

Base effects from the energy component are expected to have a downward impact on annual HICP inflation rates during 2012, particularly in the first half of the year. As Chart A above illustrates, the energy component, which represents around 10 per cent of the consumption basket, experienced very sharp month-on-month increases from December 2010 to April 2011. This was largely due to the acceleration in oil prices stemming from increased geo-political tensions and supply disruption in MENA countries.[3] These month-on-month increases will drop out of the annual measurement over the next 12 months.

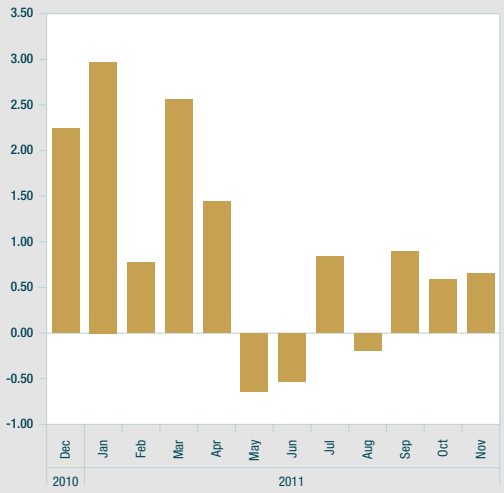
2 Monetary Policy and International Relations Division.

3 Brent crude oil (in dollar terms) increased by over 40 per cent from the beginning of December 2010 to its peak in mid-April 2011.

Box 1: Estimating the impact of base effects from energy on euro area HICP inflation in 2012

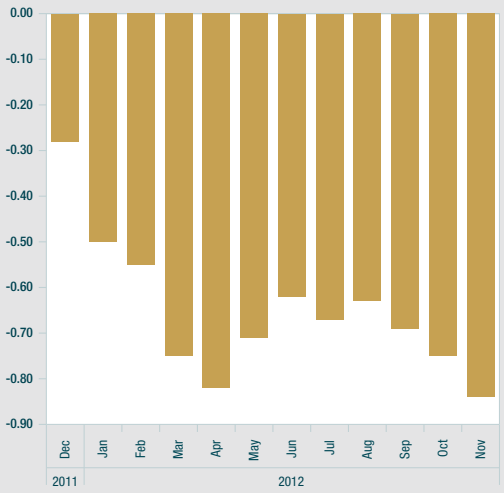
By John Larkin[2]

Chart A: Month-on-Month Inflation from HICP Energy



Source: Eurostat.

Chart B: Estimated Cumulative Impact of Base Effects from the Energy Component



Source: Eurostat and author's calculations.

The expected energy base effects in 2012 are here estimated by calculating the difference between what will fall out of the measurement from the base month and the 'usual' monthly increase. The usual monthly increase is calculated as a simple average of the month-on-month inflation rates in the given month since 1991.[4] Chart B shows the impact of energy base effects on headline HICP inflation, cumulated over the period December 2011 to December 2012. The cumulative downward impact from energy is estimated to be over 80 basis points after five months in April 2012. Thereafter, the downward impact is expected to dissipate somewhat.

It is important to highlight, however, that while base effects will undoubtedly make a contribution to the inflation profile over the next year, they should certainly not be viewed in isolation. Downward base effects from the energy component may help contain headline inflation from its relatively high level but the impact illustrated in Chart B is just an estimate and may not occur as depicted, particularly should further price shocks materialise. Price pressures, whether upward or downward, stemming from consumer demand, labour costs and commodity price developments over the next year will be the primary drivers of annual HICP inflation rates in 2012.

4 This methodology is similar to that used by the ECB in the December 2008 Monthly Bulletin Box entitled 'Accounting for recent and prospective movements in HICP Inflation: The role of base effects'.

Table 3: US Contributions to GDP Growth

	2011 Q1	2011 Q2	2011 Q3
Consumption	1.5	0.5	1.2
Government	-1.2	-0.2	0.0
Fixed Investment	0.2	1.1	1.5
Inventories	0.3	-0.3	-1.4
Exports	1.0	0.5	0.6
Imports	-1.4	-0.2	-0.2
GDP	**0.4**	**1.3**	**1.8**

Source: BEA.

Outlook

Headline inflation is expected to moderate gradually during 2012, as higher food and energy prices related to elevated commodity prices fall out of the annual measurement (see Box 1). According to the December 2011 ECB staff macroeconomic projections annual HICP inflation is projected to be in a range of between 2.6 per cent and 2.8 per cent for 2011, 1.5 per cent and 2.5 per cent for 2012 and 0.8 per cent and 2.2 per cent in 2013.

Section 2: External Environment

United States

Following the decline in US economic growth in the first half of 2011, real GDP expanded by 1.8 per cent in annualised terms (0.5 per cent quarter-on-quarter) in the third quarter. The relatively strong expansion was driven by a rebound in personal consumption, a strengthening in fixed investment, and the fading of temporary effects which held back growth in the first half of the year, such as the high oil prices and the supply disruptions following the Japanese earthquake.

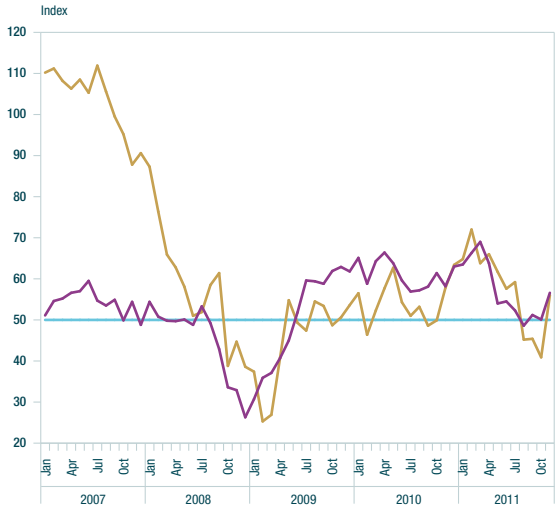
Looking at more recent developments, industrial production and personal consumption expenditure remained resilient, while business confidence and the employment situation have modestly improved. On the other hand, core capital goods orders, which are a good indicator of future business investment have slowed somewhat, while consumer confidence remains well below its historical average, despite picking up from near record lows recently. Overall, the economic indicators in the fourth quarter suggest a robust finish to the year.

The outlook into 2012 is less clear as the current rebound in consumption may fade given that consumption growth has been outpacing growth in income, and contagion from the euro area debt crisis may spread further into the US real economy. In addition, the persistently weak housing market is yet to show signs of recovery, while fiscal measures[5] are also likely to weigh on growth. In their latest Economic Outlook, the OECD forecast the recovery to gain pace in the second half of 2012 due to the gradual improvement in confidence and the accommodative monetary policy, which will translate into real GDP growth of 2 per cent in 2012 and 2.5 per cent in 2013.

The Federal Reserve's Federal Open Market Committee anticipate that economic conditions are likely to warrant exceptionally low levels for the federal funds rate through mid-2013. At the same time, they expect inflation to soon subside, with increases during 2011 largely attributed to temporary factors such as high oil prices.

5 These measures have yet to be agreed due to the political impasse between the Republicans and the Democrats.

Chart 7: US Business and Consumer Confidence



Source: Reuters EcoWin and Markit.

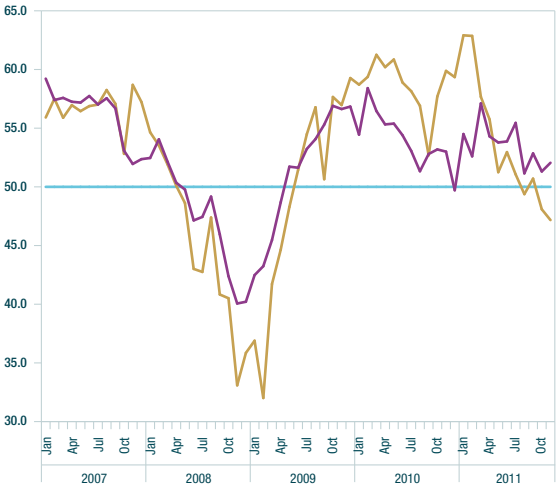
United Kingdom

The UK recovery has yet to gain traction, with a cumulative expansion of just 0.5 per cent over the last four quarters. Following no growth in the second quarter, which was largely as a result of the royal wedding and the Japanese earthquake, growth rebounded in the third quarter to 0.6 per cent. This expansion was supported by a significant build up in inventories and modest investment while at the same time it was restrained by net trade which subtracted from real GDP. Private consumption failed to contribute to the third quarter performance.

Economic indicators for the fourth quarter have deteriorated further, suggesting a weak end to 2011 and start to 2012 as private consumption, held back by relatively high inflation, austerity measures and a deteriorating labour market, together with the euro area debt crisis continues to weigh on the economy. In their latest Economic Outlook, the OECD forecasts growth of just 0.5 per cent in 2012, with the recovery gathering pace in the second half of 2012, supported by net trade and an upturn in household consumption as confidence improves and inflation falls. It is expected that growth will strengthen further to 1.8 per cent in 2013 led by business investment. However, risks to the recovery are skewed to the downside due to the euro area debt crisis and uncertainty regarding the revival in household consumption and business investment.

Inflation has likely now passed its peak, dropping to 4.8 per cent in November and is expected to fall sharply from January 2012, as the 2011 VAT increase drops out of the calculation. In addition, the Bank of England's recent Inflation Report indicated that there is a possibility that inflation may undershoot the target in 2013 as the slack in the economy is larger and more persistent than previously thought.

Chart 8: PMI Indicators for the UK



Source: Markit.

Note: For PMI indicators, above 50 represents expansion, below 50 represents contraction.

Emerging EU Member States

The economic recovery in the seven emerging non-euro area EU member states continued in 2011, and growth remained strong in most countries in the third quarter. Temporary factors boosted quarter-on-quarter growth in Hungary and Romania, but these one-off effects are expected to fade. Growth stagnated in the Czech Republic and Bulgaria, while output expanded at a robust pace in Poland, Latvia and Lithuania. However, the outlook has deteriorated sharply for all countries due to the downward revision of growth in the euro area,

which is the region's largest export market, and deteriorating external financing conditions. In the first half of 2011, inflation rates across the region were pushed higher as commodity prices remained at elevated levels, but this effect was reversed, with inflation moderating steadily in the second half of the year. However, inflation picked up once again in the final months of 2011, most notably in Poland, Hungary, and the Czech Republic, as currency movements affected import prices. Additional fiscal consolidation measures, in the form of higher VAT and administered prices, are expected to temporarily affect inflation in 2012 in all countries except Poland.

Japan

The Japanese economy continued to show signs of recovery in the third quarter of 2011, with the latest monthly data indicating a broad-based pickup in economic activity. Real GDP grew by an annualised 5.6 per cent in the third quarter as domestic demand and net exports rebounded. Domestic demand was supported by robust growth in housing investment as reconstruction work continued following the March earthquake, while exports and production rebounded strongly owing to a restocking of inventories abroad and the normalisation of supply-chains. Furthermore, at its Monetary Policy meeting in October, the Bank of Japan decided to further enhance monetary easing by increasing the total size of the Asset Purchase Program by about 5 trillion yen to 55 trillion yen.

However, the pickup in Japan's economic activity has lost momentum recently, with the fall in global demand, the appreciation of the yen and the flooding in Thailand continuing to weigh on the growth outlook. In addition, the Bank of Japan's quarterly Tankan survey of business sentiment, released in mid-December, points to a sharp decline in sentiment among large Japanese manufacturers with many expecting conditions to worsen further in the first quarter of 2012. However, the sentiment among large, medium and small non-manufacturing enterprises did pick up in recent months.

With respect to price developments, Japan's CPI headline rate contracted by 0.2 per cent year-on-year in October 2011. The Bank of Japan decided to leave its target for the uncollateralised overnight call rate unchanged at 0.0 per cent to 0.1 per cent at its meeting on the 21 December 2011.

Emerging Asia

In emerging Asia, national accounts data with the exception of China and India indicate that economic growth stabilised in the third quarter after moderating in the second quarter. Owing to the slowdown in global demand, export growth decreased while private consumption and investment were the main drivers of growth. With the prospects for growth in the global economy continuing to deteriorate, coupled with the easing of inflationary pressures in the region, central banks have responded by halting their monetary tightening policies.

In China, real GDP increased by 9.1 per cent year-on-year in the third quarter of 2011, down from 9.5 per cent growth recorded in the second quarter. Chinese export growth continued to fall towards the end of the year from very high levels, while production has also eased in recent months, against the backdrop of deteriorating external demand conditions. The latest survey-based indicators also point to a deterioration in the Chinese manufacturing sector. Inflation in China has declined with annual headline CPI inflation at 4.2 per cent in November, its lowest level since September 2009 and down from the 5.5 per cent recorded in October. Furthermore, the Chinese authorities eased monetary policy in early December by reducing the required reserve ratios for deposit taking institutions by 50 basis points to 21 per cent.

Real GDP growth in India decreased in the third quarter of 2011 to 6.7 per cent, year-on-year, down from the 8.5 per cent recorded in the previous three months. With respect to price developments, India's wholesale price index remained elevated at 9.1 per cent in November, albeit down from the 9.7 per cent recorded in October. The Reserve Bank of India continued to tackle the persistent inflationary pressures in the third quarter of 2011, hiking its main policy rate by 25 basis points to 8.5 per cent in late October 2011.

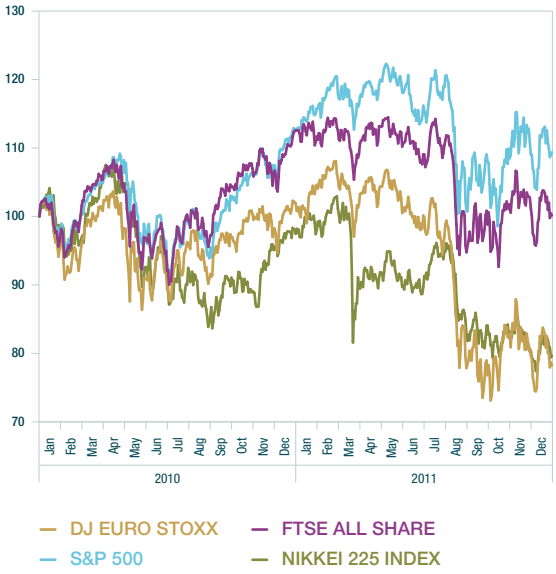
Section 3: Financial Markets

Financial Sector Developments

The ongoing evolution of the euro area sovereign debt crisis remained the principal driver of financial market developments during the fourth quarter of 2011. At the same time, some better than expected US economic data eased investor concerns over a possible global economic slowdown, although data from the euro area were generally weaker than expected. Implied volatility across market segments remained elevated throughout the quarter. Investor sentiment initially improved in October amid optimism ahead of a meeting of euro area Heads of State and Government on 26 October. Sentiment remained buoyant for a number of days following the meeting but markets subsequently entered a period of elevated volatility following the announcement by the Greek Prime Minister of a vote of confidence in the Greek government and a referendum on the proposed EU-IMF support package. While the referendum was subsequently cancelled, investor sentiment did not improve substantially for the remainder of the quarter. Indeed, changes of government in both Italy and Greece failed to reduce bond yields for these countries to any great degree. The decisions taken at the EU and euro area Heads of State and Government Summit on 8-9 December also failed to improve sentiment, although the announcement of coordinated action by major central banks to enhance their capacity to provide liquidity support to the global financial system did have a positive effect. Sentiment was also improved by the announcement of additional credit support measures by the ECB on 8 December. Finally, actions taken by credit ratings agencies during the fourth quarter contributed to negative sentiment, with several euro area countries subject to downgrades and warnings. Reaction to Moody's announcement in October that France might be downgraded within three months had a particularly negative impact, as did S&P's warning on 15 EU sovereigns prior to the 8-9 December summit.

Equity Markets

Chart 9: International Share Price Indices (end-December 2009 = 100)



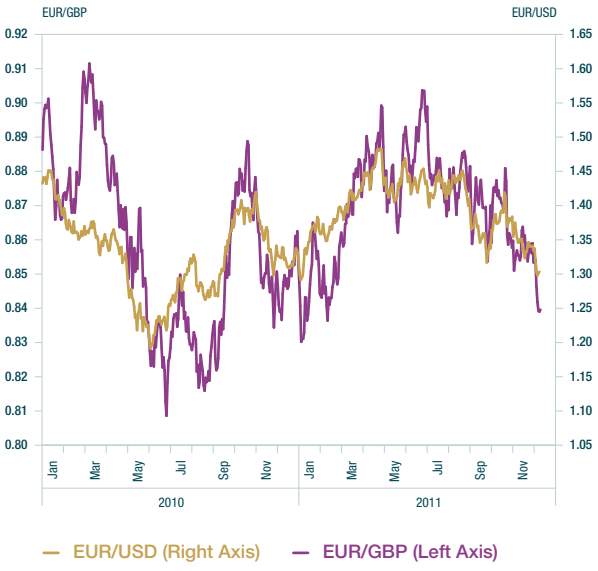
Source: Reuters EcoWin.

Euro area equity indices generally fell during the fourth quarter of 2011, whereas US indices rose slightly. This followed significant declines across global indices during the third quarter. Euro area financial stocks performed particularly badly, although they were supported by announcements of additional liquidity support from the ECB and other central banks in December. Implied volatility remained at high levels, indicating continued stock market uncertainty. As in other market segments, implied volatility levels were higher in the euro area than in the United States. Stock prices rose ahead of the meeting of euro area Heads of State in October but subsequently reversed sharply following the announcements from the Greek Prime Minister. Stock prices increased strongly in early December following central bank announcements to enhance the supply of liquidity.

Foreign Exchange Developments

The euro generally declined against other major currencies during the fourth quarter, despite some intra-period volatility that was mainly related to developments in the euro area sovereign debt crisis. Volatility in euro currency pairs remained at elevated levels. The euro appreciated quite sharply against the US dollar and Japanese yen in October, ahead of the euro area summit, and volatility in these currency pairs fell somewhat. These gains were reversed in late October and November as investor sentiment deteriorated, however. The euro fell below the USD 1.30 level in December amid negative reaction to the agreement reached at the EU and euro area Heads of State and Government Summit and on the back of safe-haven flows into USD-denominated assets. There were similar safe-haven flows into the Japanese yen, which appreciated sharply against the euro during the fourth quarter. The Swiss franc remained broadly unchanged against the euro, trading above the minimum exchange rate set by the Swiss National Bank in September.

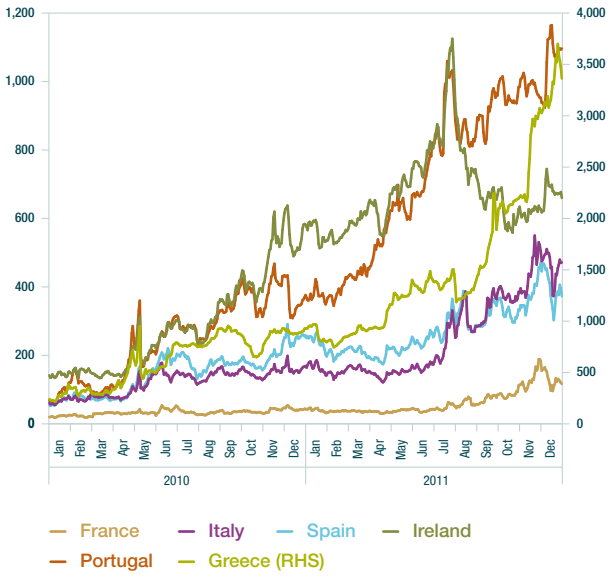
Chart 10: Euro Exchange Rates



Source: Reuters EcoWin.

Sovereign Debt Markets

Chart 11: Selected Euro Area 10-Year Sovereign Bond Yield Spreads over Germany (bps)



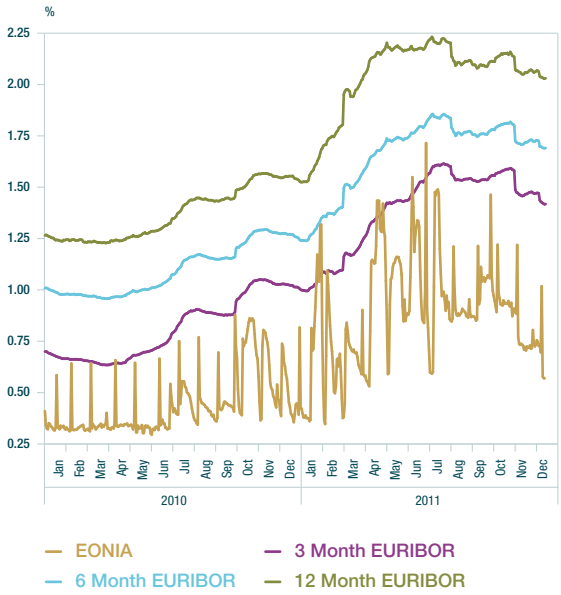
Source: Thomson Reuters Datastream.

Yields on AAA-rated long-term euro area sovereign debt increased during the fourth quarter of 2011, while comparable yields for US government debt decreased. Yield spreads over Germany increased for a majority of euro area countries, in particular for non-AAA-rated countries such as Italy and Spain. Other AAA-rated euro area sovereigns also saw a widening of yield spreads over German Bunds, while Germany itself experienced an increase in yield levels. At the same time, investor uncertainty over near-term bond market developments increased, as reflected in a further rise in implied bond market volatility for both the euro area and the US. In line with general market developments, yield spreads initially fell following the euro area Heads of State or Government meeting on 26 October but then rose markedly following the subsequent announcements by the Greek Prime Minister. Yield spreads and volatility failed to fall significantly when the referendum was subsequently called off or following the change of government in Greece and Italy. The decisions announced following the EU and euro area Heads of State and Government meeting on 8-9 December also did not lead to a significant reduction in yield spreads, despite some initially positive reaction

from analysts and investors. Negative credit rating actions for euro area sovereigns and banks contributed to this general increase in yields levels.

Money Markets

Chart 12: Selected Euro Area Money Market Interest Rates



Source: Reuters EcoWin.

Euro area money market interest rates generally declined during the fourth quarter of 2011, reflecting a cumulative 50bps reduction in the ECB's main refinancing rate. However, unsecured money market rates decreased only slightly amid ongoing tensions in bank funding markets. As a result of this, the spread between secured and unsecured money market rates increased further, implying heightened credit and liquidity risk in euro money markets. Volatility in money market rates also increased. As a result of this ongoing tension in bank funding markets, recourse to Eurosystem liquidity operations increased markedly during the fourth quarter. In an effort to support bank lending and liquidity in the euro area money market, the ECB announced additional enhanced credit support measures during the fourth quarter. These followed the announcement of coordinated action by major central banks to ensure the provision of liquidity to the financial system.

EU/Euro Area Summit 9 December

1. Introduction

This note summarises the main actions agreed by the Heads of State and Government at the EU/Euro Area Summit on 9 December, as well as the additional measures announced by the European Central Bank (ECB) on 30 November and 8 December and the European Banking Authority's (EBA) stress tests results for 71 EU banks, also announced on 8 December.

2. Background Information

The European Leaders' Summit on 9 December followed on from the EU/Euro Area Summits on 21 July and on 26/27 October this year. At the 21 July Summit, a number of measures were agreed to enhance the flexibility of the stabilisation tools, including the European Financial Stability Facility (EFSF) and the European Stability Mechanism (ESM). The measures agreed on 21 July allow for the EFSF and the ESM to intervene in secondary markets on the basis of an ECB analysis that identifies the existence of exceptional financial market circumstances and risks to financial stability. In addition, measures to support fiscal consolidation and economic governance in the euro area were discussed and the President of the European Council, in close cooperation with the President of the Commission and the President of the Eurogroup, were invited to make concrete proposals on how to improve crisis management in the euro area.

At the 26/27 October EU/Euro Area Leaders' Summit, a number of measures were agreed to improve and enhance the economic governance of the euro area, along with the strengthening of stabilisation tools including the leveraging of the EFSF. Agreement was also reached on an EU-wide bank recapitalisation programme. The Euro Area Leaders' Statement contained ten measures to strengthen economic policy coordination and surveillance within the monetary union.

At the 9 December EU/Euro Area Summit, EU Leaders agreed common and ambitious fiscal and budgetary rules, to be enshrined into a new legal framework, that will translate into stronger fiscal discipline and further economic integration for Member States.

3. EU/Euro Area Summit Agreement on 9 December

The aims of the EU/Euro Area Leaders' Summit on 9 December were twofold:

(i) To build on the progress made at the earlier summits in order to deepen fiscal integration in the EU and the euro area, including the strengthening of economic policy coordination; and

(ii) To discuss methods for the enhancement and development of stabilisation tools.

The Heads of State/Government released a statement on the morning of 9 December covering decisions in two main areas:

1. A new *"fiscal compact"*, including strengthened economic policy coordination and governance; and
2. Methods for the development of stabilisation tools.

These decisions will be implemented through an inter-governmental agreement[1] between the 17 euro area Member States, while EU Member States that have not adopted the euro will also have the option of signing the agreement.

The remainder of this section summarises the decisions outlined in the Leaders' Statement.

1 This will most likely take the form of an International Treaty.

3.1 A New "Fiscal Compact"

Balanced Budget

A number of measures were agreed to strengthen fiscal coordination in the euro area. Under the new fiscal compact, the general government budgets shall be balanced or in surplus, and the annual structural deficit should not exceed 0.5 per cent of nominal GDP. Member States will have to include this rule, together with *"an automatic correction mechanism in the event of deviation"* in their national legal systems.

Excessive Deficit Procedure

For countries with excessive deficits above 3 per cent of GDP, the European Commission will propose a calendar for convergence towards the reference level. For Member States which are in the Excessive Deficit Procedure (EDP) (i.e. have deficits above 3 per cent), they will have to get European Commission and Council endorsement for an economic partnership programme which will detail the necessary structural reforms to ensure an effectively durable correction of excessive deficits. The implementation of these programmes, and the associated budgetary plans, will be monitored by the European Commission and the European Council. Member States will also have to report *"ex ante …their national debt issuance plans"*.

In relation to the EDP procedures, as soon as a Member State is deemed by the European Commission to be in breach of the 3 per cent ceiling, there will be automatic consequences unless a large majority of Member States oppose it. The *"steps and sanctions proposed or recommended by the Commission will be adopted"* unless a qualified majority oppose it. In the case of the debt criterion, countries with a debt level above 60 per cent of GDP will have a numerical benchmark for debt reduction (1/20 rule) which will have to be enshrined in new legal provisions.

Stability and Growth Pact Measures

If the European Commission identifies serious non-compliance with the Stability and Growth Pact (SGP), it will request a revised draft budgetary plan. The Statement asserts that *"for the longer term, we will continue to work on how to further deepen fiscal integration so as to better reflect our degree of interdependence"*. The issue of non-compliance with the SGP and deeper fiscal integration will be addressed in a report to the President of the European Council, the Commission and the Eurogroup in March 2012.

Economic Policy Coordination and Governance

There will be *"more active use of enhanced cooperation on matters which are essential for the smooth functioning of the euro area"*. Work will also continue towards a common economic policy, and to ensure that this happens *"all major economic policy reforms planned by euro area Member States"* will be discussed and coordinated at the level of the euro area. Regular Euro Summits will be held at least twice a year.

3.2 Strengthening the Stabilisation Tools

European Financial Stability Fund (EFSF)

The European Financial Stability Facility (EFSF) leveraging options, as agreed by the Eurogroup on 29 November, are being developed. The objective of these financing arrangements is to increase the amount of EFSF resources available for loans to Member States, to fund bank recapitalisation and to purchase sovereign bonds in the primary and secondary markets. The two options being developed are:

- The EFSF would provide partial risk protection to new sovereign bond debt issued by Member States, the objective of which is to reduce funding costs.

- The creation of one or more Co-Investment Funds (CIF), which would allow the combination of public and private funding to be used. A CIF would purchase bonds in the primary and/or secondary markets.

European Stability Mechanism (ESM)

The objective for the European Stability Mechanism (ESM) treaty is for it to enter into force in July 2012. In the preamble of the ESM Treaty, it will state that with regard to the "involvement of the private sector" this *"will strictly adhere to the well established IMF principles and practices"*. The Statement also reiterated that the decisions taken on 21 July and 26/27 October concerning Greek debt were *"unique and exceptional"*. In relation to the ESM Treaty, *"standardised and identical Collective Action Clauses will be included, in such a way as to preserve market liquidity, in the terms and conditions of all new euro government bonds"*.

Furthermore, *"in order to ensure that the ESM is in a position to take the necessary decisions in all circumstances, voting rules in the ESM will be changed to include an emergency procedure. The mutual agreement rule will be replaced by a qualified majority of 85 % in case the Commission and the ECB conclude that an urgent decision related to financial assistance is needed when the financial and economic sustainability of the euro area is threatened"*. At the Summit meeting on 9 December, some Member States indicated that this requirement would need to be approved by their respective Parliaments.

Financial Resources – EFSF/ESM

With regard to financial resources, the combined lending capacity of the EFSF and ESM will be EUR 500 billion. The EFSF will remain active in financing EU programmes until mid-2013. The adequacy of the overall ceiling of the EFSF/ESM of EUR 500 billion will be *"reassessed in March 2012"*.

Bilateral Loans to the IMF

In relation to bilateral loans to the IMF, euro area Member States agreed to provide EUR 150 billion of additional resources in order to ensure that the IMF has adequate resources to deal with the crisis. Other non-euro area Member States are considering potential funding commitments to the IMF.

4. ECB Announcements

In addition to a reduction in the main refinancing rate from 1.25 per cent to 1.00 per cent, the ECB announced a range of additional non-standard monetary policy measures following the Governing Council meeting on 8 December. These measures are designed *"to support bank lending and liquidity in the euro area money market"*:

- Introduction of two longer-term refinancing operations (LTROs) with a maturity of 36 months, with counterparties having the option of early repayment after 12 months. These operations will be fully allotted at a fixed rate equal to the average rate of the main refinancing operation (MRO) over the life of the respective operation. The first operation was allotted on 21 December 2011, replacing the 12-month LTRO that had previously been announced. The total allotment amount was EUR 489 billion with 523 counterparties participating. Counterparties that had accessed the 12-month LTRO in October 2011 were permitted to shift these borrowings into the December operation.
- Increase of collateral availability, with new rules taking effect as soon as legal documentation is in place. More specifically, this involves an easing of credit rating criteria for certain asset-backed securities (ABS), while national central banks (NCBs) will allow bank loans meeting specific criteria to be used as collateral in Eurosystem operations, with the responsibility entailed in the acceptance of such loans borne by individual NCBs.

- Reduction of the reserve ratio from 2 per cent to 1 per cent, which took effect as of the maintenance period starting on 18 January 2012.
- Discontinuation of the liquidity-absorbing fine-tuning operations carried out on the last day of each maintenance period, which took effect as of the maintenance period starting on 14 December 2011.

It was further announced that the Governing Council decided that the ECB can act as an agent for the EFSF in its market operations.

On 30 November 2011, the Bank of Canada, the Bank of England, the Bank of Japan, the European Central Bank, the Federal Reserve and the Swiss National Bank announced coordinated actions to enhance their capacity to provide liquidity support to the global financial system. The purpose of these actions was to ease strains in financial markets and thereby mitigate the effects of such strains on the supply of credit to households and businesses and so help foster economic activity. The announcements consisted of a reduction in the pricing on the existing temporary US dollar liquidity swap arrangements by 50 basis points and an agreement to establish temporary bilateral liquidity swap arrangements so that liquidity can be provided in each jurisdiction in any of their currencies should market conditions so warrant. These actions have reduced the cost of accessing ECB US dollar-providing operations for euro area banks.

5. European Banking Authority's Stress Test Results

The European Banking Authority (EBA) published the results of its EU bank recapitalisation needs assessment on Thursday, 8 December. The stress test results were part of the broader coordinated European package, as agreed by the European Council on 26 October and confirmed during the ECOFIN Council on 30 November, to address the situation in the EU financial markets and to help restore confidence in the financial sector.

The EBA recommendation requires banks, via their national supervisory authorities, to strengthen their capital positions *"by building up an exceptional and temporary capital buffer against sovereign debt exposures to reflect market prices as at the end of September 2011"*. In addition, banks have been required to establish *"an exceptional and temporary buffer such that the Core Tier 1 capital ratio reaches a level of 9% by the end of June 2012"*, as announced in October 2011. The capital shortfalls identified are based on September 2011 figures. The capital buffers are intended to provide reassurance to markets about the banks' ability to withstand a range of shocks and still maintain adequate capital. The EBA determined that the aggregated capital shortfalls amounted to EUR 115 billion, which had been revised up from the EUR 106 billion estimated on 26/27 October.

Signed Articles

The articles in this section are in the series of signed articles on monetary and general economic topics introduced in the autumn 1969 issue of the Bank's Bulletin. Any views expressed in these articles are not necessarily those held by the Bank and are the personal responsibility of the author.

Short-term forecasting of quarterly gross domestic product growth

Joëlle Liebermann*

Abstract

Policy makers need to monitor and assess developments in the economy without complete information. For example, official statistics such as quarterly GDP are released with a lag. However, many other sources of information regarding developments in the economy such as monthly statistical releases and surveys become available in the interim and this information can be used to help predict the likely outturn for GDP. This article reviews a number of statistical tools used to extract the predictive element of these many sources of information for GDP and illustrates their application to the case of Irish economy.

* The author is an economist in the Economic Analysis and Research Department. The views expressed are solely the views of the author and are not necessarily those held by the Central Bank of Ireland or the European System of Central Banks. The author would like to acknowledge the helpful comments of Gerard O'Reilly and Terry Quinn.

1. Introduction

Monitoring and assessing the state of the economy is of paramount importance to policy-makers. However, they face the problem that official economic data are released with a publication lag, i.e., they are only available after the end of the period to which they pertain.

In particular, aggregate series such as quarterly gross domestic product (GDP), which is the most comprehensive measure of the state of the economy, is only released after the close of the reference quarter. In the case of Irish GDP, the Central Statistics Office (CSO) releases its first estimate for a given quarter between ten and eleven weeks after the end of the reference quarter. Nevertheless, in the interim period, many monthly conjunctural indicators become available which provide within-quarter information that can be used to give a more timely assessment of the current state of the economy and hence the likely outturn for GDP. Examples of such indicators include variables measuring the real and nominal side of the economy such as industrial production, retail sales, unemployment and prices data as well as financial variables and qualitative information such as measures of business and consumer sentiment.

Hence, prior to the official GDP release there is a constant flow of data that provides an increasing amount of information with respect to state of the economy in the reference quarter. The aim of short-term forecasting methods is to use such available high frequency information with respect to the reference quarter, and extract the predictive component from this large number of data series in order to obtain an early estimate of GDP growth. This estimate can then be updated as more information becomes available. Two classes of statistical models used for this purpose are bridge equations and factor model approaches and these are discussed in the article.

Incorporating this continual flow of information from a large number of sources into a prediction of quarterly GDP raises a number of difficulties. Standard regression methods are unable to handle a large number of explanatory/ predictive variables. This problem is known as the “curse of dimensionality”. Both methods discussed here circumvent the curse of dimensionality in the following ways. With respect to the bridge equation approach, a prediction of GDP based on each individual indicator is first estimated and then one averages over all the individual forecasts. Alternatively, in the factor model approach, one summarises the information contained in the monthly indicator variables regarding the state of the economy at the onset by using statistical techniques to extract the common factors from the set of indicators. These factors capture the co-movement or, common component, in the indicator variables and hence provide an efficient way of summarising this information. These factors are then used to forecast GDP.

The second issue is that the panel of indicator variables is unbalanced at the end of the sample, which is referred in the literature to as a “jagged” edge structure. This is a consequence of the fact that variables are released in a non-synchronous manner and with varying publication lags. For example, suppose at the end of December one wishes to use the panel to produce an estimate of fourth quarter GDP. At that point in time, only surveys and financial variables would be available up until December, whereas employment numbers and retail sales are only available up to November and industrial production is only available for October. Hence, at the end of December, the number of missing observations differs across the series. If one were to use a balanced panel, which means that all series would end in the same month, one would have to end the panel in October, which implies disregarding the available information on the fourth quarter pertaining to November and December. Exploiting this “jagged” edge structure is central to the short-term forecasting process since it enables one to use the most up-to-date information on the current quarter. Finally, each method must deal with a mixed frequency problem which entails linking monthly variables with quarterly GDP. Section 3 will explain how both of these approaches resolve these last two issues.

The tools discussed here are purely statistical models in the sense that they are not built on theoretically founded behavioural equations or accounting identities. Instead, they are based on time series analysis with the aim of exploiting the past predictive content of indicators for GDP in conjunction with their early release to construct an estimate of GDP prior to its official release.

The forecasting literature makes a distinction between an estimate of a variable of interest for a reference quarter made at different points in time. In particular, an estimate of GDP for a reference quarter made prior to that quarter is called a ***forecast*** while an estimate made during the reference period itself is called a ***nowcast***. Finally, an estimate made after the reference period is known as a ***backcast***, i.e., at that point one is predicting what happened in the past. In the rest of this article, we follow Bańbura, Giannone, and Reichlin (2011) and name all these successive estimates for a reference quarter as nowcasts as these authors define nowcasting as "the prediction of the present, the very near future and the very recent past".

In this article, we briefly review the statistical tools used to obtain short-term forecasts of GDP and illustrate their application to the case of the Irish economy. Such methods have initially been applied at the Central Bank of Ireland (CBI) by D'Agostino, McQuinn and O'Brien (2011) and since then these tools, as well as the range of the data used, have been expanded. Section 2 describes the panel of monthly predictors as well as the timing of information releases. Section 3 reviews the statistical tools used to produce an estimate of GDP. The empirical results are presented in Section 4 and Section 5 concludes.

2. The monthly predictors and the timing of information releases

The panel of variables used in this study includes the main quantitative official measures of economic activity such as industrial production, retail sales and the unemployment rate, amongst others. This type of data is commonly referred to as ***hard data*** in the forecasting literature as they are direct measures of economic activity. However, they are only released with a one or two month publication lag.[1] For instance, the official unemployment figures for October will only be known in the course of November, whereas October's industrial production figures will only become available in December.

In addition to the official quantitative indicators, forecasters also use qualitative assessments such as ***surveys*** which are available more promptly than hard data with such data usually released at the end or shortly after the end of the reference period. For example, the Purchasing Managers' Indices (PMI), produced by Markit Group, are a monthly survey of business managers, in their respective sectors, which assesses their perceptions regarding whether business conditions have improved, deteriorated or stayed the same relative to the previous month. These variables only reflect sentiment and/or expectations, and as such are referred to as ***soft data*** in the literature. Such qualitative information has been found to have some predictive content for GDP on its own but contain little information above and beyond the hard data. Hence, their usefulness for a real-time forecaster mainly comes from the fact that they are released prior to the hard data. Also included in the grouping of soft data are prices of traded ***financial*** securities such as interest rates and stock market indices, as the prices of these assets implicitly reveals information about financial market participants assessment of current and future economic conditions. Finally, given the very open nature of the Irish economy, both hard and soft data indicators for the US, UK and the euro area are

1 The exception is the terms of trade index which is released with a three to four month delay.

Table 1: The data set

Domestic side	Publication lag
– 3 month interest rate and stock market index*	0
– measures of businesses sentiment	0 to 1
– unemployment rate and persons on live registration	1
– retail sales, new vehicle registration and new house registration	1
– consumer prices indices and private sector credit	1
– industrial production, orders and turnovers	2
External side	
– EA euro coin indicator	0
– import and export demand**	0
– Euro to US dollar and UK pound exchange rate	0
– measures of businesses sentiment for the US, EA, UK and the world economy***	0 to 1
– US industrial production and retail sale, EA retail sales	1
– EA industrial production and new orders	2
– world industrial production	2
– terms of trade index	3 to 4

* These variables are sampled at the daily frequency, but are included in the models as monthly averages.

** Forecasts from the European Central Bank trade consistency exercise.

*** PMI Markit indicators.

also included. A total of 48 individual variables are used with a list of these monthly predictors, grouped by categories, along with their publication lags, are shown in Table 1 above.

Figure 1 further provides a stylised schematic representation of the timing of the different information releases pertaining to the fourth quarter of 2011. For simplicity, releases for the domestic economy are only shown. The upper part of the figure displays the dates while the lower part shows the flow of information released during the fourth quarter of 2011 and the first quarter of 2012. Furthermore, a colour is associated with each release to indicate which month of the quarter the release refers to. For example, the releases pertaining to October are all the same colour as the colour in which October is displayed in the upper part of the table.

At the end of October, the only information pertaining to the fourth quarter of 2011, are the surveys and financial data. At the end of November, soft data pertaining to the first two months of the quarter has become available alongside some partial hard data for October. Examples of latter include, unemployment (unemp), retail sales, credit and consumer price (cpi) data. Only in December does one start having current fourth quarter information for the hard data released with a two month publication lag such as industrial production (IP), turnovers (T/O) and orders.

At the end of March 2012, the CSO will release the first estimate of GDP for the fourth quarter of 2011. At any given point in time, prior to the official release, one can use the available high frequency information germane to the reference quarter to obtain an early estimate of GDP growth. Furthermore, this estimate taking into account the ongoing flow of information should get closer to the actual CSO outturn as more data pertaining to that quarter is revealed.

Figure 1: Timing of information releases pertaining to the fourth quarter 2011

4th quarter 2011			1st quarter 2012		
October	November	December	January	February	March
					→ $GDP_{q4-2011}$
surveys & fin.	*surveys & fin.*	*surveys & fin.*			
	unemp., cars houses retail sales credit, cpi	*unemp., cars houses retail sales credit, cpi*	*unemp., cars houses retail sales credit, cpi*		
		ind. prod. T/O, orders	*ind. prod. T/O, orders*	*ind. prod. T/O, orders*	

3. Overview of the statistical models/tools

The statistical tools used for producing short-term forecasts of quarterly GDP growth based on a panel of n – higher frequency (monthly), indicators shares a number of common characteristics. Firstly, since many variables have some predictive content for GDP, both methods make use of a large information set to forecast GDP. Secondly, given that these variables are released in a non-synchronous manner as well as with varying publication lags, the panel is unbalanced at the end of the sample and the data has a "jagged" edge structure. To illustrate this let's go back to the example of the previous section. At the end of December 2011, "soft data" would only be available up to that month, whereas for the "hard data" there would be one or two months missing, i.e. November and December, resulting in an unbalanced panel. Exploiting this "jagged" edge structure is key to the short-term forecasting process since it enables one to use the most up-to-date information on the state of the economy. Finally, each method must deal with bridging monthly variables with quarterly GDP.

As mentioned previously, two classes of statistical models used for short-term forecasting of GDP are the bridge equation and factor model approaches. In a nutshell, both methods can be seen as predictive equations which aim to estimate GDP growth in a given quarter, Y_q, using the value of a predictor, Z_q, in that same quarter:

$$Y_q = \alpha + \beta Z_q + \varepsilon_q \qquad (1)$$

In the bridge equation (BE) framework, Z_q refers to the quarterly aggregate of one of the monthly indicators. However, given publication lags, this variable may not be available for the whole quarter and has to be forecasted over the remainder of the quarter using univariate time series methods.[2] For example, let us assume that in the middle of the second month of the quarter one wanted to obtain an early estimate of GDP based on the unemployment rate. Since the latter is only available for the first month of the quarter at that point in time, one would first need to forecast the indicator for the remaining two months to obtain a quarterly estimate and plug that estimate into equation (1) to derive a nowcast of GDP.

Iterating over this procedure for the n indicators in the panel, one would then obtain n nowcasts of GDP. Note that since the coefficients in equation (1) are estimated with ordinary least squares, one could not include all variables at once in the equation. First, this is feasible only if the number of predictors is smaller than the time dimension over which the equation is estimated. Secondly, even when the former condition holds, but the number of predictors is large, the parameters will be estimated very imprecisely resulting in poor nowcasts. This problem is known as the

2 We follow common practice in the literature and forecast the series using an autoregressive process of order p.

"curse of dimensionality". To circumvent this problem for the bridge equation approach, one summarises the information on GDP available in the panel, by averaging over these n individual predictions to obtain the final GDP nowcasts.[3] Different weighting schemes can be used for this purpose, e.g. assigning an equal weight to each individual indicator or different weights according to some statistical criteria. The latter method is used at the Central Bank, where the weights are inversely proportional to the past forecasting performance of the individual series for GDP.[4] Therefore, higher weight is given to indicators which have been found to have a higher predictive content for GDP.

The dynamic factor model (DFM) used at the Central Bank is based on the work of Giannone, Reichlin and Small (2008). In their model, one first extracts $r \ll n$ factors from the set of the n monthly indicators. These factors are the linear combinations of the monthly variables which explain the largest proportion of the total variation in the data. The factors capture the co-movement or common component in the underlying monthly variables providing an efficient and parsimonious way of summarising the information about the state of the economy for the whole set of indicators. As such, the problem of the "curse of dimensionality" is dealt with at the onset. To obtain monthly factors over the quarterly relevant horizon, these factors also need to be forecasted. The DFM produces efficient forecasts of these factors using their own dynamics as well as all of the available, albeit unbalanced, information by means of a statistical tool known as the Kalman filter and smoother. Lastly, these r quarterly factors are used simultaneously as regressors in equation (1) to obtain a GDP nowcast.[5] A more detailed description of this model is given in Box 1. We estimate the model, and hence produce a GDP nowcast, over a range of specifications. To guard against model instability, the final GDP estimate is then obtained by averaging over the 10 percent best performing specifications.[6] This choice is motivated by Aiolfi and Timmermann (2006) who found strong evidence of persistence among the groups of best forecasting models.

BOX 1: The dynamic factor model

Let X_t^i denote the month t value of an indicator i and $i = 1 \ldots n$. The n x 1 vector of stationary monthly predictors X_t is assumed to follow a dynamic factor structure. In such a model, each variable is represented as the sum of two orthogonal unobserved components: a common and an idiosyncratic component. The common component is driven by a small number $r \ll n$ of unobserved common factors that account for most of the co-movement among the variables and hence provide information on the state of the economy. The idiosyncratic component, for its part, is driven by variable-specific shocks.

The model can be written as:

$$X_t = \chi_t + \xi_t = \Lambda F_t + \xi_t \quad (2)$$

where χ_t is a n x 1 vector of common components, F_t is a r x 1 vector of common factors, Λ is the n x r matrix of the factor loadings, and ξ_t is a n x 1 vector of idiosyncratic components. Equation (2) links the unobserved factors to the observed variables, with the additional assumption that the idiosyncratic components are cross-sectionally orthogonal white noises:

$$E(\xi_t \xi_t') = \psi = diag(\psi_1, \ldots, \psi_n) \quad (3)$$

$$E(\xi_t \xi_{t-s}') = 0, \forall\, s > 0 \quad (4)$$

3 An alternative would be to estimate a bridge equation using shrinkage estimators, which is currently work in progress.

4 This weighting scheme was chosen as it was found to perform better than alternative schemes.

5 In that case Z_q is a vector of dimension r consisting of the r factors.

6 For a given specification one has to choose the number of static and dynamic factors as well as the lag length of the factors dynamics (see box 1).

BOX 1: The dynamic factor model

The factors' dynamics are specified as a vector autoregression (VAR) of order p:

$$F_t = A_1 F_{t-1} + \dots A_p F_{t-p} + Bu_t; \quad u_t \sim WN(0, I_q) \tag{5}$$

where $A_1, \dots, A_p$ are r x r matrices of autoregressive coefficients, B is a r x q matrix of rank q, u_t is the q dimensional white noise process of common shocks and it is further assumed that the stochastic process for F_t is stationary. It is also assumed that these shocks, u_t, are orthogonal to the idiosyncratic components, ξ_t:

$$E(\xi_t u'_{t-s}) = 0, \forall s \tag{6}$$

Finally, to deal with the missing observation at the end of the sample, i.e. the "jagged" edge structure of the panel, it is assumed that:

$$\psi_t^i = \begin{cases} \psi^i \text{ if } X_t^i \text{ is available} \\ \infty \text{ if } X_t^i \text{ is not available} \end{cases} \tag{7}$$

The estimation method is the two-step estimator of Doz et al. (2011a). In a first step, the factors are extracted using principal components from a balanced panel, i.e truncating the panel at the last month for which all variables are available. Using this factor as initial estimates one estimates all the parameters of the model described by equations (2)-(7). In the second step, the model is cast in the state space form, replacing the parameters by their consistent estimates obtained from the first step, the factors are re-estimated recursively by means of a statistical tool known as the Kalman filter and smoother. Given the assumption on the variance of the idiosyncratic component, the Kalman filter will put a zero weight on missing observations when updating the factors. Furthermore, Doz et al. (2011b) show that by iterating on the two-step estimator one obtains quasi-maximum likelihood estimates.

4. Empirical results

4.1. Data revisions

GDP is revised after its initial release, which raises an issue regarding the choice of which GDP vintage one should use as the appropriate target to evaluate the performance of the models. The latest revised GDP release can be thought of as a closer approximation to the true level of activity in the economy, but it includes benchmarks and others revisions, which a forecaster in real time cannot anticipate.

Chart 1 displays quarter on quarter GDP growth, for both the first released (real-time data) and final revised data for both Ireland and the US.[7] As is evident from the chart, the Irish economy is much more volatile compared to the US economy. Moreover, the average absolute size of revisions to Irish GDP is 1.3 percent compared to 0.3 percent for the US. Very large revisions occurred at the start of current downturn with fourth quarter GDP growth in 2007 and 2008 being revised upwards by 4.2 percent and 3.8 percent respectively[8] while the first and second quarters of 2008 were revised downwards by 2.1 percent and 1.6 percent respectively. Quill (2008) found that the component which contributes the most to GDP revisions is net exports and that a factor contributing to such large revisions is the impact of large multinational companies who frequently change their trading arrangements and structures. This factor could also contribute to the relative large volatility of Irish data.

7 These figures represent non-annualised quarter-over-quarter GDP growth.

8 However, as documented by Quill (2008), in relative terms (i.e. relative to the volatility of growth) the Irish economy would rank in the middle of his panel of OECD countries. Over the sample studied here, we find that relative mean absolute revisions to Irish and US GDP are of the same order of magnitude.

Chart 1: GDP outturns: real-time (first released) and revised (last released)

Sources: CSO and ALFRED database of the St.Louis Federal Reserve Bank.

Given the substantive differences between revised and real-time GDP, nowcasting results are reported for both vintages. Ideally to perform such an exercise, one would also like to have real time and revised data for the panel of monthly indicators.[9] However, since no real-time database is available for Ireland, a final revised dataset is used. It should be borne in mind that such data should be more correlated with revised GDP than its first release counterpart.

4.2. Nowcasting Results

This section presents the out-of-sample performance for nowcasting quarter-over-quarter real GDP growth from the third quarter 2006 to the second quarter 2011. The models are estimated recursively with observations starting in February 2001. For each quarter, six nowcasts are produced using information available at the end of a month, starting from the third month of the previous quarter up to the second month of the subsequent quarter. At each point in time, a nowcast is computed replicating the data availability faced by a forecaster in real time, hence, incorporating the pattern of missing information due to publication lags. However, since revised data for the panel of monthly indicators as available in September 2011 is used instead of the data as available to a real-time forecaster, the exercise is so called ***pseudo real-time***.

Model performance is evaluated using a statistical measure used in the forecasting literature known as the mean square forecast error statistic (MSFE) which is defined as follows:

$$MSFE_j = \frac{1}{Q}\sum_{q=1}^{Q}(GDP_q - \widehat{GDP}_{q,j})^2$$

where q indexes the quarter, GDP_q refers to actual GDP growth reported by the CSO in a given quarter, and $\widehat{GDP}_{q,j}$ is model's j nowcast. Hence, the greater the accuracy of the model the lower will be its mean square forecast error.

The upper part of Table 2 displays the different models performance relative to a standard naïve benchmark. The latter model is commonly used in the forecasting literature and simply forecasts GDP as the average growth witnessed over the last four quarters. Hence, this benchmark doesn't incorporate any information that may become available to the forecaster about the reference quarter. Each entry in the table shows the ratio of the

9 Concerning the soft data, only financials data are not revised, whereas surveys undergo only relatively small revisions, which are mainly due to revisions to seasonal adjustment factors.

Table 2: Relative MSFEs

Relative MSFEs: model versus benchmark

target:	real-time GDP		revised GDP	
	DFM	BE	DFM	BE
3rd month of previous quarter	0.89	0.91	0.82	0.84
1st month of reference quarter	0.89	0.79	0.74	0.76
2nd month of reference quarter	0.66	0.71	0.66	0.68
3rd month of reference quarter	0.62	0.75	0.65	0.66
1st month of next quarter	0.60	0.76	0.57	0.68
2nd month of next quarter	0.60	0.73	0.47	0.68

Relative MSFEs: model versus model at the end of the previous quarter

target:	real-time GDP		revised GDP	
	DFM	BE	DFM	BE
3rd month of previous quarter	1.00	1.00	1.00	1.00
1st month of reference quarter	0.99	0.86	0.91	0.91
2nd month of reference quarter	0.74	0.78	0.81	0.81
3rd month of reference quarter	0.70	0.83	0.77	0.77
1st month of next quarter	0.68	0.84	0.68	0.79
2nd month of next quarter	0.68	0.81	0.56	0.79

Sources: Central Bank of Ireland own calculations, Datastream and Markit Group.

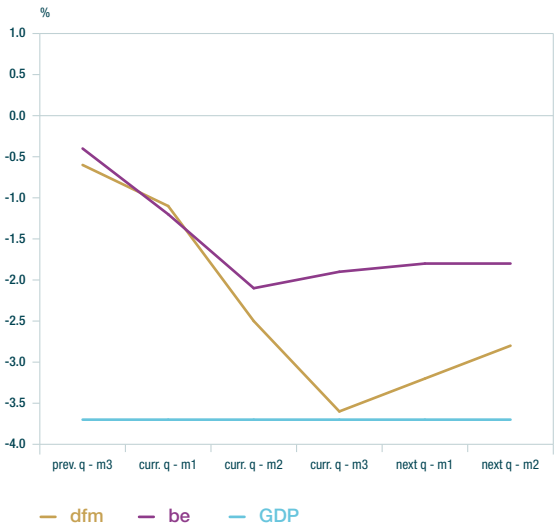
model's MSFE to that of the benchmark at a given date. For both the bridge equation (BE) and dynamic factor model (DFM), all entries are below unity, indicating that the nowcasts are better gauges of the state of the economy on average, than the benchmark. Hence, exploiting the information provided by the high frequency releases helps provide a better estimate of GDP growth ahead of its official release.[10] In addition, the dynamic factor model always performs better than the bridge equation approach and that the models relative performance is greater when using revised GDP as target.

The lower part of Table 2 further displays the average gains in nowcasting accuracy for each model along the real-time data flow. That is, for each model, the corresponding column shows the ratio of MSFEs at a given date relative to its MSFE at the end of the third month of the previous quarter when no information on the reference quarter is yet available. For both nowcasting approaches, the accuracy of the estimates increases significantly as more information becomes available regarding the reference quarter. By the end of the reference quarter, the gain in nowcasting accuracy is of the order of 20 to 30 percent. As more "hard data" on the reference quarter becomes available during the next quarter further increases in accuracy of up to around 40 percent for the dynamic factor model are evident.

To further illustrate the importance of exploiting monthly releases to obtain an early estimate of current quarter GDP, Chart 2 shows the evolution of nowcasts made for the fourth quarter of 2008, which was the worst quarter of the recession. When the first nowcast was made, at the end of the third quarter of 2008, the model suggested that growth would be close to zero. This is the estimate of GDP growth obtained without using any reference quarter information. As high frequency information on the fourth quarter of 2008 became available, the updated nowcasts were strongly revised downwards, with the DFM consistently pointing to lower growth than from the BE.

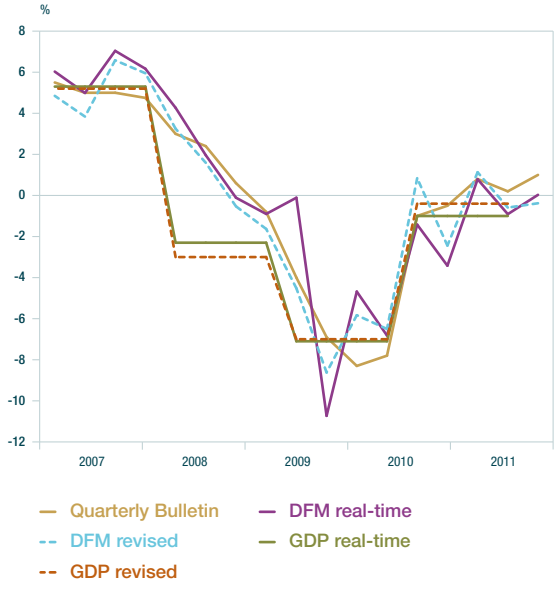
10 Note that qualitative similar results are obtained if one uses an autoregressive process for GDP as a benchmark.

Chart 2: Evolution of GDP nowcasts for the fourth quarter of 2008



Sources: Central Bank of Ireland calculations, Datastream and Markit Group.

Chart 3: Average yearly growth



Sources: Central Bank of Ireland calculations, Datastream and Markit Group.

Up to now we have presented the models results for nowcasting, i.e. short-term forecasting. These models can also be used to forecast quarters further ahead with respect to the current quarter and in practice are used to forecast up to the end of the current year to obtain an estimate, i.e. nowcast, of average yearly growth.[11] Indeed, once per quarter, the CBI publishes the bank forecast for yearly growth for the current year in its quarterly bulletin. This is mainly based on the expert judgment of its economists, but is complemented and cross checked using the model based nowcasts. Chart 3 below displays these yearly nowcasts since 2007 as published in the four successive quarterly bulletin (QB) along with the DFM model based nowcasts. These purely model based nowcasts move in general closely to the experts ones, however the latter are smoother as they can make judgemental adjustments.

5. Conclusion

The long publication lags in the quarterly national income accounts data imply that policy makers in real-time do not know exactly the current state of the economy, as measured by quarterly GDP growth. Indeed, the data for a reference quarter are only released at the end of the next quarter. Hence, to monitor and assess the current economic situation, they have to rely on more timely higher frequency information to obtain an early estimate of GDP growth. To complement and cross check existing expert judgment of economists monitoring the many potential predictors for GDP, short-term forecasting models are used. These tools rely on past historical relationships observed in the data and don't posit any underlying behavioural relationships. They have the advantage that they can be automatically updated as new information pertain to a reference quarter is released. This article has reviewed the statistical tools used in central banks for that purpose and illustrated their application to the case of the Irish economy as used at the CBI. The results show that exploiting the information for the reference quarter provided by the high frequency releases helps at obtaining a more precise estimate of GDP growth ahead of its official release.

11 A yearly growth rate for a given year is approximately a weighted average of quarter-over-quarter growth in the previous and current year.

References

Aiolfi M. and Timmermann, A. (2006). Persistence in forecasting performance and conditional combination strategies. *Journal of Econometrics*, 31-53.

Angelini, E., Camba-Méndez, G., Giannone, D., Rünstler, G. and Reichlin, L. (2011). Short-term forecasts of euro area GDP growth. *The Econometrics Journal*, 14-1, C25-C44.

Bańbura, M., Giannone, D. & Reichlin L. (2011). Nowcasting, in Michael P. Clements and David F. Hendry, editors, *Oxford Handbook on Economic Forecasting*.

Barhoumi, K., Benk, S., Cristadoro, R., Den Reijer,A., Jakaitiene, A., Jelonek, P., Rua, A, Rünstler, G., Ruth, K. and Van Nieuwenhuyze, C. (2009). Short-term forecasting of GDP using large monthly datasets: a pseudo real-time forecast evaluation exercise. *Journal of Forecasting*, 28(7), 595-611.

D'Agostino A., McQuinn K. and O'Brien D. (2011), Now-casting Irish GDP. Journal of *Journal of Business Cycle Measurement and Analysis*, forthcoming

Doz, C., Giannone, D. & Reichlin, L. (2011a). A two-step estimator for large approximate dynamic factor models based on Kalman filtering. *Journal of Econometrics*, vol. 164(1), pages 188-205.

Doz, C., Giannone, D. & Reichlin L. (2011b). A Quasi Maximum Likelihood Approach for Large Approximate Dynamic Factor Models. *Review of Economics and Statistics*, forthcoming.

Quill, P. (2008). An Analysis of Revisions to Growth Rates in the Irish Quarterly National Accounts. ESRI *Quarterly Economic Commentary*, Autumn 2008.

Giannone, D., Reichlin L. and Small D. (2011). Nowcasting: The real-time informational content of macroeconomic data. *Journal of Monetary Economics*, 55, 665-676.

Liebermann, J. (2011). Real-Time Nowcasting of GDP: Factor Model versus Professional Forecasters. Research Technical paper 03/RT/11, Central Bank of Ireland.

The Irish Mortgage Market: Stylised Facts, Negative Equity and Arrears

Gerard Kennedy and Tara McIndoe-Calder[1]

Abstract

This paper uses loan-level data from the residential mortgage books of four Irish credit institutions, as at December 2010. The focus of the paper, is to provide an overview of the structure and condition of these housing loan books. This includes a description of borrower categories, interest rate profiles, repayment structures, property types, arrears accruals and the regional distributions of these loan and borrower characteristics across Ireland. Because it is possible to secure more than one loan on an individual house, we distinguish the number of properties underlying the residential mortgage book. Additionally we combine the data with house price data in order to generate estimates on the amount of housing equity in the Irish mortgage market. We focus on the properties in negative equity, in particular. Our findings suggest that approximately 31 per cent of mortgaged properties, representing over 47 per cent of the mortgage books' outstanding loan balances were in negative equity at the end of 2010. Of the mortgaged properties in negative equity, 8 per cent had also accrued more than three months worth of arrears on their mortgage loans.

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1. Introduction

In early 2011 loan loss assessments under conservative, base and stressed case scenarios were carried out on the loan books of four Irish credit institutions.[2] The results of which were used in the Prudential Capital Assessment Review (PCAR II) exercise to calculate the level of capital required to stablise the Irish banking sector. Together with details of the future deleveraging of the Irish banks, these were published in the Financial Measures Programme (FMP), in March 2011. As part of the process, detailed loan level data covering residential mortgages, corporate, small and medium enterprise (SME), corporate real estate (CRE) and non-mortgage consumer lending was gathered on the credit portfolios of the institutions involved.

The focus of this paper and a topic of considerable interest given the high number of mortgage borrowers in arrears on their loans, is the condition of the residential mortgage books. Loan and borrower characteristics, as well as arrears data are all examined in detail. The regional distribution of the data is also considered. Because it is possible to secure more than one loan on an individual property, a particular effort is made to distinguish the number of properties underlying the residential mortgage book. There is also a focus on the 'distressed' Irish mortgage holders identified in the data.[3]

By mid-2011, Irish house prices were almost 43 per cent below their peak levels of early 2007.[4] The substantial fall in residential house prices since 2007/8 has meant that a number of households find themselves owing more on their mortgage than their properties are worth, i.e. these borrowers hold mortgages that are in 'negative equity'. Although far from ideal, holding a mortgage in negative equity is not necessarily an issue for those who can continue to meet their mortgage obligations.[5]

Instead, in Ireland,[6] it is borrowers who face employment and other income shocks who are most at risk of going into arrears on their mortgage repayments as their ability to pay becomes impaired (Lydon and McCarthy, 2011). Current levels of employment are high in Ireland at 14.2 per cent (Central Statistics Office, 2011b). The joint incidence of arrears and negative equity affects the options available to borrowers and lender that would be available in the absence of negative equity. This joint arrears and negative equity incidence is thus of considerable concern to policy makers, especially as regards housing market policy, financial stability and consumer protection.

With this in mind, the timely provision of the loan-level data offers a valuable opportunity to inform analysis of the Irish mortgage market and the level of arrears distress and negative equity amongst borrowers. Moreover, it can be used to inform micro and macro prudential regulation, with a view to improving financial stability outcomes going forward.

The main contributions of this paper are threefold; to present a detailed characterisation of the Irish mortgage market; to estimate a precise profile of (negative) equity in the Irish mortgage market; and to examine how the loan-level data might be used to arrive at a greater understanding of the interaction between delinquent mortgage loans and the scale of equity in the properties securing these loans.

The paper is structured as follows: Section 2 describes the information available in the loan level dataset and the initial cleaning to which the raw data were subjected. A set of summary statistics and stylised facts are provided in Section 3. The arrears profile of the mortgage data is examined in Section 4. The issue of (negative) equity, its relevance and estimation are discussed in Section 5 while

2 The Financial Measures Programme (FMP) institutions are Allied Irish Bank (AIB), Bank of Ireland (BoI), The Educational Building Society (EBS) and Irish Life and Permanent (IL&P).

3 Where distress is defined as non-performing mortgages, i.e. those with outstanding arrears balances.

4 See Central Statistics Office (CSO) Residential Property Price Index, July 2011 (Central Statistics Office, 2011b).

5 There may be some exceptions, for example, if the mortgage holder wishes to move house, because it has become unsuitable for the purpose required (raising a family), or they are offered a job in another part of the country, etc.

6 These factors may differ by country, for example, Ludwig and Slok (2002).

5.4 outlines the joint incidence of arrears and (negative) equity in order to gauge the extent to which Irish borrowers are both distressed and in negative equity. The final section (6) suggests avenues along which future work may proceed and draws conclusions on the work presented here.

2. The Data

In this section we motivate and describe the loan-level data in relation to other available information on the Irish housing market. We also detail the borrower, property and loan characteristics of interest to the current paper and discuss the cleaning carried out on the data prior to its analysis. Finally, we outline the two primary dimensions, i.e., loan- and property-level, on which we examine the data in the remainder of the paper.

2.1 Irish Housing Market Data

Statistics from the PTSB/ESRI the Department of the Environment, Community and Local Government (DoECLG), the Irish Banking Federation (IBF) and the Central Bank of Ireland (CBI) have, to date, been the primary data sources used for analysis of the Irish housing market.[7] However, a commonly noted issue with these data sources are their aggregate nature, i.e., the limited availability of individual loan-level data, and the fact that the coverage, methods of collection and methodology of calculation can vary substantially, depending on the source. More recently, responses to the Survey of Income and Living Conditions (SILC) have been used to analyse the Irish housing market, for example, McCarthy and McQuinn (Forthcoming) and Kelly et al. (2011). There are, however, some important drawbacks to the SILC, for example, scale, timeliness and the absence of information on the purposes of mortgage loans, i.e., investment properties (buy-to-lets (BTLs)), second homes, or holiday homes.

The loan-level data used in this paper overcomes many of these issues, providing a rare insight into the nature and growth of activity in the Irish housing market throughout the house price and credit 'boom' years and their aftermath. It is a micro level dataset which is made-up of 689,250[8] individual loans taken from the residential mortgage books of the four FMP institutions as of 31 December 2010. The data contains information on the loans both at a point in time (31 December 2010) and also some information gathered at their origination. This 'snapshot' information aspect of the data needs to be kept in mind when interpreting the analysis that follows.

For each loan there are approximately 50 separate data fields which provide information on the borrower, loan terms, characteristics of the properties, interest rate information, performance of the loan, level of arrears and borrower, property and loan identification codes. The principle categories and fields available are presented in Table 1, this is by no means an exhaustive list, but rather highlights the fields used in this paper's analysis.

2.2 Data Cleaning

In general, the data quality both between and within each institution's return, is good. However, where variables, key to at least basic analysis of each loan in the data were missing, for example, Property Identifier, Original Valuation, Original Valuation Date and Geographic Location these loans were dropped. Also, as mortgages located outside the state are not examined in this paper, the loans secured on properties located in other jurisdictions, i.e., the UK and USA were also omitted.[9]

7 The statistics available from these sources include: house prices (from PTSB/ESRI); house prices, number and value of approvals, average loan terms, loan to value (LTV) ratios, type of properties purchased, status of borrowers and properties, completions, registrations, planning permissions, etc. (from the DoECLG); new mortgage approvals (the IBF) and residential mortgage credit and interest rates (CBI).

8 Numbers and values of aggregate loans and properties are generally rounded to three significant digits for the remainder of the paper.

9 To the extent that this data may be of importance to other analyses, details on the observations that have been removed from the data at this early stage are available.

Table 1: Subset of the Loan-Level Data Fields

Category	Loan ID	Borrower Information	Loan Information
Fields	Bank Identifier	Loan Purpose	Loan Origination Date
	Borrower Identifier	FTB Flag	Original Loan Balance
	Property Identifier	RIL Flag	Duration of Loan Terms
		Income Verified	Monthly Payment Due
		Borrower Credit Quality	Outstanding Balance Due
			Purpose of Loan
			Payment Type

Category	Property Information	Interest Rate Information	Performance Information
Fields	Geographic Location	Current Interest Rate	Arrears Balance
	New or Existing Property	Interest Rate Type	Arrears Balance 1-12 Months ago
	Property Type	Current Interest Rate Margin	Loan Modification/Forebearance Flag
	Original Valuation	Interest Rate Revisionary Date	Monthly Payment Due
	Original Valuation Date	Borrower Credit Quality	Outstanding Balance Due
	Original LTV		Payment Type

Source: Loan-level Data (December, 2010).

Table 2: Data Cleaning

	Number of Loans	Value of Loans
All Loans, pre-cleaning	688,156	97,240,000,000
Property Identifier, missing	10,094	1,372,000,000
Loans located outside of Ireland	747	57,300,000
Loans not denominated in EUR	5	800,000
0.25% of the highest and lowest house prices removed	4,748	2,259,300,000
Original Valuation, missing	35,044	3,811,000,000
Original Valuation Date, missing	15,413	1,020,000,000
Geographic Location, missing	18,628	2,091,300,000
Total Loans excluded	84,780	10,611,700,000
Remaining Loans	603,376	86,628,300,000
Remaining Properties	475,136	86,628,300,000

Source: Loan-level Data (December, 2010).

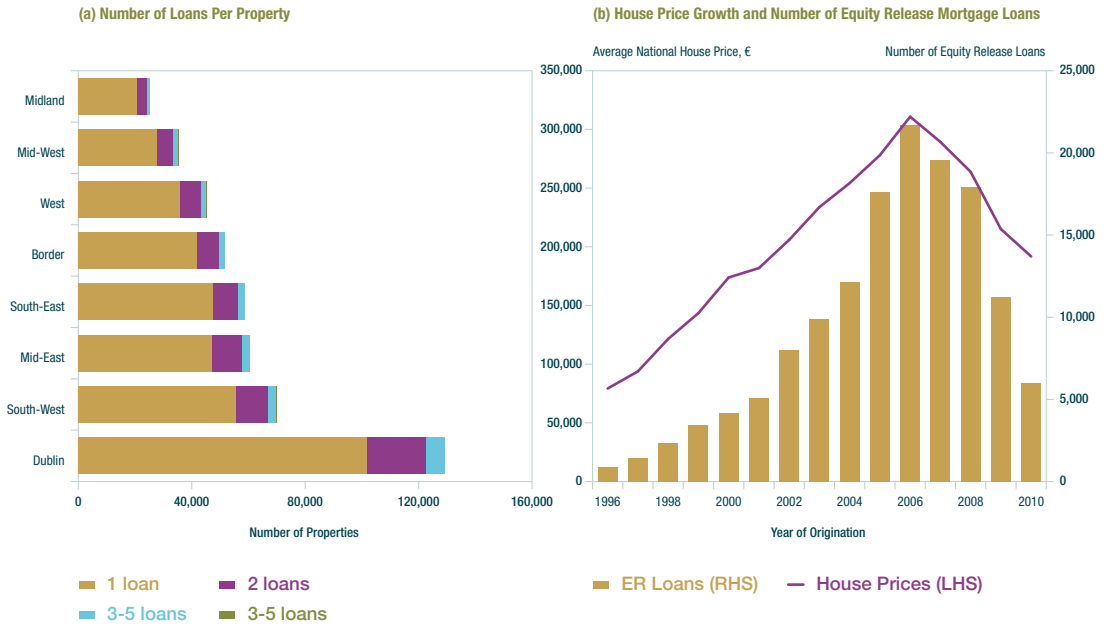
Table 2 shows that following this 'cleaning' process, the details of 88 per cent of the original number of loans, with an outstanding balance of just under €87 billion, as at December 2010, remain in the dataset. Nevertheless, it is on this cleaned subset of loans that the analysis presented below is based. This sample represents a substantial portion of the country's total outstanding residential loans, indeed Central Bank of Ireland (2011b) shows that at the end of December 2010 786,164 mortgage loans remained outstanding in Ireland, these were worth approximately €117 billion.[10]

2.3 Number of Unique Properties, Loan Origination and Property Location

The mortgage market's characteristics including mortgages in arrears and/or those in negative equity, can be examined at either

10 It must be noted that this CBI figure does not include BTL loans. For comparison, the loan-level figures, net of the BTL market segment, constitute 521,000 loans valued at €68 billion, i.e., approximately 60 per cent of the national figure at the end of 2010.

Figure 1: Properties with Multiple Loans



Sources: Loan-level Data (December, 2010), Permanent TSB/ESRI (2011).

the loan, property or borrower level. While all three levels of analysis provide useful insights, it is the loan- and property-level analyses that we focus on here. Thus, the loan-level analysis facilitates a characterisation of loan attributes, both are required when examining mortgage distress (arrears accruals) and the property level analysis is most useful when exploring negative equity. This is motivated by the fact that when a credit institution initiates foreclosure proceedings, the asset against which one or several loans are secured is non-divisible, i.e. part of the asset cannot be repossessed in order to realise the arrears balance on a subset of all the loans secured against the property.

With this in mind, the loan-level data shows that 21 per cent of the loans in the sample were obtained on properties against which at least one other loan was already secured. This shows that second homes, investment properties and equity release products to fund, for example, home improvements, education, etc, were an attractive option for many Irish households. Several factors enabled householders to access the equity which had built up in their homes through various equity release products offered by financial institutions. The first of these factors was the increasingly liberalised Irish mortgage market. The second was the strong growth in house prices from the mid-1990s onwards. And the third was the role of the available credit risk infrastructure, for example, banks may be unable to identify a borrower's total outstanding debt where this is held across several credit institutions and where comprehensive national credit registers are not available.

Figure 1a illustrates the regional location and number of properties with multiple loans, of which there are 97,800. The vast majority of these properties, 78 per cent, act as collateral for one extra loan, while a further 16 per cent have two subsequent loans in addition to the original mortgage loan. Remarkably the figures show that 622 properties in the sample have at least 6 loans secured against them, with six properties being used as security for 10 or more loans. The prevalence of equity release loans is greatest in 2006 at almost 23,000 loans, although there are over 10,000 loans still outstanding from loans originating in each year between 2004 and 2009. The increase in equity release loans correlates highly with the growth in house price in the mid-2000s (see Figure 1b).

Table 3: Number of Loans, Properties, Outstanding Balance, by Loan and Borrower Characteristics

	No. of Loans	No. of Properties	Outstanding Balance (€ Billions)
Regional Distribution			
Border	63,619	51,415	7.61
Dublin	166,946	129,393	30.11
Mid-East	77,992	60,458	11.70
Mid-West	45,154	35,168	5.37
Midland	31,134	25,178	3.86
South-East	72,914	58,561	8.85
South-West	88,494	69,847	11.98
West	57,123	45,116	7.15
Buyer Type			
FTB	164,266	159,926	27.22
Trade UD &S wtich	206,747	187,191	30.62
RIL	82,577	74,785	18.22
ER	142,342	47,359	9.86
Property Type			
Detached	234,997	187,612	31.49
Terraced	79,264	69,151	13.37
Semi-Detached	165,313	138,654	25.23
Apartment	48,630	42,985	10.79
Interest Type			
Fix	89,248	75,784	13.36
Track	252,269	206,366	46.75
Var	258,795	189,929	26.02
Payment Type			
IO	67,652	54,654	16.66
P&I	532,937	417,882	69.67
Total	603,376	475,136	86.63

Source: Loan-level Data (December, 2010).

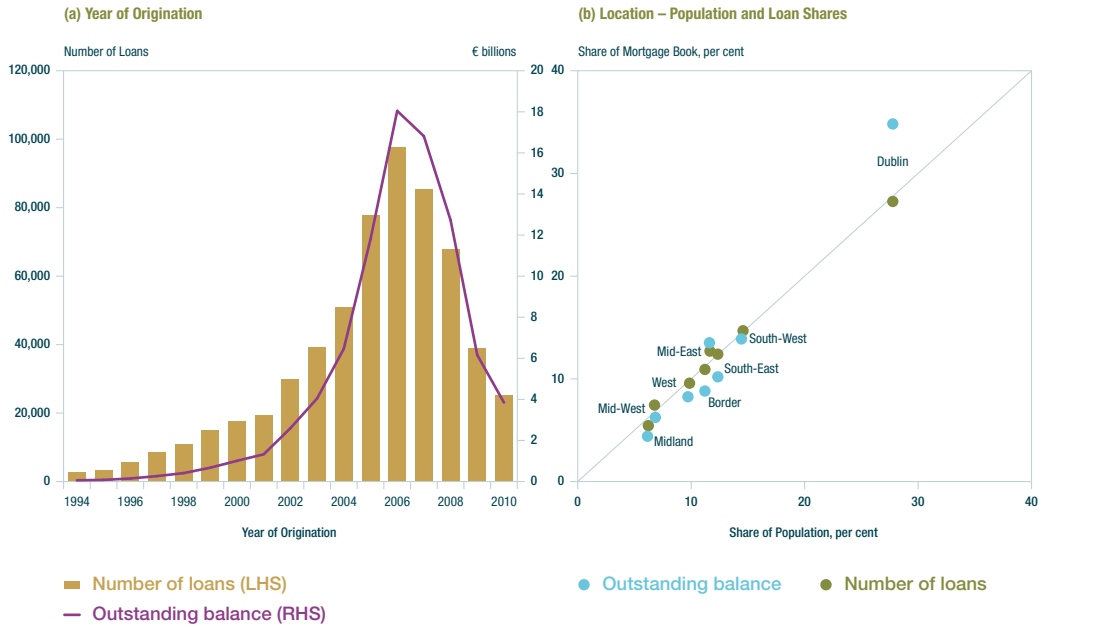
NUTS3 Regions: Border – Cavan, Donegal, Leitrim, Louth, Monaghan, Sligo; Dublin – city, county; Mid-East – Kildare, Meath, Wicklow; Mid-West – Clare, Limerick; Midland – Laois, Longford, Offaly, Westmeath; South-East – Carlow, Kilkenny, Tipperary, Waterford, Wexford; South-West – Cork, Kerry; West – Galway, Mayo, Roscommon.

3. Loan, Property and Borrower Characteristics

In this section we describe the categories of borrowers, repayment structures, interest rate profiles and arrears balances of the loan-level data. Mortgage origination, property location and property characteristics are also examined. Due to the relatively small number of surviving loans from the years prior to 1994, most of the summary statistics begin with loans originating from 1994 onwards[11] and focus on the number of mortgage loans, the number of mortgaged properties and the outstanding balance on the mortgage loans. For reference, Table 3 lists the aggregate figures by loan, property and outstanding balance relating to the distributions of the major borrower and loan characteristics described below.

11 The year 1994 was chosen as it predates the generally accepted beginning of the housing boom in 1995/1996. In addition, this is also the first year with at least 1,500 annual observations, and at least 100 annual observations in each of the eight NUTS3 regions into which the loan book has been divided. It is hoped that a minimum of 100 observations per region per year goes some way to alleviating the potential for small numbers of observations to drive the results described in this paper.

Figure 2: Loan-Level Data – Number, Outstanding Balance & Location



Sources: Loan-level Data (December, 2010) and Central Statistics Office (2011a).

3.1 Loans: Number, Outstanding Balance and Location

The number of mortgages still outstanding in the loan-level data, and the corresponding outstanding balance of these, by year of origination is shown in Figure 2a. In general, the trend in the number of mortgages originated in each year (left hand axis) mirrors that of the value of mortgages still outstanding (right hand axis), peaking at just over €18 billion and accounting for almost 98,000 individual loans in 2006. The data clearly demonstrates the widely noted expansion of activity in the property sector and the large increase in credit growth between the early and mid 2000s (for example, Kelly et al. (2011)). This is in contrast to the contraction in mortgage credit which has subsequently occurred. Although 2006 was the peak year in terms of lending activity, the average current outstanding balance for loans originating in 2007 (€197,000) and 2008 (€187,000) exceeds that of 2006 (€185,000). Furthermore, while the numbers of loans issued decreased after 2006, the average size of these loans continued to increase in 2007, before declining in 2008, 2009 and 2010.[12]

Figure 2b plots the regional distribution of the number and outstanding balance of mortgage loans against regional population shares from the 2011 Census. In general the regional shares, in terms of both number of mortgages and outstanding balance, match population shares well (falling close to the 45 degree line). However, in Dublin the value of outstanding mortgages is significantly higher than that region's share of the population might suggest. This correlates with the fact that house price rises seen in Dublin over the past decade were higher than the national average (Permanent TSB/ESRI, 2011), with implications for the average loan size in Dublin in comparison to other areas. For example, Dublin accounts for 35 per cent of the country's loan-value but only 27 per cent of all loans. In addition, almost half the outstanding balance of the loan book is concentrated in a relatively small geographical area within Leinster, if the three counties of the Mid-East (14 per cent) are taken into account. Further, the average outstanding balance on loans in the capital at €181,000 far exceeds the National average of €144,000 and the next highest regional figure of €150,000 in the Mid-East.[13] On the other hand, the

12 The average size of the original mortgage loans in the data range from €208,000 in 2006 to €214,000 in 2007 and down to €201,000 in 2008.

13 The region with the lowest average outstanding loan figure is the Mid-West with €119,100.

outstanding balance of mortgage loans in the Border, South-East and Midlands falls below what would be predicted by those regions' population shares. This may also correlate with relative price movements in these areas.[14]

3.2 Borrower Categories, Repayment Profile and Interest Rates

In order to analyse both the potential impact of interest rate changes and the potential for lenders to apply forbearance to the loans of those borrowers experiencing mortgage repayment difficulties, it is important to identify the borrower categories, loan repayment terms and interest rate types that the mortgages in the data are subject to.

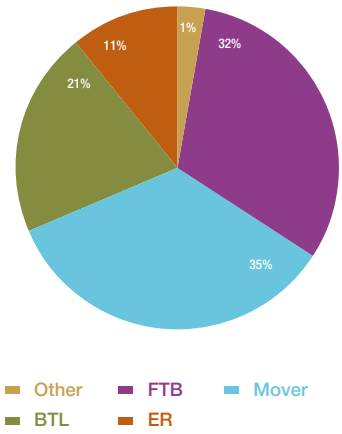
3.2.1 Borrower Categories

In the data it is possible to identify the purpose or borrower-type for each loan. The principal borrower groups by number of loans are:

1. Movers, 207,000;
2. First-time buyers (FTBs), 164,000;
3. Equity release, 142,000; and
4. Buy-to-lets (BTLs), 82,600.[15]

Figure 3 details the portion of the data's outstanding balance made up by the different buyer categories. With a 35 per cent share, those who secured a mortgage in order to move home are the largest category by both number of loans and outstanding balance, followed by first-time buyers (FTBs) with 32 per cent of the total outstanding balance. Whereas equity release loans account for 24 per cent of the loan-level data these loans account for just 10 per cent of the outstanding balance at the end of 2010. Typically these loans were for home improvements, deposits on investment properties or holiday homes etc. As such they were smaller than the mortgages secured to fund a property purchase these have a smaller amount owing in general.

Chart 3: Loan Purpose – Outstanding Balance



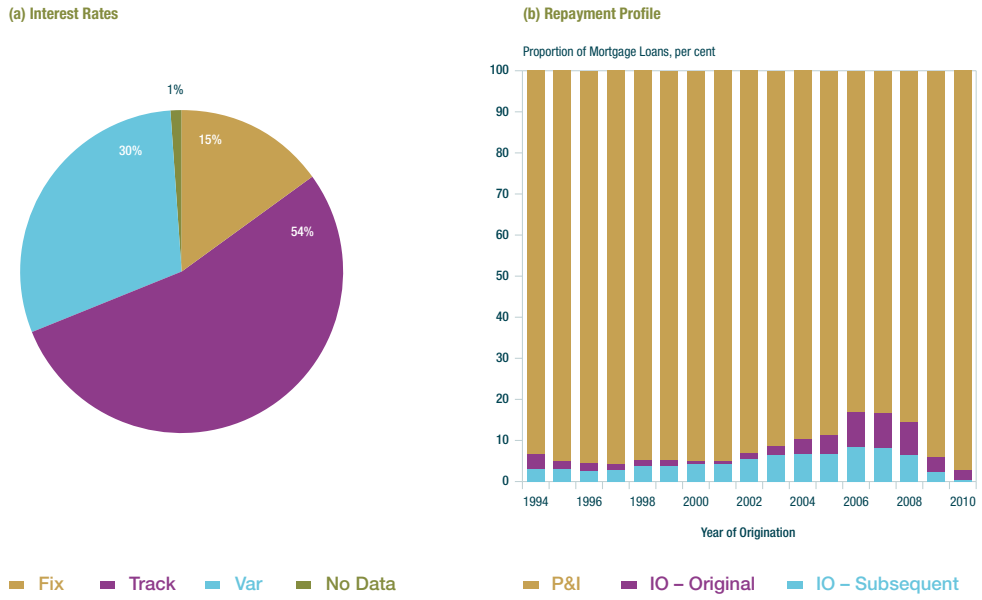
Source: Loan-level Data (December 2010).

The distribution of loans between buyers by year of origination sees a significant increase in the number of BTL mortgages issued after 2003. For example, in each year between 1994 and 2003 BTL mortgages accounted for, on average, 6 per cent of all loans in the data, between 2004 and 2008 this rose to 17 per cent. This reflects the increase in property purchases for rental and/or investment purposes that was a feature of the market in Ireland for much of the past decade. The average outstanding loan balance for BTL borrowers is higher than that of Mover or FTB borrowers. For example, on average the outstanding balance on BTL loans that originated between 2004 and 2008 is €244,000 whereas for Movers and FTBs over the same period, the average outstanding balance is €179,000 and €207,000, respectively. This is driven, in part, by the high numbers of BTL loans initially issued on an interest only (IO) basis, see below.

14 Regional house price indices (HPIs) are not available in Ireland, however, Central Statistics Office (2011b) does give some evidence of these regional patterns using, for example, Dublin and non-Dublin HPIs.

15 A further 7,000 do not have borrower category information identified in the data.

Figure 4: Interest Rate and Payment Types – Outstanding Balance



Source: Loan-level Data (December, 2010).

3.2.2 Interest Rate

In terms of outstanding mortgage balance, 54 per cent is made up of loans subject to tracker interest rates, 30 per cent is accounted for by variable interest rates and 15 per cent by fixed interest rate contracts (Figure 4a).[16] The dominance of tracker-rate mortgages is to be expected given that 85 per cent of all tracker mortgages were issued between 2004 and 2008 when house prices were at elevated levels. At a time of relatively low European Central Bank (ECB) policy rates, the attraction of tracker rate mortgages for the borrowers who hold them is clear. However, these products carry adverse profitability considerations for the Irish financial institutions who hold them, given that their funding costs have increased significantly since 2008.

The contraction in mortgage lending, the removal of tracker rate mortgage products by Irish financial institutions and the decline in house prices over recent years, have coincided with an increase in the share of fixed rate mortgages issued, particularly in 2009 (30 per cent) and 2010 (50 per cent).[17] Given the present uncertainty in the economy concerning affordability generally, this development may reflect an attempt by borrowers to insulate themselves against the possibility of interest rate movements in the coming years.

3.2.3 Repayment Profile

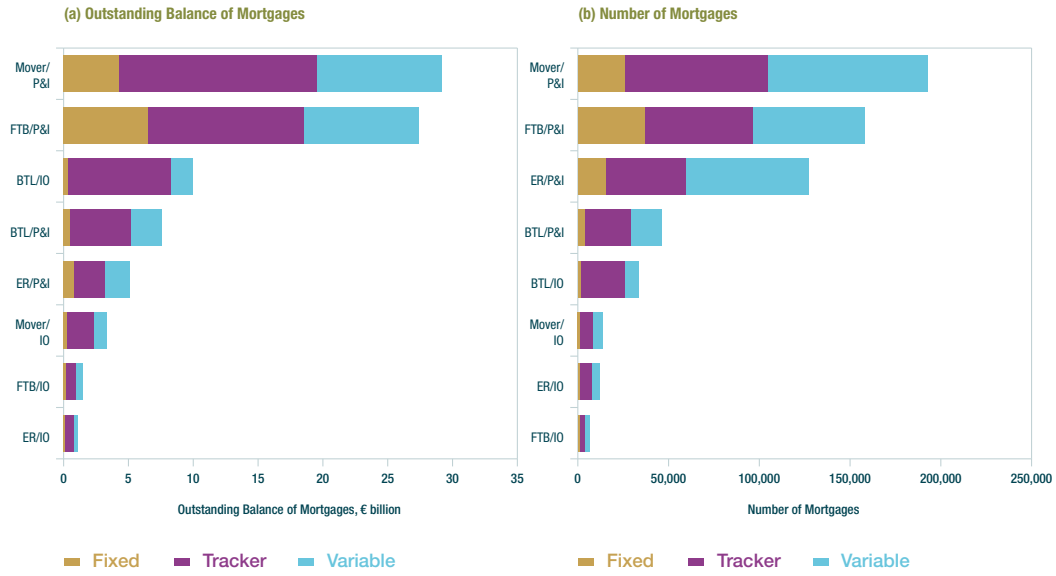
Overall, approximately 68,000 of the outstanding loans in the sample, with an outstanding balance of €16.7 billion, are on interest only (IO) terms. However, the repayment profile of a loan is subject to change over its lifetime, i.e., a loan which starts off on IO terms will, at some stage, change to repayment of both principal and interest (P&I)[18] alternatively, for example, in cases where a distressed borrower is granted forbearance, the reverse may occur. Where a mortgage is identified as IO at the end of 2010, the original terms of the contract are checked to verify whether it began as a P&I loan but has subsequently switched to IO repayments only.

16 There are over 3,000 loans in the data which do not indicate an interest rate type.

17 Although these shares are based on low numbers of issued mortgages.

18 This is true as the principal must also be paid at some point during the lifetime of the mortgage.

Figure 5: Intersection of Buyer, Repayment and Interest Rate Types



Source: Loan-level Data (December, 2010).
Note: interest only (IO), principal and interest (P&I).

Identifying the factors behind the mortgages with IO payment arrangements is a crucial part of the analysis of this characteristic. That is, IO mortgages may have been issued in the expectation of improved borrower circumstances in the medium term, i.e., income levels, which would improve the affordability of their repayments as the initial IO repayment arrangements were replaced by P&I repayment terms. Alternatively, perhaps borrowers experiencing difficulty meeting mortgage repayments in recent years have been offered forbearance by their lender whereby they switch from repaying both the principal and interest to only the interest on their loans which results in lower, more affordable repayments. However, the lack of borrower specific information, i.e. income, makes these reasons difficult to prove empirically at present. The loan-level data allows us to verify whether loans originated on IO terms, or switched to these terms later, perhaps as a result of arrears distress, some time after the mortgage was issued.[19]

Figure 4b maps the arrangement of IO and P&I repayment types by year of origination, across mortgages on the loan books of the four FMP institutions. P&I contracts are by far the most common across all years. Nonetheless, there is steady growth in the share of borrowers with IO contracts, particularly on mortgages written between 2003 and 2007. In fact, the loan-level data show that 48 per cent of the 54,000 IO loans secured between 2004 and 2008 originated as such. This implies that the remainder, including 19,000 loans issued between 2006 and 2008, had the original terms of their mortgages altered subsequent to the loan's issuance.

Of the 68,000 loans being repaid on IO terms at the end of 2010, BTL mortgages account for the highest proportion of both those that originated on IO repayment terms (21,000 or 70 per cent) and those that switched to these terms some time after the loan was issued (13,000 or 35 per cent). Of the mortgages that switched to IO terms, rather than being issued on IO terms, Movers and FTBs account for 28 per cent and 14 per cent, respectively. This is an increase of 3.12 and 4.67 times the number of these borrowers whose loans originated on IO terms.

19 Loans originating as IO are identified where current and original loan balances are similar, taking arrears balances into account. Other common forms of forbearance include term extensions, repayment holidays or interest rate reductions.

Figure 6: Loan Term and Original Loan to Value Ratio

Source: Loan-level Data (December, 2010).

3.2.4 Intersection of Buyer, Repayment and Interest Rate Types

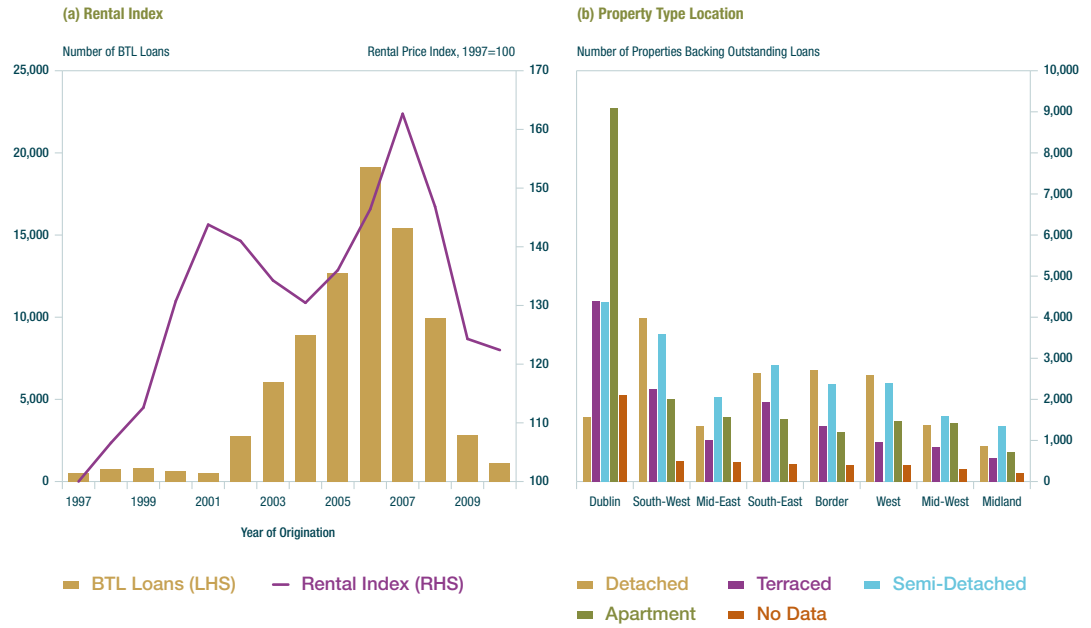
A greater understanding of the structure of the aggregate mortgage book can be established by examining the intersection of the categories examined in isolation above. For example, borrowers potentially vulnerable to interest rate increases or those with loan contracts that limit the menu of available forbearance options can be identified. Figure 5 groups borrower by type and repayment profile and indicates the share of mortgages within these categories by interest rate type. The vast bulk of the mortgage data is made up of Movers and FTBs on P&I contracts, i.e., 66 per cent of the outstanding balance (Figure 5a). Within these groups approximately three quarters of the FTBs are on variable or tracker interest rates that make them susceptible to interest rate movements. The corresponding figure for Movers on P&I contracts is 85 per cent.

Throughout the house price and credit boom, credit institutions introduced a number of IO products aimed at residential investors (Doyle, 2009). The consequences of these initiatives are also evident in Figure 5b. Of the 80,000 BTL mortgages for which repayment information is available it is possible to identify 34,000 mortgages, or 5.6 per cent of the total, which are written up on an IO basis. Indeed, over 51 per cent of outstanding IO mortgages were drawn down for BTL purposes. In terms of outstanding balance, BTL-IO loans constitute a larger portion, 11.6 per cent or almost €10 billion, than suggested by their share of all loans in the data. Across the data, tracker and variable interest rate loans account for 85 per cent of all loans, however, for BTL-IO borrowers this figure is over 96 per cent. There is also potential for mortgage distress among these borrowers, given the BTL-IO market segment's exposure to interest rate risk.

3.3 Loan to Value Ratios and Loan Terms

Figure 6a examines original loan to value (LTV) ratios, i.e., the LTV ratio on origination of the mortgage loan. The distribution of mortgages with original LTV ratios of under 0.80 shifts from 77 per cent in 2000 to just 56 per cent in 2006. Although just 2 per cent of mortgages had LTV ratios of over 0.94 in 2000, by 2006 this had increased to 15 per cent. This change in the distribution of LTV ratios reflects the bank-led competition for mortgage market share through the introduction of higher LTV mortgages from 2003 onwards (Honohan, 2010). While this may have allowed increasing numbers of borrowers to enter the housing

Figure 7: BTL Mortgages



Sources: Loan-level Data (December, 2010) and Central Statistics Office (2010).

market, high LTV ratios during periods of high house prices leaves borrowers with low housing equity buffers should house prices begin to fall. This, in turn, reduces the options for loan forbearance should borrowers fall into arrears distress.

Loans originating between 2004 and 2008 had loan terms 12 per cent higher, on average, than those issued outside of this time period (Figure 6b). The average loan term in the data on mortgages originating between 2004 and 2008 is 26 years, with over 73,000 mortgages with loan terms of 35 or more years. This is an additional constraint on borrowers seeking forbearance and is a further example of the type of mortgage market innovations introduced over this time period.

3.4 Property Type

The data provides details on the type and year of construction of the properties used to secure home loans, investment loans and equity release loans. This information is also useful in describing the nature of the relationship between property-type and buyer-group, specifically whether certain buyers tend to opt for particular properties.

For example, nationally, 71 per cent of FTBs' loans are secured against a detached or semi-detached property. However, this varies regionally from just 38 per cent in Dublin to 88 per cent in the Midlands. This could be a result of both the dominance of detached and semi-detached properties where there is less population density, i.e., outside of Dublin, and the relative affordability of terraced houses and apartments, in comparison to other property types, in Dublin at the height of the house price boom.

Figure 7 explores the dynamics and housing preferences of the BTL borrowers, the primary loans of which are secured on 16 per cent of all properties in the sample. Figure 7a shows that there was not a substantial increase in the number of BTL borrowers entering the market to coincide with the upturn in rental prices which occurred in the late 1990s.[20] However, in the early 2000s, at a time when the rental index was actually falling, the number of BTL loans began to rise steadily. This trend continued, reaching a peak of c. 20,000 BTL loans in 2006, as the decline in rents reversed and the increase in house prices continued, unabated, during the middle years of the decade. Both rental prices and numbers of new BTL mortgages fell sharply from 2007

20 This may have been due to supply-side constraints.

Table 4: Level of Arrears in the Loan-Level Data

	Number of Properties	Number of Loans	Value of Arrears, €Bn	Value of Outstanding Balances, €Bn
Arrears	63,371	74,236	0.43	12.84
Arrears – 90DPD	24,011	29,991	0.36	5.47

Source: Loan-level Data (December, 2010).

onwards. There is a relatively even split between the property types BTL borrowers have tended to opt for across the regions (Figure 7b). The exception is Dublin, where apartments account for 46 per cent of the properties on which the primary loan is a BTL. The prevalence of apartments amongst Dublin based BTL borrowers, given the sharper than average decline in the price of these units in the capital, may have implications for mortgage distress in this market segment going forward.

4. Loan Arrears

This section describes the arrears profile of residential mortgage loans in the loan-level data at the end of 2010. Specifically we explore the relative arrears levels of particular segments of the mortgage market taking into account the interest rate and repayment characteristics of these loans.

An obvious signal that a mortgage borrower is in distress is when their loan is in arrears. This situation will arise where the borrower is unable to make the monthly repayments on one, or any, of the loans they have secured against a property. Table 4 details the mortgage loans which are in arrears in the loan-level data. At the end of 2010 over 74,000 loans in the data exhibited some level of arrears, these are secured on 63,000 properties. The mortgages owing on properties securing loans in arrears account for almost 15 per cent of the outstanding balance, of the FMP institutions' mortgage books. In addition, 24,011 households are in the more serious situation of being at least 90 days-past-due (90DPD), with an accumulated €360 million in arrears repayments by 2010Q4.

The large number of properties with at least some accrued arrears raises concerns as to the future performance of these loans. For example, work by McGuinness (2011), Lydon and McCarthy (2011) and Kelly (2011) examine the profile of arrears, the associated loan characteristics and factors leading to arrears distress over time in the Irish mortgage market and the future probability of default figures for these loans, respectively. In addition, figures are presented in this paper, which detail the extent to which 90DPD arrears and negative equity, an indicator of additional borrower distress,[21] co-exist.

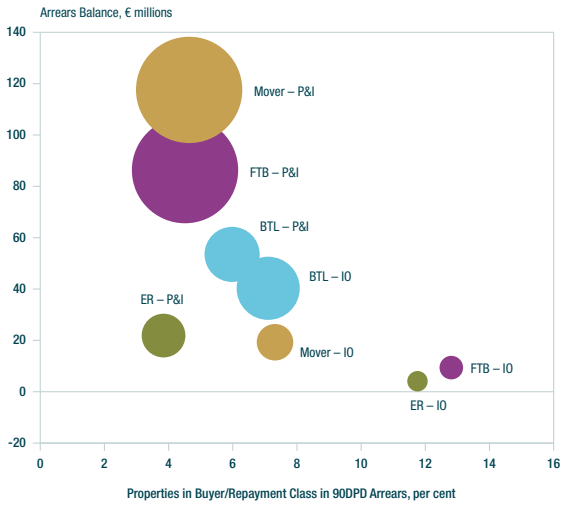
Figure 8 investigates the breakdown of the 90DPD total arrears balance (€360 million) in terms of the buyer and repayment type. In the chart, the size of the coloured disks indicates the relative weighting of each buyer-repayment-class, in terms of the total outstanding balance of the mortgages in loan-level data (€87 billion).[22] Together P&I and IO Movers account for 38 per cent of the total arrears balance of borrowers in 90DPD,[23] whilst the equivalent FTB and BTL borrowers account for 26 per cent and 25 per cent, respectively. The proportion of the properties associated with each group in 90DPD arrears is indicated on the X axis. The share of distressed Mover, FTB and BTL borrowers who are repaying both P&I components of their loans is relatively low, between 4 and 6 per cent. Meanwhile, the proportion of borrowers in these categories repaying interest only and also more than 90 days in arrears is markedly higher. Over 7 per cent of properties where the primary loan is a BTL-IO are more than 90DPD on their total mortgage commitments, while the figure for FTB-IOs is even higher at 13 per cent.

21 In general, borrowers in arrears and negative equity have limited options for forbearance on their loans.

22 I.e. where the primary mortgage on a property is taken out by a borrower in this buyer-repayment class.

23 Movers on P&I contracts account for €118 million and Movers on IO contracts account for €19 million of the €360 million in outstanding arrears balances for those borrowers who are at least 90DPD.

Figure 8: Relative Market Size, Incidence of Arrears and Arrears Balance of Borrowers in 90DPD



Source: Loan-level Data (December, 2010).

5. Housing Equity

A mortgage is said to be in negative equity when a decline in the value of the house against which the loan is secured exceeds the combined buffer of:[24] the initial equity in the house (determined by the original LTV ratio); the equity built up in the property due to any house price appreciation that occurred after the mortgage drawdown; and any reduction in the principle due to repayments made since the loan's origination.[25]

Since the collapse in Irish house prices from late 2006, a significant percentage of outstanding Irish mortgages are considered to be currently in negative equity (Duffy, 2010; Lyons, 2010). Not only will negative equity have an impact on the financial position of the individual householder, it may be important because of its potential influence on wider economic considerations such as consumption. However, establishing these linkages is challenging and seems to be dependent on the countries and time periods considered (Ludwig and Slok, 2002).

Negative equity can also have implications for the stability of a country's financial system if it is correlated with mortgage distress. CBI statistics show that just over 51 per cent (€141 billion) of the four FMP institutions' mortgage loan books are comprised of residential mortgages. Irish mortgages make up about 70 per cent (€98 billion) of these, or 36 per cent of total loans.[26] Trying to determine the scope of potentially large impairments on the Irish banks' balance sheets was a motivating factor behind the extensive 2011 bank recapitalisation announced in the FMP.[27]

5.1 Calculating Housing Equity in the Irish Mortgage Market

The presence, or otherwise, of negative equity is determined by the difference between a property's current market value and the outstanding value of the mortgage securing it, otherwise known as the current LTV. Current LTVs of over 100 per cent signify that a loan is in negative equity whereas a ratio below this threshold indicates that the borrower retains a degree of positive equity in their home. Until recently, the absence of comprehensive, loan-level data on original house prices and valuation dates has frustrated efforts to estimate the value of Irish housing equity for mortgaged households precisely.[28] However, as it provides details of both, the loan-level data helps overcome this issue.

We calculate the amount of equity in a property by applying the change in house prices,[29] as measured by the PTSB/ESRI house price index (PTSB/ESRI-HPI),[30] to the original house price value and then comparing this estimated current house price to the outstanding mortgage on the property.

24 For example, Ellis (2008); Hellebrandt et al. (2009).

25 I.e. negative equity exists when the current market value of a property falls below the outstanding balance of the mortgage used to secure it.

26 Data as at 31st December 2010 (Central Bank of Ireland, 2011a).

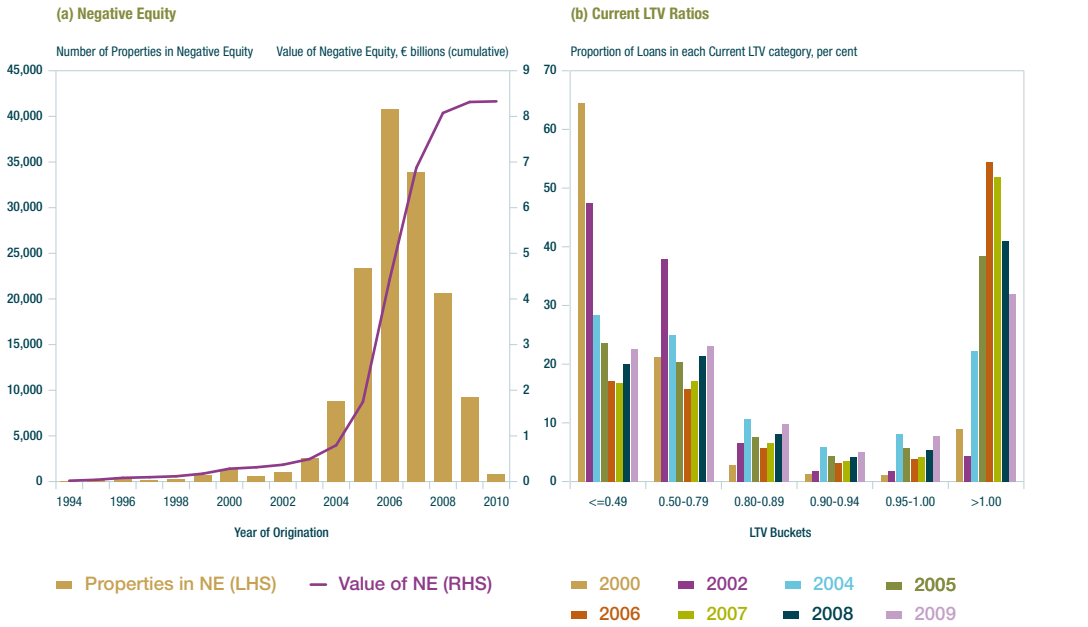
27 As were concerns relating to the ability and willingness of the banks to undertake further lending given anticipated additional impairments.

28 Duffy (2010) and Lyons (2010) have estimated negative equity using alternate methodologies.

29 That is, the fall in house prices that has occurred between the property's valuation date and the end of 2010.

30 As the most widely used house price index (HPI) since the mid 1990's, the estimates are calculated using the PTSB/ESRI index.

Figure 9: Negative Equity and Current LTV Ratios, by Loan Origination



Source: Loan-level Data (December, 2010).

The process is complicated somewhat by the fact that multiple loans have been taken out on some properties. Should these loans, and the properties on which they are secured, be recorded separately, there is a danger of double counting, as the loans could be treated as being on two separate properties.[31] This would introduce downward bias in the negative equity estimates. As a result, the focus of the remainder of the paper is on the number of properties in the loan-level data (475,000) and their total outstanding balance, rather than the number of loans.

5.2 Estimates of Negative Equity

The value of each of the 475,000 individual properties in the loan-level data at the end of 2010 was estimated using the PTSB/ESRI average national HPI, which at that point was down 38 per cent from its 2006Q4 peak. Next, the difference between these estimates and the outstanding balance of the loan(s) secured on them was calculated. Accordingly, the figures suggest that approximately 145,400 of the properties, against which loans are secured in the loan books, with an outstanding balance of €41 billion (representing 175,000 loans) were in negative equity at 2010Q4. This represents 31 per cent of the sample's properties, and 47 per cent of their outstanding balances.

The total outstanding balance of these mortgages exceeds the amount of equity they represent by €8.3 billion (Figure 9a). The vast majority (88 per cent) of the original loans on these properties were written between 2004 and 2008, with over 51 per cent taken out in either 2006 or 2007. Furthermore, these loans account for 62 per cent of the of the aggregate negative equity figure. There are also substantial differences in the average size of negative equity per household, depending on the year the mortgage was originated, i.e., the 2007 figure (€72,000) is more than twice that of the 2004 figure (€34,000). Cumulatively, 29 per cent of the loans, by volume (47 per cent by loan-value), from our sample are associated with properties in negative equity. This is to be expected given the large house price declines to the end of 2010 and the high number of properties purchased when prices were at their peak, between 2005 and 2008.

31 The value of the property could be counted twice against an initial mortgage and a top up, where as in reality it would be the value of the house when the top up was originated which is relevant.

Table 5: Sensitivity of Negative Equity Calculations to Further House Price Falls

% Negative Equity in Properties	% of Properties	% Positive Equity in Properties	% of Properties
>100	0.37	1-10	8.11
91-100	0.06	11-20	7.37
81-90	0.09	21-30	7.1
71-80	0.13	31-40	7.23
61-70	0.3	41-50	6.86
51-60	1.53	51-60	6.93
41-50	3.32	61-70	7.07
31-40	4.81	71-80	7.1
21-30	5.71	81-90	6.85
11-20	7.03	91-100	4.49
0.1-10	7.55		

Source: Loan-level Data (December, 2010).

In Section 3.3, Figure 6a provides a breakdown of original loan values by LTV-bucket across a number of years. Figure 9b, however, illustrates the breakdown of current LTV ratios, by LTV-bucket across loans originated in the past decade. The difference between the original and current[32] LTV ratios reflects both house price movements and repayments (if any) of the loan's principle between loan origination and the end of 2010. There is evidence of a bimodal distribution in the data on current LTV ratios. On average over 41 per cent of loans originating between 2004 and 2008 have a current LTV ratio of below 0.80. This is in contrast to 42 per cent of loans originating in the same period with a current LTV of over 1. The 17 per cent of loans with a current LTV ratio of between 0.80 and 1 are vulnerable, in terms of negative equity, to further house price falls, should these occur.

These figures give an indication as to the sensitivity of our negative equity estimates to further house price falls (Table 5). Indeed, were house prices to fall a further 20 per cent from the level recorded by the PTSB/ESRI Index at the end of 2010,[33] the number of properties in negative equity would grow to approximately 218,000 or 46 per cent of all properties in the data.

5.3 Characteristics of Properties in Negative Equity

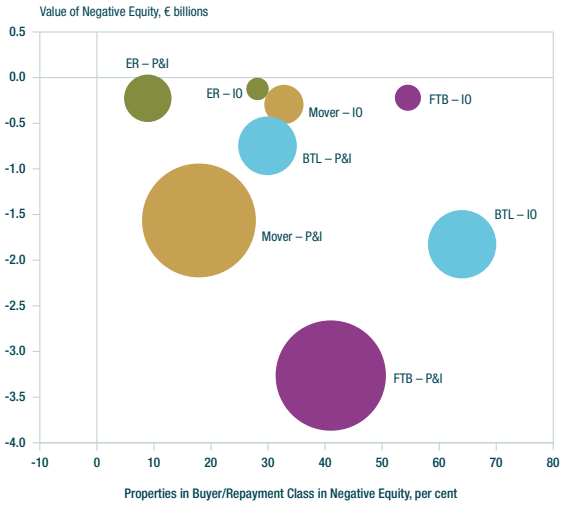
Figure 10 illustrates the extent of negative equity across the major buyer categories in terms of their share of negative equity and the proportion of the category in negative equity. FTBs account for 47 per cent of all negative equity properties, although they only account for about one third of the original property loans in the data. The rise in the number of loans at higher LTVs, particularly 100 per cent mortgages, obtained by FTBs, between 2005 and 2008 means that these borrowers had less housing equity accumulated before house prices began to fall and is one reason why the cohort is so heavily represented in the negative equity numbers.[34] There are approximately 34,000 properties, originally purchased for investment purposes, in negative equity at the end of 2010. Although BTLs account for only 16 per cent of all original property loans, they constitute 23 per cent of properties in negative equity. Overall, the problem is less serious for Movers, who make up almost 40 per cent of the original loans on the mortgaged properties yet comprise 26 per cent of the properties in negative equity.

32 At the end of 2010.

33 I.e., resulting in an aggregate decline in house prices of over 50 per cent from peak.

34 See DoECLG housing statistics for FTB LTV ranges. Over the years 2005, 2006, 2007 and 2008, the share of FTBs obtaining 100 per cent mortgages was 13 per cent, 34 per cent, 26 per cent and 23 per cent, respectively. The loan-level data figures are comparable at 9 per cent, 26 per cent, 20 per cent and 8 per cent, respectively.

Figure 10: Relative Market Size of Buyer & Repayment Classes by Value & Volume of Properties in Negative Equity



Source: Loan-level Data (December, 2010).

Properties on which the primary loan's repayment terms are IO at the end of 2010, constitute approximately €2.5 billion[35] of the estimated negative equity figure, with loans on P&I terms making up the balance, €5.8 billion.[36] Where IO arrangements are part of the original loan terms they typically last for 5 years. This means that the time is approaching when many of these borrowers, who took out mortgages at the height of the house price boom, will have to meet principal as well as interest repayments on their loan obligations. Were a large number to find that they cannot meet these terms the fact that they are in negative equity will complicate resolution options available for the borrower and the lending institution involved,[37] and so these borrowers may have to remain on IO contracts by way of forbearance.

It is noteworthy that a sizable proportion of the FTB-P&I and BTL-IO groups are in negative equity. Almost 42 per cent and 64 per cent of the mortgages, respectively, of each group has an outstanding mortgage balance that is greater than the value of the underlying property. These borrower groups account for a significant size of the outstanding balance in the data. Further, large numbers of them are vulnerable to interest rate increases.[38] While it is possible that some of these, BTL-IO borrowers in particular, may have additional financial commitments, for example, mortgages repayments on primary dwellings, we are unable to identify this in the data.

Negative equity by property type is detailed in Figure 11a. Of the four property types identified in the data, the shares of semi-detached and terraced properties in negative equity[39] broadly follow their relative shares in the overall data.[40] However, only 24 per cent of the properties in negative equity are identified as detached houses, despite these properties accounting for 43 per cent of the aggregate data. While fully 17 per cent of the properties in negative equity are apartments, these account for just 9 per cent of all properties in the data. This implies that 55 per cent of all apartments in the sample are in negative equity, a much larger proportion than for any of the remaining three property types.[41]

Recent data from the CSO HPI shows that the fall in the value of apartments in Dublin is greater than the falls in the values of other property types (Central Statistics Office, 2011b). This implies that the negative equity figures presented here may be lower bound estimates, for example, for apartments, given that we apply a uniform HPI to the data. Further, demand for apartments was dominated by FTB and BTL borrowers between 2004 and 2008. During this period they accounted for over 77 per cent of all apartments purchased each year in the data. The activity of these borrower groups since 2008, as well as other factors,[42] indicates that it is unlikely this demand will resume in the

35 This can be sub-divided as follows: FTB €220m, Mover €300m, BTL €1.8bn, ER & other €130m.

36 This can be sub-divided as follows: FTB €3.2bn, Mover €1.6bn, BTL €740m, ER & other €280m.

37 Should the borrower default and the lender foreclose on the underlying property, the existence of negative equity means that the sale of the property would not fully cover the outstanding mortgage balance on the property.

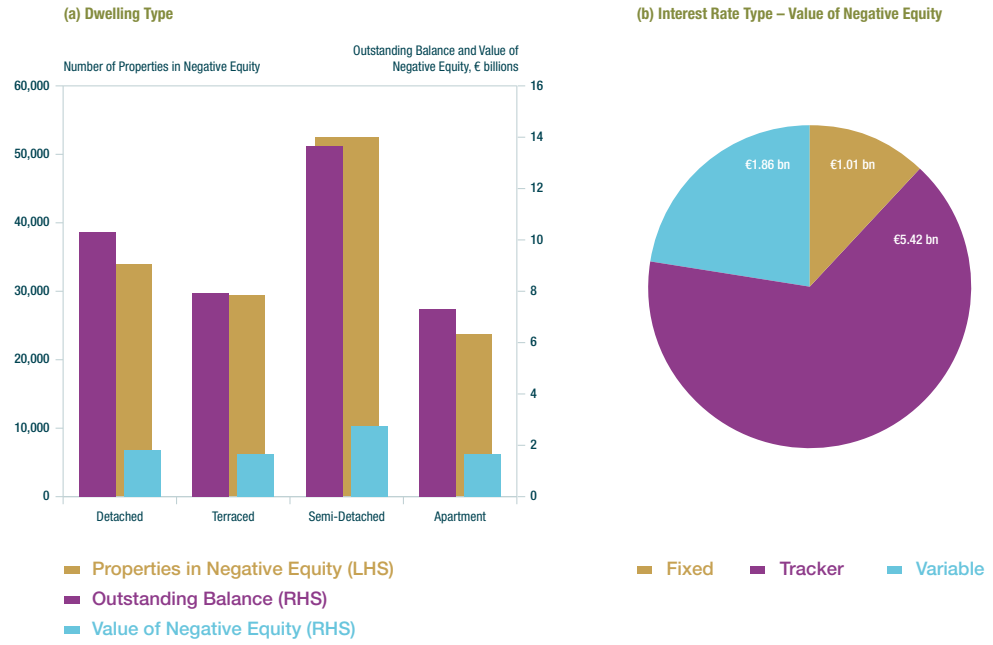
38 Identified in Section 3.2.4

39 38 per cent and 21 per cent, respectively.

40 32 per cent and 16 per cent, respectively.

41 38 per cent of semi-detached, 43 per cent of terraced and 18 per cent of detached properties are in negative equity.

Figure 11: Negative Equity, Interest Rate and Dwelling Type – Volume & Outstanding Balance



Source: Loan-level Data (December, 2010).

medium term. These demand side factors, along with additional potential falls in apartment prices, have implications for both borrowers and lenders in the apartment segment of the mortgage market, especially with regards distressed mortgages on these properties.

Figure 11b provides details of the relationship between negative equity and interest rate type. Given the large number of tracker interest rate mortgages in the data and the prevalence of this interest rate type during the peak years of the property boom, it is to be expected that the primary loans on the majority of negative equity properties (81,000) are written on these terms and contribute approximately €5.4 billion to the value of the negative equity estimate. Households whose primary loan has a variable interest rate account for 40,000 instances of negative equity or €1.9 billion of the total. Further, 24,000 fixed interest rate contracts make up over €1 billion worth of negative equity. This is relevant in relation to mortgage repayment affordability, as it is borrowers with variable and tracker interest rates whose monthly mortgage repayments will be most affected in the event of future changes to interest rates.

Finally, in absolute numbers the regional distribution of negative equity is unremarkable (Table 6), with the greatest number of affected properties in Dublin (42,000) and the least number of affected properties in the Midlands (9,000).

5.4 Joint Incidence of Negative Equity and Mortgages Arrears

The estimates presented in Section 5.1 suggest that up to 3 in 10 mortgaged properties, representing over 47 per cent of the outstanding balance of the loan-level data, may be in negative equity at the end of 2010. The majority of these borrowers, however, continue to meet their mortgage repayments each month. The situation is more serious for the 24,000 borrowers who have accumulated at least three months of unpaid mortgage

42 For example, the affordability of other property types has improved since the 2007 and the housing needs of those who purchased apartments originally may change over time, i.e., those starting a family may require more space.

43 Note, this has been calculated at the property level, i.e., for those properties with more than one secured loan, the total arrears balance is compared to the total repayment amount for the property.

Table 6: Regional Negative Equity by Number of Properties, Outstanding Balance and Value

Region	Number of Properties in Negative Equity (#)	Outstanding Mortgage Balance on all Properties in Negative Equity (€ billion)	Value of Negative Equity in Region (€ billion)	Percentage of Region's Mortgaged Properties in Negative Equity (%)	Percentage of Region's Outstanding Mortgage Balance in Negative Equity (%)
Border	15,855	3.57	-0.70	30.84	46.82
Dublin	42,002	15.07	-3.06	32.47	50.07
Mid-East	19,017	5.53	-1.10	31.46	47.30
Mid-West	11,163	2.56	-0.52	31.74	47.59
Midlands	8,860	2.00	-0.43	35.19	51.88
South-East	17,835	4.06	-0.80	30.46	45.94
South-West	18,385	5.20	-1.07	26.32	43.38
West	12,297	3.16	-0.65	27.26	44.12
Total	145,414	41.14	-8.33	30.61	47.50

Source: Loan-level Data (December, 2010).

NUTS3 Regions: Border – Cavan, Donegal, Leitrim, Louth, Monaghan, Sligo; Dublin – city, county; Mid-East – Kildare, Meath, Wicklow; Mid-West – Clare, Limerick; Midland – Laois, Longford, Offaly, Westmeath; South-East – Carlow, Kilkenny, Tipperary, Waterford, Wexford; South-West – Cork, Kerry; West – Galway, Mayo, Roscommon.

repayments on their mortgage loans.[43] Of this group, it is the 11,600 borrowers who are simultaneously at least three months in arrears on their mortgage loans and in negative equity that are the most troubling cases, from the borrower, lender and policy perspective. The intersection between these two categories, which accounts for 2.5 per cent of all properties in the data and 8 per cent of negative equity properties, is illustrated in Figure 12.[44] As well as an outstanding mortgage balance of €3.6 billion on these properties, they also account for an accumulated arrears balance of over €200 million.

Similarly, we identify in the data approximately 12,400 properties (2.4 per cent of the total), in positive equity that have also accumulated at least three months' worth of arrears. These borrowers account for €150 million of the total arrears in the data.[45]

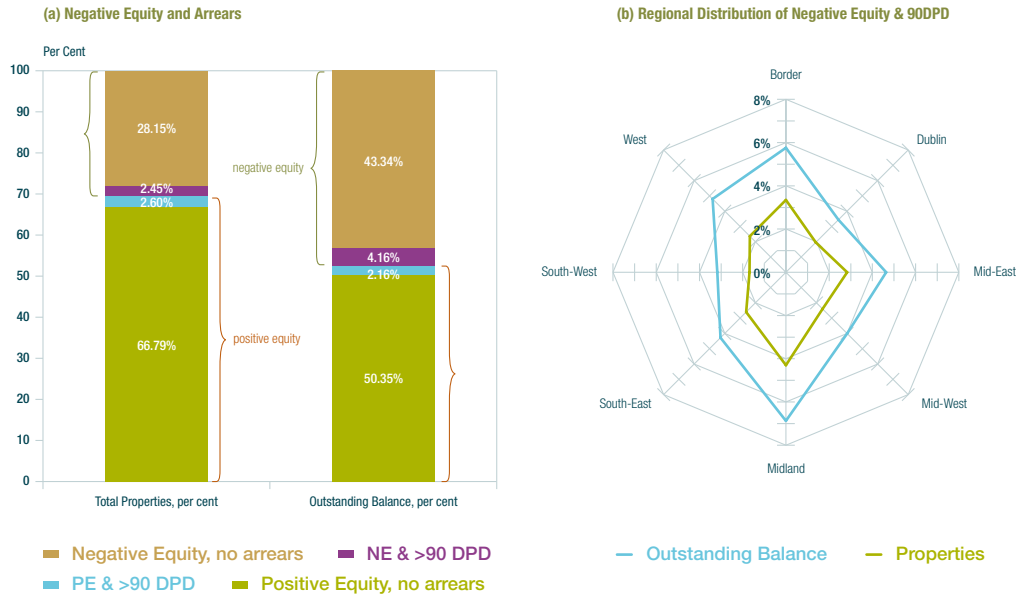
Tracking the transition of mortgage borrowers over the coming years between the positive and negative equity, non-arrears and three month arrears categories described above (Figure 12a) will be important in understanding the strengths and vulnerabilities in the Irish mortgage market. For example, the continued uncertainty surrounding employment and income levels, i.e., affecting debt affordability, and/or a possible continued downward trajectory of house prices could see borrowers from several segments of the market transition into the arrears and negative equity segment. Indeed, given the arrears data from the Central Bank to 2011Q2, the continued high levels of unemployment and house price depreciation since the end of 2010, it is likely that a number of borrowers may have already transitioned into more vulnerable segments of the market, as described in Figure 12a.

There are some interesting regional dynamics worth exploring in the distribution of distressed negative equity borrowers. The largest number of properties simultaneously in negative equity and 90DPD (approximately 2,500), with an outstanding mortgage balance of €1 billion, is held in Dublin. Proportionally, it is one of the best performing regions nationally (see Figure 12b). Just two per cent of Dublin properties are in negative equity and arrears of 90 days or more. Meanwhile, in the Midlands and Border regions 4.3 per cent

44 And set out in Table 7.

45 Overall, over 37,000 households with an outstanding balance of €5.2 billion are in positive equity with some level of arrears.

Figure 12: Joint Incidence of Negative Equity and Mortgages 90DPD Arrears



Source: Loan-level Data (December, 2010).

and 3.4 per cent of mortgaged properties in these areas, respectively, are faced with both negative equity and more than 3 months of accumulated arrears. Indeed, despite accounting for relatively small shares of the mortgage book (5.3 per cent and 10.8 per cent respectively), the Midland and Border regions' overall share of distressed negative equity properties is much larger at 9.3 per cent and 14.8 per cent, respectively. The Mid-East also has a higher proportion (14.7 per cent) of outstanding mortgage balances secured on properties in negative equity and 90DPD than would be suggested by that region's share in the national distribution of mortgage loans (12.7 per cent).

6. Conclusions

Arising from the Prudential Capital Assessment Review (PCAR II), loan-level data was collected from the institutions subject to the FMP. This paper has outlined some of the key characteristics of the borrowers, properties and loans underlying a substantial part of the Irish mortgage book. This includes details on over 475,000 properties underlying these loans. Together, the data have facilitated a detailed analysis of these mortgage loans, useful for policy makers as well as micro and macro prudential regulation of the mortgage market. The data's stylised facts as well as details of our analysis are outlined below.

The mortgage loans are concentrated in a relatively small geographic area, with a small area in Leinster (Dublin and the Mid-East) accounting for almost half of the outstanding balance in the data. In terms of buyer categories, while FTBs and Movers dominate the market, a sizeable proportion of BTL mortgages are also observed. The prominence of interest only (IO) loan contracts amongst loans that originated at the height of the housing boom may be a signal of the potential distress amongst this group, while the popularity of these contracts amongst investment buyers is also a cause for concern. To this end, we highlight the number of borrowers already on IO contracts and variable or tracker interest rates, the increase in the proportion of original LTV ratios of over 0.95 on mortgage loans originating between 2004-2008 and the increase in loan terms over the same time period. Together these factors describe the vulnerability of a large swathe of borrowers to interest rate movements and the limitations they may face with regards potential lender forbearance should they face affordability difficulties, given income or other shocks, going forward.

The data contains approximately 74,000 loans in arrears at the end of 2010, associated with 63,000 properties. Of these, 24,011 properties have at least three months worth of repayments outstanding on their mortgages. Unsurprisingly, the largest cohorts of borrower types (FTB- and Mover-P&I borrowers) account for the majority of the 90DPD arrears balance (58 per cent), they are in general better performing, with less than five per cent of their mortgaged properties in 90DPD, than the groups which make up a smaller section of the mortgage book and whose repayments are on an interest only basis. For example, BTL-IO borrowers have the highest arrears balance per property (€2,100) of all borrower groups, this is of particular concern as these borrowers are the third largest borrower group in the data, accounting for 12 per cent of all outstanding balances. Similarly, borrowers located in the Midlands, Border and Mid-East regions are experiencing relatively high levels of mortgage distress. This may be associated with factors including, but not limited to, relatively high property vacancy and/or unemployment rates.

Using published house price indices along with the house price valuations in the loan-level data we estimated the level of housing equity within the dataset. Approximately 30 per cent of mortgaged properties, or 50 per cent of the value of outstanding loans, are found to be in negative equity at the end of 2010. Negative equity is more prevalent amongst FTBs and BTL borrowers, many of whom purchased properties during a period of high house prices with high LTV ratios and/or interest only contracts. We also show that house prices would have to fall considerably from their 2010Q4 levels to see the levels of positive housing equity fall substantially. Furthermore, we find that while Dublin is home to the largest number of borrowers simultaneously in negative equity and arrears distress, proportionally, a greater cohort of householders outside of Dublin, such as the Midlands and Border, are facing both negative equity and are in arrears distress on their mortgage loans.

References

Central Bank of Ireland (2011a) 'Financial Measures Programme Report.' Technical Report, Central Bank of Ireland

Central Bank of Ireland (2011b) 'Residential Mortgage Arrears, Repossessions and Restructures Statistics.' Statistical Publication, Central Bank of Ireland, June

Central Statistics Office (2010) 'Private Rental Index.' Technical Report, CSO

Central Statistics Office (2011a) 'Census of Population 2011 Preliminary Results.' Technical Report, CSO

Central Statistics Office (2011b) 'Residential Property Price Index.' Latest Releases and Publications, Central Statistics Office

Doyle, N. (2009) 'Housing Finance Developments in Ireland.' Quarterly Bulletin 4, Central Bank of Ireland, Dublin

Duffy, D. (2010) 'Negative Equity in the Irish Housing Market.' The Economic and Social Review 41(1), 109–132

Ellis, L. (2008) 'How Many in Negative Equity? The Role of Mortgage Contract Characteristics.' Quarterly Review, Bank of International Settlements, Basel, December

Hellebrandt, T., S. Kawar, and M. Waldron (2009) 'The Economics and Estimation of Negative Equity.' Quarterly Bulletin 49, Bank of England

Honohan, Patrick (2010) 'The Irish Banking Crisis Regulatory and Financial Stability Policy 2003-2008.' Technical Report, Central Bank of Ireland, May

Kelly, R., Y. McCarthy, and K. McQuinn (2011) 'Impairment and Negative Equity in the Irish Mortgage Market.' Research Technical Paper 09RT11, Central Bank of Ireland, Dublin

Ludwig, Alexander, and Torsten Slok (2002) 'The Impact of Changes in Stock Prices and House Prices on Consumption in OECD Countries.' IMF Working Paper WP/02/1, IMF

Lydon, Reamonn, and Yvonne McCarthy (2011) 'What Lies Beneath? Understanding Recent Trends in Irish Mortgage Arrears.' Research Technical Paper, Central Bank of Ireland

Lyons, R. (2010) 'House price falls of 40%, suggest 100,000 in severe negative equity.' Available online at http://www.ronanlyons.com

McCarthy, Yvonne, and Kieran McQuinn (Forthcoming) 'Decomposition of Irish House Price Movements 2000 - 2010.' Technical Research Paper, Central Bank of Ireland

McGuinness, Anne (2011) 'Mortgage Arrears and Distressed Households.' Economic Letter, Central Bank of Ireland

Permanent TSB/ESRI (2011) 'Permanent TSB/ESRI House Price Index 1996-2011.' Technical Report, Economic and Social Research Institute

Appendix

Figure 15 gives the breakdown of borrower, repayment and interest rate types in the loan-level data at the loan (number and value of outstanding balance) and property levels. Columns 1 and 2 inform Figure 5 in the text.

Figure 15: Borrower, Repayment and Interest Rate Types

	NUMBER OF LOANS			VALUE OF LOANS (€BN)			NUMBER OF PROPERTIES		
		IO	F 1,011 T 2,720 V 2,679		IO	F 0.2 T 0.7 V 0.4		IO	F 982 T 2,639 V 2,594
FTB	164,266			27.2			159,926		
		P+I	F 36,805 T 59,845 V 61,206		P+I	F 6.3 T 11.6 V 8.0		P+I	F 35,775 T 58,242 V 59,691
		IO	F 1,252 T 6,873 V 5,657		IO	F 0.3 T 1.9 V 0.9		IO	F 1,170 T 6,396 V 4,863
TU/D	206,747			30.6			187,191		
		P+I	F 25,589 T 79,298 V 88,078		P+I	F 4.1 T 14.4 V 9.0		P+I	F 24,095 T 75,195 V 75,470
		IO	F 1,306 T 24,653 V 7,656		IO	F 0.3 T 8.2 V 1.7		IO	F 1,191 T 21,988 V 6,981
BTL	82,577			18.2			74,785		
		P+I	F 3,512 T 25,853 V 16,535		P+I	F 0.5 T 4.7 V 2.5		P+I	F 3,162 T 23,368 V 15,039
		IO	F 1,058 T 6,644 V 4,517		IO	F 0.1 T 1.1 V 0.4		IO	F 371 T 2,549 V 1,478
ER*	142,342			9.9			47,359		
		P+I	F 15,275 T 44,129 V 67,930		P+I	F 1.2 T 3.7 V 3.1		P+I	F 5,976 T 14,555 V 19,829
		IO	F 43 T 215 V 454		IO	F 0.01 T 0.05 V 0.04		IO	F 24 T 122 V 397
Other	7,444			0.7			5,875		
		P+I	F 610 T 2,039 V 4,083		P+I	F 0.1 T 0.3 V 0.2		P+I	F 441 T 1,307 V 3,584
		IO	F 4,670 T 41,105 V 20,963		IO	F 0.9 T 12.0 V 3.5		IO	F 3,742 T 33,694 V 16,313
Total	603,736			86.6			475,136		
		P+I	F 81,791 T 211,164 V 237,832		P+I	F 12.2 T 34.7 V 22.5		P+I	F 69,450 T 172,667 V 173,613

Source: Loan-level Data (December 2010).

Table 7: Positive & Negative Equity & 90 day Arrears

	Properties Number	Outstanding Balance € (Billion)	% of Total Properties	% of Total Outstanding Balance	Arrears Balance € (Billion)
Negative Equity	145,414	41.14	30.61	47.50	0.25
Positive Equity	329,722	45.48	69.40	52.51	
Arrears	63,371	12.84	13.34	14.82	0.43
>90 DPD	24,011	5.47	5.05	6.32	0.36
NE & >90DPD	11,644	3.60	2.45	4.15	0.21
PE & >90 DPD	12,367	1.87	2.60	2.16	0.15
Total	475,136	86.62			

Source: Loan-level Data (December, 2010).

Statistical Appendix

Note: **Data published in the Statistical Appendix for most recent months or quarters may be subject to revision.**

Section A

Money and Banking

Table A.1: Summary Irish Private Sector Credit and Deposits

	Credit Advanced to Irish Private sector						
	Households				Non-financial corporations		
		Loans for house purchase	Consumer credit	Other loans		Loans	Securities
	1	2	3	4	5	6	7
Outstanding amounts – € million							
2010							
November	137,593	107,127	19,767	10,699	94,706	93,955	751
December	130,318	99,578	19,950	10,790	92,562	92,431	131
2011							
January	129,370	99,289	18,609	11,473	92,652	92,524	129
February	131,001	99,080	18,531	13,390	91,096	90,965	131
March	130,520	98,851	18,272	13,397	90,035	89,912	124
April	129,920	98,627	17,921	13,373	89,045	88,923	122
May	129,510	98,371	17,783	13,356	89,069	88,946	123
June	129,352	98,335	17,699	13,317	89,133	88,959	174
July	128,692	98,020	17,416	13,256	89,480	89,301	179
August	128,234	97,771	17,283	13,179	88,711	88,568	143
September	128,302	97,964	17,172	13,166	89,193	89,045	147
October	111,005	80,798	17,135	13,073	87,963	87,817	146
November	110,828	80,723	17,005	13,101	88,354	88,208	147
Transactions – € million							
2010							
November	-193	-212	-271	291	-190	-184	-6
December	-494	-179	-321	6	-723	-636	-87
2011							
January	-674	-284	-384	-5	-12	-26	14
February	-298	-212	-78	-8	-107	-104	-2
March	-385	-147	-206	-32	-11	-4	-7
April	-571	-214	-342	-15	-707	-708	1
May	-449	-262	-156	-31	-93	-87	-6
June	-196	-127	-69	-	275	343	-68
July	-710	-334	-293	-83	163	158	5
August	-443	-242	-127	-74	-437	-436	-1
September	-183	-83	-119	19	519	514	5
October	-617	-319	-248	-49	-454	-450	-4
November	-363	-221	-142	-1	40	39	1
Growth rates – per cent							
2010							
November	-4.8	-1.7	-15.8	-20.5	-2.4	-1.9	-48.9
December	-5.3	-2.1	-17.0	-21.0	-2.2	-1.8	-39.3
2011							
January	-5.1	-2.3	-15.6	-20.9	-1.7	-1.4	-30.1
February	-5.1	-2.7	-14.5	-18.7	-1.8	-1.5	-27.3
March	-5.0	-2.6	-14.9	-16.2	-1.5	-1.3	-27.1
April	-4.6	-2.0	-15.3	-16.6	-2.5	-2.3	-23.9
May	-4.8	-2.1	-15.7	-16.6	-2.8	-2.6	-27.4
June	-3.9	-2.2	-14.3	0.2	-3.3	-3.0	-67.2
July	-3.9	-2.4	-13.4	-0.6	-2.7	-2.4	-66.3
August	-4.0	-2.4	-13.7	-1.2	-2.7	-2.5	-66.5
September	-4.0	-2.5	-13.6	-0.7	-1.8	-1.5	-65.2
October	-3.9	-2.6	-13.2	0.6	-1.9	-1.7	-59.6
November	-4.1	-2.7	-12.8	-2.0	-1.7	-1.5	-59.0

Table A.1 – *continued*

Irish Private Sector Deposits							
Insurance corporations and pension funds/Other financial intermediaries			Total				
	Loans	Securities		Households	Non-financial corporations	Insurance corporations and pension funds/ Other financial intermediaries	
8	9	10	11	12	13	14	
							Outstanding amounts – € million
							2010
105,625	40,331	65,294	172,161	93,951	35,277	42,933	November
111,718	38,559	73,160	168,299	94,620	33,537	40,141	December
							2011
110,668	37,707	72,961	166,912	93,957	33,578	39,377	January
110,197	37,914	72,284	165,163	93,259	33,213	38,691	February
110,140	37,047	73,093	162,983	92,803	32,151	38,029	March
105,735	34,916	70,819	164,937	92,813	31,580	40,544	April
113,345	43,212	70,133	172,495	92,133	31,655	48,707	May
113,805	43,845	69,961	168,153	92,215	30,906	45,033	June
112,817	43,198	69,619	167,378	91,795	31,073	44,510	July
109,769	42,501	67,268	166,152	91,239	31,412	43,501	August
108,526	43,176	65,350	163,992	91,769	31,209	41,014	September
124,752	41,869	82,883	162,987	91,913	31,550	39,524	October
124,913	41,980	82,934	162,131	90,728	31,559	39,844	November
							Transactions – € million
							2010
6,195	907	5,287	-5,205	-2,353	-221	-2,631	November
5,656	-1,718	7,374	-2,971	572	-680	-2,864	December
							2011
-853	-607	-246	-1,202	-472	-79	-652	January
-438	-4	-433	-1,750	-734	-319	-697	February
-469	-363	-106	-1,833	-424	-929	-480	March
-2,163	-1,600	-562	2,283	37	-292	2,538	April
-841	-186	-656	-752	-709	-36	-8	May
786	-398	1,184	-4,289	27	-741	-3,575	June
-1,273	-1,025	-248	-1,008	-445	95	-657	July
-1,507	-528	-979	-895	-510	459	-844	August
-2,024	-98	-1,927	-2,671	485	-420	-2,736	September
-2,258	-1,684	-574	583	177	464	-58	October
-481	-531	49	-1,328	-1,210	-155	37	November
							Growth rates – per cent
							2010
21.4	-5.0	45.8	-6.7	-4.5	-14.9	-4.3	November
27.4	-9.9	62.7	-7.6	-4.7	-16.1	-6.5	December
							2011
27.3	-10.5	62.8	-8.0	-5.5	-15.3	-7.1	January
24.5	-9.5	54.6	-9.8	-6.1	-14.3	-14.2	February
25.4	-7.8	53.9	-10.0	-5.4	-10.6	-19.0	March
18.1	-10.8	40.8	-9.1	-5.6	-10.3	-15.2	April
13.2	-10.6	30.8	-8.7	-5.7	-10.9	-13.1	May
13.8	-11.5	32.7	-10.0	-5.1	-13.0	-17.3	June
10.6	-12.9	27.6	-10.4	-5.6	-11.4	-18.7	July
7.3	-14.0	22.2	-10.4	-5.4	-10.1	-20.0	August
6.0	-13.3	19.1	-10.5	-4.7	-8.2	-22.9	September
1.2	-16.7	13.3	-11.0	-4.5	-7.8	-25.0	October
-5.2	-19.6	4.2	-9.0	-3.4	-7.6	-20.3	November

Table A.2: Financial Statement of the Central Bank of Ireland

Assets

		Gold and Receivables	Lending to euro area credit institutions relating to monetary policy operations in euro						
				Main refinancing operations	Longer-term refinancing operations	Fine-tuning reverse operations	Structural reverse operations	Marginal lending facility	Credits related to margin calls
Outstanding amounts – € million									
2010									
31 December	204,453	204	132,010	63,655	56,025	12,330	–	–	–
2011									
28 January	198,522	204	126,010	56,110	69,900	–	–	–	–
25 February	208,431	204	116,924	33,445	66,390	–	–	17,089	–
25 March	202,725	204	114,495	26,935	84,170	–	–	3,390	–
29 April	181,656	194	106,130	23,730	82,400	–	–	–	–
27 May	177,445	194	102,345	26,490	75,805	–	–	50	–
24 June	180,067	194	103,000	30,620	72,180	–	–	200	–
29 July	175,999	202	97,593	27,455	70,138	–	–	–	–
26 August	175,931	202	97,878	24,490	73,388	–	–	–	–
30 September	176,573	233	100,355	23,090	77,265	–	–	–	–
28 October	171,918	233	100,940	20,475	78,765	–	–	1,700	–
25 November	172,188	233	102,910	31,845	71,065	–	–	–	–
30 December	176,258	233	107,236	30,520	76,286	–	–	430	–

Liabilities

		Banknotes in circulation	Liabilities to euro area credit institutions relating to monetary policy operations in euro						Other liabilities to euro area credit institutions in euro
				Current accounts (covering the minimum reserve system)	Deposit facility	Fixed-term deposits	Deposits related to margin calls	Fine-tuning reverse operations	
Outstanding amounts – € million									
2010									
31 December	204,453	12,293	11,414	8,264	3,150	–	–	–	–
2011									
28 January	198,522	11,589	9,577	8,577	–	1,000	–	–	–
25 February	208,431	12,038	8,787	7,517	20	1,250	–	–	–
25 March	202,725	11,999	7,541	6,241	100	1,200	–	–	–
29 April	181,656	12,186	8,329	5,722	600	2,000	7	–	–
27 May	177,445	12,012	6,201	4,837	164	1,200	–	–	–
24 June	180,067	12,226	8,249	8,140	109	–	–	–	–
29 July	175,999	12,497	7,889	5,456	1,233	1,200	–	–	–
26 August	175,931	12,428	8,834	6,665	169	2,000	–	–	–
30 September	176,573	12,521	6,730	4,375	855	1,500	–	–	–
28 October	171,918	12,747	7,174	4,929	750	1,495	–	–	–
25 November	172,188	12,572	6,687	4,092	1,245	1,350	–	–	–
30 December	176,258	12,978	6,029	3,734	2,295	–	–	–	–

Table A.2 – *continued*

Assets

Other claims on euro area credit institutions in euro	Claims on euro area residents in foreign currency	Claims on non-euro area residents in euro	Claims on non-euro area residents in foreign currency	Securities of other euro area residents in euro	General Government debt in euro	Other assets
514	142	883	1,382	18,224	–	51,094
501	113	1,022	1,412	18,138	–	51,122
195	142	1,341	1,380	18,177	–	70,068
348	205	1,169	1,353	18,161	–	66,790
598	185	861	1,274	18,268	–	54,146
483	200	1,076	1,264	18,184	–	53,699
343	181	1,157	1,285	18,241	–	55,666
529	189	1,163	1,277	18,079	–	56,967
181	153	1,201	1,308	19,059	–	55,949
405	185	1,376	1,357	19,406	–	53,256
299	176	1,151	1,372	20,019	–	47,728
448	31	1,168	1,071	20,599	–	45,728
449	1,174	1,233	1,075	20,697	–	44,161

Liabilities

Debt certificates issued	Liabilities to other euro area residents in euro	Liabilities to non-euro area residents in euro	Liabilities to euro area residents in foreign currency	Liabilities to non-euro area residents in foreign currency	Counterpart of Special Drawing Rights allocated by the IMF	Revaluation Accounts	Capital and reserves	Other liabilities
–	15,890	10	–	–	897	229	1,531	162,189
–	23,983	22	–	–	897	229	1,531	150,694
–	25,639	22	–	–	897	229	1,697	159,122
–	23,070	22	–	–	897	229	1,720	157,247
–	8,359	22	–	–	865	201	1,723	149,971
–	7,915	20	–	–	865	201	1,723	148,508
–	10,328	26	–	–	865	201	1,723	146,449
–	9,339	26	–	–	858	201	1,723	143,466
–	11,279	19	–	–	858	201	1,723	140,589
–	13,851	20	–	–	897	291	1,723	140,540
–	14,041	19	–	–	897	291	1,723	135,026
–	13,748	17	–	–	897	291	1,723	136,253
–	15,574	23	20	–	897	291	1,723	138,723

Table A.4: Credit Institutions – Aggregate Balance Sheet

Total Assets

		Loans to Irish residents				Holdings of securities issued by Irish residents			
			Monetary financial institutions	General government	Private Sector		Monetary financial institutions	General government	Private Sector
	15	16	17	18	19	20	21	22	23
Outstanding amounts – € million									
2010									
November	1,228,246	457,104	162,604	22,620	271,879	94,354	16,990	11,318	66,046
December	1,168,008	467,544	174,629	31,607	261,308	101,700	16,602	11,808	73,290
2011									
January	1,121,751	449,254	158,130	31,523	259,601	101,330	16,167	12,074	73,089
February	1,114,576	453,806	162,308	31,618	259,880	101,518	18,073	11,031	72,415
March	1,084,828	436,343	150,110	28,754	257,479	100,373	16,159	10,996	73,217
April	1,052,086	418,065	135,507	28,799	253,759	97,840	16,708	10,191	70,941
May	1,038,964	401,513	110,950	28,896	261,667	97,105	16,653	10,195	70,257
June	1,023,188	403,616	113,097	28,364	262,155	96,826	16,392	10,299	70,135
July	1,029,006	405,683	115,044	29,449	261,191	96,544	16,285	10,462	69,798
August	1,027,422	406,399	117,550	29,547	259,303	96,893	17,407	12,074	67,411
September	1,045,502	408,473	118,328	29,622	260,524	95,537	17,269	12,772	65,497
October	1,030,760	389,825	119,524	29,610	240,691	113,580	17,593	12,958	83,030
November	1,027,812	390,595	119,986	29,593	241,016	113,931	18,571	12,279	83,080

Total Liabilities

		Deposits from Irish residents				Debt securities issued		
			Monetary financial institutions	General government	Private Sector	Irish resident	Euro area	Rest of the world
	32	33	34	35	11	36	37	38
Outstanding amounts – € million								
2010								
November	1,228,246	332,129	156,630	3,338	172,161	35,334	22,862	71,579
December	1,168,008	346,605	174,895	3,410	168,299	33,885	22,418	63,510
2011								
January	1,121,751	325,832	155,971	2,949	166,912	33,627	21,799	62,007
February	1,114,576	328,298	159,993	3,142	165,163	34,477	21,470	60,006
March	1,084,828	319,475	147,589	8,902	162,983	32,451	20,866	56,958
April	1,052,086	319,505	132,878	21,690	164,937	32,026	20,465	56,583
May	1,038,964	300,727	106,640	21,592	172,495	32,070	22,445	55,853
June	1,023,188	300,675	110,985	21,538	168,153	31,742	21,501	52,278
July	1,029,006	281,576	111,908	2,290	167,378	32,177	21,288	50,454
August	1,027,422	281,620	113,107	2,361	166,152	31,396	21,946	48,276
September	1,045,502	282,226	115,482	2,752	163,992	31,053	21,739	47,645
October	1,030,760	283,174	117,722	2,465	162,987	31,951	20,913	46,004
November	1,027,812	282,543	117,899	2,514	162,131	33,047	20,486	45,115

Table A.4 – *continued*

Loans to non-residents		Holdings of securities issued by non-residents		Central bank balances		Remaining assets		
Euro area	Rest of the world	Euro area	Rest of the world	Resident	Non-resident	Resident	Non-resident	
24	107	131	145	28	29	30	31	
								Outstanding amounts – € million
								2010
125,849	249,412	119,316	103,181	11,740	2	34,328	33,011	November
114,793	229,328	85,927	99,489	12,319	–	27,537	29,421	December
								2011
111,402	214,568	82,876	96,455	9,396	–	28,323	28,197	January
108,564	209,430	80,491	94,935	9,161	–	28,666	28,055	February
114,425	197,484	78,573	89,303	10,272	–	31,035	27,047	March
115,521	188,947	76,756	85,841	9,241	–	32,814	27,086	April
109,820	193,037	77,897	88,184	9,168	–	34,686	27,583	May
109,000	186,843	74,375	83,229	7,287	–	36,158	25,879	June
106,389	190,430	73,310	84,022	8,784	–	36,098	27,770	July
102,566	192,113	71,591	81,344	11,138	–	35,970	29,434	August
110,407	202,842	70,815	80,812	7,586	–	35,774	33,281	September
113,953	190,054	69,132	78,641	8,024	–	35,936	31,640	October
111,347	192,217	68,832	76,374	6,659	–	26,445	41,412	November

Deposits from non-residents		Capital & reserves		Borrowing from the Eurosystem relating to monetary policy operations	Remaining liabilities		
Euro area	Rest of the world	Resident	Non-resident		Resident	Non-resident	
39	40	41	42	43	45	46	
							Outstanding amounts – € million
							2010
178,122	247,289	63,022	27,106	138,199	69,690	42,915	November
151,799	195,287	84,793	26,304	132,010	72,924	38,474	December
							2011
153,336	180,885	79,838	25,684	126,010	77,297	35,436	January
147,882	171,235	82,568	25,210	116,137	93,207	34,086	February
145,118	166,102	79,980	23,936	111,120	97,328	31,495	March
135,611	163,391	81,306	23,843	106,130	80,674	32,552	April
133,141	167,116	84,149	23,639	102,335	83,727	33,762	May
131,593	159,409	88,413	22,192	100,363	84,045	30,977	June
133,577	162,150	109,465	21,479	97,593	85,396	33,851	July
136,254	161,498	108,627	20,202	94,838	87,869	34,897	August
141,904	165,747	110,831	19,809	100,355	84,669	39,525	September
141,808	161,553	109,282	18,995	100,940	78,167	37,973	October
143,452	155,759	109,569	18,544	103,925	66,492	48,880	November

Table A.4.1: Credit Institutions (Domestic Group) – Aggregate Balance Sheet

Total Assets

		Loans to Irish residents				Holdings of securities issued by Irish residents			
			Monetary financial institutions	General government	Private Sector		Monetary financial institutions	General government	Private Sector
	15	16	17	18	19	20	21	22	23
Outstanding amounts – € million									
2010									
November	766,635	404,352	126,956	22,209	255,187	89,214	15,240	11,198	62,775
December	742,475	398,567	123,071	31,299	244,197	96,783	15,028	11,687	70,069
2011									
January	720,794	393,209	118,972	31,217	243,020	96,522	14,637	11,953	69,931
February	726,155	401,469	126,706	31,312	243,451	96,798	16,682	10,898	69,218
March	704,132	386,313	116,413	28,448	241,452	95,885	14,946	10,866	70,072
April	691,338	379,877	113,132	28,493	238,252	93,355	15,466	10,062	67,827
May	662,566	356,349	90,595	28,590	237,164	92,616	15,403	10,067	67,146
June	653,898	357,646	91,750	28,060	237,836	92,654	15,177	10,184	67,292
July	657,812	360,035	93,533	29,147	237,355	92,394	15,080	10,335	66,980
August	658,492	361,338	96,456	29,245	235,637	92,764	16,188	11,953	64,622
September	659,387	361,216	95,921	29,321	235,974	91,802	16,294	12,649	62,858
October	649,186	343,146	97,325	29,309	216,512	109,922	16,631	12,836	80,454
November	643,313	343,218	97,646	29,292	216,280	110,334	17,627	12,179	80,527

Total Liabilities

		Deposits from Irish residents				Debt securities issued		
			Monetary financial institutions	General government	Private Sector	Irish Resident	Euro Area	Rest of the world
	32	33	34	35	11	36	37	38
Outstanding amounts – € million								
2010								
November	766,635	297,035	133,266	3,337	160,432	34,554	10,771	22,348
December	742,475	292,065	131,543	3,408	157,114	33,423	10,208	20,647
2011								
January	720,794	283,298	124,745	2,922	155,632	33,174	10,000	19,812
February	726,155	289,553	132,840	3,128	153,584	34,028	9,896	18,969
March	704,132	282,471	122,012	8,902	151,557	32,012	9,753	17,844
April	691,338	292,953	117,687	21,683	153,582	31,602	9,710	17,602
May	662,566	268,771	94,368	21,585	152,818	31,639	9,863	17,258
June	653,898	268,590	99,833	21,533	147,223	31,310	8,904	16,980
July	657,812	248,569	100,145	2,283	146,140	31,741	8,919	16,755
August	658,492	248,636	101,780	2,360	144,496	30,963	8,538	16,634
September	659,387	248,861	103,293	2,740	142,828	30,599	8,444	15,259
October	649,186	250,056	105,653	2,441	141,962	31,510	8,300	15,035
November	643,313	249,965	106,120	2,486	141,360	32,590	8,070	14,458

Table A.4.1 – *continued*

Loans to non-residents		Holdings of securities issued by non-residents		Central bank balances		Remaining assets		
Euro area	Rest of the world	Euro area	Rest of the world	Resident	Non-resident	Resident	Non-resident	
24	107	131	145	28	29	30	31	
								Outstanding amounts – € million
								2010
10,698	154,354	19,094	38,994	9,738	2	30,598	9,591	November
9,267	141,963	17,601	37,612	8,293	–	23,878	8,512	December
								2011
9,425	128,791	15,700	37,105	6,814	–	25,105	8,123	January
9,109	124,536	16,090	37,053	7,436	–	25,278	8,386	February
9,459	117,211	15,085	35,022	8,434	–	27,888	8,836	March
11,445	113,244	13,370	34,161	7,720	–	29,527	8,639	April
8,716	113,717	12,950	34,238	7,513	–	28,042	8,426	May
8,757	108,515	11,321	32,434	5,512	–	29,268	7,791	June
9,130	108,223	11,964	32,417	6,047	–	29,812	7,789	July
8,665	107,970	10,237	31,420	7,940	–	29,956	8,202	August
8,403	113,120	10,020	31,233	5,587	–	29,595	8,410	September
9,011	104,224	9,464	30,204	5,695	–	29,204	8,316	October
8,520	103,597	9,192	26,988	4,908	–	19,081	17,475	November

Deposits from non-residents		Capital & reserves		Borrowing from the Eurosystem relating to monetary policy operations	Remaining liabilities		
Euro area	Rest of the world	Resident	Non-resident		Resident	Non-resident	
39	40	41	42	43	45	46	
							Outstanding amounts – € million
							2010
17,618	155,013	41,917	8,655	97,319	65,877	15,529	November
16,216	121,065	63,522	7,842	94,550	69,485	13,452	December
							2011
17,143	108,965	59,043	7,004	96,050	74,106	12,200	January
17,118	99,119	61,707	6,772	88,697	89,739	10,557	February
16,428	93,821	59,415	6,044	82,775	94,034	9,534	March
15,104	91,952	61,171	5,992	77,790	77,523	9,940	April
14,151	91,105	62,523	5,615	74,445	77,074	10,123	May
13,584	85,095	66,921	4,294	71,950	77,657	8,613	June
13,277	86,819	89,768	3,640	70,390	79,253	8,682	July
13,152	87,429	89,106	3,640	70,480	81,064	8,849	August
13,173	90,183	90,417	3,428	71,130	78,543	9,350	September
11,199	88,104	89,226	2,910	71,495	71,495	9,856	October
11,978	82,536	89,404	2,397	73,090	59,178	19,646	November

Table A.14: Credit Advanced to Irish Resident Private-Sector Enterprises

		Outstanding amounts – € million				
		Sep-10	Dec-10	Mar-11	Jun-11	Sep-11
1.	**Primary Industries**	5,486	5,323	5,291	5,250	5,323
1.1	Agriculture	4,595	4,503	4,460	4,420	4,435
1.1.1	Growing of crops, market gardening, horticulture	..	483	491	489	473
1.1.2	Farming of animals	..	2,896	2,868	2,860	2,853
1.1.3	Other agricultural activities	..	1,124	1,101	1,071	1,110
1.2	Forestry, logging, mining and quarrying	575	468	486	494	566
1.3	Fishing and aquaculture	316	352	345	337	322
2.	**Manufacturing**	5,718	5,268	5,128	4,949	4,947
2.1	Manufacture of food, beverages and tobacco products	..	2,440	2,152	2,072	2,094
2.2	Wood, pulp, paper, paper products, printing and reproduction of recorded media	..	635	636	661	646
2.3	Chemicals, rubber/plastic products, other non-metallic mineral products	..	707	746	753	740
2.4	Pharmaceutical products and preparations, medical and dental instruments and supplies	..	81	109	91	92
2.5	Fabricated metal products, except machinery and equipment	..	76	127	114	86
2.6	Computer, electronic and optical products	..	79	91	82	75
2.7	Production, installation and repair of commercial machinery/equipment, not including computers	..	415	423	390	389
2.8	Other manufacturing	..	835	845	787	825
3.	**Electricity, Gas, Steam and Air Conditioning Supply**	622	915	965	751	795
4.	**Water Supply, Sewerage, Waste Management and Remediation Activities**	107	128	129	130	142
5.	**Construction**	4,248	3,289	3,558	3,429	3,266
5.1	Construction of buildings carried out on contract	..	1,634	1,729	1,721	1,596
5.2	Civil engineering activities carried out on contract	..	571	716	689	700
5.3	Other construction activities	..	1,084	1,112	1,018	969
6.	**Wholesale/Retail Trade & Repairs**	11,493	9,720	9,498	9,169	9,267
6.1	Sale, maintenance/repair of motor vehicles, retail sale of fuel	1,794	1,692	1,646	1,601	1,640
6.2	Wholesale trade and commission trade (except vehicles)	2,383	1,744	1,645	1,636	1,606
6.3	Retail trade (except vehicles), repair of personal/ household goods	6,022	5,305	5,261	5,076	5,088
6.4	Other wholesale/retail	1,294	978	946	856	933
7.	**Transportation and Storage**	2,270	1,567	1,639	1,668	1,495
7.1	Land, water and air transport	..	957	994	993	902
7.2	Postal, courier, warehousing and support activities for transportation	..	306	309	308	304
7.3	Other transportation and storage	..	304	336	367	288
8.	**Hotels and Restaurants**	9,418	8,184	8,080	7,972	7,906
8.1	Hotels	5,190	4,453	4,415	4,343	4,328
8.2	Restaurants	693	619	617	606	589
8.3	Bars	2,993	2,745	2,682	2,659	2,632
8.4	Other accommodation and catering	542	367	366	365	357
9.	**Information and Communication**	621	630	638	608	599
9.1	Publishing of printed material	..	210	182	180	177
9.2	Audio-visual production and publishing, programming and broadcasting activities	..	40	51	47	48
9.3	Telecommunications and information service activities	..	266	262	253	262
9.4	Software publishing, computer programming, consultancy and related activities	..	113	142	127	111
9.5	Other information and communication	..	1	1	1	1

Table A.14 – *continued*

Transactions – € million					Growth rates – per cent.				
Sep-10	Dec-10	Mar-11	Jun-11	Sep-11	Sep-10	Dec-10	Mar-11	Jun-11	Sep-11
82	-104	-9	-39	71	1.9	3.9	7.7	-1.3	-1.5
76	-99	-21	-40	19	3.8	4.8	8.7	-1.9	-3.1
..	..	8	-2	-14	..	..	..	..	..
..	..	-8	-8	-3	..	..	..	..	..
..	..	-22	-31	36	..	..	..	..	..
-8	-9	19	10	67	-7.3	-2.7	3.4	3.2	18.8
14	4	-6	-9	-15	-4.7	4.6	4.3	1.3	-7.4
-348	-103	-10	-126	-54	-9.5	-11.4	-5.9	-9.7	-5.4
..	..	-191	-28	-21	..	..	..	..	..
..	..	3	25	-14	..	..	..	..	..
..	..	53	2	-12	..	..	..	..	..
..	..	30	-17	0	..	..	..	..	..
..	..	51	-11	-28	..	..	..	..	..
..	..	15	-8	-8	..	..	..	..	..
..	..	11	-32	-3	..	..	..	..	..
..	..	18	-55	32	..	..	..	..	..
-140	403	60	-176	39	-33.3	3.9	54.2	17.7	51.0
-13	1	1	2	21	-29.7	-26.9	-4.9	-8.3	19.3
-146	-1,905	308	-21	1	-24.3	-51.9	-43.5	-41.9	-40.0
..	..	132	100	81	..	..	..	..	..
..	..	145	-27	-39	..	..	..	..	..
..	..	31	-94	-42	..	..	..	..	..
91	-492	-172	-289	58	1.2	-3.9	-3.2	-8.1	-8.3
-65	42	-38	-44	42	-0.4	0.4	-1.5	-5.9	-0.1
-21	-129	-91	-4	-62	-8.2	-11.8	-10.4	-11.3	-14.0
128	-171	-24	-182	18	1.4	-1.8	0.1	-4.7	-6.3
47	-234	-19	-59	61	25.6	-3.9	-8.7	-21.9	-19.3
-210	-71	152	37	-187	-6.0	-6.0	6.0	-0.3	-3.5
..	..	98	5	-102	..	..	..	..	..
..	..	10	1	-4	..	..	..	..	..
..	..	46	32	-79	..	..	..	..	..
-195	-242	-6	-62	-62	-1.2	-4.7	-5.8	-5.3	-4.1
-255	-247	6	-33	-19	-5.2	-9.5	-11.2	-9.6	-5.8
4	11	1	-10	-16	3.7	3.5	0.5	0.7	-2.6
43	55	-11	-18	-18	4.3	3.7	2.8	2.1	0.0
13	-60	-1	-1	-8	6.3	-11.0	-4.8	-9.5	-13.5
-9	140	3	-18	-11	-20.9	3.5	25.2	18.1	17.6
..	..	-28	4	-4	..	..	..	..	..
..	..	5	-4	0	..	..	..	..	..
..	..	-2	-3	8	..	..	..	..	..
..	..	29	-15	-15	..	..	..	..	..
..	..	0	0	0	..	..	..	..	..

Table A.14 – *continued*

		Outstanding amounts – € million				
		Sep-10	Dec-10	Mar-11	Jun-11	Sep-11
10.	**Financial Intermediation (Excl. Monetary Financial Institutions)**	93,318	109,179	107,865	112,985	107,739
10.1	Financial leasing	..	1,485	1,674	1,711	1,639
10.2	Non-bank credit grantors, excluding credit unions	..	12,851	10,912	17,942	17,983
10.3	Investment funds, excluding financial vehicle corporations and money market funds	..	419	828	529	461
10.4	Financial vehicle corporations (FVCs)	..	71,060	71,483	72,018	69,389
10.5	Life insurance	..	4,480	4,494	4,272	2,781
10.6	Pension funding	..	84	74	91	78
10.7	Non-life insurance	..	274	150	141	169
10.8	Security broker/fund management	..	4,565	4,255	3,428	3,159
10.9	Other financial intermediation / Unallocated	..	13,961	13,995	12,854	12,079
11.	**Real Estate, Land and Development Activities**	67,999	55,361	55,160	55,397	55,570
11.1	Property investment/development of residential real estate	..	9,082	16,050	16,298	16,288
11.2	Property investment/development of commercial real estate	..	13,930	17,266	17,258	17,122
11.3	Property investment/development of mixed real estate	..	27,995	17,457	17,528	17,826
11.4	Investment in unzoned land	..	1,010	998	1,005	1,004
11.5	Other real estate activities	..	3,344	3,388	3,308	3,330
12.	**Business and Administrative Services**	4,736	5,522	5,122	5,055	5,014
12.1	Legal, accounting and management consultant activities	..	1,590	1,313	1,272	1,229
12.2	Architectural and engineering activities, technical testing and analysis	..	162	151	178	185
12.3	Scientific research and development	..	29	29	32	30
12.4	Rental and leasing activities, services to buildings and landscape activities	..	149	136	106	104
12.5	Employment, office administration and business support activities	..	227	285	263	280
12.6	Other business and administrative services	..	3,365	3,209	3,203	3,186
13.	**Other Community, Social and Personal Services**	2,416	1,436	2,288	2,248	2,207
13.1	Recreational, cultural and sporting activities	..	763	942	912	908
13.2	Membership organisations (business, employers, professional, trade unions, religious, political)	..	219	317	311	306
13.3	Other service activities	..	454	1,029	1,025	994
14.	**Education**	785	724	674	640	589
15.	**Human Health and Social Work**	2,423	2,049	2,043	2,038	2,006
15.1	Hospitals and medical practice activities	..	1,380	1,362	1,355	1,347
15.2	Residential care activities	..	401	314	318	313
15.3	Other health and social work	..	269	368	365	346
16.	**Extra-Territorial Organisations and Bodies**		2	1	0	0
17.	**Total**	211,660	209,299	208,078	212,288	206,864
17.1	***Total ex Financial Intermediation***	118,342	100,120	100,213	99,304	99,126
17.2	***Total ex Financial Intermediation and Property Related Sectors***	46,095	41,470	41,496	40,479	40,290

Table A.14 – *continued*

Transactions – € million					Growth rates – per cent.				
Sep-10	Dec-10	Mar-11	Jun-11	Sep-11	Sep-10	Dec-10	Mar-11	Jun-11	Sep-11
2,365	14,552	-1,351	-2,503	-4,737	9.5	33.0	26.9	14.3	6.8
..	..	191	39	-85	..	..	..	..	..
..	..	-1,694	-859	-237	..	..	..	..	..
..	..	415	-296	-75	..	..	..	..	..
..	..	-544	650	-2,982	..	..	..	..	..
..	..	34	-215	-153	..	..	..	..	..
..	..	-9	17	-6	..	..	..	..	..
..	..	-99	0	24	..	..	..	..	..
..	..	-183	-767	-406	..	..	..	..	..
..	..	537	-1,073	-820	..	..	..	..	..
-319	-109	-53	413	328	-0.4	-0.7	-0.9	0.1	1.1
..	..	-606	407	126	..	..	..	..	..
..	..	4	44	-91	..	..	..	..	..
..	..	470	-16	280	..	..	..	..	..
..	..	17	5	-1	..	..	..	..	..
..	..	63	-27	15	..	..	..	..	..
252	331	-361	-61	-92	1.6	15.2	4.7	3.9	-3.0
..	..	-273	-43	-45	..	..	..	..	..
..	..	-12	29	7	..	..	..	..	..
..	..	0	3	-3	..	..	..	..	..
..	..	-8	-30	-2	..	..	..	..	..
..	..	58	-27	-11	..	..	..	..	..
..	..	-127	7	-37	..	..	..	..	..
-36	-1,053	-78	-39	-33	-3.9	-46.6	-47.9	-48.3	-48.3
..	..	-212	-29	-3	..	..	..	..	..
..	..	30	-6	-6	..	..	..	..	..
..	..	104	-3	-24	..	..	..	..	..
-55	-171	-49	-34	-50	1.5	-22.2	-26.1	-35.1	-36.1
34	-179	6	4	-11	3.4	-7.3	-2.9	-5.7	-7.5
..	..	-12	-7	-11	..	..	..	..	..
..	..	-82	13	-4	..	..	..	..	..
..	..	100	-3	4	..	..	..	..	..
..	..	-1	-1	0	..	..	..	..	..
1,353	10,992	-1,559	-2,912	-4,719	2.3	10.0	8.6	3.6	0.7
-1,012	-3,560	-208	-409	18	-2.1	-4.4	-3.5	-4.4	-3.6
-547	-1,546	-464	-800	-311	-2.3	-5.0	-3.5	-7.3	-7.0

Table A.16: Deposits from Irish Resident Private-Sector Enterprises

		Outstanding amounts – € million				
		Sep-10	Dec-10	Mar-11	Jun-11	Sep-11
1.	**Primary Industries**	2,555	3,030	2,753	2,727	2,760
2.	**Manufacturing**	4,751	4,703	4,584	4,114	4,173
3.	**Electricity, Gas, Steam and Air Conditioning Supply**	681	765	566	518	517
4.	**Water Supply, Sewerage, Waste Management and Remediation Activities**	244	45	58	57	60
5.	**Construction**	2,464	2,282	1,903	2,017	1,925
6.	**Wholesale/Retail Trade & Repairs**	4,150	4,435	4,124	4,336	4,313
7.	**Transportation and Storage**	3,108	2,842	2,294	2,557	2,665
8.	**Hotels and Restaurants**	738	665	634	658	668
9.	**Information and Communication**	1,381	1,062	1,035	960	974
10.	**Financial Intermediation (Excl. Monetary Financial Institutions)**	45,312	40,399	38,305	45,007	40,935
11.	**Real Estate, Land and Development Activities**	6,000	6,226	4,744	4,048	3,993
12.	**Business and Administrative Services**	5,737	5,034	7,188	6,919	7,143
13.	**Other Community, Social and Personal Services**	4,709	4,473	4,319	4,374	4,401
14.	**Education**	1,763	1,839	1,929	1,727	1,768
15.	**Human Health and Social Work**	1,839	1,110	1,088	1,125	1,168
16.	**Extra-Territorial Organisations and Bodies**	0	0	0	0	3
17.	**Total**	85,432	78,910	75,525	81,145	77,467

Table A.16 – *continued*

Transactions – € million					Growth rates – per cent				
Sep-10	Dec-10	Mar-11	Jun-11	Sep-11	Sep-10	Dec-10	Mar-11	Jun-11	Sep-11
-6	491	-276	-26	33	-10.3	4.1	0.5	7.1	8.6
-812	2	-119	-470	68	-15.7	-17.2	-7.7	-25.1	-11.0
-118	92	-199	-48	-1	-24.9	-8.2	-39.1	-34.4	-23.3
24	-190	13	0	3	11.5	-75.1	-65.7	-68.7	-70.3
-157	-165	-377	114	-98	-17.6	-26.3	-32.6	-22.3	-21.4
-292	169	-311	210	8	2.5	-6.3	-5.6	-4.9	1.9
-37	-202	-547	263	108	-7.8	-9.9	-26.8	-16.8	-12.3
86	-149	-31	23	19	4.2	-11.3	-10.3	-10.8	-18.9
1	-204	-73	-75	14	-14.1	-27.9	-18.3	-26.3	-25.3
-1,698	-4,247	-1,800	-1,196	-4,292	3.1	-4.6	-15.7	-19.1	-24.1
-184	305	270	-738	-58	-20.5	-15.5	6.7	-10.2	-8.7
-63	-696	375	-273	223	-18.6	-29.5	-10.4	-10.1	-6.2
91	-236	-240	69	9	-0.7	-5.6	-11.3	-6.9	-8.5
64	99	90	-202	41	5.4	10.6	8.0	2.9	1.6
-313	-607	-21	37	43	-22.7	-46.2	-47.0	-41.9	-29.5
0	0	0	0	3	..	..	..	..	..
-3,414	-5,538	-3,246	-2,311	-3,878	-4.4	-10.2	-13.7	-16.4	-17.2

Table A.18: Credit Advanced to and Deposits from Irish Private Households

	Total Lending	Lending for house purchase								
			Floating rate				Fixed rate			
				Standard variable	Tracker	Up to 1 year fixed		Over 1 and up to 3 years	Over 3 and up to 5 years	Over 5 years
Outstanding amounts – € million										
2010										
June	129,513	107,676	92,160	..	..	..	15,516	7,621	6,318	1,578
September	128,256	107,813	92,451	..	..	..	15,362	7,338	6,546	1,478
December	122,484	99,578	86,715	32,073	53,320	1,322	12,863	6,163	5,169	1,531
2011										
March	120,155	98,851	84,974	30,843	52,880	1,251	13,877	6,774	5,513	1,590
June	119,027	98,335	84,694	30,819	52,633	1,242	13,641	6,772	5,310	1,560
September	117,872	97,964	85,002	31,764	52,026	1,212	12,963	6,498	4,991	1,473
Transactions – € million										
2010										
June	-2,287	-1,172	..	..	..	..	..	..	..	..
September	-1,384	-432	..	..	..	..	..	..	..	..
December	1,080	-583	..	..	..	..	..	..	..	..
2011										
March	-1,369	-678	-1,698	-1,223	-401	-74	1,021	614	347	60
June	-1,229	-640	-405	-76	-320	-10	-235	-1	-202	-32
September	-1,468	-639	40	700	-600	-60	-679	-274	-318	-87
Growth rates – per cent.										
2010										
June	-3.8	-1.5	..	..	..	..	..	..	..	..
September	-4.2	-1.6	..	..	..	..	..	..	..	..
December	-3.0	-2.1	..	..	..	..	..	..	..	..
2011										
March	-3.0	-2.7	..	..	..	..	..	..	..	..
June	-2.3	-2.3	..	..	..	..	..	..	..	..
September	-2.5	-2.5								

Table A.18 – *continued*

Total Lending			Total Deposits	
Other personal				
	Finance for investment	Finance for other purposes		
				Outstanding amounts – € million
				2010
21,837	1,927	19,910	92,722	June
20,443	1,709	18,734	91,371	September
22,906	2,864	20,042	89,217	December
				2011
21,304	2,843	18,461	87,455	March
20,692	2,840	17,852	87,005	June
19,908	2,800	17,108	86,523	September
				Transactions – € million
				2010
-1,115	3	-1,118	-891	June
-952	-125	-827	-1,229	September
1,663	95	1,568	-1,959	December
				2011
-691	-64	-627	-1,551	March
-589	9	-598	-509	June
-830	-66	-763	-497	September
				Growth rates – per cent.
				2010
-12.9	-10.1	-13.1	-2.6	June
-15.6	-18.4	-15.2	-2.0	September
-6.5	-4.8	-6.6	-5.2	December
				2011
-4.4	-3.4	-4.6	-6.0	March
-2.5	-3.2	-2.6	-5.7	June
-2.1	1.1	-2.8	-5.0	September

Table A.19.1: All Credit Institutions: International Business: Analysis by Currency and Sector

	Thursday 30 June 2011	Friday 30 September 2011
Assets		
1. Analysis by currency		
Irish residents in non-euro	36,111	39,870
US Dollar	16,841	16,883
Sterling	16,563	19,944
Other	2,707	3,043
Non-residents in non-euro	231,318	239,749
US Dollar	89,755	94,474
Sterling	113,808	118,038
Other	27,755	27,237
Non-residents in euro	214,478	216,959
2. Analysis by sector		
Irish residents in non-euro		
Monetary financial institutions	8,198	10,817
Non-monetary financial institutions	27,913	29,053
Non-residents in non-euro		
Monetary financial institutions	114,211	115,492
Non-monetary financial institutions	117,107	124,257
Non-residents in euro		
Monetary financial institutions	109,422	110,832
Non-monetary financial institutions	105,056	106,127
3. Total international business	**481,906**	**496,578**

Table A.19.1 – *continued*

	Thursday 30 June 2011	Friday 30 September 2011
Liabilities		
1. Analysis by currency		
Irish residents in non-euro	24,744	28,774
US Dollar	11,172	12,299
Sterling	10,460	12,607
Other	3,111	3,868
Non-residents in non-euro	161,784	172,176
US Dollar	66,872	72,106
Sterling	71,277	76,112
Other	23,636	23,958
Non-residents in euro	202,998	204,860
2. Analysis by sector		
Irish residents in non-euro		
Monetary financial institutions	10,663	15,113
Non-monetary financial institutions	14,081	13,661
Non-residents in non-euro		
Monetary financial institutions	107,161	114,522
Non-monetary financial institutions	54,623	57,654
Non-residents in euro		
Monetary financial institutions	154,393	151,746
Non-monetary financial institutions	48,605	53,114
3. Total international business	**389,526**	**405,810**

Table A.19.2: All Credit Institutions: International Business: Analysis by Geographic Area

	Liabilities			Assets			
	Euro	Non-euro	Total	Euro	Non-euro	Total	Net external liabilities[a]
	Friday 30 September 2011						
1. EU Countries	**192,907**	**167,868**	**360,775**	**205,787**	**204,407**	**410,194**	**-38,323**
MU Countries	**127,653**	**64,765**	**192,418**	**161,051**	**59,082**	**220,133**	**-16,619**
Austria	1,311	54	1,364	2,048	178	2,226	-861
Belgium	32,354	9,816	42,171	4,644	1,584	6,228	35,942
Luxembourg	1,571	1,451	3,022	2,338	936	3,274	-252
Finland	39	76	115	947	65	1,012	-897
France	22,554	4,897	27,451	19,403	3,725	23,128	4,323
Germany	45,534	5,817	51,351	50,733	2,360	53,094	-1,743
Greece	5	12	16	936	322	1,258	-1,242
Ireland	–	28,774	28,774	–	39,870	39,870	–
Italy	15,934	745	16,679	44,368	4,917	49,285	-32,606
Netherlands	7,324	12,958	20,282	11,787	2,350	14,137	6,145
Portugal	49	3	53	1,735	28	1,764	-1,711
Spain	324	21	345	20,558	2,404	22,962	-22,617
Other MU[b]	654	141	794	1,552	344	1,895	-1,101
Other EU	**65,254**	**103,103**	**168,357**	**44,736**	**145,325**	**190,061**	**-21,704**
Denmark	5,464	245	5,709	3,591	1,452	5,043	666
Sweden	54	353	407	518	1,278	1,796	-1,389
United Kingdom	59,707	102,424	162,131	38,029	139,478	177,507	-15,376
Other EU	30	81	111	2,598	3,117	5,715	-5,604
2. Other Europe	**1,882**	**3,717**	**5,599**	**1,698**	**9,044**	**10,742**	**-5,144**
Switzerland	1,816	3,452	5,268	463	5,219	5,681	-413
Other Europe	66	264	330	1,236	3,825	5,061	-4,731
3. Other Industrial Countries	**7,070**	**18,430**	**25,499**	**7,099**	**53,300**	**60,399**	**-34,900**
Australia, New Zealand, South Africa	157	277	435	677	1,973	2,650	-2,215
Canada	80	7,269	7,349	594	3,909	4,503	2,846
Japan	162	41	203	184	3,470	3,653	-3,450
United States	6,671	10,842	17,512	5,645	43,948	49,593	-32,080
4. Offshore Centres	**2,586**	**8,931**	**11,517**	**273**	**6,554**	**6,827**	**4,690**
5. Other	**416**	**2,004**	**2,419**	**2,102**	**6,314**	**8,416**	**-5,996**
Grand Total	**204,860**	**200,950**	**405,810**	**216,959**	**279,619**	**496,578**	**-79,673**

a Net external liabilities are based on the selected assets and liabilities which are included in this table. A plus sign denotes net external liabilities; a minus sign net external assets.

b Positions vis-a-vis Slovenia, Cyprus, Malta, Slovakia and Estonia are not statistically significant.

Table A.19.2 – *continued*

Liabilities			Assets			
Euro	Non-euro	Total	Euro	Non-euro	Total	Net external liabilities[a]
Thursday 30 June 2011						
189,592	**152,632**	**342,224**	**203,452**	**195,070**	**398,521**	**-44,931**
119,685	**58,154**	**177,839**	**162,241**	**56,129**	**218,371**	**-29,164**
139	56	195	1,893	183	2,076	-1,881
33,884	11,783	45,667	4,726	1,550	6,276	39,391
536	635	1,171	3,746	1,191	4,937	-3,766
23	72	95	860	224	1,084	-989
22,459	3,758	26,217	18,668	5,188	23,856	2,361
40,467	4,765	45,232	48,452	1,990	50,442	-5,211
5	16	20	959	219	1,178	-1,158
–	24,744	24,744	–	36,111	36,111	–
11,792	572	12,365	44,429	4,601	49,030	-36,665
7,037	11,509	18,547	12,849	1,963	14,813	3,734
49	3	52	1,866	6	1,872	-1,820
2,675	129	2,803	22,227	2,521	24,748	-21,944
618	114	732	1,567	381	1,948	-1,216
69,906	**94,478**	**164,384**	**41,210**	**138,940**	**180,151**	**-15,766**
3,900	311	4,210	2,211	1,253	3,464	747
74	364	438	614	1,447	2,060	-1,622
65,893	93,738	159,631	35,792	133,107	168,899	-9,268
39	65	104	2,593	3,134	5,728	-5,623
1,810	**4,883**	**6,693**	**1,779**	**8,582**	**10,361**	**-3,668**
1,687	4,598	6,284	420	5,135	5,556	729
123	285	408	1,359	3,447	4,805	-4,397
8,687	**18,631**	**27,318**	**6,540**	**51,849**	**58,389**	**-31,071**
84	357	441	833	3,375	4,208	-3,768
84	7,286	7,370	553	3,999	4,552	2,818
184	40	224	261	3,043	3,304	-3,080
8,335	10,948	19,283	4,892	41,433	46,325	-27,042
2,513	**8,652**	**11,165**	**435**	**5,804**	**6,239**	**4,926**
396	**1,731**	**2,127**	**2,273**	**6,124**	**8,397**	**-6,269**
202,998	**186,528**	**389,526**	**214,478**	**267,429**	**481,906**	**-81,013**

Table A.20.1: Money Market Funds – Monthly Aggregate Balance Sheet

Assets

	Total	Deposits and loan claims	Securities other than shares				Money market fund shares/ units	Other assets including shares and other equities
			Issued by Irish residents	Issued by other euro area residents	Issued by non-euro area residents			
					MFIs	Other		
Outstanding Amounts – € million								
2010								
November	368,829	43,847	3,276	97,255	182,488	40,464	733	766
December	359,015	47,749	3,410	92,513	173,938	40,262	730	415
2011								
January	359,684	41,792	2,899	91,286	182,268	39,951	732	755
February	360,229	46,597	2,618	93,242	178,843	37,765	762	400
March	347,723	44,060	2,431	91,830	167,104	40,570	786	941
April	350,458	69,140	2,374	84,552	156,938	36,082	892	480
May	362,704	107,508	1,894	73,536	141,897	36,505	960	406
June	351,493	108,862	2,967	59,049	138,041	40,577	833	1,163
July	347,572	105,512	3,999	56,261	138,354	40,908	866	1,682
August	354,920	123,189	4,195	57,740	130,828	37,449	940	580
September	367,261	115,334	2,531	64,231	139,125	43,805	889	1,345
October	367,336	120,829	2,912	63,719	133,637	44,150	896	1,208
November	382,485	126,616	2,807	69,487	129,039	52,585	875	1,093

Liabilities

	Total	Money market fund shares/units issued			Other Liabilities
		Issued to Irish residents	Issued to other euro area residents	Issued to non-euro area residents	
Outstanding amounts – € million					
2010					
November	368,829	12,031	55,578	298,950	2,269
December	359,015	12,229	52,963	292,270	1,554
2011					
January	359,684	13,147	53,849	289,516	3,172
February	360,229	15,248	54,137	287,154	3,690
March	347,723	15,186	55,213	274,606	2,718
April	350,458	15,719	57,225	271,813	5,701
May	362,704	15,564	55,696	287,914	3,530
June	351,493	17,798	55,881	276,592	1,222
July	347,572	16,581	55,515	273,856	1,619
August	354,920	19,225	54,882	275,716	5,097
September	367,261	16,498	53,050	292,214	5,500
October	367,336	16,547	52,992	291,167	6,630
November	382,485	17,436	53,721	303,948	7,380

Table A.20.2: Money Market Funds – Currency Breakdown of Assets

	Assets								
	Total	Loans				Securities other than shares			
						Issued by Irish residents			
		Euro	Sterling	USD	Other	Euro	Sterling	USD	Other
Outstanding Amounts – € million									
2009									
June	316,808	5,834	10,602	13,009	557	1,323	2,663	683	1
September	308,528	4,607	8,394	14,903	460	1,005	2,412	899	–
December	308,551	6,608	8,193	12,983	316	1,232	2,439	852	–
2010									
March	322,280	7,825	6,385	20,786	306	1,458	1,980	987	3
June	345,479	8,795	9,923	17,999	373	2,199	1,945	669	20
September	345,662	11,789	9,808	20,853	330	1,861	1,239	798	3
December	357,873	10,774	12,080	24,566	330	1,007	1,674	652	78
2011									
March	345,996	11,651	11,482	20,573	355	1,384	489	486	72
June	349,497	30,731	25,405	52,446	280	2,024	432	438	75
September	365,026	27,219	31,372	56,403	340	1,961	243	326	–

	Securities other than shares							
	Issued by other euro area residents				Issued by non-euro area residents			
	Euro	Sterling	USD	Other	Euro	Sterling	USD	Other
2009								
June	37,560	19,420	13,963	222	13,311	83,370	112,771	1,519
September	43,812	17,536	12,903	308	14,170	84,170	101,383	1,569
December	46,923	18,901	12,388	552	15,119	80,807	100,113	1,124
2010								
March	50,509	19,647	12,775	562	16,166	84,072	97,543	1,275
June	48,317	21,015	14,463	437	17,682	85,703	114,646	1,293
September	49,810	23,858	15,248	449	14,772	85,043	108,590	1,212
December	51,219	24,083	16,142	1,068	15,587	90,212	106,412	1,989
2011								
March	50,068	22,544	18,792	427	14,603	88,462	103,847	761
June	25,952	17,456	15,284	358	21,357	73,769	82,533	959
September	28,504	25,320	9,986	421	27,643	72,570	81,775	941

Section B

Interest Rates

Table B.1.1: Retail Interest Rates – Deposits, Outstanding Amounts

	Households				Non-financial corporations		
	Overnight	Redeemable at notice	With agreed maturity		Overnight	With agreed maturity	
			Up to 2 years	Over 2 years		Up to 2 years	Over 2 years
Rates (per cent per annum)							
2010							
November	0.59	2.17	2.80	1.77	0.19	2.12	2.80
December	0.62	2.17	2.80	1.75	0.19	2.26	2.61
2011							
January	0.63	2.17	2.79	1.72	0.21	2.30	2.51
February	0.63	2.17	2.77	1.79	0.21	2.29	1.38
March	0.64	2.18	2.74	1.80	0.22	2.31	1.37
April	0.70	2.29	2.76	1.82	0.23	2.47	1.19
May	0.68	2.29	2.80	2.06	0.24	2.61	1.30
June	0.65	2.30	2.84	2.01	0.26	2.72	1.22
July	0.66	2.41	2.89	2.03	0.25	2.82	1.25
August	0.66	2.40	2.95	2.01	0.26	2.90	1.16
September	0.65	2.41	3.04	2.04	0.26	2.98	1.15
October	0.66	2.43	3.12	2.09	0.23	3.10	1.21
November	0.65	2.32	3.18	2.28	0.24	3.13	1.33
Volumes (€ million)							
2010							
November	35,935	15,856	27,914	3,028	15,970	16,802	1,756
December	36,986	15,166	27,849	3,310	17,076	14,087	543
2011							
January	36,509	14,974	27,848	3,310	16,450	14,260	529
February	36,554	14,708	27,384	3,343	16,118	14,209	511
March	36,349	14,324	27,511	3,382	16,003	14,544	533
April	36,333	14,159	27,764	3,408	15,932	13,459	513
May	35,754	13,795	27,954	3,402	15,887	13,442	545
June	35,786	13,365	28,156	3,565	15,928	13,154	552
July	35,650	13,221	28,081	3,613	15,789	13,233	555
August	35,107	13,210	28,114	3,601	16,374	13,128	545
September	35,141	13,003	28,710	3,601	16,195	13,204	551
October	35,251	12,824	28,989	3,733	16,391	12,994	546
November	34,059	12,482	28,868	3,908	16,572	13,311	535

Notes: The interest rate and volume data refer to euro-denominated deposits and loans vis-à-vis households and non-financial corporations resident in Ireland and other Monetary Union Member States. Rates reported are weighted averages for each instrument category.

Data are representative of resident offices of banks and building societies. Credit union data are not included in the interest rates tables.

Table B.1.2: Retail Interest Rates – Loans, Outstanding Amounts

	Households						
	Overdrafts	Loans for house purchases with original maturity			Consumer loans and other loans with original maturity		
		Up to 1 year	Over 1 and up to 5 years	Over 5 years	Up to 1 year	Over 1 and up to 5 years	Over 5 years
Rates (per cent per annum)							
2010							
November	12.83	3.27	2.94	2.85	9.04	5.48	4.11
December	13.10	3.28	3.11	2.90	9.06	5.44	4.18
2011							
January	13.24	3.30	3.11	2.90	9.20	6.00	4.31
February	13.12	3.26	2.98	2.98	9.08	5.93	4.09
March	13.13	3.32	3.06	3.01	9.12	5.93	4.11
April	13.29	3.47	3.22	3.14	9.38	6.02	4.27
May	13.08	3.54	3.27	3.18	9.33	6.03	4.31
June	12.79	3.50	3.35	3.19	9.20	6.16	4.29
July	13.28	3.76	3.49	3.33	9.24	6.21	4.42
August	13.43	3.70	3.52	3.41	9.21	6.32	4.43
September	13.36	3.75	3.40	3.42	9.24	6.33	4.47
October	13.32	3.73	3.59	3.40	9.27	6.36	4.49
November	13.33	3.68	3.52	3.23	9.25	6.34	4.47
Volumes (€ million)							
2010							
November	3,809	772	1,432	104,432	6,860	7,707	10,465
December	3,841	776	998	97,403	7,449	7,865	9,461
2011							
January	3,756	771	980	97,139	7,217	7,778	9,451
February	3,789	686	923	97,067	7,299	8,521	10,459
March	3,663	683	920	96,866	7,036	8,508	10,537
April	3,685	623	907	96,723	6,965	8,359	10,621
May	3,676	586	894	96,506	6,864	8,291	10,560
June	3,629	632	829	96,475	6,817	8,260	10,551
July	3,604	533	807	96,266	6,731	8,188	10,507
August	3,555	549	769	96,047	6,957	7,844	10,443
September	3,628	550	988	96,015	6,748	7,914	10,421
October	3,898	535	686	79,163	6,663	7,825	10,719
November	3,774	527	666	79,110	6,502	7,853	10,671

Notes: The interest rate and volume data refer to euro-denominated deposits and loans vis-à-vis households and non-financial corporations resident in Ireland and other Monetary Union Member States. Rates reported are weighted averages for each instrument category.

Data are representative of resident offices of banks and building societies. Credit union data are not included in the interest rates tables.

Table B.1.2 – *Continued*

Non-financial corporations

Overdrafts	Loans with original maturity			
	Up to 1 year	Over 1 and up to 5 years	Over 5 years	
				Rates (per cent per annum)
				2010
5.01	3.32	3.30	3.13	November
5.34	3.47	3.31	3.20	December
				2011
5.16	3.52	3.33	3.20	January
5.31	3.60	3.36	3.27	February
4.91	3.64	3.34	3.29	March
5.06	3.73	3.54	3.44	April
5.14	3.77	3.55	3.47	May
5.35	3.85	3.60	3.57	June
5.36	3.99	3.85	3.68	July
5.35	3.98	3.78	3.66	August
5.26	3.96	3.81	3.65	September
5.32	3.95	3.82	3.66	October
5.23	3.92	3.81	3.66	November
				Volumes (€ million)
				2010
10,687	23,129	28,259	43,342	November
9,912	22,783	27,369	43,036	December
				2011
9,880	22,571	27,882	42,768	January
9,928	23,563	26,740	41,337	February
9,780	23,061	26,642	40,957	March
9,623	22,990	26,170	40,885	April
9,482	23,128	26,053	40,619	May
9,462	23,815	25,757	40,609	June
9,243	23,695	25,519	40,618	July
9,208	23,348	25,335	40,820	August
9,366	23,455	25,379	40,808	September
9,233	23,209	24,545	40,811	October
9,626	23,657	24,431	40,826	November

Table B.2.1: Retail Interest Rates and Volumes – Loans and Deposits, New Business

	Loans						
	Households						
	For house purchases			For consumption purposes			For other purposes
	Floating rate and up to 1 year fixation	Over 1 year fixation	APRC	Floating rate and up to 1 year fixation	Over 1 year fixation	APRC	
Rates (per cent per annum)							
2010							
November	2.95	4.10	3.24	6.06	10.46	6.84	4.79
December	3.01	4.17	3.28	4.76	10.04	5.23	3.87
2011							
January	2.91	4.26	3.24	5.79	10.63	6.71	4.50
February	2.99	4.52	3.72	7.26	9.92	8.16	5.09
March	3.09	4.23	3.46	6.03	10.08	7.24	4.89
April	3.20	4.29	3.47	5.23	9.90	6.38	4.61
May	3.30	4.43	3.50	7.23	10.55	8.19	5.93
June	3.18	4.49	3.38	5.05	10.79	6.69	5.12
July	3.36	4.60	3.53	6.36	10.81	7.99	5.13
August	3.43	4.57	3.64	6.78	10.80	8.37	5.27
September	3.50	4.86	3.65	5.38	11.08	6.77	5.94
October	3.30	4.56	3.46	4.95	10.96	6.40	4.89
November	3.12	4.33	3.25	4.86	10.70	6.19	5.55
Volumes (€ million)							
2010							
November	1,178	389	..	180	38	..	132
December	1,090	329	..	248	25	..	87
2011							
January	1,047	322	..	182	44	..	54
February	1,009	898	..	143	62	..	53
March	1,194	586	..	134	60	..	57
April	1,092	331	..	156	51	..	77
May	1,086	211	..	104	42	..	38
June	1,086	181	..	155	62	..	48
July	1,103	169	..	104	60	..	46
August	1,130	160	..	92	60	..	48
September	1,039	127	..	167	53	..	62
October	772	108	..	158	50	..	85
November	957	114	..	179	52	..	81

Notes: The interest rate and volume data refer to euro-denominated deposits and loans vis-à-vis households and non-financial corporations resident in Ireland and other Monetary Union Member States. Rates reported are weighted averages for each instrument category.

Data are representative of resident offices of banks and building societies. Credit union data are not included in the interest rates tables.

Table B.2.1 – *Continued*

Loans				Deposits		
Non-financial corporations						
Loans up to €1 million		Loans over €1 million		Households	Non-financial corporations	
Floating rate and up to 1 year fixation	Over 1 year fixation	Floating rate and up to 1 year fixation	Over 1 year fixation	With agreed maturity	With agreed maturity	
						Rates (per cent per annum)
						2010
4.49	5.14	3.20	3.46	1.75	1.25	November
3.87	4.71	3.12	2.79	1.84	1.40	December
						2011
4.24	5.41	3.24	2.83	1.81	1.42	January
4.32	5.38	3.09	2.63	1.97	1.41	February
4.26	5.78	3.50	2.30	1.93	1.41	March
4.74	6.17	3.22	2.27	1.81	1.52	April
4.75	6.90	2.96	4.29	1.98	1.72	May
4.86	6.24	3.49	4.47	2.11	1.82	June
5.08	6.10	3.44	4.68	2.12	2.07	July
4.97	6.39	3.37	4.17	2.32	1.92	August
4.99	6.04	3.36	3.89	2.46	2.05	September
3.92	6.16	3.17	3.19	2.40	2.20	October
5.29	6.06	3.38	3.03	2.40	2.02	November
						Volumes (€ million)
						2010
491	58	2,162	204	9,144	7,539	November
529	47	1,561	203	9,932	6,695	December
						2011
303	50	627	264	10,088	6,575	January
328	63	803	189	10,129	6,565	February
405	65	1,151	169	12,333	6,717	March
250	45	626	45	7,873	5,170	April
247	54	841	77	7,862	5,143	May
329	50	988	9	8,052	5,465	June
265	43	883	27	7,145	5,270	July
285	38	679	16	7,691	5,185	August
303	42	857	31	8,765	5,999	September
432	38	1,083	26	7,859	4,878	October
326	43	1,118	11	7,747	4,638	November

Table B.3: Official and Selected Interest Rates

	Eurosystem Official Interest Rates			Interbank Market				Clearing Banks' Prime Rates
Per cent per annum	Marginal lending facility	Deposit facility	Main refinancing operations	Eonia (overnight)	1 month Euribor	3 month Euribor	12 month Euribor	Ireland
End-month								
2010								
November	1.75	0.25	1.00	0.54	0.81	1.03	1.53	1.10 - 2.30
December	1.75	0.25	1.00	0.82	0.78	1.01	1.51	1.15 - 2.30
2011								
January	1.75	0.25	1.00	1.31	0.90	1.07	1.64	1.15 - 2.40
February	1.75	0.25	1.00	0.69	0.87	1.09	1.77	1.15 - 2.40
March	1.75	0.25	1.00	0.90	0.97	1.24	2.00	1.20 - 2.50
April	2.00	0.50	1.25	1.42	1.24	1.39	2.13	1.25 - 2.70
May	2.00	0.50	1.25	0.95	1.23	1.43	2.14	1.35 - 2.80
June	2.00	0.50	1.25	1.72	1.33	1.55	2.16	1.45 - 2.80
July	2.25	0.75	1.50	0.97	1.43	1.61	2.18	1.60 - 2.90
August	2.25	0.75	1.50	0.96	1.35	1.54	2.09	1.70 - 2.90
September	2.25	0.75	1.50	1.46	1.36	1.55	2.08	1.65 - 2.90
October	2.25	0.75	1.50	0.94	1.37	1.59	2.12	1.65 - 2.90
November	2.00	0.50	1.25	0.81	1.21	1.47	2.04	1.70 - 2.80

Note: Euribor is the rate at which euro interbank term deposits are offered by one prime bank to another, within the euro area. Daily data from 30 December 1998 are available from www.euribor.org.

Section C

Other Financial Data

Table C.1: Investment Funds – Aggregate Balance Sheet

Total Assets

		Deposits and loan claims			Securities other than shares		
		Domestic Total	OMUMs' Total	ROW Total	Domestic Total	OMUMs' Total	ROW Total
Outstanding amounts – € million							
2010							
March	510,571	4,448	2,484	12,604	5,918	33,115	120,299
June	553,748	4,836	2,760	18,363	5,619	34,120	144,596
September	577,972	4,649	1,733	18,011	5,721	36,471	157,039
December	645,556	4,178	1,771	19,464	5,871	37,934	190,426
2011							
March	649,414	4,506	2,041	19,858	5,286	39,446	178,724
June	670,762	4,220	2,075	21,275	5,022	40,433	192,748
September	661,748	3,661	1,803	23,513	4,538	40,778	210,498
Transactions – € million							
2010							
March	25,062	-197	-41	-1,068	1,579	-2,806	6,528
June	19,678	377	389	4,224	-513	654	11,017
September	29,006	-131	-968	1,068	144	1,913	16,768
December	35,137	-435	17	1,290	260	938	29,153
2011							
March	18,479	414	273	1,146	-497	1,869	-5,796
June	25,363	-439	42	646	-215	955	13,171
September	3,255	-1,844	-318	3,377	270	-31	4,950

Total Liabilities

		Investment fund shares/units							
		Domestic MFIs	Domestic Non-MFI's	Domestic Total	OMUMs MFI	OMUMs' Non-MFI's	OMUMs' Total	ROW Total	Total
Outstanding amounts – € million									
2010									
March	510,571	7,132	26,961	34,093	33,933	128,271	162,204	288,097	484,395
June	553,748	9,637	36,430	46,067	34,536	130,552	165,088	309,438	520,593
September	577,972	9,122	34,482	43,603	36,418	137,666	174,084	322,055	539,743
December	645,556	10,367	39,188	49,555	41,103	155,375	196,478	359,435	605,468
2011									
March	649,414	6,658	25,170	31,828	38,347	144,957	183,305	392,790	607,923
June	670,762	18,222	27,242	45,464	78,845	117,875	196,720	381,223	623,407
September	661,748	16,605	24,824	41,429	73,178	109,402	182,580	381,949	605,958
Transactions – € million									
2010									
March	25,062	598	2,262	2,860	-89	-338	-427	13,605	16,038
June	19,678	1,798	6,798	8,596	-315	-1,192	-1,507	7,687	14,776
September	29,006	-605	-2,288	-2,894	2,012	7,604	9,615	16,295	23,017
December	35,137	495	1,871	2,365	2,767	10,459	13,226	17,673	33,264
2011									
March	18,479	-3,601	-13,613	-17,214	-1,989	-7,517	-9,506	41,903	15,184
June	25,363	8,746	-8,850	-104	37,658	-39,178	-1,520	21,737	20,133
September	3,255	-1,693	-2,531	-4,224	-3,539	-5,291	-8,831	10,942	-2,113

Note: Within Liabilities, changes to investment fund shares/units can be larger than normal in Q2 due to updating according to the Fund Annual Survey of Liabilities.

* A reclassification from Non-Financial assets to Other Assets resulted in large transaction figures in Q4 2010.

Table C.1 – *continued*

Shares and other equity			Investment fund shares/units (incl. MMF shares)			Non-financial assets			Other assets
Domestic Total	OMUMs' Total	ROW Total	Domestic Total	OMUMs' Total	ROW Total	Domestic Total	OMUMs' Total	ROW Total	Total
10,390	35,532	186,836	29,445	4,950	20,395	16,242	524	14,934	12,455
11,109	30,508	192,061	31,628	5,005	23,218	17,286	510	17,185	14,944
9,627	34,523	198,468	31,457	5,472	20,963	17,621	843	13,936	21,439
12,175	38,097	230,145	33,092	6,909	21,556	11*	0*	135*	43793*
14,174	44,708	226,522	32,901	7,322	24,864	10	0	134	48,917
12,243	45,187	230,348	33,417	8,115	25,919	11	0	63	49,684
14,170	33,909	204,114	36,312	8,609	28,655	11	0	65	51,111
850	1,927	3,031	2,211	123	-865	7,011	271	6,451	59
431	-4,190	4,699	693	46	1,226	-1,422	-42	184	1,904
-1,082	1,846	2,812	2,567	437	-918	1,719	307	-2,153	4,677
2,787	2,331	8,215	-165	1,245	-805	-8,299*	-526*	1,475*	22,470*
2,228	5,814	2,220	112	511	3,561	0	0	15	6,608
-2,144	264	8,677	1,985	1,050	889	0	0	-71	551
794	-6,230	-5,891	3,319	1,188	2,356	0	0	-14	1,330

Loans and deposits received	Other liabilities
Total	Total
4,082	22,095
5,440	27,715
4,206	34,023
3,899	36,190
4,792	36,700
5,419	41,936
5,626	50,165
1,615	7,408
1,040	3,861
-993	6,982
-365	2,238
1,038	2,258
566	4,684
-141	5,509

Table C.2.1: Securities Issues Statistics: Debt Securities

€ Million	Debt securities: All currencies					
	Short-term securities					
	Total	MFIs	OFIs	IC&PF	NFCs	Govt
Outstanding amounts						
2009						
December	95,737	46,496	36,504	0	0	12,737
2010						
January	96,031	46,771	36,708	0	0	12,552
February	85,841	47,448	27,097	0	0	11,296
March	86,209	47,975	26,183	0	0	12,051
April	87,766	46,971	28,816	0	0	11,979
May	81,067	41,251	31,898	0	0	7,918
June	79,680	38,201	32,506	0	0	8,973
July	72,122	35,251	30,230	0	0	6,641
August	81,035	36,883	34,992	0	0	9,160
September	78,742	32,609	34,470	0	0	11,663
October	78,130	29,094	38,804	0	0	10,232
November	77,637	26,792	41,395	0	0	9,450
December	84,265	18,382	59,014	0	0	6,869
2011						
January	101,456	35,235	61,512	0	0	4,709
February	87,498	35,254	48,800	0	0	3,444
March	84,592	34,574	48,125	0	0	1,893
April	86,280	37,242	48,310	0	0	728
May	85,582	36,377	48,489	0	0	716
June	80,721	32,255	48,014	0	0	452
July	78,465	30,837	47,153	0	0	475
August	78,732	28,950	48,473	0	0	1,309
September	77,279	28,777	48,005	0	0	497
October	78,507	28,048	48,597	0	0	1,862
November	75,771	27,342	47,935	0	0	494
Transactions						
2009						
December						
2010						
January	294	275	204	0	0	-185
February	-10,201	665	-9,610	0	0	-1,256
March	369	528	-914	0	0	755
April	1,556	-1,004	2,632	0	0	-72
May	-6,698	-5,720	3,083	0	0	-4,061
June	-1,387	-3,050	608	0	0	1,055
July	-7,558	-2,950	-2,276	0	0	-2,332
August	8,913	1,633	4,762	0	0	2,518
September	-2,294	-4,275	-522	0	0	2,503
October	-612	-3,515	4,334	0	0	-1,431
November	-494	-2,302	2,591	0	0	-783
December	6,628	-8,410	17,619	0	0	-2,581
2011						
January	17,191	16,854	2,497	0	0	-2,160
February	-13,958	19	-12,712	0	0	-1,265
March	-2,907	-681	-675	0	0	-1,551
April	1,690	2,668	186	0	0	-1,164
May	-699	-865	178	0	0	-12
June	-4,860	-4,122	-474	0	0	-264
July	-2,256	-1,418	-861	0	0	23
August	267	-1,887	1,320	0	0	834
September	-1,453	-173	-468	0	0	-812
October	1,228	-729	592	0	0	1,365
November	-2,736	-706	-662	0	0	-1,368

Table C.2.1 – *continued*

Debt securities: All currencies

Long-term securities					
Total	MFIs	OFIs	IC&PF	NFCs	Govt
959,791	132,681	751,528	2,302	1,997	71,283
970,413	135,817	752,390	2,245	2,006	77,955
967,816	136,067	747,158	2,299	2,233	80,059
972,758	141,941	744,918	2,385	2,201	81,313
982,949	144,801	750,554	2,346	3,273	81,975
998,287	145,348	762,450	2,537	4,189	83,763
995,602	142,696	761,563	2,557	3,537	85,249
979,890	138,000	750,344	2,214	2,665	86,667
1,003,201	138,332	770,593	2,457	3,615	88,204
967,772	115,471	756,705	2,294	3,605	89,697
969,222	105,978	767,344	2,229	4,001	89,670
993,806	102,983	792,312	4,310	4,227	89,974
982,305	101,120	783,140	4,186	3,665	90,194
982,523	99,327	787,011	2,277	3,734	90,174
975,512	99,508	780,066	2,261	3,596	90,081
959,572	94,511	769,423	2,197	3,549	89,892
952,240	93,242	764,350	2,108	2,867	89,673
952,850	92,760	765,351	2,167	2,906	89,666
950,197	91,083	764,532	2,152	2,719	89,711
952,973	90,892	767,310	2,182	2,816	89,773
941,105	90,407	755,855	2,167	2,806	89,870
943,610	89,300	759,342	2,294	2,990	89,684
937,043	88,370	753,716	2,245	2,939	89,773
941,001	88,896	761,404	2,328	2,993	85,380
10,623	3,136	863	-57	9	6,672
-2,595	251	-5,232	55	227	2,104
4,942	5,874	-2,240	86	-32	1,254
10,190	2,860	5,636	-39	1,071	662
15,340	547	11,896	191	917	1,789
-2,684	-2,652	-887	21	-652	1,486
-15,715	-4,697	-11,219	-344	-872	1,417
23,312	332	20,249	243	950	1,538
-35,428	-22,861	-13,888	-163	-9	1,493
1,449	-9,493	10,639	-66	396	-27
24,583	-2,995	24,967	2,081	225	305
-11,500	-1,863	-9,172	-124	-561	220
218	-1,792	3,872	-1,909	68	-21
-7,010	181	-6,945	-17	-137	-92
-15,940	-4,997	-10,643	-64	-47	-189
-7,334	-1,269	-5,074	-89	-683	-219
611	-482	1,001	59	40	-7
-2,654	-1,677	-819	-15	-188	45
2,775	-192	2,778	30	97	62
-11,868	-484	-11,455	-15	-10	96
2,506	-1,108	3,488	127	184	-185
-6,568	-930	-5,626	-50	-51	89
3,958	526	7,688	84	53	-4,393

Table C.2.1 – *continued*

€ Million	Debt securities: Euro denominated					
	Short-term securities					
	Total	MFIs	OFIs	IC&PF	NFCs	Govt
Outstanding amounts						
2009						
December	62,915	24,071	29,574	0	0	9,270
2010						
January	62,826	23,782	29,774	0	0	9,270
February	52,015	24,285	20,133	0	0	7,597
March	54,167	25,420	20,224	0	0	8,523
April	57,512	26,122	22,756	0	0	8,634
May	56,046	24,950	25,751	0	0	5,345
June	55,074	21,605	26,786	0	0	6,683
July	50,169	20,151	24,884	0	0	5,134
August	58,285	20,963	29,746	0	0	7,576
September	58,868	19,436	29,284	0	0	10,148
October	59,038	16,417	33,494	0	0	9,127
November	60,702	16,157	36,354	0	0	8,191
December	70,967	11,198	53,607	0	0	6,162
2011						
January	87,985	27,434	56,289	0	0	4,262
February	75,807	28,332	44,366	0	0	3,109
March	72,493	27,445	43,485	0	0	1,563
April	74,443	30,315	43,623	0	0	505
May	74,484	30,263	43,926	0	0	295
June	71,890	28,183	43,412	0	0	295
July	70,393	27,384	42,869	0	0	140
August	70,800	25,738	44,072	0	0	990
September	69,214	25,545	43,429	0	0	240
October	70,803	25,374	43,934	0	0	1,495
November	68,583	24,697	43,701	0	0	185
Transactions						
2009						
December						
2010						
January	-89	-289	200	0	0	0
February	-10,822	491	-9,640	0	0	-1,673
March	2,151	1,135	90	0	0	926
April	3,344	702	2,532	0	0	110
May	-1,465	-1,171	2,995	0	0	-3,289
June	-973	-3,346	1,035	0	0	1,338
July	-4,903	-1,453	-1,901	0	0	-1,549
August	8,115	812	4,861	0	0	2,442
September	583	-1,527	-462	0	0	2,572
October	-612	-3,515	4,334	0	0	-1,431
November	1,664	-261	2,860	0	0	-935
December	10,265	-4,959	17,253	0	0	-2,029
2011						
January	17,019	16,236	2,683	0	0	-1,900
February	-12,179	898	-11,923	0	0	-1,154
March	-3,313	-886	-881	0	0	-1,546
April	1,949	2,869	138	0	0	-1,058
May	40	-52	302	0	0	-210
June	-2,593	-2,079	-514	0	0	0
July	-1,497	-799	-543	0	0	-155
August	407	-1,647	1,204	0	0	850
September	-1,586	-193	-643	0	0	-750
October	1,228	-729	592	0	0	1,365
November	-2,218	-676	-232	0	0	-1,310

Table C.2.1 – *continued*

Debt securities: Euro denominated

Long-term securities					
Total	MFIs	OFIs	IC&PF	NFCs	Govt
718,359	98,355	547,409	120	1,617	70,858
727,609	100,469	548,008	0	1,617	77,515
723,770	100,292	542,013	0	1,857	79,608
730,971	105,637	542,714	0	1,757	80,863
734,414	109,444	540,552	0	2,899	81,519
734,169	108,778	539,264	0	2,859	83,268
728,284	106,381	534,964	0	2,192	84,747
733,211	104,508	540,025	0	2,100	86,578
751,680	106,360	554,891	0	2,318	88,111
730,361	88,980	549,454	0	2,318	89,609
724,716	80,992	551,825	0	2,318	89,581
729,823	76,902	560,461	160	2,418	89,882
723,491	76,548	554,695	160	1,986	90,102
714,446	75,906	546,369	0	2,086	90,085
709,418	76,973	540,492	0	1,960	89,993
701,465	73,083	536,615	0	1,960	89,807
706,745	72,596	543,203	0	1,356	89,590
703,412	72,055	540,420	0	1,356	89,581
701,756	71,341	539,533	0	1,256	89,626
698,103	71,065	536,098	0	1,256	89,684
690,471	70,889	528,547	0	1,256	89,779
682,903	69,173	522,785	0	1,356	89,589
680,892	69,299	520,556	0	1,356	89,681
676,333	69,850	519,843	0	1,356	85,284
9,249	2,113	599	-120	0	6,657
-3,840	-177	-5,995	0	239	2,093
7,201	5,345	701	0	-100	1,255
3,443	3,807	-2,162	0	1,143	655
-246	-666	-1,289	0	-40	1,749
-5,884	-2,396	-4,299	0	-668	1,479
4,928	-1,873	5,061	0	-91	1,831
18,468	1,852	14,866	0	217	1,533
-21,318	-17,380	-5,437	0	0	1,499
1,449	-9,493	10,639	-66	396	-27
5,108	-4,090	8,636	160	100	302
-6,332	-354	-5,766	0	-432	220
-9,046	-642	-8,326	-160	100	-18
-5,027	1,068	-5,877	0	-126	-92
-7,954	-3,890	-3,878	0	0	-186
5,280	-488	6,588	0	-603	-217
-3,333	-541	-2,783	0	0	-9
-1,656	-714	-887	0	-100	45
-3,652	-276	-3,434	0	0	58
-7,632	-176	-7,551	0	0	95
-7,567	-1,715	-5,762	0	100	-190
-6,568	-930	-5,626	-50	-51	89
-4,559	550	-712	0	0	-4,397

Table C.2.2: Securities Issues Statistics: Equities

€ Million	Equity Securities					
	Quoted securities					
	Total	MFIs	OFIs	IC&PF	NFCs	Govt
Outstanding amounts						
2009						
December	157,036	9,683	3,775	230	143,348	..
2010						
January	146,485	8,904	3,692	201	133,688	..
February	134,812	9,813	3,948	201	120,850	..
March	137,922	9,738	4,151	243	123,790	..
April	144,041	10,023	4,662	260	129,096	..
May	137,250	10,906	4,987	212	121,145	..
June	138,919	11,345	4,819	222	122,533	..
July	141,195	12,358	9,301	226	119,310	..
August	141,339	12,304	9,010	230	119,795	..
September	146,562	10,915	9,529	215	125,903	..
October	159,358	10,269	9,317	204	139,568	..
November	164,328	9,112	10,081	193	144,942	..
December	172,760	9,389	10,409	206	152,756	..
2011						
January	173,953	9,125	10,832	220	153,776	..
February	176,419	9,760	11,047	253	155,359	..
March	174,339	8,567	11,088	241	154,443	..
April	180,718	11,370	10,704	241	158,403	..
May	181,344	10,020	10,410	243	160,671	..
June	178,633	9,410	10,636	238	158,349	..
July	173,322	10,895	10,420	229	151,778	..
August	166,840	14,860	9,983	223	141,774	..
September	164,571	14,512	10,497	216	139,346	..
October	179,512	16,020	11,303	215	151,974	..
November	180,840	15,578	11,561	218	153,483	..
Transactions						
2009						
December						
2010						
January	2	0	0	0	2	..
February	940	0	-17	0	957	..
March	135	0	0	0	135	..
April	129	0	0	0	129	..
May	1,949	1,725	57	0	167	..
June	1,082	910	0	0	172	..
July	6	0	0	0	6	..
August	0	0	0	0	0	..
September	189	182	0	0	7	..
October	8	0	0	0	8	..
November	105	0	0	0	105	..
December	-430	0	-299	0	-131	..
2011						
January	104	190	0	0	-86	..
February	-101	0	0	0	-101	..
March	-154	0	-225	0	71	..
April	2,476	2,394	1	0	81	..
May	-544	0	0	0	-544	..
June	141	0	5	0	136	..
July	2,104	2,024	0	0	80	..
August	5,411	5,534	-158	0	35	..
September	2,212	0	2,284	0	-72	..
October	2,269	708	0	0	1,561	..
November	-371	0	343	0	-714	..

Table C.2.2 – *continued*

Equity Securities					
Unquoted securities					
Total	MFIs	OFIs	IC&PF	NFCs	Govt
477	0	14	0	463	..
477	0	14	0	463	..
463	0	14	0	449	..
463	0	14	0	449	..
463	0	14	0	449	..
463	0	14	0	449	..
463	0	14	0	449	..
463	0	14	0	449	..
490	0	14	0	476	..
490	0	14	0	476	..
490	0	14	0	476	..
490	0	14	0	476	..
490	0	14	0	476	..
509	0	14	0	495	..
515	0	14	0	501	..
508	0	14	0	494	..
507	0	14	0	493	..
506	0	14	0	492	..
501	0	14	0	487	..
501	0	14	0	487	..
501	0	14	0	487	..
501	0	14	0	487	..
501	0	14	0	487	..
501	0	14	0	487	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
9	0	0	0	9	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..
0	0	0	0	0	..

Section D

Quarterly Financial Accounts

Table D.1: Financial Balance Sheet By Sector, Q2 2011

	Total Assets	Total Liabilities	Net Financial Wealth	Total Assets Transactions	Total Liabilities Transactions	Net Financial Borrowing/ Lending
€ million						
Non-financial corporations	**642,558**	**826,447**	**-183,889**	**13,284**	**13,539**	**-255**
Financial corporations	**3,364,813**	**3,430,632**	**-65,819**	**-82,452**	**-83,931**	**1,479**
Monetary financial institutions	1,514,364	1,555,212	-40,848	-94,951	-96,842	1,891
Other financial intermediaries and financial auxiliaries	1,571,807	1,592,091	-20,284	31,517	32,236	-719
Insurance corporations and pension funds	278,642	283,329	-4,687	-19,018	-19,325	307
General government	**74,919**	**152,842**	**-77,924**	**-864**	**1,393**	**-2,257**
Households and non-profit institutions serving households	**299,318**	**192,357**	**106,961**	**4**	**-1,304**	**1,308**
Rest of the world	**3,021,396**	**2,799,829**	**221,568**	**-3,233**	**-2,958**	**-275**

Table D.1.1: Financial Balance Sheet By Sector, Q2 2011

Total Assets

€ million		Gold & SDRs	Currency & Deposits			Securities other than shares			
				Currency & Transferrable Deposits	Other Deposits		Short-term securities	Long-term securities	Financial Derivatives
Non-financial corporations	**642,558**	**0**	**56,507**	**19,621**	**36,886**	**3,613**	**522**	**2,601**	**489**
Financial corporations	**3,364,813**	**897**	**531,645**	**139,224**	**392,421**	**1,066,543**	**245,304**	**770,562**	**50,677**
Monetary financial institutions	1,514,364	897	437,254	112,801	324,454	527,250	200,662	295,851	30,737
Other financial intermediaries and financial auxiliaries	1,571,807	0	71,479	24,026	47,453	469,485	41,991	409,068	18,425
Insurance corporations and pension funds	278,642	0	22,913	2,398	20,515	69,808	2,651	65,643	1,515
General government	**74,919**	**0**	**34,997**	**0**	**34,997**	**4,710**	**48**	**4,281**	**381**
Households and non-profit institutions serving households	**299,318**	**0**	**122,561**	**57,100**	**65,461**	**449**	**0**	**169**	**280**
Rest of the world	**3,021,396**	**0**	**455,213**	**56,594**	**398,619**	**595,784**	**25,352**	**536,293**	**34,138**

Total Liabilities

€ million		Gold & SDRs	Currency & Deposits			Securities other than shares			
				Currency & Transferrable Deposits	Other Deposits		Short-term securities	Long-term securities	Financial Derivatives
Non-financial corporations	**826,447**	**0**	**0**	**0**	**0**	**4,140**	**0**	**3,549**	**591**
Financial corporations	**3,430,632**	**0**	**931,095**	**136,649**	**794,446**	**653,369**	**27,096**	**579,022**	**47,252**
Monetary financial institutions	1,555,212	0	931,095	136,649	794,446	147,551	19,195	94,755	33,601
Other financial intermediaries and financial auxiliaries	1,592,091	0	0	0	0	502,981	7,901	481,710	13,371
Insurance corporations and pension funds	283,329	0	0	0	0	2,837	0	2,557	280
General government	**152,842**	**0**	**14,882**	**683**	**14,200**	**71,462**	**4,679**	**66,725**	**58**
Households and non-profit institutions serving households	**192,357**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Rest of the world	**2,799,829**	**0**	**254,947**	**135,208**	**119,739**	**942,127**	**239,451**	**664,610**	**38,066**

n.a. not available.

Table D.1.1 – *continued*

Total Assets

Loans			Shares and other equity				Insurance technical reserves				Other accounts receivable/ payable	€ million
	Short-term loans	Long-term loans		Quoted shares	Unquoted shares and other equity	Mutual fund shares		Net equity of households in life insurance reserves	Net equity of households in pension fund reserves	Prepayment of insurance premiums and reserves for outstanding claims		
187,076	**71,851**	**115,225**	**280,325**	**2,340**	**274,644**	**3,341**	**2,785**	**0**	**0**	**2,785**	**112,253**	**Non-financial corporations**
1,074,829	**287,326**	**787,503**	**607,454**	**415,255**	**39,976**	**152,223**	**35,226**	**0**	**0**	**35,226**	**48,220**	**Financial corporations**
524,770	188,229	336,542	19,415	10,021	6,000	3,394	0	0	0	0	4,778	Monetary financial institutions
545,812	97,439	448,373	458,123	343,537	33,976	80,610	0	0	0	0	26,909	Other financial intermediaries and financial auxiliaries
4,246	1,657	2,589	129,916	61,698	0	68,219	35,226	0	0	35,226	16,533	Insurance corporations and pension funds
8,490	**0**	**8,490**	**17,540**	**4,211**	**11,495**	**1,834**	**0**	**0**	**0**	**0**	**9,181**	**General government**
0	**0**	**0**	**48,613**	**9,155**	**39,458**	**0**	**124,405**	**49,551**	**72,326**	**2,528**	**3,289**	**Households and non-profit institutions serving households**
421,104	**183,558**	**237,546**	**1,362,095**	**110,196**	**344,137**	**907,763**	**110,081**	**79,982**	**0**	**30,099**	**77,118**	**Rest of the world**

Total Liabilities

Loans			Shares and other equity				Insurance technical reserves				Other accounts receivable/ payable	€ million
	Short-term loans	Long-term loans		Quoted shares	Unquoted shares and other equity	Mutual fund shares		Net equity of households in life insurance reserves	Net equity of households in pension fund reserves	Prepayment of insurance premiums and reserves for outstanding claims		
248,840	**73,924**	**174,917**	**449,730**	**n.a.**	**n.a.**	**0**	**0**	**0**	**0**	**0**	**123,736**	**Non-financial corporations**
366,957	**209,896**	**157,062**	**1,182,448**	**13,284**	**200,490**	**968,673**	**241,640**	**129,533**	**72,326**	**39,782**	**55,123**	**Financial corporations**
0	0	0	458,329	2,410	110,081	345,838	0	0	0	0	18,236	Monetary financial institutions
361,894	208,816	153,078	700,806	10,636	67,335	622,835	0	0	0	0	26,411	Other financial intermediaries and financial auxiliaries
5,064	1,080	3,983	23,313	238	23,075	0	241,640	129,533	72,326	39,782	10,475	Insurance corporations and pension funds
58,905	**352**	**58,553**	**1,785**	**0**	**1,785**	**0**	**0**	**0**	**0**	**0**	**5,808**	**General government**
183,926	**8,430**	**175,496**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**8,431**	**Households and non-profit institutions serving households**
832,871	**250,134**	**582,737**	**682,065**	**351,058**	**234,519**	**96,487**	**30,856**	**0**	**0**	**30,856**	**56,963**	**Rest of the world**

n.a. not available.

Table D.1.2: Financial Transactions By Sector, Q2 2011

Total Assets Transactions

€ million		Gold & SDRs	Currency & Deposits			Securities other than shares			
				Currency & Transferrable Deposits	Other Deposits		Short-term securities	Long-term securities	Financial Derivatives
Non-financial corporations	**13,284**	**0**	**-106**	**-373**	**267**	**31**	**72**	**-3**	**-38**
Financial corporations	**-82,452**	**0**	**-19,882**	**14,216**	**-34,098**	**-16,535**	**-26,231**	**7,928**	**1,768**
Monetary financial institutions	-94,951	0	-24,361	11,379	-35,740	-29,313	-22,788	-5,690	-834
Other financial intermediaries and financial auxiliaries	31,517	0	5,148	3,181	1,966	17,443	-1,257	16,061	2,639
Insurance corporations and pension funds	-19,018	0	-668	-344	-324	-4,665	-2,185	-2,443	-37
General government	**-864**	**0**	**1,943**	**0**	**1,943**	**-3,817**	**0**	**-3,656**	**-161**
Households and non-profit institutions serving households	**4**	**0**	**-936**	**-432**	**-504**	**-4**	**0**	**-4**	**0**
Rest of the world	**-3,233**	**0**	**-30,898**	**-1,326**	**-29,572**	**-4,091**	**-1,974**	**-2,378**	**261**

Total Liabilities Transactions

€ million		Gold & SDRs	Currency & Deposits			Securities other than shares			
				Currency & Transferrable Deposits	Other Deposits		Short-term securities	Long-term securities	Financial Derivatives
Non-financial corporations	**13,539**	**0**	**0**	**0**	**0**	**-32**	**0**	**-47**	**15**
Financial corporations	**-83,931**	**0**	**-91,843**	**-558**	**-91,285**	**-2,829**	**-1,404**	**-1,686**	**261**
Monetary financial institutions	-96,842	0	-91,843	-558	-91,285	-12,662	-1,583	-11,091	12
Other financial intermediaries and financial auxiliaries	32,236	0	0	0	0	9,660	179	9,232	249
Insurance corporations and pension funds	-19,325	0	0	0	0	173	0	173	0
General government	**1,393**	**0**	**597**	**5**	**592**	**-2,829**	**-1,375**	**-1,457**	**3**
Households and non-profit institutions serving households	**-1,304**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Rest of the world	**-2,958**	**0**	**41,368**	**12,638**	**28,729**	**-18,725**	**-25,354**	**5,077**	**1,551**

n.a. not available.

Table D.1.2 – *continued*

Total Assets Transactions

Loans			Shares and other equity				Insurance technical reserves				Other accounts receivable/ payable	€ million
	Short-term loans	Long-term loans		Quoted shares	Unquoted shares and other equity	Mutual fund shares		Net equity of households in life insurance reserves	Net equity of households in pension fund reserves	Prepayment of insurance premiums and reserves for outstanding claims		
6,530	**4,466**	**2,064**	**3,291**	**19**	**3,272**	**0**	**-695**	**0**	**0**	-695	**4,232**	**Non-financial corporations**
-44,047	**-4,474**	**-39,574**	**9,677**	**7,991**	**1,003**	**683**	**-8,933**	**0**	**0**	-8,933	**-2,733**	**Financial corporations**
-43,110	-592	-42,519	-195	-153	0	-42	0	0	0	0	2,028	Monetary financial institutions
-952	-3,887	2,935	11,113	10,144	1,003	-34	0	0	0	0	-1,234	Other financial intermediaries and financial auxiliaries
15	5	10	-1,241	-2,000	0	759	-8,933	0	0	-8,933	-3,526	Insurance corporations and pension funds
-7	**0**	**-7**	**788**	**1,281**	**26**	**-520**	**0**	**0**	**0**	0	**228**	**General government**
0	**0**	**0**	**244**	**16**	**228**	**0**	**600**	**356**	**85**	159	**100**	**Households and non-profit institutions serving households**
2,710	**-1,917**	**4,628**	**32,393**	**-3,743**	**7,773**	**28,362**	**-12,331**	**-3,331**	**0**	-8,999	**8,983**	**Rest of the world**

Total Liabilities Transactions

Loans			Shares and other equity				Insurance technical reserves				Other accounts receivable/ payable	€ million
	Short-term loans	Long-term loans		Quoted shares	Unquoted shares and other equity	Mutual fund shares		Net equity of households in life insurance reserves	Net equity of households in pension fund reserves	Prepayment of insurance premiums and reserves for outstanding claims		
3,793	**3,087**	**706**	**7,728**	**n.a.**	**n.a.**	**0**	**0**	**0**	**0**	0	**2,051**	**Non-financial corporations**
-3,913	**-3,478**	**-435**	**32,681**	**6**	**4,065**	**28,610**	**-12,406**	**-2,975**	**85**	-9,516	**-5,623**	**Financial corporations**
0	0	0	9,100	0	-29	9,129	0	0	0	0	-1,438	Monetary financial institutions
-3,659	-3,454	-204	25,946	6	6,459	19,481	0	0	0	0	288	Other financial intermediaries and financial auxiliaries
-254	-23	-231	-2,365	0	-2,365	0	-12,406	-2,975	85	-9,516	-4,473	Insurance corporations and pension funds
3,853	**-335**	**4,188**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	**-227**	**General government**
-1,457	**-208**	**-1,249**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	0	**153**	**Households and non-profit institutions serving households**
-37,089	**-992**	**-36,097**	**5,985**	**5,477**	**592**	**-84**	**-8,953**	**0**	**0**	-8,953	**14,456**	**Rest of the world**

n.a. not available.

Section E

Public Finances and Competitiveness Indicators

Table E.1: Government Debt[a]

€ million	2010	2011		
End-quarter	31 Dec.	31 Mar.	30 June	30 Sep.
Government Debt				
Amount outstanding (gross)				
Euro-denominated debt				
Government stock	90,102	89,807	89,626	89,589
Exchequer Bills/Notes, Central Treasury Notes	6,133	1,655	487	250
Saving Certificates/Stamps, National Solidarity Bonds	4,300	4,551	4,662	4,740
Prize Bonds	1,330	1,392	1,409	1,431
Savings Bonds	4,240	4,540	4,657	4,725
National Instalment Savings	468	468	468	470
Ways and means	1,526	1,944	1,583	1,798
Borrowings from Central Bank, etc.	-	-	-	-
Local loans funds	5	5	5	5
Short-term paper	298	234	318	239
FX contracts	545	1,479	156	300
EIB loans	-	-	-	-
Public bond issues	-	-	-	-
Private placements	602	602	602	602
IMF[b]	-	2,091	2,658	3,349
EFSM	-	8,400	11,400	13,400
EFSF	-	3,617	3,660	3,660
Medium-term notes	-	-	-	-
Swaps	66	2,388	4,482	5,416
Total euro-denominated debt	**109,614**	**123,173**	**126,172**	**129,974**
Non-euro-denominated debt				
EIB loans	-	-	-	-
Public bond issues	-	-	-	-
Private placements	-	-	-	-
Medium-term notes	92	85	86	96
IMF[b]	-	3,499	4,448	5,606
EFSM	-	-	-	-
EFSF	-	-	-	-
Swaps	-92	-2,357	-4,417	-5,714
Short-term paper	529	292	145	303
FX contracts	-534	-1,432	-147	-304
Total non-euro-denominated debt	**-4**	**87**	**116**	**-12**
Gross debt	**109,610**	**123,260**	**126,288**	**129,962**
Residual Maturity Profile				
Amounts due to mature in:				
– ≤ 1 year	14,121	9,846	8,057	8,111
– Over 1 year but ≤ 5 years	43,251	53,603	54,270	54,648
– Over 5 years but ≤ 10 years	43,352	50,925	55,076	56,316
– Over 10 years	8,886	8,886	8,886	10,886
Total	**109,610**	**123,260**	**126,288**	**129,962**

a The term Government debt refers to central government debt. An advance release calendar for central government debt is shown on the IMF Special Data Dissemination Standards (SDDS) Bulletin Board.

b The IMF liability is denominated in SDRs. The underlying currency weighting in the SDR basket is Euro: 37.4 per cent, Non-euro: 62.6 per cent.

Source: NTMA.

Table E.2: Irish Government Long-Term Bonds – Nominal Holdings

€ million	2010	2011		
End-quarter	31 Dec.	31 Mar.	30 June	30 Sep.
1. Resident[a]	15,991	14,916	15,466	15,141
– MFIs and Central Bank	12,697	12,345	12,404	12,175
– General government	842	539	890	879
– Financial intermediaries	2,169	1,781	1,912	1,822
i) Financial auxiliaries	315	315	309	333
ii) Insurance corporations and pension funds	1,774	1,335	1,331	1,147
iii) Other financial intermediaries	80	132	272	341
– Non-financial corporations	31	32	31	48
– Households	252	219	228	217
2. Rest of world	74,111	74,891	74,160	74,448
Total	**90,102**	**89,807**	**89,626**	**89,589**
3. Amounts due to mature in:				
– Less than 3 years	16,409	16,215	16,033	15,987
– 3 or more years but less than 5 years	11,889	11,793	11,793	11,795
– 5 or more years but less than 10 years	53,520	53,497	53,497	53,504
– 10 or more years but less than 15 years	8,284	8,302	8,302	8,303
– 15 or more years	0	0	0	0
Total	**90,102**	**89,807**	**89,626**	**89,589**

a Above conform to ESA95 standard. Financial auxiliaries include, for example, insurance and security brokers and investment advisors, etc. Other financial intermediaries include mutual funds, financial leasing, etc.

Table E.3: Harmonised Competitiveness Indicators for Ireland (HCIs)

1999 Q1 = 100	Nominal HCI (Monthly average)	Real HCI (Deflated by consumer prices)	Real HCI (Deflated by producer prices)
2006			
January	102.95	113.53	104.52
February	102.33	113.36	104.95
March	102.85	113.84	104.99
April	103.70	114.76	105.84
May	104.71	116.07	107.34
June	104.88	116.14	107.24
July	104.99	116.40	106.69
August	104.99	116.68	107.37
September	104.77	116.27	108.07
October	104.36	115.92	105.66
November	104.99	116.47	105.65
December	105.80	117.57	106.80
2007			
January	105.06	116.81	106.79
February	105.37	117.21	105.68
March	106.10	118.11	105.65
April	106.76	118.85	106.78
May	106.73	118.86	107.24
June	106.31	118.40	107.70
July	106.89	119.11	107.88
August	106.75	119.00	108.88
September	107.65	119.99	108.41
October	108.46	120.65	109.79
November	109.84	122.15	109.95
December	109.94	122.09	111.54
2008			
January	110.76	122.71	110.69
February	110.72	122.93	111.63
March	113.19	126.04	113.59
April	114.35	126.91	116.21
May	113.85	126.26	115.01
June	113.89	126.17	114.47
July	114.36	125.92	114.22
August	112.50	123.71	114.87
September	111.30	122.48	111.56
October	108.69	119.64	110.06
November	108.28	119.62	109.44
December	112.32	123.97	111.55
2009			
January	112.02	123.42	111.04
February	110.45	120.79	110.32
March	112.46	122.83	111.97
April	111.84	121.93	111.53
May	112.31	121.73	111.77
June	112.74	121.89	111.90
July	112.89	121.39	113.69
August	113.18	121.40	111.81
September	114.45	122.22	113.90
October	115.44	122.85	114.14
November	115.25	122.31	113.14
December	114.40	120.76	112.20
2010			
January	112.80	118.80	110.46
February	110.87	116.09	109.62
March	110.75	115.43	108.30
April	109.46	113.81	108.07
May	106.66	110.97	106.05
June	104.82	108.93	103.11
July	106.51	110.85	104.91
August	106.30	110.43	104.84
September	106.91	110.62	105.80
October	109.90	113.51	107.34
November	108.70	111.76	106.99
December	107.08	110.09	104.28
2011			
January	107.21	110.19	104.03
February	108.08	110.97	104.79
March	109.50	112.17	105.95
April	110.99	113.46	107.68
May	110.41	112.59	108.37
June	110.69	112.63	107.35
July	110.01	111.76	106.55
August	110.05	111.62	106.70
September	108.85	110.06	105.21
October	108.95	110.31	104.56
November	108.34	109.67	103.90

Notes:

1. See article entitled "Measuring Ireland's Price and Labour Cost Competitiveness" in the Bank's Quarterly Bulletin No. 1 of 2010.
2. A rise in an indicator implies a disimprovement in competitiveness, while a fall in an indicator implies an improvement.
3. These indicators are available from January 1995 in excel format on the Bank's website.
4. Real HCIs may be subject to revisions to reflect latest available price data.

Table E.3: Harmonised Competitiveness Indicators for Ireland (HCIs) – *continued*

1999 Q1=100	Real HCI (Deflated by GDP)	Real HCI (Deflated by whole economy Unit Labour Costs)
1995		
Q1	92.05	104.42
Q2	91.30	103.55
Q3	91.69	103.93
Q4	91.83	103.20
1996		
Q1	92.10	103.52
Q2	92.81	104.38
Q3	94.31	104.99
Q4	96.54	106.08
1997		
Q1	97.91	106.36
Q2	96.74	103.11
Q3	95.99	106.41
Q4	99.80	105.65
1998		
Q1	95.44	98.91
Q2	98.44	100.61
Q3	100.13	101.22
Q4	101.93	105.92
1999		
Q1	100.00	100.00
Q2	97.15	100.35
Q3	99.40	97.06
Q4	98.74	95.62
2000		
Q1	97.21	94.50
Q2	95.73	92.05
Q3	95.95	92.18
Q4	95.01	91.22
2001		
Q1	99.89	94.59
Q2	99.25	94.18
Q3	101.58	96.85
Q4	101.88	96.93
2002		
Q1	103.15	94.41
Q2	103.15	96.46
Q3	107.24	97.48
Q4	109.29	98.57
2003		
Q1	113.05	103.79
Q2	115.98	106.71
Q3	115.91	107.63
Q4	117.28	107.24
2004		
Q1	118.48	111.10
Q2	117.30	111.29
Q3	117.36	112.66
Q4	119.52	113.57
2005		
Q1	120.52	116.23
Q2	119.80	115.01
Q3	117.97	117.61
Q4	117.43	116.78
2006		
Q1	119.31	117.59
Q2	119.73	120.08
Q3	122.48	119.29
Q4	120.83	121.61
2007		
Q1	121.77	118.07
Q2	123.26	124.04
Q3	120.22	129.24
Q4	122.49	130.64
2008		
Q1	122.18	132.50
Q2	123.33	139.23
Q3	121.74	137.16
Q4	118.43	137.28
2009		
Q1	116.49	134.06
Q2	116.65	129.49
Q3	116.26	127.14
Q4	115.20	127.33
2010		
Q1	111.87	119.57
Q2	108.47	115.63
Q3	106.98	113.61
Q4	103.22	115.84
2011		
Q1	105.48	113.18
Q2	107.17	113.83

Table E.4: Indices of Relative Wage Costs in Manufacturing Industry

	Average Hourly Earnings[a]		Unit Wage Costs[a]	
1999=100	Ireland	Major Trading Partners	Ireland[c]	Major Trading Partners
Year				
1990	69	71	166	90
1991	73	75	171	94
1992	76	79	163	97
1993	81	83	164	99
1994	82	86	155	98
1995	84	88	136	99
1996	87	92	135	100
1997	90	94	124	100
1998	95	97	110	101
1999	100	100	100	100
2000	106	105	97	99
2001	117	108	95	101
2002	125	112	88	101
2003	131	116	85	100
2004	137	119	85	99
2005	142	123	84	97
2006	149	126	85	97
2007	155	130	85	97
2008	163	135	86	102
2009	171	138	81	110
2010	171	140	73	105
2011[f]	169	143	69	105
2012[f]	168	146	67	106

	Relative Hourly Earnings[b]		Relative Unit Wage Costs[b]	
1999=100	National Currencies	Common Currency (€)	National Currencies	Common Currency (€)
Year				
1990	97	110	185	209
1991	97	107	181	201
1992	96	109	169	192
1993	98	103	165	174
1994	96	101	157	166
1995	95	101	137	146
1996	95	104	135	147
1997	95	104	124	136
1998	97	101	109	113
1999	100	100	100	100
2000	101	95	98	91
2001	108	102	94	88
2002	112	108	87	84
2003	113	117	85	87
2004	115	121	86	90
2005	116	122	86	90
2006	118	125	88	93
2007	119	130	88	95
2008	121	138	85	97
2009	123	142	74	85
2010	122	136	69	77
2011[f]	118	133	66	74
2012[f]	115	125	64	69

a In national currencies.

b A rise in the index implies a disimprovement in competitiveness, while a fall in the index implies an improvement.

c Changes in domestic unit wage costs should be interpreted with caution because of the strong influence of the chemicals sector in recent years.

Sources: Ireland – Central Statistics Office and Central Bank estimates.

Major trading partners comprise the United Kingdom, the United States, Germany, France, Italy, Belgium, the Netherlands, Spain and Singapore. Data on these were derived from the OECD and other sources.

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