

JULY 12

Q3

Central Bank Quarterly Bulletin



Banc Ceannais na hÉireann
Central Bank of Ireland

Eurosystem

Contents

Section 1

Forecast Summary Table	6
Comment	7
The Domestic Economy	9
An Timpeallacht Gheilleagrach	29
Financing Developments in the Irish Economy	31
Box 1: Monetary and Supervisory Presentations of Deposit Trends in Irish-Owned Credit Institutions	35
Box 2: The Increasing Financial Nature of the Current Account	51
Developments in the International and Euro Area Economy	57
Box A: The Role of Euro Area Survey Indicators	61
Box B: Heterogeneity in Lending Rates and the Recent Effects of Indebtedness in the Euro Area	70
Understanding Eurosystem Central Bank Financial Statements	73
EU-IMF Financial Assistance Programme – Sixth Review	81

Section 2

Cost Competitiveness and Export Performance of the Irish Economy	86
Derry O'Brien and John Scally	
Recent Trends in Irish Expenditure and Prices	103
Colin Bermingham	
Analysis of Recent Monetary Operations & TARGET2 Developments	115
Patrick Haran and Samuel Bailey	

Section 3

Statistical Appendix

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 end-June 2012 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.

Designed by: Clondalkin Pharma & Healthcare (Glasnevin) Ltd.

Cover Photograph: Stuart Bradfield

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ISSN 0332-2645

Forecast Summary Table

	2009	2010	2011	2012 ^f	2013 ^f
Real Economic Activity					
(% change)					
Personal consumer expenditure	-5.4	1.0	-2.4	-1.6	-0.1
Public consumption	-4.4	-6.5	-4.3	-2.0	-1.2
Gross fixed capital formation	-27.6	-22.6	-12.6	-1.7	0.7
<i>of which:</i> Building and construction	-30.9	-30.1	-15.8	-8.5	-5.6
Machinery and equipment	-15.8	-8.5	-8.3	6.5	7.0
Exports of goods and services	-3.8	6.2	5.1	3.2	4.2
Imports of goods and services	-9.7	3.6	-0.3	1.7	3.1
Gross Domestic Product (GDP)	-5.5	-0.8	1.4	0.7	1.9
Gross National Product (GNP)	-7.8	0.8	-2.5	-0.3	0.9
External Trade and Payments					
Balance-of-Payments Current Account (€ million)	-3,763	1,782	1,785	4,227	6,297
Current Account (% of GNP)	-2.8	1.4	1.4	3.3	4.8
Prices, Costs and Competitiveness					
(% change)					
Harmonised Index of Consumer Prices (HICP)	-1.7	-1.6	1.1	1.4	0.7
<i>of which:</i> Goods	-4.1	-2.4	1.5	1.0	-0.2
Services	1.2	-0.7	0.8	2.0	1.5
HICP excluding energy	-1.0	-2.7	0.0	1.0	1.2
Consumer Price Index (CPI)	-4.5	-1.0	2.6	0.9	0.4
Nominal Harmonised Competitiveness Indicator (Nominal HCI) ^a	1.0	-4.2	0.8	-3.7	n.a.
Compensation per Employee	-0.9	-3.1	0.2	0.6	0.4
Labour Market					
(% change year-on-year)					
Total employment	-8.2	-4.2	-2.1	-0.8	0.3
Labour force	-2.4	-2.2	-1.2	-0.4	0.0
Unemployment rate (ILO)	11.8	13.6	14.4	14.7	14.4
Technical Assumptions^b					
(Annual average)					
EUR/USD exchange rate	1.39	1.33	1.39	1.28	1.26
EUR/GBP exchange rate	0.89	0.86	0.87	0.81	0.80
Oil price (\$ per barrel)	61.74	79.61	111.26	103.75	93.57
Interbank market – Euribor ^c (3-month fixed)	1.22	0.81	1.39	0.64	0.39

^a Based upon the annual change in the average nominal HCI for the first half of 2012.

^b The technical assumption made is that exchange rates remain unchanged at their average levels in early-March. 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

The external environment continues to be very challenging. In Europe, the last quarter has seen further strains in financial markets followed by reforms to the region's policy making framework. These initiatives, however, while focussing on the key issues, have not succeeded in resolving market concerns. These persistent strains in financial markets not only have direct implications for the financing of governments and banks, they are also damping down internal demand in Europe, through their impact on consumer and investor confidence. This is limiting the prospects for economic recovery, both in Europe and, given the small and very open nature of the economy, in Ireland also. So, while the outcome of the most recent EU Summit was favourable in that it recognised the need to address the burden of Ireland's banking-related debt, the wider environment has not improved to the extent that would have been hoped for.

The latest domestic National Accounts data point to an increase of 1.4 per cent in GDP last year, alongside a fall of 2.5 per cent in GNP. The large gap between GDP and GNP growth reflected the export-led nature of growth, perhaps combined with a technical correction from unexpectedly strong GNP data the previous year. With the impulse to growth from the external side forecast to slow and the contraction in domestic demand moderating, the disparity between GDP and GNP growth will likely reduce this year. For 2012 as a whole, real GDP growth is projected to slow to about 0.7 per cent, while the contraction in GNP is forecast to moderate to about 0.3 per cent. The outlook for next year is for GDP growth to pick up to about 1.9 per cent, against the background of some recovery in external demand and a broadly stable outlook for domestic demand. GNP is forecast to rise by about 0.9 per cent in real terms next year.

Despite the difficult external environment and continued sluggishness domestically, good progress is being maintained on the principal policy issues. For example, the banking sector has been somewhat less affected to date by external developments than might have been expected. Deposit flows have been broadly neutral for some time now despite the turbulent conditions on financial markets. The dependence of those banks serving the domestic market on central bank funding has actually tended to decline slightly, although it remains elevated. Banks are also

continuing to adjust their balance sheets through deleveraging, both by the outright sale of loan portfolios and by the running off of existing loan facilities. Employment levels in the sector as well as the extent of branch networks have begun to contract as the sector moves towards a configuration that is more sustainable in the medium term. Business models are being adjusted away from those of the recent past, reflecting the fact that lending to SMEs and households for business purposes and for sustainable property investment will necessarily form the core of banks' future activities. This adjustment process is difficult but also essential for the long run health of both the sector itself and the broader economy. The challenge of managing this adjustment is, of course, compounded by simultaneously having to deal with the legacies of the past but a clear focus must remain on achieving this reorientation as rapidly and effectively as possible.

Fiscal developments have remained broadly on track so far, despite weaker than expected growth. There are signs that expenditure in certain areas is running ahead of target but it is assumed that adjustments will be made to bring the level of spending in line with Budgetary projections. Tax revenues have also held up reasonably well despite the relative weakness of activity in the economy, particularly domestic demand. While the headline deficit for last year has been revised upward, due to the partial reclassification

of some banking-related investments, the underlying outturn for last year was actually somewhat better than expected. The resulting improved starting position for this year, combined with upward revision to the nominal value of GDP for last year, and the trends for 2012 to date, should facilitate the achievement of this year's projected deficit of 8.6 per cent of GDP. While negotiations at EU level may in time reduce the effort needed to reduce the national debt to a sustainable level over the medium term, it does not remove the urgency of bringing revenues and expenditure into broad balance. In particular, it is vital to ensure that the deficit reduction targeted for this year, and subsequent years, is solidly achieved.

The impulse to growth from the exporting sectors of the economy has been a significant mitigating factor in the downturn. While there are signs that the rate of contraction in domestic demand is easing, a strong external performance by the economy is central to a return to steady output growth. Given the relative weakness of external demand, competitiveness developments are currently

more crucial than ever. Measures of national competitiveness have continued to move in the right direction, although they may overstate the improvement somewhat, due to structural changes in the economy. Recent improvements have also been driven more by exchange rate developments than in the past and these can easily be reversed. The key to maintaining the momentum behind competitiveness improvements is a focus on maximising productivity growth in the economy, particularly by boosting efficiency in those sectors where competitive forces are absent or muted, both in the public sector and in more sheltered areas of the private sector. In some cases, more competition can and should be introduced, with effective regulation where required, but in other cases, reliance will have to be placed on proactive management and a willingness to embrace necessary change in a difficult environment. Progress is being made in this regard but the momentum behind change has to be maintained, or even increased, in order to maximise the prospects for a near-term return to growth and rising living standards.

The Domestic Economy

Overview

- According to recently released Annual National accounts, the Irish economy returned to modest growth in GDP terms following three consecutive years of decline. Real GDP increased by an estimated 1.4 per cent while GNP recorded a decline of 2.5 per cent. The large gap between GDP and GNP growth last year reflects the export led nature of growth and continued contraction in domestic demand. Expansion in the predominately foreign owned exporting sector generates a corresponding increase in profit repatriation which accounts for the largest portion of net factor income outflows. These increased significantly last year, reversing an exceptional decline in previous years and as a consequence the gap between GDP and GNP was unusually large in 2011.
- A significant slowdown in external demand together with some moderation in the rate of contraction in domestic demand should be reflected in some convergence in the respective trends of GDP and GNP this year. Real GDP growth is forecast to slow to about 0.7 per cent while the contraction in GNP is projected to moderate to about 0.3 per cent. The outlook for 2013 is for acceleration in GDP growth to about 1.9 per cent reflecting some recovery in external demand and a broadly flat outlook for domestic demand. GNP is forecast to increase by about 0.9 per cent in real terms next year.
- These projections, when compared with those published in the previous Bulletin, represent a small upward revision of 0.2 per cent in projected GDP growth in 2012 and a similar downward revision in 2013. These revisions reflect a somewhat less negative outlook for domestic demand this year, which is offset by a less positive outlook for exports in both 2012 and in 2013. As noted in the previous Bulletin, the outlook is subject to a high degree of uncertainty mainly relating to the prospects for external demand.
- The adverse impact of weakened external demand seems set to be particularly pronounced this year although the impact is likely to be partially offset by competitiveness gains, with further improvements in cost competitiveness envisaged throughout the projection period, albeit at a reduced pace relative to that of recent years. Some pick-up in the performance of exports is expected in 2013, assuming that the projected recovery in external demand is sustained.
- A gradual moderation in the contraction in domestic demand is forecast for this year with activity in the domestic economy gradually bottoming out during the course of 2013. This reflects a broadly flat outlook for consumer spending supported by the prospect of some stability in disposable incomes and a more limited negative contribution from a much diminished construction sector.
- The labour market remains weak although the pace of decline in employment has moderated, notwithstanding some volatility in quarterly outturns. Employment declined by about 1 per cent on an annual basis in the first quarter of this year. Although there was an increase in the number of private sector employees of over 1 per cent, this was offset by a decline in employment in the public sector. For the year as a whole employment is projected to decline by about 0.8 per cent, with a modest increase of about 0.3 per cent forecast for 2013.
- Declining labour supply arising from net outward migration continues to mitigate the impact of declining employment on unemployment. However, this factor is set to be less significant both this year and in 2013 as participation rates, which declined sharply in recent years, show signs of recovery. Unemployment is projected to average 14.7 per cent this year declining slightly to an average of 14.4 per cent in 2013 in line with the projected increase in employment.

- *The annual rate of HICP inflation for 2012 is projected to be 1.4 per cent. This represents a downward revision from the previous Bulletin, mainly reflecting the lower assumptions for international oil prices. Looking through the impact of indirect tax measures and strong fluctuations in oil prices, underlying inflation is still expected to remain quite subdued during this year reflecting continued weak pricing power for firms in the face of restrained consumer spending.*
- *A stabilisation in consumer demand in 2013 will be reflected in annual average HICP inflation of 0.7 per cent while annual CPI inflation may be somewhat lower at 0.4 per cent. The pass-through of lower assumed oil prices will push downwards on the annual headline inflation rates, although there may be some offset from the carryover of higher education costs. It is worth noting that there is significant upside risk to the projections, arising from possible indirect tax measures contained in the forthcoming Budget 2013.*
- *The overall competitiveness of the Irish economy continued to improve throughout 2011 but at a more moderate pace than previously experienced. Altogether, the latest competitiveness developments continue to remain reasonably favourable, which should continue to provide a boost to exporters this year, although the less favourable external demand environment places extra emphasis on the continued need for competitiveness improvements.*
- *Relying on favourable currency movements is not a sound basis for future competitiveness; a continued focus on our cost base and maintaining an attractive business environment are priorities. 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.*

Demand

Consumer spending

Annual National Accounts data for 2011 point to a contraction of 2.4 per cent in the volume of personal consumption last year. Consumer spending has recorded a cumulative decrease of 6.9 per cent since the peak in real consumer expenditure in 2007. The decline in consumption last year reflected the continuing weakness in disposable incomes and the persistence of an elevated savings due to weak and fragile consumer confidence and the desire of households to repair impaired balance sheets.

The downward trend in consumption last year was interrupted temporarily by a recovery in the fourth quarter despite a marked weakening of consumer confidence, but this recovery proved short-lived as real consumption declined by an estimated 2.1 per cent in the first quarter of 2012. The pattern of consumer spending at the turn of the year seems to have been influenced by timing issues relating to the two percentage point increase in the VAT rate on 1 January 2012. Front-loading of purchases, particularly for some big-ticket items, boosted retail sales in November and December 2011 but was followed by much weaker retail sales in the first quarter of 2012.

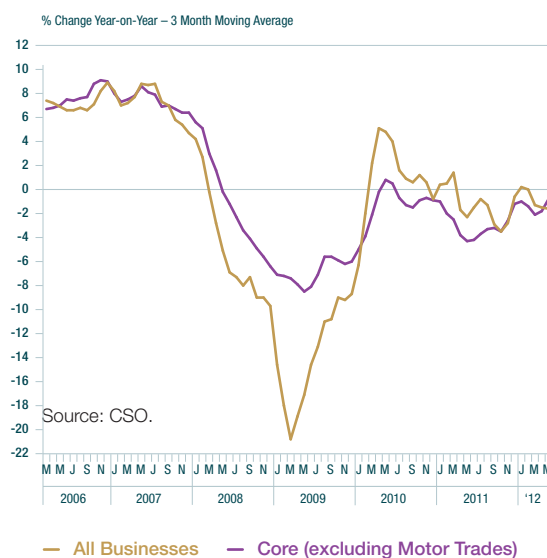
More recent indicators paint a mixed picture regarding the outlook for consumption for the remainder of the year. Core retail sales have picked up somewhat, recording a seasonally adjusted increase of 0.8 per cent in May but total retail sales, down by 0.1 per cent over the same period, have been weighed down by weak car sales with new car registrations down by 14.9 per cent in the year to June 2012. Consumer confidence has picked up from a low point at the end of 2011 but remains well below historical norms. Recent declines in oil prices and in official interest rates will provide some support to purchasing power

Table 1: Expenditure on Gross National Product 2011, 2012^f, 2013^f

	2011			2012 ^f			2013 ^f	
	EUR millions	volume	price	EUR millions	volume	price	EUR millions	
Personal Consumption Expenditure	81308	-1.6	1.4	81138	-0.1	0.8	81745	
Public Consumption	25410	-2.0	3.2	25705	-1.2	0.8	25615	
Gross Domestic Fixed Capital Formation	16112	-1.7	-0.5	15914	0.7	0.8	16154	
<i>Building and Construction</i>	8800	-8.5	-1.0	7971	-5.6	0.0	7528	
<i>Machinery and Equipment</i>	7312	6.5	2.0	7443	7.0	1.5	8626	
Value of Physical Changes in Stocks	227			225			225	
Statistical Discrepancy	1020			1020			1020	
GROSS DOMESTIC EXPENDITURE	124077	-1.7	1.6	124002	-0.2	0.8	124759	
Exports of Goods & Services	166791	3.2	1.8	175249	4.2	1.2	184956	
FINAL DEMAND	290868	1.1	1.7	299251	2.4	1.1	309715	
Imports of Goods & Services	-131875	1.7	1.3	-135825	2.4	0.8	-141090	
GROSS DOMESTIC PRODUCT	158993	0.7	2.1	163426	1.9	1.3	168625	
Net Factor Income from Rest of the World	-31997			-34045			-36401	
GROSS NATIONAL PRODUCT	127016	-0.3	2.2	129381	0.9	1.3	132224	

in the remainder of the year. However, given still weak labour market conditions and taking account of the impact of fiscal measures, disposable incomes are likely to decline in 2012 with little scope, at least in the near term, for an offsetting decline in the savings rate. On balance, a decline in real consumer spending of about 1.6 per cent seems likely this year. Taking account of prospects for disposable incomes next year and allowing for some modest decline in the savings rate, a gradual stabilisation in the volume of consumption is forecast for 2013 with a slight decline of about 0.1 per cent forecast for the year as a whole.

Chart 1: Index of Volume of Retail Sales



Investment

National Accounts for 2011 indicate that the construction sector completed its consecutive fourth year of contraction, declining by 16.9 per cent, following decreases of 6.2, 27.6, 26.3 per cent in 2008, 2009 and 2010, respectively. The retrenchment last year was widespread across the industry, although the pace of diminution was greatest in the civil engineer sector as the government adhered to reductions under agreed fiscal commitments. The housing sector experienced a decline of 11.9 per cent, while non-residential building and construction declined by 18.7 per cent. The decline in machinery and equipment expenditure of 8.2 per cent meant that overall investment contracted by 12.6 per cent in 2011.

For this year, the latest Quarterly National Accounts and the CSO's Production in Building and Construction Index (PBCI) point to continued weakness in 2012, with some acceleration in the rate of decline in the first quarter on a year-on-year (down 11.1 per cent) and quarter-on-quarter basis (down 6.9 per cent). For the residential sector, available indicators suggest that building and construction expenditure is set to decline further, as investment in the housing stock reaches historic lows of approximately 8,000 new units – mostly accounted for by one-off builds as developers remain cautious and credit restrained. Housing expenditure declined by 15.3 per cent year-on-year in the first quarter of 2012, as the repairs and maintenance sector – which now significantly outweighs the new build component – experienced limited growth following growth of 5 per cent in 2011. Housing output is expected to remain at around this level next year, although there is some upside risk that a proportion of NAMA-financed schemes – largely constructed in previous years – may come to completion. Moreover, while there remains substantial oversupply in aggregate, much of the overhang is in areas of low demand or is of unsuitable accommodation and this supply/demand mismatch may see some scope for activity in some regions, albeit limited.

On the non-residential side, the PBCI for the first quarter of 2012 attests to sustained significant decreases in activity, down 12 per cent year-on-year and 15.5 per cent quarter-on-quarter. There are anecdotal reports, however, of expansion and inward flows of foreign investment, which mean that the pool of oversupply of commercial buildings in some areas may begin to decline. Moreover, while NAMA have indicated that finance will be provided to complete €2 billion of commercial property on their books, significant new building activity is not anticipated over the forecast horizon. Civil engineering is also set to act as a considerable drag on non-residential investment as the government adheres to cuts in capital expenditure in accordance with the EU/IMF programme. Combined with agreed reductions in government investment, the 'other building and construction' component of investment is forecast to decline by 10 per cent and 7 per cent, respectively in 2012 and 2013. The latest Ulster Bank Construction PMI (June 2012) corroborates this weak trend with an acceleration in the rate of contraction across all sectors. Combined with the above housing forecasts, building and construction investment is anticipated to decline by 8.2 and 2.9 per cent, respectively in 2012 and 2013.

On the machinery and equipment side, on foot of recent investment announcements in the IT and pharmaceutical sectors and an expansion in aircraft purchases, investment is forecast to rise by 6.5 and 7 per cent in 2012 and 2013, respectively. Overall, investment in the economy's physical infrastructure is expected to decline by 1.5 in 2012 before increasing marginally by 2 per cent in 2013 – the expected trough for the construction sector.

Stock Changes

Stock changes were positive last year and contributed about 0.5 percentage points to growth in real GDP. The change in stocks is assumed to have a broadly neutral impact on the change in GDP in both 2012 and in 2013.

Government Consumption

According to the National Income and Expenditure Accounts data for 2011, government consumption declined by 4.3 per cent in real terms in 2011. Taking account of measures announced in detail in Budget 2012 and outlined in general terms for next year, the real level of government consumption is projected to decline by 2 per cent and 1.2 per cent, respectively, in 2012 and 2013.

External Demand and the Balance of Payments

Merchandise Trade

The Quarterly National Accounts suggest that merchandise export volumes decelerated annually in the first quarter of 2012, with an increase of 1.1 per cent; this compares with growth of 2.3 per cent on the same basis in the previous quarter. It is however important to view the first quarter outturn against the backdrop of weakened world trade volumes and a generally more challenging external environment. According to the CSO's Goods Exports and Imports release, the single most noteworthy development at a sectoral level during the first quarter of 2012 was the fall-off in the contribution to merchandise export growth arising from the broad chemicals sector, which is held to reflect the inherently volatile nature of output from this sector arising from such factors as patents and product cycles. The weakened performance of the chemicals sector annually in the first quarter was however somewhat mitigated by a positive contribution from all other merchandise exporting sectors, albeit of varying magnitude. There have, however, been some tentative signs of uplift in the performance of merchandise exports during the second quarter of 2012, with the new export orders index of the NCB Manufacturing Purchasing Managers' Index registering a reasonably pronounced expansion throughout the quarter.

As regards the outlook for 2012 as a whole, the adverse impact of weakened external demand seems set to be particularly pronounced this year, with the latest external demand assumptions signalling a modest rate of increase by historical standards. Slowing external demand is however likely to be partially offset by competitiveness gains, with further improvements in cost competitiveness envisaged throughout the projection period, albeit at a reduced pace relative to that of recent years. Moreover, downward pressure seems set to emanate from the broad chemicals sector given that a number of the patents attached to high profile drugs manufactured in Ireland seem set to expire in the near term. Reflecting such a combination of developments, merchandise export activity is projected to slow in 2012, with growth in volume terms of around 1.2 per cent. Some pick-up in the performance of merchandise exports is expected in 2013, assuming that the projected recovery in external demand, albeit more modest than previously envisaged, is sustained, with an average annual increase of 2.8 per cent. Downside risks to the short-term outlook for merchandise exports are expected to continue to emanate from the uncertainty surrounding the outlook for external demand.

In contrast to the pronounced weakness of recent quarters, merchandise imports strengthened somewhat during the year to the first quarter of 2012, with an increase in volume terms of 1.2 per cent; this compares with a decline of 6.3 per cent on the same basis in the final quarter of 2011. As regards the outlook for 2012 as a whole, merchandise imports are projected to be flat in volume terms in line with weakened export-induced demand and a further, albeit decelerating, contraction in domestic demand. Merchandise import flows are expected to record a pick-up in growth in 2013 amid stabilising domestic demand and the recovery in exports, with an increase of around 0.5 per cent projected in volume terms.

Table 2: Merchandise Trade (Adjusted) 2011, 2012^f, 2013^f

	2011			2012 ^f			2013 ^f	
	Percentage change in			Percentage change in				
	EUR millions	volume	price	EUR millions	volume	price	EUR millions	
Merchandise Exports	84857	1.2	2.6	88066	2.8	1.2	91625	
Merchandise Imports	-48270	0.0	1.3	-48897	0.5	0.4	-49333	
Merchandise Trade Balance (Adjusted)	36588			39169			42292	
%GNP	28.8			30.3			32.0	

Table 3: Balance of Payments 2011, 2012^f, 2013^f

Current Account Items	2011	2012 ^f	2013 ^f
Merchandise Trade Balance	36588	39169	42292
Services	-1810	100	1403
Net Factor Income from Rest of the World	-31834	-33902	-36258
Current International Transfers	-1158	-1140	-1140
Balance on Current Account	1785	4227	6297
(% of GNP)	1.4	3.3	4.8

Services, Factor Incomes and International Transfers

The most noticeable feature of Ireland's trade performance during the year to the first quarter of 2012 was the sharp acceleration in services export volume growth, which served to offset the modest outturn on the merchandise side over the same period. The performance of services exports annually in the first quarter of 2012 proved considerably more buoyant relative to that of the quarter, with a volume increase of 11.9 per cent, almost double that of the previous quarter. Moreover, the first quarter outturn represented the strongest such increase in services export volumes since the final quarter of 2007. Some divergence in services export performance was however evident at a sectoral level during the year to the first quarter of 2012 - computer services exports accelerated appreciably while the performance of business services exports, Ireland's second largest services exporting sector, also gathered momentum. These two sectors, when combined, accounted for approximately 87 per cent of services export growth annually in the first quarter of 2012. The buoyancy of services export volumes has been further illustrated by the sustained expansion of the new export orders index of

the NCB Services Purchasing Managers' Index during the first two quarters of 2012 - the index registered its eleventh consecutive month of expansion in June. As regards the outlook for 2012 and 2013, the performance of services exports is expected to considerably outpace that of the goods side in both years. Such an outlook is based upon the assumption that the healthy pipeline of services-related foreign direct investment projects announced over recent times will prove supportive of services export growth. Most notable in this respect is the computer services exporting sector, which is expected to prove relatively resilient throughout the projection period despite the slowdown of external demand given the number of computer services-related foreign direct investment announcements over recent years. Moreover, as is the case with merchandise exports, services trade seems set to benefit from further, albeit somewhat more modest, cost competitiveness gains throughout the projection period.

The volume of services imports rose by 1.5 per cent annually in the first quarter of 2012. At a sectoral level, much of this buoyancy emanated from the royalties and licenses sector, as evidenced by the pronounced

increase of 11.1 per cent annually in the first quarter. As regards the outlook, services import volumes are expected to recover in 2012 followed by some acceleration in 2013.

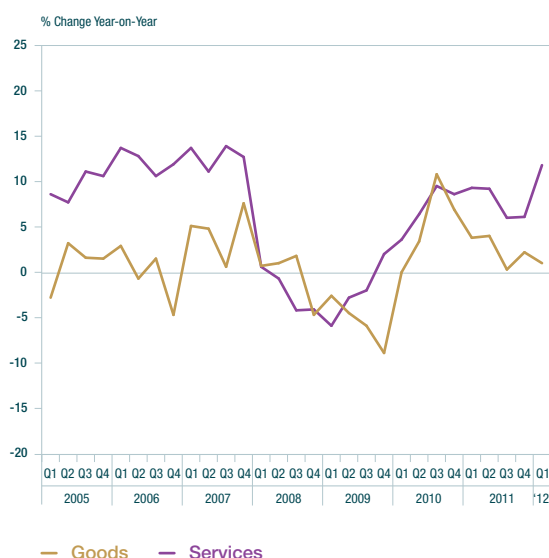
Export growth is expected to outpace that of imports in both 2012 and 2013 and as a result, the trade surplus seems set to expand further in both years. Net factor outflows, which rose by 7 per cent annually in the first quarter of 2012, are expected to grow this year and next, due to rising interest payments abroad on official borrowing and increased profit repatriation by foreign-owned multinationals, albeit at a reduced pace relative to that of 2011. The negative contribution to the current account arising from the international transfer component seems set to continue throughout the projection period. Reflecting such a combination of developments, a widening in the current account surplus is expected during 2012 and 2013. Following a revised current account surplus of 1.4 per cent of GNP in 2011, the surplus is set to rise to around 3.3 per cent in 2012 and further to around 4.8 per cent in 2013.

Supply

Industry and Services Output

Monthly Industrial Production (IP) data from the CSO indicate that the volume of manufacturing output in 2011 was broadly flat, increasing only marginally by 0.4 per cent, with the traditional sector (up 0.3 per cent) slightly outpacing growth in the modern sector (down 0.2 per cent). While the series is notoriously volatile on a month-on-month basis, data available for the first five months of 2012 suggest that the fortunes of the modern and traditional sectors may be reverting to type, with a more favourable outcome for the modern sector. For the first five months of the year, the volume of output increased by 4.6 per cent for the modern sector compared to the same period the previous year. The traditional manufacturing sector, on the other hand, reported a decrease in activity of 5 per cent for the same five-month period, year-on-year. Overall, the IP index indicates that manufacturing volumes were up by a modest 1.2 per cent for the January to May period, year-on-year.

Chart 2: Volume of Exports



Source: CSO Quarterly National Accounts.

Turning to the latest quarterly (March 2012 to May 2012) trends in the manufacturing sub-sectors, output in the traditional food sectors registered only moderate (1 per cent) increases compared to the previous three-month period, but was well down on activity for the same period in 2011 (down 8 per cent). Reductions in the output of the meat sector were partially offset by more favourable recent conditions in the dairy market for that period. Output in the important 'other foods' sub-sector, however, was down by approximately 10 per cent compared to the same quarter last year. In the modern sector, output in the high-value added chemicals sector experienced favourable growth of 6.3 per cent, both year-on-year and compared to the previous quarter. The ICT sector also recorded solid growth with the computer, electronic and optical equipment sectors registering growth of 4.1 per cent and 6.8 per cent quarter-on-quarter and year-on-year, respectively.

More qualitative data for the manufacturing sector comes from the latest NCB PMI which points to a tentative positive upward trend,

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	-2.2
2009	2.2	-14.1	-4.1	-4.5
2010	10.5	2.4	8.1	7.5
2011	-0.1	0.3	0.5	0.0
2012f	3.0	-2.0	1.2	1.2
2013f	4.0	0.5	2.8	2.8
Average 2000-2011	7.0	0.0	4.7	4.5

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).

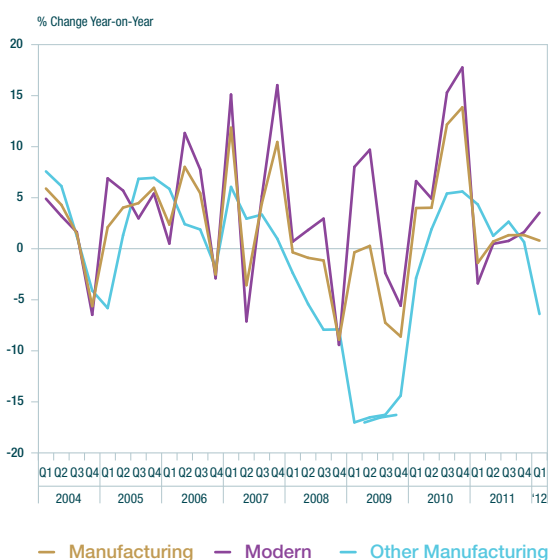
with the overall index marking a modest expansion in the April, May and June quarter, driven, for the most part, by higher new export orders. Encouragingly, the manufacturing employment index also points to an expansion.

The latest quarterly National Account data for the first quarter of 2012 corroborate the broad trend in the IP data, although the two are not directly comparable. Output in the industrial sector, which includes the construction sector, increased by 2.2 per cent year-on-year and decreased by 0.9 per cent quarter-on-quarter on a seasonally adjusted basis.

For the services sector, National Account data for the first quarter of 2012 point to an approximate decline of 2.7 per cent year-on-year for the first quarter. The NCB PMI for the services sector suggests that, as for much of 2011, activity has been broadly flat. The technology, media and telecoms sub-sector is outperforming most other sectors.

On the basis of a more moderate external demand environment, industrial output is forecast to grow by 1.2 per cent this year and 2.8 per cent in 2013 as external prospects improve. These forecasts come with the

proviso that the output of the chemicals and pharmaceuticals sector hold up in the face of patent expiries.

Chart 3: Volume of Industrial Production

Source: CSO.

Table 5: Summary of Agricultural Output and Income 2011, 2012^f, 2013^f

	2011 ^a	% change in			2012 ^f	% change in			2013 ^f
	€ million	Value	Volume	Price	€ million	Value	Volume	Price	€ million
Goods Output at Producer Prices ^a	6,303	-1.5	0.3	-1.8	6,208	-0.1	0.7	-0.8	6,202
Intermediate Consumption	4,891	0.0	0.2	-0.2	4,891	-1.6	0.4	-2.0	4,812
Net Subsidies plus Services Output less Expenses	1,825	-8.0			1,679	0.0			1,679
Operating Surplus	2,395	-7.6			2,213	-1.8			2,173

^a Including the value of stock changes.

Agricultural Output

The agriculture sector performed strongly for a second successive year in 2011. Final estimates from the CSO reveal that agricultural incomes - measured by operating surplus - increased by 30.1 per cent on an annual basis, following growth of 27.4 per cent in the preceding year. This partly reflected the delayed payment of subsidies; the IFA estimate that around €150 million of direct payments that were due in 2010 were not received until last year. Had the payments been made on time, growth in operating surplus would have been a much more modest 12.8 per cent in 2011 (with growth of 37.7 per cent in the preceding year). Nevertheless, reflecting developments over the past couple of years as a whole, agricultural incomes are now just below their pre-crisis peak, having experienced a very sharp decline over the period 2008 to 2009.

On the output side of the sector, 2011 saw a sharp 17 per cent increase in the value of goods produced at basic prices. This was the strongest pace of expansion since records began in 1990, and was supported by on-going strength in global demand and a significant increase in output prices. In volume terms domestic output increased by 2.9 per cent, with production expanding in each of the major sectors - livestock, livestock products and crops. Growth in the latter was particularly robust, driven by a rapid increase in cereal production. On the input side of the sector, intermediate consumption also expanded at its strongest pace on record, growing by 13.7 per cent from the previous year. Forage plants, feeding stuffs and energy costs all recorded

particularly strong increases as the margin between farm gate prices and farming costs narrowed. As noted above, meanwhile, non-product subsidies less taxes on production made a significant impact on income growth, increasing by €165 million.

Turning to this year, the outlook is for a contraction in agricultural incomes as the pace of output growth slows, subsidies normalise and the gap between output and input prices continues to narrow. A more modest contraction in incomes is then expected to occur in 2013 as output prices fall further. These forecasts are subject to considerable uncertainty relating to weather conditions, exchange rate movements and commodity price developments, and as a result risks are on the downside.

The Labour Market

Following a pronounced slowing in the pace of employment decline annually in the final quarter of 2011, a slight pick-up was recorded in the first quarter of 2012 according to the most recent Quarterly National Household Survey (QNHS). In unadjusted terms, the number of persons employed declined by 1 per cent year-on-year; this compares with a decline of 0.8 per cent on the same basis in the final quarter of 2011. Notwithstanding this slight deterioration, the pace of employment decline during the early part of this year has slowed appreciably relative to that of the first three quarters of 2011. When seasonal factors are taken into account, employment fell by 0.4 per cent quarter-on-quarter in the first quarter of 2012 following a 0.6 per cent increase in the previous quarter, the first such increase

Table 6: Employment, Labour Force and Unemployment 2010, 2011, 2012^f and 2013^f

	2010	2011	2012 ^f	2013 ^f
Agriculture	85	83	82	82
Industry (including construction)	360	342	337	338
Services	1,403	1,385	1,376	1,380
Total Employment	1,848	1,810	1,795	1,800
Unemployment	291	304	310	304
Labour Force	2,140	2,114	2,105	2,104
Unemployment Rate (%)	13.6	14.4	14.7	14.4

Note: Figures may not sum due to rounding.

since the final quarter of 2007. In seasonally adjusted terms, employment fell in ten of the fourteen economic sectors on a quarterly basis in the first quarter, albeit to varying degrees across individual sectors. Following three consecutive quarters of reasonably buoyant growth, the accommodation and food services sector recorded the single largest quarterly employment decline of 3.8 per cent, which accounted for around 60 per cent of the aggregate net employment decline in the first quarter. Despite some signs of stabilisation throughout 2011, a sizable decrease was also recorded in the construction sector, with a quarter-on-quarter employment decline of 3.5 per cent.

The contraction in labour demand continued to have a dampening, albeit more modest, impact upon the size of the labour force annually in the first quarter of 2012, with a decline of 0.2 per cent (-4,800 persons); this compares with a fall of 0.6 per cent on the same basis in the previous quarter. The fall over the year to the first quarter was solely driven by demographic factors and specifically net outward migration - it is estimated that the negative demographic effect contributed approximately 13,500 persons to the overall labour force decline of 4,800 persons. A relatively modest positive participation contribution totalling to around 8,700 persons was recorded annually in the first quarter of 2012. Given that the labour force declines over recent years were predominantly driven by downward pressure arising from declining labour force participation, it is noteworthy that the first quarter of 2012 represented the second consecutive

quarter to yield a positive participation contribution in year-on-year terms. The aggregate participation rate however fell by 0.1 percentage points to 59.8 per cent over the year to the first quarter reflecting considerable variation in participation developments across the various age cohorts.

When adjusted for seasonal factors, the unemployment rate increased from 14.5 per cent to 14.8 per cent in the first quarter of 2012, its highest level since the crisis began. The upward trend in long-term unemployment continued, as evidenced by the 1.1 percentage point year-on-year rise in the long-term unemployment rate to 8.9 per cent in the first quarter of 2012. As a consequence, some further deterioration in terms of the incidence of long-term unemployment was evident - the long-term unemployed now account for 60.6 per cent of total unemployment; this compares with 55.1 per cent in the first quarter of 2011.

While the QNHS points to continuing labour market weakness during the early part of this year, the more timely Live Register suggests that labour market conditions also weakened somewhat in the second quarter - the average monthly increase in the number of Live Register claimants totalled to 1,300 persons during the second quarter; this follows the average month-on-month decline of 1,800 persons registered in the first quarter. A further contraction in employment is projected in 2012 in average annual terms, with a decline in the region of 0.8 per cent. Such an outlook predominantly reflects downward pressure arising from sector-specific effects. Most

prominent in this respect are the prospects for the financial, insurance and real estate sector given the on-going restructuring of the banking system and the public sector reflecting the impact of the incentivised early retirement scheme. A modest employment increase in the region of 0.3 per cent is projected in 2013 in line with the envisaged less labour-intensive export-led nature of output growth and the expectation that the labour demand recovery will somewhat lag that of output.

The falloff in the size of the labour force is expected to continue into 2012, albeit at a somewhat reduced rate, with a decline in the region of 0.4 per cent currently projected. Such an outlook represents a slight upward revision relative to that of the previous Quarterly Bulletin as the negative labour force contribution arising from participation is expected to dissipate at a somewhat faster pace than previously envisaged. Demographic factors and specifically net outward migration as a result seem set to dominate the downward movement in labour supply during 2012. The 0.4 per cent projected decline in the labour force will serve to partially offset the impact of the contraction in employment and thereby, limit the upward pressure on the unemployment rate in 2012. Nevertheless, a further rise is in prospect, with the unemployment rate expected to average around 14.7 per cent. Looking ahead to 2013, the labour force is projected to be broadly unchanged. In view of this and given the outlook for employment, the unemployment rate is expected to decline somewhat to average around 14.4 per cent.

Pay

Despite weak domestic economic conditions and considerable spare capacity in the labour market, compensation per employee at the whole economy level rose by 0.2 per cent last year, according to the National Income and Expenditure Accounts for 2011. The more timely quarterly Earnings and Labour Costs survey is consistent with a further pick-up in wage pressures during the early part of 2012, as evidenced by the 0.7 per cent year-on-

year increase in average weekly earnings at a whole economy level in the first quarter. Such an outturn compares with a revised decline of 0.7 per cent on the same basis in the previous quarter. A decomposition of the 0.7 per cent increase in average weekly earnings reveals that it solely reflected an increase in average weekly hours worked – average hours worked rose by 1.0 per cent while average hourly earnings declined by 0.2 per cent. Increases in average weekly earnings took effect across both the public and private sector during the year to the first quarter of 2012. While an increase of 2 per cent was recorded in the public sector over this period, a slightly less pronounced increase of 1.5 per cent took effect in private sector average weekly earnings. The composition of these increases in average weekly earnings differed somewhat across the public and private sector - a rise in average hourly earnings was the dominant driver in the public sector while an increase in average hours worked proved more prominent in the private sector.

As regards the wage outlook, developments are expected to vary across the public and private sectors during 2012 and 2013. While annual salary increments seem set to provide some modest support to public sector pay, the profile of reductions in public service employment are expected to play a more pronounced role in driving developments in compensation per public sector employee throughout the projection period. Increased public sector payments arising from the incentivised scheme of early retirements seem set to place upward pressure upon compensation per public sector employee in 2012. Conversely, the envisaged more modest reduction in public sector employment during 2013 is expected to yield a reduction in compensation per public sector employee. It is projected that private sector wage pressures will remain reasonably muted in 2012 given the continuing backdrop of weak economic activity and considerable spare capacity within the labour market, with private sector compensation broadly unchanged. The downward pressure on private sector wage levels seems set to dissipate during 2013 in line with the envisaged gradual stabilisation in

the labour market and as a consequence, a modest increase is expected. Reflecting such a combination of developments across the public and private sector, wages at a whole economy level are expected to grow by 0.6 per cent in 2012. Despite being supported by strengthening economic activity, average annual growth in compensation per employee is projected to slow modestly to 0.4 per cent in 2013 due to the projected decline in compensation per public sector employee outlined above. When the outlook for wages is combined with that for employees, it suggests that the pay bill will fall by 0.2 per cent in 2012 followed by a modest increase of 0.7 per cent in 2013.

Inflation

The price level, according to the harmonised index of consumer prices (HICP), rose by 1.6 per cent on a cumulative basis, during the first half of this year. One of the main drivers behind the increase related to the pass-through of a number of indirect tax measures contained in Budget 2012, although the pass-through of the standard VAT rate increase appeared to be quite weak generally. Partly due to the measure to raise charges for private beds in public hospitals, medical insurance premia increased significantly by about 13 per cent during the early months of the year. As discussed below, energy price fluctuations also featured prominently in the month-on-month changes. The HICP price level was broadly flat during April and May, before falling by 0.2 per cent in June as the summer sales commenced and lower international oil prices began to filter through. As a result, average annual HICP inflation during the first half of this year was 1.8 per cent. Looking through international and market-specific factors, underlying inflation remains quite subdued. HICP excluding energy was 0.9 per cent on an annual basis during January to June and while on a constant tax basis the inflation rate was significantly lower again.

Looking through seasonal effects, prices for unprocessed food and processed food excluding alcohol and tobacco are likely to

be broadly flat during this year. During the first half of the year, there were significant upward pressures on prices. In particular, the appreciation of sterling against the euro applied upward pressure on food import prices, with an estimated 20 per cent of food produce sold in Ireland sourced in the UK. Also, the standard VAT rate increase affected many processed food items. However, retailers appeared to have absorbed these cost increases to a large degree, with pricing power still quite weak reflecting constrained and cautious consumer purchasing behaviour. More recently, there are some tentative signs of an easing of supply chain inflationary pressures. Factory gate prices for food commodities have fallen back significantly in recent months and were down 5.7 per cent in May, in year-on-year terms. The net effect of cost pressures may see prices remain subdued during the remainder of the year. In contrast, prices for alcohol and tobacco are likely to be up significantly in annual terms by the end of the year, although this is largely due to higher excise duties and also a relatively strong pass-through of the VAT rate increase at the beginning of the year. As a result, overall food prices may be up 1.6 per cent on average during the final quarter of the year.

The annual energy inflation rate was 9.8 per cent in January, pushed up partly by the carryover of higher gas prices from last autumn. Energy prices increased strongly during much of the first half of this year, as higher international oil prices continued to filter through. In addition, carbon taxes increased for gas prices in May while, at the same time, certain special discounts expired for electricity prices. Despite these utility price rises, monthly changes in energy prices already turned negative in May, as sharp falls in oil prices began to filter through for liquid fuels, where the pass-through is generally quick and full. Futures would suggest that oil prices will ease back further during the summer, and partly due to strong downward base effects, the annual energy inflation rate may be marginally negative by the turn of the year. Needless to say, the on-going substantial fall in the annual energy inflation rate is having a pronounced effect on the headline HICP inflation rate.

Table 7: Inflation Measures – Annual Averages, Per Cent

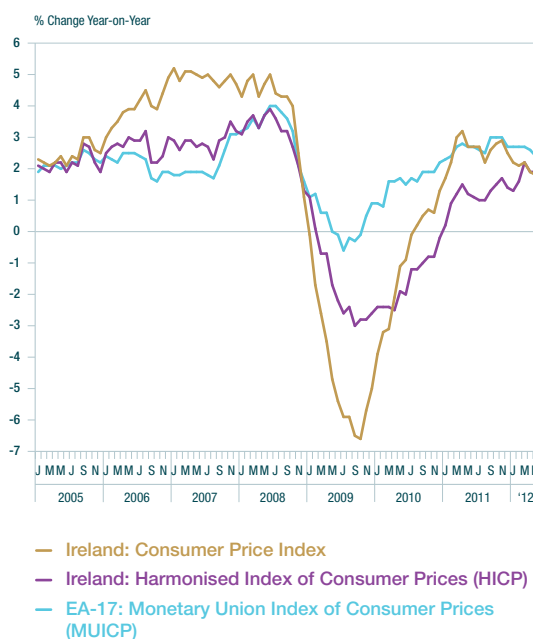
Measure	HICP	HICP excluding Energy	Services ^a	Goods ^a	CPI
2008	3.1	2.6	3.4	2.9	4.1
2009	-1.7	-1.0	1.2	-4.1	-4.5
2010	-1.6	-2.7	-0.7	-2.4	-1.0
2011	1.1	0.0	0.8	1.5	2.6
2012 ^f	1.4	1.0	2.0	1.0	0.9
2013 ^f	0.7	1.2	1.5	-0.2	0.4

^a Goods and services inflation refers to the HICP goods and services components.

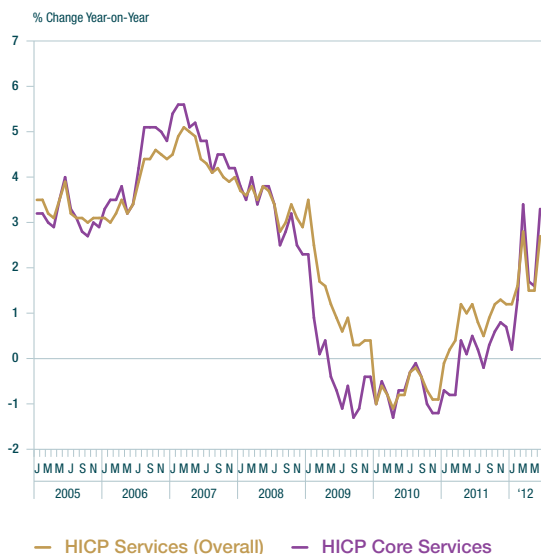
Services prices rose cumulatively by 2.3 per cent during the first half of this year, with the rise mainly attributable to markedly higher medical insurance charges and the indirect effects of higher oil prices on air fares and transport prices more generally. These were only partially offset by a fall of 1.3 per cent for telecommunication services, over the same period, perhaps providing tentative signs of intensified competition in that sector. Meanwhile, the underlying trend in private rents was flat, even though a reduction of on average 13 per cent in the rent supplement was introduced in January. The rental supplement is estimated to account for about 30 per cent of the private rental market and may have been expected to pull down rents gradually as rents were renegotiated. It is possible that in certain limited segments of the market with buoyant demand, rents may have risen enough, to offset downward pressures arising from the rental supplement review. Turning to the outlook for the remainder of the year, prices are likely to remain subdued across a wide range of items, with the notable exception of education costs, which are set to increase significantly in the autumn.

Turning to the consumer price index (CPI), the annual average inflation rate for 2012 is projected to be lower than the HICP annual rate at about 0.9 per cent, largely reflecting the negative carryover due to recent cuts in the ECB policy rates and the underlying assumption for mortgage interest costs. Note that the Bank uses a purely technical assumption for interest rates that is based on market expectations for the path of ECB policy rates. In 2013, a stabilisation in consumer demand will be reflected in annual average

HICP inflation of 0.7 per cent while annual CPI inflation may be somewhat lower at 0.4 per cent. Energy prices will continue to heavily impact on the profile of the headline inflation rates in the short to medium term, with the annual average euro oil price assumed to fall by over 8 per cent next year. There may be some offset from the positive carryover from higher education costs. Also, it is worth noting that there is significant upside risk to the projections, arising from possible indirect tax measures contained in the forthcoming Budget 2013.

Chart 4: Consumer Prices


Source: CSO.

Chart 5: Services Sector Inflation

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

Source: CSO.

Property Prices

Residential property prices, as measured by the CSO's Residential Property Price Index (RPPI), suggest that house prices, in aggregate, continued their downward trend in the first half of 2012, with prices down 16 per cent year-on-year in the March to May 2012 quarter. While there was a marginal increase in the RPPI in May on a month-on-month basis (+0.2 per cent), it should be treated with caution and not taken to herald the end of house price declines. Low levels of transactions mean that a small number of property sales can have an undue impact on the headline figure which is prone to short-term volatility. Nonetheless, a shortage of well-located family homes in Dublin and some other large urban centres may be putting some upward pressure on house prices, with house prices in Dublin pointing to moderate increases over the last three months (up 1.3 per cent in the latest three-month period (March to May) compared to the previous three-month period). Dublin apartment prices resumed their monthly decline in May, falling by 1.6 per cent following two months of increases.

There remains considerable disparity between regions and markets, with prices in Dublin and apartments prices generally experiencing the greatest falls in terms of the fall from peak. House prices in Dublin are 55.2 per cent below their peak and apartment prices are 60.5 per cent lower, while house prices outside of Dublin have fallen by a lesser 45.7 per cent. Evidence of a developing multi-tiered housing market is also hinted at by a reduced rate of decline in asking prices on Daft.ie and MyHome.ie in some regions and sectors. While affordability continues to improve¹, uncertain employment prospects and little concrete evidence of a more accommodating mortgage market mean that sentiment in the housing market continues to err on the side of caution, with further price declines in prospect for some regions and sectors.

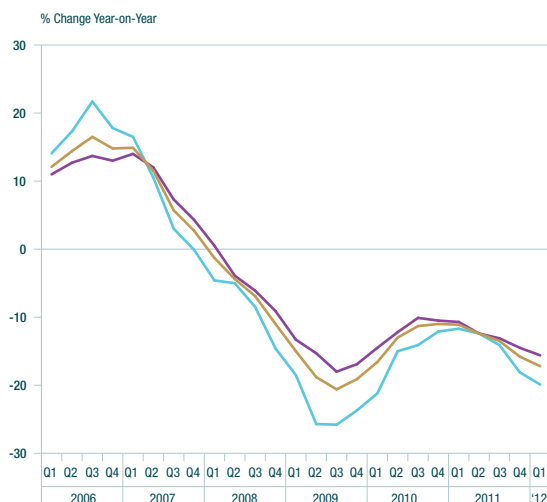
Reflecting the reluctance of potential buyers to enter the property market, private sector rents increased in the latter half of 2011 but there are signs that this upward trend has begun to stabilise this year with the CSO's rental index indicating monthly decreases of 0.9 and 0.1 per cent in April and May of 2012, as changes in rent supplements may be renewing some downward pressure in the rental market. 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, the latest available indices indicate that capital values continued to fall in the first quarter of 2012. The Society of Chartered Surveyors/ Investment Property Databank's Commercial Property Index reported a 1.8 per cent quarter-on-quarter capital value decrease in quarter one of 2012. This is corroborated by the Jones Lang LaSalle index for quarter one of 2012, which recorded a decrease of 1.7 per cent in capital values for the first quarter of 2012. There are some positive signs emanating from the sector with an increase in uptake in prime office areas by large multinationals. Both sources also pointed to some stability in the rental market,

¹ The EBS DKM Affordability Index in March 2012 suggested that the average first time buyer working couple would spend 11.9 per cent of the joint income to fund a mortgage, compared with 26.4 per cent at the height of the boom. This has likely improved further with the ECB 0.25 per cent rate cut in July and further house price falls.

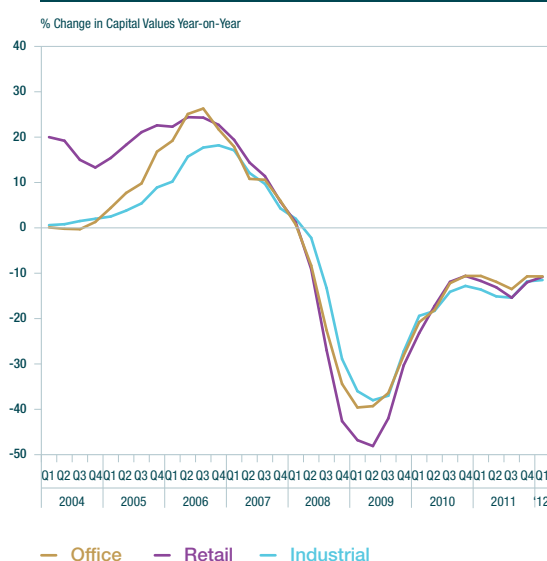
with Jones Lang LaSalle reporting that overall rental values had increased marginally by 0.7 per cent for the first quarter of 2012, albeit with varying sector outcomes, with the retail sector still experiencing declines.

Chart 6: Residential Property Price Indices



Source: CSO.

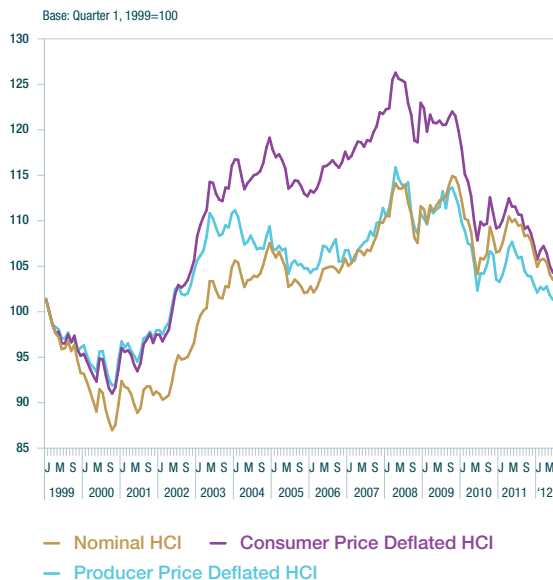
Chart 7: SCS/IPD Irish Commercial Property Index



Source: SCS/IPD.

Competitiveness

Chart 8: Harmonised Competitiveness Indicators



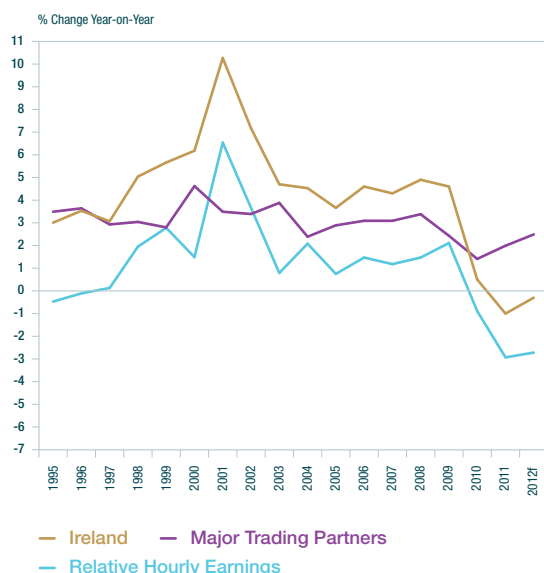
Source: Central Bank of Ireland and ECB.

Exchange Rate Developments

While there was a moderate strengthening of the euro in the first quarter of 2012 on foot of a tentative improvement in optimism surrounding debt consolidation efforts, more recent uncertainty in this regard has renewed the significant downward trend in the euro in the second quarter of 2012 that was evident throughout much of 2011. Since the end of March 2012, the euro, at the time of writing (9 July 2012) had fallen by approximately 8.2 per cent against the dollar and, more importantly for Ireland's indigenous exporters, by 5.1 per cent vis-à-vis sterling. This more recent weakness of the euro is not as evident in the Harmonised Competitiveness Indicators (HCIs) which are only available to April 2012. Nonetheless, the improvement in competitiveness (a fall in the HCI) that was evident throughout much of 2011, some of which was reversed in the first quarter of 2012, is evident in the latest observations, particularly in the producer price deflated HCI. The competitive position in April 2012 had improved by as much as 5 per cent (consumer deflated HCI) compared to the same month last year. While most of this competitive improvement has come through favourable currency movements, the slightly lesser fall in

the nominal HCI (4.5 per cent) suggests price increases in Ireland were slightly less than those of our main trading partners.

Chart 9: Hourly Earnings in Manufacturing (in Local Currency)



Source: Central Bank of Ireland calculations.

Productivity and Cost Competitiveness

National Account and employment data for 2011 point to further improvements in productivity in 2011, with productivity on a GDP basis increasing annually by 3.5 per cent. On a GNP basis, however, productivity actually decreased by 0.4 per cent, weakened by higher net factor income outflows related to profit repatriation of foreign multinationals operating in Ireland. As highlighted in previous Bulletins, there were likely two factors at play behind the high GDP-based figure: 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 domestically oriented services. (For a more nuanced analysis of Ireland's cost

competitiveness performance see Cost Competitiveness and Export Performance in the Irish Economy in Section 2.) For this year and next these compositional effects are likely to play less of a role, with much of the structural change in the construction sector already occurring - it now accounts for a much smaller share of output (approximately 6 per cent). In light of the overall economic and labour market outlook set out above, average annual productivity growth of 1.6 per cent on a GDP basis is projected for both this year and next. On a GNP basis, progress is likely to be more modest with an increase of 0.5 and 0.6 per cent projected for this year and next, respectively.

In light of the more modest increase projected for productivity compared to previous years, and a deceleration in cuts to compensation of employees, the large declines in unit labour costs experienced in previous years are forecast to moderate over the projection period. Unit labour costs on a GDP basis are estimated to have declined by -3.2 per cent in 2011, with further more tempered declines of 0.9 and 1.2 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, with modest compensation increases forecast for 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 points to some upward pressure on business-to-business services prices in Ireland, with prices up 1.7 per cent in the year to the first quarter of 2012. Much of this increase, however, relates to significant increases in air transportation costs, while there were decreases in employment and human resource services, architecture and engineering services and industrial and building cleaning services. The National Competitiveness Council's 2011

Annual Competitiveness Report highlights areas of concern in regard to competitiveness, including: reducing commercial rates, investment in alternative forms of energy, greater emphasis on mathematics and science in education, improved funding for infrastructure projects, a broadening of the tax base, more tax credits for R&D, continued extension of Ireland's tax treaty network and a restoration of bank lending.

Chart 10: 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 1 2011.

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

The Public Finances

2011 General Government Outturn

The end-March Maastricht Returns reported a general government deficit of 13.1 per cent of GDP last year, down from 31.2 per cent in 2010. While the outturn represented a substantial improvement from the previous year, it was also considerably higher than the 10.1 per cent that had been expected at Budget time in December 2011. This reflected Eurostat's decision to classify a portion of the capital injected into our banks in 2011 – €5.8 billion or 3.7 per cent of GDP – as a capital transfer. Originally, it had been treated as a financial transaction, and did not therefore affect Ireland's general government deficit. The impact on the debt of the 2011 banking recapitalisations had already been reflected in the September 2011 Maastricht Returns. The performance of the underlying balance, which excludes the impact of banking support costs and the relevant measure for the programme, was, by comparison, better than expected. The underlying deficit fell from 10.9 to 9.4 per cent of GDP, well inside the target of 10.6 per cent set by the ECOFIN Council. The Maastricht Returns also revealed that general government debt increased to 108.2 per cent of GDP last year, from 92.5 per cent in 2010.

Stability Programme Update

The Government submitted its Stability Programme Update (SPU) to the European Commission in April 2012, in accordance with the requirements under the European Semester. The Department of Finance forecast a general government deficit of 8.3 per cent of GDP this year in the SPU. While the Department has noted that this is an early, point in time estimate, it is consistent with recently published forecasts by the IMF and European Commission. It is below the 8.6 per cent target set by the ECOFIN Council for the year. In the SPU, the Department of Finance projected the deficit ratio to fall to 7.5, 4.8

Table 8: Exchequer returns, End-June 2012

	2011 Outturn €m	2011 End-June €m	2012 End-June €m	End-June % Annual Change
Current Expenditure				
– Voted ¹	41,419	20,547	21,330	
– Non-voted ²	6,606	3,375	5,438	
Total	48,025	23,922	26,768	11.9
Current Revenue				
– Tax revenue	34,027	15,279	17,014	
– Non-tax revenue ³	2,774	1,465	1,726	
Total	36,801	16,745	18,741	11.9
Current Budget Balance	-11,224	-7,178	-8,028	
Capital Budget Balance	-13,693	-3,651	-1,416	
Exchequer Balance	-24,917	-10,828	-9,443	
General Government Balance (% of GDP)	-13.1			
Source and Application of Funds				
– Total Borrowing/Repayments	-27,046	-16,653	-13,541	
– Promissory Note Issued to IBRC ⁴		0	3,060	
– Total Increase in Exchequer Deposits	2,129	5,825	1,038	
Exchequer Balance	-24,917	-10,828	-9,443	

1 Government current expenditure voted on by the Dail in the areas of Social Welfare, Health, etc.

2 Includes items such as debt servicing and EU Budget contribution.

3 Includes items such as income from Eligible Institutions Guarantee, Central Bank surplus income, National Lottery surplus, interest and dividends.

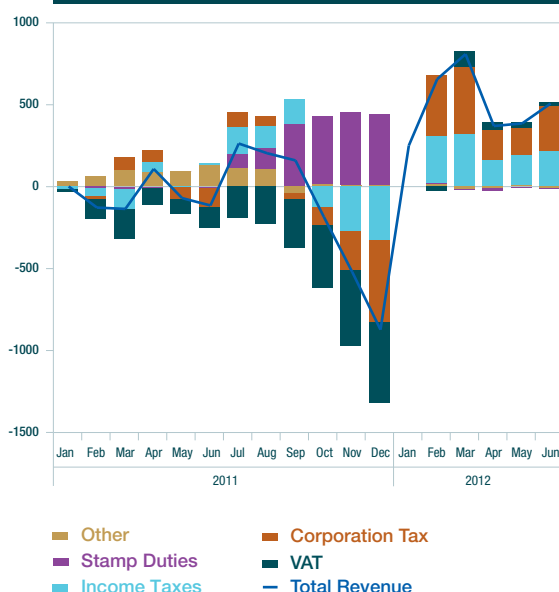
4 The promissory note transaction is not included in non-voted expenditure as no cash was issued arising from the transaction. The bond issued is included in total borrowing / repayments.

and 2.8 per cent of GDP in the years 2013 to 2015 respectively, based on consolidation consistent with that outlined in the November 2011 Medium-Term Fiscal Statement. Again, these forecasts are broadly consistent with those published by the IMF and European Commission in June. All of these figures would satisfy ECOFIN targets, and would see the deficit brought back below 3 per cent by 2015, fulfilling the government's commitment. With regard to general government debt, the Department of Finance anticipates that the debt to GDP ratio will increase from its end-2011 level of 108.2 per cent to a peak of 120.3 per cent in 2013. It is then expected to gradually decline in the following years, falling to 117.4 per cent of GDP by 2015. These forecasts do not factor in the potential positive impact that the sale in state assets could play in reducing debt.

Exchequer Returns

The latest data reveal an Exchequer deficit of €9.4 billion in the first half of the year, down from €10.8 billion in the same period of 2011 (see Table 8). The improvement of €1.4 billion in year-on-year terms has occurred against the backdrop of a strong increase in taxation receipts, non-tax revenues and capital receipts - but also higher voted and non-voted expenditure. While the latter has benefited from the decision to finance the annual €3.06 billion promissory note payment with a bond and not by cash this year, this has been more than offset by increased Exchequer-debt servicing costs and the payment to acquire Irish Life Limited.

Chart 11: Cumulative Exchequer Revenue Performance Relative to Target, 2012



Note: 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.

Taking a closer look at the revenue side, tax receipts amounted to €17 billion in the period January to June, a substantial annual increase of 11.4 per cent. Two specific factors have boosted the year-on-year rate of change; delayed corporation tax receipts in January, which were actually due in December, and a decision by the Revenue Commissioners to reclassify a portion of PRSI receipts as income tax. Even adjusting for these factors tax revenue has increased by an estimated 8.3 per cent year-on-year, however, and, as a result, is 3.1 per cent above the revised target set by the Department of Finance in April (see Chart 11). Three of the 'big four' tax heads were stronger than expected. Income tax and VAT were 3.1 and 0.6 per cent ahead of their revised targets respectively, while corporation tax was 16.1 per cent ahead of target despite a significant portion of delayed repayments taking place during May. Excise,

by comparison, was marginally below profile. Non-tax revenues also performed strongly in the first half of the year, increasing by €260 million on an annual basis. This primarily reflected stronger Central Bank surplus income.

On the spending side, net voted expenditure was €22.4 billion at end-June, €386 million higher year-on-year and 1.8 per cent ahead of its revised profile. Around half of the overspend has been caused by a shortfall in PRSI receipts, with Departmental expenditure 0.9 per cent ahead of expectations. Stronger than expected net spending has been driven by overspends in two vote groups - Social Protection and Health. Non-voted expenditure, at €7.2 billion in the first half of the year, was around 11.6 per cent higher year-on-year. As noted above, the decision to pay this year's promissory note payment with a bond resulted in a significant annual cash saving, but this has been outweighed by higher debt servicing expenditure, the €1.3 billion acquisition of Irish Life and a €450m loan to the Insurance Compensation Fund. Debt servicing costs increased to €4.5 billion, €2 billion higher than a year earlier. When adjusted for the timing of an earlier sinking fund payment this year and use of the Capital Services Redemption Account (CSRA) for debt servicing purposes last year, however, the increase is a more modest €840 million. A very substantial improvement in non-voted expenditure should emerge from July, however, as the €7.5 billion in bank recapitalisation payments made in July 2011 fall out of the base.

Exchequer Financing

The Exchequer returns show that the deficit of €9.4 billion was financed by net government borrowing of €13.5 billion in the first half of the year. When the €3.06 billion promissory note bond is taken into account, this resulted in a €1 billion increase in Exchequer cash balances (see Table 8). Government borrowing was

primarily sourced from the European Financial Stability Facility and the European Financial Stability Mechanism (around €4.5 billion from each), the IMF's Extended Fund Facility (€4.7 billion), bilateral loan agreements with the United Kingdom, Sweden and Denmark (a total of €1.2 billion) and national saving schemes (€840 million). Offsetting these amounts, a net €2.6 billion of Irish government bonds and commercial paper were repaid. For the year as a whole it is anticipated that the financing needs of the public sector will be financed by €22.7 billion in external Programme loans and a €0.4 billion run-down of cash balances (from the end 2011 position). As a result, by the end of the year €57.3 billion – or 85 per cent - of the total Programme allocation of €67.5 billion will have been disbursed.

EU-IMF Programme Compliance and Forthcoming Targets

The quantitative fiscal targets underpinning the EU-IMF Programme continued to be achieved in the first quarter of the year. The cumulative exchequer primary deficit was €5.7 billion at end-March, well below the €6.9 billion performance criteria², while the outstanding stock of central government net debt was €123 billion, compared to an indicative target of €125 billion³. With regard to the second quarter, the Department of Finance have stated that the adjusted end-June exchequer primary balance target of €9.6 billion was met with a margin of €900 million. There is one structural fiscal benchmark that must be met in the coming months. By the end of September, a legal framework for the Irish Fiscal Advisory Council ensuring its independence must be submitted to the Oireachtas.

² This performance criteria is adjusted to take account of payments for bank restructuring and for the resolution of credit unions, and for the full amount of any over performance (or under performance) of Exchequer tax revenues and gross PRSI receipts relative to a TMU target.

³ This indicative target is adjusted to take account of debt arising from payments for bank restructuring, the resolution of credit unions and any revision to the stock of end-March 2012 central government net debt.

An Timpeallacht Gheilleagrach

Tá an timpeallacht sheachtrach fiordhúshlánach i gcónaí. Le linn na ráithe deireanaí, chonacthas go raibh na margaí airgeadais san Eoraip faoi straidhn agus rinneadh athchóirithe ar chreat ceaptha beartais an réigiúin. Cé gur dhírigh na tionscnaimh sin ar na príomh-shaincheistean, níor éirigh leo ábhair imní na margaí a réiteach. Ní hamháin go mbíonn impleachtaí díreacha ag struis leanúnacha na margaí airgeadais ar mhaoiniú rialtas agus banc, ach ina theannta sin, cuireann siad beaguchtach ar an éileamh inmheánach san Eoraip mar gheall ar an iarmhairt a bhíonn acu ar mhuinín tomhaltóirí agus infheisteoirí. Leis seo, teorannaítear na hionchais don téarnamh eacnamaíoch ní hamháin san Eoraip ach in Éirinn chomh maith ó tharla go bhfuil geilleagar beag, oscailte aici. Dá bhrí sin, cé go raibh toradh fabhrach ar Chruinniú Mullaigh deireanach AE sa mhéid gur aithníodh an gá le dul i ngleic leis an gcuid sin d'fhiachas na hÉireann a bhaineann leis na bainc, níor fheabhsaigh an timpeallacht i gcoitinne go feadh an méid a bhíodhas ag súil leis.

Leis na sonraí Cuntas Náisiúnta is déanaí, tugtar le fios gur tháinig laghdú 1.4 faoin gcéad ar OTI agus laghdú 2.5 faoin gcéad ar OTN anuraidh. Leis an mbearna mhór idir fás OTI agus OTN, léirítear go raibh an fás bunaithe ar onnmhairiú, agus léirítear coigeartú teicniúil de thoradh shonraí OTN ní ba láidre ná mar a bhíodhas ag súil leo ón mbliain roimhe sin. Meastar go moilleoidh an spreagadh fáis ón taobh seachtrach agus go maolóidh an cúngú ar an éileamh intíre agus is dócha, dá bhrí sin, go laghdóidh an difríocht idir fás OTI agus fás OTN i mbliana. Don bhliain 2012 ina hiomláine, meastar go moilleoidh fás OTI go dtí 0.7 faoin gcéad agus go maolóidh an cúngú ar OTN go dtí tuairim is 0.3 faoin gcéad. Táthar ag ceapadh go méadóidh fás OTI go dtí tuairim is 1.7 faoin gcéad an bhliain seo chugainn, i bhfianaise an téarnaimh theoranta ar éileamh seachtrach agus tá ionchas measartha cobhsaí ann don éileamh intíre. Meastar go dtiocfaidh méadú 0.9 faoin gcéad ar OTN, i dtéarmaí réadacha, an bhliain seo chugainn.

D'ainneoin go bhfuil an timpeallacht sheachtrach crua agus go bhfuil an timpeallacht intíre spadánta, tá dul chun cinn maith á dhéanamh ar na príomh-shaincheistean beartais. Mar shampla, go dtí seo, bhí tionchar ní ba lú ná mar a bheifí ag ceapadh ag forbairtí seachtracha

ar an earnáil baincéireachta. Níor tháinig aon athrú ar shreafaí taiscí, a bheag nó a mhór, le tamall anuas d'ainneoin imthosca suaite na margaí airgeadais. Go deimhin, i gcás na mbanc sin a bhíonn ag gníomhú sa mhargadh intíre, tá laghdú beag tagtha ar a spleáchas ar mhaoiniú bainc ceannais, cé go bhfuil sé ard go fóill. Tá na bainc ag leanúint leis an gcoigeartú ar a gcláir chomhardaithe trí bhithin na díghiarála, idir punanna iasachta a dhíol glan amach agus saoraidí iasachta a laghdú. Tá cúngú ag teacht ar leibhéil fostaíochta san earnáil agus ar fhairsinge na líonraí brainsí de réir mar a ghluaiseann an earnáil i dtreo cumraíochta atá níos inmharthana sa mheántéarma. Tá coigeartú á dhéanamh ar na múnlaí gnó a bhíodh ann le blianta beaga anuas, rud a léiríonn go mbeidh iasachtú le FBManna agus le teaghligh, chun críocha gnó agus chun críocha na hinfheistíochta inmharthana réadmhaoine, mar chuid lárnach de ghníomhaíochtaí na mbanc amach anseo. Tá próiseas an choigeartaithe deacair ach tá sé riachtanach ar mhaithe le sláine na hearnála féin agus le sláine an gheilleagair i gcoitinne san fhadtéarma. Ar ndóigh, is deacra fós an dúshlán a bhaineann le bainistiú an choigeartaithe seo toisc go gcaithfear, ag an am céanna, déileáil leis na hiarmhairtí ón am atá thart agus díriú ar an treoshuíomh nua a bhaint amach a thapúla agus a éifeachtúla is féidir.

Tá forbairtí fíoscacha ag gluaiseacht sa treo ceart, a bheag nó a mhór, cé go bhfuil an fás níos laige ná mar a bhíothas ag súil leis. Tá comharthaí ann go bhfuil caiteachas chun tosaigh ó thaobh sprice ach glactar leis go ndéanfar coigeartuithe chun leibhéal an chaiteachais a thabhairt i gcomhréir leis na réamh-mheastacháin bhuiséadacha arís. Tá ag éirí go measartha maith le hioncam cánach chomh maith d'ainneoin laige na gníomhaíochta sa gheilleagar, go háirithe ó thaobh éilimh intíre. Cé gur athbhreithniodh aníos an t-easnamh príomha don bhliain seo caite de thoradh athaicmiú páirteach infheistíochtaí áirithe a bhain leis na bainc, bhí an toradh bunúsach don bhliain seo caite ní b'fhearr ná mar a bhíothas ag súil leis. Leis an riocht tosaigh feabhsaithe i mbliana mar aon leis an athbhreithniú aníos ar luach ainmniúil OTI don bhliain seo caite, agus na treochothaí go dtí seo don bhliain 2012, ba cheart go bhféadfaí an t-easnamh measta don bhliain seo, eadhon 8.6 faoin gcéad den OTI, a bhaint amach. Cé go bhféadfaidh gur lú an iarracht a bheidh ag teastáil amach anseo chun an fiachas náisiúnta a laghdú go dtí leibhéal inmharthana thar an meántéarma, is gá fós an t-ioncam agus an caiteachas a chothromú go práinneach. Tá sé fíor-riachtanach go háirithe go mbainfear amach go hiomlán an laghdú easnaimh don bhliain seo agus do na blianta amach anseo.

Is toisc mhaolaitheach shuntasach sa chúlú eacnamaíochta é an spreagadh fáis atá ag teacht ó na hearnálacha onnmhairithe den gheilleagar. Cé go bhfuil comharthaí ann go bhfuil maolú ag teacht ar ráta cúngaithe an éilimh intíre, tá sé bunriachtanach go bhfeidhmeoidh an geilleagar go láidir go seachtrach chun go bhféadfar filleadh ar fhás easchuir cothrom. I bhfianaise laige mheasartha an éilimh sheachtraigh, tá forbairtí san iomaíochas ríthábhachtach faoi láthair. Leanann bearta maidir leis an iomaíochas náisiúnta de bheith ag gluaiseacht sa treo ceart, ach b'fhéidir go leagtar róbhéim ar an bhfeabhas seo de thoradh athruithe struchtúracha sa gheilleagar. Ina theannta sin, bhí na feabhsuithe le déanaí á dtreorú ag

forbairtí sa ráta malairte agus, dá bhrí sin, tá siad in-fhreascurtha go héasca. Chun an fuinneamh faoi na feabhsuithe san iomaíochas a choimeád ar bun, is gá an fás táirgiúlachta sa gheilleagar a uasmhéadú, go háirithe trí éifeachtúlacht a neartú sna hearnálacha sin ina bhfuil an t-iomaíochas ar iarraidh nó maolaithe, is é sin san earnáil phoiblí agus i réimsí níos cosanta den earnáil phoiblí ar aon. I gcásanna áirithe, féadfar iomaíochas a mhéadú agus ba cheart go ndéanfaí amhlaidh, le rialáil éifeachtach nuair is gá, ach i gcásanna eile beifear ag brath ar bhainistíocht ghníomhach agus ar thoilteanas chun athruithe riachtanacha a thapú i dtimpeallacht chrua. Tá dul chun cinn á dhéanamh chuige seo ach is gá an fuinneamh faoin athrú a choimeád ar bun, nó a mhéadú fiú, chun go ndéanfar na hionchais maidir le filleadh ar fhás sa ghearrthéarma agus maidir le caighdeáin mhaireachtála níos airde a uasmhéadú.

Financing Developments in the Irish Economy

Overview

The second quarter of 2012 saw continued volatility in the yields on ten-year government bonds for peripheral euro area countries. This largely reflected the inconclusive outcome of Greek elections and concerns about the recapitalisation requirements of Spanish banks. However, there was some evidence of Ireland decoupling from other peripheral Member States as yield spreads on longer-term government debt over the quarter were relatively stable compared to the volatility of bonds issued by Spain, Greece and Italy. In particular, the European Council's conclusions of 29 June 2012 to take action to address financial market tensions and particularly the reference to examine the situation of the Irish financial sector, impacted positively on Irish debt yields. Irish bond yields dropped to levels last seen before the EU/IMF programme commenced. As the first step in a phased return to the bond markets, NAMA auctioned €500 million worth of treasury bills with a three-month maturity on 5 July.

The three months up to end-May 2012 saw increased recourse by credit institutions in Ireland to Eurosystem refinancing operations. Underlying these aggregate developments was a reduction in Eurosystem borrowing by the Irish-owned credit institutions of almost €2.5 billion over the three-month period, whereas other credit institutions resident in the State increased their recourse to refinancing operations. The second ECB long-term refinancing operation (LTRO) in February, saw credit institutions shift out of the shorter-term main refinancing operations (MROs) and into the LTROs in an environment where market expectations for policy interest rates remain anchored around current levels. At end-May, LTROs accounted for approximately 95 per cent of all Eurosystem refinancing operations undertaken by the Central Bank of Ireland, whereas at end-2011 they accounted for just over 70 per cent.

The most recent months have seen net inflows of deposits into Irish resident credit institutions, particularly from private-sector counterparties. Irish private-sector deposits rose by €4.7 billion in the three months ending May 2012, although the inflows largely related to specific repo transactions. The average annual rate of contraction over that period fell to 3.6 per cent, following an annual reduction averaging

6.7 per cent in the three months ending February 2012. The trend of net inflows into longer-term savings deposit categories has also continued, reflecting the higher rates available on these types of products. In addition, outflows of deposits held by the non-resident private sector have slowed in recent months.

The amount of outstanding loans to the Irish private sector declined by 5.1 per cent based on the average for the three months ending May 2012. The latest sectoral data on credit to non-financial enterprises also saw a continued contraction in the first quarter of 2012 (minus 2.3 per cent on an annual basis), albeit at a slower pace than in previous quarters. This reduction in credit was reflected across all main sectors of economic activity but has been more pronounced for small and medium sized enterprises (SMEs). Loans to Irish households also continued to decline in recent months, falling at an annual rate of 3.9 per cent, based on the average for the three months ending May 2012. Reductions in liabilities have seen the household debt to income ratio, an indicator of debt sustainability, fall over the quarter to levels last seen in Q2 2007.

Interest rates on household borrowing continued to fall with rates on outstanding mortgage loans with agreed maturity over five

years, 42 basis points lower at end-March, when compared to December 2011. New business rates for non-financial corporate loans of up to €1 million (regarded as a good proxy for loans to SMEs), were 4.72 per cent in May 2012, a fall of 12 basis points since December 2011, but still 56 basis points above equivalent euro area rates.

The government deficit, measured on a four-quarter moving average, amounted to €3.5 billion in Q4 2011; including the impact of capital injections to the banks, it amounts to €5 billion.

Irish resident investment funds expanded strongly for the second successive quarter in Q1 2012, driven by a recovery in both asset valuations and the sale of new shares/units. Bonds and money market instruments, which account for 48 per cent of total assets, experienced additional investment of €23.6 billion. There was strong migration to bank bonds in particular, possibly on foot of the ECB three-year loans announced at the end of 2011. There were also sizeable inflows into money market funds (MMFs) resident in Ireland in recent months. With the exception of February, the nine months to end-May 2012 saw inflows bringing the total net asset value to €308 billion. This was accompanied by an aggregate positive valuation of €19.7 billion. Meanwhile, total assets for financial vehicle corporations (FVCs) resident in Ireland continued to decline in Q1 2012, reflecting the liquidation of vehicles due to difficulties in obtaining refinancing as market conditions remained challenging.

Monetary Financial Institutions

Credit Institutions' Funding

The three months up to end-May 2012 saw increased recourse by credit institutions in Ireland to Eurosystem refinancing operations of €989 million, as increases in Eurosystem borrowing during March and April more than offset a decline of €1.7 billion during the month of May. Total borrowing by domestic credit

institutions from the Eurosystem amounted to €88 billion at end-May. Underlying these aggregate developments was a reduction in Eurosystem borrowing by the Irish-owned credit institutions of almost €2.5 billion over the three-month period, whereas other credit institutions resident in the State increased their recourse to refinancing operations, particularly following the latest three-year longer term refinancing operation (LTRO) offered in March 2012. The settling of the latest three-year LTRO was done on a full allotment basis, as is the current practice for all Eurosystem refinancing operations. Banks availed of the ECB's second LTRO to shift to longer-term refinancing facilities, in an environment where market expectations for policy rates are anchored around current levels. At end-May, LTROs accounted for approximately 95 per cent of all Eurosystem refinancing operations undertaken by the Central Bank, whereas at end-2011 they accounted for just over 70 per cent.

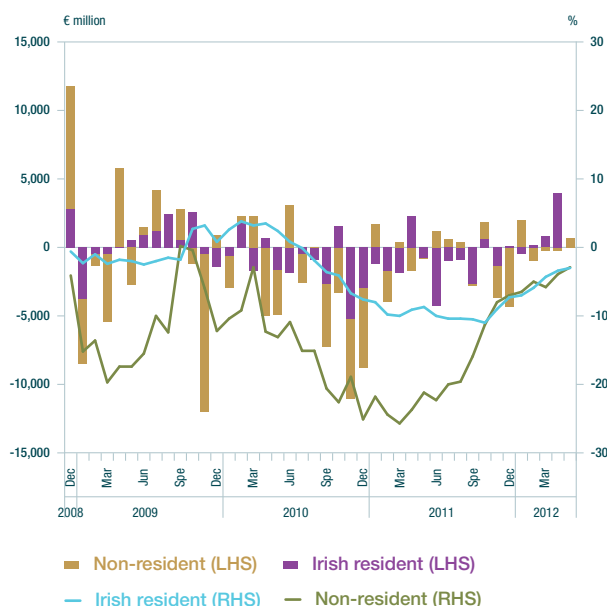
The downward trend in the outstanding amount of debt securities issued by the Irish banking sector witnessed throughout 2011 has continued in 2012, with the cumulative value of outstanding debt securities falling from €113 billion to €97.1 billion during the first quarter of 2012. This was driven by net redemptions of €15.9 billion over the course of Q1, with redemptions of long-term securities accounting for some 61 per cent of the total. This compares with a net issuance of €9.6 billion over the opening three months of 2011. This downward trend continued into April 2012 when further net redemptions of €2.1 billion were recorded, bringing the outstanding amount of debt securities issued by the Irish banking sector to €95 billion.

By end-Q1 2012, listed equity for the Irish banking sector had an outstanding value of more than €15.6 billion; this represents a rise of 6.6 per cent since end-Q4 2011. Although the outstanding value of this listed equity fell slightly in April 2012, it has risen by 37 per cent over the past 12 months, reflecting a substantial increase in the number of shares issued on foot of the bank recapitalisation programme in 2011.

The most recent months have seen net inflows of deposits into Irish resident credit institutions, particularly from domestic private-sector counterparties. Irish private-sector deposits rose by €4.7 billion in the three months ending May 2012, bringing the average annual rate of contraction over that period down to 3.6 per cent, following an annual reduction averaging 6.7 per cent in the three months ending February 2012. Most of the increase in Irish private-sector deposits in recent months relates to specific repo transactions with non-bank financial intermediaries in the private sector, which will be reversed in the coming months. However, even removing the impact of these transactions it remains the case that other private-sector deposits, such as those from Irish households and non-financial corporations, have also risen in the months up to end-May 2012. The monthly net flow of deposits from Irish households averaged €232 million in the three months up to end-May, with the equivalent figure for non-financial corporations being €117 million.

2012 followed ten successive months of net outflows. While recent developments in the overnight deposit category are in contrast to those in 2011, the trend of net inflows into longer term savings deposit categories present for much of the past year has continued. Term deposits with an agreed maturity of up to two years from the Irish private sector recorded an average net inflow of €346 million over the three months to end-May, of which €268 million per month on average, was attributable to households. Term deposits with an agreed maturity of over two years have also increased in recent months, but continue to have a much lower share in total private-sector deposits (7.5 per cent) than shorter-term products. The compositional shift in private-sector deposit holdings over the past year, especially for households, appears to reflect developments in the relative pricing of retail interest rates for demand, redeemable at notice and term deposit categories.

Chart 1: Monthly Net Flows (LHS) and Annual Rates of Change (RHS) of Private-Sector Deposits in Irish Resident Credit Institutions



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

Irish private-sector overnight deposits declined at an average annual rate of 9.8 per cent in the three months ending May 2012. A small inflow of deposits in this category during March

Outflows of deposits held by the non-resident private sector have slowed in recent months compared with developments at end-2011. Based on the average for the three months ending May 2012, deposits from the non-resident private sector fell by an annual rate of 4.2 per cent. This compares with an average annual decline of 23.5 per cent for the same three-month period to May 2011. Outflows of deposits held by the non-euro area private sector in particular, have not been as pronounced throughout 2011 and early 2012 as those recorded in 2010, with recent months showing net inflows of deposits from these counterparties. While the net monthly flow of deposits from the non-euro area private sector averaged minus €457 million in the first five months of 2011, the equivalent figure for 2012 is a positive €400 million.

Separate data collected for supervisory purposes also show modest increases in deposits in the domestic credit institutions, when measured on a consolidated basis. These data are different in scope and coverage to the Central Bank's monetary statistics, which provide the basis for commentary on credit and deposit developments. Box 1 examines the differences in the two reporting frameworks.

Table 1: Geographic Profile of Irish Credit Institutions' External Liabilities

€ million		
of which:	Q4 2011- Q1 2012 Change	Outstanding Amount Q1 2012
Italy	- 8,012	9,753
Belgium	-7,814	31,423
US	- 6,217	17,640
UK	-5,684	139,905
Germany	-4,609	46,085
Total	-37,306	354,847

Source: Central Bank of Ireland (see Tables A.19.1 and A.19.2).

The total external liabilities (i.e. debt securities and deposits held by foreign investors) of Irish resident credit institutions decreased by 10 per cent (or €37.3 billion) to €355 billion during Q1 2012 (see Table 1). €25.4 billion of this decrease was accounted for by other euro area countries, mainly Italy, Belgium and Germany. Liabilities to the UK fell by a further €5.7 billion whilst liabilities to non-EU industrialised countries fell by €5.1 billion.

Deposit developments have resulted in a continuing decline in the Irish contributions to euro area M1 and M2 on an annual basis, despite the positive flows of recent months. Currency in circulation increased at an annual rate of 6.7 per cent, based on the average for the three months ending May 2012. However, this was more than offset by the annual decline in overnight deposits outlined above, resulting in an annual rate of decline in the Irish contribution to euro area M1 of 6.6 per cent, based on the average for the three months ending May 2012. The developments in term deposits with agreed maturity up to two years have contributed to a significant easing of the pace of decline in the Irish M2-M1 contribution in recent months. The average annual rate of decline was 4.7 per cent in the three months ending May 2012, compared with an average annual fall of 18.1 per cent for the same period in 2011. The overall decline in the Irish M2 contribution was 5.7 per cent on an annual basis over the three months to end-May 2012. The Irish contribution to euro area M3 fell at an annual rate of 4 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 as a whole was an annual increase of 2.8 per cent.

Although the Irish-owned credit institutions continue to source their funding largely outside of the interbank markets, it is worth noting that the cost of borrowing in these markets fell further in recent months. At end-May 2012, the one-month, three-month and twelve-month EURIBOR were 63, 69 and 72 basis points lower, respectively, than at end-December 2011. By contrast, retail interest rates on deposits in Ireland have continued to increase, reflecting ongoing efforts by the credit institutions to secure additional funding by offering attractive rates on longer-term deposit products, particularly for households. At end-December 2010, the weighted average interest rate reported by Irish resident credit institutions on household term deposits was 2.78 per cent, compared with an average rate of 2.46 per cent reported by all euro area credit institutions. Since then, Irish resident credit institutions have reported an increase of 74 basis points in this rate, to 3.52 per cent at end-May 2012, while the euro area rate at end-May was 2.77 per cent, reflecting a more moderate increase of 31 basis points. A similar trend is evident among the interest rates on NFC term deposits, with Irish resident credit institutions reporting an increase of 73 basis points since end-December 2010, while the euro area rate has increased by just 16 basis points over the same period.

Box 1: Monetary and Supervisory Presentations of Deposit Trends in Irish-Owned Credit Institutions

By Martin O'Brien and Christine Reen, Statistics Division

There are two frameworks for examining deposits and other instruments on credit institutions' balance sheets: monetary statistics and supervisory statistics. Historically these frameworks have evolved to address different, albeit in some cases overlapping issues. While in recent years the financial crisis has led to a re-evaluation internationally of the overlap and consistency between the two frameworks for macro-prudential purposes, significant differences remain.¹ In this note, the two frameworks are discussed, particularly with regard to deposits. Trends in deposits for differing breakdowns in the two frameworks are examined for the credit institutions covered by the Eligible Liabilities Guarantee (ELG) scheme, referred to as the covered or Irish-owned institutions.

The Underlying Basis for Monetary and Supervisory Data

To understand the differences between the monetary and supervisory frameworks it is necessary to know the purpose for each of them. Monetary statistics are used to support monetary policy decision making, analysis of the monetary policy transmission mechanism and general economic conditions within a particular jurisdiction. The emphasis is on the interaction between the resident money issuing sector (credit institutions, money market funds and the monetary authority) and the money holding sectors (households, non-financial corporations, non-bank financial intermediaries and, in part, government), both within the jurisdiction and outside the jurisdiction. The concepts of residency and counterparty classification are, therefore, of crucial importance in the monetary statistics framework and are embedded in the wider set of internationally established economic accounts (such as the European System of Accounts, or ESA) which govern the compilation of national income and expenditure data. Given the emphasis on the counterparty and residency classification, there is less emphasis placed on developments in either individual or particular groups of credit institutions.

In contrast, supervisory statistics focus on developments in the individual credit institutions or banking group on a consolidated basis, taking into account all its operations whether they be undertaken by offices of the institution within or outside the jurisdiction. The primary purpose of supervisory data is to assess the risk profile of a particular credit institution at a given point in time and how individual risks within that institution interact with each other. As well as the need for data covering both the resident and overseas offices of the institution in question, it is possible that within a particular group there may be regulated entities which are not licensed credit institutions, and consequently are not covered in the monetary framework. The instrument, counterparty, maturity, currency and residency classifications are only relevant in the supervisory statistics framework to the extent that they feature in analysing risks. From a supervisory perspective, consistency of data within an individual credit institution at a given point in time is of importance, followed by consistency of that individual credit institution's data over time, with less emphasis on consistency across the entire reporting population.

¹ See, for example ECB and EBA (2012) 'MFI Balance Sheet and Interest Rate Statistics and EBA Guidelines on FINREP and COREP/Large Exposures: Bridging the Reporting Requirements – Methodological Manual Second Edition.' Available at <http://www.ecb.int/pub/pdf/other/mfibalancesheetinterestratesstatisticssebsguidelines201203en.pdf?1e75ecba32c8ee1303ff79397a38e05c>.

Box 1: Monetary and Supervisory Presentations of Deposit Trends in Irish-Owned Credit Institutions*By Martin O'Brien and Christine Reen, Statistics Division*

In Ireland, the Central Bank collects data under both frameworks in its role as a member of the Eurosystem and as the regulator of financial service providers. The monetary statistics framework yields the data used in the monthly *Money and Banking Statistics* and *Retail Interest Rate Statistics*, as well as the quarterly *Trends in Business Credit and Deposits* and *Trends in Personal Credit and Deposits*.² The balance sheet of institutions covered by the ELG scheme, collected under the supervisory framework, is published on a quarterly basis by the Central Bank.³ In recent months, the Department of Finance has published a series on deposits in the covered institutions which it has access to, following from the obligations of these institutions to provide information to the Department.⁴ This deposits series, referred to as 'customer deposits', is based on the supervisory framework.⁵ In the following section we will examine the reasons for the differences in deposit figures in the monetary and supervisory statistics, given the different emphasis of the two frameworks.

Differences between Monetary and Supervisory Data

At a conceptual level, the differences between supervisory and monetary statistics are: coverage (group versus resident offices); degree of consolidation (consolidated versus unconsolidated); and geographic basis for compilation (counterpart residency). Coverage, counterparty and residency definitions are more likely to be of relevance than consolidation in examining differences between the two frameworks for deposit levels, as they both exclude interbank deposits. In particular, differences between the monetary deposits series published by the Central Bank and the supervisory deposits series published by the Department of Finance arise from a non-harmonised definition of counterparties ('customer' versus 'private sector'); different reporting dates; the calculation of monthly flows; and the treatment of specific events during 2011.

In monetary statistics, the private sector covers all non-monetary financial institutions non-general government counterparties according to the European System of National Accounts (ESA95) definitions. This includes households and non-profit institutions serving households (NPISH), non-financial corporations, insurance corporations and pension funds (ICPF), and other non-bank financial intermediaries and auxiliaries (OFI). Data are compiled on a locational (resident offices only) basis, with the geographic profile of the balance sheet determined by the actual residence of the counterparty interacting with the Irish resident office. Private-sector deposits for the covered institutions in *Money and Banking Statistics* are separately identified for deposits from Irish residents (Table A.4.2). Non-resident private-sector deposits are published in aggregate for the entire banking system in the State (Table A.12.2). The 'customer' deposits series published by the Department of Finance incorporates the deposits classified as corporate and retail deposits in the supervisory framework. While this excludes interbank deposits, as does the private-sector classification, it does not exclude deposits from central or local government, which are not present in the monetary statistics private sector.⁶

2 These are available in the Credit, Money and Banking portal of the Statistics section on the Central Bank website at <http://www.centralbank.ie/polstats/stats/cmab/Pages/releases.aspx>.

3 Aggregated Banking Data: Covered Institutions is available at <http://www.centralbank.ie/polstats/stats/conbs/Pages/data.aspx>.

4 The series is available at <http://banking.finance.gov.ie/presentations-and-latest-documents/>.

5 The data used in the ELG institutions consolidated balance sheet published by the Central Bank is based on the FINREP template common across the EU, whereas the data used in the Department of Finance publication is based on a different template.

6 The customer deposits series published by the Department of Finance has excluded deposits made by central government into the covered institutions during 2011 in advance of their recapitalisation, which in part reduces the differences between the published 'customer' and 'private-sector' deposits series.

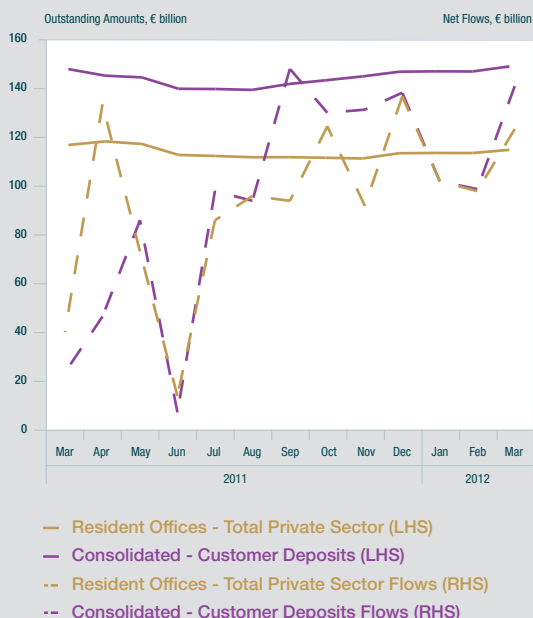
Box 1: Monetary and Supervisory Presentations of Deposit Trends in Irish-Owned Credit Institutions

By Martin O'Brien and Christine Reen, Statistics Division

The monetary statistics framework is explicit on what banking activities should be included and on what basis to determine the residency of the counterparty. The supervisory data definitions are not as explicit as the data are designed for monitoring individual institutions, including all activities undertaken, and less so for aggregation across institutions (i.e. consistency within a particular bank across time is more important than consistency across all banks in the cross-section/time dimension). The corporate and retail deposit book classification underlying the customer deposit series typically does not have a consistent counterpart residency definition: retail deposits most likely refer to those in the branch network, but not necessarily to the residency of the depositor, which could be outside Ireland; whereas corporate deposits, are more likely to be defined on the basis of the size of the deposit or the customer relationship and may well have a geographic split based on the residency of the counterparty.

Before looking at the trends in the published series in recent months, it is important to note two other fundamental factors leading to differences: reporting dates and compilation of flows. On reporting dates, the 'customer' deposits series published by the Department of Finance has the last Friday of the month as the reference date for each month. In contrast, monetary statistics have the last working day of the month as the reference date. During the period for which both series are published, this resulted in an overlap of reporting dates in April, July, September and December 2011 and March 2012. The compilation of flows (or transactions) also differ. Flows detail, calculated in the monetary statistics framework, take into account the impact of exchange rate valuation adjustments and reclassifications on reported stock levels from one reporting date to the next. These adjustments are done so as to understand what developments during the month were due to the underlying business activity between the credit institutions and the money holding sectors.⁷ Flows detail, in supervisory data, is taken as the change in balance sheet outstanding amounts from period to period, which can be affected by issues such as exchange rate valuation. For example, figures reported in euro terms for Sterling or US Dollar positions will change from month to month based on the change in the spot exchange rate between the euro and the currency of the position, even if there are no underlying transactions (e.g. deposits or withdrawals) in that position over the month. The differences in compiling flows can, therefore, contribute to differences between the series published by the Department of Finance and the Central Bank's monetary statistics.

⁷ For a detailed discussion of the methodology and its conceptual and analytical benefits see McElligott and O'Brien (2011) 'Irish Money and Banking Statistics: A New Approach', Central Bank of Ireland, Quarterly Bulletin No. 1., and O'Brien and Goggin (2011) 'Trends in the Irish Credit and Deposit Market: A New Presentation', Central Bank of Ireland, Quarterly Bulletin No. 4.

Box 1: Monetary and Supervisory Presentations of Deposit Trends in Irish-Owned Credit Institutions*By Martin O'Brien and Christine Reen, Statistics Division***Box 1 Chart 1: Outstanding Amounts and Flows of Deposits in the Covered Banks**

Sources: Central Bank of Ireland and Department of Finance.

Trends in Monetary and Supervisory Deposits Series

Box 1 Chart 1 shows the outstanding amount of total private-sector deposits, both resident and non-resident, held in the within-the-State offices of the covered banks from March 2011 to March 2012, as well as the supervisory based customer deposits from the Department of Finance series for the same period. For most months of 2011, private-sector deposits fell in the resident offices of the covered banks. However, since Q4 2011 private-sector deposits have in general begun to increase. In terms of the differences between supervisory and monetary statistics, it is noteworthy that the differences in stocks have remained relatively stable in recent months, whereas the differences in flows have been more volatile. Movements in flows are significantly different in April, September and November 2011. In April 2011 there was a notable difference of €4.3 billion, while in September and November 2011 the difference was approximately €2.5 billion.

These differences arise from the conceptual and practical issues discussed in the previous section – including coverage, counterparty definition, reporting dates and flows compilation. Coverage (resident offices versus group) would account for much of the difference in outstanding amounts between the two series. The treatment of specific events relating to the disposal of an overseas subsidiary of one of the covered institutions also features in the differences in flows in April 2011. The rise in the outstanding amounts of deposits, and part of the differences in net flows between the two frameworks, during Q4 2011 and Q1 2012 in the resident offices of the covered institutions is partly explained by exchange rate valuation effects, as a weakening of the euro over the period increased the book value of non-euro denominated deposits. In aggregate the net flows of private-sector deposits amounted to just over €1.1 billion in Q1 2012 (Box 1 Chart 1). Covered institutions customer deposits flows in the supervisory framework were €2.2 billion during Q1 2012.

Box 1: Monetary and Supervisory Presentations of Deposit Trends in Irish-Owned Credit Institutions

By Martin O'Brien and Christine Reen, Statistics Division

In summary, given the different compilation frameworks, there is no immediate quantifiable walkthrough from the monetary deposit series to the supervisory series. The underlying basis for the different frameworks also mean that interrogating one dataset in isolation when trying to answer questions better suited to the other may lead to incorrect conclusions. It is likely that, as the tools and indicators for macro prudential policy and analysis develop, further clarity will be achieved on the differences and overlap between the monetary and supervisory statistical frameworks.

Aggregate Credit Developments

Credit advanced to the Irish Government by resident credit institutions in terms of loans has fallen slightly in recent months, while holdings of government securities have increased. This largely reflects the recent settling of a promissory note payment via a government bond. The outstanding amount of loans to government was €28.4 billion at end-May 2012, compared to €29.7 billion at end-January. Holdings of Irish government securities increased to €17.1 billion at end-May 2012, compared to €14.4 billion at end-January.

The amount of outstanding loans to the Irish private sector on the balance sheets of Irish resident credit institutions fell by an annual rate of 5.1 per cent, based on the average for the three months ending May 2012. The growth in holdings of securities issued by the private sector, which had been the main driver of growth in private-sector credit in recent years, moderated considerably during 2011, and turned negative in December 2011. During 2010, the growth in credit institutions' holdings of private-sector securities was largely related to holdings of debt securities issued by OFIs, which includes special-purpose vehicles

(SPVs) such as NAMA. As the process of transferring loans to NAMA in return for bonds has ended, holdings of OFI debt securities are now falling on an annual basis. Credit institutions' holdings of Irish private-sector securities decreased at an annual rate of 6.9 per cent, based on the average for the three months ending May 2012. This compares with an average increase of 39 per cent for the same three-month period in 2011.

Credit advanced to non-residents continued to fall sharply in recent months, but the pace of decline moderated in the three months to May. Total credit to all non-resident sectors by resident credit institutions declined at an annual rate of 18.1 per cent, based on the average for the three months ending May 2012. Lending to the non-resident private sector fell by an average annual rate of 12 per cent during the same period, with the net monthly flow of private-sector loans averaging minus €856 million. This decline largely reflects developments in lending to non-euro area residents.

At end-March 2012, Irish-owned banks' consolidated foreign claims had decreased by 7.3 per cent to €133 billion over the quarter

and 26.8 per cent on an annual basis (Table 2). The annual reduction in total foreign claims is expected, as domestic banking groups are downsizing their operations abroad, and disposing of some overseas units.

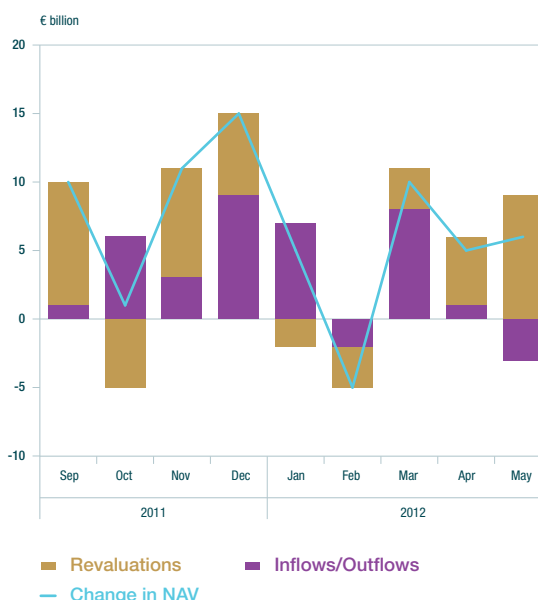
Money Market Funds

The ECB adopted new identification criteria for MMFs for statistical purposes in August 2011, in accordance with supervisory definitions. The Central Bank implemented the new definitions with reference to end-December 2011 data⁸. These definitions use stricter criteria to identify a fund that wishes to market itself as a MMF.⁹

The revised reporting population caused a break in the series in Tables A.20.1 and A.20.2 in December 2011, with total assets of MMFs declining to €287 billion in that month (from €382 billion the previous month). However, by applying the new reporting population to September 2011, it is possible to monitor changes resulting from transactions, thereby

excluding changes arising from the application of the definition.

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



Source: Central Bank of Ireland.

Table 2: Consolidated Foreign Claims of Irish-Owned Credit Institutions

	Q1 2012		Change in Quarter		Change Year-on-Year	
	€ million	% of total	€ million	% change	€ million	% change
By country						
United Kingdom	99,207	75	-6,939	-6.5	-10,567	-9.6
United States	6,658	5	-1,252	-15.8	-12,879	-65.9
France	4,144	3	-111	-2.6	-1,870	-31.1
Spain	3,764	3	-57	-1.5	-1,195	-24.1
Isle of Man	3,241	2	-271	-7.7	904	38.7
Germany	2,391	2	-33	-1.3	-1,640	-40.7
Poland	274	0	-10	-3.5	-12,630	-97.9
Rest of World	13,369	10	-1,785	-11.8	-8,715	-39.5
Total	133,048	100	-10,458	-7.3	-48,592	-26.8
By sector						
Credit institutions	14,996	11	-3,227	-17.7	-8,590	-36.4
Public sector	12,726	10	329	2.7	425	3.5
Private sector	105,328	79	-7,557	-6.7	-40,415	-27.7

Source: Consolidated Banking Statistics: Foreign Claims, Central Bank of Ireland.

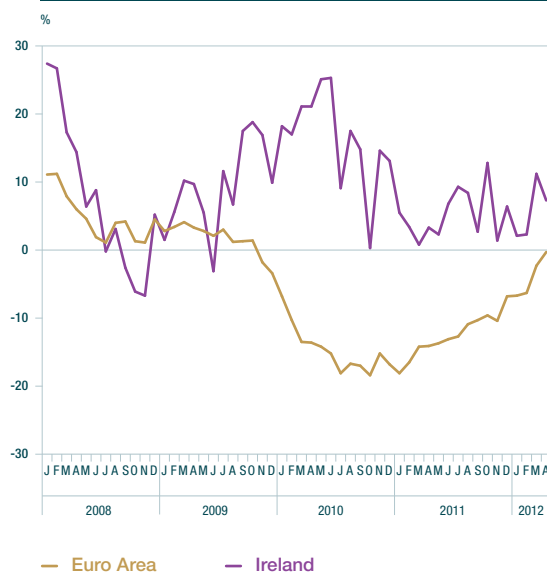
⁸ The guidelines on a common definition of European money market funds (MMFs) issued on 19 May 2010 by the Committee of European Securities Regulators (CESR), the predecessor of the European Securities and Markets Authority, set out criteria to be applied by any fund that wishes to market itself as a MMF.

⁹ Under the previous ECB definition, a MMF invested at least 85 per cent of their investment portfolio in instruments with a short maturity, or bank deposits that pursue a rate of return that approached the interest rate of money. In contrast, under the new definition the main principle is to maintain the net asset value of the fund either constant or at par, or the value of the investors' initial capital plus earnings, and to invest exclusively in high quality money market instruments and to provide liquidity through same day or next day settlement.

There were sizeable inflows into money market funds (MMFs) resident in Ireland over the nine months to end-May 2012, with the exception of February 2012, bringing the total net asset value (NAV) to €308 billion. This was accompanied by an aggregate positive revaluation of MMF shares/units of €19.7 billion over the same period. The NAV of MMFs can fluctuate depending on transactions in shares, or the revaluation of assets. Over the four months to May 2012, there were net purchases of €3.7 billion, while negative revaluations recorded in February were more than offset by positive revaluations from March to May.

Euro area data has also been impacted by the new definition of MMFs. Chart 3 shows the annual growth rate of the value of euro area MMF shares/units in issue, adjusted for reclassifications, including the change in definition. This revised growth rate takes account of the removal of just over €100 billion of Irish resident MMFs in line with the revised definition in December 2011. The annual growth rate of euro area MMF shares/units in issue has been negative since November 2009. In contrast, the annual growth rate for MMF shares/units in issue in Ireland has been positive since July 2009, and has been above the euro area aggregate in general since February 2009.

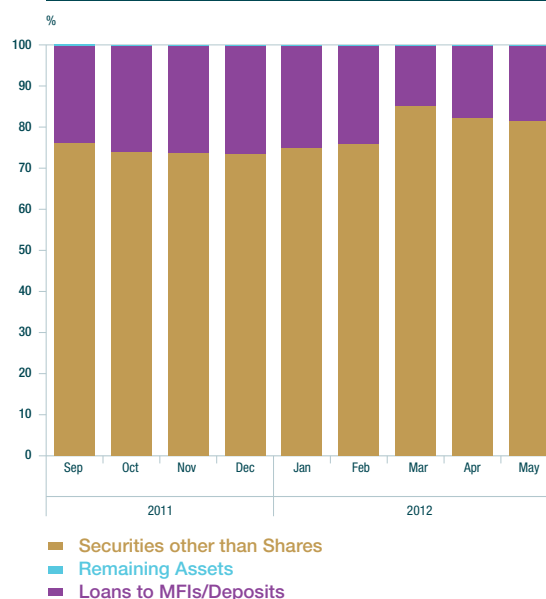
Chart 3: Annual Growth Rate of MMF Shares/Units



Source: European Central Bank.

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. The balance sheet of the new population of MMFs shows that they mostly invest in securities other than shares, and deposits which include repurchase agreements. In March 2012, 85 per cent of assets under management (AUM) were invested in securities compared with 76 per cent in February 2012. This increase, however, reflects a reclassification from deposits to securities other than shares, rather than transactions. Just over two-thirds of investments in securities were in non-euro securities issued by monetary financial institutions (MFIs) resident outside the euro area in May 2012. In the euro area as a whole, the annual growth rate of holdings of securities issued by resident MFIs and other non-government sectors was negative at end-Q1 2012, but positive for holdings of securities issued by the euro area government sectors. Irish resident MMFs reduced their holdings of euro area government securities during February and March, but reinvested in this category of instrument in April and May 2012.

Chart 4: Money Market Funds' Assets



Source: Central Bank of Ireland.

Government

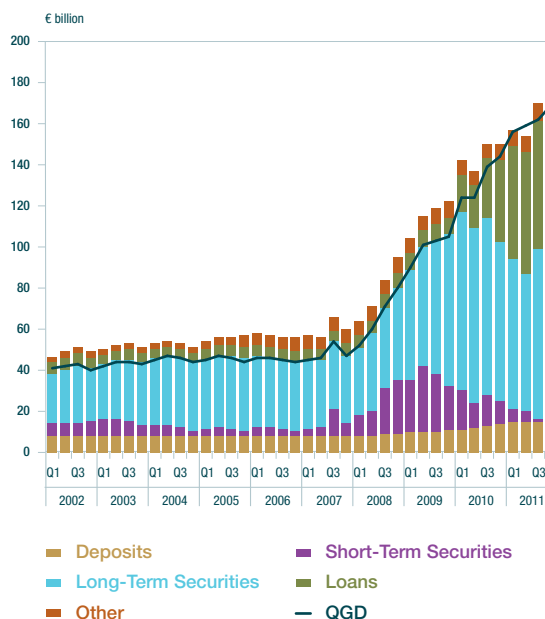
Debt and Deficit Developments

Government liabilities continued to increase during Q4 2011, reaching €173.3 billion, their highest level to date. This represented an increase of €3.2 billion, or 2 per cent, on the previous quarter, as depicted in Chart 5. The chart also shows that the Quarterly Government Debt (QGD), which is the standard quarterly measure of debt consistent with Excessive Deficit Procedure (EDP) methodology¹⁰, followed a similar upward trend over the quarter. The increase in government liabilities over the period reflected the receipt of further funding from the EU/IMF programme of €7.7 billion. At Q4 2011, loans from the EU/IMF programme stood at €34.2 billion, or 19.7 per cent, of total liabilities. The increase in government loan liabilities during Q4 2011 was mitigated, to some extent, by a decrease in the value of securities over the same period. During Q4 2011, outstanding securities decreased in value by €2.9 billion, reflecting the continued volatility in sovereign debt markets.

Government net financial wealth, the difference between financial assets and liabilities, is depicted in Chart 6. The chart reveals that net financial wealth declined further during Q4 2011, as the increase in government assets over the period was outstripped by increased government liabilities. At Q4 2011, net financial wealth stood at minus €109.7 billion, a decrease of €1 billion, or 1 per cent, over the quarter.

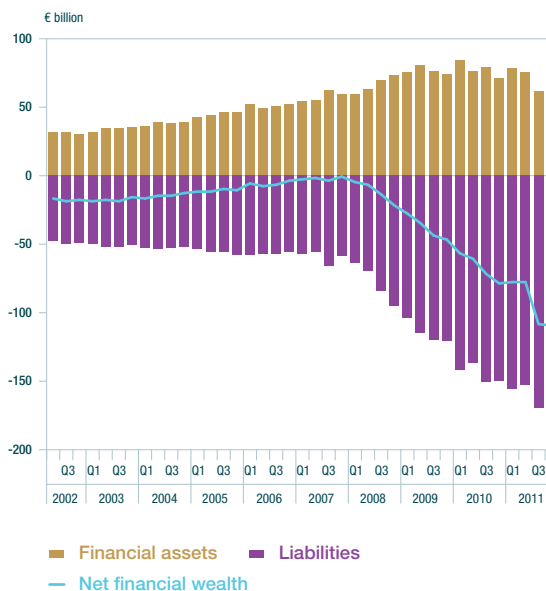
The government surplus/deficit, as a four-quarter moving average, is depicted in Chart 7. The deficit decreased from €3.8 billion in Q3 2011 to €3.5 billion during Q4 2011, when capital injections are excluded. The deficit including capital transfers declined more sharply during Q4 2011, from €7.7 billion to €5 billion. During July 2011, the Government injected a net amount of €16.5 billion into Allied Irish Bank/EBS, Bank of Ireland and Irish Life and Permanent. Part of the capital injections were classified as deficit-increasing capital transfers in accordance with statistical methodology, agreed by Eurostat. Of the capital injected into the banks, €5.8 billion was treated as a deficit-increasing capital transfers in the government accounts.

Chart 5: Government Liabilities



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

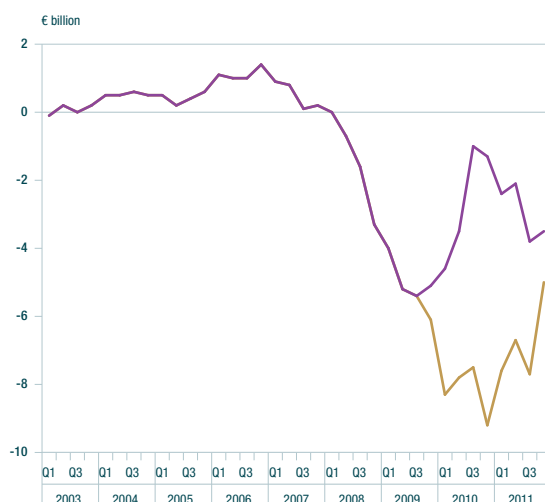
Chart 6: Government Net Financial Wealth



Source: Quarterly Financial Accounts, Central Bank of Ireland.

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



Source: Quarterly Financial Accounts, Central Bank of Ireland.

Sovereign Debt Market

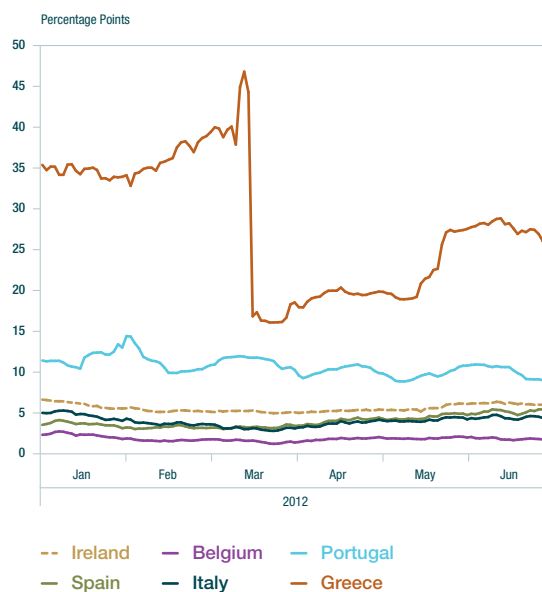
Investor uncertainty about bond market developments and tensions in financial markets eased in early March 2012 reflecting a number of factors, including agreement on the restructuring of Greek sovereign debt and the provision of enhanced liquidity to the banking system by the Eurosystem through the second three-year LTRO. Nevertheless, uncertainty still remained high by historical standards and rising investor risk aversion was reflected in higher demand for safe-haven assets in April.

AAA-rated long-term euro area government bond yields remained broadly stable throughout March before declining marginally in April 2012, with these bonds exhibiting a subdued sensitivity to renewed political and financial tensions in the euro area when compared with parallel yield developments in the United States.

In early March 2012, the sovereign bond yield spreads of Greek debt relative to German Bunds fell to 16.8 percentage points on foot of an agreement to restructure the debt held by private-sector creditors. Over the following weeks, there was some narrowing of sovereign

bond spreads for a number of other euro area countries, including Portugal and Ireland, but this downward trend was reversed by early April as concerns intensified regarding ongoing uncertainty throughout the euro area and the prospect for future bailouts, see Chart 8. In particular, the outcome of May's elections in Greece and speculation around the possible restructuring of Spain's banks saw these spreads widen considerably in some cases. The yield spreads of Spanish debt relative to German Bunds, for instance, rose by approximately 100 basis points between end-Q1 2012 and early May. A similar, albeit less pronounced trend, was evident for both Italy and Ireland over the same period.

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



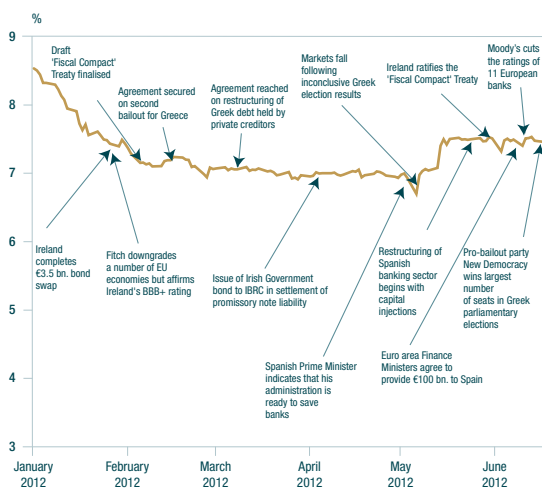
Source: Thomson Reuters Datastream.

The yield on ten-year Irish government debt remained close to 7 per cent throughout much of March 2012, before dipping below this point prior to the end of Q1 2012. Thereafter, these yields went on to fall by more than 30 basis points over the opening weeks of Q2 to just under 6.7 per cent, the lowest level for these yields since late-October 2010. The yield on Irish government debt, similar to those on the debt of a number of other euro area members, began to rise once again from early May in the aftermath of inconclusive parliamentary elections in Greece and renewed speculation around the need for bank recapitalisations in

Spain. By the end of that month these yields had climbed by more than 80 basis points to more than 7.5 per cent before easing back slightly again in June, see Chart 9. However, in the aftermath of the announcement of an EU Summit decision on a package of measures in relation to economic growth and the recapitalisation of European banks at the end of June, the yield on ten-year Irish government debt fell sharply. In particular, the reference to “examine the situation of the Irish Financial Sector with the view of further improving the sustainability of the well-performing adjustment programme.” was favourably received by the markets. These yields stood at less than 6.4 per cent by early July, the lowest level for these yields since September 2010.

Finally, there was some further evidence of Ireland decoupling from the other peripheral Member States in Q2 2012. For instance, although the yield spreads on ten-year Irish government debt did climb after end-Q1, the scale of the increase (17 per cent) was significantly lower than that applying in the case of Greece (30 per cent), Italy (36 per cent) or Spain (59 per cent) up to mid-June.

Chart 9: Irish Government Ten-Year Bond Yields

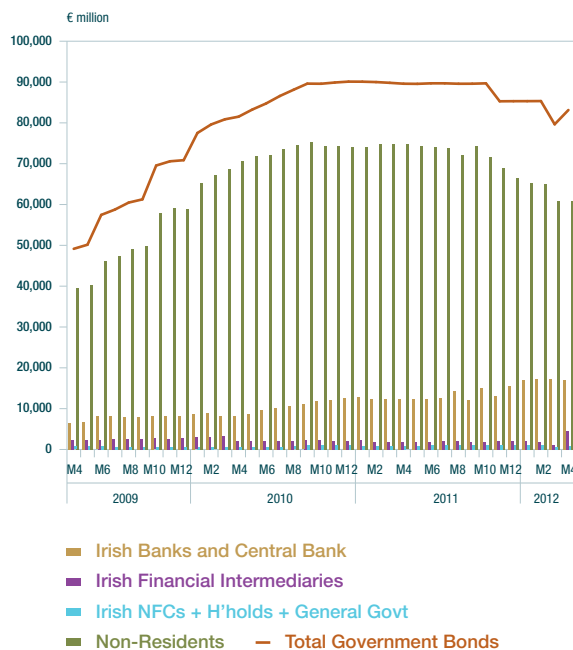


Source: Thomson Reuters Datastream.

The outstanding nominal volume of existing Irish government long-term bonds in issue was €83.2 billion at end-April 2012 (down from €85.3 billion at end-2011). By end-April, the

holders of government bonds continued to be predominantly non-resident, with 73 per cent of government bonds in issue held by foreign investors. Resident holders predominantly comprise banks (20 per cent) with financial intermediaries holding a further 5 per cent.

Chart 10: Holders of Irish Government Bonds



Source: Central Bank of Ireland.

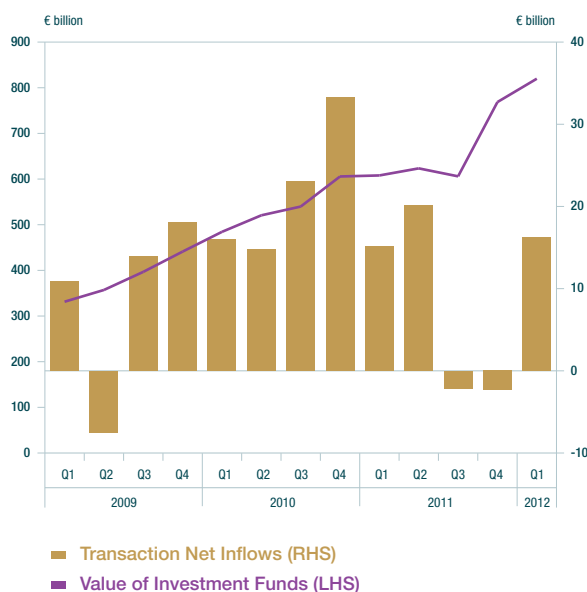
Institutional Investors: Investment Funds, Financial Vehicle Corporations and Insurance Corporations & Pension Funds

Investment Funds

Irish resident investment funds expanded strongly for the second successive quarter in Q1 2012, driven by a recovery in both asset valuations and the sale of new shares/units. The overall value of the Irish investment fund industry, measured by total shares/units in issue, increased to €819.8 billion at end-Q1 2012, up from €768.7 billion at end Q4 2011. This increase is accounted for by revaluations of €34.9 billion and positive net transactions of €16.2 billion.

The most recently published data contains revisions back to Q1 2010. The revisions mainly relate to a smoothing exercise carried out based on the end-2011 Funds Annual Survey of Liabilities, which measures the sectoral and geographical distribution of shares/units in issue. The impact of each annual survey was previously fully reflected in Q2 only, but is now smoothed across the quarters of the year. The most notable shift in ownership saw €29 billion move from other Monetary Union Member States to the rest of the world in Q1 2012. Data improvements were also introduced for the reporting of repurchase agreements and reverse repos, the latter of which had been previously unreported. As a result of these improvements, securities other than shares declined by €2.3 billion in net terms in Q1 2012.

Chart 11: Value of Investment Funds Shares/Units



Source: Investment Funds Statistics, Central Bank of Ireland.

Please note that the movement from Q3 2011 to Q4 2011 includes €114 billion of MMFs that were reclassified as IFs in accordance with Regulation ECB/2001/12. Please see information release of Investment Fund Statistics, 14 March 2012, for further details.

Equity holdings, which accounts for 36 per cent (€298 billion) of all assets held in Q1 2012, saw positive revaluations, amounting to €24.5 billion, in addition to €4 billion of inflows. Despite the positive performance of equities over Q1 2012, the bulk of investment rebalancing indicated an improved confidence in commercial paper. Bonds and money market instruments, which account for 48 per cent of total assets, or €398 billion, experienced additional investment of €23.6 billion whilst experiencing positive revaluations of just €3 billion. There was a strong investment migration to bank bonds in particular, helped by the announcement of ECB three-year loans in December 2011. This positive sentiment, however, extended to all banks, with UK banks experiencing positive inflows of €13.3 billion into their paper, whilst other European banks experienced inflows of €9 billion. The higher figure for the UK may be partially accounted for by a rebalancing from sovereign to corporate bonds as UK government bonds experienced an outflow of €3.7 billion to close at €50.1 billion, which was offset somewhat by upward revaluations of €0.7 billion. Participation by UK banks in ECB operations through subsidiaries and branches may also have contributed to investor confidence.

Looking at holdings of other government bonds in Q1 2012, there were net outflows from US Sovereign Bonds of €2.1 billion and negative revaluations of €3 billion, to close at €45 billion, or 5 per cent of all investments. These revaluations may be partly driven by the Euro appreciating by 2.8 per cent against the US dollar, over the quarter. Holdings of Spanish government bonds experienced outflows of €0.2 billion and remained small at €1.3 billion, whilst holdings of Italian government bonds experienced inflows of €0.2 billion to a closing position of €5.7 billion, possibly indicating some reconfiguration of the perceived riskiness within the peripheral bonds. German government bonds experienced net inflows of €0.9 billion and account for €17.4 billion of assets.

Chart 12: Change in Value of Shares/Units by Investment Fund Category, Q1 2012

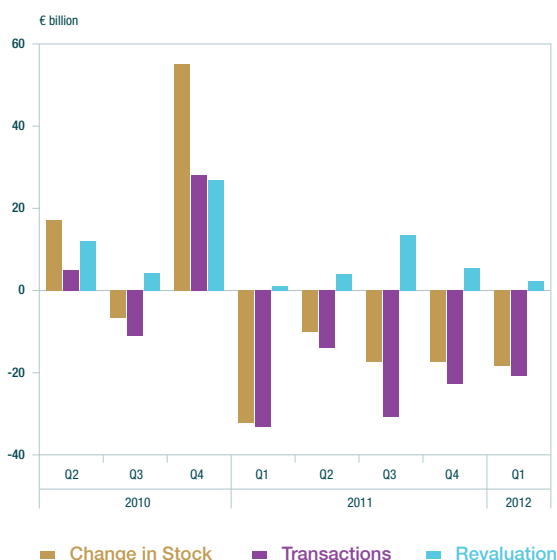
Source: Investment Funds Statistics, Central Bank of Ireland.

Increases in net asset value were evident across all fund categories. Global equity markets performed strongly, and equity funds experienced the highest performance of all categories, with asset growth of 7.7 per cent (not including new subscriptions of €2.8 billion). Hedge funds also benefitted from this positive revaluation in equities, with upward asset revaluation of €3 billion (4 per cent) and net new subscriptions of €1.3 billion. Interestingly, where asset relocation is evident in hedge funds, it parallels the overall trend of favouring bonds over shares, with €7.3 billion allocated to bonds and just €0.6 billion allocated to shares. Remaining funds, primarily comprising of mixed funds but also including real estate and other funds, experienced positive revaluations of €8.8 billion, or 6 per cent, and negligible new subscriptions, meaning they outperformed hedge funds. Bond funds experienced the highest new subscriptions, with €12.1 billion whilst also experiencing the lowest asset growth of any class, with just €1.6 billion, or 0.5 per cent, positive revaluations.

Financial Vehicle Corporations

Total assets for financial vehicle corporations (FVCs) resident in Ireland continued to decline during Q1 2012, falling to €481 billion (from €499 billion in Q4 2011), following the trend seen since the start of 2011. This decline in assets is driven by a fall in the number of vehicles reporting in Ireland, as vehicles are liquidated due to difficulties in obtaining refinancing as market conditions remain challenging.

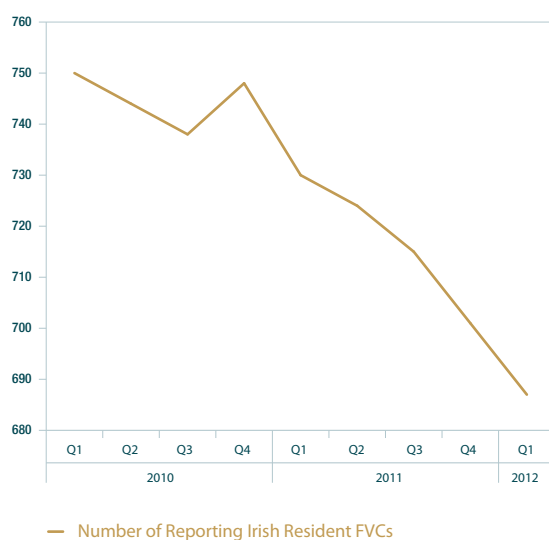
In Q1 2012, the fall in assets was due to a large outflow of €20.7 billion. This was mainly attributable to large negative transactions in securities other than shares and securitised loans on the asset side of the balance sheet of €11.5 billion and €3.4 billion respectively. On the liabilities side, this decline was reflected in large outflows of €12.6 billion in debt securities issued over two years and €5.6 billion in debt securities issued up to one year. These large outflows were partially offset by a positive revaluation of €2.2 billion over the quarter, mainly due to derivative positions.

Chart 13: Change in Total Assets of Resident Irish FVCs

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

Irish resident FVCs followed the euro area trend in terms of net outflows during the first quarter of 2012. Irish resident FVC outflows of €20.7 billion contributed to total euro area outflows of €56 billion. These negative transactions are reflected in the continued decline in the population of reporting FVCs, with the number at the end of Q1 2012 standing at 687, down from 701 at the close of 2011. This is broadly in line with the trend seen across the euro area since Q4 2010. This decrease is mainly driven by falls in consumer asset-backed securities, cash collateralised debt obligations and multi-issuance vehicles. The continued decline in Irish assets has brought Ireland's share of total euro area assets to 21.6 per cent at the end of Q1 2012, down from 22 per cent at the end of 2011.

Chart 14: Number of Reporting Irish Resident FVCs

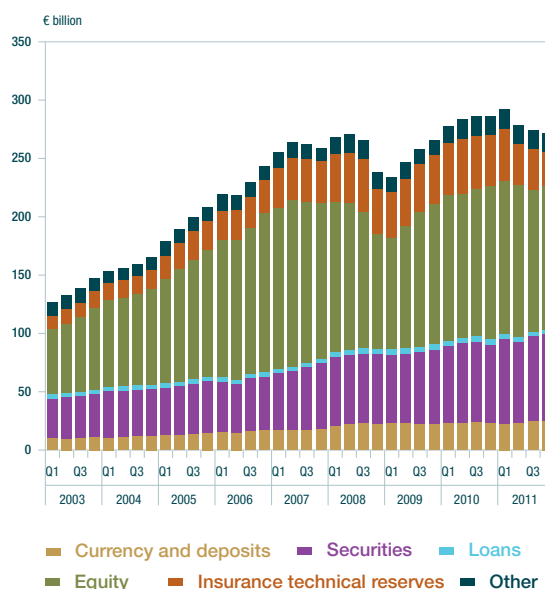


Source: Financial Vehicle Corporation Statistics, Central Bank of Ireland.

Insurance Corporations & Pension Funds

Total assets of Irish resident insurance corporations and pension funds' (ICPFs) stood at €272 billion at the end of 2011. This accounts for almost 8 per cent of the total financial assets of the Irish financial sector. During the final quarter of 2011, the sector's assets decreased by 1 per cent, the third consecutive reduction since their peak in Q1 2011 (Chart 15). In Q1 2011 total assets were €292 billion but fell by 7 per cent in the subsequent quarters of 2011. This trend is largely explained by decreases in two classes within assets, namely 'insurance technical reserves' and 'equity'. In Q4 2011, the ICPF sector's stock of 'insurance technical reserves' decreased by 16 per cent. Other categories of assets showed some modest increases; 'currency and deposits' and 'loans' increased by 3 per cent each, and 'securities' and 'equity' increased by 1 per cent each.

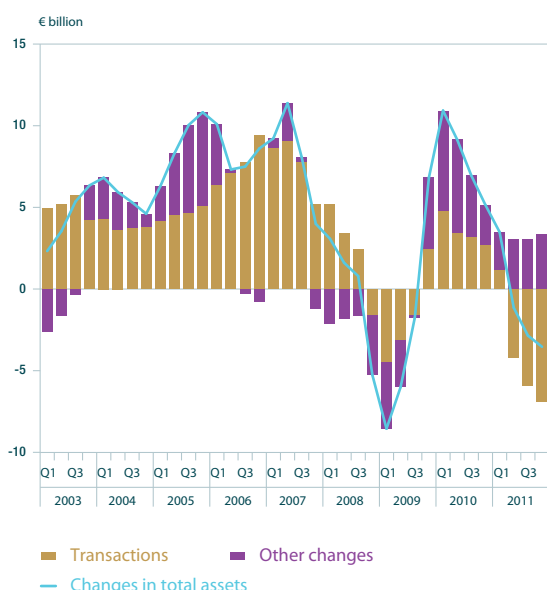
Chart 15: Assets Portfolio of Insurance Corporations and Pension Funds



Source: Quarterly Financial Accounts, Central Bank of Ireland.

The decline in the outstanding amount of assets held by the ICPF sector has been determined primarily by negative transactions. In Q4 2011 alone, transactions amounted to minus €6.9 billion. The effects of this decline were mitigated to some extent by positive revaluations and other changes of €3.4 billion (Chart 16).

Chart 16: Contribution of Transactions in Assets and Valuation Changes to ICPFs' Assets, Four-Quarter Moving Average

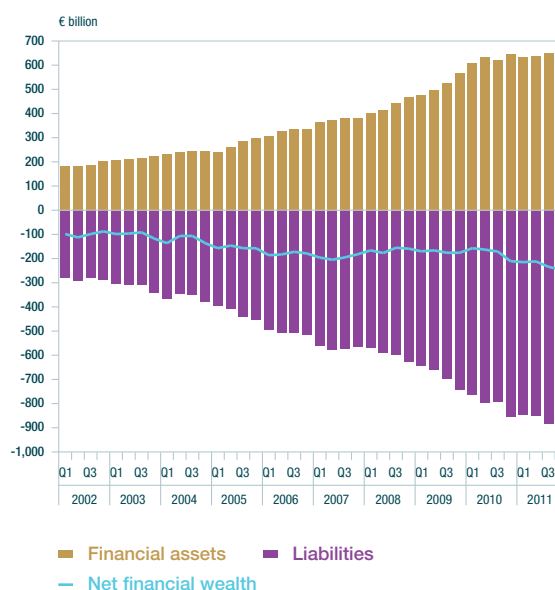


Source: Quarterly Financial Accounts, Central Bank of Ireland.

Non-Financial Corporations (NFCs)

During Q4 2011, the non-financial corporation (NFC) sector's financial assets increased by 2.8 per cent, or €18 billion, to reach €671 billion. Liabilities grew by 3.3 per cent, or €29 billion, to reach €916 billion. Net financial wealth¹¹ fell by 4.8 per cent to minus €245 billion, as the increase in financial liabilities outstripped the increase in financial assets (Chart 17). Positive valuation changes for assets of €23.6 billion were the key driver in increasing the stock of assets over the quarter. It exceeded the smaller decline in transactions of €5.6 billion. The increase in liabilities was primarily driven by positive valuation changes of €28 billion. Transactions in liabilities were also positive, further increasing liabilities by €6 billion.

Chart 17: Non-Financial Corporations' Net Financial Wealth



Source: Quarterly Financial Accounts, Central Bank of Ireland.

Credit Advanced to the NFC Sector by Resident Credit Institutions

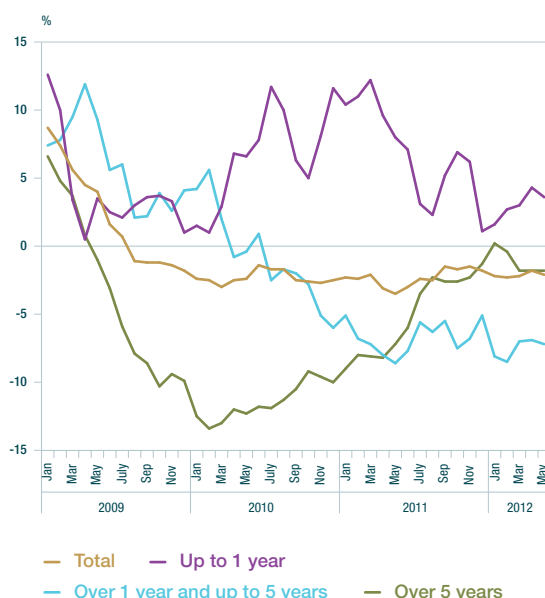
Credit advanced to the resident NFC sector (including loans to NFCs as well as credit institutions' holdings of securities issued by NFCs) declined at an annual rate of 2.1 per cent, based on the average for the three months ending May 2012. The monthly net flow of credit to the NFC sector, which removes any non-transaction effects, averaged minus €626 million during this three-month period.

The annual rate of change in loans to Irish resident NFCs averaged minus 2 per cent in the three months ending May 2012. Loans issued by resident credit institutions are an important source of funding for indigenous corporations, particularly small and medium sized enterprises (SMEs), unlike the multinational sector which has greater access to other market-based funding sources and to injections from overseas parent companies. The pace of contraction in longer-term loans has increased somewhat in recent months, but remains lower than that experienced through 2010 and most of 2011. In the three months ending May 2012, the average annual rate of change in loans with

¹¹ 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.

an original maturity over five years was minus 1.8 per cent. Loans with an original maturity of between one and five years continued to fall to a greater extent however, declining at an average annual rate of 7 per cent in the three months ending May 2012. By contrast, short-term loans to NFCs with an original maturity up to one year, which include the use of overdraft facilities, recorded an average annual growth rate of 3.6 per cent over the same period, slightly higher than the earlier months of 2012.

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



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

Credit to non-financial enterprises, which cover both corporations and non-incorporated businesses, continued to contract on an annual basis up to end-March 2012, albeit at a slower pace of minus 2.3 per cent when compared to previous quarters. This reduction in credit outstanding, which results from both supply and demand dynamics, was reflected across all main sectors of economic activity, including agriculture (3.6 per cent decline), and business and administrative services (8.7 per cent decline). These two sectors had seen credit levels increasing on an annual basis through much of 2010 and part of 2011. In contrast, the annual declines in credit advanced for the wholesale/retail trade and hotels/restaurants sectors have eased in most recent quarters, and were 3.8 per cent and 2 per cent at end-March 2012 respectively. In general, the reduction in credit in recent quarters has been more pronounced for SMEs than for all enterprises, again reflecting underlying supply and demand factors. Total lending to non-financial SMEs was 4.9 per cent lower on an annual basis at end-March 2012, and 6.3 per cent lower for those enterprises not engaged in construction or real estate activities.

Interest rates on outstanding loans to NFCs, issued by Irish resident credit institutions, continued to fall in recent months. The weighted average interest rate on all outstanding NFC loans was 3.36 per cent at end-May 2012, reflecting a fall of 37 basis points in the first five months of the year. The equivalent rate at euro area level was

Table 3: Credit Advanced to Non-Financial Enterprises - Annual Percentage Change

	All Enterprises					SMEs				
	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12
Construction and Real Estate	-3.3	-2.3	-1.2	0.6	-0.2	-14.2	-15.1	-7.9	-5.1	-3.7
Agriculture	8.7	-1.9	-3.1	-4.5	-3.6	-5.9	-8.3	-8.2	-9.8	-7.2
Manufacturing	-5.9	-9.8	-5.5	-1.3	-5.7	-8.9	-10.6	-9.8	-5.9	-6.6
Wholesale/Retail Trade & Repairs	-3.2	-8.1	-8.3	-3.4	-3.8	-8.9	-10.6	-8.4	-6.0	-6.8
Hotels and Restaurants	-5.8	-5.3	-4.1	-2.0	-2.0	-13.0	-14.4	-10.4	-4.2	-3.6
Business and Administrative Services	4.7	3.9	-3.0	-14.3	-8.7	-2.5	-2.9	-5.4	-10.3	-9.4
Other	-17.7	-22.8	-21.1	-15.4	-8.0	-9.3	-9.8	-8.5	-4.4	-6.4
Total	-4.4	-5.3	-4.5	-2.6	-2.3	-11.3	-12.5	-8.2	-5.4	-4.9

Source: Trends in Business Credit and Deposits, Central Bank of Ireland.

3.63 per cent. Longer-term loans to NFCs with an original maturity over five years accounted for 46 per cent of all outstanding loans issued to NFCs by Irish resident credit institutions at end-May. At this time, the weighted average interest rate on these loans was 3.23 per cent, while rates on short-term and medium-term loans¹² were 3.77 per cent and 3.16 per cent, respectively.

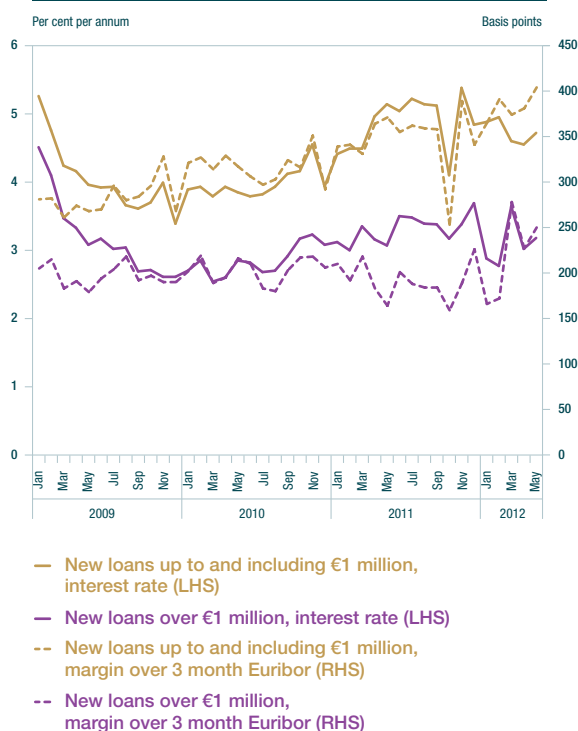
With regard to new business, the weighted average interest rate on new loans to NFCs up to an amount of €1 million, which is often used as a proxy for the rate applying to loans to SMEs, was 4.72 per cent in May 2012, reflecting a fall of 12 basis points compared with December 2011. The equivalent rate reported by euro area credit institutions for May 2012 was 4.16 per cent. For loans over an amount of €1 million, the interest rate reported by Irish resident credit institutions was 3.18 per cent, compared to an equivalent euro area rate of 2.64 per cent.

Multinational NFC Developments

Recourse by resident multinational NFCs, both foreign and Irish-owned, to market-based funding as an alternative to bank funding remained relatively steady over the course of Q1 2012 at just over €3 billion. In Q1 2012, net redemptions of debt securities were €32 million. This compares with net issuances of €53 million during Q4 2011 and net redemptions of €116 million during Q1 2011. By end-April, the amount of debt securities outstanding for this sector had fallen back by 8 per cent, to approximately €2.8 billion.

Listed equity, namely shares, had an outstanding amount of €182.2 billion by end-Q4 2011. This had increased to €208.4 billion by end-Q1 2012, an increase of 14 per cent over the course of the opening three months of this year. Over the same period, the outstanding amount of multinational NFCs equities rose by 16 per cent to €180.7 billion. By April 2012, it had risen further, to €183.9 billion.

Chart 19: Interest Rates on New NFC Loan Agreements



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

The repatriation of profits from Irish-based multinational NFCs to their foreign parent companies are the most significant contributor to net factor flows. These outflows, also described as the investment income balance on the current account in the balance of payments, comprise the gap between GDP and GNP. The contribution of Irish-based multinational NFCs and other sectors to the investment income account is elaborated in Box 2.

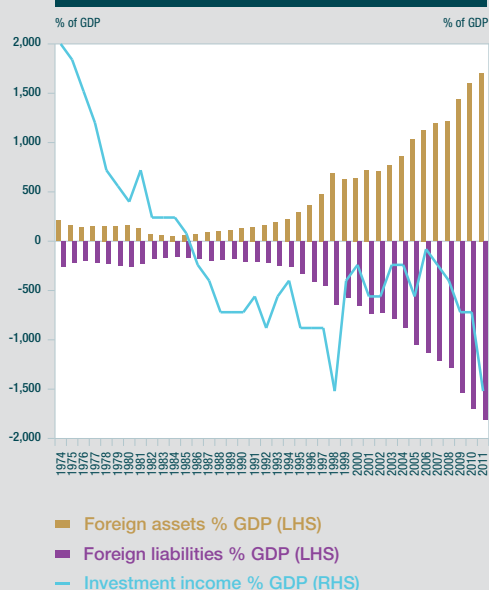
¹² Short-term loans are those with an original maturity up to one year. Medium-term loans have an original maturity of between one and five years.

Box 2: The Increasing Financial Nature of the Current Account

By Mary Everett, Statistics Division

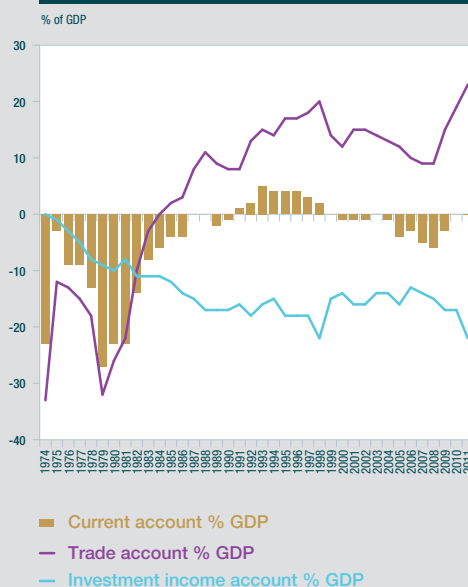
International trade in goods and services have traditionally been considered to be the primary contributors to developments on the current account of the balance of payments. The current account is, however, not solely comprised of a trade account, but also of an investment income account. The latter account records income receivable from assets held abroad and income payable to foreign investors in Irish debt. The growing prominence of the investment income account is directly attributable to the increasing globalised nature of the Irish economy over the past three decades (Box 2 Chart 1).

Box 2 Chart 1: Irish Foreign Assets and Liabilities, 1974-2011



Sources: Lane and Milesi-Ferretti (2007) and the International Monetary Fund.

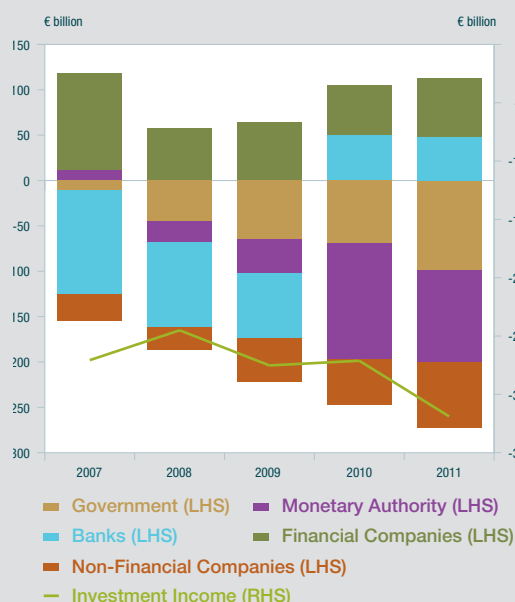
Box 2 Chart 2: Decomposition of the Current Account by Trade Balance and Investment Income Account, 1974-2011



Source: The International Monetary Fund.

Irish international financial integration has been especially marked since the late 1990s. The outstanding amount of foreign assets held by Irish investors grew by over 500 per cent, between 1999 and 2011, and amounted to 1,707 per cent of gross domestic product (GDP) by end-2011. Over the same period, Irish obligations to foreign investors grew by nearly 600 per cent, and were 1,809 per cent of GDP by end-2011. The related earnings on foreign assets are exceeded by payments required to service foreign liabilities. This has led to persistent and growing deficits on the investment income account, which in turn offset trade surpluses (Box 2 Chart 2). In 2011 the current account surplus of 0.07 per cent of GDP comprised a trade surplus of 23 per cent of GDP, which was largely offset by a deficit of 22 per cent of GDP on the investment income account.

More recently, increases in foreign assets and liabilities, and related investment income flows, have been especially marked, see Box 2 Chart 3.

Box 2: The Increasing Financial Nature of the Current Account*By Mary Everett, Statistics Division***Box 2 Chart 3: Net Foreign Balance Sheet
by Sector and Total Investment Income,
2007-2011**

Source: The Central Statistics Office.

It is well recognised that the presence of a large international financial services centre (IFSC) overstates the international financial integration of the Irish economy. While related investment income inflows and outflows are significant, they have negligible net impact on the investment income account. Foreign direct investment into multinational companies based in Ireland continues to be an important feature of the Irish economy. Income payments abroad associated with the repatriation of profits, earned by foreign-owned multinational companies based in Ireland, to their parent companies, contribute significantly to the investment income account. Irish-owned companies have also contributed to net investment in recent years by expanding their operations abroad through outward direct investment.

In addition, since 2008, a number of multinational companies have relocated their headquarters to Ireland. Related investment income received from these Irish-owned and Irish-headquartered foreign subsidiaries has grown in recent years. These inflows are, however, offset by the steady rise in foreign borrowing by the official sector, i.e. the Government and the monetary authority, which impact negatively on the investment income account.

While balance sheet positions are available at the sectoral level, official statistics on the sectoral contribution to investment income are unavailable. Estimates have, therefore, been derived based on outstanding stocks and representative yields.¹³

Box 2 Table 1: Sectoral Representative Yields on Foreign Investment

Sector	Representative Yield
Monetary authority	Main refinancing operations interest rate
Government	Weighted average coupon rate of foreign bond portfolio
Banks	Rates of return on net other investment
Non-financial corporations	Rates of return on net foreign direct investment position
Other sectors	Rates of return on net foreign investment position of the IFSC

The estimated sectoral contribution to the investment income account is presented in Box 2 Chart 4.

13 A period's investment income ($InvInc_t$) is the product of the yield on foreign investment (i_t) and the outstanding amount of foreign investment in the previous period ($ForeignPosition_{t-1}$). Therefore investment income can be described as follows, $InvInc_t = i_t * ForeignPosition_{t-1}$. Representative yields for each sector are shown in Box 2 Table 1.

Box 2: The Increasing Financial Nature of the Current Account

By Mary Everett, Statistics Division

Box 2 Chart 4: Investment Income Account by Sector, 2007-2011



Sources: The Central Statistics Office, the Central Bank of Ireland, and author estimates.

The dominance of multinational non-financial companies on the Irish investment income account is evident from Box 2 Chart 4, and is related to the repatriation of profits to their foreign parent companies. Increased foreign borrowing by the Government from international bond markets and under the EU/IMF Programme, have also impacted on investment income outflows. In 2011, government net investment income outflows were €4.3 billion, an increase of €1.2 billion since 2010. Reduced access of the banking sector to interbank funding markets and deleveraging of their foreign balance sheet has led to a reduction in their related investment income flows. The increased reliance of this sector on monetary authority funding has, however, increased the monetary authority's contribution to investment income outflows which is estimated to have been 1 per cent of GDP in 2011.

Financial companies, mainly IFSC companies and Irish insurance companies and pension funds, continue to receive net investment income as inflows on their foreign assets exceed payments on foreign liabilities.

The international financial integration of the Irish economy and associated financial flows means that the investment income account will continue to have a significant bearing on current account developments.

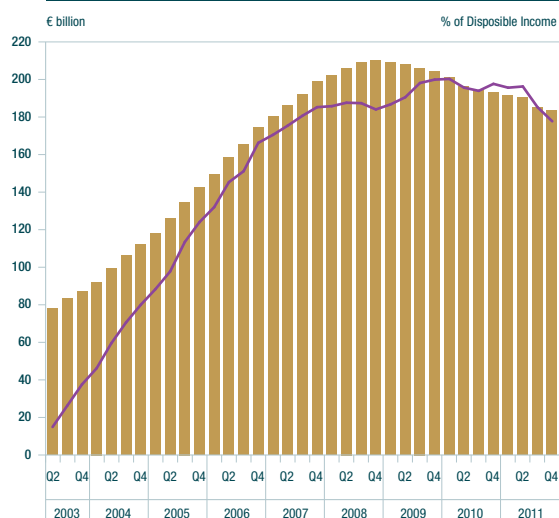
Households

Households continued to further reduce indebtedness during Q4 2011, as depicted in Chart 20. Households' liabilities declined by 1.1 per cent over the quarter, to reach €184.6 billion or €41,169 per capita. Overall, households' liabilities have decreased by 13 per cent, or €27.6 billion, since their peak of €212.2 billion at Q4 2008. Despite this reduction in household liabilities, the households' debt¹⁴ to disposable income¹⁵ ratio, an indicator of household debt sustainability, continued to increase until Q1 2010. This trend reflected the continued

decline in households' disposable income, as measured by a four-sum moving average, between Q4 2008 and Q3 2011. Between Q2 2010 and Q2 2011, households' debt to disposable income ratio remained relatively stable. At Q4 2011, however, households' debt to disposable income ratio stood at 207.8 per cent, its lowest level since Q2 2007. The decline in this measure of indebtedness largely reflected the continued decrease in household liabilities; and to a much lesser extent, the first increase in household disposable income as measured by a four-sum moving average since Q4 2008.

¹⁴ It should be noted that for the household sector, household liabilities are the same as household debt.

¹⁵ The disposable income figures used are the four-sum moving average in the CSOs 'Quarterly Institutional Sector Accounts: Non-Financial'.

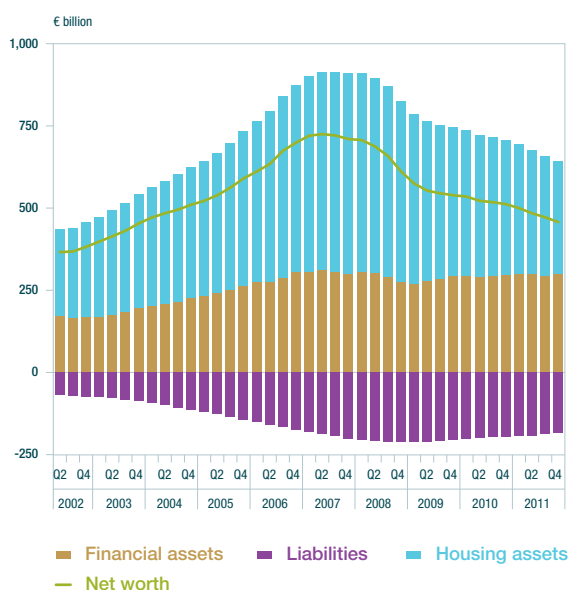
Chart 20: Households' Liabilities and Debt as a per cent of Disposable Income

■ Liabilities
— Liabilities as a % of disposable income

Source: Quarterly Financial Accounts, Central Bank of Ireland.

Households' net worth¹⁶ declined further during Q4 2011, reaching €457.2 billion or €101,962 per capita. This represented a decline of 3.4 per cent on the previous quarter as depicted in Chart 21. Overall, households' net worth has fallen by 36.9 per cent from their peak at Q2 2007. The decline in net worth has largely been as a result of declining housing asset values. The decline in net worth during Q4 2011 was mitigated, to some extent, by the continued reduction in households' liabilities, combined with increases in financial assets. The latter included positive valuation changes and increased transactions in these assets.

During Q4 2011, households continued to be net lenders, as depicted in Chart 22. This trend partly reflects households' continued investment in financial assets, but, more substantially, a reduction in households' liabilities. Households have been net lenders since Q1 2009, reducing high debt levels incurred in the years preceding the financial crisis. Households' financial assets transactions are depicted in Chart 23. The chart reveals that during Q4 2011, households continued to dis-invest in 'currency and deposits'. Households' investment in 'insurance technical reserves'¹⁷ was largely unchanged over the quarter; while, investment in 'shares and other equity' increased slightly, when measured as a four-quarter moving average.

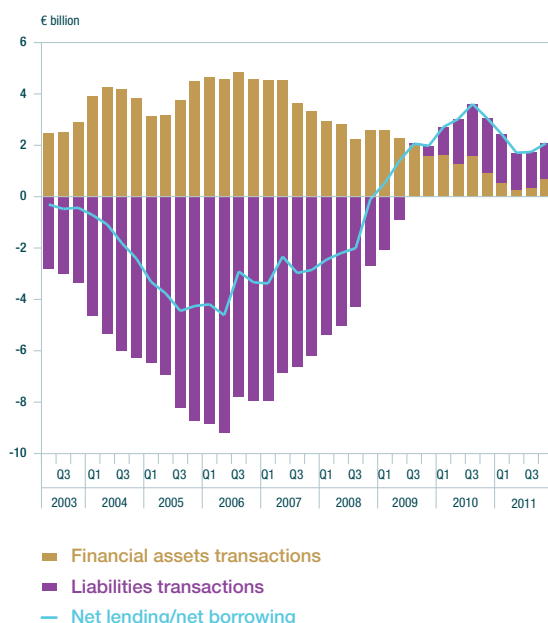
Chart 21: Household Net Worth

Source: Quarterly Financial Accounts, Central Bank of Ireland.

¹⁶ Households' net worth is calculated as the sum of households' housing and financial assets minus their liabilities. The Central Bank of Ireland estimate of housing assets is based on the size and value of housing stock. Data on the value of housing is obtained from the CSOs 'Residential Property Price Index' (RPPI).

¹⁷ 'Insurance technical reserves' include life assurance policies and pension funds.

Chart 22: Household Net Lending/Borrowing, Four-Quarter Moving Average



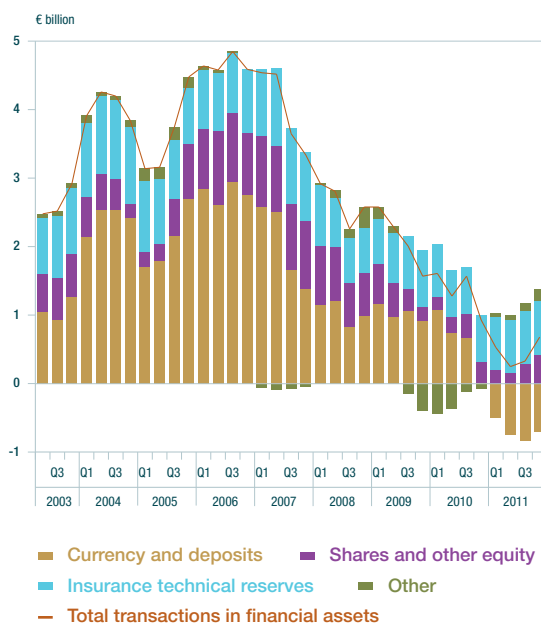
Lending to Households by Irish Resident Credit Institutions

Loans to Irish households advanced by Irish resident credit institutions continued to decline in recent months, falling at an annual rate of 3.9 per cent, based on the average for the three months ending May 2012. During this period, loans to households for house purchase fell at an average annual rate of 2.4 per cent, while loans for consumption and other purposes fell by 11.5 per cent and 3.3 per cent, respectively. Overall, the monthly net flow of loans to households averaged minus €338 million in these three months.

Loans for house purchase account for over 70 per cent of on-balance sheet lending to Irish households, and have remained on a downward trajectory in recent months. The average annual rate of change was minus 2.4 per cent in the three months ending May 2012, while monthly net flows averaged minus €163 million. The monthly net flow of loans for consumption purposes averaged minus €146 million during the same period, with particularly sharp declines reported in medium-

term loans with an original maturity over one year and up to five years. Lending for other purposes, which includes loans for debt consolidation, education, business loans etc., declined at an annual rate of 3.3 per cent, based on the average for the three months ending May 2012, while the monthly net flow averaged minus €29 million.

Chart 23: Transactions in Financial Assets, Four-Quarter Moving Average

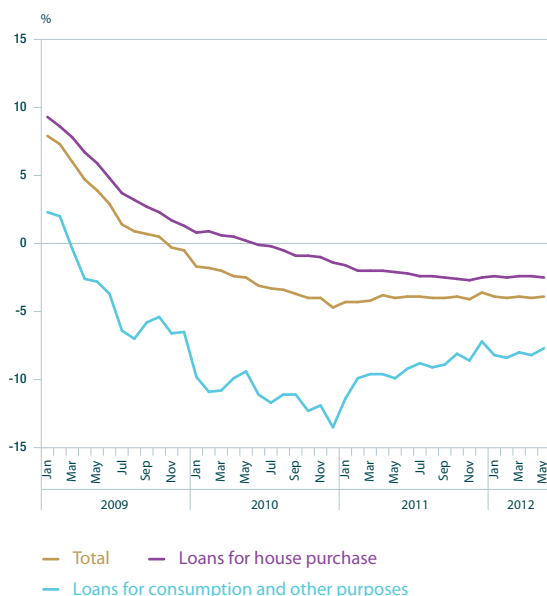


Floating rate mortgages, which include standard variable rate, tracker rate, and mortgages with a fixed rate up to one year, accounted for 87 per cent of the outstanding amount of loans for house purchase on-balance sheet at end-March 2012. Tracker mortgages by themselves accounted for 49 per cent of outstanding loans for house purchase. Overall, the quarterly net flow of floating rate mortgages increased by €400 million, while fixed rate mortgages decreased by €900 million, over the three months ending March 2012.

Households' borrowing costs continued to fall in recent months. The weighted average interest rate on outstanding mortgage loans with an

original maturity over five years (which accounts for 99 per cent of outstanding mortgage loans) was 2.98 per cent at end-May 2012, reflecting a fall of 42 basis points since end-October 2011. The corresponding rate reported by all credit institutions resident in the euro area was higher, at 3.77 per cent at end-May 2012, having fallen by just 14 basis points since end-October 2011. Developments in average outstanding mortgage rates in Ireland broadly reflect changes to the ECB main refinancing rate, due to the high proportion of tracker and other variable rate mortgage products.

Chart 24: Loans to Irish Households, Annual Rates of Change

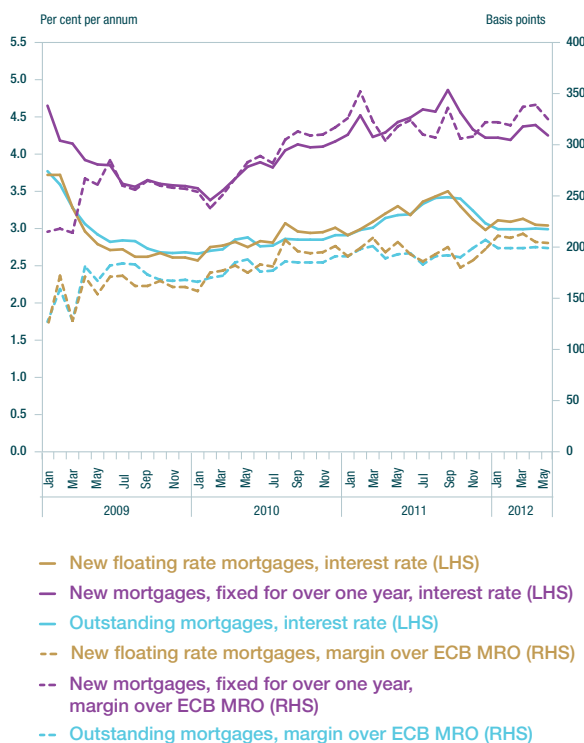


Interest rates on outstanding loans to households for consumption and other purposes also fell further in recent months. The weighted average rate on all outstanding loans in this category was 5.88 per cent at end-May 2012, reflecting a fall of 42 basis points in the first five months of the year. The interest rate on short-term loans for consumption and other purposes with an agreed maturity up to one year, which includes both overdrafts and credit card debt, was 8.68 per cent at end-May. The equivalent rate reported by all credit institutions in the euro area was lower, at 7.95 per cent. Meanwhile, the weighted average rate reported by Irish resident credit institutions on longer-

term loans with an original maturity over five years was 4.14 per cent at end-May, compared with a rate of 5.16 per cent reported by all euro area credit institutions.

With regard to new business, the weighted average interest rate on new loans for house purchase with either a floating rate or up to one year initial rate fixation was 3.04 per cent in May 2012. Loans in this instrument category accounted for over 90 per cent of new mortgage business in the last six months. In the euro area overall, loans with either a floating rate or up to one year initial rate fixation accounted for just 30 per cent of new mortgage business over the last six months, while 34 per cent of new mortgages have an initial period of rate fixation of at least ten years. In relation to loans to households for non-housing purposes, the weighted average interest rate reported by Irish resident credit institutions was 7.27 per cent in May 2012. New business volumes in this instrument category have been very low for the past year and, as a result, the interest rate series tend to be volatile.

Chart 25: Mortgage Interest Rates to Households



Developments in the International and Euro Area Economy

Overview

The recovery of the world economy remains very fragile. Following tentative signs of stabilisation in early 2012, there has since been a renewed intensification of the crisis in the euro area, which has adversely affected global confidence, and financial market uncertainty has increased once again. Growth expectations for 2012 are moderate and continue to be characterised by an uneven performance, with weak growth expected in advanced economies, while emerging markets are set to continue to expand at a faster pace, despite moderating recently. In particular, a number of structural impediments continue to restrain growth in many advanced economies. Finally, global inflation has eased in recent months mainly in response to receding commodity prices.

Following a modest acceleration of global growth in the first quarter of 2012, the latest flow of survey data suggests some renewed loss of growth momentum. The Global Purchasing Managers Index (PMI) has been deteriorating for a number of months now, while forward-looking indicators of world trade have also fallen. Sentiment indicators in most advanced economies have fallen quite sharply, especially in Europe, reversing the gains seen at the turn of the year. Reflecting renewed uncertainty over the global growth outlook, in addition to interconnected concerns regarding the financial health of euro area sovereigns and the banking sector, global financial conditions have deteriorated once again.

Global growth dynamics across regions remain rather diverse, with weak growth in many advanced economies and a stronger expansion in emerging markets. Although the pace of expansion has been receding in the latter recently, reflecting past domestic policy tightening and also a weakening in domestic demand, economic activity remains solid. In the US, growth prospects have faded somewhat, with labour market conditions deteriorating again. Furthermore, consumer and business sentiment indicators have been on a downward trend in recent months. Real GDP growth has slowed in China, albeit from high levels, economic activity remains very weak in the UK, while the latest indicators suggest a modest expansion in Japan. Finally, euro area economic

activity stagnated in the first three months of 2012 and available indicators suggest that the economy shrunk further in the second quarter.

According to the OECD's latest Economic Outlook, released in May, global output is now projected to expand by 3.4 per cent in 2012, before accelerating to 4.2 per cent in 2013. The forecast for 2012 was unchanged from the OECD's previous estimate, published in November last year, and there was a minor downward revision of 0.1 percentage point to the forecast for world output next year. However, the headline figures disguise significant downward revisions for the euro area in particular, while the outlook was revised upwards for a number of countries, most notably, the US. Activity in the OECD economies is now expected to expand by 1.6 per cent in 2012 and 2.2 per cent in 2013, while growth in the BRIC economies is expected to be considerably higher in both years.

Looking ahead, the pace of growth in the global economy over the medium term is expected to be restrained. The continued weakness in labour and housing markets in some advanced economies, as well as the need to further repair public and private balance sheets will act as an impediment to growth. While the process of balance sheet repair is underway, household debt levels remain elevated in a number of advanced economies. Emerging economies,

Table 1: Changes in Real GDP in Selected Economies

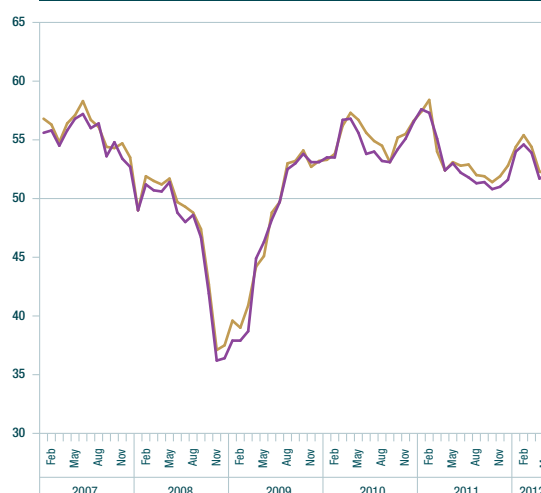
	Percentage Change		
	2011	2012 ^f	2013 ^f
Global	3.6	3.4	4.2
United States	1.7	2.4	2.6
Euro Area	1.5	-0.1	0.9
United Kingdom	0.7	0.5	1.9
China	9.2	8.2	9.3
Japan	-0.7	2.0	1.5

Source: OECD Economic Outlook No. 91, May 2012

while observing signs of an easing in economic activity recently, are expected to support global growth more than the advanced economies over the coming years.

The outlook for the global economy continues to be surrounded by very high uncertainty, with risks to activity increasingly tilted to the downside. The on-going euro area sovereign debt crisis remains the prevailing downside risk with the potential to trigger adverse feedback loops, which could unsettle financial markets and destabilise an already fragile global banking sector. In addition, the precarious fiscal positions of a number of major advanced economies could depress near-term demand and growth further, while intensifying global financial tensions could aggravate the risk of a disorderly unwinding of global imbalances. Furthermore, despite the resilience of many emerging economies, adverse spillovers from advanced economies could become more pronounced.

Finally, inflation rates continued to ease in recent months across all major countries. In advanced economies, developments in energy prices, ample spare capacity and well-anchored inflation expectations have helped mitigate price pressures, while emerging economies' inflation rates have also declined, although price pressures do remain more pronounced given that they operate closer to full capacity. Going forward, weaker economic activity than anticipated may reduce price pressures while, conversely, upside risks relate to unsustainable fiscal positions and renewed geopolitical tensions.

Chart 1: Global PMIs

— Composite Output/Business Activity PMI
— Composite New Orders PMI

Source: Markit.

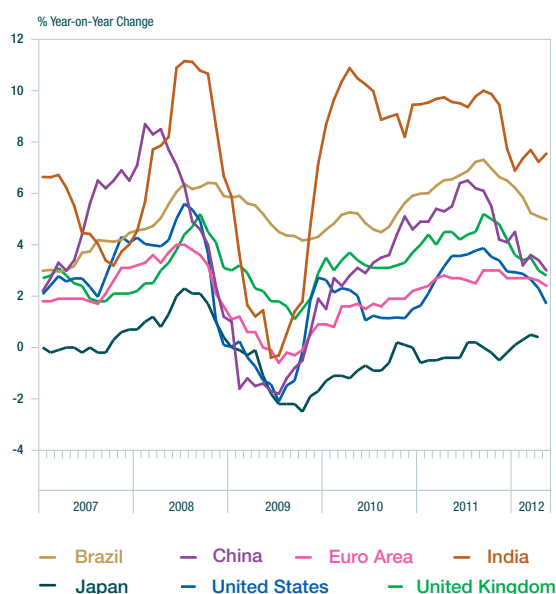
Note: For PMI indicators, above 50 represents expansion, below 50 represents contraction.

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

	2011 Q2	2011 Q3	2011 Q4	2012 Q1
Consumption	-0.2	0.2	-0.3	0.0
Government	0.0	-0.1	0.0	0.0
Investment	0.0	-0.1	-0.1	-0.3
Inventories	0.2	-0.3	-0.3	-0.2
Exports	0.5	0.6	-0.3	0.5
Imports	-0.2	-0.3	0.7	-0.1
GDP	0.1	0.1	-0.3	0.0

Source: Eurostat.

Chart 2: Selected Global Inflation Rates



Source: Thomson Reuters Datastream.

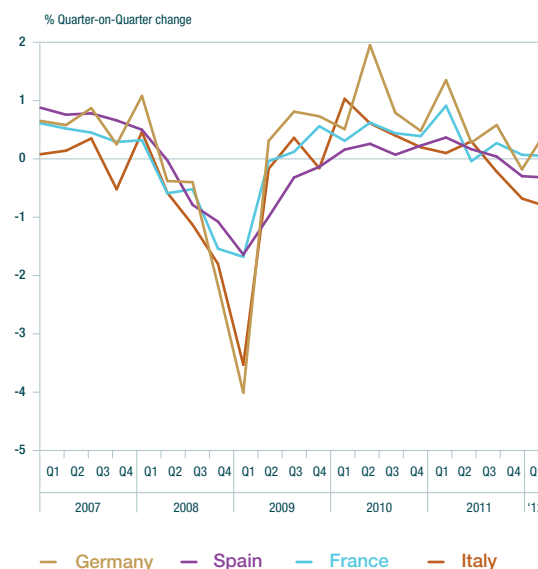
Section 1: Euro Area

Economic Growth – Recent Developments

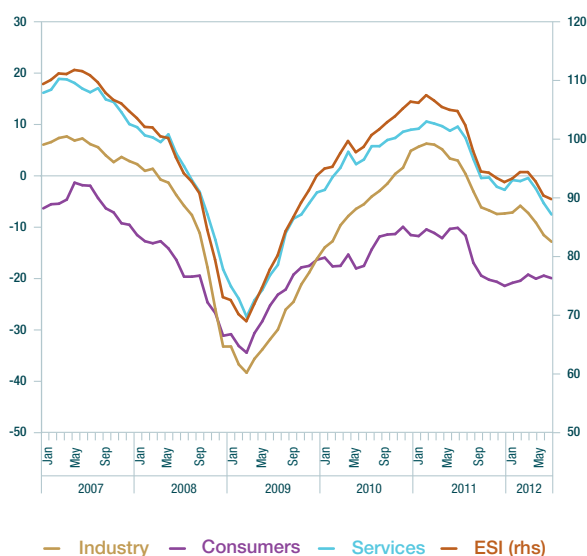
According to Eurostat's second GDP estimate, the euro area narrowly avoided a technical recession in the first quarter of 2012 when growth came in flat, following a 0.3 per cent contraction in the final quarter of last year. Output was widely expected to contract in the first three months of 2012, but stronger than anticipated growth in Germany was enough to offset declines in Italy, Spain and the Netherlands, while output from France was unchanged in the quarter. Almost half of all euro area countries are now experiencing a recession at the national level.

As Table 2 outlines, domestic demand had the largest negative effect on euro area growth at the beginning of this year, subtracting 0.3 percentage points from GDP, with investment in particular contracting sharply. A decline in inventories in the first quarter also weighed negatively on growth, largely driven by developments in Germany. Meanwhile, net trade made a positive contribution to growth, as exports from the euro area increased by 1.0 per cent in the first quarter of 2012, boosting overall GDP by 0.5 percentage points.

Chart 3: Euro Area GDP Growth



Source: Thomson Reuters Datastream

Chart 4: Economic Sentiment Indicator & Selected Components

Source: European Commission.

Turning to the latest survey indicators for the euro area, sentiment has been deteriorating once again across almost all countries, as concerns about the sovereign debt crisis caused uncertainty to rise sharply, and consumers and businesses are now more pessimistic about the outlook. The European Commission's Economic Sentiment Indicator (ESI) fell 0.6 points to 89.9 in June, the third consecutive monthly fall, with confidence deteriorating in industry, services and amongst consumers. Confidence in the peripheral economies remains close to record lows, but sentiment has also been deteriorating in a number of core economies, with the outlook for Germany, France and the Netherlands also more downbeat. Also in June, the final PMI Composite Output Index came in at 46.4. This was up from May's 35-month low, but the ninth time in the past ten months that the index has signalled a contraction in private sector economic activity. Confidence across the euro area has been severely affected by the recent intensification of the sovereign debt crisis and concerns about the banking sector, as Spain and Cyprus became the fourth and fifth Member States forced to seek financial assistance from Europe.

With respect to labour market developments, the unemployment rate has been on an upward trend since June 2011, rising to 11.1 per cent in May 2012, while the number of persons employed decreased by 0.2 per cent in the first quarter of 2012, following a 0.3 per cent decline in the previous quarter. There are substantial differences in unemployment rates across the euro area, with Austria recording the lowest unemployment rate at 4.1 per cent in May, while Spain recorded the highest rate at 24.6 per cent. The number of persons unemployed in the euro area reached 17.6 million in May with almost all euro area countries recording increases. The euro area unemployment rate is expected to rise further over the remainder of 2012, and is likely to remain at a high level for an extended period of time as activity remains weak.

Economic Growth – Outlook

Economic activity stagnated in the euro area at the turn of the year and available indicators suggest that the economy shrunk further in the second quarter of 2012. The widespread deterioration in sentiment and the high levels of uncertainty threaten to further delay the gradual recovery forecasted for the second half of this year. Output is expected to gain momentum in 2013 and improve further over the course of the year. The latest ECB staff macroeconomic projections, published in early June, remain unchanged for 2012. Real GDP growth is estimated between -0.5 per cent and 0.3 per cent, while the forecast range for growth in 2013 narrowed slightly to between 0.0 per cent and 2.0 per cent. These forecasts assume that the financial crisis will not intensify further. The ECB forecasts are in line with the latest OECD GDP projections for the euro area contained in their May 2012 Economic Outlook. The recovery will be partly driven by an acceleration in foreign demand, as well as a gradual strengthening of the domestic sector. To date, the gradual global recovery remains on track but remains fragile. Growth has moderated in the emerging economies but remains solid, while there has been a modest expansion in activity in the non-euro area advanced economies,

with the exception of the UK. If the positive global situation can be maintained, it will help boost euro area export growth over the forecast horizon, while accommodative monetary policy and declining energy prices should help support domestic demand.

Looking at the largest euro area Member States, growth rates for 2012 were revised upwards by the OECD for Germany and France since their previous estimates were released in December 2011, largely due to a better than expected outturn in the first quarter. The outlook however, for a number of countries was revised down significantly, with GDP projected to contract sharply in Italy and Spain in 2012. Domestic demand is expected to be the largest drag on growth, as private consumption and investment

will be held back over the course of the year by stringent austerity measures and tight credit conditions. This weakness is expected to continue in both countries in 2013, and any recovery is set to be slow and weak.

The recent intensification of the sovereign debt crisis and the sharp increase in uncertainty highlights the significant risk that problems in the financial sector can spill over to the real economy. Overall, the risks to the euro area outlook are tilted to the downside and remain dominated by concerns about sovereign debt, but also include a possible slowdown in the world economy.

Box A: The Role of Euro Area Survey Indicators

By Jenny Osborne-Kinch & Neill Killeen¹

The heightened level of uncertainty and volatility that has characterised economic activity in the euro area and much of the global economy in recent times highlights the need for timely and targeted data on economic conditions beyond GDP growth. Although real GDP is widely regarded as the most comprehensive measure of economic activity, the long lags associated with its release compromise its ability to provide guidance on current and future economic conditions.² Owing to the lack of real-time hard data, survey measures are often used for tracking economic conditions in an economy given their timely and high frequency data properties. In this Box, we provide an overview of two well-known survey indicators, the Purchasing Managers' Index (PMI) and the Economic Sentiment Indicator (ESI), and examine their usefulness for assessing economic developments in the euro area economy.

Purchasing Managers' Index (PMI)

The Purchasing Managers' Index (PMI) comprises a suite of survey indicators produced by Markit, which are widely used for estimating business and economic conditions in a given country. The data are constructed on a monthly basis using a consistent methodology which provides an advance indication of what is happening in the private sector by tracking variables such as output, new orders, employment and prices.³

Euro area PMIs are based on survey data collected from a representative sample of around 4,500 companies and are calculated as diffusion indices, which vary between 0 and 100, with levels of 50.0 signalling no change on the previous month. Readings above 50.0 indicate an improvement or increase on the previous month while below 50.0 signal a deterioration or decrease on the previous month. The overall composite output PMI for the euro area is estimated as a weighted average of the euro area manufacturing output index and the euro area services business activity index. It includes manufacturing data for Germany, France, Italy, Spain, the Netherlands, Austria, Ireland and Greece and services data for Germany, France, Italy, Spain and Ireland.

¹ Monetary Policy and International Relations Division.

² Up to three months can elapse between the end of a quarter and the release of GDP data relating to the same quarter.

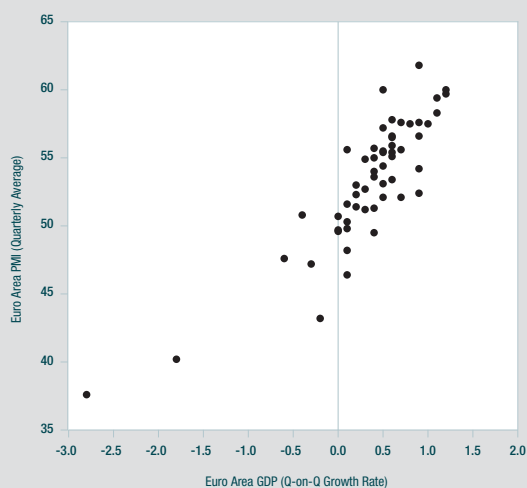
³ Manufacturing PMIs are typically released on the first business day of the following month, with the service sector (and composite) counterparts following a few days later. In addition, Markit produce a "flash" estimate of the PMI mid-month, which is typically based on around 85 per cent of usual monthly replies.

Box A: The Role of Euro Area Survey Indicators*By Jenny Osborne-Kinch & Neill Killeen¹*

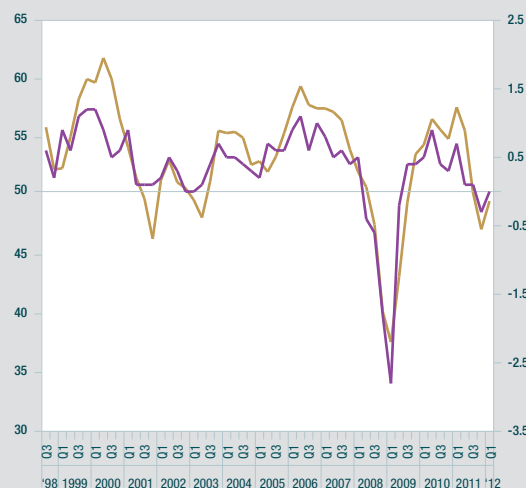
One of the main advantages of the PMI is that it is not usually subject to large revisions. Other benefits include its wide coverage, which allows for international comparability, while detailed sub-indices can be used to estimate economic activity in different segments of an economy. However, there are some limitations associated with the calculation of the PMI. In particular, the composite figure does not include data for all sectors of the economy while, as highlighted previously, only data for eight euro area countries are included in the aggregate composite output figure. Furthermore, the survey asks respondents whether economic conditions improved, deteriorated or stayed the same over the previous month, and, therefore, does not capture the intensity of perceived changes in economic activity.

Economic Sentiment Indicator (ESI)

Every month, the European Commission publishes the Economic Sentiment Indicator (ESI) and its various subcomponents which are used to detect turning points in the economic cycle.⁴ The ESI data are available for sixteen of the seventeen euro area countries. For the euro area, the European Commission surveys about 72,000 firms and 27,000 consumers every month and answers obtained from the surveys are aggregated in the form of “balances”.⁵ Balances are constructed as the difference between the percentage of respondents giving positive and negative replies. The European Commission calculates the euro area aggregates on the basis of national results and seasonally adjusts the balance series.

Chart 1: Euro Area Composite PMI vs. Euro Area GDP

Source: Eurostat, Markit and authors' calculations.

Chart 2: Euro Area GDP and Composite Output PMI

— Quarterly PMI
— Euro Area GDP (% Quarter-on-Quarter Change) (Rhs)

Source: Eurostat, Markit and authors' calculations.

- 4 The ESI is composed of the industrial confidence indicator (40 per cent); the services confidence indicator (30 per cent); the consumer confidence indicator (20 per cent); the construction confidence indicator (5 per cent) and the retail confidence indicator (5 per cent).
- 5 The ESI data are usually published on the last few days of the current month. The European Commission does not publish a “flash” estimate of the ESI. However, a “flash” estimate of the consumer confidence component is available.

Box A: The Role of Euro Area Survey Indicators

By Jenny Osborne-Kinch & Neill Killeen¹

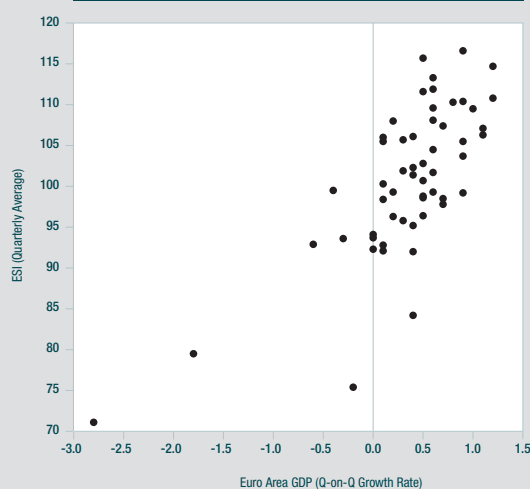
Usefulness as real-time indicators of economic activity

Empirical literature suggests that survey data such as the PMIs are particularly useful in responding to changes in economic activity during volatile periods.⁶ While a comprehensive econometric analysis is beyond the scope of this Box, the usefulness of the composite output PMI in observing changes in GDP growth is assessed, given its availability in real time. Meanwhile, the relationship between the PMI and the ESI is also examined.

As depicted in the scatterplots in Charts 1 and 3, the quarterly average of the monthly PMI and ESI are very closely related to quarterly GDP growth in the euro area. For the period Q3 1998 – Q1 2012, the PMI and quarterly GDP correlation was 0.86. Moreover, it has been shown that including the PMI in euro area forecast models significantly improves the quality of the predictions.⁷

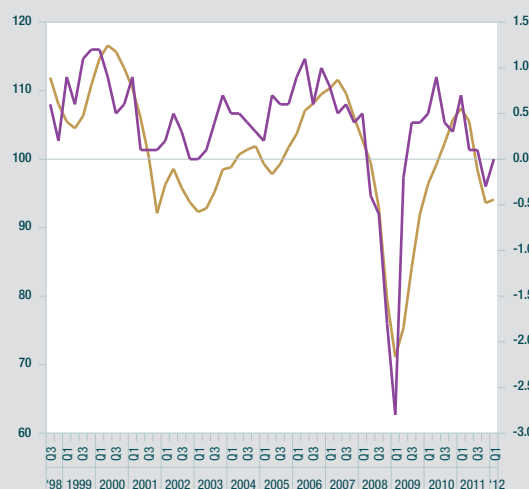
Similarly, as shown in Chart 4, the quarterly average of the monthly ESI also appears to track changes in euro area economic activity, although with a lower contemporaneous correlation of 0.74. Given that the PMI and the ESI are two of the most prominent survey indicators for the euro area, it is worthwhile to consider their relationship. Gerlach (2008)⁸ finds evidence which suggests that movements in the PMI lead movements in the ESI. A simple cross-correlation analysis of our data sample confirms this finding, with our results suggesting that the PMI leads the ESI by two months. Overall, it is evident that survey indicators such as the PMI and ESI are useful indicators for anticipating euro area growth which can be particularly important during periods of very high economic volatility.

Chart 3: ESI vs. Euro Area GDP



Source: Eurostat, European Commission and authors' calculations.

Chart 4: Euro Area GDP and ESI



Source: Eurostat, European Commission and authors' calculations.

⁶ See, for example, Lombardi, M., and P., Maier (2011). "Forecasting Economic Growth in the Euro Area during the Great Moderation and the Great Recession", ECB Working Paper 1379, September 2011.

⁷ See, for example, Godbout, C., & J., Jacob (2010). "The Predictive Power of the PMI", Bank of Canada Discussion Paper, 2010.

⁸ See Gerlach, S. (2008). "Forecasting ECB's interest rate decisions: A background note" Available at: [http://www.stefangerlach.com/No%203%20Reaction%20function%20\(Background\)%20Rev.pdf](http://www.stefangerlach.com/No%203%20Reaction%20function%20(Background)%20Rev.pdf)

Inflation – Recent Developments

Euro area annual HICP inflation was 2.4 per cent in June, according to preliminary estimates from Eurostat, unchanged from the previous month. Sharp declines in oil prices have led to lower than expected annual inflation rates in recent months. However, since late 2010 inflation has been elevated, driven in the main by higher energy and other commodity prices as well as increased indirect taxes and administered prices related to fiscal consolidation in a number of euro area countries. This year the past depreciation of the euro has also contributed to higher than expected inflation. Overall, euro area inflation averaged 2.7 per cent in 2011 and 2.6 per cent in the first half of 2012. Meanwhile, measures of core inflation have remained contained, with the annual rate of change in HICP inflation excluding energy and food, which comprises of the services and non-energy industrial goods components, hovering around 1.6 per cent for most of 2011 and the first half of 2012.

The annual rate of change in industrial producer prices has been declining since early 2011, with producer price inflation (excluding construction and energy) reaching 1.3 per cent year-on-year in April, down from last year's peak of 4.6 per cent. Furthermore, recent price survey measures continue to indicate weak price pressures. The PMI composite input price index has been declining since the start of the second quarter, reflecting the moderation in the international prices of oil and raw materials, while the PMI composite output price index has been below 50 for 8 out of the last 10 months. Meanwhile, euro area labour costs are also moderating, reflecting weak labour market conditions in some euro area countries. Total hourly labour costs were 2.0 per cent year-on-year in the first quarter of 2012, down from 2.8 per cent in the final quarter of 2011. Euro area unit labour costs are increasing, however, reflecting a decline in labour productivity growth.

Oil and Other Commodity Prices

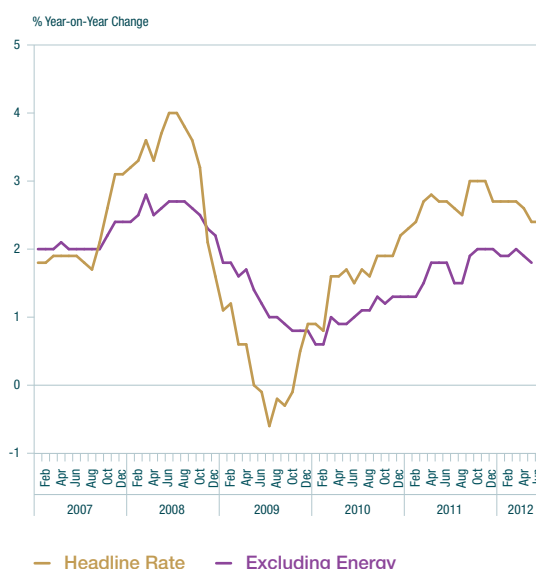
Prices of Brent crude oil have declined sharply in recent months, reflecting heightened concerns over the global economic outlook, a

reduction in the risk premium due to reduced geo-political tensions, recovering OECD stock levels and ample OPEC production. At the end of June, Brent crude oil had declined by over 20 per cent in both dollar and euro terms from its March peak. Prices of other commodities also fell somewhat in recent months. For example, the United Nations FAO food price index declined in May and is now at its lowest level since September 2010, with the dairy and oils and fats indices experiencing the sharpest declines.

Inflation – Outlook

According to the June 2012 Eurosystem staff macroeconomic projections for the euro area, headline HICP inflation is unlikely to decline below 2.0 per cent until early 2013. Annual HICP inflation is forecast to be in a range of between 2.3 per cent and 2.5 per cent in 2012 and between 1.0 per cent and 2.2 per cent in 2013. Risks to this outlook are viewed to be broadly balanced. The main upside risks stem from higher than expected commodity prices and indirect taxes, while the main downside risks relate to weaker than expected economic growth in the euro area.

Chart 5: Euro Area Inflation



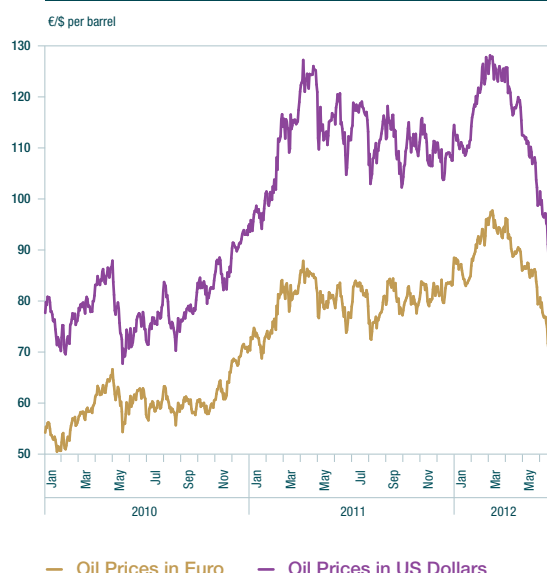
Source: Thomson Reuters Datastream.

Table 3: US Contributions to GDP Growth

	2011 Q2	2011 Q3	2011 Q4	2012 Q1
Consumption	0.5	1.2	1.5	1.9
Government	-0.2	0	-0.9	-0.8
Fixed Investment	1.1	1.5	0.8	0.6
Inventories	-0.3	-1.4	1.8	0.2
Exports	0.5	0.6	0.4	1.0
Imports	-0.2	-0.2	-0.6	-1.1
GDP	1.3	1.8	3.0	1.9

Source: Bureau of Economic Analysis (BEA).

Chart 6: Oil Prices – Brent Crude



Source: Thomson Reuters Datastream.

Furthermore, the housing market, although showing some initial signs of improvement, remains depressed, while business and consumer sentiment indicators have also been on a downward trend in recent months.

In their latest Economic Outlook, the OECD forecast growth to expand by 2.4 per cent in 2012, strengthening slightly to 2.6 per cent in 2013. However, downside risks to the outlook remain, in particular those emanating from a further intensification of the euro area debt crisis and the scheduled increases in taxes and reduction in spending (the so-called “fiscal cliff”) due in early 2013.

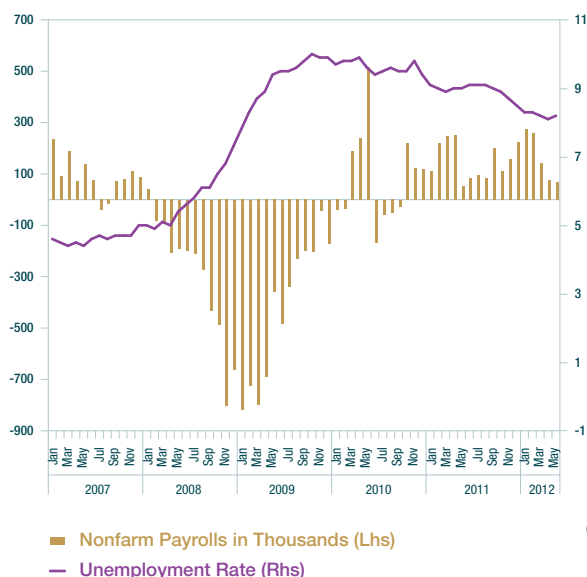
Following their June meeting, the Federal Reserve’s Open Market Committee (FOMC) announced its decision to continue through the end of the year its programme to extend the average maturity of its holding of securities (known as “Operation Twist”). Specifically, the Committee intends to purchase Treasury securities with remaining maturities of 6 years to 30 years at the current pace and to redeem an equal amount of Treasury securities with remaining maturities of approximately 3 years or less. Furthermore, the FOMC maintained the target range for the federal funds rate at the historically low level of zero to 0.25 per cent. Reflecting fading optimism for the economic outlook and increased financial market volatility, the FOMC revised downward their forecasts ranges for real GDP growth for both 2012 and 2013.

Section 2: External Environment

United States

US economic growth decelerated in the first quarter of 2012 to 1.9 per cent (in annualised terms), down from 3.0 per cent in the final three months of 2011. Real GDP was primarily supported by positive contributions from personal consumption and fixed investment, while government spending continued to act as a drag on growth. Looking at more recent developments, the latest monthly payroll data suggest that the labour market recovery has lost some momentum, with the unemployment rate still at a stubbornly high level.

Chart 7: US Labour Market



Source: Bureau of Labor Statistics, US Department of Labor.

United Kingdom

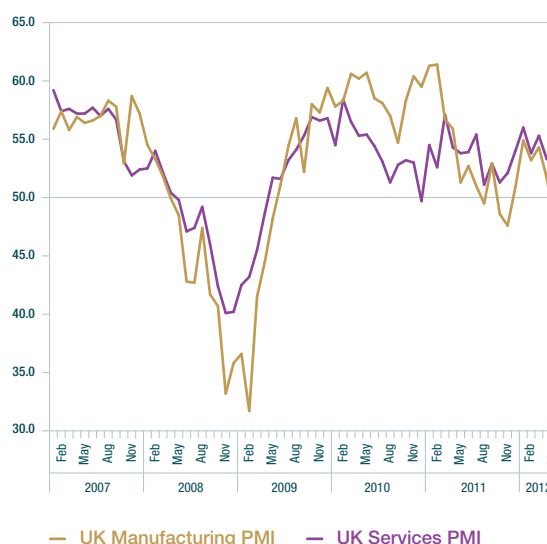
The weakness in economic activity that persisted throughout 2011 continued during the first quarter of 2012 with a contraction in real GDP of 0.3 per cent, reflecting further decreases in consumption expenditure and gross capital formation. In the second quarter, the latest hard data such as retail sales and industrial production remains subdued. Similarly, business confidence has deteriorated further and consumer confidence remains at very low levels. Overall, growth prospects remain weak, as domestic demand continues to be constrained by tight credit conditions, ongoing household balance sheet adjustment and substantial fiscal tightening. According to the latest OECD Economic Outlook, real GDP is to expand by just 0.5 per cent this year, before picking up to 1.9 per cent in 2013.

The recent reduction in price pressures since the final quarter of 2011 has continued. Inflation decelerated from 3.6 per cent in January to 2.8 per cent in May. However, the May Bank of England Inflation report highlights how inflation is expected to stay above its 2 per cent target next year as cost pressures

associated with past increases in commodity prices coupled with weak productivity growth are likely to have a larger effect on inflation than previously anticipated.

In light of the more restrictive credit market conditions, the anaemic recovery in economic activity, and the continued easing of price pressures, a new “funding for lending” programme designed to cut banks’ costs and make credit more accessible to British businesses involving the Bank of England and the UK Treasury was announced in June.

Chart 8: PMI Indicators for the UK



Source: Markit.

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

Japan

In Japan, real GDP expanded by an annualised 4.7 per cent in the first quarter of 2012, having stagnated in the previous three months. Growth was primarily driven by robust domestic demand, while changes in inventories and net exports also contributed modestly. Both public and private consumption increased moderately during the quarter with the pick-up in private consumption supported by measures to stimulate demand for environmentally-friendly cars. The latest hard indicators for the

second quarter show a modest expansion, with both exports and industrial production increasing, while housing investment also picked up. However, the Japanese economy remains exposed to a number of downside risks including negative spillovers from the euro area debt crisis, electric power supply constraints and the adverse effects of deflation.

With respect to price developments, Japan's annual headline CPI inflation rate was 0.4 per cent in April, down slightly from 0.5 per cent recorded in March. At its Monetary Policy meeting in April, the Bank of Japan decided to further enhance monetary easing by increasing the total size of the Asset Purchase Program by about ¥5 trillion to ¥70 trillion. 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 15 June 2012.

Emerging Asia

In emerging Asia, national accounts data indicate that economic growth decelerated in the first quarter of 2012, reflecting weaker external demand conditions and the lagged effects of monetary policy tightening. Nevertheless, domestic demand remained robust in many economies, partly offsetting the negative spillovers from the euro area debt crisis.

In China, real GDP slowed to 8.1 per cent year-on-year in the first quarter of 2012, down from 8.9 per cent growth recorded in the fourth quarter of 2011. The latest monthly indicators on industrial production, trade and retail sales for the second quarter suggest that the Chinese economy continued to decelerate. Consistent with this, the latest survey data point to just a modest expansion in economic output, with the composite PMI output index at 51.9 in May.

Inflationary pressures have continued to ease in China, with annual headline CPI inflation at 3 per cent in May, down from 3.4 per cent in April. Responding to slower growth and falling inflation, the Chinese authorities have eased monetary policy further. In May, the People's Bank of China cut its reserve requirement ratio for large deposit-taking institutions by 50 basis points, to 20 per cent. Furthermore, in June, reflecting weaker monthly data and increased downside risks, the People's Bank of China decided to cut the benchmark one-year lending interest rate to

6.31 per cent, from 6.56 per cent. According to the latest forecasts from the OECD, the Chinese economy is expected to grow by 8.2 per cent in 2012 and 9.3 per cent in 2013.

Real GDP growth in India continued to moderate to 5.3 per cent year-on-year in the first quarter of 2012 compared with 6.1 per cent growth in the previous three months. This represents the fifth consecutive quarter that real GDP has slowed in India and it is now almost four percentage points lower than GDP growth recorded in the first quarter of 2011. With respect to price developments, India's wholesale price inflation index was 7.6 per cent in May, up from 7.2 in April. Reflecting slower growth recently, and lower monthly inflation in April, the Reserve Bank of India cut its key policy rate by 50 basis points to 8 per cent. This year, real GDP is forecast to expand by 7.3 per cent, before picking up gradually to 7.8 in 2013, based on the latest OECD forecasts.

Section 3: Financial Markets

Financial Sector Developments

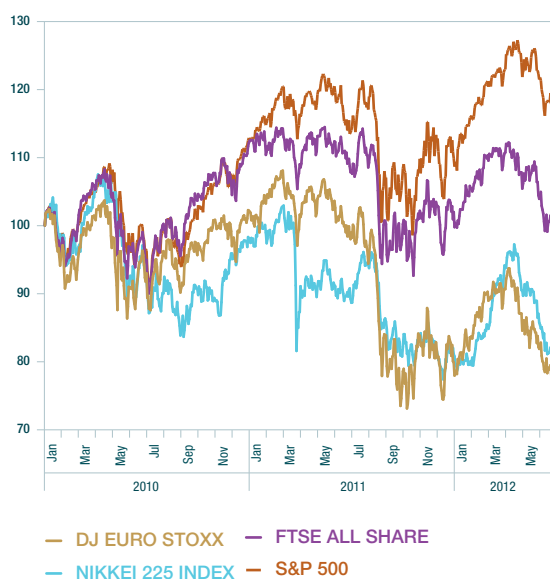
Financial market developments during the second quarter of 2012 were generally characterised by a deterioration in investor risk appetite and a shift into perceived safe-haven assets. This contrasted with the general improvement in sentiment witnessed during the first quarter, amid an easing of funding conditions for euro area banks and sovereigns and the completion of the Greek debt restructuring, among other factors. There was a market rally on the last day of the second quarter, however, amid positive market reaction to the outcome of the June 28-29 EU Summit. There were a number of drivers of the deterioration in market sentiment during the second quarter, including an increase in uncertainty over the global growth outlook amid weaker than expected economic data releases in the euro area and the US and a re-emergence of the euro area sovereign debt crisis, with a particular market focus on financial developments in Spain and political developments in Greece. The request for EFSF/ESM financial assistance by Cyprus during the final week of June added to concerns over euro area countries while, more generally, these concerns gave rise to increased fears of contagion into other financial market segments. Official actions in the euro area prior to the 28-

29 June EU Summit, such as the agreement to extend external funding to Spain, had little lasting positive impact on market sentiment. Similarly, there was a muted market response to the launch of a second “Operation Twist” by the US Federal Reserve.

Equity Markets

Global equity indices fell quite sharply during the second quarter of 2012, largely reversing gains made during the first quarter and despite a rally at the very end of the period. Stock prices embarked on a declining trend in the second half of March amid weak economic data releases and a re-emergence of concerns over the fiscal outlook of several euro area countries, as well as political uncertainty in some countries. Fears over an economic slowdown in China also contributed to equity market losses during this period. The initial decline in equity indices was larger for European indices than for US indices, although both areas experienced a similar rate of decline during the remainder of the quarter. Losses tended to be led by the financial subcomponents of equity indices, particularly in Europe, although declines became more broad-based later in the period. Equity market declines were accompanied by a rise in uncertainty, as measured by stock market implied volatility.

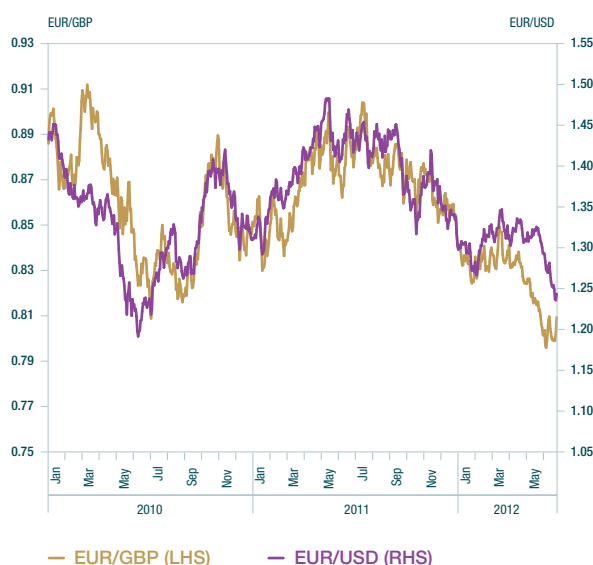
Chart 9: International Share Price Indices
(end-December 2009 = 100)



Source: Thomson Reuters Datastream.

Foreign Exchange Developments

Chart 10: Euro Exchange Rates



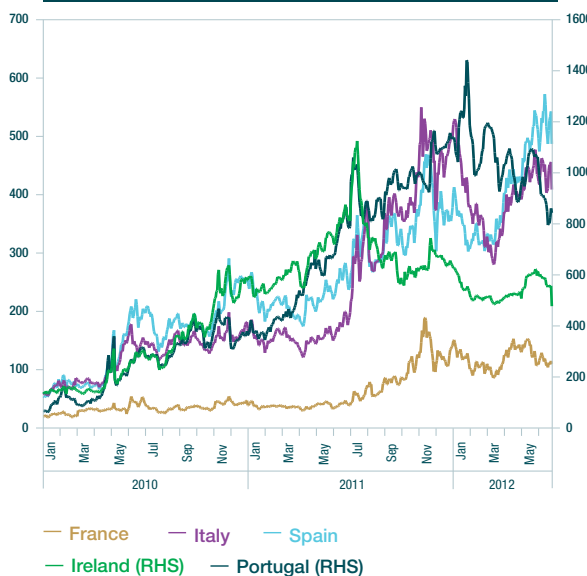
Source: Thomson Reuters Datastream.

The euro depreciated against other major currencies during the second quarter of 2012, reflecting a re-emergence of concerns over the euro area debt crisis and changes in expected yield developments between the euro area and other economies. This generalised depreciation of the euro against other currencies began in the middle of March but accelerated in late April, amid growing concerns over the fiscal and political outlook for a number of euro area countries. The euro appreciated somewhat in June, however, following the formation of a coalition government in Greece and an agreement to extend official financing to the Spanish government in order to recapitalise its banking sector. Positive market reaction to the decisions reached at the 28-29 June EU Summit also led to a general appreciation of the euro against other major currencies.

Sovereign Debt Markets

Yields on AAA-rated bonds in Europe and the US generally declined during the second quarter of 2012 as investors moved into safe-haven assets amid a weaker global growth outlook and re-emergence of financial and political concerns in the euro area. There was some upward pressure on euro area AAA-rated sovereign yields during June, however. Yield spreads over Germany for other euro area countries were generally wider over the quarter, although developments were somewhat mixed across countries. Spain experienced a particularly strong spread widening, with growing concerns over the fiscal outlook and the banking sector's capital requirement. Credit rating downgrades for the Spanish government also contributed to a widening of yield spreads. The announcement of external support to the Spanish banking sector did not contribute to a lasting reduction in Spanish bond yields, with market participants focussing on the resulting increase in the country's debt-to-GDP ratio and uncertainty as to how the support would be implemented. The decisions reached at the 28-29 June EU Summit gave rise to quite a strong compression in euro area sovereign yield spreads, however, while also putting some upward pressure on the bond yields of AAA-rated Member States.

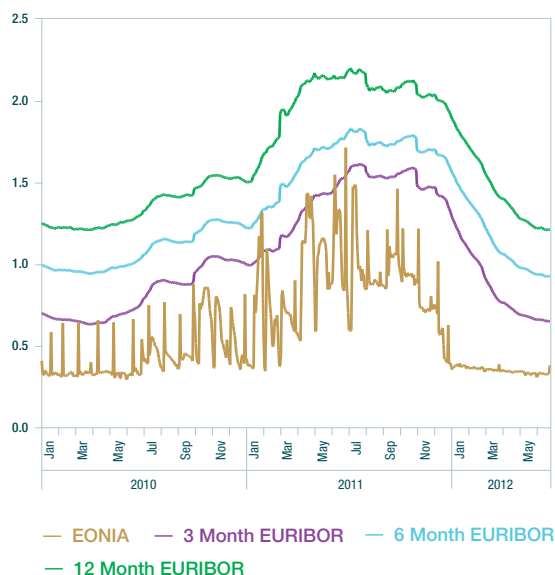
Chart 11: Selected Euro Area 10-Year Sovereign Bond Yield Spreads over Germany (bps)



Source: Thomson Reuters Datastream

Money Markets

Chart 12: Selected Euro Area Money Market Interest Rates



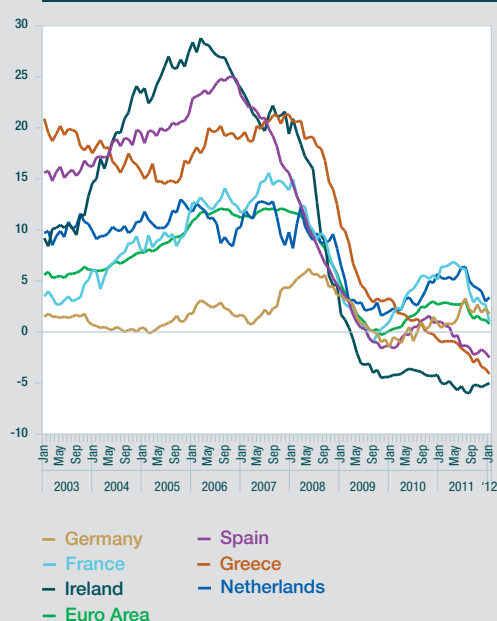
Source: Thomson Reuters Datastream.

Unsecured money market rates remained on a declining trend during the second quarter of 2012, despite the re-emergence of financial market tensions and resurgence in the euro area sovereign debt crisis. At the same time, the EONIA rate remained at a low and stable rate of around 10bps above the rate on the ECB's deposit facility. This reflected the large amount of excess euro liquidity resulting from the allotment of the ECB's 3-year LTROs. The decline in term unsecured money market rates also reflected growing market expectations of further ECB interest rate cuts. In contrast to unsecured rates, secured money market rates remained around the same levels as during the first quarter of 2012. Liquidity in most euro money market segments remained quite low, however.

Box B: Heterogeneity in Lending Rates and the Recent Effects of Indebtedness in the Euro Area
By Sarah Holton & David Purdue¹

The decline in the growth of credit to the private sector following the onset of the global financial crisis is well documented. While this weakening has been evident across all euro area Member States, the extent of it has varied substantially. As Chart 1 indicates, the overall euro area lending growth rate masks large differences across countries, both before and after the crisis. This Box examines the heterogeneity in bank lending rates and explores the effects of debt accumulated in previous periods on recent developments in private sector lending across euro area members.

Chart 1: Annual Growth of Loans to the Private Sector



Source: ECB Statistical Data Warehouse and authors' calculations.

Chart 1, which shows lending developments in selected euro area Member States since 2003, illustrates that in the five years preceding the onset of the financial crisis, there was high variation between loan growth rates. In Ireland, Spain and Greece annual loan growth averaged around 20 per cent over the period, compared to the euro area average of around 9 per cent. In comparison, France and Netherlands were closer to the euro area average, while German loan growth was substantially lower over the period. When lending rates fell across euro area countries towards the end of 2008, there was some convergence of individual countries' loan growth rates. However, since the end of 2009 the dispersion in lending rates has once again increased.

Notably, the pattern of dispersion of individual members' loan growth rates around the euro area growth rate has reversed since the onset of the financial crisis, as shown in Chart 1. The countries that borrowed heavily before the crisis now have the lowest lending growth rates in the euro area (ranging from -2.5 per cent in Spain at the end of 2011 to -5.0 per cent in Ireland). Conversely, countries that experienced less pronounced lending growth preceding the crisis, such as Germany, France and the Netherlands, now account for almost the entire positive lending flows to the private sector.

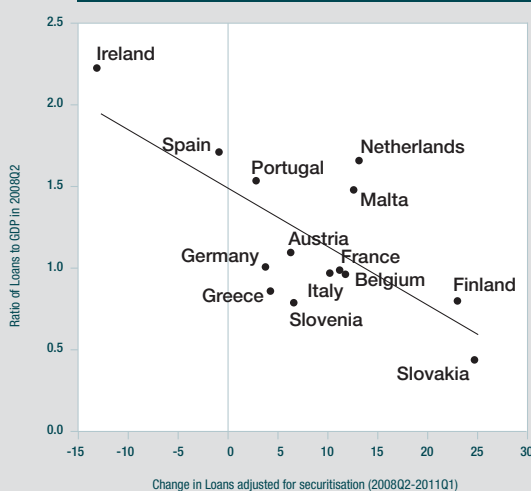
¹ Monetary Policy and International Relations Division.

² Private sector is defined as Non-Monetary Financial Institutions (MFIs) excluding general government and the annual growth rate of loans are adjusted for the effects of securitisation and valuation changes. Data are neither seasonally nor working day adjusted.

Box B: Heterogeneity in Lending Rates and the Recent Effects of Indebtedness in the Euro Area
By Sarah Holton & David Purdue¹

There are many factors which affect private sector loan growth and its heterogeneity across the euro area. Economic activity, investment, expectations and the cost and availability of bank loans relative to other forms of financing can all have an impact on loan developments. Moreover, following the introduction of the euro, interest rates in certain Member States declined and credit standards eased, which contributed to an increase in credit growth. In some countries, debt rose faster than income and there was typically a sharp rise in real house prices. The debt overhang which developed as a result of high lending now appears to be having some impact on current lending developments.

Chart 2: Relationship between Private Sector Loans to GDP and Subsequent Loan Growth Rates



Source: ECB Statistical Data Warehouse and authors' calculations.

Chart 2 highlights this relationship, by showing the negative relationship between high levels of debt at the beginning of the crisis and loan growth since. Indebtedness can affect lending in a number of ways.³ A reduction in loans driven by demand may indicate a natural and necessary balance sheet adjustment in those countries that find themselves overleveraged. On the other hand, high levels of private sector indebtedness can also affect the supply of credit in two ways. Firstly, high levels of debt can diminish potential borrowers' creditworthiness making banks unwilling to lend. Secondly, banks may wish to reduce the size of their loan books due to debt overhang problems, regardless of borrower credit worthiness. If deserving households or firms are being denied credit as a result of past over-borrowing by others, economic growth could remain below its potential level for a protracted period of time.⁴

³ For a review of recent literature on the macroeconomic effects of household indebtedness, see "Household indebtedness, house prices and the macroeconomy: a review of the literature", Economic Review 11.1, Sveriges Riksbank Economic Review; 2011, Issue 1, p6-28, 23p. As more general reading see Carmen M. Reinhart & Kenneth S. Rogoff, 2010. "Growth in a Time of Debt," American Economic Review, American Economic Association, vol. 100(2), pages 573-78.

⁴ For bank deleveraging, see the special feature "EU Bank Deleveraging – Driving Forces and Strategies", Financial Stability Review, ECB, June 2012.

Understanding Eurosystem Central Bank Financial Statements¹

By Martin O'Brien, Statistics Division¹

The Eurosystem comprises the European Central Bank (ECB) and the national central banks (NCBs) of the 17 Member States. While the key aspects of monetary policy for the euro area are decided centrally by the Governing Council, the implementation of that policy is undertaken in a decentralised manner, with each NCB engaging with eligible counterparties in their respective jurisdiction. Broader aspects of the Eurosystem's mandate, such as the promotion of financial stability, the operation of a reliable payments system and the provision of currency for use as a means of exchange, are also conducted in a decentralised manner. The decentralised implementation of policy in the Eurosystem ultimately means that the impacts of a euro area wide policy can be reflected differently in individual Member States given the underlying economic position and decisions made by the private sector in each jurisdiction. This in turn is recorded in different mechanisms on each individual NCB balance sheet. In this note we discuss how particular aspects and implications of policy implementation are reflected on NCB balance sheets: the provision of liquidity to credit institutions and intra-Eurosystem balances. To aid understanding we will use some hypothetical scenarios to see how they would be presented on the financial statements of the Central Bank of Ireland, the ECB, other euro area NCBs and the consolidated financial statement of the Eurosystem.²

Refinancing and other liquidity operations:

The Eurosystem provides sufficient liquidity to eligible credit institutions, backed by suitable collateral, to ensure that wider market liquidity

conditions and interest rates are in line with what the Governing Council has determined to be optimal to maintain price stability in the euro area. This is achieved through an array of policy instruments, which are summarised in Table 1³. The transactions related to these policy instruments are undertaken in a decentralised manner by the NCBs. While eligible credit institutions can in theory engage with any NCB in the Eurosystem, in practice almost all transactions are undertaken with the NCB in the jurisdiction which the institution is operating. In Ireland there are currently 41 credit institutions resident in the State that are eligible counterparties. Contrary to the widespread description of these operations, the ECB as an institution does not typically engage with counterparties in regular monetary policy operations. As a result, it is the NCBs that provide/absorb liquidity through open market operations and standing facilities, and it is on the NCB balance sheets that these transactions are reflected.⁴

Apart from liquidity provision through the instruments directly related to monetary policy implementation NCBs can, in exceptional circumstances and again backed with sufficient collateral, provide liquidity to credit institutions to promote financial stability. This lender-of-last-resort facility is known as exceptional liquidity assistance (ELA). ELA operations are at the discretion of each NCB, with specific procedures in place to ensure the necessary flow of information on these operations within the decision-making bodies of the Eurosystem. As with the transactions directly related to monetary policy implementation, these operations are reflected on the individual NCB balance sheets.

¹ Prepared by Martin O'Brien, Statistics Division.

² Comments on previous drafts of this note from colleagues in the Financial Control and Financial Market Divisions of the Bank are gratefully acknowledged.

³ The presentation of the Eurosystem, ECB and NCB financial statements are harmonised according to the Guideline on the Legal Framework for Accounting and Financial Reporting in the European System of Central Banks (recast)(ECB/2010/20), as amended.

⁴ For a comprehensive discussion of these policy instruments and their implementation see 'The Monetary Policy of the ECB, 2011' available at <http://www.ecb.int/pub/pdf/other/monetarypolicy2011en.pdf>.

⁵ Each NCB earns income on these ESCB monetary policy operations (referred to as monetary income). This income is pooled and reallocated to the NCBs in proportion to their paid-up shares in the capital of the ECB. The clearing and settlement of the balances arising from the allocation of the monetary income is carried out by the ECB on an annual basis.

Table 1: Eurosystem Monetary Policy Operations

	Type of Transaction		Maturity	Frequency
	Liquidity-providing	Liquidity-absorbing		
Open Market Operations				
Main refinancing operations	Reverse transactions	-	One week	Weekly
Longer-term refinancing operations*	Reverse transactions	-	Three months	Monthly
Fine-tuning operations	Reverse transactions	Reverse transactions	Non-standardised	Non-regular
	Foreign exchange swaps	Collection of fixed term deposits		
Structural operations		Foreign exchange swaps		
	Reverse transactions	Issuance of ECB debt certificates	Standardised/Non-standardised	Regular/Non-regular
	Outright purchases	Outright sales	-	Non-regular
Standing Facilities				
Marginal lending facility	Reverse transactions	-	Overnight	Access at discretion of counterparties
Deposit facility	-	Deposits	Overnight	Access at discretion of counterparties

*In recent years a number of non-standard operations have been undertaken with maturities of six months, one year and three years.

Thus far we have established that all refinancing and liquidity operations in the Eurosystem are primarily undertaken in a decentralised manner by the NCBs and as a result are reflected on the individual NCB balance sheets. The mechanics of all these operations are fundamentally the same and relate to the Eurosystem's monopoly in the euro area for the creation of base money (currency in circulation and credit institutions' mandatory and excess reserves held with the Eurosystem). Should an eligible credit institution have the necessary collateral they can access liquidity from their NCB through the regular or non-standard operations. The NCB creates a balance in this credit institution's reserve account for the amount of liquidity allotted. This is a liability of the NCB. The NCB has a claim on the credit institution equal to the amount of liquidity allotted and this claim is recorded as an asset of the NCB.⁶ This transaction is solely between

the NCB and the credit institution. Its effect is not reflected on any other entity's balance sheet.

Intra Eurosystem balances:

There are a number of issues arising from the institutional structure of the Eurosystem and the flow of funds from one jurisdiction to another that determine the level of intra-Eurosystem balances (i.e. assets or liabilities of an NCB against the ECB). The percentage of the subscribed share capital of the ECB held by the respective NCBs in the European System of Central Banks (ESCB) is known as the ESCB capital key. It is a measure of the relative national size of EU Member States and is a 50:50 composite of GDP and population size. The annual net profit of the ECB is distributed amongst the NCBs in accordance with their

⁶ As a response to tensions in wholesale funding markets, which could impair the monetary policy transmission mechanism, Eurosystem monetary policy operations are currently undertaken on a full allotment basis. Credit institutions can access as much central bank liquidity as allowable given their available eligible collateral.

capital key share. The shares held by the NCBs in the ECB are recorded as an asset on the NCBs balance sheets.

Another feature in intra-Eurosystem balances is the treatment of banknotes in circulation. The total amount of euro banknotes in issuance is calculated monthly by the ECB from data reported by all the NCBs. The figure for banknotes in circulation on the NCB balance sheet reflects that Member States share of the total euro banknotes in circulation in the euro area calculated by the ECB, which is derived by using the NCB capital key as the divisor. At a given point in time, the NCB knows the actual banknotes in issuance within their jurisdiction is either above or below their banknote allocation key based share of total euro banknotes in circulation. If it is the case that the actual is greater than the derived share of total, then the NCB posts a liability vis-a-vis the ECB for this excess amount. If the actual banknotes in circulation is less than the banknote allocation key based share, then the NCB posts an asset vis-a-vis the ECB for the shortfall. This balance can fluctuate from time to time and between Member States given, for example, the relative preference for cash by the money holding sectors in the various Member States.

By far the most significant aspect of intra-Eurosystem balances, and the one that has garnered much attention in recent months, is the treatment of TARGET2. TARGET2 is the real time gross settlements system operated by the Eurosystem over which euro denominated payments between financial institutions in the euro area are processed. It primarily handles large-value cross-border interbank payments, but underlying its operation are a number of smaller retail payments systems in the various Member States. Payments processed over TARGET2 are settled on a continuous basis in central bank money; funds are moved out of the NCB reserve account of the paying institution and in real time funds are deposited into the NCB reserve account of the receiving institution. These payments arise from the various investment and funding activities undertaken by credit institutions themselves, as well as their role in facilitating payments and transfers on behalf of their customers (e.g. a company in Ireland receiving payment for services exported to a company in France, etc.). The ECB acts as a clearing house of sorts for these transactions. Due to their continuous nature, the positions arising from TARGET2

between NCBs and the ECB evolve in real time, a snapshot of which is captured when compiling the NCB financial statement. The Central Bank of Ireland has a net liability to the ECB in relation to TARGET2. This covers the flow of funds transferred from the Irish resident banking system, both retail oriented and IFSC based institutions, to counterparties outside of Ireland. In contrast, the Deutsche Bundesbank has a net TARGET2 asset vis-à-vis the ECB, reflecting the receipt of funds being transferred into Germany from other countries. There is no mechanical settling of these balances; the Central Bank of Ireland does not have to 'repay' the ECB nor does the ECB have to 'repay' the Bundesbank. These TARGET2 related balances between the NCBs and the ECB are not physically settled at any point in time due to their continuous nature and that they mostly reflect the flow of funds between private entities. Their appearance on the NCB balance sheets arise from the fact that the NCBs host and operate TARGET2 as part of the mandate of the Eurosystem to provide a reliable payments system.

In recent months, intra-Eurosystem balances also reflect the positions between the ECB and the NCBs related to US dollar liquidity operations that are being offered by the Eurosystem. These operations are made possible by a reciprocal currency arrangement between the ECB and the Federal Reserve, whereby US dollars are made available to the ECB to provide short-term US dollar liquidity to Eurosystem counterparties. These are reflected as back-to-back swap operations on the ECB financial statement – a liability vis-à-vis the Federal Reserve and an asset vis-à-vis the NCBs who allocate the US dollar liquidity to counterparties in their jurisdiction. The individual NCBs show the lending to the counterparty as an asset under "Claims on euro area residents in foreign currency", with the liability contra-entry being reflected in their intra-Eurosystem balance vis-à-vis the ECB. While this is an important policy initiative, its relative size in the aggregate positions remains small and it will not be addressed in our example below.

Table 2: Starting Position

STARTING POSITION											
Central Bank of Ireland				ECB				Other euro area NCBs			
Assets		Liabilities		Assets		Liabilities		Assets		Liabilities	
Longer-term refinancing operations	50	Current accounts (covering the minimum reserve system)	5	CBI Intra-Eurosystem Balance	100	Other euro area NCBs Intra-Eurosystem Balances	100	Longer-term refinancing operations	425	Current accounts (covering the minimum reserve system)	250
Other assets (incl intra-Eurosystem balances if net asset)	45	Other liabilities (incl intra-Eurosystem balances if net liability)	100	Remaining assets not listed	170	Remaining liabilities not listed	170	Other assets (incl intra-Eurosystem balances if net asset)	100	Other liabilities (incl intra-Eurosystem balances if net liability)	200
Remaining assets not listed	105	Remaining liabilities not listed (incl. Banknotes in circulation)	95					Remaining assets not listed	3,475	Remaining liabilities not listed (incl. Banknotes in circulation)	3,550
Total Assets	200	Total Liabilities	200	Total Assets	270	Total Liabilities	270	Total Assets	4,000	Total Liabilities	4,000

Example of How Various Transactions Are Reflected on NCB Financial Statements:

To track the impact of liquidity provision and intra-Eurosystem balances (mostly relating to TARGET2) on NCB financial statements for heuristic purposes we will use a hypothetical scenario – both the starting positions and the dynamics do not reflect actual transactions that have taken place⁶. For reasons of space we will only highlight the entries on the financial statements that are directly affected by these issues and assume no other changes over the sample period. The timeframe can be considered as one day, and each step in our example shows the snapshot of the financial statements on that day following the transactions described. We will also assume that this day is in the middle of a reserve maintenance period, so as to abstract from the needs of institutions to meet a particular reserve requirement. We will show three financial statements: the Central Bank of Ireland; the ECB; and an aggregate financial statement for the remaining 16 NCBs.

Our starting position is the solo financial statements of the Central Bank of Ireland, the ECB and the aggregate of the other 16 NCBs (Table 2). The main thing to note from this position is the treatment of intra-Eurosystem balances: the liability of the Central Bank of Ireland is presented as an asset on the ECB statement, with a corresponding ECB liability to the remaining NCBs. The main policy implementation instruments do not appear on the ECB financial statement, but rather on those of the NCBs.

In the first sample transaction we use the LTRO instrument: a credit institution accesses liquidity from the Central Bank of Ireland in an LTRO operation (Table 3). In this instance the LTRO assets of the Central Bank increase and the current account of the credit institution with the Central Bank increases by the same amount (+20). This transaction in and of itself does not impact on any other NCB or the ECB financial statement. The liability side impact of the transaction would be the same irrespective of the particular instrument used to provide/absorb the liquidity (standard or non-standard operations).

⁷ This is necessary given the number of counterparties and multiple other transactions that could impact the financial statements apart from the specific issues addressed in this Box. The relative size of the Central Bank of Ireland, the ECB and the remaining NCBs in this example is close to that as at end-2011.

Table 3: Sample Transaction 1

CREDIT INSTITUTION IN IRELAND ACCESSES LTRO (20)											
Central Bank of Ireland				ECB				Other euro area NCBs			
Assets		Liabilities		Assets		Liabilities		Assets		Liabilities	
Longer-term refinancing operations	(+20) 70	Current accounts (covering the minimum reserve system)	(+20) 25	CBI Intra-Eurosystem Balance	100	Other euro area NCBs Intra-Eurosystem Balances	100	Longer-term refinancing operations	425	Current accounts (covering the minimum reserve system)	250
Other assets (incl intra-Eurosystem balances if net asset)	45	Other liabilities (incl intra-Eurosystem balances if net liability)	100	Remaining assets not listed	170	Remaining liabilities not listed	170	Other assets (incl intra-Eurosystem balances if net asset)	100	Other liabilities (incl intra-Eurosystem balances if net liability)	200
Remaining assets not listed	105	Remaining liabilities not listed (incl. Banknotes in circulation)	95					Remaining assets not listed	3875	Remaining liabilities not listed (incl. Banknotes in circulation)	3950
Total Assets	220	Total Liabilities	220	Total Assets	270	Total Liabilities	270	Total Assets	4400	Total Liabilities	4400

The next sample transaction reflects the transfer of funds from a credit institution in Ireland to an institution in another euro area Member State (Table 4). Such a transfer could arise due to the activities of the credit institution itself, such as the repayment of a bond that it has issued, or remittance of

dividends or other funding to a parent or an affiliated credit institution. Alternatively it could reflect the transfer of funds by the credit institution on behalf of a customer. In this case, the Central Bank debits the Irish resident credit institutions current account for the amount that it wishes to transfer to the foreign credit

Table 4: Sample Transaction 2

CREDIT INSTITUTION IN IRELAND TRANSFERS FUNDS TO OTHER EURO AREA CREDIT INSTITUTION (15)

Central Bank of Ireland				ECB				Other euro area NCBs			
Assets		Liabilities		Assets		Liabilities		Assets		Liabilities	
Longer-term refinancing operations	70	Current accounts (covering the minimum reserve system)	(-15) 10	CBI Intra-Eurosystem Balance	(+15) 115	Other euro area NCBs Intra-Eurosystem Balances	(+15) 115	Longer-term refinancing operations	425	Current accounts (covering the minimum reserve system)	(+15) 265
Other assets (incl intra-Eurosystem balances if net asset)	45	Other liabilities (incl intra-Eurosystem balances if net liability)	(+15) 115	Remaining assets not listed	170	Remaining liabilities not listed	170	Other assets (incl intra-Eurosystem balances if net asset)	(+15) 115	Other liabilities (incl intra-Eurosystem balances if net liability)	200
Remaining assets not listed	105	Remaining liabilities not listed (incl. Banknotes in circulation)	95					Remaining assets not listed	3,875	Remaining liabilities not listed (incl. Banknotes in circulation)	3,950
Total Assets	220	Total Liabilities	220	Total Assets	285	Total Liabilities	285	Total Assets	4,415	Total Liabilities	4,415

Table 5: Sample Transaction 3**CREDIT INSTITUTION IN IRELAND RECEIVES DEPOSITS FROM IRISH (10) AND OTHER EURO AREA ENTITIES (10) AND USES IT TO REDUCE LTRO BORROWING (20)**

Central Bank of Ireland				ECB				Other euro area NCBs			
Assets		Liabilities		Assets		Liabilities		Assets		Liabilities	
Longer-term refinancing operations	(-20)	Current accounts (covering the minimum reserve system)	(+20)	CBI Intra-Eurosystem Balance	(-10)	Other euro area NCBs Intra-Eurosystem Balances	(-10)	Longer-term refinancing operations	425	Current accounts (covering the minimum reserve system)	(-10)
	50		10		105		105				255
Other assets (incl intra-Eurosystem balances if net asset)	45	Other liabilities (incl intra-Eurosystem balances if net liability)	(-10)	Remaining assets not listed	170	Remaining liabilities not listed	170	Other assets (incl intra-Eurosystem balances if net asset)	(-10)	Other liabilities (incl intra-Eurosystem balances if net liability)	200
			105						105		
Remaining assets not listed	105	Remaining liabilities not listed (incl. Banknotes in circulation)	(-10)					Remaining assets not listed	3,875	Remaining liabilities not listed (incl. Banknotes in circulation)	3,950
			85								
Total Assets	200	Total Liabilities	200	Total Assets	275	Total Liabilities	275	Total Assets	4,405	Total Liabilities	4,405

institution (-15). The transfer is processed through TARGET2, which increases the net liability position of the Central Bank with the ECB (+15). This also increases the intra-Eurosystem asset on the ECB financial statement. At the same time, the other euro area NCB where the counterparty institution resides credits that institutions central bank current account with the funds being transferred (+15). The contra entry on this NCB financial statement is the increase in their intra-Eurosystem asset vis-à-vis the ECB.

The final sample transaction deals with the impact of reducing LTRO borrowing by the Irish resident credit institution (Table 5). While our focus is on this particular instrument on the Central Bank of Ireland financial statement, the corresponding liability contra-entries would be the same irrespective of the instrument under examination (MRO, fine tuning, etc.). To fund the repayment of LTRO (-20), the credit institution in part uses funds it has received

from a non-resident counterparty in another euro area Member State (10). This payment is processed over TARGET2, and in part reverses the impact of the previous sample transaction on the financial statements of the ECB, the other euro area NCBs and the Central Bank. The remaining part of the LTRO repayment is financed through the credit institution receiving funding from another Irish resident entity outside of the banking system (10)⁷. The most likely source of the funds in this instance is government, who transfer its deposits with the Central Bank to the credit institution who then uses these funds to reduce their LTRO borrowing⁸. The credit institutions' reserve account is first credited with the funds it has received and then debited by the amount it is repaying the Central Bank. The most relevant point to take from this example is that the repayment of borrowing from the Central Bank by an Irish resident credit institution, similar to the drawdown of the borrowing in the first instance, does not necessarily have an

⁸ This simplification is necessary to avoid reflecting movements of customer deposits between banks within the resident banking system, which would potentially impact on the NCB financial statement and the possibility of contemporaneous impacts on TARGET2 balances. Another possible source of the funds in this example would be customers deposits monies previously held in cash with the credit institution, which then repays the LTRO.

⁹ During 2011 the Irish Government did inject funds which it previously had on deposit with the Central Bank of Ireland into some Irish-owned credit institutions as part of their recapitalisation.

Table 6: Sample Eurosystem Financial Statement Following Sample Transactions

Consolidated Eurosystem			
Assets		Liabilities	
Longer-term refinancing operations	475	Current accounts (covering the minimum reserve system)	265
Other assets	45	Other liabilities	200
Remaining assets not listed	4,150	Remaining liabilities not listed (incl. Banknotes in circulation)	4,205
Total Assets	4,670	Total Liabilities	4,670

automatic contemporaneous and equal impact on intra-Eurosystem balances on the Central Bank financial statement, and consequently it is not reflected equally on the balance sheet of the ECB or other euro area NCBs.

The Consolidated Financial Statement of the Eurosystem

On a weekly basis, the ECB publishes the consolidated financial statement for the Eurosystem.⁹ The compilation of this statement involves the aggregation of the financial statements of the 17 NCBs and the ECB and the subsequent netting of any intra-Eurosystem balances. It provides an overall view of the Eurosystem's activities in monetary policy operations, foreign exchange operations and investment activities with both euro area and non-euro area counterparties. Following our hypothetical scenario above, the consolidated Eurosystem financial statement after the final sample transaction is shown below. All interaction with non-Eurosystem entities are simply aggregated, such as the LTRO assets on both the Central Bank of Ireland and the other euro area NCB financial statements (10 + 255 = 265). Any balances arising from the intra-Eurosystem activity are netted out, which leads to the consolidated Eurosystem financial statement being smaller than the aggregated financial statements of the NCBs and the ECB (4,670 versus 4,880).

Conclusion

The decentralised nature of policy implementation in the euro area and other institutional features of the Eurosystem mean that liquidity provision/absorption and cross-border transfers are reflected to different extents on the Eurosystem NCB and the ECB financial statements. In this note, we have summarised the impact of various transactions on the financial statements of the Central Bank of Ireland, the ECB and other euro area NCBs using hypothetical scenarios. The key dynamics of how the various financial statements are affected by liquidity providing operations and cross-border transfers have been shown. There are of course other factors beyond those discussed here to be considered in tracing developments in the actual financial statements. However, understanding the mechanics of how the sample transactions used here are reflected in Eurosystem central bank financial statement should aid users in interpreting those financial statements correctly.

¹⁰ The consolidated financial statement for the Eurosystem data and explanatory notes are available at <http://www.ecb.int/press/pr/wfs/2012/html/index.en.html>.

EU-IMF Financial Assistance Programme

– Sixth Review

Overview

The European Union - International Monetary Fund (EU - IMF) three-year Financial Assistance Programme is now in the second half, and significant progress has been made towards achieving the objectives of the Programme. Since the Programme started in December 2010, over 100 actions have been completed in terms of financial sector reforms, fiscal consolidation and structural reforms.¹ Despite slowing growth in our trading partners, which has had an impact on the economy's export-led recovery, Ireland met all its policy conditions and commitments under the Sixth Review.

The Sixth Review was completed in April 2012², and assessed fiscal developments, the economic outlook, the restructuring of the financial sector and structural reform. The External Partners³ were satisfied that Programme implementation remained strong and that agreed conditions were met in the first quarter of 2012.⁴ During the Review, new structural benchmarks and policy commitments were agreed, which were set out in the EU's update of the Memorandum of Understanding on specific economic policy conditionality (MoU) and in the IMF's Memorandum of Economic and Financial Policies (MEFP). The discussions during the Review concentrated on the following issues:

- The long-term plan for the Permanent TSB (PTSB)
- Covered Banks'⁵ strategies to deal with mortgage arrears

- Progress in restructuring the credit union sector
- Timing of the next Prudential Capital Assessment Review (PCAR) stress test exercise
- Progress in the reform of the personal debt regime
- Policy actions to reduce long-term unemployment
- Plans to dispose of State Assets.

The EU and IMF staff reports on the Sixth Review, and the disbursement of the next tranche of funding, were approved by the IMF Executive Board on 13 June and the EU ECOFIN Council on 22 June. A total of €4.1 billion will be disbursed under this Review, comprising €1.4 billion from the IMF, €2.3 billion from the European Financial Stabilisation Mechanism (EFSM)⁶ and €0.5 billion from the UK bilateral loan.⁷

The External Partners agreed, due to the complexities of some issues and the prevailing environment, that more time was needed to reach some targets. Examples included legislation to amend the personal insolvency regime, legislation strengthening the regulatory framework of the credit unions, amendments to the Industrial Relations (Amendment) Bill and the postponement of the next Prudential Capital Assessment Review (PCAR).

¹ The Central Bank estimates over 100 actions have been completed to end-June 2012.

² 17-26 April 2012.

³ The European Union, the International Monetary Fund and Ireland's bilateral partners – the United Kingdom, Sweden and Denmark.

⁴ <http://www.imf.org/external/np/sec/pr/2012/pr12222.htm> and <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/12/283>.

⁵ Bank of Ireland, AIB and Permanent TSB.

⁶ SDR 1.191 billion was disbursed on 15 June 2012, equivalent to about €1.4 billion and €2.3 billion was disbursed from the EFSM in July 2012.

⁷ This is expected to be disbursed during July/early August 2012.

Compliance with Financial Sector Conditions

Ireland continued to make progress in implementing financial sector reforms, by meeting all the agreed financial conditions for the first quarter. Significant progress was made in terms of the recapitalisation of the Covered Banks, deleveraging actions, restructuring of the financial institutions and enhancing financial sector supervision. Ireland's progress in strengthening the financial system was reflected in the stabilisation of overall level of deposits in the banking system.

In terms of recapitalisation actions, the Government purchased the Irish Life Assurance arm of Irish Life and Permanent (IL&P) in March 2012. As part of the on-going monitoring and reporting of capital levels of the Covered Banks, the Central Bank completed, at the end of February 2012, a comprehensive report for 2011 on the evolution of capital within the banks covered by the PCAR. In relation to deleveraging, the Central Bank and the Department of Finance continued to assess banks' performance vis-à-vis the Prudential Liquidity Assessment Review (PLAR) 2011.

Following the Government's purchase of Irish Life, a proposal, in relation to financial and operational restructuring options for PTSB, was made at the end of April. This proposal relates to the segregation of legacy and non-performing assets and their timely removal from the bank. An updated restructuring plan was submitted by PTSB to the European Commission at the end of June.

The Commission of Credit Unions published its report in April 2012, which included a number of recommendations on restructuring within the sector. In parallel to the restructuring process, the Central Bank continues to monitor and investigate weak credit unions on an individual basis, taking pre-emptive action including the use of its resolution powers to intervene when needed.

In terms of other work, the Central Bank provided an update on actions taken up to end-June 2012 relating to strengthening the supervision of credit institutions. The

relationship frameworks between the Department of Finance and the Covered Banks were also published in March 2012.

Future Financial Sector Reforms

Over the coming months, key areas of work will include efforts to address mortgage and loan arrears, finalising the restructuring of the Covered Banks, amending personal insolvency legislation, continuing the deleveraging of the Covered Banks, and drafting of credit union related legislation.

The Central Bank issued guidance to all lenders on 30 April clarifying protections and limits on contact with consumers in arrears. This guidance is set out in both the Consumer Protection Code 2012 and under the Code of Conduct for Mortgage Arrears (CCMA). Phase one of the Central Bank's Financial Measures Programme started earlier this year, with work being carried out which will aid preparation for the next PCAR stress tests. This preparatory work included an independent asset quality review, a distressed credit operations review, a data integrity validation exercise and an income recognition and re-ageing project.

In terms of strengthening the credit unions' regulatory framework, the plan is to publish legislation by the end of September 2012, which will include effective prudential and governance standards. The legislation will take account of the recommendations in the Commission on Credit Unions Report. Regulations are also planned to be approved on the Resolution Fund levy by the end of the third quarter. The aim of the levy is to charge credit institutions and to recover over time the costs of resolving vulnerable institutions.

With respect to implementing reforms to amend the personal debt regime, the Government published draft legislation on the Personal Insolvency Bill on 29 June 2012. This legislation will allow for extensive reform of the personal insolvency system. Key amendments include a new Insolvency Service, a number of arrangements for non-judicial debt resolution and a reduction in the period of bankruptcy from twelve years to three years.

Table 1: Quantitative performance criteria and indicative targets, € billions

	2011 Q4		2012 Q1		2012 Q2	2012 Q3	2012 Q4
	Target	Outcome	Target	Outcome	Target	Target	Target
Cumulative Exchequer primary balance	-22.3	-21.0	-6.9	-5.7	-9.0	-10.6	-10.9
Stock of central government net debt	117.2	115.7	125.0	123.0	128.8	130.9	133.3

Compliance with Fiscal Policy Targets

The substantial fiscal consolidation targeted for 2011 was achieved with a significant margin. While the headline general government deficit outturn in 2011 was considerably higher than expected, at 13.1 per cent of GDP – 9.4 per cent had been forecast at Budget time in December 2010 – this reflected a decision by Eurostat to reclassify a portion of the March 2011 PCAR recapitalisation (€5.8 billion or 3.7 per cent of GDP) as a capital transfer. The full amount of the recapitalisation had initially been classified as a financial transaction, which meant it did not affect the General Government deficit. The performance of the underlying balance – which excludes bank support costs and is the relevant measure for the Programme – was, by comparison, much better than expected. The underlying deficit fell from 10.9 per cent of GDP in 2010 to 9.4 per cent of GDP in 2011, well within the target of 10.6 per cent set by the ECOFIN Council in December 2010.

Turning to the start of 2012, quarterly quantitative fiscal targets were comfortably met in the first quarter. The cumulative exchequer primary balance was €5.7 billion at end-March, well below the €6.9 billion performance criteria, while the outstanding stock of central government net debt was €2 billion below its indicative target of €125 billion⁸ (see Table 1). The continuous performance criterion on the non-accumulation of external payment arrears was also met.

The Government has underpinned its commitment to the 2012 deficit programme ceiling of 8.6 per cent of GDP by incorporating a larger consolidation (€3.8 billion) in Budget 2012 than was envisaged under the original Programme targets (€3.6 billion). Budget 2012 also introduced binding medium-term expenditure ceilings to support the consolidation process, which while already operational, are to be enshrined in legislation by the end of September 2012.

Under the Programme, legislation placing the Irish Fiscal Advisory Council (IFAC) on a statutory basis is due to be published by the end of September 2012. The IFAC has been operational since mid-2011. The draft Fiscal Responsibility Bill will incorporate provisions for the IFAC's independence and provide for adequate resources. Following the 'Yes' vote in the recent referendum on the EU Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, the draft Bill will be submitted to the Oireachtas.

Future Fiscal Targets

The quantitative quarterly targets were achieved at end-March, with the cumulative exchequer primary balance and the stock of central government net debt targets standing at €9 billion⁹ and €128.8 billion¹⁰ respectively. On a general government basis, in its April Stability Programme Update (SPU)¹¹ the Department of Finance forecast a general

⁸ For comparability, the 31-March-2012 outcomes for the cumulative exchequer primary balance as well as the stock of central government net debt include the €3.06 billion payment of the IBRC Promissory Note via bond issuance.

⁹ This performance criteria will be adjusted to take account of payments for bank restructuring and for the resolution of credit unions, and for the full amount of any over performance (or under performance) of Exchequer tax revenues and gross PRSI receipts relative to the TMU target of €19.7 billion.

¹⁰ This indicative target will be adjusted to take account of debt arising from payments for bank restructuring, the resolution of credit unions and any revision to the stock of end-March 2012 central government net debt.

¹¹ <http://finance.gov.ie/documents/publications/reports/2011/spuirelandapr2011.pdf>

government deficit of 8.3 per cent of GDP this year, below the 8.6 per cent target set out in the Programme. The Department of Finance notes that downside risks to achieving it remain, in particular, due to spending pressures in certain areas and more general macroeconomic risks. The forecast in the SPU is, nevertheless, consistent with the forecasts produced by the IMF and European Commission in their latest reports. All three Institutions anticipate that annual targets will continue to be met in the coming years, culminating in the deficit returning to below 3 per cent of GDP by 2015.

Compliance with Structural Reform Conditions

Progress is being made in relation to the structural reform agenda of the Programme. Proposals and reports were discussed on a number of strategies and reforms including labour market reforms (the Industrial Relations (Amendment) Bill 2011), the introduction of public water charges, making social support expenditure more efficient and measures to improve competition within the economy.

In terms of modifying the welfare system, details of reforms to aid better targeting of social support to those on lower incomes and to increase incentives to take up work, or training, were made in March 2012. A report entitled “Pathways to Work” was published at the end of March, which sets out how the Government intends to introduce a better approach in terms of engagement with and support to the unemployed in facilitating a return to the workforce. In terms of labour market reforms, additional amendments to the sectoral wage agreements were presented to the Dáil during the second quarter, and it is intended that the Industrial Relations (Amendment) (No.3) Bill will have completed the legislative process before the Oireachtas’ summer recess.

In relation to competition measures, a review of the Competition Authority’s current resources and enforcement capabilities was undertaken in the first quarter, and this has resulted in measures to increase its staff resources. New retail planning guidelines were published in May 2012.

The Government agreed, following detailed analysis in February 2012, on the scale, scope and the principles to be used in relation to the disposal of State Assets. The Government will use about half of the asset sale proceeds for debt reduction. Preparatory work is underway to provide details on the regulatory, legislative, corporate governance or finance reforms that are needed to allow the asset disposal programme to proceed.

EU-IMF Loan Disbursements

The External Partners have disbursed approximately €52 billion since the start of the Programme in December 2010; this includes the most recent disbursements from the IMF (€1.4 billion), the EFSM (€2.3 billion) and the UK (€0.5 billion). In total, following these drawdowns, over 75 per cent of the total external financing part of the package of €67.5 billion will have been disbursed. About two-thirds of this, or approximately €35 billion, will have come from European sources, with the remaining one-third borrowed from the IMF.

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.

Cost Competitiveness and Export Performance of the Irish Economy

Derry O'Brien and John Scally¹

Abstract

In this article, the relationship between cost competitiveness and export performance is examined with a view to exploring the usefulness of competitiveness indicators as policy tools. Headline cost competitiveness indicators suggest that much of the ground lost during the boom years has been recovered. This appears to have been to a degree reflected in the resilience featured in Ireland's export performance during the global downturn. However, the aggregate data can mask significant differences in competitiveness adjustments, exports and employment fortunes across firms and sectors. In particular, indigenous firms carry much greater exposure to the domestic market and the UK market and were quite adversely affected by the sharp depreciation of sterling during the early phase of the crisis. Meanwhile, foreign-owned firms, which account for a very large proportion of total exports, tend to be more acyclical in nature and more geographically diversified, and did much to bolster the aggregate export performance. However, given that the foreign-owned firms are generally less labour intensive, the overall employment performance in the exporting sector was much weaker. Recently, there is tentative evidence to suggest that more aggressive efforts by indigenous firms to contain labour and other costs are being reflected in some recovery in market shares and a stabilisation in employment. At the same time, improvements across a broad range of cost competitiveness measures have helped maintain a robust pipeline of foreign direct investment, auguring well for future export performance and high-skilled employment generation.

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1 Introduction

Real effective exchange rates remain central in policy discussions about competitiveness, forming part of the surveillance scoreboard in the new EU Macroeconomic Imbalances Procedure. The ultimate goal of regaining competitiveness is to boost export performance and generate employment. In the case of Ireland, following a substantial deterioration in competitiveness during the boom, cost competitiveness indicators suggest a dramatic improvement in recent years. Also, on the face of it, Irish export performance has been relatively resilient during the recession. However, the empirical link between cost competitiveness and export performance can be quite tenuous. Also, despite the strong headline export performance, industrial employment remains well below pre-crisis levels, which cannot be entirely explained by the depressed domestic market. In this article, the relationship between cost competitiveness and export performance is explored further in order to enhance the understanding of competitiveness indicators as a policy tool.

The cost base impacts on the ability of all firms to compete in international markets but is especially binding for the more labour intensive enterprises. Many indigenous firms are relatively labour intensive and tend to have a heavy dependence on the UK market. Just as the domestic market began to contract, these firms faced further intensification in competitive pressures due to the sharp depreciation of sterling against the euro during the early phase of the global financial crisis. Indeed, the extent of the competitiveness challenges facing firms based in Ireland was quite heterogeneous and depended on the exposure to the domestic market, the vulnerability to euro/sterling exchange rate fluctuations, but also the cyclical of sectoral demand.

The Irish real effective exchange rates are often used as proxies for price and cost competitiveness development but are subject to important measurement issues (see O'Brien (2010)). These deficiencies, which are especially serious in unit labour cost based competitiveness indicators, are further discussed and some alternative indicators are proposed. The measurement issues are not confined to the competitiveness indicators,

as the accounting practices of multinationals can also distort assessments of aggregate export performance. As such, an empirical link at the aggregate level between cost competitiveness and export performance may be undermined by measurement issues, and will also not reveal the very different challenges faced across sectors during the crisis. This argues for a sector-by-sector approach using indicators that adjust as much as possible for the measurement problems identified. In adopting a sectoral approach similar to O'Brien (2011b), this article highlights the sectors where cost competitiveness can play a useful role in explaining export performance and why, despite costs being driven down aggressively in certain labour intensive sectors, employment in the industrial sector has only recently stabilised.

In Section 2, the importance of the UK market to Irish-owned firms is highlighted and an alternative Irish nominal effective exchange is constructed that may more accurately capture the implications of sterling/ euro exchange rate fluctuations for employment. Section 3 examines in more depth the measurement issues surrounding the standard measure of cost competitiveness – an index of total economy average unit labour costs relative to those of a large set of trading partners in common currency. Section 4 presents alternative measures of labour cost competitiveness, which attempt to address some of the issues raised in the preceding section. While labour costs are often the largest component of location-sensitive costs, and are normally the focus of cost competitiveness analyses, the scale of the changes in certain other costs suggests a broader assessment of cost competitiveness is necessary. Section 5 examines developments in some other important cost indicators, where sharp falls were recorded over the course of the recession. Section 6 explores the link between cost competitiveness and export performance at a disaggregated level. Section 7 concludes, summarising the main points emerging from the analysis.

2 Standard trade weights in Irish effective exchange rates can greatly understate the impact of euro/ sterling exchange rate movements

The set of trade weights used to calculate effective exchange rates are important. There are various schemes from simple export weights to more complicated double-weighted schemes in which third market effects are taken into account. The latter option is used in the calculation of the harmonised competitiveness indicators (HCIs), which are essentially effective exchange rates. Ideally, the weights should take account of trade in both goods and in services, especially now that about half of Irish exports are services exports. However, given that there are strong data constraints for services trade and a large set of trading partners is usually incorporated, the weights for the HCIs are based on goods data only.

At this point, it is worth recalling that 88.7 per cent of manufacturing goods exports was accounted for by foreign-owned multinationals in 2009. These firms tend to be highly capital intensive and are concentrated in a small number of sectors. In particular, the broad chemicals sector (mainly pharmaceutical and organic chemicals (active ingredients)) is quite dominant in the Irish manufacturing export sector, accounting for close to 61 per cent of goods value exports in 2011. Also, a significant proportion of the exports of multinationals are intra-firm transactions. Finally, it is also worth noting that the export values are in gross terms and not value added, and that the import intensity of the multinational firms' exports is often relatively high.

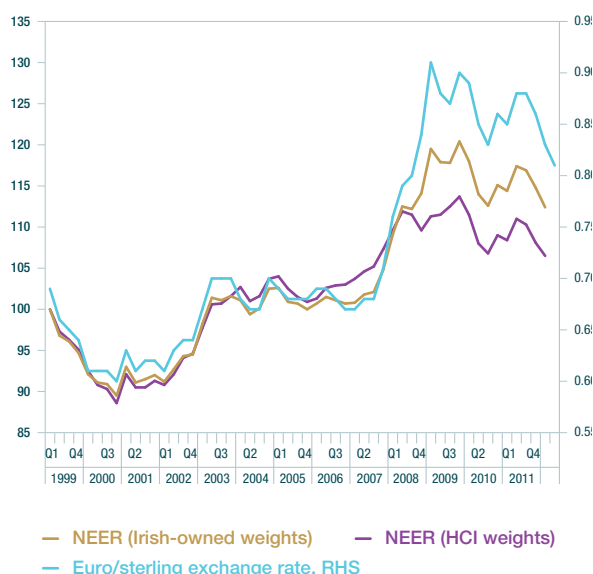
It can be argued that standard Irish effective exchange rates are unduly influenced by the broad chemicals sector, which only accounted for 11.7 per cent of employment in the industrial sector in 2009. One alternative approach to determining the set of trade weights is to focus on Irish-owned firms only. As these firms tend to be labour intensive, the employment implications of shifts in nominal or real exchange rates may be more appropriately captured. As can be observed in Table 1, the UK is typically an important trading partner for indigenous firms, with the weight of the UK rising from 20 per cent under the standard approach to almost 49 per cent for Irish-owned firms. According to the Census of Industrial Production, 46.8 per cent of goods exports from Irish-owned firms were destined for the UK in 2007. When the simple export weights based on Irish-owned firms only are substituted for the standard weights, the impact of the sterling depreciation against the euro emerges strongly (see Chart 1). Indeed, the sterling/euro rate was broadly stable for much of the 2000s, but just as the crisis escalated, the sterling exchange rate depreciated quite significantly, exacerbating the competitiveness deterioration of Irish-owned firms. Although sterling has appreciated against the euro more recently, bringing some welcome relief to indigenous firms in particular, it still remains much weaker than at the onset of the crisis. The nominal effective exchange rate is used for illustration purposes, but clearly using this alternative set of weights will have an equivalent impact on real effective exchange rates. The real effective exchange rates are examined in subsequent sections.

Table 1: Irish Trade Weights under selected schemes

	Euro area	UK	Rest of EU	US	Rest of World
Standard double- weighted, goods only (HCIs)	34.2%	20.0%	4.3%	17.9%	23.7%
Irish-owned simple goods and services exports	24.4%	48.7%	3.8%	10.6%	12.5%

Note: the trade weights are averages over 2001-2006 while Irish-owned weights are averages over 2002-2007 from Enterprise Ireland. It is worth noting that over 29 per cent of overall services exports were destined for the UK during 2009 and 2010.

Chart 1: Irish Nominal Effective Exchange Rate, various trade weights, base 1999Q1=100



Sources: ECB SDW, CSO, Enterprise Ireland and authors' calculations.

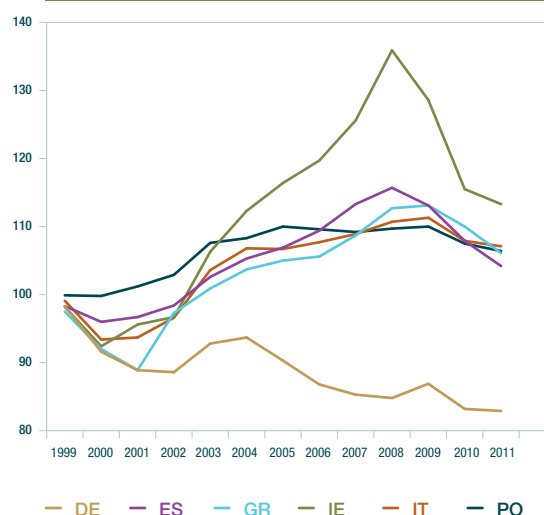
3 Irish headline unit labour cost deflated effective exchange rates contain serious measurement issues

Competitiveness is sometimes narrowly defined in order to make it more amenable to measurement. The standard measure to assess short-term developments in competitiveness is unit labour costs relative to a set of trading partners expressed in common currency. As can be observed from Chart 2, Irish relative unit labour costs increased sharply during 2001 to 2008, increasing by over 42 per cent. These large cumulative increases in unit labour costs were indicative of growing imbalances in the Irish economy. However, due to measurement issues, the relative unit labour costs based indicator needs to be treated with caution. The measurement issues in Irish competitiveness indicators generally are discussed in O'Brien (2010). Some of the more important issues in the interpretation of Irish unit labour cost based competitiveness indicators are discussed in more detail below.

3.1. The Irish economy may have been highly competitive in 1999 and so the deterioration in competitiveness since that reference point may be somewhat overstated

In assessments of cost competitiveness trends in the euro area, the baseline of 1999 is often used as it was the year of the introduction of the euro. In such assessments, there is an almost implicit assumption that each country's real exchange rate was in equilibrium in 1999. However, it is commonly argued that Ireland was in a highly competitive position at that time. This is partly argued on the basis that during the late 1990s there was wage restraint (in return for cuts to income tax under social partnership) despite rapid gains in productivity and also on the basis of some residual catch-up or convergence. In this respect, the labour cost competitiveness position of the Irish economy may have been unsustainable and some deterioration in competitiveness was inevitable. So, using 1999 as a reference point may put the Irish economy in an unduly poor light. However, this should not be overstated as the Irish current account was close to balance in 1999, which would suggest that the

Chart 2: ULC-deflated HCIs for Selected Euro Area Countries, base 1999Q1=100



Source: ECB SDW.

real exchange may not have been significantly undervalued. Even allowing for some possible unwinding of an unsustainable position during the early part of the decade, there was a sharp deterioration in competitiveness in subsequent years as pointed out in Cassidy and O'Brien (2005, 2007).

3.2 Strong sectoral compositional effects mean that headline unit labour costs overstate the underlying improvement in labour cost competitiveness

Headline unit labour cost developments may partly reflect large shifts in the sectoral composition of the economy. This could suggest a marked improvement in competitiveness even in the absence of improvements in competitiveness at the sectoral level. O'Brien (2011b) examined the extent to which structural shifts in the composition of the business sector in the economy may explain recent large movements in aggregate relative unit labour costs. Headline relative unit labour costs in the business sector improved by 14.2 per cent during 2009 and 2010, but when compositional effects at the broad sectoral level are taken into account, the improvement in competitiveness is less pronounced at about 8.4 per cent over the same period. In addition, there were likely strong compositional effects within the manufacturing sector, as the high value-added chemicals sector performed comparatively well during the crisis. Darvas (2012) examined compositional effects for 24 EU countries. In the case of Ireland, the headline relative unit labour cost indicator fell by 18 per cent between the first quarter of 2008 and the final quarter of 2011. When allowances are made for compositional effects, the adjustment was only slightly less pronounced at 14 per cent, suggesting a relatively modest compositional effect. However, the construction, agriculture and real estate sectors are excluded from the business sector in the analysis, with a view to constructing a potentially superior explanatory indicator for export performance. Therefore, the results are not directly comparable to O'Brien (2011b), particularly given that the sharply contracting construction sector is included in the latter.

3.3 Productivity data for the Irish manufacturing sector are highly distorted

Irish manufacturing output and exports are dominated by foreign multinationals, with almost 90 per cent of exports accounted for by non-Irish firms. For example, in 2009, the largely foreign-owned broad chemicals sector contributed over 41 per cent of gross value added of Irish manufacturing and about 57.5 per cent of goods exports (rising to about 61 per cent in 2011). However, the chemicals sector only accounted for 16.7 per cent of total manufacturing employment. The very high levels of recorded productivity in this sector, and a small subset of other sectors, heavily influence productivity and unit labour costs measures for the aggregate manufacturing sector. Indeed, gross value added per employee in the Irish manufacturing sector was well over three times the EU27 average in 2010.

The high productivity in certain sectors suggests the inclusion of returns to valuable patented products, although much of the research and development that generated such products may often be conducted outside of Ireland. As a consequence of the relatively low corporate tax rate, much of the global profits may be assigned to Ireland, with firms using legitimate tax arrangements under standard transfer pricing rules. Given that a significant proportion of manufacturing output does not reflect returns to labour and physical capital in Ireland, the productivity levels are likely inflated and should be interpreted with caution. Furthermore, due to potential changes in accounting practices by multinationals and how the rewards are transmitted to the foreign owners, it is worth keeping in mind that annual growth in manufacturing productivity may also be affected. This caveat applies equally to the internationally traded services sector, with its large offshore financial services sector and influx of internet services firms in recent years.

There have been various attempts to construct measures of productivity adjusted for transfer pricing. Notably, Honohan and Walsh (2002) take four manufacturing sub-sectors and assume that, if there were no transfer pricing, productivity in these sub-sectors would be equal to the EU15 average for comparable industries. The sub-sectors were found to have contributions to manufacturing output that were

out of proportion to their respective employment levels. They found that the labour productivity growth rate for 1995 to 1999 adjusted downwards from 8.6 per cent to 3.8 per cent. More recently, Forfas (2012) performed a similar exercise by substituting in comparable US sectors' productivity levels for the observed levels of three modern sub-sectors in Irish manufacturing and two sub-sectors in the Irish internationally traded services sector. Using this adjustment, they found that productivity in manufacturing fell from over €70 per hour to about €45 per hour in 2007, still higher than the euro area average. Similarly, for the tradable services sector, productivity fell significantly, from €55 per hour to €40 per hour in 2007, although still higher than the corresponding euro average of €36 per hour. It is worth noting that transfer pricing may impact other sectors, albeit probably to a more limited degree, and so the choice of sub-sectors may be too narrow. Also, the relevant data are only available with a long lag, so the same type of adjustments cannot be undertaken to inform more conjunctural analyses.

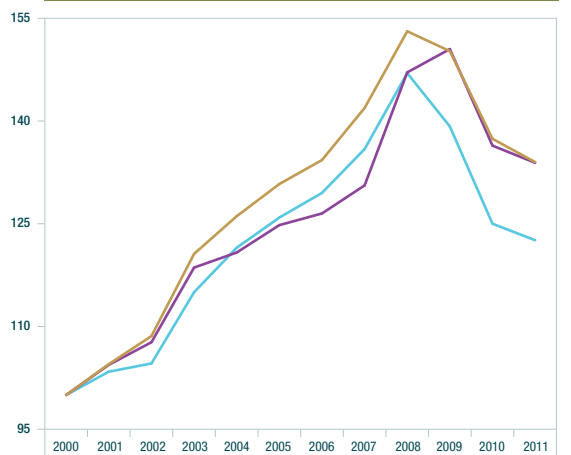
3.4 Aggregate unit labour costs more generally have other drawbacks

There are some more generally applicable criticisms of unit labour cost based competitiveness indicators. As argued in Altomonte et al. (2012), ULC-based competitiveness indicators at the aggregate or sectoral level are imperfect measures and, in order to be used effectively in a policy setting, they need to be complemented by firm-level based indicators. In particular, standard ULC-based measures suffer from some potential measurement biases. There may be an aggregation bias as labour productivity in aggregate ULCs may not capture the productivity of the average firm due to improper implicit weighting of firms. There may also be a quality-adjusted bias as shifts in the product mix towards higher quality goods push up the price deflator but there may not have been any adverse impact on underlying competitiveness. Finally, cost competitiveness indicators need to take into account the structural effects of international segmentation of production. This issue is particularly relevant in the highly globalised Irish economy.

4 Narrowing the Focus to Wage Competitiveness

As highlighted in the previous section, productivity data can give a highly distorted picture of returns to Irish factors of production. In light of this, it may be preferable to set aside productivity developments and focus on compensation per hour or per worker as the labour cost competitiveness indicator. It could be argued that, in sectors dominated by multinational firms, compensation levels can be more relevant given that processes and capital intensities can often be standardised across borders within these firms (Gray (2010)). The choice of deflator can also be motivated by data constraints. There are not sufficiently up-to-date data available on value added within Irish manufacturing to make it possible to construct robust unit labour cost indicators at the individual sectoral level, although industrial production series have often been used as proxies. In this regard, as was highlighted in Darvas (2012), there has been a marked divergence between growth in real gross value added and growth in industrial production in recent years, which calls into question the reliability of using sectoral production indices as proxies for value added.

Apart from excluding productivity, there are a number of further notable caveats regarding the relative compensation per employee based competitiveness indicator. Firstly, there are potential compositional effects that may influence the results, particularly for more recent years, as firms may be inclined to hoard more skilled workers in the initial stages of a downturn, which tends to push up average compensation per employee. However, this has not been borne out by the data. Bergin et al. (2012) investigated the potential impact of compositional effects across a wide range of characteristics and found only a very modest net impact over the period 2006 to 2009. Similarly, in a longitudinal study of firm level data, Walsh (2012) found only small compositional effects between 2008 and 2011. Secondly, compensation per hour is a preferable indicator of competitiveness but due to data constraints compensation per employee is often used. It is worth pointing out that, on a per hour basis, wages in Ireland increased by 0.7 per cent in the private sector

Chart 3: Total Economy Compensation per Employee Deflated 'HCI', base 2000=100

— Compensation per employee deflated 'HCI' (HCI weights)
 — Compensation per employee deflated 'HCI' (Irish-owned weights)
 — ULC-deflated HCI

Sources: ECB SDW, Datastream, CSO and authors' calculations.

Chart 4: Manufacturing Sector Compensation per Employee 'HCI', base 2000=100

— Compensation per employee deflated 'HCI'
 — ULC-deflated HCI

Sources: ECB SDW, Datastream, CSO and authors' calculations.

during 2009 to 2011, with the decline in wages per employee largely reflecting the fall in hours worked (see Table 2). The limited size of the wage cuts in the private sector seem surprising when set against a backdrop of an unprecedented decline in output. However, there are a number of features that may explain why wages are characterised by downward rigidities, for example, lowering wages weighs on staff morale and gives rise to increased monitoring costs and higher levels of staff turnover among higher productivity workers.

It is also worth emphasising that wage developments may be quite heterogeneous across firm and employee characteristics. For example, to the extent that new entrants or temporary contract workers are being offered

less attractive employment conditions than existing permanent contract holders, the average wage change may understate the downward adjustment at the margin. It is also possible that the potentially more intensified wage pressures exerted on smaller firms are not reflected in the aggregate survey data if small firms are not adequately represented. Finally, as noted below, it is also likely that the aggregate averages mask strong divergences across firms depending on export market exposure and vulnerability to cyclical movements in demand. However, from an overall perspective, it appears that Ireland has been regaining labour competitiveness by wage restraint rather than large wage cuts, while at the same time wages in our trading partners have generally continued to rise.

Table 2: Private and public sector wage trends in Ireland, annual change

	Private sector		Public sector	
	% change per hour	% change per employee	% change per hour	% change per employee
2009	1.0	-2.2	2.9	2.3
2010	-0.2	-1.2	-3.7	-3.9
2011	-0.1	-0.2	0.4	-0.9

Source: CSO EHECS. Notes: (1) the public sector pension levy, which was introduced in 2009, is not included as a wage reduction in EHECS; (2) the annual change data for EHECS begin in 2009.

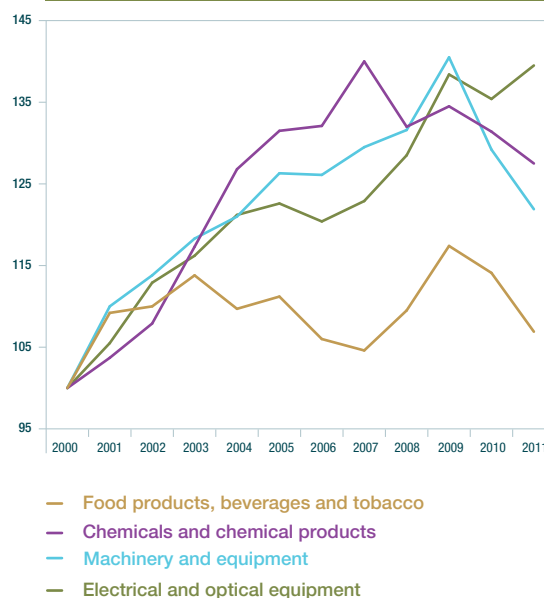
Chart 5: How many firms cut compensation (base hourly pay and/or bonuses)?



Source: Central Bank of Ireland Business Sentiment Survey.

The compensation per employee based indicators for both the whole economy and for the manufacturing sector, presented in Charts 3 and 4, are based on the same methodology used to construct the Harmonised Competitiveness Indicators i.e. double-weighted trade weights are used for a large set of trading partners. Using standard HCI weights, the compensation deflated 'HCI' suggests a more serious deterioration during the boom relative to the commonly used unit labour cost deflated HCI. When the weights are based on Irish-owned firms only, the deterioration during the boom was less pronounced but there was a sharper deterioration during the sterling depreciation of 2007-2009. More recently, the improvement in wage competitiveness has been significant, although strong compositional effects in the unit labour cost based indicator exaggerate the improvements in underlying cost competitiveness. Turning to the manufacturing sector, the deterioration in competitiveness was larger and more persistent using the compensation deflated HCI. Due to the relative strength of the high value added chemicals sector, the unit labour cost indicator gives an exaggerated impression of the scale of the improvements

Chart 6: Relative Compensation per Employee for Manufacturing Sub-sectors, base 2000=100



Sources: Eurostat, OECD, CSO and authors' calculations.

in cost competitiveness in recent years. On the other hand, the compensation deflated indicators suggest a further deterioration in 2009 and subsequently a more modest improvement in the past two years. The sharp depreciation of sterling against the euro largely explains the challenging cost competitiveness developments during 2008 and 2009.

Using information from the Bank's Business Sentiment Survey, Chart 5 gives an indication of the scope of cuts to compensation across indigenous firms and foreign multinationals. As the global downturn intensified in 2009, both indigenous firms and multinationals reduced hourly rates and/ or bonuses. However, the labour cost reductions appear to have been more widespread among indigenous firms, with over 81 per cent of respondents reporting a salary cut compared to 60 per cent of multinationals. Indigenous firms were also more aggressive in making cuts to hourly pay – of the 81 per cent of firms that pointed to a cut, 39 per cent cut both the hourly rate and bonuses compared to just 9 per cent of foreign multinationals. By 2011 this trend was still apparent but the difference in this respect between the indigenous and foreign

multinationals had narrowed somewhat. By 2011, about 51 per cent of indigenous firms indicated that they were cutting wages while just 25 per cent of multinationals pointed to a cut in compensation. Interestingly, almost 38 per cent of multinationals indicated that they had increased hourly wage rates in 2011 and, indeed, there is anecdotal evidence of multinational firms facing shortages of high skilled labour in recent years, particularly in IT services. This may also help to account for some of the apparent downward rigidity in the aggregate data.

Given the heterogeneity of the multinational presence across sectors, it may be useful to examine cost competitiveness developments using sub-sectoral level compensation per employee series. This would also allow for the use of more suitable sector-specific trade weights as aggregate trade weights are dominated by multinational trade, which is often intra-firm trade. Also, given that Irish industry is dominated by high value added and relatively low labour intensity foreign multinationals, it may help to explore which cost competitiveness indicators may be most useful when the link with export performance is explored later. In particular, cost competitiveness indicators may play a more prominent role in more labour intensive sectors and sectors where the value-added and exports data are not so distorted. By adopting a sector level approach, sector-specific issues and emerging challenges may also be more readily identifiable.

The focus of this analysis is the manufacturing sector. This is largely due to data constraints and the difficulty of disentangling domestic oriented and export oriented production and employment in the services sector. The measurement issues identified above are not just confined to the goods side, and in certain internationally traded services sectors much of the returns are due to intangibles developed abroad. Specifically, the influx and rapid expansion of internet services firms based in Ireland has heavily impacted services exports,

but many of these businesses were developed elsewhere and had already established leading market brands. There are also certain business-related services exports, such as merchanting, where the products do not enter or leave this jurisdiction, complicating the analysis further by artificially boosting trade flows.

The compensation deflated competitiveness indicators for four sub-sectors within manufacturing reveal strong divergences, particularly between indigenous or traditional sub-sectors and multinational dominated sub-sectors. The impact of the sterling depreciation is more apparent for more indigenous sectors, such as the food sector. It is also notable that the more indigenous sectors have cut labour costs more aggressively relative to the costs in the corresponding sectors in our main trading partners since 2009. By contrast, labour costs in the electrical and optical equipment sector have increased on a relative basis, while relative costs in the chemicals sector were broadly stable during 2008-2010 before falling in 2011. The usefulness of these indicators in explaining export performance is investigated further in Section 6.

There are alternative avenues to examining labour cost competitiveness developments that adjust for the undue influence of the multinational sector on aggregate unit labour costs in the Irish manufacturing sector. Cerra et al. (2002) present a relative unit labour costs measure based on employment weights rather than output weights. Up to recently, the Central Bank Quarterly Bulletins contained an absolute measure of unit labour costs based on wage share weights and also an absolute measure that excluded the high value added chemicals sector. Finally, Casey (2012) constructs unit labour cost deflated indicators for the traditional and modern sectors and, interestingly, finds that much of the recent improvement for the traditional sector owes to falling labour costs.

5. Sharp falls in other costs have significantly boosted overall cost competitiveness

Labour costs are generally the most important location sensitive cost but labour cost competitiveness indicators should only form one element of the analysis of competitiveness. Other cost indicators can usefully supplement the analysis and a wide range of developments in other costs are detailed in National Competitiveness Council annual reports. In this section, some other important costs are briefly considered. These costs merit discussion given that the scale of the downward adjustments in these areas will likely also have impacted significantly on competitiveness and sectoral export performances. There are also important developments in structural and technological competitiveness during the recession but these are beyond the scope of this article. On this point, the dividends from reforms in the latter aspects of competitiveness will likely only be realised over a longer term horizon, with cost competitiveness playing an important role over the short-term.

5.1 Energy Costs

Energy costs can comprise a large share of direct non-wage costs for some firms, particularly those operating in the food, ICT and chemicals sectors. Heavy dependence on fossil fuels, however, with approximately 90 per cent of total energy imported to the country, means that a substantial proportion of energy costs are outside domestic control. In particular, 78 per cent of electricity generated in Ireland comes from fossil fuels, most of which come from external sources. This reliance is relatively high by EU standards, where the average dependence on fossil fuels for electricity generation is approximately 40 per cent.

While international energy price developments are an important factor in determining our energy cost competitiveness, they are not the only constituent. Currency fluctuations, energy infrastructure investment costs, the fuel mix, taxes and shipping costs are some of the other

components. Electricity price comparisons for businesses over the course of the recession indicate that, while considerably higher than the EU average in 2007, prices in Ireland were broadly comparable to the EU average by 2010. An increase in electricity prices in the second half of 2011, however, means that electricity prices in Ireland are again above the EU average. Table 3 presents a breakdown of recent developments in electricity prices as presented in a recent Sustainable Energy Authority of Ireland (SEAI) report, based on data from Eurostat.

It is evident that electricity prices for smaller businesses, following recent increases, are now higher than the EU average, while prices for larger users still compare favourably. An important consideration, however, is that while electricity prices for large industrial users were close to the EU average in the second half of 2011, this is affected by a rebate for large users (Bands ID and IE), which will phased out on a gradual basis from autumn 2012. Prices are set to increase further, worsening Ireland's competitiveness position from an energy cost perspective.

With over 60 per cent of electricity in Ireland generated from gas, international market trends have a significant impact on the energy bills of businesses operating in Ireland. Table 4 presents a comparison of Irish gas prices for various business users relative to the EU. A similar picture emerges with recent large increases in gas prices for smaller business users, while larger users have experienced declines and remain competitive relative to the EU average.

5.2 Business-to-Business Services Prices

Prices paid for professional and other business services can impact on a firm's cost base and ability to compete in international markets. An experimental index from the CSO on business-to-business services prices indicates that prices declined quite sharply from early 2008. This downward trajectory in prices continued until 2010, whereafter they remained relatively stable up to the end of

Table 3: Business Electricity Prices – EU Comparison

	Annual Consumption (MWh)	Price (c/kWh)	% change since H1 2011	Relative to EU average H2 2011	Band share of market
Band IA	< 20	19.83	+7.5%	111%	5%
Band IB	20 < 500	15.06	+12.2%	114%	31.9%
Band IC	500 < 2,000	12.94	+12%	116%	16.6%
Band ID	2,000 < 20,000	9.77	+11.9	100%	30.3%
Band IE	20,000 < 70,000	8.56	+11.3	94%	13.1%

Source: SEAI, Eurostat.

2011. It is worth emphasising that although Irish business-to-business services prices may have returned to near 2006 levels, services producer prices pertaining in Ireland in 2006 may have been high compared to the euro area. The Irish economy recorded robust growth for much of the decade up to 2006, and this applied upward pressure on prices in the more sheltered sectors of the economy and on prices more generally. The index of services producer prices is broken down in to a range of sub-sectors in Chart 7. The largest cumulative declines came from the employment activities sector, the architecture and engineering sector and advertising sectors, as demand declined significantly for these services over the course of the recession. The large upward rise in the air transport category is likely to have reflected an upward shift in oil prices over this period.

5.3 Commercial Property Prices and Rents

As has been well documented, the commercial property market in Ireland has experienced a substantial downward shift in prices and rents. According to the SCS/IPD Property Index, capital and rental values fell by a cumulative

65 per cent and 47 per cent between their respective peaks and the final quarter of 2011. Both are important considerations in cost competitiveness for business operating in Ireland and for attracting future foreign investment. Indeed, there is recent anecdotal evidence suggesting that the pipeline for foreign direct investment projects has remained robust due, in no small part, to opportunities offered by a more competitive commercial property environment.

5.4 A Business Perspective – Some Firm Level Survey Data

Using the Bank's bi-annual Business Sentiment Survey of firms operating in Ireland – both foreign multinational and indigenous – it is possible to track developments across broad range of indicators relevant to cost competitiveness. Chart 8 illustrates businesses' level of satisfaction with a range of cost-based issues over the course of the recession.

Consistent with weakened domestic demand and a weaker jobs market, labour costs were cited as less of an issue in late 2011 compared with 2007. Energy costs were also cited as less of a problem now compared with 2007 - when

Table 4: Business Gas Prices – EU Comparison

	Annual Consumption(GJ)	Price (c/kWh)	% change since H1 2011	Relative to EU average H2 2011	Band share of market
Band I1	< 1000	14	+31.9%	104%	10.6%
Band I2	1,000 < 10,000	12.7	+ 23.5%	101%	20.1%
Band I3	10,000 < 100,000	10.96	+3.4%	104%	27.8%
Band I4	100,000 < 1,000,000	7.49	-5.6%	83%	41.6%
Band I5	1,000,000 < 4,000,000	-	-	-	13.1%

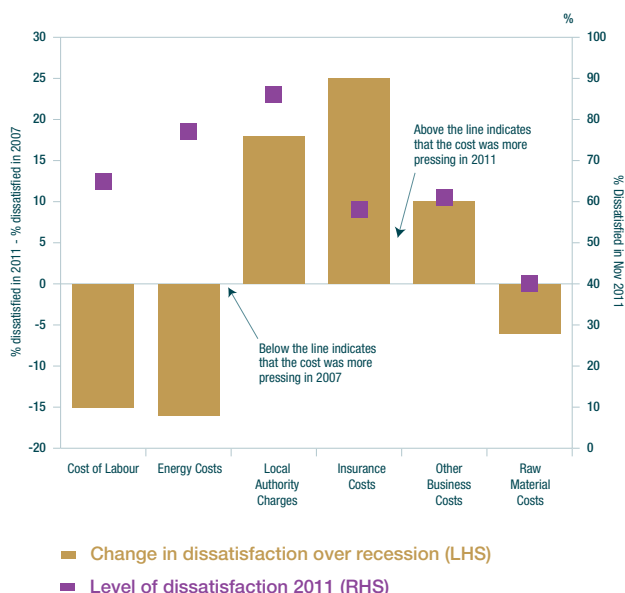
Source: SEAI, Eurostat.

Chart 7: Cumulative Change in Service Producer Prices 2006Q1 to 2011Q4 (Selected Sectors)



Sources: CSO, Eurostat and authors' calculations.

Chart 8: Business Cost Pressures During the Recession



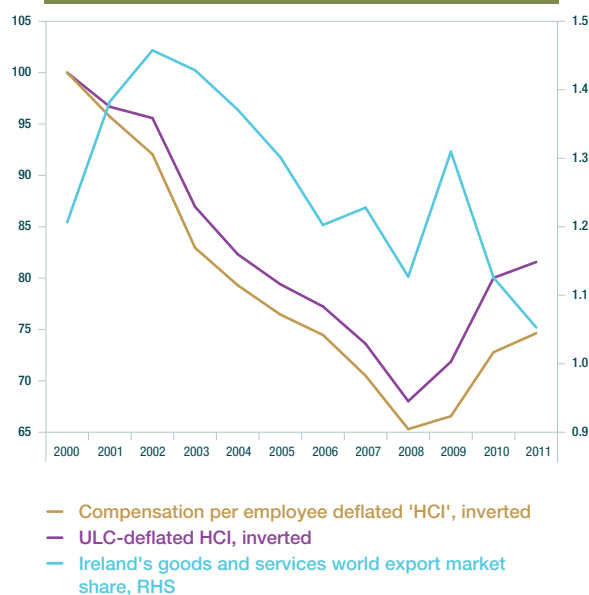
Source: Central Bank of Ireland Business Sentiment Survey.

crude oil and electricity prices spiked. Local authority rates and insurance costs, however, evolved into the most pressing concerns. The 'other costs' component is likely to encompass a number of issues including rent, where businesses faced uncertainty concerning upward only rent reviews in late 2011.

6 Cost competitiveness developments and recent headline exports performance

Ca'Zorzi and Schnatz (2007) show that cost competitiveness indicators can be useful in forecasting trade flows for the euro area. Moreover, competitiveness indicators are generally included as explanatory variables in macro model trade equations. However, in the case of Ireland, there is a tenuous relationship between competitiveness indicators and headline export performance. As explained in Section 3, recent movements in aggregate unit labour cost deflated competitiveness indicators are partly driven by compositional effects. Even if allowances are made for compositional effects, the data in levels and growth rates within certain high-tech sectors can be highly distorted due to transfer pricing. It is also worth pointing out that labour cost competitiveness indicators may be inadequate when there are sharp relative movements in other cost aspects of competitiveness such as energy costs or property costs. This would suggest that the construction of broader composite cost indicators may be worthwhile.

There are clearly important factors over and above cost competitiveness considerations that explain the short-run movements in recent overall market share performance (see Chart 9). As has been highlighted in previous Quarterly Bulletins, there have been strong product effects in recent years. Irish export performance was relatively resilient in 2009 due to the broadly acyclical chemicals sector. This effect subsequently unwound in 2010 and contributed to a reversal of the previous

Chart 9: Cost Competitiveness and Overall Export Market Share Performance

Sources: ECB SDW, Datastream, OECD, CSO and authors' calculations.

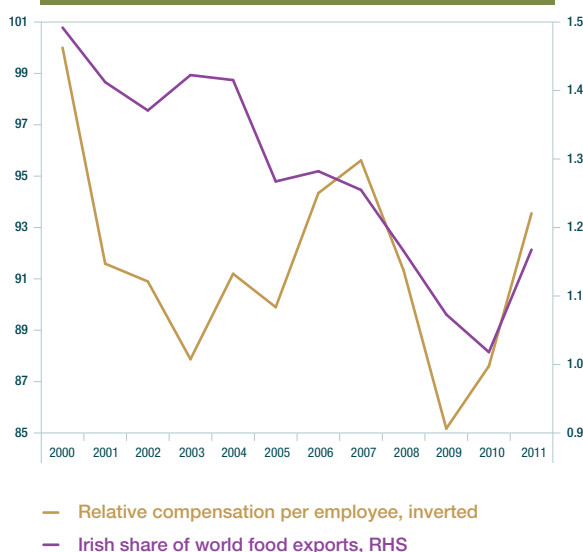
year's market share gain. It is worth mentioning that the buoyancy of internet services exports also helped to bolster Irish headline export performance during the crisis. Due to the high concentration of the Irish exporting industry, and particularly in industries that were less affected by the global downturn, standard world aggregate import demand indicators used in modelling trade proved insufficient alongside competitiveness indicators in explaining export performance. One approach to addressing this issue and productivity data related issues, is to use the compensation deflated 'HCI' developed in Section 4.

Two manufacturing sub-sectors are examined in detail here. Broadly speaking, these two sub-sectors were selected to represent the opposite ends of the spectrum in terms of labour intensity. The food sector comprises a large proportion of total industrial employment at 17.3 per cent in 2009 while contributing a markedly lower 13.6 per cent to total value added in industry (the value added contribution would be significantly lower but for the presence of high value added multinationals exporting food preparations (SITC Division 09)). The broad chemicals sector, on the other hand, has markedly lower labour intensity,

accounting for almost 40 per cent of gross value added but about 11.7 per cent of total employment in 2009.

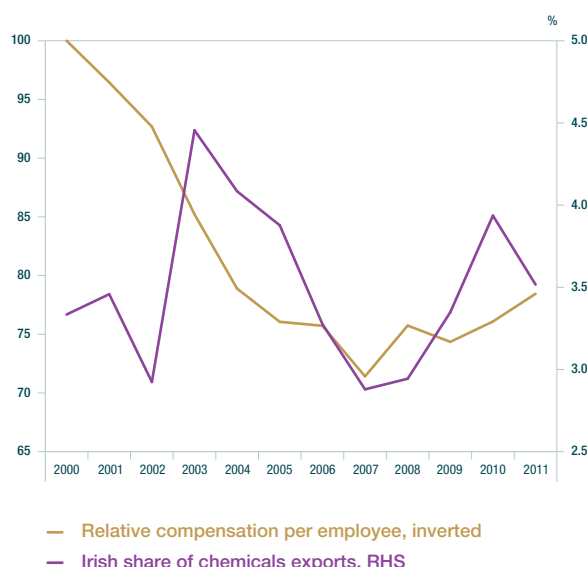
For the food sector, it can be observed in Chart 10 below that the compensation per employee indicator correlates reasonably well with the market share of Irish food, particularly for recent years. The cost competitiveness of the Irish food sector deteriorated significantly between 2000 and 2003 and then appeared to improve prior the crisis. Overall though, the competitiveness position has deteriorated vis-à-vis 2000, which contributed to a large fall in market share. The sharp depreciation of sterling beginning at the onset of the financial crisis in mid-2007 and on into early 2009, produced a sharp deterioration in Irish cost competitiveness relative to the UK, which was reflected in a further large decline in export market shares. Subsequently, as the cost base in Ireland reacted to significant downward pressures, the fall in market share was arrested in 2010 before recovering somewhat last year. The appreciation of sterling in recent months should add further momentum to a recovery in market shares.

Other sectors heavily reliant on the UK market also faced similar challenges and needed

Chart 10: Irish Food Sector Wage Competitiveness and Export Performance

Sources: Eurostat, OECD, CSO and authors' calculations.

Chart 11: Chemicals Sector Wage Competitiveness and Export Performance



Sources: Eurostat, OECD, CSO and authors' calculations.

to drive down costs with greater urgency. While facing intensified competition from UK producers in the UK and Irish markets and also in third markets, these Irish firms would also have had to contend with depressed domestic demand, particularly if operating in more cyclically sensitive product markets. At the same time, these firms faced the additional challenge of tighter credit constraints. To the extent that these exporters were more labour intensive and more likely to have been indigenous – thus characterised by stronger links with the domestic economy – significant downward pressure was exerted on industrial employment. Indeed, although goods exports have already surpassed pre-crisis levels, albeit marginally, industrial employment is about 20 per cent lower than the levels pertaining in 2007. With the competitiveness losses largely reversed, there are tentative signs of stronger export market share performance and this has been reflected in a stabilisation in employment levels. Further measures to boost competitiveness are necessary if pre-crisis levels of industrial employment are to be realised, although conditions in the sub-sectors of industry supplying produce to the domestic construction sector will remain challenging. It is also worth noting that firms heavily dependent on the UK market remain vulnerable to a sharp depreciation of sterling against the euro.

Meanwhile, in the chemicals sector, the relationship between the compensation-deflated competitiveness indicator and export market share performance is rather tenuous (see Chart 11). This is not to say that labour costs are not important for this sector in terms of assessing the attractiveness of Ireland as a location for chemicals related foreign direct investment. It is more likely a reflection of the distortionary effect of multinational accounting practices and international segmentation on the sector's gross exports data. Due to its acyclical nature, the chemicals sector has continued to perform strongly during the global financial crisis and now accounts for over 60 per cent of Irish goods exports. Thus, this relatively low employment sector explains to a large degree the relative resilience of headline industrial exports during 2009, while the challenges faced by the more labour intensive sectors were more acute.

The drop in overall goods market share from 0.76 per cent in 2010 to 0.70 per cent in 2011 is likely mainly a reflection of some emerging weakness in the market share performance of the Irish chemicals sector, with the share of chemicals in world exports also declining. In an industry with volatile outturns, this may reflect product effects with highly valuable patents expiring. In this regard, the overall market share decline may mask an improved underlying export performance in more labour intensive sectors, which were benefitting from substantial downward adjustments in the cost base.

Overall, it is very challenging to assess whether the Irish economy has fully recovered its labour cost competitiveness position. The range of published estimates for the Irish equilibrium exchange rate estimates is wide and it is generally acknowledged that these estimates are surrounded by a high degree of uncertainty. Price and wage level comparisons are crude and subject to many caveats. That said, broadly speaking, it appears that the more sheltered sectors of the economy have higher wage levels compared to euro area averages, while sectors more open to international competition have relatively lower compensation levels. The current account has already moved into surplus, and while this can partly reflect the competitiveness performance

of the economy, it is worth emphasising that imports are held back by depressed domestic demand. Ultimately, a sector-by-sector analysis of market share performance and employment generation, with pre-crisis levels serving as the benchmark, may be more instructive. Taking the important food sector for illustrative purposes, the analysis presented above indicates significant efforts to recover market share but the latter are still off pre-crisis levels. It also highlights the vulnerability of indigenous firms to volatility in the exchange rate movements with our main trading partner.

7 Summing up

This article examines the main cost competitiveness developments in the Irish economy during the recession, with particular focus on relative labour costs. The explanatory power of labour cost based competitiveness indicators is explored. A range of serious deficiencies of aggregate measures of labour cost competitiveness is highlighted and a case is made for adopting a sector-by-sector approach. Also, the scale of the adjustment in other costs argues for a broader measure of cost competitiveness. The headline exports performance can sometimes be misleading in the sense that the productivity and exports data can be distorted by the accounting practices of multinationals.

The main conclusions of the analysis are as follows

- Standard aggregate trade weights can mask the importance of the UK as a trading partner and the impact of fluctuations in the euro/ sterling exchange rate. Almost a half of the exports from Irish-owned firms are destined for the UK. The sharp depreciation of sterling against the euro intensified pressures on Irish firms, already faced with a depressed domestic market. Also, these firms are generally more labour intensive and more embedded in the local economy and so the ramifications for employment were more significant;
- Headline average wage adjustment suggests significant downward rigidity. However, there is significant heterogeneity in wage developments across firm and employee characteristics. For example, more labour intensive internationally traded sectors, such as the food sector, have been forced to make more severe adjustments in labour costs;
- While labour costs feature prominently in assessments of cost competitiveness, the scale of the adjustment in other cost indicators is such that a broader consideration of costs is more meaningful in explaining recent export performance. In particular, sharp falls in property costs and business-to-business services prices have benefitted indigenous firms while at the same time enhancing the attractiveness of Ireland as a location for foreign direct investment;
- The link between labour cost competitiveness and export performance can be quite tenuous for certain high-tech sectors. Given the dominance of these sectors in gross exports, these indicators tend to have weak explanatory power also at the aggregate level. However, for more labour intensive sectors, labour cost competitiveness indicators can be useful in explaining export performance. For example, compensation-based competitiveness indicators for the food sector, albeit subject to some caveats, appear to correlate well with export market share performance in recent years;
- Due to a largely acyclical nature, the broad chemicals sector has continued to perform strongly during the global financial crisis and now accounts for close to 60 per cent of Irish goods exports. Meanwhile, the influx and rapid expansion of internet services firms based in Ireland has boosted services exports performance. The strong performance of the chemicals and IT services sectors explains to a large degree the resilience of Irish headline exports in recent years;

- At the same time, the challenges faced by indigenous sectors have been more acute. As these firms tend to be more labour intensive, the strong headline export performance has not translated into a corresponding recovery in employment in the traded sectors. Yet, there are tentative signs that the efforts to contain labour and other costs in more indigenous sectors are being reflected in market share gains, and given their relatively high labour intensity, this should pay dividends in terms of generating employment. Indeed, according to the latest PMIs, industrial employment expanded in June for the third consecutive month and was the sharpest increase in the index since 1999. The recent appreciation of sterling may bring some solace and add further to the momentum in recovering market share although these firms remain heavily dependent on the UK market and vulnerable to future adverse euro/ sterling exchange rate movements.

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Recent Trends in Irish Expenditure and Prices

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Abstract

This article examines some recent trends related to consumption expenditure and prices in the Irish economy. The Household Budget Survey is used to examine changes in the expenditure patterns of Irish households. Relative to the boom period, there is now an increased share of spending on essential items such as housing and transport and a lower share of spending on discretionary or luxury items. This article also documents trends in inflation from the Consumer Price Index over the five year period between December 2006 and December 2011. Education, health and transport have witnessed large price increases over this period. We also examine the period of deflation caused by the financial crisis. The analysis shows that this deflation was very broad in nature, as a very large percentage of items in the consumer basket recorded price decreases. This argues against the notion of price rigidity, the idea that prices are unlikely to adjust, particularly in the downward direction. Using a simple forecasting model, it is also shown that the percentage of price changes from an earlier period can help to forecast inflation.

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1. Introduction

The consumer price index (CPI), which is used to measure domestic inflation, is updated every five years by the Central Statistics Office (CSO) to reflect changing patterns in consumption. This is based on the results of the Household Budget Survey (HBS), which is a comprehensive survey used to measure the income and expenditure patterns of households in the state. The first results of the most recent update were published in February 2012. This is an opportune time to reflect on the behaviour of inflation and consumption over the previous five year period stretching from December 2006 to December 2011. We begin by considering how consumption patterns have changed over the period and to what extent this was driven by global versus local forces. We examine which individual items and categories experienced the largest price changes over the five year period. A number of the items experiencing the largest price changes are clearly impacted by the financial crisis. The financial crisis triggered a period of sustained deflation. We present data on the broad nature of that deflation, which is evidence against the notion of nominal rigidities in Ireland. We also use this information on the percentage of positive or negative price changes in a forecasting model. The results suggest that the proportion of positive price changes in previous periods can help in terms of predicting inflation.

2. Some Results from the Household Budget Survey

The expenditure patterns used to update the CPI are derived from the HBS. We begin this section with an analysis of some of the key findings of the HBS. The survey was carried out between August 2009 and September 2010 so it will capture how expenditure and income have been affected by the recession. The previous survey was carried out during 2004 and 2005, at the height of the boom, so any comparisons of expenditure patterns reflect changes between these two periods. Average weekly expenditure in 2009/2010 was €810.61, which is 3% higher than the previous survey. The corresponding increase in prices

over the period was 7%. The fact that prices rose more than expenditure means the real volume of consumption fell by 4%.

Average weekly household expenditure varies quite considerably depending on the type of accommodation arrangements that are in place. Households which rent from local authorities have average weekly expenditure of €448.66 compared to €1132.34 for those paying a mortgage. Those owning a property outright have average expenditure of €684.24, with those renting privately spending €672.84. Urban households also spend more than rural households, with average weekly expenditure of €832.66 and €773.38 respectively.

It is also possible to compare expenditure patterns based on the gross income of the household, defined as income before taxation. In the lowest income bracket, household income is less than €238 per week and expenditure is €353.76. For this group, more than 84% of income comes from state transfers and expenditure exceeds income. This group often rely on savings and borrowings to supplement consumption. In the highest income group, gross household income is greater than €2046.02 and average weekly expenditure is €1716.97. Less than 4% of income is from state transfers for the high income group.

The gap between the high income and low income group narrowed between the 2004-2005 survey and the 2009-2010 survey. The ratio of income from the highest to the lowest group was 14 to 1 in 2004-2005 but this had narrowed to 12 to 1 in 2009-2010. Part of the difference in household income is due to household size. The high income households have an average size of 3.64 persons but the low income households only average 1.34 persons.

The low income group are more altruistic on a proportionate basis. They spend €2.53 per week, equivalent to 0.72% of expenditure, on charitable donations. This is more than pension spending, which is €2.50 per week, or 0.71% of expenditure. However, a large proportion of pensioners are in the low income group

Table 1: Percentages of Consumption Expenditure by Category

		04/05	09/10
01	Food and Non-Alcoholic Beverages	11.742	11.366
02	Alcoholic Beverages and Tobacco	6.048	4.908
03	Clothing and Footwear	5.416	5.203
04	Housing	16.509	17.476
05	Furnishings and Household Maintenance	4.422	3.220
06	Health	3.154	4.629
07	Transport	13.293	15.088
08	Communications	3.418	3.487
09	Recreation and Culture	10.104	8.075
10	Education	2.043	2.461
11	Restaurants and Hotels	15.425	14.172
12	Miscellaneous Goods and Services	8.426	9.915

so these households would not be saving for pensions at all. In contrast, the high income group spend €9.75 per week, equivalent to 0.57% of expenditure on charitable donations but €188.12, equivalent to 11.0% of expenditure, on pensions.

3. Changes to the CPI Basket of Goods and Services

The basket of consumer items for the CPI over the period 2012-2016 contains 632 items. The old basket of goods and services contained 616 items so the updated basket has 16 additional items. The key elements of the CPI update are removing items which are no longer relevant to consumers, introducing products which are new or have increased in importance and making changes to existing products. The new and deleted products are the two most interesting categories here as they give us an insight to which products are no longer relevant and which have become important to consumers.

The impact of technological change is obvious in terms of the new items included in the consumer basket for the first time. Of 27 new items, 11 are technology related. Some items are new products introduced during that five year period such as media tablets and smart TVs whereas others are existing technology items which have increased in importance

such as memory sticks and hard drives. Old technology falling out of favour also features in the list of deleted items, although this only accounts for 4 products out of 26 deletions. DVD hire is the most notable technological exclusion from the CPI, possibly due to the increasing use of the internet to acquire film releases.

Food and drink items also feature on the list of inclusions and deletions but with much stronger prominence in terms of deletions. Two new food products in the form of gluten free food and fruit smoothies are included. However, 13 food items are deleted, which accounts for half of all deletions. Despite the recession, three of the cheaper cuts of meat are deleted. Some convenience foods such as quick soup and ready cooked Asian meals also fall out of the basket but this may be due to proliferation in other areas of convenience foods. Once food and technology are excluded, no other commodity groups stand out.

4. Results from CPI Expenditure Weights

4.1 Expenditure on Broad Product Categories

We now consider how spending patterns have changed in relation to broad categories of

Table 2: Percentages of Consumption Expenditure on Individual Items

		04/05		09/10
1	Mortgage interest	6.66%	Mortgage interest	5.67%
2	Cigarettes - filtered	3.13%	Private rents	4.35%
3	Petrol	2.98%	Petrol	4.14%
4	Motor cars (new)	2.96%	Health insurance	2.87%
5	Motor cars (second hand)	2.68%	Cigarettes - filtered	2.52%
6	Package Holidays and Tours	2.53%	Electricity	2.34%
7	Private rents	2.51%	Hospital charges	2.10%
8	Telephone services - mobile	2.05%	Telephone services - mobile	2.03%
9	Stout Draught Bar 1 pint	1.97%	Diesel	1.89%
10	Hotels	1.86%	Motor cars (second hand)	1.88%
11	Health insurance	1.77%	Hotels	1.63%
12	Electricity	1.54%	Stout draught - bar (1 pt)	1.63%
13	Lager Draught Bar 1 pint	1.44%	Air fares	1.55%
14	Canteens	1.36%	Motor cars (new)	1.48%
15	Lunch - main course only	1.34%	Lager draught - bar (1 pt)	1.34%
16	Dinner	1.32%	Home heating oil	1.31%
17	Telephone charges (private)	1.09%	Third level tuition	1.19%
18	Childcare	0.99%	Motor tax - motor car	1.17%
19	Hospital charges	0.95%	Cable & satellite TV services	1.15%
20	House Maintenance	0.95%	Motor car insurance (non-service)	1.15%

expenditure. There are 12 different categories of expenditure in the CPI. The share of spending on each category is reported in Table 1.

Housing expenditure is the largest outlay for households, accounting for approximately 17.5% of total consumption in 2009/2010. Transport costs are also significant at 15%. The restaurant and hotels category also includes spending in bars and this explains the relatively large share of expenditure in this category. The pattern which is most evident from the categories of expenditure is that the share of spending has increased on some essential items while the share of spending on discretionary or luxury items has been scaled back. The share of spending has increased on housing, health, transport and education. The largest increase has taken place in relation to transport, where the costs of petrol, diesel and motor oil together account for 6% of total household expenditure. Items involving discretionary expenditure are now relatively less important. There has been a two percentage point decrease in the share of spending on

recreation and culture. Spending on hotels and restaurants has also decreased by over one per cent, as has spending on tobacco and alcohol from off-licenses and shops. While the recession has had a predictable impact on spending patterns, with essential items constituting a larger share of a shrinking expenditure budget, some of these changed expenditure patterns are due to changes in the relative price of goods over the period.

4.2 Expenditure on Individual Items

We continue our examination of the CPI by considering the share of expenditure on individual items from the basket of goods and services. We report the twenty items with the largest expenditure shares in the CPI from the 2004/2005 survey and the 2009/2010 survey. The percentage of total expenditure on the twenty largest items increases from 42.1% in the first period to 43.4% in the second period.

The largest individual item of expenditure in both base periods is mortgage interest (i.e.

Table 3: 5 Year Inflation Rates

		Inflation (%)
01	Food and Non-Alcoholic Beverages	2.1
02	Alcoholic Beverages and Tobacco	9.7
03	Clothing and Footwear	-27.2
04	Housing	8.9
05	Furnishings and Household Maintenance	-12.3
06	Health	16.3
07	Transport	9.3
08	Communications	5.9
09	Recreation and Culture	-1.3
10	Education	31.8
11	Restaurants and Hotels	1.9
12	Miscellaneous Goods and Services	19.3
	Administered Prices	22.1
	Total CPI Inflation	4.7

repayments of the mortgage principal are not included). Its relative importance declines from 6.66% of total expenditure in 2004/2005 to 5.67% in 2009/2010. The main factors impacting on the share of expenditure spent on mortgage interest are the price of the house at the loan origination date, the current mortgage interest rate and the income of the borrower. While a comprehensive analysis of these factors is beyond the scope of this article, a comparison of the share of expenditure on mortgage interest relative to rents is quite revealing. The consumption share of private rents increased from 2.51% in 2004/2005 to 4.35% in 2009/2010. This is the largest increase in the share of any item in the basket of goods. As the price of private rents fell by 14% over the five years, this increase in the share reflects that a much higher percentage of people reside in rental accommodation now relative to five years ago. For those who have a mortgage, it is also clear that the percentage of expenditure needed to service that mortgage is greater than the amount of money needed to pay rent, particularly when we consider that principal repayments are excluded from calculations.

If we look at the expenditure shares for 2004/2005, motoring expenses feature prominently, with three items in the top five.

By 2009/2010, only petrol remains in the top five, with the share of expenditure on the purchase of both new and second-hand cars now considerably less important. In contrast, there has been a notable increase in expenditure on diesel, which does not feature in the 2004/2005 table as it was number 25 in terms of importance. The purchase of diesel motor cars was encouraged through motor tax policy for environmental reasons and, in addition to data on the proportion of new car sales showing increased shares of diesel cars among new cars, this data on the share of expenditure on diesel is further evidence that the public has responded strongly to the incentives provided.

There has been an increase in the share of expenditure on items whose price is either totally or partially under the control of the government. Petrol, health insurance, cigarettes, electricity, hospital charges and diesel are all in the top ten and have been influenced by government policy or taxation over the period in question. Motor tax and third level tuition enter into the top twenty items for the first time. Expenditure on various categories of eating out have all fallen out of the top twenty but expenditure on lager and stout in bars has shown more resilience.

Table 4: Largest Price Changes over 5-year Period from December 2006 to 2011

1	Ladies Boots	-77.08%	School Transport	380.64%
2	Computers and Accessories	-69.51%	Driving Test Fees	123.68%
3	TV large wide screen	-65.38%	Medical Insurance	77.71%
4	Ladies Overcoat	-64.11%	Third Level Tuition	75.25%
5	Digital Camera	-60.34%	White self- raising flour	69.49%
6	Ladies Handbag	-60.22%	Brown wholemeal flour	69.44%
7	Computer Game	-59.19%	Butter	59.49%
8	Ladies Sandles	-57.43%	Margarine	57.90%
9	Ladies Blazer, Jacket	-54.25%	Fuel Oil	54.76%
10	Sun Tan Oil/Cream	-52.88%	Cooking Oil	54.75%
11	Curtains Readymade	-51.94%	House Insurance Dwelling	45.86%
12	Film or memory card	-50.68%	Petrol Unleaded	43.39%
13	Dress, formal or informal	-48.88%	Diesel	43.32%
14	Sunglasses	-48.33%	Tinned tomatoes	42.38%
15	Girls skirt	-47.83%	Nursing Homes	41.86%
16	Camcorder	-45.52%	Sultanias	41.54%
17	Girls Casual jacket	-44.36%	House Insurance (non-service)	40.67%
18	Casual Overjacket/rain jacket	-44.07%	House Insurance (service)	40.67%
19	TV small up to 24"	-43.57%	Hospital Charges	40.17%
20	Home cinema system	-43.56%	Jewellery	38.81%

5. Examining 5-year Inflation Rates

Normally the inflation rates which are reported in media and academic circles document the change in the price of a good or service from one month to the next or from one year to the next. In this section, we report how the prices of goods and services have changed in the five years between December 2006 and December 2011. Whereas the expenditure pattern comparisons related to changes between 2004/2005 and 2009/2010, the inflation rates specifically relate to the period between December 2006 and December 2011. This allows trends in prices over a relatively long period to be examined. As before, we begin with broad categories of goods and services before examining the inflation rates of individual items.

Table 3 shows the inflation rate of the 12 categories which constitute the CPI, the

inflation rate of administered (partially or wholly government controlled) prices, which is comprised of items from a variety of the 12 other categories and the overall CPI inflation rate. While some categories have experienced quite moderate inflation, others have seen large price changes over the period. The largest price change was for education, with the price increasing by almost 32% over five years. There has been a very significant reduction in the price of clothing. Clothing and footwear have been consistently falling in price in the CPI for over fifteen years. There was an increase of over 19% in miscellaneous goods and services, which is mainly explained by increases in health, house and car insurance. Health prices, which exclude medical insurance, increased by 16% due to higher hospital charges together with higher fees for visits to doctors, dentists and opticians. The cost of furnishings and household maintenance fell by over 12% due to falls in the prices of a large variety of household furnishings

and appliances. Eurostat, the European statistical agency, construct a price index for administered prices and the inflation rate for this category was 22.1%.¹

The general inflation rate of the CPI was 4.7% over the period. The general inflation rate is most affected by the inflation rates of the categories with the largest expenditure shares. While there were very significant declines in the Furnishing and Clothing categories, we saw that these categories together accounted for less than 10% of total expenditure in 2006. In contrast, items with large expenditure shares such as Transport and Housing recorded inflation rates close to 10% over the sample. Other large expenditure categories such as Recreation and Restaurant & Hotels had relatively small price changes so their contribution to overall inflation was small. While Health and Education prices increased significantly, their expenditure shares were relatively small at the outset so their contribution to inflation was also small. We now turn to an examination of individual inflation rates over the same five year period which is documented in Table 4.

The impact of the recession means that there are a significant number of items which have experienced a decline in price over the five years, as seen in the previous table. However, the items with the largest price declines over this period are female clothing (8 of 20 items) and electronic items (also 8 of 20 items). The prices of electronic items are often declining once improvements in the capabilities of the goods are taken into account – a gigabit of computer memory is now substantially cheaper than five years ago due to advances in computing. The price of clothing may be declining to increased competitive pressures and reductions in the cost of manufacturing from the East. However, there are also methodological difficulties in matching clothing items over time and this may have contributed to the reported decline. The recession may

not be the cause of the largest price declines observed in the basket of goods. However, 365 of 616 items decreased in price over five years and this widespread deflation is obviously a result of the recession.

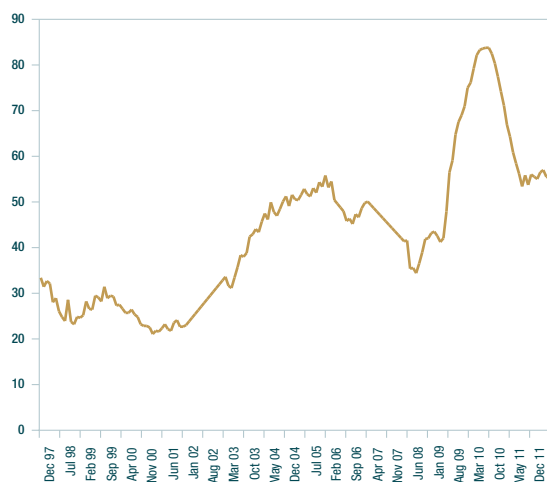
The items which have experienced the largest price increases are listed on the right side of Table 4. The individual items again fall into some broad categories. The items with the largest increases are items under the full or partial control of the government for some time during the five year period. School transport prices increased by close to a factor of four, driving test fees have more than doubled and medical insurance together with university tuition have both increased in price by approximately 75%. A number of food prices have increased, reflecting volatility in the price of international agricultural prices. Petrol, diesel and fuel oil have also increased significantly due to higher crude oil prices and increased taxation.

6. Evidence in Relation to Nominal Rigidity

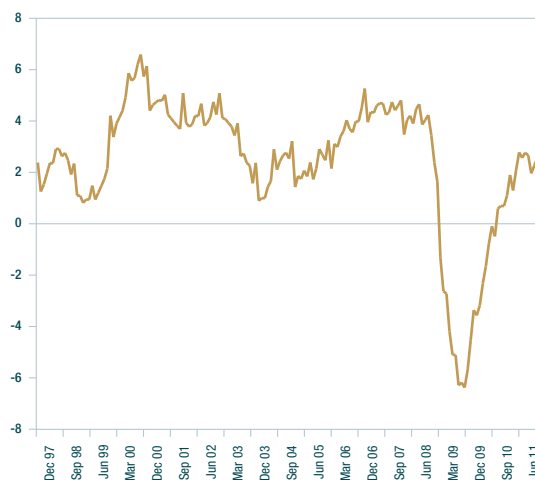
Nominal rigidity, the notion that prices are slow, or even unlikely, to adjust downwards, is a key assumption in many macroeconomic models. In this section, we provide evidence on nominal rigidities for Ireland using price data at a detailed item level.² The sustained period of deflation experienced here is strong prima facie evidence against nominal rigidity in the Irish case. We provide a detailed account of the flexibility of prices by providing information on the proportion of negative price changes over time. At each month in the sample, we indicate the percentage of the items which had a lower price compared to the same month in the previous year i.e. in terms of year-on-year price changes. Yearly price falls are used to demonstrate the change in price is not temporary in nature and it overcomes issues in relation to seasonality. This analysis is conducted over three base periods where the

¹ Administered prices are constructed based on the HICP basket of good, which is slightly narrower than the CPI. All goods contained in the HICP are also contained in the CPI however.

² There are 560 items in the basket from Dec '96 to Dec '01, 613 items from Dec '01 to Dec '06 and 616 from Dec '06 to Dec '11. These are the three base periods covered in the analysis. These individual item prices are themselves price averages. For example the price of a white sliced pan for a specific month will be an average of prices all across the country rather than the price of any one outlet.

Chart 1: Percentage of Items Experiencing Price Falls

Source: Central Statistics Office and internal calculations.

Chart 2: CPI Inflation

Source: Central Statistics Office.

number of individual items varies from 560 in the first base period to 616 in the last. The use of a longer span of data puts into perspective the impact of the recent recession. The results of this analysis are presented in Chart 1 with CPI inflation in Chart 2.

The analysis covers a period of 14 years although there are gaps in the price change data for the years 2002 and 2007, which have been interpolated. These are the years which immediately follow a rebase of the CPI so it's not possible to match all series from one base period to another. Nonetheless, the data show that there is a very large degree of flexibility in prices over the sample. As you would expect, the number of series showing a price fall is high when the inflation rate is negative.

The percentage of items showing a yearly price decline is never lower than 20% of the total, even during periods of relatively high inflation. During the first base period from 1997 to 2001, the percentage of price decreases averages 25.9% while the inflation rate averages 3.3%. During the second base period between 2002 and 2006, the average percentage of price declines increases to 46.6%. There is

a reduction in average inflation in this period to 2.8% but the magnitude of the inflation decrease appears too small to completely explain the increase in the number of price drops. It appears that there is an increase in the basic level of price flexibility in the second base period, possibly due to an increase in the volatility of international commodity prices.

In the third base period from 2007 to 2011, there is a period of sustained deflation, with the inflation rate falling as low as -6.6% in October 2009. The total number of price drops peaks at 83.8% in March 2010. Thus, in this month, the prices of 514 of the 616 items in the CPI were lower than a year earlier. During the entire period from January 1997 to December 2011, the average percentage of price drops is 59% in the total basket of goods and services. This means that in any given month over that period, an average of 363 items had experienced a price fall relative to a year earlier. Although this period represents an acute financial crisis for the Irish economy, the high level of price flexibility casts doubt on the macroeconomic assumption that nominal rigidities are common. The evidence suggests that prices will fall when there is a fall

in consumer demand. The frequency of the observed price reductions calls into question the importance of “menu costs”, the idea that it is costly to reset prices for firms so they change prices infrequently as a result.

Alvarez et al (2006) examine price change data for a large number of euro area countries using data on individual firms. They find that prices are sticky in the euro area with firms changing prices once per year on average. However, they find that price falls are almost as likely as price increases. Our results are not directly comparable in terms of the frequency of price change, as we do not have firm level data. However, it would appear that prices in Ireland are less sticky than the average European country and, in agreement with the euro area results, we also find little evidence of downward price rigidity.

7. Predictive Properties of Price Change Data

The data on the proportion of price changes gives us an insight in relation to nominal rigidities but it has additional uses. Another use of this type of data is in terms of inflation forecasting. Inflation is a very persistent process in the sense that the value of inflation in a given period is often quite similar to its value in the previous period. The fact that inflation changes slowly over time means that models for predicting inflation routinely include a one-period lag of inflation when constructing forecasts. It is often difficult to construct a complex forecasting model for inflation that out-performs a simple forecast model based only on the lags of inflation. Indeed, sometimes the best forecast of inflation is just to assume inflation remains unchanged from its previous value, which does not require a model at all.

In this section, forecasts of inflation are constructed which include a lag of inflation but also include information on the number of positive price changes in the recent past. We use positive changes here instead of negative as the interpretation of the results in relation to inflation is more natural. For this exercise, we use the proportion of positive month-on-

month price changes as there are no gaps in the monthly data. The model used is specified as follows:

$$\pi_t = a_0 + a_1 \pi_{t-1} + a_{2,i} pcount_{t-i} + a_3 pcount_{t-11} + \varepsilon_t$$

where π_t is the inflation rate in period t and $pcount_t$ is the percentage of positive price changes in period t . The amounts of positive price changes in the last known period and eleven periods ago are used as explanatory variables in addition to the inflation rate in the previous period. A simple model would only use the lag of inflation in the previous period to get information regarding the price change process. However, it is possible to have high inflation if a relatively small number of important goods experience price increases. This may happen with food or oil prices, which are both important in terms of their weight in the CPI but the price of these goods is externally determined and tends to be quite volatile. The $pcount_{t-i}$ variable provides more information on inflation. If the percentage of positive changes in the last period is large, then we can be more confident that inflation is quite broadly based. It may be due to changes in monetary policy or a large output gap and is more likely to persist in the future. This additional information could be useful in a forecasting context as one would expect a positive relationship between inflation in a future period and the number of positive price changes in this period. Separate coefficients are needed for this variable for each forecast horizon.

The number of price changes at lag eleven enters the equation for a different reason. This gives an indication of the number of positive price changes between 12 and 11 months ago. The inflation rate being predicted is the year-on-year rate. This type of inflation rate is sensitive to base effects. This means that the inflation rate can change when large price movements from a year earlier fall out of the annual comparison. One way to capture the impact of these base effects on current inflation is to examine the percentage of positive price increases a year earlier. If there is a large number of positive price increases a year ago, one would expect the current inflation rate to be lower as these price increases fall out of the

Table 5: Coefficients and P-values for OLS Model

a_0	a_1	a_2	a_3
0.01	0.94	0.30	-0.44
(0.217)	(0.000)	(0.049)	(0.000)

annual comparison. For this reason, one would expect a negative relationship between inflation and the number of price changes from a year earlier. In a model without the price change variables, the 12th lag of inflation is statistically significant. However, if we add the 12th lag to the model including the price change variables, the price change coefficients remain statistically significant but the coefficient on the 12th lag of inflation is no longer significant. This indicates that the price change data are doing more than simply accounting for a missing autoregressive lag at month 12.

The coefficients for the model together with p-values based on consistent standard errors are presented in Table 5. The coefficients on the proportion of price changes are a_2 and a_3 . The coefficient on a_2 is based on a one-period lag for this table. From the p-values in brackets below, we can see that both coefficients are statistically significant at the 5 per cent level. The coefficient on a_2 is positive and the coefficient on a_3 is negative so both have the expected sign.

The results in the table give credence to the use of the price change model. We test the predictive power of the model by conducting a standard forecasting exercise. Data are

available from January 1997 until December 2011. The model is estimated recursively from May 2004 until December 2010 and forecasts are constructed for up to eleven months ahead. This provides eighty sets of forecasts. In addition to constructing forecasts from this model, we also construct forecasts from some standard benchmark models to act as comparators.

The first benchmark is that there is no change in inflation so that the forecast over the entire one year horizon is the last value of inflation. This is often referred to as the random walk forecast and will be referred to as RW. The second benchmark is an autoregressive model of order 1. This simply removes the price change data from the forecasting model and uses only the first lag of inflation. Forecasts are constructed iteratively in the sense that forecasts from period 2 onward rely on the forecast for the previous period. This will be referred to as the AR(1) forecast. Finally, we construct a direct autoregressive forecast. In this case, the forecast for period p is based on an AR(p) model. This means that the forecast for 6 periods ahead uses only inflation from 6 periods earlier and does not depend on earlier period forecasts like the AR(1) model.

For each model, we calculate size of the

Table 6: Relative Forecast Errors

Month	RW	AR1	AR(p)
1	0.99	0.97	0.97
2	0.99	0.95	0.94
3	0.99	0.93	0.91
4	0.98	0.92	0.89
5	0.97	0.91	0.89
6	0.96	0.89	0.90
7	0.93	0.88	0.91
8	0.91	0.87	0.93
9	0.89	0.85	0.94
10	0.87	0.84	0.95
11	0.86	0.83	0.96

forecast errors. We divide the size of the errors for the price change model by the size of the errors for each other model. A value less than 1 means that the price change model has a smaller forecast error. The results are presented in Table 6.

The first column shows the forecast horizon from month 1 to 11. The forecast horizon ends at month 11 as forecasts beyond this would require forecasts of the pcount variable as an input. The second column shows the forecast errors relative to the RW (no change) model. We can see the forecasts which use the price change data are 1 per cent more accurate at month 1 (forecast errors are 99% as large) but 14 per cent more accurate when forecasting 11 months ahead. The second column compares forecasts to the AR(1) model. The only difference between the two models is the inclusion of the price change data so this comparison tells us exactly how much the price change data contribute to forecast accuracy. The improvement in forecasting accuracy ranges from 3 per cent at month 1 to 17 per cent at month 11. This shows that the price change variables are making a noticeable difference to forecasting accuracy. The final column compares the model to the direct AR(p) forecasts. The model is again more accurate at all horizons. The increase in accuracy varies from 3 per cent at month 1 to 11 per cent for months 4 and 5.

For the RW and AR(1) models, we get a steady improvement in the forecast accuracy of the price change model relative to these models as the forecast horizon increases. The improvement in forecasting power for the price change model is smallest relative to the AR(p) model so the AR(p) is the best of the benchmark models. We also see a slightly different pattern with the AR(p) model in the sense that the biggest improvement in accuracy relative to this benchmark is for mid-horizon forecasts rather than long horizon forecasts. Despite this relationship, the model based on the number of lagged price changes is still more accurate and this shows that the number of price changes in a specific direction appears to have significant predictive power for Irish inflation.

8. Summary

This article has reviewed trends in prices and expenditure in Ireland in the recent past. In the five year period between 2004/2005 to 2009/2010, the volume of consumption by Irish households fell by 4%. There are large differences in weekly expenditure depending on the housing arrangements in place. The main change in household expenditure patterns over the period are an increase in the share of expenditure on essential goods such as transport and housing and a reduction in the share of spending on discretionary items. The inflation rate of the CPI over the period from December 2006 until December 2011 was 4.7% but there was significant variation in the inflation rates of various categories of inflation during this five year period. Education prices rose by 32% over five years and transport by 9% over this period. Alcohol and tobacco prices increased by 10% and there were also significant increases in the price of various types of insurance. In contrast, clothing and footwear prices fell by 27%.

During the financial crisis, there was a period of sustained deflation. The prices of a large number of goods and services fell consistently. This is evidence against the idea of nominal rigidity. Our experience suggests that prices will fall when there is a reduction in consumer demand. This finding is in line with results from a European study of price setting. The number of positive price changes is also used in a simple forecasting model. The results show that this information can improve forecasts relative to a number of benchmark forecasting models.

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Analysis of Recent Monetary Operations & TARGET2 Developments

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Abstract

The on-going sovereign debt crisis has created a lack of confidence in the market, where access to traditional sources of funding for certain counterparties has become increasingly unavailable or prohibitively expensive. This market dysfunction has given rise to an increased use of the ECB liquidity providing facilities by those banks that are short of funds, and an increase in the use of liquidity absorbing facilities by those which are long cash. In this article, we examine the main changes to the ECB's operational framework over 2011 and Q1 2012, the overall trends in Eurosystem lending and the use of the ECB's standing facilities along with the key developments in money markets over this time. In particular, we review the developments in Eurosystem lending to Irish banks over this period and identify the key factors contributing to the reduction in Eurosystem borrowings during 2011. Finally, we take a look at the Eurosystem TARGET2 payment system; explaining what it is and how TARGET2 imbalances among individual Eurosystem central banks have grown over the past number of years. We identify some of the complicating factors when analysing TARGET2 balances, take a closer look at how the Irish TARGET2 liability has grown over the course of the euro area sovereign debt crisis and how this liability may be reduced in the future.

¹ The authors would like to acknowledge, with thanks, the helpful comments and suggestions of Benjamin Sahel (DG-M) and Philippine Cour-Thimann (DG-E) in the European Central Bank and colleagues in the Financial Markets Division of the Central Bank of Ireland.

1. Introduction

Over the course of 2011, financial markets became increasingly affected by European fiscal developments, as the euro area sovereign debt crisis entered a more acute phase. During Q1 2011, amid supportive economic data releases, market sentiment was generally positive and inflationary concerns led the ECB to raise interest rates by 25bps in April, and then again by 25bps in July. The reasonably positive start to the year proved short-lived, as Portugal applied for an EU/IMF assistance package in April, and suggestions of private sector burden sharing for holders of Greek government bonds were put forth in June. Italian and Spanish sovereign yields climbed sharply over the course of July 2011, raising concerns that existing aid mechanisms would not have the capacity to assist countries with such large sovereign funding requirements. Ratings downgrades of sovereigns and banks also became a key concern as 2011 progressed.

Following announcements made by the Italian and Spanish governments concerning reforms on fiscal and structural policies, the ECB announced that it would actively implement its Securities Markets Programme (SMP). This decision was taken to help restore a better transmission of monetary policy decisions. Against the backdrop of deteriorating economic prospects, the ECB reduced the policy rate by 25bps in October and November 2011, and introduced a range of further measures to provide additional liquidity to banks (additional measures also announced in December 2011)². These included a reduction in the pricing of USD liquidity providing operations³, the announcement of a second covered bond purchase programme, amendments to the collateral eligibility framework, the reduction in minimum reserve requirements and the introduction of two

3-year Long Term Refinancing Operations (LTROs⁴). These operations were held in December 2011 and February 2012.

The level of lending provided via Eurosystem open market operations (OMOs) rose steadily over 2011. Many counterparties began to replace market funding sources which became increasingly unavailable or prohibitively expensive, with Eurosystem borrowings. Following the ECB's second 3-year LTRO in February 2012, lending provided by the Eurosystem rose to €1.19 trillion⁵. This increase led to rising levels of excess liquidity and an increased usage of the Eurosystem's deposit facility, reaching €827.5bn in March 2012. The increase in Eurosystem lending has also coincided with the flow of euro funds from the periphery and into the core, resulting in an increase in TARGET2⁶ (T2) balances across the Eurosystem. This reflects, to some extent, the magnitude of Eurosystem lending to certain banking sectors in countries that are most acutely impacted by the sovereign debt crisis.

After several months of negotiations, an agreement on a second €130bn support package for Greece was reached in February 2012, and a subsequent bond exchange programme was agreed with private sector Greek sovereign bondholders, resulting in a 54 per cent write-down in value of Greek government debt. Meanwhile discussions on enlarging, and possibly leveraging the existing aid mechanism, the European Financial Stability Facility (EFSF) took place, while the introduction of its replacement, the European Stability Mechanism (ESM) was brought forward by a year to 2012.

Ireland moved out of the global spotlight somewhat over the course of 2011. However, the PCAR/PLAR⁷ stress test process and results were the focus in Q1 2011. While

² Link to ECB press release: http://www.ecb.int/press/pr/date/2011/html/pr111208_1.en.html

³ Link to ECB press release: <http://www.ecb.int/press/pr/date/2011/html/pr111130.en.html>

⁴ Please refer to Annex 1 for a full glossary of terms.

⁵ Figure includes the euro equivalent of the total outstanding lending provided via the ECB's US dollar liquidity providing operations.

⁶ TARGET2 stands for Trans-European Automated Real-time Gross Settlement Express Transfer System 2.

⁷ PCAR – Prudential Capital Assessment Review, PLAR – Prudential Liquidity Assessment review as outlined further in Section 4, these reviews were carried out in Q1 2011 by the Central Bank of Ireland in conjunction with BlackRock Solutions as part of the financial measures programme, further details available here: <http://www.centralbank.ie/regulation/industry-sectors/credit-institutions/Pages/FinancialMeasuresProgramme.aspx>

further large capital injections to the Irish banks were identified as a result of the stress tests, the process of recapitalising the sector was completed, and the deleveraging process is ongoing.

*In **Section 1** of this paper, we examine the main changes to the ECB's operational framework over 2011 and Q1 2012. **Section 2** discusses money market developments in 2011 and Q1 2012, and **Section 3** looks at overall trends in Eurosystem outstanding lending and the use of the ECB's standing facilities. In **Section 4** we look at developments in ECB borrowings among Irish counterparties. **Section 5** looks at the specific increase of TARGET2 balances and **Section 6** concludes the paper.*

Section 1: ECB's Operational Framework/Policy Decisions

During 2011 and the first quarter of 2012, the ECB implemented several new non-standard operational measures as a response to the escalating European debt crisis.

Seven key measures were introduced in 2011:

- Supplementary 6-month, 12-month, 13-month and 3-year LTROs were conducted, while the regular end of maintenance period liquidity absorbing fine-tuning operation was discontinued in December 2011.
- Collateral eligibility criteria were eased by reducing the ratings threshold for some Asset Backed Securities (ABS) collateral, and the acceptance on a temporary basis, of additional performing credit claims that satisfy specific eligibility criteria.
- The continuation of the regular 7-day and re-introduction of 84-day USD liquidity providing operations in September. This was followed by a decision in November by the Federal Reserve to lower the price of these operations to USD OIS plus 50bps

(from USD OIS plus 100bps) and reduce the initial margin in the 84-day operations to 12 per cent, from 20 per cent previously. Furthermore, swap lines with the Federal Reserve were extended until 1 August 2012.

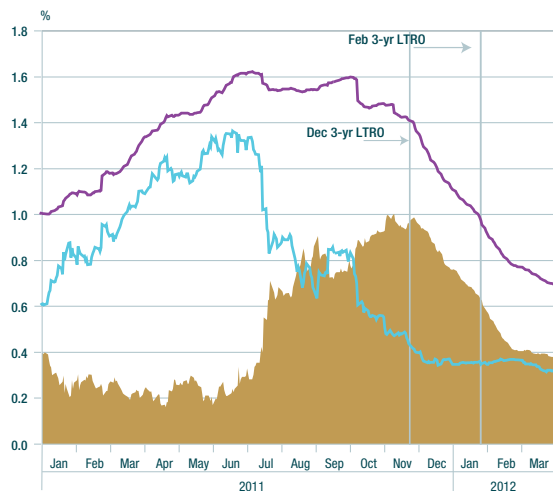
- Extension of the Bank of England swap facilities until 28 September 2012.
- Introduction of a second Covered Bond Programme with an intended purchase target of €40bn (allowing the outright purchase of euro-denominated covered bonds issued in the euro area), envisaged to be completed by the end of October 2012.
- Active implementation of the SMP to help restore a better transmission of monetary policy decisions.
- A temporary reduction in the minimum reserve ratio, which was previously 2.00 per cent of applicable liabilities, to 1.00 per cent, in the reserve maintenance period which commenced on 18 January 2012.

Section 2: Money Market Developments

Money market conditions in the euro area deteriorated through the course of 2011, particularly in the second half of the year as the debt crisis intensified. This was evidenced by the significant increase in borrowing by banks in peripheral countries at the Eurosystem's refinancing operations over the period.

The outlook for the euro area became more uncertain in Q3 and Q4 of 2011, impacting both secured and unsecured money market activity. The level of "tiering" within money markets remained pronounced, with higher-rated banks finding market access easier than lower-rated institutions, as sovereign downgrades were ultimately reflected in banks' ratings, impacting borrowing costs and raising further concerns.

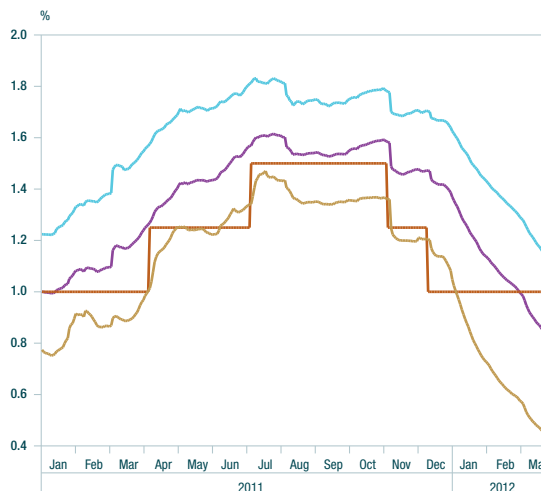
Chart 1: 3-month Euribor-OIS spread



— Spread between 3m Euribor and 3m EONIA swap
— 3-month Euribor Rate
— 3-month EONIA swap index

Source: Bloomberg

Chart 2: Euribor rates & ECB policy rate



— 1M Euribor — 6M Euribor
— 3M Euribor — ECB Policy rate

Source: Bloomberg.

The Euribor-OIS spread⁸ reached a high of 100bps in December, a level not seen since March 2009. The factors driving the rising spread were declining EONIA swap rates as can be seen from the chart above, with the 3-month EONIA swap rate declining from 136bps in July 2011 to 39bps in December 2011, its lowest since May 2010, as interest rate expectations shifted further downwards. Euribor (unsecured) rates remained relatively steady, as a change in outlook for interest rate expectations and increasing excess liquidity were offset by rising counterparty risk concerns. However, Euribor-OIS spreads declined from mid-December 2011 onwards and reached levels similar to those of comparable spreads in USD, with significant additional liquidity provision via the 3-year LTROs putting downward pressure on Euribor rates.

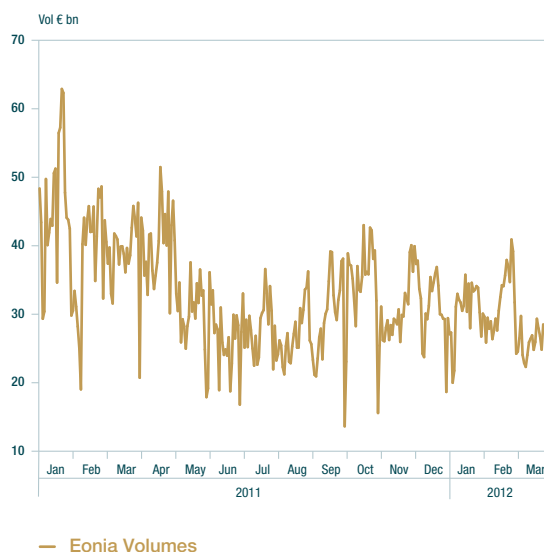
Regarding longer term interbank interest rates, 3-month and 6-month Euribor rates trended upwards in the first six months of 2011,

tracking 25bps ECB rate increases in April and July, with some expectations that a steady tightening cycle was beginning (see Chart 2). However, developments in the European economy and sovereign yields in the region saw a marked shift in investor expectations for interest rate changes, and ultimately a change in policy stance by the ECB, with successive 25bps policy rate cuts taking place in October and November 2011. However, despite these rate cuts, Euribor rates, notably tenors of 3 and 6-months, remained at elevated levels in Q4 2011 reflecting ongoing funding tensions, although Euribor rates declined from mid-December onwards.

Concerning money market activity, reports suggested that the unsecured segment of the market remained virtually closed to most market participants during the second half of the year, especially in longer tenors, while the secured segment became increasingly focussed on the quality of collateral, with higher rated government debt being the

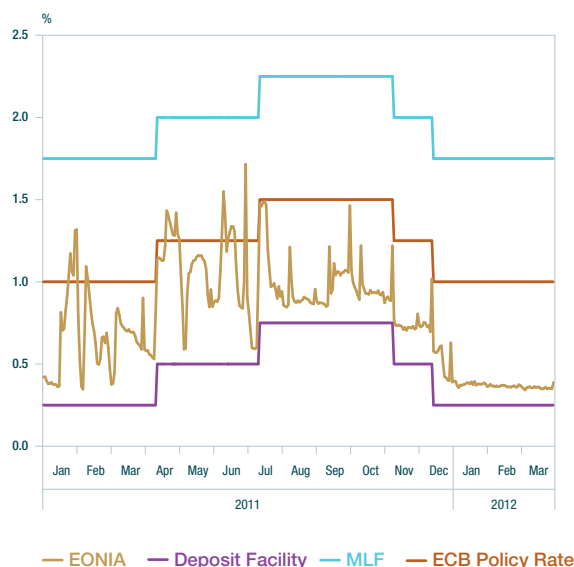
⁸ The spread between the three-month EURIBOR interbank rate and the EONIA swap rate, reflecting the spread between unsecured interest rates (EURIBOR) and the EONIA swap rate (where one party agrees to receive/pay a fixed rate to another party, against paying/receiving EONIA).

Chart 3: Eonia Volume



Source: Bloomberg.

Chart 4: Eonia Corridor



Source: Bloomberg

most easily used. These developments came against a backdrop of sovereign ratings downgrades, with clearing houses such as LCH Clearnet raising margin requirements for repo transactions on certain sovereign debt.

2.1 EONIA Developments

The significant shift in market sentiment between the first and second half of 2011 was also evident in EONIA volumes (Chart 3), which declined in the second half of the year in parallel with the increasing liquidity surplus. Daily EONIA volumes averaged €37bn in H1 2011, and declined to an average of €30bn in the second half of the year, indicating further reluctance among counterparties to engage in interbank lending, even on an overnight basis.

After the first of the ECB's 3-year LTROs in December 2011, the EONIA rate unsurprisingly fell sharply towards the deposit facility rate of 25bps, with EONIA fixing at circa 10bps above the deposit facility rate (Chart 4) after

the allotment of the 2nd 3-year LTRO. For comparative purposes, the last time there was such a large level of excess liquidity in the system for a sustained period of time (during the lifetime of the first one-year LTRO allotted in June 2009), EONIA also averaged 10bps above the deposit facility rate.

Deposit facility use rose to a fresh all-time high of €828bn in March 2012 after the settlement of the second 3-year LTRO, however use of the facility had been on an upward trend since last July (Chart 5), reflecting the steady increase in the liquidity surplus as the levels of Eurosystem lending rose. Over most of 2011 unsecured rates in longer tenors continued to be seen as only indicative rates, as market activity in maturities beyond 1-month reportedly remained scarce.

Chart 5: Excess Liquidity - deposit facility usage

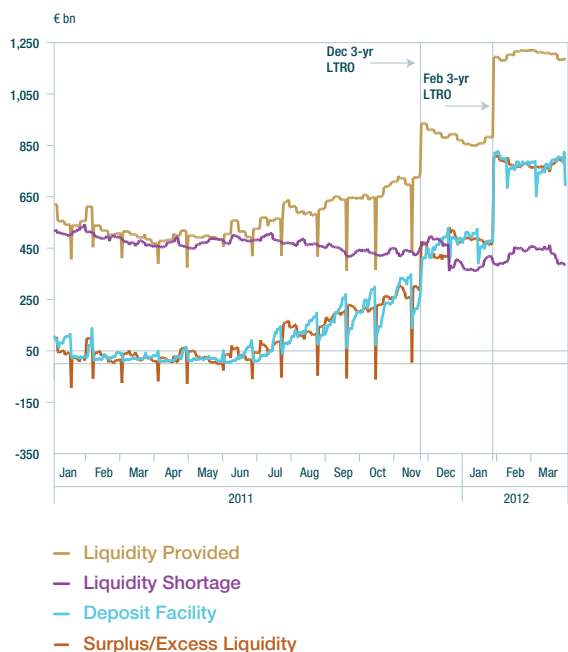
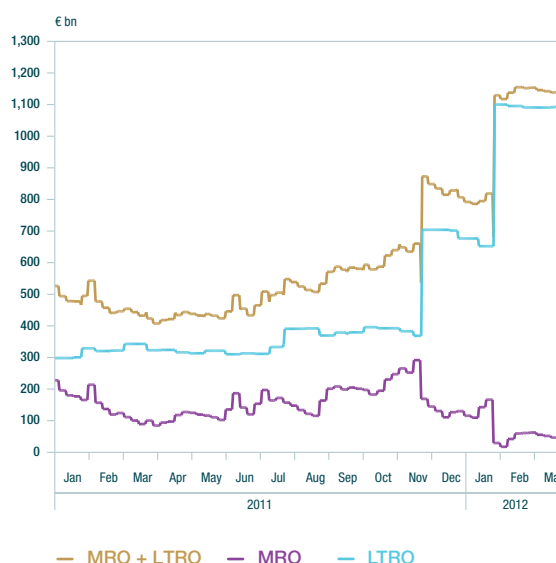


Chart 6: Eurosystem Outstanding Lending



Section 3: Developments in Eurosystem Lending

Gross Eurosystem lending remained relatively stable over the H1 2011 before rising steadily over H2 (see Chart 6) with increased recourse to ECB borrowings linked to the escalation of the crisis. Total outstanding lending stood at €1.177trn at the end of March 2012 having reached a peak of €1.19trn (both figures include USD borrowings) on 1 March 2012 following the settlement of the second 3-year LTRO.

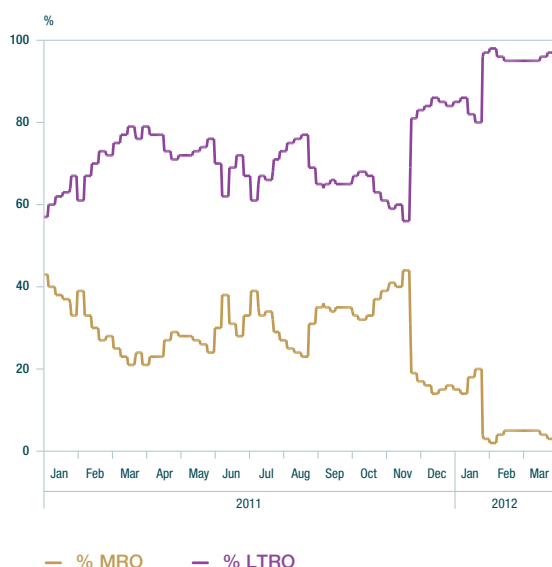
At the start of 2011, LTROs accounted for 57 per cent of Eurosystem liquidity provision, with MROs making up the remaining 43 per cent (Chart 7). By the end of March 2012, following the second 3-year LTRO, the maturity profile of OMOs shifted dramatically, with LTROs accounting for 93 per cent of Eurosystem lending, while MROs accounted for 5 per cent and USD operations made up the remaining 2 per cent.

3.1: 3-Year LTROs

The first 3-year LTRO was conducted by the ECB in December 2011 with 523 bidders allotted €489bn; this surpassed the median estimate of €310bn from a Reuters poll that was conducted at the time. The second 3-year LTRO was conducted on 29 February 2012 and 800 bidders were allotted €529.5bn, again above the median estimate in a Reuters poll of €500bn. This was also the largest amount allocated in a single operation⁹. In total €1.02trn was allotted in the two 3-year LTROs, with a net liquidity addition of €525bn.

The two 3-year LTROs were conducted as fixed rate full allotment operations and their interest rates were indexed to the average MRO rate over the lifetime of the operation. The terms allow that after one year counterparties will have the option, once they give one week's notice, to repay any part of the amount they are allotted in a 3-year operation. In addition, counterparties which participated

⁹ Up until December 2011, the first 1-year LTRO conducted in June 2009 was the largest amount allotted in an operation, with €442bn allotted among 1,121 counterparties.

Chart 7: ECB Funding - MRO & LTRO % Breakdown

Source: ECB

in the 12-month LTRO in October 2011 were permitted to shift all of their outstanding amounts in this operation into the first 3-year operation conducted last December. As a result €45.72bn was moved into the 3-year operation that took place in December 2011.

The general market impression of the 3-year LTROs was that the additional liquidity would reduce funding risks for banks as they faced debt redemption pressures in 2012 (reportedly €230bn in Q1), but that they were unlikely to mark a turning point in the sovereign debt crisis. Reports also suggested that the high take-up could allow banks to engage in a carry trade¹⁰ in which they would use the ECB funds to purchase higher-yielding government bonds, particularly shorter-dated issues which would more closely match the maturity term of the operation. Some counterparties may

have engaged in carry trade activity prior to reallocating LTRO funds to other uses (i.e. debt redemptions or engaging in new lending activity).

3.2: Fulfilment of Reserve Requirements

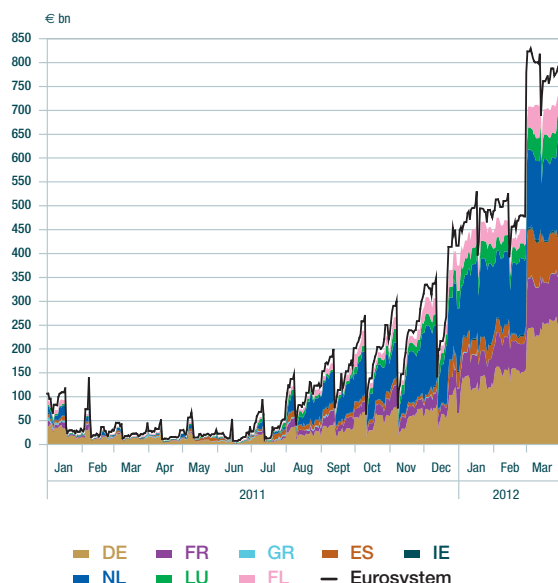
Throughout 2011 and into 2012, counterparties continued the pattern of significantly frontloading their reserve requirements at the beginning of each of the 15 maintenance periods and then reducing balances on their current account in the last days of each maintenance period. Actual reserve requirements declined over the 15 month review period, reflecting the reduction in the reserve requirement ratio from 2.00 per cent to 1.00 per cent of applicable liabilities. On average, reserve account balances held in 2011 were €211.3bn, and taking the first three months of 2012 into consideration the average for the fifteen months was €194.9bn.

3.3: Standing Facilities: Overnight Deposit Facility

Deposit facility use increased dramatically towards the end of 2011 and into 2012 reaching a then record high of €452bn at the end of 2011 following the first 3-year LTRO. This was subsequently followed by a fresh high of €827.5bn in early March 2012, the week following the second 3-year LTRO. The increased use of the facility was directly linked to the rising levels of excess liquidity, while market reports also cited the low level of money market rates (which in some cases are lower than the deposit facility rate) and the low yields on short dated German Treasury Bills as some additional contributing factors.

¹⁰ A bond carry trade is typically a trade where a bond is purchased whose yield is higher than the expected cost of funds to the investor.

Chart 8: Deposit Facility Usage



Source: ECB

The sharp upward spikes seen in Chart 8 above reflect increased use of the deposit facility at the end of each maintenance period, as banks followed a frontloading pattern for their minimum reserve account management, and placed excess funds on deposit towards the end of each MP, as they fulfilled their reserve requirements.

It is worth noting comments from ECB President Mario Draghi after the January 2012 Governing Council meeting, speaking on the outcome of December's 3-year operation and deposit facility usage. He commented that "by and large, the banks that have borrowed the money from the ECB are not the same (as those) that are re-depositing the money with the deposit facility of the ECB"¹¹. This illustrates a dislocation in money markets where banks holding liquidity surpluses are reluctant to lend to banks with liquidity deficits.

The use of the deposit facility averaged €30bn daily over H1 2011 and rose to an average of €173bn for H2 2011, tracking rising ECB borrowings over H2, resulting in a daily average use of €102bn for the full year. This compares with an average daily use of the facility of €146bn in 2010. The higher deposit facility usage in 2010 was due to two outstanding 1-year LTROs which matured in July and September 2010. The average deposit facility use for Q1 2012 was €580.9bn, reflecting the large uptake in the December and February 3-year LTROs.

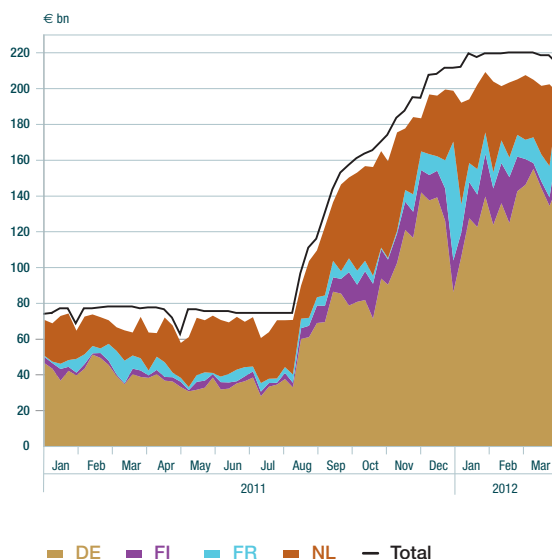
3.4: Marginal Lending Facility

Use of the Marginal Lending Facility (MLF) (the Eurosystem's overnight borrowing facility) showed several sharp upward spikes throughout 2011, most significantly in February and through the final quarter of the year. The use of the facility averaged €1.4bn daily over H1 2011 and rose to an average of €2.3bn for H2 2011. This compares to a daily average of circa €0.6bn in 2010. Subsequently, the average for the first three months of 2012 rose further to €2.9bn.

Market analysts commented that regular use of the MLF is unusual in the context of fixed rate full allotment at regular ECB operations, as the same collateral can be used to obtain liquidity via the weekly MRO at a lower rate (75bps below the MLF rate which is currently 1.50 per cent). Reports suggested that the main users of the MLF are a few small banks that have no access to the unsecured overnight liquidity market. Such banks may have collateral that is not readily usable in repo markets due to deleveraging or possible rating downgrades. Therefore, in order to be flexible in their liquidity/collateral management, they may prefer to occasionally use overnight borrowing (even if it is more expensive) instead of longer-term borrowing at the Eurosystem's regular operations.

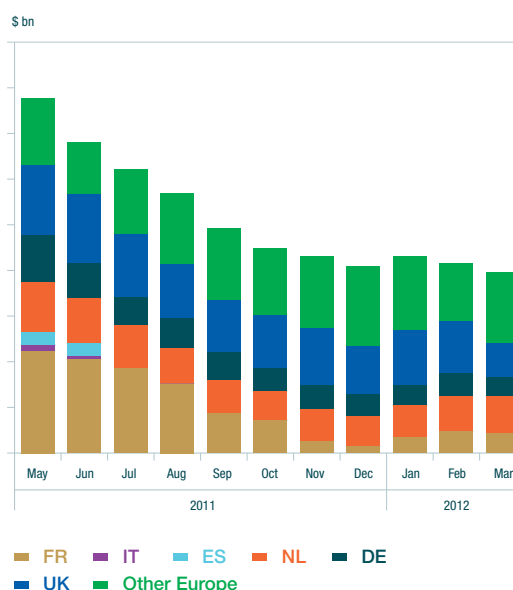
¹¹ Link to press conference text: <http://www.ecb.int/press/pressconf/2012/html/is120112.en.html>

Chart 9: FTO - Main Users



Source: ECB

Chart 10: Fitch data on US Prime Money Market Funds' Exposure to European Countries



Source: Fitch

3.5: Weekly SMP Fine Tuning Operations

Prior to the reactivation of the SMP (in August 2011 the ECB announced that it would actively implement the SMP), the weekly amounts absorbed by the ECB via these operations were in the region of €70bn; thereafter the weekly amounts absorbed ranged from €96bn to €219.5bn (Chart 9).

3.6: USD Funding Developments

An additional side-effect of the escalation of the sovereign debt crisis in Europe was that European banks found it increasingly difficult to access dollar funding in interbank markets.

European banks, generally lacking large deposit bases in dollars, would tend to rely heavily on interbank markets to fund their dollar-denominated assets. A measure of stress in dollar funding markets which was closely watched over the course of 2011 was the euro-dollar swap basis (the spread between the cost of indirect borrowing in dollars using FX swaps and the rate that prime banks pay for borrowing directly in dollars).

The EUR/USD basis spread increased steadily in H2 2011 and peaked in November 2011, reaching its highest level since October 2008 (156bps) as market conditions for European banks continued to worsen. Globally, investors sought to reduce their exposures to European banks throughout 2011, especially to those banks with large holdings of peripheral sovereign debt. In Q1 2012, EUR/USD basis spread has maintained a broadly downward trend and by the end of March 2012 was at levels (circa 50bps) last seen in early August 2011.

The decline in sentiment towards European banks was exacerbated by the reduction of US money market funds' (MMFs) exposures to Europe over H2 2011. In percentage terms, the exposure of the top 10 prime US MMFs to European banks declined from 51.5 per cent to 31.7 per cent of total assets under management from May to December according to data from Fitch¹² (see Chart 10).

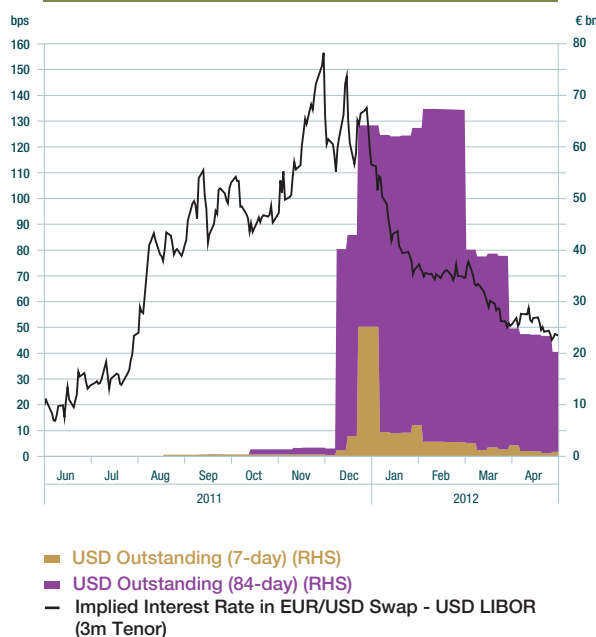
3.7: ECB USD Liquidity Providing Operations

Although USD funding pressures for European banks increased during July and August 2011, little increase in the use of ECB dollar providing operations was seen. This was due primarily to a perceived stigma attached to the use of these operations, as market participants regarded recourse to central bank facilities as a last resort, rather than as a viable solution to regular USD funding needs, given the ECB operations' term (7-days), pricing (OIS plus 100bps) and margin cost.

However over the course of September and October 2011, market rates and the interest rates charged in the ECB's weekly USD operations began to align more closely, making the ECB's USD operations a more attractive option, although participation levels did not significantly increase. For example, the market rate was circa 58bps in early August 2011 (rate in ECB operation: 110bps), but the market rate had climbed to circa 102bps (ECB rate: 107bps) by early November.

In September 2011, the ECB announced that three 84-day USD liquidity providing operations would take place in October, November and December, the first operations of this maturity to take place since May 2010¹². The first 84-day operation in 2011 took place on 13 October, with \$1bn allotted. This was below some market estimates, with the high initial margin¹⁴ (20 per cent) cited as a limiting factor. A slight increase in USD borrowings from the ECB was seen over the course of October and November, but it was not until the co-ordinated actions announced by the ECB and other global central banks¹⁵ in late November (which affected the pricing of the December operations) that significant increases in USD borrowings from the ECB were observed (see Chart 11). Among the key measures was the

Chart 11: USD borrowings (euro-equivalent) & USD basis swap spread



Source: ECB, Bloomberg

decision to lower the pricing of the existing US dollar liquidity swap arrangements by 50 basis points, from USD OIS plus 100bps to USD OIS plus 50bps, and to reduce the initial margin for 84-day US dollar operations from 20 per cent to 12 per cent (with a weekly rebalancing for currency movements).

In the first 84-day operation with the new pricing structure, which took place on 7 December, banks borrowed a total of \$50.7bn, far exceeding market estimates of an uptake of \$10bn. As can be seen from Chart 11, the level of US dollar funding provided by the ECB has declined steadily since the start of the year, and the EUR/USD basis has declined to levels last seen in July 2011 (circa 50bps).

¹² It should be noted that the Fitch data series comprises exposures of the top 10 US prime money market funds for each month, comprising approximately 45 per cent of the total US prime MMF assets under management (AUM)(total circa \$1.4 trillion). The total AUM for the 10 funds in the sample averaged \$671bn for the period shown.

¹³ 3-month dollar operations were first introduced in August 2008 following the collapse of Lehman Brothers, they were discontinued in October 2009 and subsequently reintroduced in May 2010 in response to stressed funding market conditions for US dollars in Europe.

¹⁴ This would imply that counterparties would need to provide underlying assets with a value at least equal to the liquidity provided by the Eurosystem plus the value of the initial margin.

¹⁵ Namely; the Bank of Canada, the Bank of England, the Bank of Japan, the Federal Reserve and the Swiss National Bank.

Section 4: Ireland Overview

Under the terms of the EU-IMF Programme, Ireland has committed to taking the necessary actions to achieve recapitalisation, downsizing and reorganisation of the banking system. On 31 March 2011, the Central Bank of Ireland (CBI) published the Financial Measures Programme Report, which detailed the outcome of its review of capital and funding of domestic Irish banks, including AIB, Bank of Ireland, EBS and Irish Life & Permanent (subsequently renamed Permanent tsb). The aim of this programme is to place the Irish banking system in a position where it could fund itself and generate capital without undue reliance on the Irish or European public sectors. The Programme identified additional capital requirements and liquidity metrics to be satisfied as part of the Prudential Capital Assessment Review (PCAR) and Prudential Liquidity Assessment Review (PLAR). BlackRock Solutions also undertook an independent loan loss exercise conducted on behalf of the CBI.

The PCAR stress tests identified additional capital requirements of €24bn and recapitalisation of the banking sector was completed by July 2011. Following the PLAR assessment, the CBI's monitoring, oversight and enforcement framework for prudential liquidity targets were finalised and implemented in June 2011. Also during 2011, the covered banks commenced the process of reducing their balance sheets through asset disposals, with a targeted loan-to-deposit ratio of 122.5 per cent to be achieved by end 2013. In addition, on 1 July 2011, AIB merged with EBS, while Anglo Irish Bank and Irish Nationwide were combined to form Irish Bank Resolution Corporation, after the deposit books of these institutions were transferred to AIB and ILP respectively. The results of subsequent stress test results announced by the CBI on 15 July and 8 December 2011 showed that Irish banks did not require additional capital beyond the requirement set out in the Programme report published in March 2011.

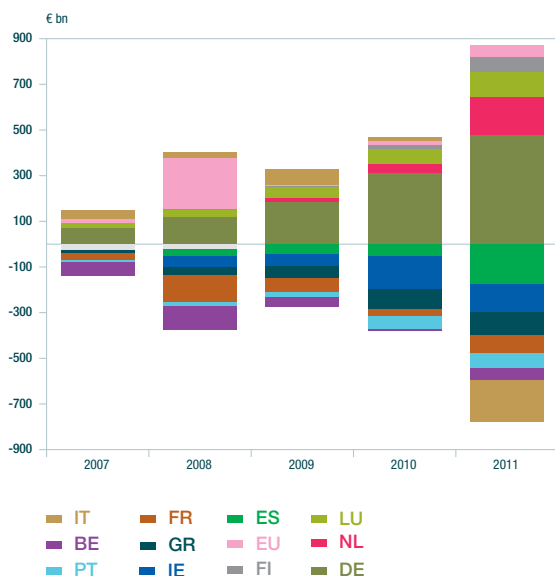
Over the course of 2011, "covered banks" (the domestic banks guaranteed by the Irish government pursuant to the Credit Institutions ELG Scheme), reduced their Eurosystem and Exceptional Liquidity Assistance (ELA) drawings over the course of 2011. The covered banks' total Eurosystem borrowings dropped by €24.3bn in 2011 and fell by a further €1.7bn in Q1 2012 to stand at €65.4bn at end March 2012. The amount of ELA provided by the CBI stood at €42.4bn at end-December 2011, a decline of €7.1bn from the end of December 2010. The composition of Irish institutions' Eurosystem borrowings also changed over the period as MRO borrowings decreased, with Irish banks displaying an increased preference for longer-term funding through participating in the 3-year LTROs, in line with other Eurosystem counterparties.

Section 5: TARGET2 Balances

In recent months there has been some discussion on the issue of intra-Eurosystem claims and liabilities in the form of TARGET2 (T2) balances. The flow of euro funds out of the periphery and into the core has led to a big increase in demand for ECB liquidity from peripheral countries and a significant reduction in demand for central bank liquidity from the core. This has led to big T2 imbalances across the Eurosystem.

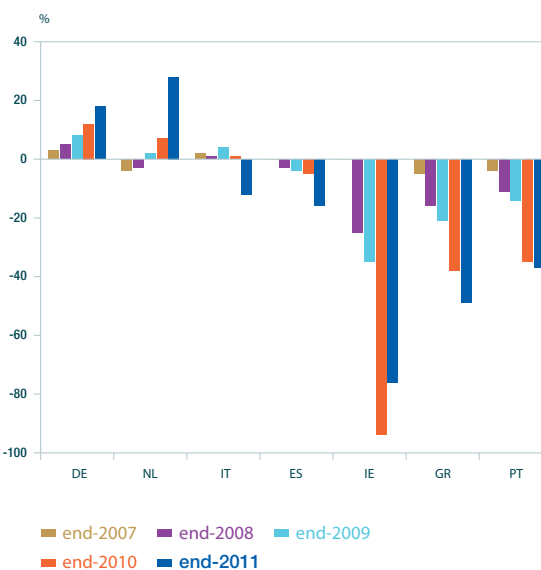
T2 is essentially a platform for the payments system that is jointly run by the central banks of the Eurosystem. All payments are settled in central bank money (that is to say they are recorded on the books of the central bank) and are settled with finality and in real time. They are primarily payments between banks, payments between banks and ancillary systems (e.g. security settlement systems, mass payments systems) as well as payments as part of OMOs of the Eurosystem. The T2 balances of Eurosystem national central banks (NCBs) reflect cross-border euro transfers. When an NCB has a T2 claim, it implies that there has been an inflow of euro funds to that country's banking system and vice versa.

Chart 12: T2 balance per selected NCB from 2007 to 2011



Source: ECB

Chart 13: T2 balances of selected NCBs (as a % of GDP)



Source: ECB and Bloomberg

The balances are aggregated and, at the end of each day, netted out throughout the Eurosystem, leaving each NCB with a single net bilateral position vis-à-vis the ECB. Chart 12 shows how these balances have evolved from 2007 to present.

T2 balances in the Eurosystem bear interest at the marginal allotment rate for main refinancing operations, which is currently set at 0.75 per cent (as approved by the Governing Council of the ECB on 5 July 2012), due to the fixed rate full allotment mechanism, currently in place since 15 October 2008. As the interest rates on T2 settlement balances enter the profit distribution of the Eurosystem in the end, no additional interest income is generated for the participating NCBs.

5.1: How have T2 imbalances evolved?

Over the course of the crisis, T2 balances, which were stable and relatively limited prior to the crisis, have increased by a factor of 9 (see Chart 13). One way to look at the evolution of T2 balances is to say that pre-crisis there were **private** core claims to the periphery, which have since been replaced by **public** claims.

Before 2008 some countries, including Greece and Portugal, ran large current account deficits, while others including Germany and the Netherlands had large current account surpluses. The surpluses being generated in these core countries were then invested in peripheral economies via the capital markets, and this flow of funds back to the periphery served to keep T2 balances relatively stable prior to the crisis.

The inflow of euro from the core, amongst other things, facilitated an increase of credit provision to the periphery. In this manner, the banking system in the core developed a significant exposure to the assets of the peripheral economies (sovereign debt, housing

assets, etc), and the rapid reversal of these flows left the banking sectors in the periphery in severe liquidity stress, needing funding assistance from the Eurosystem and their respective NCBs, and in some cases public support.

As the crisis deepened, broadly two things happened¹⁶:

- (i) the interbank money market system froze with banks unwilling to lend to each other, with higher difficulty faced by banks from peripheral economies; and
- (ii) there was a capital flight as deposits flowed from banks in peripheral economies to core banks.

Overall there has been a concentration of ECB liquidity provision to the periphery in the wake of the financial crisis, which can be seen to broadly coincide with the increase in T2 balances across the Eurosystem. The increased magnitude of T2 balances in Chart 13, can be compared to the increased net liquidity provision throughout the Eurosystem. *Bindseil, Cour-Thimann and König (2012)* acknowledge that during the crisis, financial capital flowed in the direction of banks in the safe havens of the European currency area, thereby leading to the creation of considerable T2 balances. They note that since 2008, there has been an increase in the T2 claims of the Bundesbank, while in the most affected countries, large T2 liabilities have emerged.

5.2: Some Complicating Factors

There are a number of complicating factors when analysing T2 balances:

- i) Payments recorded in T2 are in euros only, which means that payments denominated in all other currencies are not measured by T2 e.g. a banking system can face payment outflows in euro that may be compensated by inflows in USD; its NCB would then display a T2 liability while net flows could still be balanced. This may have had an

impact on the widening of a central bank's T2 liability. When certain US money market funds reportedly withdrew dollar funding from French banks in 2011, these banks then turned to banks in other Eurosystem jurisdictions that had dollar funds. In this scenario, the French banks would swap their euro for dollars with banks in Germany for instance, thus creating a liability on T2 for the Banque de France and an asset with the Bundesbank (euro moving out of France and into Germany). This was not offset by the corresponding flow of dollars out of Germany and into France, as T2 only records euro flows.

- ii) The geographical location of a payer/payee bank sometimes has more to do with the bank's internal organisation than with the economic realities facing the bank in that location. In particular, counterparties can be subsidiaries of a banking group, which may get liquidity from different Eurosystem NCBs. Indeed, it is common for large banking groups to have operations in many different countries, where funds can be raised in a decentralised way, while at the same time centralising their liquidity management. T2 flows may reflect transactions between parent and subsidiaries which could exist even in the case of a national banking system losing access to the interbank market. In Ireland's case, a bank in the IFSC, which has a parent outside of Ireland, could obtain euros in OMOs through the CBI and repatriate these euros to their parent, thus creating a T2 liability for Ireland, and a T2 asset for the other Eurosystem NCB where the parent is located.

- iii) In addition, euro transactions involving subsidiaries of non-euro area banks (e.g. resident in the United Kingdom and the US) whose central banks are not connected to T2 can still be settled in this payment system via accounts at banks holding T2 accounts in different euro area NCBs. This affects the T2 balances of the respective Eurosystem NCBs. For example, a British

¹⁶ Amol Agrawal (2012), from STCI Primary Dealer does a good job of identifying these dynamics, in the March 2012 paper "ECB's TARGET2 System – A Stealth Bailout"

bank which has operations in both Spain and Germany could bid through Spain in the OMOs, and then send these funds to its German branch. In this case, Spain's T2 liability increases and Germany's T2 claim increases, which merely reflects organisational structures.

will function once again. This would require that confidence in the banking sector in the euro area and in the individual banks is restored and that problem banks are rehabilitated or wound down.

There are two ways that Ireland's T2 liability may reduce:

- (i) by deleveraging banks' balance sheets, which means that Irish banks need to sell assets to external investors and/or,
- (ii) re-gaining access to the interbank market, and start receiving private market refinancing and deposits from banks and individuals in other Eurosystem countries.

There is evidence that (i) above has happened already as part of the agreed adjustment to the domestic banking sector. This has been highlighted by recent public announcements by Irish banks on the sale of foreign loan portfolios and stakes in foreign subsidiaries. It is also important to note that payments which Ireland receives as part of the EU/IMF Program reduce its T2 liability as euros flow in from abroad. These will also have to be repaid and as such there will be an outflow of euros of the same amount plus interest, and a corresponding increase on the T2 liability. However, by the time these repayments need to be met, it is hoped that Ireland will have regained full access to international money markets, that the banks will have continued to deleverage, and that overall Ireland will be in net receipt of private funding.

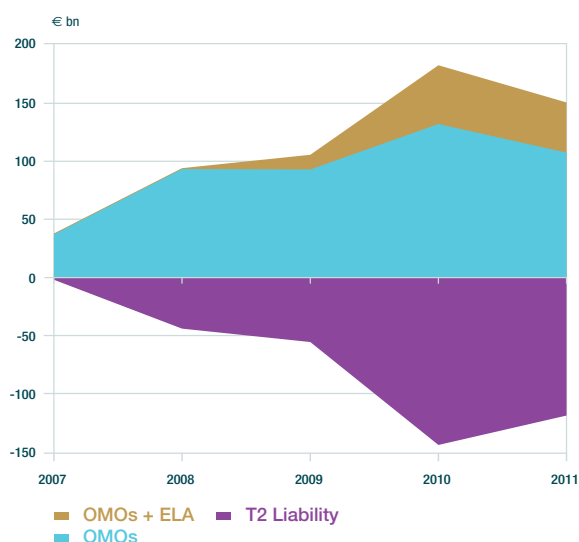
5.3: A Closer Look at Ireland

In Ireland's case, the movement of deposits and financing out of Ireland and back to the core countries has led to the significant increase in Ireland's T2 liability and, at the same time, Irish banks' use of Eurosystem OMOs and ELA borrowings.

At end-2008, Ireland's T2 liability (€44bn) was roughly half its OMOs outstanding (€89bn). At the end of 2011, Ireland had €107bn in outstanding OMOs, and €42bn in ELA, while holding a T2 liability of €119bn. Chart 14 illustrates the CBI's OMO balance, the combined OMO and ELA balance, in addition to the T2 balance.

A general reduction in T2 balances could be expected to happen as soon as tensions in the financial markets abate and the euro-interbank money market has regained its full functionality so that the liquidity balancing among commercial banks (also international)

Chart 14: Ireland's OMO, ELA & T2 balances



Source: CBI

5.4: T2 & Exceptional Liquidity Assistance (ELA)

ELA was granted by the CBI in 2009 and has since been accessed by Irish banks who, for collateral eligibility reasons, could not satisfy their funding needs through OMOs. It has been drawn on by Irish banks to meet payments to deposit holders, bond holders and other creditors. As payment obligations have fallen due, ELA has increased. In the

case where these payments to deposit holders were made to bank accounts outside of Ireland, the CBI's T2 liability increased¹⁷.

Section 6: Conclusion

The intensification of the European debt crisis through 2011 and into 2012 resulted in the Eurosystem undertaking additional standard and non-standard measures to address the deterioration in money markets, and the downside risks to price stability. These measures included two successive interest rate cuts in H2 2011 (reversing two previous interest rate increases in 2011) additional liquidity support measures for banks, the announcement of a second covered bond purchase programme and a more active implementation of the SMP from August 2011.

The most notable liquidity providing measures included the two 3-year LTROs undertaken in December 2011 and February 2012, and an increase in USD liquidity through the introduction of 84-day dollar operations in coordination with other global central banks. The level of outstanding liquidity provided by the Eurosystem, following the introduction of the two 3-year LTROs together with the use of the USD facilities, reached a high of €1.19trn in March 2012. The rise in liquidity provision resulted in an increased use of the deposit facility, while the pattern of depositors using this facility highlighted a continued segmentation in money markets. Those counterparties with surplus liquidity remained reluctant to transact with a wide range of counterparties, instead preferring to deposit funds with the Eurosystem, leaving some counterparties short of funds which then had recourse to Eurosystem borrowings.

These asymmetries in the liquidity position of banking sectors across the Eurosystem contributed to the growth of T2 balances, as the Eurosystem lends to certain peripheral banking sectors that have experienced funding outflows. However, T2 balances by themselves do not accurately measure the risks to the

Eurosystem. An actual loss will be incurred only if a Eurosystem counterparty defaults and the collateral it posted does not realise the full value of the collateralised refinancing operations despite the risk control measures applied by the Eurosystem¹⁸. Any actual loss would generally be borne by the Eurosystem as a whole, regardless of which national bank records it. The cost of such a loss would typically be shared among the national banks in line with the capital key. More specifically, a reduction in Ireland's T2 liability could be brought about by domestic banks continuing to deleverage and attracting sources of private funding.

Going forward, as the option to repay the funds under the first 3-year LTRO does not arise until January 2013, excess liquidity is likely to remain a feature of euro area money markets until at least this time. Ultimately, a permanent and sizeable reduction in Eurosystem lending (which may have a commensurate impact on T2 balances) will most likely be brought about through a reactivation of private sector funding channels to affected banking sectors and the continued implementation of banks' deleveraging plans.

¹⁷ Professor Karl Whelan, University College Dublin, has identified this dynamic in his February 2012 paper: *ELA, Promissory Notes and All That: The Fiscal Costs of Anglo Irish Bank*.

¹⁸ The Deutsche Bundesbank identify these risks in its March 2011 Monthly Report.

Annex 1

Glossary of Terms

This Glossary explains some of the key terms in the document.

Covered Bond Purchase Programme: was first established by the Governing Council in June 2010 to purchase covered bonds issued in the euro area, in both the primary and secondary markets, for an amount of €60bn. This programme was completed in June 2010. A second Covered Bond Purchase Programme was established in November 2011, this time for an intended amount of €40bn with an envisaged timeframe of 12 months.

ECB's Policy Rate: is set by the Governing Council once a month. It serves as the minimum bid rate in MROs, which serves to steer short-term interest rates, to manage the liquidity situation and to signal the stance of monetary policy in the euro area.

EONIA (Euro Overnight Index Average) is a market index computed as the weighted average of overnight unsecured lending transactions undertaken by a representative panel of banks.

EURIBOR (Euro Interbank Offered Rate) is the rate at which interbank term deposits are offered by one prime bank to another prime bank. This is often the reference rate for maturities of one, two and three weeks, and for maturities of one to twelve months.

EURIBOR – OIS spread: is the difference between the Euribor rate and the OIS rate (the fixed side of an interest rate swap whose floating component pays EONIA) for a given tenor. The magnitude of the spread can give an indication of stress in the interbank money markets.

Excess liquidity arises when the supply of liquidity (as provided via ECB open market operations and the marginal lending facility), exceeds the demand for liquidity (as dictated by minimum reserve requirements and autonomous factors outside the direct control of individual NCBs). In this situation, the excess will likely end up being deposited with the ECB via the deposit facility or the weekly liquidity absorbing fine-tuning operation.

Maintenance period (MP): The period over which compliance with reserve requirements is calculated. The MP begins on the settlement day of the first MRO following the policy meeting of the Governing Council.

Minimum reserve requirements are determined on the basis of the institutions' average daily reserve holdings (calculated on the basis of certain balance sheet liabilities) over a maintenance period of about one month. Each bank in the Eurosystem is required to maintain a balance with their respective NCB. The required reserve holdings are remunerated at a level corresponding to the average interest rate in the Eurosystem's MROs over the maintenance period.

Open Market Operations (OMO's) include Main Refinancing Operations, Longer-Term Refinancing Operations, Fine-Tuning Operations and Structural Operations, as defined below.

(i) Main Refinancing Operations (MROs) are regular liquidity-providing reverse transactions with a frequency and maturity of one week. The MRO rate is currently 0.75 per cent;

(ii) Longer-term refinancing operations (LTROs) are liquidity-providing reverse transactions that are regularly conducted with a monthly frequency and a maturity of three months. Longer-term refinancing operations are conducted at irregular intervals or with other maturities, e.g. the length of one maintenance period, six months, twelve months or thirty-six months are also possible;

(iii) Fine-Tuning Operations (FTOs) can be executed on an ad hoc basis to manage the liquidity situation in the market and to steer interest rates. In particular, they aim to smooth the effects on interest rates caused by unexpected liquidity fluctuations. Fine-tuning operations are primarily executed as reverse transactions, but may also take the form of outright transactions, foreign exchange swaps and collection of fixed-term deposits. Since May 2010, a weekly FTO has been held to absorb the liquidity provided through the Securities Markets Programme.

(iv) Structural operations are executed by the Eurosystem mainly in order to adjust the structural liquidity position of the financial sector vis-à-vis the Eurosystem. They can be carried out through reverse transactions, outright transactions and the issuance of debt certificates.

The **Securities Markets Programme (SMP)** was established by the ECB in May 2010 in order to address the severe tensions in certain debt markets that were hampering the monetary policy transmission mechanism. The liquidity provided through the SMP is currently absorbed by weekly collections of fixed term deposits.

Standing Facilities aim to provide and absorb overnight liquidity, signal the general monetary policy stance and bound overnight market interest rates. Two standing facilities, which are administered in a decentralised manner by the NCBs, are available to eligible counterparties on their own initiative:

(i) Marginal lending facility (MLF):

Counterparties can use the MLF to obtain overnight liquidity from the NCBs against eligible assets. The interest rate on the MLF is currently 1.50 per cent (75bps above the MRO rate) and normally provides a ceiling for the overnight market interest rate.

(ii) Deposit facility (DF): Counterparties can use the deposit facility to place overnight deposits with the NCBs. The interest rate on the deposit facility is currently zero per cent (75bps below the MRO rate) and normally provides a floor for the overnight market interest rate.

Standing Facilities Corridor: is the range between the deposit facility and marginal lending facility interest rates, and is the space in which the overnight lending rate, EONIA, normally fixes. The marginal lending facility rate provides a ceiling and the deposit facility rate provides a floor for overnight unsecured rates.

Variable Rate Allotment: In normal circumstances, the Eurosystem, when conducting its OMOs, assesses the total liquidity need of the banking sector and, in competitive tenders, allots this amount. Usually these tenders are conducted as **variable rate tenders**, meaning that banks pay the interest rate that they offer when they successfully place their bids.

The Eurosystem may also execute its tenders in the form of **fixed rate tenders**, where the interest rate is specified in advance and banks bid the amount of money they wish to transact at the fixed interest rate.

In exceptional circumstances, the ECB may decide in advance to allot the full amount of liquidity that banks request, i.e. to accommodate all bids, at a fixed interest rate (known as **fixed rate full allotment**). The ECB currently operates a fixed rate full allotment policy for all refinancing operations.

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Statistical Appendix

Section A: Money and Banking 3

A.1	Summary Irish Private Sector Credit and Deposits	4
A.2	Financial Statement of the Central Bank of Ireland	6
A.4	Credit Institutions – Aggregate Balance Sheet	8
A.4.1	Credit Institutions (Domestic Group) – Aggregate Balance Sheet	10
A.14	Credit Advanced to Irish Resident Private-Sector Enterprises	12
A.16	Deposits from Irish Resident Private-Sector Enterprises	16
A.18	Credit Advanced to and Deposits from Irish Private Households	18
A.19.1	All Credit Institutions: International Business: Analysis by Currency and Sector	20
A.19.2	All Credit Institutions: International Business: Analysis by Geographic Area	22
A.20.1	Money Market Funds – Monthly Aggregate Balance Sheet	24
A.20.2	Money Market Funds – Currency Breakdown of Assets	25

Section B: Interest Rates 27

B.1.1	Retail Interest Rates – Deposits, Outstanding Amounts	29
B.1.2	Retail Interest Rates – Loans, Outstanding Amounts	30
B.2.1	Retail Interest Rates and Volumes – Loans and Deposits, New Business	32
B.3	Official and Selected Interest Rates	34

Section C: Other Financial Data 35

C.1	Investment Funds – Aggregate Balance Sheet	36
C.2.1	Securities Issues Statistics: Debt Securities	38
C.2.2	Securities Issues Statistics: Equities	42
C.3	Assets and Liabilities of Irish Financial Vehicle Corporations	44

Section D: Quarterly Financial Accounts 47

D.1	Financial Balance Sheet By Sector, Summary	49
D.1.1	Financial Balance Sheet By Sector, Detail	50
D.1.2	Financial Transactions By Sector, Detail	52

Section E: Public Finances and Competitiveness Indicators 55

E.1	Government Debt	56
E.2	Irish Government Long-Term Bonds – Nominal Holdings	57
E.3	Harmonised Competitiveness Indicators for Ireland (HCIs)	58
E.3 (contd.)	Harmonised Competitiveness Indicators for Ireland (HCIs)	59

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							
2011							
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	111,009	80,798	17,139	13,073	87,963	87,817	146
November	110,832	80,723	17,009	13,101	88,354	88,208	147
December	110,287	80,396	16,617	13,275	88,344	88,185	159
2012							
January	109,601	80,190	16,220	13,191	87,687	87,534	153
February	109,218	79,954	16,107	13,156	87,292	87,142	151
March	108,953	79,874	15,916	13,164	87,343	87,192	151
April	109,208	81,031	14,987	13,190	87,210	87,059	150
May	109,006	80,819	15,018	13,169	87,211	87,056	154
Transactions – € million							
2011							
May	- 449	- 262	- 156	- 31	- 93	- 87	- 6
June	- 196	- 127	- 69	-	275	343	- 68
July	- 708	- 334	- 290	- 83	163	158	5
August	- 443	- 242	- 127	- 74	- 437	- 436	- 1
September	- 183	- 83	- 119	19	519	514	5
October	- 612	- 319	- 244	- 49	- 454	- 450	- 4
November	- 363	- 221	- 142	- 1	40	39	1
December	- 65	37	- 15	- 88	- 652	- 665	13
2012							
January	- 690	- 216	- 394	- 80	- 554	- 548	- 6
February	- 355	- 224	- 107	- 23	- 169	- 167	- 2
March	- 167	- 59	- 115	7	34	34	1
April	- 582	- 188	- 343	- 51	- 326	- 326	-
May	- 264	- 242	21	- 44	- 334	- 338	4
Growth rates – per cent.							
2011							
May	- 4.0	- 2.1	- 14.5	- 2.2	- 3.7	- 3.5	- 27.4
June	- 3.9	- 2.2	- 14.4	0.2	- 3.3	- 3.0	- 67.2
July	- 3.9	- 2.4	- 13.5	- 0.6	- 2.7	- 2.4	- 66.3
August	- 4.0	- 2.4	- 13.8	- 1.1	- 2.7	- 2.5	- 66.5
September	- 4.0	- 2.5	- 13.7	- 0.7	- 1.8	- 1.5	- 65.2
October	- 3.9	- 2.6	- 13.3	0.7	- 1.9	- 1.7	- 59.6
November	- 4.1	- 2.7	- 12.9	- 2.0	- 1.7	- 1.5	- 59.0
December	- 3.6	- 2.5	- 6.9	- 8.9	- 1.9	- 1.8	- 49.6
2012							
January	- 3.9	- 2.4	- 11.8	- 3.3	- 2.2	- 2.2	- 56.1
February	- 4.0	- 2.5	- 12.0	- 3.4	- 2.3	- 2.3	- 55.9
March	- 3.9	- 2.4	- 11.6	- 3.1	- 2.3	- 2.2	- 53.4
April	- 4.0	- 2.4	- 11.9	- 3.4	- 1.9	- 1.8	- 53.8
May	- 3.9	- 2.5	- 11.0	- 3.5	- 2.1	- 2.1	- 50.1

Table A.1 – continued

Insurance corporations and pension funds/Other financial intermediaries			Irish Private Sector Deposits				
Total			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
							2011
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
124,753	41,869	82,884	162,993	91,919	31,550	39,524	October
124,914	41,980	82,934	162,137	90,734	31,559	39,844	November
124,950	42,163	82,787	162,584	91,314	30,870	40,401	December
							2012
124,120	41,638	82,482	162,037	91,245	29,795	40,998	January
123,427	41,146	82,282	162,254	91,190	29,793	41,271	February
123,092	41,345	81,748	163,141	92,127	29,742	41,272	March
120,440	40,171	80,268	167,259	92,034	30,099	45,127	April
120,514	40,381	80,133	167,325	92,143	30,327	44,855	May
							Transactions – € million
							2011
- 841	- 186	- 656	- 752	- 709	- 36	- 8	May
786	- 398	1,184	- 4,289	27	- 741	- 3,575	June
- 1,273	- 1,025	- 248	- 1,000	- 438	95	- 657	July
- 1,507	- 528	- 979	- 895	- 510	459	- 844	August
- 2,024	- 98	- 1,927	- 2,671	485	- 420	- 2,736	September
- 2,256	- 1,684	- 572	592	186	464	- 58	October
- 481	- 531	49	- 1,328	- 1,210	- 155	37	November
- 215	- 271	56	108	540	- 68	- 365	December
							2012
- 622	- 349	- 273	- 481	- 56	- 1,079	654	January
- 423	- 252	- 171	160	25	62	73	February
- 223	193	- 415	798	761	18	19	March
- 2,860	- 1,397	- 1,462	3,947	- 113	291	3,769	April
- 257	- 166	- 91	- 69	48	43	- 160	May
							Growth rates – per cent.
							2011
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
- 10.1	- 16.6	- 6.3	- 7.3	- 3.4	- 6.0	- 15.4	December
							2012
- 9.9	- 16.0	- 6.3	- 7.0	- 3.0	- 9.1	- 12.6	January
- 9.8	- 16.5	- 6.0	- 5.9	- 2.2	- 8.0	- 10.9	February
- 9.6	- 15.3	- 6.3	- 4.3	- 0.9	- 5.3	- 9.7	March
- 9.9	- 14.4	- 7.3	- 3.4	- 1.1	- 3.5	- 7.6	April
- 9.4	- 14.3	- 6.5	- 3.0	- 0.3	- 3.3	- 7.9	May

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									
2011									
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	–
2012									
27 January	164,054	235	92,616	23,060	69,556	–	–	–	–
24 February	158,784	235	87,121	19,315	67,806	–	–	–	–
30 March	156,423	235	85,071	6,050	79,021	–	–	–	–
27 April	156,492	240	86,826	7,810	79,016	–	–	–	–
25 May	154,241	240	84,456	4,290	80,166	–	–	–	–
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									
2011									
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	–	–	–	–
2012									
27 January	164,054	12,282	6,059	2,299	2,360	1,400	–	–	–
24 February	158,784	12,654	6,262	2,739	3,523	–	–	–	–
30 March	156,423	12,706	6,901	1,913	3,807	1,181	–	–	–
27 April	156,492	12,765	6,198	2,385	2,856	957	–	–	–
25 May	154,241	12,838	4,002	1,957	2,045	–	–	–	–

Notes:

- For a full set of explanatory notes see:
[Money and Banking Statistics Explanatory Notes](#)
- An accounting reclassification took place, in month ending 27 April 2012, in order to harmonise the disclosure of the Emergency Liquidity Assistance (ELA) provided by Eurosystem central banks to domestic credit institutions under other claims on euro area credit institutions denominated in euro.

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
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
461	2,108	1,101	1,082	20,997	–	45,454
728	2,490	1,009	1,081	20,887	–	45,233
549	2,693	1,101	1,068	20,711	–	44,995
41,348	2,916	1,322	1,045	20,438	–	2,357
41,498	2,926	1,258	1,045	20,462	–	2,356

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
–	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
–	18,615	35	–	–	920	303	1,723	124,117
–	18,385	28	–	–	920	303	1,953	118,279
–	18,967	26	–	–	920	303	1,893	114,707
–	17,192	29	–	–	900	346	1,893	117,169
–	16,999	29	–	–	900	346	1,893	117,234

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									
2011									
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	1,029,197	405,683	115,044	29,449	261,191	96,544	16,285	10,462	69,798
August	1,027,999	406,399	117,550	29,547	259,303	96,893	17,407	12,074	67,411
September	1,046,213	408,473	118,328	29,622	260,524	95,537	17,269	12,772	65,497
October	1,031,458	389,832	119,527	29,610	240,695	113,581	17,593	12,958	83,030
November	1,028,538	390,602	119,989	29,593	241,020	113,931	18,571	12,279	83,081
December	1,025,896	383,645	113,322	29,687	240,636	113,613	17,638	13,029	82,946
2012									
January	1,003,946	379,202	110,701	29,728	238,773	115,197	18,216	14,346	82,635
February	968,241	374,145	106,538	30,102	237,505	115,525	18,387	14,706	82,432
March	948,885	370,873	103,643	29,741	237,490	114,383	17,841	14,643	81,898
April	940,259	363,032	98,273	28,321	236,439	116,523	18,500	17,605	80,419
May	954,003	363,595	98,760	28,392	236,443	116,051	18,630	17,134	80,287
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									
2011									
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	1,029,197	281,576	111,908	2,290	167,378	32,177	21,288	50,454	
August	1,027,999	281,620	113,107	2,361	166,152	31,396	21,946	48,276	
September	1,046,213	282,226	115,482	2,752	163,992	31,053	21,739	47,645	
October	1,031,458	283,180	117,722	2,465	162,993	31,951	20,913	46,004	
November	1,028,538	282,550	117,899	2,514	162,137	33,047	20,486	45,115	
December	1,025,896	277,536	112,228	2,725	162,584	30,503	20,446	44,536	
2012									
January	1,003,946	272,552	107,942	2,573	162,037	29,991	20,384	41,467	
February	968,241	268,551	103,868	2,429	162,254	29,040	17,367	40,815	
March	948,885	267,267	101,791	2,335	163,141	27,008	16,943	40,317	
April	940,259	265,246	95,659	2,328	167,259	26,387	16,786	38,852	
May	954,003	266,826	96,833	2,668	167,325	26,395	15,564	38,570	

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
								2011
109,820	193,037	77,871	88,184	9,168	–	34,686	27,583	May
109,000	186,843	74,349	83,229	7,287	–	36,158	25,879	June
106,389	190,622	73,284	84,022	8,784	–	36,098	27,770	July
102,566	192,689	71,565	81,344	11,138	–	35,970	29,434	August
110,408	203,536	70,790	80,829	7,586	–	35,774	33,281	September
113,953	190,729	69,107	78,657	8,024	–	35,936	31,640	October
111,347	192,918	68,832	76,391	6,659	–	26,445	41,412	November
114,759	190,513	69,336	78,010	6,765	–	27,517	41,739	December
								2012
108,524	182,769	68,977	76,767	6,191	–	25,718	40,601	January
86,707	180,896	69,747	76,093	5,038	–	22,490	37,600	February
72,209	178,528	70,005	77,728	8,364	–	22,662	34,133	March
73,825	181,066	69,796	75,182	7,799	–	18,566	34,470	April
74,360	184,400	70,315	76,982	7,840	–	21,151	39,309	May
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
								2011
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	162,342	109,465	21,479	97,593		85,396	33,851	July
136,254	162,074	108,627	20,202	94,838		87,869	34,897	August
141,904	166,440	110,831	19,826	100,355		84,669	39,525	September
141,808	162,228	109,283	19,011	100,940		78,167	37,973	October
143,452	156,460	109,570	18,561	103,925		66,492	48,880	November
141,710	157,376	109,522	17,828	108,407		67,869	50,164	December
								2012
147,917	152,368	107,500	18,745	94,905		70,889	47,227	January
136,263	153,431	107,565	18,805	87,021		65,548	43,835	February
126,195	149,663	110,719	17,536	87,749		65,227	40,260	March
124,066	148,923	111,107	17,596	89,759		60,981	40,555	April
125,423	153,121	111,881	17,149	88,010		64,973	46,092	May

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									
2011									
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	649,194	343,153	97,328	29,309	216,516	109,923	16,631	12,836	80,455
November	643,321	343,225	97,649	29,292	216,284	110,335	17,627	12,179	80,528
December	634,241	337,119	92,265	29,389	215,465	110,110	16,694	12,927	80,488
2012									
January	623,785	334,224	90,625	29,430	214,169	111,814	17,350	14,242	80,222
February	614,138	331,861	88,806	29,804	213,251	112,150	17,537	14,601	80,013
March	609,553	328,314	85,729	29,443	213,143	111,056	16,979	14,539	79,539
April	602,764	321,979	80,145	28,083	213,751	113,296	17,720	17,500	78,076
May	603,039	321,373	79,946	28,160	213,267	112,836	17,864	17,032	77,941
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									
2011									
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	649,194	250,062	105,653	2,441	141,968	31,510	8,300	15,035	
November	643,321	249,971	106,120	2,486	141,366	32,590	8,070	14,458	
December	634,241	243,349	99,425	2,455	141,469	30,031	7,949	13,623	
2012									
January	623,785	239,534	95,803	2,541	141,190	29,524	7,957	11,466	
February	614,138	237,599	93,780	2,405	141,415	28,583	7,851	11,057	
March	609,553	236,494	91,766	2,298	142,430	26,547	7,267	10,360	
April	602,764	234,590	85,843	2,322	146,425	25,925	7,265	8,861	
May	603,039	235,067	86,372	2,645	146,050	25,903	7,268	8,737	

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
								2011
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
8,546	101,142	9,207	28,507	4,385	–	18,769	16,456	December
								2012
8,393	93,430	8,956	27,875	4,260	–	19,256	15,577	January
7,909	92,925	8,773	27,456	3,363	–	15,528	14,174	February
7,902	92,387	8,488	29,766	4,588	–	14,366	12,686	March
8,107	93,780	8,347	26,655	5,905	–	12,331	12,364	April
8,187	93,865	8,190	26,827	5,460	–	13,111	13,190	May
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
								2011
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	89,227	2,910	71,495		71,495	9,856	October
11,978	82,536	89,405	2,397	73,090		59,178	19,646	November
12,760	85,129	89,243	1,742	71,986		58,994	19,435	December
								2012
12,872	80,618	87,354	2,393	71,252		64,071	16,743	January
12,932	81,604	87,532	2,382	71,289		57,847	15,460	February
11,873	79,204	90,420	2,201	74,955		56,219	14,013	March
11,043	76,767	90,918	2,165	76,958		54,334	13,502	April
11,043	76,641	90,402	2,178	75,444		56,140	14,218	May

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

		Outstanding amounts – € million				
		Mar-11	Jun-11	Sep-11	Dec-11	Mar-12
1. Primary Industries		5,291	5,250	5,323	5,069	5,114
1.1 Agriculture		4,460	4,420	4,435	4,260	4,290
1.1.1 Growing of crops, market gardening, horticulture		491	489	473	482	474
1.1.2 Farming of animals		2,868	2,860	2,853	2,730	2,761
1.1.3 Other agricultural activities		1,101	1,071	1,110	1,048	1,055
1.2 Forestry, logging, mining and quarrying		486	494	566	490	505
1.3 Fishing and aquaculture		345	337	322	320	319
2. Manufacturing		5,128	4,949	4,947	5,248	5,066
2.1 Manufacture of food, beverages and tobacco products		2,152	2,072	2,094	2,348	2,225
2.2 Wood, pulp, paper, paper products, printing and reproduction of recorded media		636	661	646	669	698
2.3 Chemicals, rubber/plastic products, other non-metallic mineral products		746	753	740	713	624
2.4 Pharmaceutical products and preparations, medical and dental instruments and supplies		109	91	92	74	69
2.5 Fabricated metal products, except machinery and equipment		127	114	86	92	96
2.6 Computer, electronic and optical products		91	82	75	93	101
2.7 Production, installation and repair of commercial machinery/equipment, not including computers		423	390	389	432	436
2.8 Other manufacturing		845	787	825	827	818
3. Electricity, Gas, Steam and Air Conditioning Supply		965	751	795	785	773
4. Water Supply, Sewerage, Waste Management and Remediation Activities		129	130	142	143	138
5. Construction		3,558	3,429	3,266	3,005	2,948
5.1 Construction of buildings carried out on contract		1,729	1,721	1,596	1,470	1,447
5.2 Civil engineering activities carried out on contract		716	689	700	689	673
5.3 Other construction activities		1,112	1,018	969	846	828
6. Wholesale/Retail Trade & Repairs		9,498	9,169	9,267	9,430	9,274
6.1 Sale, maintenance/repair of motor vehicles, retail sale of fuel		1,646	1,601	1,640	1,761	1,716
6.2 Wholesale trade and commission trade (except vehicles)		1,645	1,636	1,606	1,843	1,777
6.3 Retail trade (except vehicles), repair of personal/household goods		5,261	5,076	5,088	4,898	4,866
6.4 Other wholesale/retail		946	856	933	928	914
7. Transportation and Storage		1,639	1,668	1,495	1,469	1,545
7.1 Land, water and air transport		994	993	902	824	907
7.2 Postal, courier, warehousing and support activities for transportation		309	308	304	324	316
7.3 Other transportation and storage		336	367	288	321	323
8. Hotels and Restaurants		8,080	7,972	7,906	7,720	7,709
8.1 Hotels		4,415	4,343	4,328	4,248	4,321
8.2 Restaurants		617	606	589	607	606
8.3 Bars		2,682	2,659	2,632	2,535	2,449
8.4 Other accommodation and catering		366	365	357	331	332
9. Information and Communication		638	608	599	583	567
9.1 Publishing of printed material		182	180	177	174	174
9.2 Audio-visual production and publishing, programming and broadcasting activities		51	47	48	49	49
9.3 Telecommunications and information service activities		262	253	262	248	230
9.4 Software publishing, computer programming, consultancy and related activities		142	127	111	111	113
9.5 Other information and communication		1	1	1	1	1

Notes:

* For metadata and explanatory notes see:

http://www.centralbank.ie/polstats/stats/cmab/Documents/Business_Credit_and_Deposits_Explanatory_Notes_Jun11.pdf

** For commentary on most recent developments see:

<http://www.centralbank.ie/polstats/stats/cmab/Pages/releases.aspx>

Table A.14 – continued

Transactions – € million					Growth rates – per cent.				
Mar-11	Jun-11	Sep-11	Dec-11	Mar-12	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12
-9	-39	71	-243	34	7.7	-1.3	-1.5	-4.1	-3.3
-21	-40	19	-158	20	8.7	-1.9	-3.1	-4.5	-3.6
8	-2	-14	9	-8	..	..	..	0.2	-3.1
-8	-8	-3	-119	33	..	..	..	-4.8	-3.3
-22	-31	36	-48	-6	..	..	..	-5.8	-4.4
19	10	67	-83	15	3.4	3.2	18.8	3.1	2.2
-6	-9	-15	-2	-1	4.3	1.3	-7.4	-9.1	-7.7
-12	-125	-54	123	-243	-5.9	-9.8	-5.5	-1.3	-5.7
-193	-30	-21	189	-158	..	..	..	-2.0	-0.7
3	25	-14	10	29	..	..	..	3.7	7.8
53	2	-12	-46	-111	..	..	..	-0.6	-22.0
29	-17	0	-20	-4	..	..	..	-9.8	-37.4
50	-11	-28	6	4	..	..	..	22.0	-23.7
15	-8	-8	14	9	..	..	..	16.1	6.2
11	-32	-3	19	-4	..	..	..	-1.4	-4.9
18	-55	32	-49	-7	..	..	..	-6.5	-9.2
60	-176	39	-17	-11	54.2	17.7	51.0	-10.3	-17.0
1	2	21	1	-5	-4.9	-8.3	19.3	19.1	14.4
132	-21	1	-30	-32	-46.4	-44.9	-43.1	2.3	-2.5
132	100	81	-26	-1	..	..	..	17.8	9.0
-31	-27	-38	-8	-14	..	..	..	-14.0	-12.1
31	-94	-42	4	-18	..	..	..	-9.4	-13.8
-172	-289	58	68	-196	-3.2	-8.1	-8.3	-3.4	-3.8
-38	-44	42	120	-44	-1.5	-5.9	-0.1	4.8	4.6
-91	-4	-62	209	-110	-10.4	-11.3	-14.0	2.8	2.0
-24	-182	18	-246	-32	0.1	-4.7	-6.3	-8.2	-8.4
-19	-59	61	-16	-10	-8.7	-21.9	-19.3	-3.1	-2.3
143	33	-173	-57	68	5.4	-1.1	-3.4	-4.1	-8.0
89	0	-90	-73	75	..	..	..	-8.7	-8.8
10	1	-4	14	-8	..	..	..	7.0	1.2
45	32	-79	1	1	..	..	..	-1.2	-13.5
-6	-62	-62	-35	-5	-5.8	-5.3	-4.1	-2.0	-2.0
6	-33	-19	2	75	-11.2	-9.6	-5.8	-1.0	0.6
1	-10	-16	-13	-6	0.5	0.7	-2.6	-6.3	-7.3
-11	-18	-18	-24	-76	2.8	2.1	0.0	-2.7	-5.2
-1	-1	-8	0	2	-4.8	-9.5	-13.5	-2.6	-1.8
-4	-18	-11	-11	-17	23.7	16.7	16.2	-6.9	-9.0
-28	4	-4	-3	0	..	..	..	-14.8	-1.7
-3	-4	0	7	0	..	..	..	0.0	6.9
-2	-3	8	-16	-17	..	..	..	-4.8	-10.8
29	-15	-15	0	1	..	..	..	-1.2	-20.6
0	0	0	0	0	..	..	..	-3.8	-1.9

Table A.14 – continued

Outstanding amounts – € million					
	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12
10. Financial Intermediation (Excl. Monetary Financial Institutions)	107,865	112,985	107,739	124,188	122,387
10.1 Financial leasing	1,674	1,711	1,639	1,536	1,496
10.2 Non-bank credit grantors, excluding credit unions	10,912	17,942	17,983	16,196	15,787
10.3 Investment funds, excluding financial vehicle corporations and money market funds	828	529	461	520	544
10.4 Financial vehicle corporations (FVCs)	71,483	72,018	69,389	87,458	86,440
10.5 Life insurance	4,494	4,272	2,781	2,778	2,701
10.6 Pension funding	74	91	78	69	69
10.7 Non-life insurance	150	141	169	167	231
10.8 Security broker/fund management	4,255	3,428	3,159	2,850	367
10.9 Other financial intermediation / Unallocated	13,995	12,854	12,079	12,615	14,751
11. Real Estate, Land and Development Activities	55,160	55,397	55,570	54,907	54,462
11.1 Property investment/development of residential real estate	16,050	16,298	16,288	18,221	18,296
11.2 Property investment/development of commercial real estate	17,266	17,258	17,122	14,246	14,187
11.3 Property investment/development of mixed real estate	17,457	17,528	17,826	18,276	17,928
11.4 Investment in unzoned land	998	1,005	1,004	894	863
11.5 Other real estate activities	3,388	3,308	3,330	3,269	3,187
12. Business and Administrative Services	5,122	5,055	5,014	5,138	5,020
12.1 Legal, accounting and management consultant activities	1,313	1,272	1,229	1,314	1,294
12.2 Architectural and engineering activities, technical testing and analysis	151	178	185	173	178
12.3 Scientific research and development	29	32	30	29	33
12.4 Rental and leasing activities, services to buildings and landscape activities	136	106	104	92	90
12.5 Employment, office administration and business support activities	285	263	280	268	268
12.6 Other business and administrative services	3,209	3,203	3,186	3,262	3,157
13. Other Community, Social and Personal Services	2,288	2,248	2,207	2,160	2,124
13.1 Recreational, cultural and sporting activities	942	912	908	895	869
13.2 Membership organisations (business, employers, professional, trade unions, religious, political)	317	311	306	304	300
13.3 Other service activities	1,029	1,025	994	960	955
14. Education	674	640	589	565	495
15. Human Health and Social Work	2,043	2,038	2,006	1,999	1,937
15.1 Hospitals and medical practice activities	1,362	1,355	1,347	1,336	1,277
15.2 Residential care activities	314	318	313	312	313
15.3 Other health and social work	368	365	346	351	347
16. Extra-Territorial Organisations and Bodies	1	0	0	0	0
17. Total	208,077	212,288	206,864	222,409	219,558
17.1 Total ex Financial Intermediation	100,212	99,304	99,126	98,221	97,171
17.2 Total ex Financial Intermediation and Property Related Sectors	41,495	40,479	40,290	40,309	39,761

Table A.14 – continued

Transactions – € million					Growth rates – per cent.				
Mar-11	Jun-11	Sep-11	Dec-11	Mar-12	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12
-1,351	-2,504	-4,739	-2,926	-1,177	26.9	14.3	6.8	-10.1	-9.8
191	39	-85	-106	-38	..	..	..	2.7	-11.3
-1,694	-859	-237	-1,780	-364	..	..	..	-28.9	-19.9
413	-296	-75	54	26	..	..	..	22.3	-35.4
-544	649	-2,982	-499	-642	..	..	..	-4.7	-4.7
34	-215	-153	-13	-73	..	..	..	-7.9	-11.0
-9	17	-6	8	0	..	..	..	13.2	26.9
-99	0	24	-6	67	..	..	..	-27.7	58.9
-183	-767	-406	-400	-17	..	..	..	-39.4	-37.3
537	-1,073	-820	-184	-135	..	..	..	-11.6	-15.8
122	413	329	-581	-182	-0.6	0.4	1.4	0.5	0.0
-430	407	127	-358	185	..	..	..	-1.2	2.1
4	44	-91	-49	-384	..	..	..	-0.5	-3.2
470	-16	280	-72	30	..	..	..	4.0	1.3
17	5	-1	-54	-27	..	..	..	-3.3	-7.8
60	-27	15	-49	14	..	..	..	0.0	-1.4
-362	-61	-91	-276	-19	4.7	3.9	-3.0	-14.3	-8.7
-273	-43	-45	10	-9	..	..	..	-22.0	-6.6
-12	29	7	-12	6	..	..	..	6.7	19.1
0	3	-3	0	3	..	..	..	1.2	12.1
-8	-30	-2	-12	0	..	..	..	-35.7	-32.3
58	-27	-11	-11	0	..	..	..	4.5	-16.8
-127	7	-37	-249	-18	..	..	..	-12.2	-9.2
-1,021	-39	-33	-35	-33	-68.6	-68.8	-68.8	-45.6	-6.1
-588	-29	-3	-1	-24	..	..	..	-53.3	-6.2
-66	-6	-6	-8	-4	..	..	..	-25.8	-7.3
-367	-3	-24	-26	-5	..	..	..	-42.8	-5.7
-49	-34	-50	-32	-70	-26.1	-35.1	-36.1	-22.8	-27.6
6	4	-11	10	-61	-2.9	-5.7	-7.5	0.4	-2.9
-12	-7	-11	15	-58	..	..	..	-1.1	-4.6
-82	13	-4	-15	1	..	..	..	-22.2	-1.7
100	-3	4	11	-4	..	..	..	42.0	2.2
-1	-1	0	0	0	..	..	..	..	..
-2,523	-2,916	-4,704	-4,042	-1,950	8.1	3.1	0.2	-6.6	-6.3
-1,172	-412	34	-1,116	-773	-4.4	-5.3	-4.5	-2.6	-2.3
-1,426	-804	-296	-505	-558	-5.7	-9.4	-9.1	-7.1	-5.2

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

	Outstanding amounts – € million				
	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12
1. Primary Industries	2,753	2,727	2,760	2,986	2,873
2. Manufacturing	4,584	4,114	4,173	4,413	3,827
3. Electricity, Gas, Steam and Air Conditioning Supply	566	518	517	524	495
4. Water Supply, Sewerage, Waste Management and Remediation Activities	58	57	60	49	47
5. Construction	1,903	2,017	1,925	1,965	1,835
6. Wholesale/Retail Trade & Repairs	4,124	4,336	4,313	4,348	3,603
7. Transportation and Storage	2,294	2,557	2,665	2,397	2,461
8. Hotels and Restaurants	634	658	668	615	568
9. Information and Communication	1,035	960	974	1,106	1,039
10. Financial Intermediation (Excl. Monetary Financial Institutions)	38,305	45,007	40,935	40,301	41,224
11. Real Estate, Land and Development Activities	4,744	4,048	3,993	3,782	3,590
12. Business and Administrative Services	7,188	6,919	7,143	7,035	7,481
13. Other Community, Social and Personal Services	4,319	4,374	4,401	4,168	4,239
14. Education	1,929	1,727	1,768	1,714	1,832
15. Human Health and Social Work	1,088	1,125	1,168	1,024	1,113
16. Extra-Territorial Organisations and Bodies	0	0	3	0	0
17. Total	75,525	81,145	77,467	76,426	76,227

Notes:

* For metadata and explanatory notes see:

http://www.centralbank.ie/polstats/stats/cmab/Documents/Business_Credit_and_Deposits_Explanatory_Notes_Jun11.pdf

** For commentary on most recent developments see:

<http://www.centralbank.ie/polstats/stats/cmab/Pages/releases.aspx>

Table A.16 – continued

Transactions – € million					Growth rates – per cent.				
Mar-11	Jun-11	Sep-11	Dec-11	Mar-12	Mar-11	Jun-11	Sep-11	Dec-11	Mar-12
-267	-23	24	227	-61	0.8	7.5	8.7	-1.3	6.0
-63	-455	12	308	-567	-6.6	-23.9	-10.8	-4.3	-15.5
-194	-47	-7	14	-27	-38.5	-33.7	-23.3	-30.7	-11.9
13	0	2	-12	-1	-65.5	-68.4	-70.4	7.4	-18.8
-374	115	-100	57	-130	-32.6	-22.2	-21.4	-13.2	-3.1
-302	218	-10	344	-687	-5.4	-4.5	1.9	5.7	-4.5
-524	273	82	-280	75	-26.0	-15.6	-11.9	-15.7	6.6
-29	23	18	-53	-46	-10.1	-10.6	-18.8	-6.3	-9.4
-68	-72	5	141	-65	-17.8	-25.7	-25.4	0.2	0.8
-1,804	-1,196	-4,291	-406	748	-17.1	-20.4	-25.4	-17.1	-11.6
290	-736	-65	-42	-190	7.1	-9.8	-8.6	-13.9	-21.9
431	-253	153	-141	473	-9.4	-9.0	-5.9	4.9	3.2
-251	67	19	-236	16	-11.5	-7.2	-8.5	-8.9	-3.1
89	-202	42	-50	118	7.9	2.9	1.5	-6.6	-4.8
-18	38	38	-109	-3	-46.9	-41.7	-29.5	-4.6	-3.3
0	0	3	-3	0	..	..	..	..	..
-3,071	-2,250	-4,075	-241	-347	-14.3	-16.8	-17.9	-11.7	-8.6

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**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
December	99,955	80,396	69,117	28,154	39,599	1,363	11,279	5,995	4,060	1,223

2012

March	98,713	79,874	69,496	28,810	39,403	1,284	10,377	5,411	3,783	1,184
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Transactions – € million**2011**

March	-106	-644	-1,667	-1,211	-382	-74	1,024	616	348	60
June	-1,192	-603	-377	-69	-299	-9	-226	6	-199	-33
September	-1,489	-660	19	686	-607	-60	-679	-274	-318	-87
December	-916	-503	-176	1,142	-1,445	127	-328	-203	-204	79

2012

March	-1,144	-500	400	663	-185	-79	-900	-584	-277	-39
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Growth rates – per cent.**2011**

March	-2.0	-2.6	..	..	..	..	..	..	..	..
June	-1.3	-2.2	..	..	..	..	..	..	..	..
September	-1.5	-2.4	..	..	..	..	..	..	..	..
December	-3.1	-2.4	-2.5	1.7	-5.1	-1.5	-1.6	2.3	-7.2	1.2

2012

March	-4.1	-2.4	-0.1	8.2	-4.9	-1.7	-16.2	-16.0	-19.0	-5.7
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Notes:

* For metadata and explanatory notes see:

http://www.centralbank.ie/polstats/stats/cmab/Documents/Business_Credit_and_Deposits_Explanatory_Notes_Jun11.pdf

** For commentary on most recent developments see:

<http://www.centralbank.ie/polstats/stats/cmab/Pages/releases.aspx>

Table A.18 – continued

Total Lending			Total Deposits	
Other personal				
	Finance for investment	Finance for other purposes		
Outstanding amounts – € million				
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
19,559	2,794	16,765	86,155	December
2012				
18,839	2,725	16,114	86,910	March
Transactions – € million				
2011				
537	-64	601	-1,551	March
-589	9	-598	-509	June
-830	-66	-763	-497	September
-413	-100	-313	-390	December
2012				
-644	-61	-583	824	March
Growth rates – per cent.				
2011				
0.8	-3.4	1.4	-6.0	March
2.9	-3.2	3.5	-5.7	June
3.3	1.1	3.4	-5.0	September
-6.5	-7.6	-6.3	-3.3	December
2012				
-11.6	-7.6	-12.2	-0.7	March

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

€ million	Dec-11	Mar-12
Assets		
1. Analysis by currency		
<i>Irish residents in non-euro</i>	35,853	30,923
US Dollar	16,255	15,345
Sterling	17,256	13,760
Other	2,342	1,818
<i>Non-residents in non-euro</i>	228,610	216,335
US Dollar	92,091	89,086
Sterling	109,956	102,554
Other	26,563	24,696
<i>Non-residents in euro</i>	215,143	172,843
2. Analysis by sector		
<i>Irish residents in non-euro</i>		
Monetary financial institutions	8,279	4,582
Non-monetary financial institutions	27,574	26,341
<i>Non-residents in non-euro</i>		
Monetary financial institutions	113,272	107,213
Non-monetary financial institutions	115,338	109,122
<i>Non-residents in euro</i>		
Monetary financial institutions	106,812	100,077
Non-monetary financial institutions	108,331	72,766
3. Total international business	479,606	420,102

Table A.19.1 – continued

€ million	Dec-11	Mar-12
Liabilities		
1. Analysis by currency		
<i>Irish residents in non-euro</i>	28,084	21,729
US Dollar	12,323	13,669
Sterling	12,613	5,706
Other	3,148	2,354
<i>Non-residents in non-euro</i>	170,470	161,126
US Dollar	73,039	66,903
Sterling	71,251	69,826
Other	26,179	24,397
<i>Non-residents in euro</i>	193,600	171,992
2. Analysis by sector		
<i>Irish residents in non-euro</i>		
Monetary financial institutions	13,818	8,418
Non-monetary financial institutions	14,266	13,311
<i>Non-residents in non-euro</i>		
Monetary financial institutions	112,722	103,080
Non-monetary financial institutions	57,748	58,045
<i>Non-residents in euro</i>		
Monetary financial institutions	143,524	124,215
Non-monetary financial institutions	50,076	47,777
3. Total international business	392,153	354,847

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

	Liabilities			Assets			Net external liabilities ^a
	Euro	Non-euro	Total	Euro	Non-euro	Total	
€ million	Dec-11						
1. EU Countries	184,253	158,147	342,400	205,548	193,971	399,519	- 49,350
MU Countries	124,609	65,633	190,242	163,055	56,067	219,122	- 21,111
Austria	1,175	76	1,251	1,781	327	2,108	- 857
Belgium	30,167	9,070	39,237	4,162	813	4,975	34,261
Luxembourg	585	1,468	2,053	4,938	1,110	6,049	- 3,996
Finland	27	78	105	875	158	1,032	- 928
France	20,254	7,032	27,287	18,136	4,660	22,796	4,491
Germany	45,224	5,470	50,694	56,303	2,638	58,942	- 8,248
Greece	5	10	15	748	230	978	- 963
Ireland	-	28,084	28,084	-	35,853	35,853	-
Italy	17,060	705	17,765	39,355	5,521	44,876	- 27,111
Netherlands	7,425	13,460	20,885	12,157	2,205	14,362	6,523
Portugal	25	15	40	1,511	5	1,516	- 1,476
Spain	2,049	63	2,112	21,549	2,187	23,737	- 21,625
Other MU ^b	614	101	715	1,538	359	1,897	- 1,182
Other EU	59,644	92,514	152,158	42,493	137,904	180,397	- 28,239
Denmark	5,571	442	6,014	2,828	1,598	4,426	1,588
Sweden	20	367	387	641	1,166	1,807	- 1,420
United Kingdom	54,023	91,566	145,589	36,310	131,911	168,222	- 22,633
Other EU	30	139	169	2,714	3,229	5,943	- 5,775
2. Other Europe	1,443	3,251	4,694	1,684	8,326	10,010	- 5,316
Switzerland	1,379	2,944	4,324	445	4,826	5,271	- 947
Other Europe	63	307	371	1,239	3,500	4,739	- 4,369
3. Other Industrial Countries	6,097	25,347	31,445	5,648	48,811	54,458	- 23,014
Australia, New Zealand, South Africa	76	57	133	453	1,961	2,414	- 2,281
Canada	57	7,166	7,223	564	3,848	4,412	2,811
Japan	189	42	231	105	3,539	3,643	- 3,412
United States	5,776	18,082	23,857	4,526	39,463	43,989	- 20,132
4. Offshore Centres	1,424	9,730	11,154	183	6,455	6,638	4,516
5. Other	381	2,079	2,460	2,080	6,899	8,980	- 6,520
Grand Total	193,600	198,553	392,153	215,143	264,462	479,606	- 79,684

^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			Net external liabilities ^a
Euro	Non-euro	Total	Euro	Non-euro	Total	
Mar-12						
164,513	145,051	309,564	162,459	180,882	343,341	- 24,583
108,303	56,564	164,867	122,906	49,099	172,005	2,056
1,484	109	1,593	1,745	342	2,088	- 495
25,490	5,933	31,423	4,213	840	5,053	26,370
824	1,552	2,376	4,173	1,145	5,319	- 2,943
27	80	107	789	169	957	- 850
21,781	8,307	30,088	15,428	3,498	18,926	11,162
40,847	5,238	46,085	18,783	2,468	21,250	24,835
7	15	21	583	80	663	- 642
-	21,729	21,729	-	30,923	30,923	-
9,381	372	9,753	41,381	5,298	46,679	- 36,927
6,815	13,008	19,823	12,122	1,940	14,062	5,761
26	6	32	1,584	-	1,584	- 1,553
1,464	102	1,567	20,428	2,058	22,485	- 20,919
158	113	271	1,677	339	2,016	- 1,745
56,210	88,487	144,698	39,553	131,783	171,337	- 26,639
3,529	495	4,024	4,829	1,321	6,150	- 2,126
19	314	333	487	1,053	1,540	- 1,207
52,410	87,495	139,905	31,489	126,229	157,718	- 17,813
253	183	436	2,749	3,180	5,929	- 5,493
1,673	3,656	5,329	1,764	8,749	10,513	- 5,184
1,567	3,227	4,795	536	4,732	5,268	- 473
105	429	534	1,228	4,017	5,245	- 4,711
2,661	23,039	25,700	6,363	44,700	51,063	- 25,363
104	51	155	491	1,823	2,314	- 2,159
60	7,710	7,770	1,013	3,480	4,493	3,278
93	41	135	109	3,204	3,313	- 3,178
2,404	15,237	17,640	4,750	36,193	40,943	- 23,303
2,759	8,938	11,697	146	6,215	6,361	5,336
387	2,171	2,558	2,111	6,712	8,823	- 6,265
171,992	182,855	354,847	172,843	247,258	420,102	- 56,060

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								
2011								
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
December	287,611	75,266	1,561	51,552	109,527	48,421	–	1,284
2012								
January	295,445	72,873	1,880	53,321	115,305	50,878	–	1,189
February	292,698	70,192	1,442	50,412	120,452	49,194	–	1,005
March	301,311	44,316	2,165	59,434	144,337	50,053	–	1,006
April	305,128	54,027	2,294	61,565	138,185	48,320	–	737
May	317,335	58,151	1,998	66,987	143,088	46,248	–	875
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								
2011								
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			
December	287,611	13,317	36,529	235,437	2,328			
2011								
January	295,445	13,345	35,798	242,458	3,844			
February	292,698	14,766	34,366	237,439	6,127			
March	301,311	16,085	38,141	242,199	4,886			
April	305,128	16,517	38,222	246,992	3,396			
May	317,335	16,331	38,464	255,343	7,198			

The change in definition of money market funds (MMFs) required by Regulation of the European Central Bank ECB/2001/12 has been implemented in December 2011. This has led to €114 billion of funds previously classified as MMF's being re-categorised as Investment Funds and no longer being included in these statistics.

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

Assets									
Outstanding Amounts – € million	Total	Loans				Securities other than shares			
		Euro	Sterling	USD	Other	Issued by Irish residents			
						Euro	Sterling	USD	Other
2009									
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	–
December	286,317	16,415	33,309	25,089	453	1,195	216	148	1
2012									
March	300,305	13,025	14,197	16,807	288	1,722	243	198	3
		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									
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
December		24,407	19,608	7,254	282	15,740	76,407	64,606	1,184
2012									
March		20,873	29,235	8,901	425	21,862	100,374	71,079	1,074

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)							
2011							
April	0.70	2.29	3.00	1.82	0.23	2.47	1.19
May	0.68	2.29	3.05	2.06	0.24	2.61	1.30
June	0.65	2.30	3.09	2.01	0.26	2.72	1.22
July	0.66	2.41	3.17	2.03	0.25	2.82	1.25
August	0.66	2.40	3.24	2.01	0.26	2.90	1.16
September	0.65	2.41	3.32	2.04	0.26	2.98	1.15
October	0.66	2.43	3.40	2.09	0.23	3.10	1.21
November	0.65	2.32	3.44	2.28	0.24	3.13	1.33
December	0.62	2.33	3.49	2.35	0.23	3.27	1.29
2012							
January	0.61	2.27	3.57	2.37	0.22	3.22	1.42
February	0.53	2.08	3.60	2.43	0.20	3.21	1.53
March	0.56	1.95	3.61	2.47	0.21	3.14	1.59
April	0.57	1.95	3.68	2.51	0.21	3.06	1.67
Volumes (€ million)							
2011							
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
December	34,353	12,246	29,055	4,021	15,830	12,559	474
2012							
January	33,945	12,097	29,507	4,084	15,133	12,291	503
February	33,625	11,971	29,773	4,190	14,810	12,225	525
March	34,214	11,806	30,094	4,281	14,866	12,070	533
April	33,978	11,745	30,371	4,321	15,165	12,298	533

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)							
2011							
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
December	13.36	3.60	3.31	3.06	9.30	6.32	4.41
2012							
January	13.36	3.74	3.47	2.98	8.83	6.26	4.34
February	13.52	3.69	3.36	2.98	8.86	6.27	4.24
March	13.41	3.47	3.30	2.98	8.73	6.19	4.12
April	13.50	3.38	3.36	3.00	8.64	6.15	4.17
Volumes (€ million)							
2011							
April	4,377	623	907	96,723	6,965	8,359	10,621
May	4,360	586	894	96,506	6,864	8,291	10,560
June	4,306	632	829	96,475	6,817	8,260	10,551
July	4,319	533	807	96,266	6,731	8,188	10,507
August	4,211	549	769	96,047	6,957	7,844	10,443
September	4,274	550	988	96,015	6,748	7,914	10,421
October	4,538	535	686	79,163	6,663	7,825	10,719
November	4,404	527	666	79,110	6,502	7,853	10,671
December	4,540	470	608	78,888	6,555	7,707	10,582
2012							
January	4,522	474	586	78,701	6,574	7,504	10,574
February	4,436	460	584	78,488	6,525	7,433	10,558
March	4,333	455	573	78,421	6,439	7,235	10,655
April	3,725	455	583	79,564	5,806	7,115	10,701

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)				
2011				
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
5.17	3.85	3.82	3.60	December
2012				
5.06	3.67	3.65	3.51	January
4.95	3.56	3.53	3.42	February
5.58	3.63	3.39	3.30	March
4.92	3.75	3.25	3.26	April
Volumes (€ million)				
2011				
10,122	22,990	26,170	40,885	April
10,022	23,128	26,053	40,619	May
10,021	23,815	25,757	40,609	June
9,768	23,695	25,519	40,618	July
9,746	23,348	25,335	40,820	August
9,886	23,455	25,379	40,809	September
9,811	23,209	24,545	40,811	October
10,205	23,657	24,431	40,826	November
9,907	23,435	24,506	40,801	December
2012				
9,686	23,122	24,297	40,660	January
9,773	22,953	24,530	40,681	February
9,506	23,318	24,303	40,428	March
9,432	23,426	23,627	40,572	April

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)**2011**

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
December	2.98	4.22	3.12	5.04	9.83	5.72	5.32

2012

January	3.11	4.22	3.25	6.36	9.36	7.33	4.38
February	3.09	4.19	3.19	7.94	10.50	9.03	4.59
March	3.13	4.37	3.24	5.13	10.49	6.12	5.26
April	3.05	4.39	3.15	6.39	10.40	7.39	4.69

Volumes (€ million)**2011**

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
December	752	95	-	200	32	-	54

2012

January	656	91	-	116	55	-	43
February	669	66	-	105	65	-	63
March	681	60	-	166	37	-	42
April	794	66	-	105	34	-	46

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				Households	Non-financial corporations	
Loans up to €1 million		Loans over €1 million		With agreed maturity	With agreed maturity	
Floating rate and up to 1 year fixation	Over 1 year fixation	Floating rate and up to 1 year fixation	Over 1 year fixation			
Rates (per cent per annum)						
2011						
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
4.69	5.99	3.68	3.96	2.55	2.17	December
2012						
4.70	6.05	2.84	4.19	2.47	1.78	January
4.72	6.36	2.72	4.22	2.43	1.89	February
4.33	6.19	3.12	6.80	2.39	1.84	March
4.23	6.47	2.91	4.41	2.42	1.68	April
Volumes (€ million)						
2011						
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
341	44	963	19	7,822	4,707	December
2012						
253	38	749	22	7,829	4,964	January
264	44	719	26	7,331	4,397	February
316	53	715	118	7,523	4,731	March
270	45	542	41	7,293	5,019	April

Table B.3: Official and Selected Interest Rates

Per cent per annum	Eurosystem Official Interest Rates			Interbank Market				Clearing Banks' Prime Rates
	Marginal lending facility	Deposit facility	Main refinancing operations	Eonia (overnight)	1 month Euribor	3 month Euribor	12 month Euribor	Ireland
End-month								
2011								
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
December	1.75	0.25	1.00	0.63	1.02	1.36	1.95	1.63 - 2.70
2012								
January	1.75	0.25	1.00	0.38	0.71	1.13	1.75	1.25 - 2.50
February	1.75	0.25	1.00	0.37	0.56	0.98	1.61	1.10 - 2.30
March	1.75	0.25	1.00	0.39	0.42	0.78	1.42	0.96 - 2.10
April	1.75	0.25	1.00	0.34	0.40	0.71	1.31	0.88 - 2.00

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	
December	818,648	4,046	4,285	52,827	9,683	53,101	355,764	
2012								
March	885,877	5,377	6,065	52,999	12,628	57,206	314,386	
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	
December	-9,559	295	-292	586	1,991	2,019	-4,040	
2012								
March	28,862	1,384	525	-3,458	3,516	5,132	17,303	
		Total Liabilities						
		Investment fund shares/units						
		Domestic MFIs	Domestic Non-MFI's	Domestic Total	OMUMs' MFI	OMUMs' Non-MFI's	OMUMs' Total	ROW Total
Outstanding amounts – € million								
2010								
March	510,571	8,748	25,348	34,096	39,341	113,990	153,330	296,968
June	553,748	13,147	32,924	46,071	45,232	113,269	158,501	316,021
September	577,972	13,705	29,899	43,603	51,434	112,212	163,646	332,493
December	645,556	17,002	32,558	49,560	62,388	119,466	181,854	374,054
2011								
March	649,414	17,062	28,808	45,870	68,011	114,832	182,843	379,210
June	670,762	18,222	27,242	45,464	78,845	117,875	196,720	381,223
September	661,748	15,933	25,495	41,429	67,990	108,792	176,782	387,747
December ^a	818,648	15,922	27,298	43,220	78,293	134,234	212,527	512,919
2012								
March	885,877	17,486	29,980	47,466	79,645	136,553	216,198	556,112
Transactions – € million								
2010								
March	25,062	2,047	816	2,863	4,910	-14,212	-9,302	22,477
June	19,678	3,435	5,162	8,597	4,638	-3,859	779	5,400
September	29,006	422	-3,320	-2,898	6,397	-632	5,765	20,150
December	35,137	2,341	826	3,167	7,793	1,201	8,995	21,103
2011								
March	18,479	250	-3,427	-3,177	6,987	-2,330	4,657	13,703
June	25,363	1,279	-1,388	-109	11,430	3,933	15,363	4,859
September	3,255	-2,361	-1,863	-4,224	-8,813	-5,816	-14,629	16,740
December	-9,559	-2,433	-2,059	-4,493	-10,988	7,460	-18,447	20,591
2012								
March	28,862	711	1,219	1,930	-1,582	-2,712	-4,293	18,559

Note 1: Investment fund shares/units data has been revised to smooth the year-on-year changes arising from the Fund Annual Survey of Liabilities over four quarters for each survey.

Note 2: The data contains the following reclassifications: €25,409 million from Non-Financial assets to Other Assets in Q4 2010, former Money Market Funds were reclassified as Investment Funds in November 2011 resulting in additional funds €114,002 million by end-Q4 2011. €15,689 million moved, within asset holdings, from Securities other than shares to Deposits and Loans in Q4 2011 and an additional €4,684 million in Q1 2012, driven by improvements in the recording of repurchase agreements (repos). In Q1 2012, improvements in the recording of reverse repos saw the overall balance sheet increase by €4,140 million, via Securities other than shares on the asset side and Deposits and loans on the liability side. In net terms, Securities other than shares decreased by an additional €689 million in Q1 2012 (the net effect of repo and reverse repo reclassifications in Q1 2012).

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	43,793
14,174	44,708	226,522	32,900	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
15,331	33,917	220,138	39,206	9,083	28,047	11	0	64	55,927
16,481	39,349	242,127	42,018	9,241	28,377	10	0	58	59,552
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	-8,346	-532	2,185	-6,693
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
575	-1,137	-5,656	278	-166	-2,212	0	0	-35	-1,765
659	939	2,451	-838	-589	-645	0	0	-5	2,491
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								
6,094	43,887								
12,292	53,810								
1,615	7,408								
1,040	3,861								
-993	6,982								
-365	2,238								
1,038	2,258								
566	4,684								
-141	5,509								
428	-7,637								
2,138	10,529								

Table C.2.1: Securities Issues Statistics: Debt Securities

€ million

Debt securities: All currencies

Short-term securities

	Total	MFIs	OFls	IC&PF	NFCs	Govt
Outstanding amounts						
2011						
January	100,726	35,235	60,782	0	0	4,709
February	87,498	35,254	48,800	0	0	3,444
March	84,591	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	80,722	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	77,280	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
December	80,210	26,940	52,920	0	0	349
2012						
January	81,027	28,632	51,760	0	0	635
February	73,488	20,217	52,531	0	0	740
March	74,812	20,720	53,241	0	0	852
April	73,725	20,734	52,039	0	0	952
Transactions						
2011						
January	17,191	16,854	2,497	0	0	-2,160
February	-13,233	19	-11,987	0	0	-1,265
March	-2,907	-681	-675	0	0	-1,551
April	1,689	2,668	186	0	0	-1,164
May	-698	-865	178	0	0	-12
June	-4,860	-4,122	-474	0	0	-264
July	-2,257	-1,418	-861	0	0	23
August	267	-1,887	1,320	0	0	834
September	-1,453	-173	-468	0	0	-812
October	1,227	-729	592	0	0	1,365
November	-2,736	-706	-662	0	0	-1,368
December	4,439	-402	4,985	0	0	-145
2012						
January	817	1,692	-1,160	0	0	286
February	-7,539	-8,415	772	0	0	105
March	1,324	503	709	0	0	112
April	-1,087	15	-1,202	0	0	101

Table C.2.1 – continued

Debt securities: All currencies

Long-term securities

Total	MFIs	OFls	IC&PF	NFCs	Govt
983,253	99,327	787,741	2,277	3,734	90,174
976,238	99,508	780,791	2,261	3,596	90,081
960,277	94,511	770,128	2,197	3,549	89,892
952,915	93,242	765,026	2,108	2,867	89,673
953,544	92,760	766,046	2,167	2,906	89,666
949,508	91,083	763,843	2,152	2,719	89,711
953,672	90,892	768,009	2,182	2,816	89,773
941,799	90,407	756,549	2,167	2,806	89,870
944,346	89,300	760,078	2,294	2,990	89,684
937,762	88,370	754,435	2,245	2,939	89,773
941,747	88,896	762,151	2,328	2,993	85,380
948,454	86,035	771,566	2,400	3,044	85,410
938,509	83,110	764,567	2,382	3,032	85,419
931,945	79,955	761,207	2,346	3,008	85,429
939,447	76,399	777,910	2,382	3,012	79,745
939,251	74,291	776,586	2,364	2,774	83,237
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
-7,333	-1,269	-5,074	-89	-683	-219
610	-482	1,001	59	40	-7
-2,653	-1,677	-819	-15	-188	45
2,776	-192	2,778	30	97	62
-11,868	-484	-11,455	-15	-10	96
2,507	-1,108	3,488	127	184	-185
-6,568	-930	-5,626	-50	-51	89
3,958	526	7,688	84	53	-4,393
6,684	-2,861	9,392	72	51	30
-9,945	-2,924	-6,999	-18	-12	9
-6,564	-3,155	-3,360	-36	-25	11
7,502	-3,557	16,703	36	5	-5,685
-196	-2,108	-1,324	-18	-239	3,492

Table C.2.1 – continued

€ Million

Debt securities: Euro denominated

Short-term securities

	Total	MFIs	OFIs	IC&PF	NFCs	Govt
Outstanding amounts						
2011						
January	87,986	27,434	56,289	0	0	4,262
February	75,807	28,332	44,366	0	0	3,109
March	72,494	27,445	43,485	0	0	1,563
April	74,443	30,315	43,623	0	0	505
May	74,483	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	68,584	24,697	43,701	0	0	185
December	70,672	24,258	46,115	0	0	300
2012						
January	72,579	26,029	45,968	0	0	582
February	63,040	17,576	44,839	0	0	625
March	64,338	17,871	45,737	0	0	729
April	63,514	17,866	44,845	0	0	804
Transactions						
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	4,343	2,869	2,532	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	1,588	-171	504	0	0	1,255
November	-2,219	-676	-232	0	0	-1,310
December	2,089	-440	2,413	0	0	115
2012						
January	1,907	1,771	-146	0	0	282
February	-9,540	-8,453	-1,129	0	0	43
March	1,298	295	899	0	0	104
April	-823	-6	-892	0	0	75

Table C.2.1 – continued

Debt securities: Euro denominated

Long-term securities

Total	MFIs	OFls	IC&PF	NFCs	Govt
714,445	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
706,744	72,596	543,203	0	1,356	89,590
703,411	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
682,904	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
673,874	66,617	520,590	0	1,356	85,310
667,499	64,113	516,712	0	1,356	85,318
665,228	62,700	515,835	0	1,356	85,337
654,618	59,838	513,773	0	1,356	79,651
653,281	57,471	511,311	0	1,356	83,142
-9,046	-642	-8,326	-160	100	-18
-5,027	1,068	-5,877	0	-126	-92
-7,953	-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
-3,653	-276	-3,434	0	0	58
-7,632	-176	-7,551	0	0	95
-7,567	-1,715	-5,762	0	100	-190
-2,012	126	-2,230	0	0	92
-4,559	550	-712	0	0	-4,397
-2,459	-3,232	747	0	0	26
-6,374	-2,505	-3,878	0	0	9
-2,271	-1,413	-877	0	0	19
-10,610	-2,862	-2,062	0	0	-5,686
-1,337	-2,367	-2,462	0	0	3,492

Table C.2.2: Securities Issues Statistics: Equities

€ million	Equity Securities					
	Quoted securities					
	Total	MFIs	OFIs	IC&PF	NFCs	Govt
Outstanding amounts						
2011						
January	173,953	9,125	10,832	220	153,776	..
February	176,420	9,760	11,047	253	155,359	..
March	174,340	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	173,323	10,895	10,420	229	151,778	..
August	166,840	14,860	9,983	223	141,774	..
September	164,572	14,512	10,497	216	139,346	..
October	178,820	15,328	11,303	215	151,974	..
November	180,259	14,997	11,561	218	153,483	..
December	182,243	14,667	11,889	216	155,472	..
2012						
January	196,169	15,631	12,174	233	168,132	..
February	202,911	16,269	12,087	285	174,270	..
March	208,405	15,637	11,777	287	180,705	..
April	211,878	15,577	12,159	290	183,852	..
Transactions						
2011						
January	104	190	0	0	-86	..
February	-101	0	0	0	-101	..
March	-155	0	-225	0	71	..
April	2,518	2,394	1	0	123	..
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	2,213	0	2,284	0	-72	..
October	1,561	0	0	0	1,561	..
November	-371	0	343	0	-714	..
December	-108	0	58	0	-166	..
2012						
January	-59	0	-77	0	18	..
February	-276	0	-73	0	-203	..
March	-28	0	-82	0	53	..
April	-16	0	0	0	-17	..

Table C.2.2 – continued

Equity Securities						
Unquoted securities						
Total	MFI's	OFl's	IC&PF	NFCs	Govt	
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	..	
501	0	14	0	487	..	
501	0	14	0	487	..	
501	0	14	0	487	..	
501	0	14	0	487	..	
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	..	
0	0	0	0	0	..	
0	0	0	0	0	..	
0	0	0	0	0	..	

Table C.3: Assets and Liabilities of Irish Financial Vehicle Corporations

Outstanding Amounts - € billions

	2009Q4	2010Q1	2010Q2	2010Q3	2010Q4	2011Q1	2011Q2	2011Q3	2011Q3	2012Q1
Assets										
Deposits and loan claims	76.3	69.2	74.1	71.9	87.3	80.0	83.3	77.8	76.5	74.2
<i>To euro area FVCs</i>	7.8	7.1	15.0	17.6	35.0	35.6	36.2	38.4	38.4	38.6
Securitised loans	210.8	205.8	220.5	225.9	266.2	259.2	254.3	244.2	230.3	226.4
Originated by euro area MFIs	133.0	130.2	143.6	151.9	194.6	189.6	187.3	158.7	146.0	144.7
By borrowing sector										
<i>Domestic households</i>	64.6	63.1	66.0	70.8	74.8	69.6	69.4	72.8	72.6	73.1
<i>OMUM households</i>	12.8	11.7	11.0	10.2	11.7	10.5	9.9	8.5	3.7	3.2
<i>Domestic non-financial corporations</i>	5.9	7.1	16.0	20.8	44.5	54.9	41.9	40.8	43.1	41.5
<i>OMUM non-financial corporations</i>	31.3	30.0	29.6	29.4	31.3	28.4	34.1	13.1	6.7	6.8
<i>Euro area residents (*)</i>	1.6	1.5	1.6	1.6	1.0	0.9	4.7	4.3	0.5	0.5
<i>Non euro area residents</i>	16.7	16.8	19.4	19.1	31.3	25.4	27.3	19.2	19.4	19.6
Originated by euro area residents (*)	17.1	16.0	15.9	16.0	15.8	12.1	12.1	14.7	14.6	14.5
Originated by euro area non-financial corporations	20.4	18.3	18.4	18.7	17.3	16.9	16.5	17.8	18.0	17.9
Originated by non-euro area residents	40.3	41.3	42.5	39.3	38.4	40.5	38.5	53.0	51.7	49.4
Securities other than shares	180.8	168.1	168.7	157.6	153.0	149.5	138.5	135.3	132.4	121.0
<i>Issued by euro area FVCs</i>	44.4	23.5	24.4	22.1	20.6	19.0	18.5	17.0	15.7	15.0
Other securitised assets	13.2	11.0	13.4	13.3	12.0	11.7	12.0	11.5	12.4	11.5
<i>Originated by euro area general government</i>	2.5	2.4	2.4	2.3	2.3	2.3	2.2	2.2	2.1	2.1
<i>Originated by euro area non-financial corporations</i>	2.8	2.8	3.6	3.6	3.3	3.1	3.1	3.0	3.2	2.6
Shares and other equity	35.2	36.6	34.7	34.0	34.9	30.1	29.0	27.9	26.1	25.3
<i>Issued by euro area FVCs</i>	32.3	33.3	31.1	30.6	31.4	27.1	26.2	24.9	23.3	22.7
Other assets	21.9	20.1	16.4	18.4	22.7	13.3	16.5	19.9	21.4	22.2
Liabilities										
Loans and deposits received	36.7	34.8	45.1	48.9	65.4	63.2	63.0	62.6	64.1	63.3
<i>From euro area FVCs</i>	11.0	10.3	19.2	21.5	39.0	39.4	38.8	38.9	39.0	38.9
Debt securities issued	477.8	452.9	450.7	436.9	444.2	416.9	408.5	386.6	369.1	350.0
<i>Up to 1 year original maturity</i>	31.0	28.5	25.2	25.0	24.5	24.8	25.2	23.6	24.7	19.6
<i>1 to 2 years original maturity</i>	8.7	9.5	8.3	5.3	7.0	5.5	5.1	5.4	6.0	5.6
<i>Over 2 years original maturity</i>	438.1	414.9	417.2	406.7	412.7	386.6	378.3	357.7	338.4	324.8
Capital and reserves	3.4	2.0	2.2	1.8	1.8	0.0	0.1	0.2	-0.3	-0.2
Other liabilities	20.2	21.0	29.8	33.5	64.7	63.6	62.2	67.0	66.3	67.6
Total	538.2	510.7	527.8	521.1	576.1	543.8	533.7	516.4	499.1	480.7

(*) Euro area residents include general government, other financial intermediaries, insurance corporations and pension funds.

Table C.3: Assets and liabilities of Irish Financial Vehicle Corporations

(EUR billions, not seasonally adjusted; transactions during the period) IE+09

Transactions - € billions

	2010Q1	2010Q2	2010Q3	2010Q4	2011Q1	2011Q2	2011Q3	2011Q4	2012Q1
Assets									
Deposits and loan claims	-10.3	2.6	-1.8	15.4	-6.6	3.4	-5.9	-1.3	-2.0
<i>To euro area FVCs</i>	-0.8	7.9	2.7	17.5	0.4	0.9	1.9	-	0.1
Securitised loans	-6.6	6.0	-0.9	13.6	-7.1	-3.9	-12.8	-16.2	-3.4
Originated by euro area MFIs	-3.8	5.2	3.1	15.4	-6.2	-1.1	-4.6	-13.5	-0.6
By borrowing sector									
Domestic households	-1.7	0.6	3.3	3.5	-3.5	-2.8	-0.7	0.8	-0.5
OMUM households	-1.1	-0.8	-0.8	1.2	-1.2	-0.6	-1.0	-4.9	-0.5
Domestic non-financial corporations	1.1	4.0	0.4	9.1	-0.4	-1.9	-0.5	1.3	-0.2
OMUM non-financial corporations	-1.8	-0.4	0.6	-0.5	-0.6	4.0	-0.6	-6.5	-
Euro area residents (*)	-0.1	0.2	-	-0.7	-0.1	3.7	-	-3.9	0.2
Non euro area residents	-0.1	1.7	-0.3	2.8	-0.4	-3.5	-1.9	-0.3	0.4
Originated by euro area residents (*)	-1.2	-0.1	0.1	-0.1	-3.6	-	-0.1	-0.1	-0.2
Originated by euro area non-financial corporations	-2.3	-0.2	0.3	-1.3	-0.1	-0.4	0.1	0.3	-0.1
Originated by non-euro area residents	0.7	1.0	-4.4	-0.4	2.9	-2.4	-8.2	-3.0	-2.5
Securities other than shares	-15.9	-	-9.4	-3.0	-2.8	-10.0	-3.4	-3.3	-11.5
<i>Issued by euro area FVCs</i>	-13.6	3.0	-2.0	-2.0	-0.7	-0.2	-0.4	-1.0	-0.6
Other securitised assets	-1.1	1.0	-	-1.2	0.1	0.3	-0.6	1.0	-1.2
<i>Originated by euro area general government</i>	-	-0.1	-	-	-	-	-	-	-
<i>Originated by euro area non-financial corporations</i>	-	0.7	0.1	-0.3	-	-	-0.1	0.2	-0.7
Shares and other equity	0.8	-1.9	-0.7	-0.1	-4.7	-0.9	-1.2	-1.7	-0.7
<i>Issued by euro area FVCs</i>	0.1	-2.2	-0.5	-0.4	-4.2	-0.9	-1.3	-1.6	-0.7
Other assets	-2.2	-2.7	1.8	3.6	-12.2	-2.8	-6.9	-1.1	-2.0
Liabilities									
Loans and deposits received	-1.9	7.9	2.6	16.6	-1.7	0.2	-0.8	1.4	-0.3
<i>From euro area FVCs</i>	-0.6	8.8	2.4	17.6	0.2	-0.2	0.2	-0.1	-
Debt securities issued	-30.1	-1.7	-11.1	10.5	-26.0	-11.6	-21.8	-17.7	-18.8
<i>Up to 1 year original maturity</i>	-1.5	-3.7	-	0.2	0.1	-3.7	-2.8	1.0	-5.6
<i>1 to 2 years original maturity</i>	-0.8	-1.2	-3.0	1.9	-1.5	-0.4	0.4	0.7	-0.6
<i>Over 2 years original maturity</i>	-27.7	3.2	-8.2	8.4	-24.6	-7.5	-19.4	-19.4	-12.6
Capital and reserves	-1.1	-0.4	0.2	-1.5	-1.6	0.6	-0.9	-0.8	-0.1
Other liabilities	-2.0	-0.7	-2.6	2.5	-4.1	-3.2	-7.3	-5.6	-1.4
Total	-35.2	5.1	-11.0	28.2	-33.3	-14.0	-30.8	-22.7	-20.7

(*) Euro area residents include general government, other financial intermediaries, insurance corporations and pension funds.

Section D

Quarterly Financial Accounts

Table D.1: Financial Balance Sheet By Sector, Q4 2011

	Total Assets	Total Liabilities	Net Financial Wealth	Total Assets Transactions	Total Liabilities Transactions	Net Financial Borrowing/ Lending
€ million						
Non-financial corporations	670,861	915,757	-244,896	-5,565	-5,273	-292
Financial corporations	3,532,855	3,559,670	-26,815	11,661	10,452	1,209
Monetary financial institutions	1,450,816	1,468,842	-18,026	-9,996	3,130	-13,127
Other financial intermediaries and financial auxiliaries	1,810,373	1,811,820	-1,447	27,119	10,042	17,077
Insurance corporations and pension funds	271,665	279,007	-7,342	-5,462	-2,720	-2,742
General government	67,162	173,301	-106,139	3,294	6,142	-2,847
Households and non-profit institutions serving households	299,844	184,613	115,230	1,653	-1,157	2,810
Rest of the world	3,225,059	2,961,598	263,461	-394	483	-877

Table D.1.1: Financial Balance Sheet By Sector, Q4 2011

	Total Assets								
		Gold & SDRs	Currency & Deposits			Securities other than shares			
				Currency & Transferrable Deposits	Other Deposits		Short-term securities	Long-term securities	Financial Derivatives
€ million									
Non-financial corporations	670,861	0	60,901	19,318	41,583	3,827	451	2,437	938
Financial corporations	3,532,855	841	641,324	108,627	532,697	1,199,536	290,971	850,338	58,227
Monetary financial institutions	1,450,816	841	529,295	82,041	447,254	513,439	163,802	311,888	37,750
Other financial intermediaries and financial auxiliaries	1,810,373	0	87,114	24,103	63,012	611,858	125,010	468,581	18,267
Insurance corporations and pension funds	271,665	0	24,915	2,483	22,432	74,238	2,159	69,869	2,210
General government	67,162	0	18,010	0	18,010	8,114	13	7,399	703
Households and non-profit institutions serving households	299,844	0	122,359	55,601	66,758	478	0	198	280
Rest of the world	3,225,059	0	455,733	62,570	393,163	611,713	22,804	537,911	50,998

	Total Liabilities								
		Gold & SDRs	Currency & Deposits			Securities other than shares			
				Currency & Transferrable Deposits	Other Deposits		Short-term securities	Long-term securities	Financial Derivatives
€ million									
Non-financial corporations	915,757	0	0	0	0	9,789	0	9,080	709
Financial corporations	3,559,670	0	905,512	138,545	766,967	666,965	24,725	586,797	55,443
Monetary financial institutions	1,468,842	0	905,512	138,545	766,967	148,902	14,456	89,753	44,693
Other financial intermediaries and financial auxiliaries	1,811,820	0	0	0	0	515,664	10,269	494,644	10,751
Insurance corporations and pension funds	279,007	0	0	0	0	2,400	0	2,400	0
General government	173,301	0	15,323	694	14,628	80,680	3,984	75,885	811
Households and non-profit institutions serving households	184,613	0	0	0	0	0	0	0	0
Rest of the world	2,961,598	0	377,492	106,876	270,616	1,066,234	285,529	726,520	54,184

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		
196,596	75,416	121,180	280,205	2,394	274,882	2,930	2,216	0	0	2,216	127,117	Non-financial corporations
986,777	196,127	790,650	584,681	n.a.	n.a.	151,747	29,383	0	0	29,383	52,194	Financial corporations
385,093	62,818	322,275	19,026	10,006	8,131	889	0	0	0	0	3,122	Monetary financial institutions
635,886	132,100	503,786	442,556	326,411	32,282	83,863	0	0	0	0	32,959	Other financial intermediaries and financial auxiliaries
3,916	1,209	2,708	123,099	56,104	0	66,995	29,383	0	0	29,383	16,113	Insurance corporations and pension funds
9,487	888	8,599	23,771	7,992	14,156	1,623	0	0	0	0	7,780	General government
0	0	0	48,502	8,818	39,684	0	124,528	49,599	72,399	2,531	3,977	Households and non-profit institutions serving households
471,738	211,636	260,102	1,490,046	104,684	387,907	997,456	103,665	78,866	0	24,799	92,163	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		
306,053	79,535	226,518	473,442	155,472	317,970	0	0	0	0	0	126,474	Non-financial corporations
405,972	247,337	158,635	1,275,980	20,300	200,023	1,055,657	235,040	128,465	72,399	34,177	70,202	Financial corporations
0	0	0	393,391	8,195	98,994	286,202	0	0	0	0	21,038	Monetary financial institutions
400,854	246,191	154,663	857,920	11,889	76,576	769,455	0	0	0	0	37,383	Other financial intermediaries and financial auxiliaries
5,118	1,147	3,971	24,669	216	24,453	0	235,040	128,465	72,399	34,177	11,781	Insurance corporations and pension funds
70,123	533	69,590	1,788	0	1,788	0	0	0	0	0	5,387	General government
179,861	7,746	172,115	0	0	0	0	0	0	0	0	4,753	Households and non-profit institutions serving households
740,709	148,916	591,793	675,995	340,635	237,261	98,099	24,752	0	0	24,752	76,416	Rest of the world

n.a. not available.

Table D.1.2: Financial Transactions By Sector, Q4 2011

Total Assets Transactions									
		Gold & SDRs	Currency & Deposits			Securities other than shares			
				Currency & Transferrable Deposits	Other Deposits		Short-term securities	Long-term securities	Financial Derivatives
€ million									
Non-financial corporations	-5,565	0	-1,283	-235	-1,048	-125	-66	-1	-58
Financial corporations	11,661	3	-3,548	2,228	-5,777	37,080	21,199	11,626	4,256
Monetary financial institutions	-9,996	3	-5,721	1,293	-7,014	14,672	19,660	-5,665	676
Other financial intermediaries and financial auxiliaries	27,119	0	2,149	785	1,363	20,982	1,655	16,017	3,309
Insurance corporations and pension funds	-5,462	0	24	150	-126	1,427	-117	1,273	270
General government	3,294	0	2,404	0	2,404	190	0	118	72
Households and non-profit institutions serving households	1,653	0	-123	-782	658	-12	0	-12	0
Rest of the world	-394	0	-6,694	-2,378	-4,316	-5,007	2,656	-6,418	-1,246

Total Liabilities Transactions									
		Gold & SDRs	Currency & Deposits			Securities other than shares			
				Currency & Transferrable Deposits	Other Deposits		Short-term securities	Long-term securities	Financial Derivatives
€ million									
Non-financial corporations	-5,273	0	0	0	0	2,437	0	-276	2,713
Financial corporations	10,452	0	-12,182	-3,356	-8,826	-3,393	1,862	-2,267	-2,987
Monetary financial institutions	3,130	0	-12,182	-3,356	-8,826	-4,353	0	-4,353	0
Other financial intermediaries and financial auxiliaries	10,042	0	0	0	0	888	1,862	2,014	-2,987
Insurance corporations and pension funds	-2,720	0	0	0	0	72	0	72	0
General government	6,142	0	208	9	198	-1,206	3,107	-4,646	334
Households and non-profit institutions serving households	-1,157	0	0	0	0	0	0	0	0
Rest of the world	483	0	2,729	2,180	549	34,287	18,820	12,503	2,964

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		
-5,968	-8,419	2,451	-3,981	0	-3,982	0	-465	0	0	-465	6,259	Non-financial corporations
-9,639	12,718	-22,356	299	n.a.	n.a.	-618	-6,132	0	0	-6,132	-6,403	Financial corporations
-18,949	-2,401	-16,548	-195	-153	0	-42	0	0	0	0	195	Monetary financial institutions
9,022	14,989	-5,967	941	711	70	160	0	0	0	0	-5,975	Other financial intermediaries and financial auxiliaries
289	130	159	-447	288	0	-735	-6,132	0	0	-6,132	-622	Insurance corporations and pension funds
-310	0	-310	-742	-659	-83	0	0	0	0	0	1,752	General government
0	0	0	721	491	230	0	800	475	113	212	267	Households and non- profit institutions serving households
14,250	7,862	6,388	14,587	980	-11,743	25,350	-4,070	2,895	0	-6,965	-13,461	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			
	4,212	-361	4,573	-16,786	681	-17,467	0	0	0	0	0	4,864	Non-financial corporations
	2,263	8,084	-5,821	33,212	1,109	5,177	26,926	-3,781	3,370	113	-7,264	-5,668	Financial corporations
	0	0	0	15,659	708	-3,755	18,706	0	0	0	0	4,007	Monetary financial institutions
	2,296	8,075	-5,779	16,691	401	8,069	8,220	0	0	0	0	-9,833	Other financial intermediaries and financial auxiliaries
	-32	9	-42	862	0	862	0	-3,781	3,370	113	-7,264	159	Insurance corporations and pension funds
	8,315	143	8,172	1	0	1	0	0	0	0	0	-1,176	General government
	-1,649	-151	-1,498	0	0	0	0	0	0	0	0	492	Households and non- profit institutions serving households
	-14,808	4,446	-19,254	-5,542	-130	-3,218	-2,194	-6,087	0	0	-6,087	-10,096	Rest of the world

n.a. not available.

Section E

Public Finances and Competitiveness Indicators

Table E.1: Government Debt^a

€ million	2011			2012
End-quarter	30 June	30 Sep.	30 Dec.	30 Mar.
Government Debt				
Amount outstanding (gross)				
Euro-denominated debt				
Government stock	89,626	89,589	85,310	79,651
Exchequer Bills/Notes, Central Treasury Notes	487	250	2,572	1,421
Saving Certificates/Stamps, National Solidarity Bonds	4,662	4,740	4,841	5,015
Prize Bonds	1,409	1,431	1,449	1,501
Savings Bonds	4,657	4,725	4,781	4,956
National Instalment Savings	468	470	473	469
Ways and means	1,583	1,798	1,697	2,232
Borrowings from Central Bank, etc.	-	-	-	-
Local loans funds	5	5	5	5
Short-term paper	318	239	1,285	719
FX contracts	156	300	3,042	604
EIB loans	-	-	-	-
Public bond issues	-	-	-	-
Private placements	602	602	602	602
IMF ^b	2,658	3,349	4,904	6,011
EFSM	11,400	13,400	13,900	18,400
EFSF	3,664	3,664	6,664	9,409
Bilateral loans	-	-	-	100
Medium-term notes	-	-	-	-
Swaps	4,482	5,416	5,416	10,992
Total euro-denominated debt	126,177	129,979	136,942	142,087
Non-euro-denominated debt				
EIB loans	-	-	-	-
Public bond issues	-	-	-	-
Private placements	-	-	-	-
Medium-term notes	86	96	100	91
IMF ^b	4,448	5,606	8,208	10,062
EFSM	-	-	-	-
EFSF	-	-	-	-
UK Bilateral Loan	-	-	483	1,451
Swaps	-4,417	-5,714	-5,949	-11,266
Short-term paper	145	303	49	120
FX contracts	-147	-304	-3,059	-605
Total non-euro-denominated debt	116	-12	-169	-147
Gross debt	126,293	129,966	136,773	141,940
Residual Maturity Profile				
Amounts due to mature in:				
– ≤ 1 year	8,057	8,111	12,309	7,181
– Over 1 year but ≤ 5 years	54,275	54,653	52,030	54,461
– Over 5 years but ≤ 10 years	55,076	56,316	61,547	64,912
– Over 10 years	8,886	10,886	10,886	15,386
Total	126,293	129,966	136,773	141,940

^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	2011			2012
	30 Jun.	30 Sep.	30 Dec.	30 Mar.
End-quarter				
1. Resident ^a	15,929	18,407	18,864	18,755
– MFIs and Central Bank	12,868	15,441	15,665	17,158
– General government	890	879	806	349
– Financial intermediaries	1,912	1,822	2,157	1,043
i) Financial auxiliaries	309	333	337	445
ii) Insurance corporations and pension funds	1,331	1,147	1,192	453
iii) Other financial intermediaries	272	341	627	146
– Non-financial corporations	31	48	12	10
– Households	228	217	224	195
2. Rest of world	73,697	71,182	66,446	60,896
Total	89,626	89,589	85,310	79,651
3. Amounts due to mature in:				
– Less than 3 years	27,820	27,775	23,398	17,904
– 3 or more years but less than 5 years	10,160	10,169	10,194	10,166
– 5 or more years but less than 10 years	43,343	43,342	43,416	43,294
– 10 or more years but less than 15 years	8,302	8,303	8,303	8,287
– 15 or more years	0	0	0	0
Total	89,626	89,589	85,310	79,651

^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	102.78	113.33	104.28
February	102.14	113.11	104.66
March	102.65	113.54	104.71
April	103.52	114.47	105.62
May	104.67	115.95	107.25
June	104.82	116.03	107.13
July	104.93	116.29	106.59
August	104.97	116.65	107.34
September	104.73	116.21	107.98
October	104.30	115.84	105.53
November	104.96	116.43	105.56
December	105.83	117.59	106.78
2007			
January	105.06	116.79	106.73
February	105.35	117.13	105.62
March	106.08	117.95	105.61
April	106.74	118.70	106.77
May	106.67	118.65	107.19
June	106.22	118.14	107.63
July	106.81	118.87	107.84
August	106.69	118.76	108.83
September	107.58	119.73	108.36
October	108.39	120.41	109.74
November	109.79	121.92	109.92
December	109.80	121.75	111.41
2008			
January	110.55	122.27	110.52
February	110.50	122.37	111.39
March	113.03	125.49	113.36
April	114.12	126.28	115.87
May	113.56	125.61	114.63
June	113.54	125.46	114.01
July	113.98	125.22	113.71
August	111.99	122.91	114.22
September	110.73	121.64	110.84
October	108.14	118.82	109.31
November	107.56	118.64	108.59
December	111.59	122.97	110.78
2009			
January	111.28	122.40	110.28
February	109.76	119.81	109.62
March	111.70	121.66	111.20
April	111.10	120.79	110.85
May	111.67	120.73	111.25
June	112.23	121.01	111.52
July	112.36	120.53	113.25
August	112.67	120.57	111.38
September	113.93	121.40	113.43
October	114.91	122.02	113.66
November	114.77	121.54	112.74
December	113.87	119.93	111.72
2010			
January	112.25	117.98	109.83
February	110.26	115.14	108.91
March	110.05	114.33	107.52
April	108.78	112.73	107.32
May	105.95	109.87	105.25
June	104.15	107.86	102.34
July	105.91	109.88	104.22
August	105.76	109.52	104.20
September	106.34	109.69	105.11
October	109.33	112.58	106.66
November	108.15	110.85	106.30
December	106.52	109.18	103.55
2011			
January	106.66	109.34	103.28
February	107.56	110.07	104.07
March	108.99	111.20	105.27
April	110.46	112.46	107.01
May	109.88	111.58	107.68
June	110.15	111.55	106.65
July	109.47	110.70	105.88
August	109.56	110.63	106.03
September	108.33	109.11	104.49
October	108.43	109.38	103.95
November	107.83	108.67	103.90
December	106.40	107.29	102.95
2012			
January	104.94	105.73	102.13
February	105.68	106.72	102.71
March	105.81	107.21	102.43
April	105.45	106.42	102.66
May	104.13	104.86	101.30

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)	Real HCI (Deflated by whole economy compensation per employee)
1999			
Q1	100.00	100.00	100.00
Q2	97.27	100.30	97.76
Q3	99.47	97.01	97.83
Q4	98.72	95.55	96.94
2000			
Q1	97.19	94.50	95.28
Q2	95.88	91.98	94.78
Q3	96.09	92.08	95.62
Q4	95.12	91.14	96.14
2001			
Q1	100.16	94.54	100.24
Q2	99.47	94.11	98.64
Q3	101.85	96.78	99.93
Q4	102.14	96.91	100.08
2002			
Q1	103.51	94.41	100.11
Q2	103.56	96.40	102.29
Q3	107.63	97.42	105.71
Q4	109.73	98.49	106.62
2003			
Q1	113.53	103.73	111.20
Q2	116.53	106.65	115.24
Q3	116.61	107.57	115.79
Q4	118.03	107.21	118.08
2004			
Q1	119.33	111.37	120.68
Q2	117.99	111.31	119.09
Q3	118.04	112.66	120.21
Q4	120.54	113.68	121.47
2005			
Q1	121.26	116.47	124.47
Q2	120.57	115.12	124.91
Q3	118.42	117.49	125.36
Q4	118.10	116.51	124.67
2006			
Q1	119.70	117.55	127.40
Q2	120.15	120.10	128.81
Q3	123.40	119.32	128.42
Q4	121.54	121.62	128.12
2007			
Q1	122.58	118.16	130.25
Q2	123.89	124.09	132.91
Q3	120.98	129.32	136.68
Q4	123.27	130.53	141.75
2008			
Q1	122.56	132.12	141.23
Q2	123.48	138.83	146.90
Q3	121.56	136.52	148.06
Q4	118.23	136.01	148.49
2009			
Q1	116.20	132.79	149.05
Q2	116.32	128.83	144.01
Q3	115.80	126.59	141.42
Q4	115.34	126.32	139.14
2010			
Q1	111.52	118.85	134.87
Q2	108.13	115.51	130.85
Q3	105.99	112.92	128.54
Q4	103.14	114.76	130.31
2011			
Q1	105.67	112.83	129.70
Q2	107.21	114.30	132.91
Q3	105.52	114.55	133.17
Q4	102.43	111.54	128.37

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

2000 Q1=100	Real HCI (Deflated by manufacturing unit labour costs)	Real HCI (Deflated by manufacturing compensation per employee)
2000		
Q1	100.00	100.00
Q2	93.50	101.48
Q3	84.82	101.61
Q4	79.31	101.56
2001		
Q1	83.24	105.14
Q2	88.91	104.54
Q3	88.49	106.00
Q4	87.08	104.33
2002		
Q1	80.25	103.98
Q2	76.86	105.60
Q3	79.73	108.25
Q4	82.40	109.48
2003		
Q1	89.04	111.59
Q2	90.69	115.85
Q3	89.45	114.07
Q4	84.77	114.07
2004		
Q1	91.08	113.39
Q2	93.87	112.97
Q3	93.97	112.85
Q4	96.21	114.16
2005		
Q1	98.32	116.65
Q2	96.42	119.12
Q3	101.20	124.69
Q4	98.78	127.27
2006		
Q1	99.30	124.68
Q2	92.87	123.04
Q3	98.40	120.00
Q4	102.04	118.84
2007		
Q1	97.69	120.89
Q2	107.35	122.56
Q3	103.07	122.81
Q4	96.83	129.92
2008		
Q1	110.20	134.29
Q2	109.81	136.64
Q3	104.90	139.76
Q4	100.28	147.16
2009		
Q1	88.17	154.57
Q2	83.48	146.23
Q3	81.32	137.88
Q4	84.31	139.71
2010		
Q1	72.00	133.53
Q2	72.18	129.57
Q3	66.89	128.01
Q4	61.68	125.28
2011		
Q1	58.05	124.92
Q2	57.70	125.96
Q3	55.29	125.64
Q4	52.69	125.78

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