JULY 14

Q3

Central Bank Quarterly Bulletin

Banc Ceannais na hÉireann
Central Bank of Ireland
Eurosystem

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Notes

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

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

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

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

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

6. The following symbols are used:

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

7. Data on euro exchange rates are available on our website at www.centralbank.ie and by telephone at 353 1 2246380.

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Forecast Summary Table

	2011	2012	2013	2014[f]	2015[f]
Real Economic Activity					
(% change)					
Personal consumer expenditure	-1.2	-1.2	-0.8	1.0	1.3
Public consumption	-2.1	-2.1	1.4	-1.6	-1.1
Gross fixed capital formation	-2.9	5.0	-2.4	8.5	8.6
of which: Building and construction	-15.9	-1.5	14.1	12.0	10.4
Machinery and equipment	2.0	-2.3	1.8	10.0	10.0
Exports of goods and services	5.5	4.7	1.1	4.0	5.0
Imports of goods and services	-0.6	6.9	0.6	3.7	4.6
Gross Domestic Product (GDP)	2.8	-0.3	0.2	2.5	3.3
Gross National Product (GNP)	-0.8	1.9	3.2	2.8	2.7
External Trade and Payments					
Balance-of-Payments Current Account (€ million)	1,377	2,702	7,633	8,329	8,862
Current Account (% of GDP)	0.8	1.6	4.4	4.6	4.7
Prices, Costs and Competitiveness					
(% change)					
Harmonised Index of Consumer Prices (HICP)	1.2	1.9	0.5	0.5	1.0
of which: Goods	1.5	1.9	-0.4	-1.3	-0.3
Services	0.8	1.9	1.6	2.2	2.3
HICP excluding energy	0.0	0.9	0.6	0.6	1.3
Consumer Price Index (CPI)	2.6	1.7	0.5	0.4	1.0
Nominal Harmonised Competitiveness Indicator (Nominal HCI)[a]	0.8	-4.0	3.1	n.a.	n.a.
Compensation per Employee	1.2	0.7	2.0	1.2	1.5
Labour Market					
(% change year-on-year)					
Total employment	-1.8	-0.6	2.3	2.3	2.2
Labour force	-0.9	-0.6	0.4	0.8	1.2
Unemployment rate (ILO)	14.6	14.6	13.0	11.4	10.5
Technical Assumptions[b]					
EUR/USD exchange rate	1.39	1.28	1.33	1.36	1.36
EUR/GBP exchange rate	0.87	0.81	0.85	0.80	0.80
Oil price ($ per barrel)	111.26	111.57	108.58	108.87	103.65
Interbank market – Euribor[c] (3-month fixed)	1.39	0.57	0.23	0.24	0.18

a Based upon the annual change in the average nominal HCI.

b The technical assumption made is that exchange rates remain unchanged at their average levels in mid-June. 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 updated picture provided by recent revisions to National Accounts data along with the initial estimates for the first quarter of 2014 suggest that the on-going recovery in economic activity is showing a somewhat stronger trend overall than previously signalled by national income and expenditure data. Largely as a result of an upward revision to net exports, GDP in 2013 is now estimated to have increased by 0.2 per cent, as compared to the earlier estimate of a 0.3 per cent contraction. The revisions for 2013 also include a significant change to the profile of quarterly GDP growth, with the initially reported large contraction in GDP in the fourth quarter of last year now revised away in the latest data. Allied to unexpectedly strong first quarter GDP growth, the National Accounts data now signal that the economy has a stronger growth momentum than previously estimated. This is consistent with the signals that have been emerging from a broad range of other indicators, particularly employment data, which have been pointing to a gradually strengthening recovery in economic activity for some time now.

The improved growth dynamic over recent quarters suggested by the National Accounts data is being driven, in large part, by a rebound in exports since late 2013. This would appear to reflect both some recovery in the output and exports of the pharmaceutical sector, suggesting that the impact of patent expiration on pharmaceutical exports may be easing, as well as the positive effect of an improving international economic environment. As against this, despite the on-going recovery in employment, consumer spending has remained subdued, with modest declines recorded in both the fourth quarter of 2013 and the first quarter of this year. However, more recent trends offer some encouragement, with retail sales data for the second quarter suggesting that consumer spending may be picking up.

Looking ahead, reflecting the strong performance of exports in the year to date, improving external demand conditions and some expected moderation in the impact of the patent cliff on pharmaceutical exports, the outlook for export growth has improved. On the domestic side, while some headwinds to recovery still remain, domestic demand broadly stabilised in 2013 and is projected to begin to make a positive contribution to growth this year. Further growth in employment should stimulate increases in household incomes and consumer confidence and, with what has been a lag, support modest growth in consumer spending. In addition, underlying investment spending, abstracting from the volatile aircraft component, has gathered significant momentum, which is expected to be maintained over the forecast horizon.

Taking account of these prospects, allied to the strength of the first quarter National Accounts data and the positive growth carryover from last year stemming from the revised quarterly profile of growth in 2013, the outlook for GDP growth for this year has been raised as compared to the forecasts published in the previous Bulletin. GDP growth of 2.5 per cent is now projected for this year, an upward revision of 0.5 per cent relative to the previous projection, while the forecast for GNP growth of 2.8 per cent is marginally higher. GDP growth of 3.3 per cent and GNP growth of 2.7 per cent are forecast for 2015, both of which are 0.1 per cent higher than the projections contained in the previous Bulletin. The 2015 growth projections are based on consensus assumptions from the main international institutions. Uncertainty attaches to these forecasts, however, and they remain sensitive to developments in the international and European economy.

Turning to policy issues, Ireland's smooth exit from the EU/IMF Programme over the past six months has been helped not only by the improving external environment and favourable financial market conditions, but also by the fact that Ireland has continued along the required path of consolidation and adjustment.

Continuing to build on the achievements of recent years will be crucial in order to reduce vulnerabilities and ensure a sustainable return to steady growth.

With respect to the public finances, the impact of the revisions made to the National Accounts to date, which raise the size of nominal GDP, result mechanically in lower deficit-to-GDP and debt-to-GDP ratios, even at unchanged levels of deficit and debt in absolute terms (though it should be noted that some likely definitional changes related to the new international ESA 2010 classification impacting deficits and debt remain to be incorporated in the CSO's National Accounts). Exchequer data for the first half of 2014 has been favourable. Tax revenues have grown ahead of target, while expenditure has remained broadly on track. Should these trends continue over the second half of the year, the deficit is on course to come in below not only the EDP target of 5.1 per cent, but also the Budget 2014 target of 4.8 per cent of GDP. To continue to demonstrate that Ireland remains on course for fiscal consolidation and to retain market confidence, the budgetary plans for 2015 need to meet agreed commitments. The priority, acknowledged by Government, remains to reduce the deficit-to-GDP ratio below 3 per cent in 2015. This is a high profile target that calls for special prudence in budgetary planning, ideally with an additional provision for some buffer to guard against adverse shocks. A more favourable deficit out-turn this year would reduce the amount of consolidation required to deliver that outcome, though by how much cannot be known with greater certainty until later in the year. Beyond 2015, further consolidation will be needed to put debt firmly on a downward path and secure sustainability. In this regard, the objective of achieving structural budget balance by 2018 is appropriate.

In the banking sector, the operating environment has continued to improve as funding costs ease and bank profitability shows signs of recovering. The main issue, however, remains the need to ensure progress in dealing with the resolution of impaired loans, by placing them on a truly sustainable basis wherever possible. While the improvement has been gradual, there are clear signs that progress is being made. Using mortgage arrears resolution targets, the Central Bank has required the banks to accelerate the conclusion of sustainable long-term arrangements with customers in arrears. The most recent data indicate that long-term arrears have fallen for the second successive quarter, although there continues to be some migration of loans into the very long-term arrears category. In too many cases, though, the Central Banks target has been satisfied only by the commencement of legal proceedings where sufficient bank-borrower co-operation has not been achieved: in such cases failure to co-operate with the lender presents a real risk of proceedings ending up in a worse outcome for the borrower as well as the lender. The Central Bank is also monitoring the progress of banks in resolving arrears in relation to commercial and SME portfolios and also auditing the durability of the arrangements. While the process is challenging, loan restructurings are progressing and the balance sheets of banks and their borrowers are gradually being repaired.

The Domestic Economy

Overview

- *National Income and Expenditure (NIE) Accounts for 2013 point to a volume increase in GDP of 0.2 per cent and an increase in real GNP of 3.2 per cent. This is an upward revision from preliminary estimates indicating a 0.3 per cent contraction in GDP and is mainly accounted for by an upward revision to net exports. The quarterly profile of activity in 2013 was also significantly revised in the Q1 2014 Quarterly Accounts. In particular, the contraction in activity in Q4 2013 contained in the initial estimates is significantly smaller in the most recent data, due in the main to a downward revision to imports.*

- *In addition to revisions to the growth rate last year, the 2013 NIE incorporates significant changes in methodology which have resulted in a large upward revision to the estimated size of the Irish economy in 2013 and in previous years. Two changes, the inclusion of research and development in investment expenditure and, to a lesser extent, the addition of an estimate of the value of illegal transactions have together added almost 5 per cent to GDP in 2013. Overall, the nominal value of GDP in 2013 has been revised upwards by 6.5 per cent when compared with the preliminary estimate.*

- *The outturn for GDP growth last year reflected lower export growth due to weak external demand conditions and the impact of patent expiry on pharmaceutical exports. A corresponding decline in related profit outflows mitigated the impact on GNP which was more reflective of underlying conditions in the economy in 2013. Domestic demand contributed negatively to growth last year due to continued weakness in consumer spending and a decline in headline investment. Non-residential construction and underlying machinery and equipment investment, however, recovered strongly last year.*

- *A recovery in export growth is forecast for this year on the basis of improved external demand conditions together with a less pronounced impact from patent expiry on merchandise exports. In addition, domestic demand is projected to make a positive contribution to GDP growth this year led by a strong rebound in investment and modest growth in consumer spending. Overall GDP growth is projected to increase to about 2.5 per cent, with GNP increasing by 2.8 per cent in 2014. A more significant contribution from domestic demand should support a pick-up in overall GDP growth next year to about 3.3 per cent with GNP expanding by about 2.7 per cent.*

- *Consistent with the improved macro performance, fiscal developments have been positive in the first half of the year. Tax revenue was €500 million ahead of expectations in June (when the delayed receipt of corporation tax is taken into account) while spending was broadly on target. This suggests that the EDP Target will be achieved once again this year.*

- *The welcome improvement in labour market conditions last year eased somewhat in the first quarter of 2014. Nevertheless, with the improvement in output growth becoming more established, the conditions exist for sustained growth in employment, albeit at a less rapid pace than during 2013. On this basis and allowing for some recovery in labour force participation, unemployment is projected to decline to an average rate of 11.4 per cent this year with a further reduction to about 10.5 per cent in 2015.*

- *External factors such as weaker commodity prices and the impact of a stronger exchange rate have contributed to a significant decline in headline inflation over the last year. Domestically generated inflation was higher but this was largely accounted for by increases in rent. Elsewhere, inflationary conditions remain well contained, reflecting the absence of any upward movement in wages. HICP is expected to increase by 0.5 per cent in 2014 and 1 per cent in 2015.*

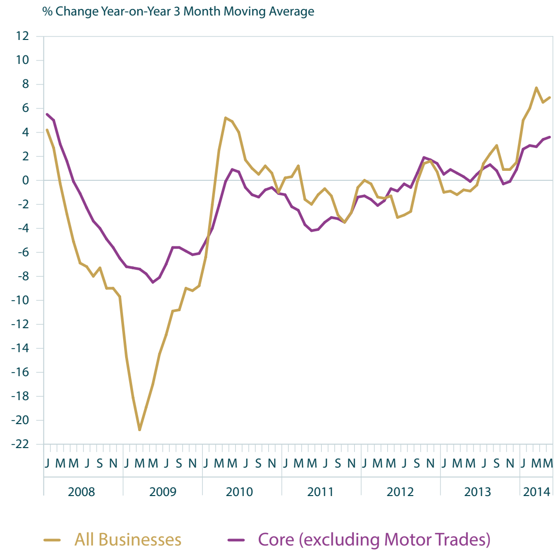
Demand

Consumer spending

Annual National Income and Expenditure Accounts (NIE) show a decline in consumer spending of 0.8 per cent in 2013, continuing the persistent downward trend of recent years. Households have been reluctant to spend given the backdrop of weak disposable income growth and high levels of personal debt. Personal sector debt has declined in recent years but remains high by reference to historic and international norms. Despite strong employment growth in 2013, disposable income growth has been modest reflecting limited growth in compensation per head and the impact of fiscal consolidation on personal taxes and transfers.

Following a weak first quarter, consumer spending picked up somewhat in the middle of last year but weakened again in the final quarter. This weak trend continued into the early months of 2014 with consumer spending declining by 0.1 per cent in the first quarter. This weak outturn contrasts somewhat with a more robust trend in headline retail sales. However, this has been sustained largely by exceptionally strong car sales, which increased annually by over 25 per cent in the first half of the year. Excluding car sales, underlying retail sales have been more subdued.

Chart 1: Index of Volume of Retail Sales



Source: CSO.

Expectations for disposable income growth are the key factor driving consumer spending over the forecast horizon. Our labour market projections, while marginally weaker than in the previous Bulletin, nevertheless support a modest pick-up in disposable incomes this year and next. On this basis, the volume of consumption is forecast to increase by 1 per cent in 2014 and 1.3 per cent in 2015.

Table 1: Expenditure on Gross National Product 2013, 2014[f] and 2015[f]

	2013	% change in		2014[f]	% change in		2015[f]
	EUR millions	volume	price	EUR millions	volume	price	EUR millions
Personal Consumption Expenditure	83334	1.0	1.1	85113	1.3	1.3	87381
Public Consumption	25956	-1.6	1.6	25949	-1.1	1.0	25920
Gross Domestic Fixed Capital Formation	26541	8.5	1.4	29208	8.6	1.7	32282
Building and Construction	10996	12.0	2.0	12562	10.4	2.5	14220
Machinery and Equipment	6793	10.0	0.8	7532	10.0	1.0	8368
Value of Physical Changes in Stocks	837			800			800
Statistical Discrepancy	1761			1761			1761
GROSS DOMESTIC EXPENDITURE	138429	1.9	1.2	142831	2.4	1.3	148144
Exports of Goods & Services	184056	4.0	0.4	192193	5.0	1.2	204283
FINAL DEMAND	322485	3.1	0.8	335024	3.9	1.3	352427
Imports of Goods & Services	-147694	3.7	1.0	-154694	4.6	1.4	-164118
GROSS DOMESTIC PRODUCT	174791	2.5	0.6	180330	3.3	1.1	188309
Net Factor Income from Rest of the World	-26262			-26672			-28813
GROSS NATIONAL PRODUCT	148529	2.8	0.7	153658	2.7	1.1	159496

Box A: The Implications of Recent Changes to Macroeconomic Statistics
by Thomas Conefrey and Martin O'Brien[1]

The National Accounts and Balance of Payments (BOP) data published by the CSO in early July and the revisions contained therein have important implications for understanding developments in the Irish economy. The revised data present a significantly different picture of the pattern of economic activity in 2013 than contained in the first estimate published in March. Furthermore, in line with developments across the EU, the CSO made a number of changes to the *National Accounts and Balance of Payments* data in implementing ESA 2010, BPM6 and in transposing previous international frameworks into the national compilation regime.[2,3] In this Box, we discuss the impact of these changes on macroeconomic and fiscal aggregates and the implications for analysing developments in the Irish economy.

Data Revisions to 2013 National Accounts

In the preliminary National Accounts data published in March, GDP was estimated to have contracted by 0.3 per cent in 2013; in the results published recently, this has been revised to an increase of 0.2 per cent. On the expenditure side, there were large revisions across all components of GDP. The overall upward revision to GDP growth reflected in part a higher contribution from net exports owing to substantially higher growth in services exports in the revised data. The revision to services export growth was due in part to the impact of methodological changes to the BOP data discussed below.

Turning to differences in the quarterly profile, in the data initially released for Q4 2013, GDP was estimated to have contracted by 2.3 per cent on a quarterly basis due to a sharp increase in imports in the quarter. In the revised data, import growth in Q4 has been revised downwards from 5.8 per cent to 1.7 per cent leading to a lower overall figure for imports in 2013 than earlier published. This in turn also contributed to the upward revision to overall 2013 GDP growth. As a result of these revisions to the quarterly profile of GDP, the sharp slowdown in economic activity in Q4, signalled in the March data, does not appear to have occurred based on the revised NIE results.

1 Irish Economic Analysis Division.

2 Throughout 2014 National Statistical Institutes in the EU are changing the compilation and presentation of macroeconomic data in line with the update of the statistical manuals to the *European System of National and Regional Accounts 2010* (ESA 2010) and the *Balance of Payments and International Investment Position Manual, 6th Edition* (BPM6).

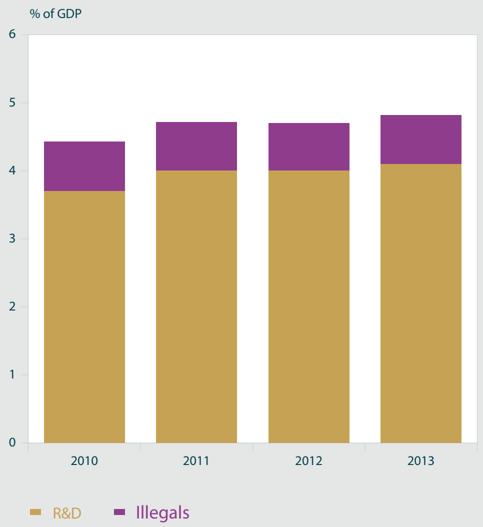
3 There are a number of other methodological changes as part of ESA 2010 and BPM6 which we do not discuss here due to their limited impact on the Irish data. For a detailed examination of the entire set of changes see Eurostat (2014) *Manual on the changes between ESA 95 and ESA 2010* and Appendix 8 of IMF (2009) *Balance of Payments and International Investment Position Manual, 6th Edition*.

Box A: The Implications of Recent Changes to Macroeconomic Statistics
by Thomas Conefrey and Martin O'Brien

ESA 2010 and Other Methodological Revisions

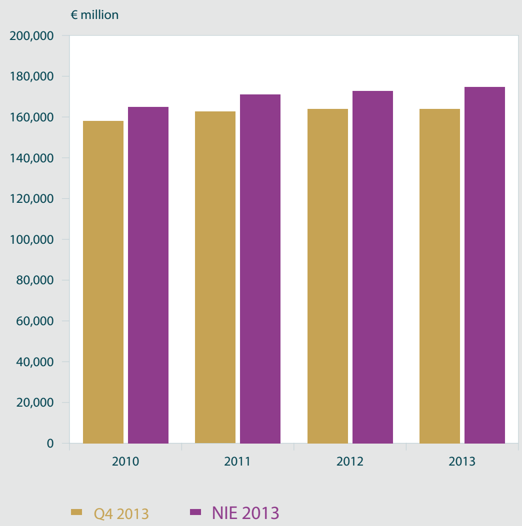
Under the previous methodology (ESA 95) research and development (R&D) expenditures were considered part of intermediate consumption, entirely used up in the overall production process of final output in the particular period in which those expenditures happened. However, R&D expenditures in reality result in intellectual property assets which can have benefits to the owner over a number of periods. ESA 2010 acknowledges this by allowing for R&D expenditure to be considered part of investment, thus adding to gross fixed capital formation and final GDP in the period in which those expenditures are made. In periods following the R&D expenditure, as in the case of other capital investments, the R&D related asset is depreciated as part of the consumption of fixed capital component of the National Accounts. The move of R&D expenditures from intermediate consumption to gross fixed capital formation in the NIE is estimated to have added 4.1 per cent to the level of GDP in 2013 (Figure 1).

Box A Fig 1: Impact of R&D and Illegals on GDP, current prices



Source: CSO.

Box A Fig 2: GDP current prices, QNA versus NIE 2013



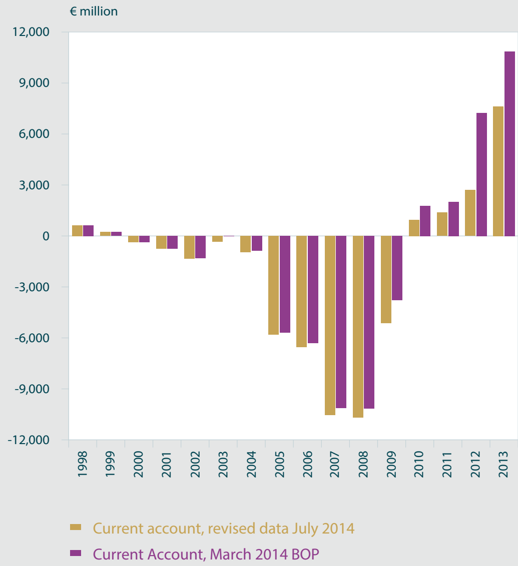
Source: CSO.

In addition to the ESA 2010 changes, the CSO have for the first time included estimates of illegal but mutually agreed transactions in their calculation of overall economic activity in the 2013 NIE and 2014 Q1 Quarterly National Accounts (QNA). It is estimated that this methodological change has added 0.8 per cent to the level of GDP in 2013.The overall impact of measures which change the level of GDP, including those not discussed in detail here, is estimated to have increased the level of 2013 GDP by 6.5 per cent.

The implementation of BPM6 (consistent with the ESA 2010 changes described above) and other revisions have impacted balances of Ireland's BOP accounts. As shown in Figure 2, the overall current account surplus in 2013 in the revised data measures €7.6 billion compared to the initial figure of €10.8 billion. Large revisions to the measured services balance account for a significant share of the reduction in the overall current account surplus. Under BPM6, purchases of patents and copyrights, which previously appeared in the capital account, are now included in the current account as a services import. These imports reduce the services surplus/increase the deficit with a knock-on impact on the overall current account position. In addition, merchanting of goods is reclassified from services to goods. The item now appears as net exports of goods under merchanting and is the difference between sales and purchases of goods.

Box A: The Implications of Recent Changes to Macroeconomic Statistics
by Thomas Conefrey and Martin O'Brien

Box A Fig 3: Balance of Payments, Current Account



Source: CSO.

The changes implemented by the CSO in adopting ESA 2010 and BPM6 could potentially impact the composition of GDP due to changes in the treatment of goods sent abroad for processing. In the previous methodology, these goods were counted on a gross basis, i.e. exports when leaving the country and imports when coming back for finishing and final sale. However these cross-border movements in many cases are not accompanied by a change in the economic ownership of the goods involved. Change of ownership is a fundamental concept in defining a transaction which up until ESA 2010 and BPM6 had not been applied to goods sent abroad for processing. As a result of extending the change of ownership concept to such goods, the value and volume of trade will be a smaller share of GDP than previously has been the case, all else being equal. Depending on a country's net position in global value chains the impact of this change will likely lead to a rise in the share of services trade in overall trade, a trend which has been evident already in Ireland for a number of years.

Government debt and deficit

The fiscal measures used for surveillance as part of the Excessive Deficit Procedure (EDP) are affected by the methodological changes to GDP in ESA 2010 and related changes to the classification of certain financial transactions in the *Manual on Government Deficit and Debt*. Changes to R&D expenditures and other changes which increase the level of nominal GDP (Figure 2) reduce both the Government debt and deficit when expressed as a percentage of GDP under ESA 2010 compared to ESA 95.

Debt and deficit ratios will also be affected by changes in the definition of the government sector for statistical purposes. The new international statistical standard ESA 2010 currently being introduced for the National Accounts has been interpreted as envisaging that a "defeasance vehicle" – essentially a bank in wind-down which is largely controlled by Government and has limited autonomy to carry out banking business – could be classified for statistical purposes as belonging to the General Government sector (even if its liabilities are not fully guaranteed by the Government). (Under the previous ESA 95 statistical standard, no licensed bank on the ECB's list of monetary financial institutions was treated as part of the Government sector). A determination by Eurostat that IBRC should be so classified in the new statistical standard from mid-2011, is expected to result in a temporary increase in measured gross General Government debt in the period 2011 to 2013. This is then expected to unwind with the liquidation of IBRC.

It may take a number of quarters for the implications of these changes to the National Accounts, Balance of Payments and Government Finance Statistics to be fully appreciated. While the impact on the level of GDP is now apparent, the fundamental changes to gross fixed capital formation and external trade may lead to a re-evaluation of the underlying dynamics of GDP growth and the current account.

Investment

National Accounts data suggest a strong recovery in underlying machinery and equipment investment (excluding airplanes) in 2013, with a further strong performance evident in Q1 2014. Investment is forecast to continue to expand both this year and next as the investment to GDP ratio slowly begins to return to a more normal level.

On the building and construction side, expansion is being driven by home improvements and non-residential construction rather than new residential builds. New house completions are expected to number just 10,000 and 12,000 new units this year and next. Given the shortage in supply of suitable accommodation in parts of the country and the strengthening of demand, there is considerable scope for expansion in residential investment. Building and construction is forecast to increase by 12 per cent and 10.4 per cent this year and next, driven mainly by non-residential construction and home improvements.

On the machinery and equipment side, the strong underlying data suggest that businesses are restocking their capital bases following five years of decline. Abstracting from aircraft purchases, which have a limited impact on domestic economic activity and employment, investment in machinery and equipment increased by almost 23 per cent last year. This year and next we expect the positive trend to continue, although at a more moderate rate.

Overall, investment is forecast to increase by 8.5 and 8.6 per cent this year and next. While significant, these growth rates are coming from a very low base and are still not sufficient to return the investment to GDP ratio to a more normal level. At less than 14 per cent of GDP, the investment ratio would still be significantly below the long run and international norm of about 20 per cent of GDP.

Box B: Housing Supply and House Prices
by Reamonn Lydon[4]

One of the likely reasons for the recent rise in residential property prices, particularly in Dublin, is that housing supply – in terms of new houses built or turnover of existing houses – has failed to keep pace with demand. This Box looks at one measure of new housing supply, namely trends in housing completions.

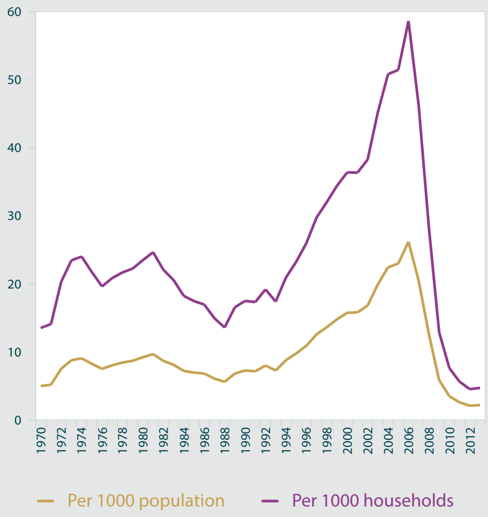
Figure 1 highlights the extremely low level of current housing completions, relative to historical trends. The first panel shows total housing completions at a national level divided by either the number of households (‘000s) or the population aged 15 or over (‘000s). The second panel shows Dublin and non-Dublin completions per 1000 population. Dublin and non-Dublin completions averaged 8.5 (6,800 units) and 10.6 (21,500 units) respectively between 1970 and 2013. Excluding the recent housing boom (i.e. 1970 to 2003 only) the figures are 8.4 and 9.8 for Dublin and non-Dublin.

The bursting of the house price bubble has coincided with a dramatic fall in housing supply: housing completions in 2013, at 1.1 (per 1000 population) in Dublin and 2.6 outside of Dublin, are at their lowest levels ever. Although still exceptionally low by historical standards, the 2013 figure for Dublin housing commencements, at 1.4 (per 1000 population), represents an increase on previous years (2010-12) when the average was just 0.5. Outside of Dublin, housing commencements show little change in the last three years.

4 Irish Economic Analysis Division.

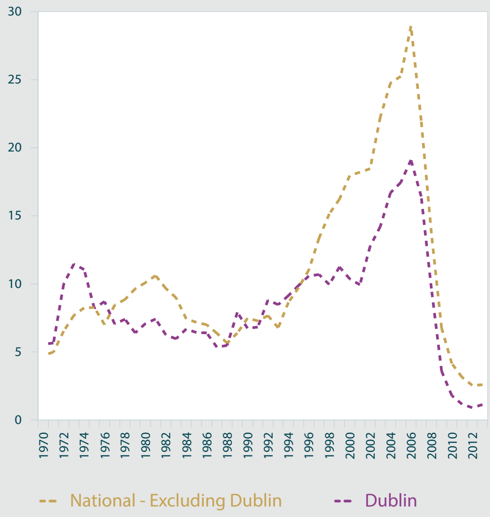
Box B: Housing Supply and House Prices
by Reamonn Lydon

Box B Fig 1a: Housing completions per 1000 households, population



Source: CSO and author's calculations.

Box B Fig 1b: Housing completions per 1000 population -- Dublin & Non-Dublin



Source: CSO and author's calculations.

It is important to understand whether current levels of supply simply reflect market fundamentals, or whether there are other factors at play. Housing supply models typically relate supply to a measure of expected profits, usually proxied by house prices, and cost-push factors, such as real interest rates and other building costs. Extensions might also consider tax and land use policy.[5] The specification estimated here relates completions to the change in house prices (measured in percentage points) and the change in construction costs. The model is estimated up to 1998, with annual completions predicted thereafter. The inclusion of the change as opposed to the level of house prices ensures that temporary house price spikes only result in a temporary increase in supply. The estimation results are shown below, alongside the predicted completions (with shaded 95% confidence interval) and actual completions.[6] Changes in house prices and construction costs exert a positive and negative influence on supply, as expected. Notably, the constant in the regression is positive and significant suggesting a strong tendency towards mean reversion – again, this is to be expected, given the long-run trends observed in Figure 1.

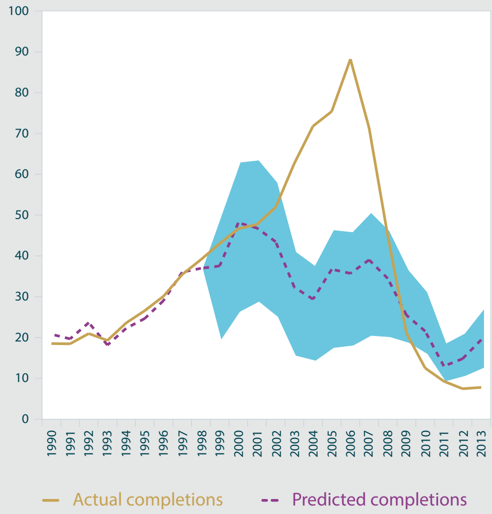
5 For a recent summary of the literature, see William Hedberg & John Krainer, 2012."Housing supply and foreclosures," Working Paper Series 2012-20, Federal Reserve Bank of San Francisco.

6 For the chart we have taken the exponent of the predicted series (which is in logs) and multiplied by the population aged 15+ to get an estimate of the predicted level of housing completions.

Box B: Housing Supply and House Prices
by Reamonn Lydon

Log (completions per 1000 popn)	Coefficient	t-ratio	p-value	
Change in real house price[a] (t)	0.020	3.288	0.005	***
Change in real house price (t-1)	-0.001	-0.147	0.885	
Change in real house price (t-2)	0.039	4.969	0.000	***
Change in real construction costs[a] (t)	-0.011	-1.164	0.261	
Change in real construction costs (t-1)	-0.021	-2.274	0.037	***
Change in real construction costs (t-2)	-0.011	-1.413	0.177	
Constant	2.024	11.200	0.000	
Mean dependent var	2.105	*(a) instrumented using lagged demand factors such as employment, interest rates and lagged own values*		
Adjusted R-squared	0.799			
F(7, 16)	14.035			
S.E. of regression	0.094			
Durbin-Watson	1.011			

Box B Fig 2: Housing Completions, Actual and Preditced



Source: CSO and author's calculations.

Actual housing completions during the peak years of the credit boom (2003-07) far outstrip the model predictions. One reason for this is the exclusion of credit from the model: a model including credit gives predicted completions of 55,000 per year, versus 35,000 without. The results suggest that actual housing completions in 2013 (7,800 units) are significantly lower than the level predicted by a simple model which takes into account the factors which typically explain the rate of housing completions (19,500 units). This indicates the likely need for a significant increase in housing completions from their current low levels in order to meet long-run housing supply requirements.

Government Consumption

According to the latest Annual National Accounts, government consumption increased in real terms by 1.4 per cent in 2013. Taking account of measures announced in detail in Budget 2014 and in general terms for next year in the Stability Programme Update 2014, the real level of government consumption is projected to decline by 1.6 per cent and 1.1 per cent, respectively in 2014 and 2015.

Stock Changes

Stock changes are estimated to have made a small positive contribution to growth in 2013 of about 0.3 of a percentage point and are expected to have a broadly neutral impact on GDP growth in both 2014 and 2015.

External Demand and the Balance of Payments

Exports and Imports

Growth in net exports was marginal in 2013 as import growth of 0.6 per cent partially offset a weak export performance (1.1 per cent). Export developments continued to be dominated by the fall in the value and volume of exported pharmaceutical products as they came off patent. Overall, goods exports

Table 2: Goods and Services Trade 2013, 2014f, 2015f

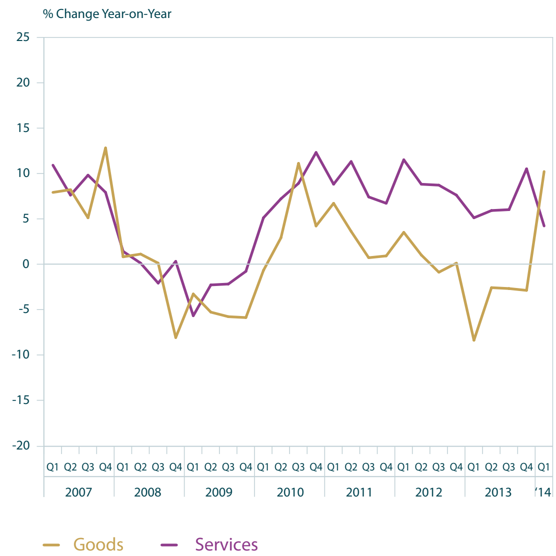
	2013	% change in		2014f	% change in		2015f
	EUR millions	volume	price	EUR millions	volume	price	EUR millions
Exports	184056	4.0	0.4	192193	5.0	1.2	204283
Goods	91763	4.1	-0.5	95062	4.9	0.7	100379
Services	92293	3.8	1.4	97131	5.1	1.8	103904
Imports	147694	3.7	1.0	154964	4.6	1.4	164118
Goods	55580	3.8	0.9	58211	3.4	1.2	60912
Services	92114	3.7	1.0	96483	5.3	1.6	103206

declined by 4.1 per cent in volume terms in 2013, according to the 2013 NIE. Growth in the volume of services exports slowed last year to 7 per cent. Our projections, detailed below, imply a positive contribution from net exports to overall GDP growth over the forecast horizon as goods exports recover with the easing of the patent cliff impact and external demand conditions improve.

According to the latest Quarterly National Accounts (QNA), developments in the first quarter of 2014 show a relative improvement compared with 2013. The volume of exports increased on a year-on-year basis by 7.4 per cent, with goods exports rising by 10.3 per cent as indications of an easing of the patent cliff effect begin to emerge. Industrial production data suggest an increase in activity in the volatile pharmaceutical sector in the first half of the year. A similar pattern emerges considering the value of non-pharmaceutical goods exports from the CSO's goods exports and imports release, which were 0.3 per cent higher comparing January-April 2014 with the same period in 2013 – a significant improvement on the 2.3 per cent decline for 2013 as a whole. Underlying this is the strong growth in exports of food and related products evident last year continuing into 2014.

Exports of services contracted in the first quarter of 2014 following a very strong performance in Q4 2013. On an annual basis, services exports increased by 4.3 per cent with

Chart 2: Volume of Exports



Source: CSO Quarterly National Accounts.

data from the Balance of Payments statistics showing that computer and business services sectors continued to be the major contributors to this expansion.

We expect the relatively positive outturn reported so far for 2014 to continue for the year as a whole. In support of this, sentiment indicators in both the manufacturing and services sectors have maintained a strong positive trend of expansion, driven by increased levels of export orders. On the

Table 3: Balance of Payments 2013, 2014[f], 2015[f]

€ million	2013	2014[f]	2015[f]
Trade Balance	36361	37498	40164
Goods	36183	36851	39467
Services	178	647	697
Net Factor Income and the Rest of the World	-26264	-26674	-28815
Current International Transfers	-2462	-2462	-2462
Balance on Current Account	7635	8362	8887
(% of GDP)	4.4	4.6	4.7

impact of the pharmaceutical patent cliff, our assumption based on publically available information is that the severity has passed its peak and will decrease over the forecast horizon. In addition, external demand assumptions point to a significant recovery in our main trading partners this year with a further improvement in prospect for 2015.

Considering these factors, we now project overall export growth of 4 per cent for 2014 in volume terms, rising to 5 per cent in 2015. With the easing of the patent cliff and the rise in external demand, goods exports are forecast to increase by 4.1 per cent this year followed by an increase of about 4.9 per cent in 2015. Services exports are projected to grow at a similar rate, increasing by 3.8 per cent in 2014 and by 5.1 per cent in 2015.

Goods imports surprised on the upside in 2013, supported by a higher than expected rise in import intensive investment activity. Developments in the first quarter of 2014 point to a continued turnaround in goods imports as personal consumption of goods, particularly the purchase of cars, and machinery and equipment investment improved. On the services side, imports have been dominated by the payment of royalties and licenses on the intellectual property underlying the bulk of software and modern manufacturing industry related production and export from Ireland. These imports rose by 18 per cent in value terms in the first quarter of 2014 on a year-to-year basis, with overall services imports rising by 9 per cent. Given the outlook for growth in consumption, investment and export activity over the forecast horizon, we expect a further increase in the pace of growth in overall imports in 2014 and 2015 of 3.7 and 4.6 per cent respectively.

Net Trade, Factor Incomes and International Transfers

As discussed in Box A, methodological changes have had a significant impact on the balance of payments. The changes to the treatment of merchanting and patents and copyrights have boosted the merchandise surplus while the previous estimate of the services surplus in 2013 was revised downwards significantly following the change. The dynamics evident in the trade balance in 2013 continued into the first quarter of 2014, with a further widening of the merchandise trade balance being partially offset by a services deficit. The overall trade balance for the first quarter of the year was €8.9 billion, an increase of 7.9 per cent on the same period in 2013.

Net factor income flows became significantly less negative in 2013. Lower profits generated by foreign multi-nationals operating in Ireland and a reduction in interest payments to foreign holders of Irish resident financial sector debt were the main drivers of the reduction in factor income outflows last year. Net factor income outflows increased in Q1 2014 to €8 billion compared to €7.5 billion in Q1 2013 due to a rise in direct investment income outflows.

Trade and factor income developments combined have led to a reduction in the current account of the balance of payments, which

Table 4: Industry and Manufacturing Output, Annual Percentage Change

	Modern	Traditional	Manufacturing	Total Industry
2011	-1.9	3.2	0.7	0.2
2012	-1.0	-0.6	-0.8	-1.1
2013	-4.6	0.9	-2.5	-2.2
2014[f]	12.0	4.9	5.9	5.3
2015[f]	4.8	2.0	4.0	3.8
Average 2011-2013	-2.5	1.2	-0.9	-1.0

reduced to a surplus of 2.2 per cent of GDP in the first quarter of 2014. Given the scale of factor income flows and the uncertainty of their timing, small changes - either positive or negative - in outflows or inflows could have a significant impact on balance of payments projections in this Bulletin. Taking this into account, our projections for exports and imports imply that the current account will remain in surplus and on a positive trajectory over the forecast horizon.

Chart 3: Volume of Industrial Production

Source: CSO.

Supply

Industry and Services Output

Following a weakened outturn in 2013 owing to the expiry of a number of patents in the pharmaceutical sector, monthly industrial production data for the first five months of 2014 provides signs of uplift in the sector - industrial output volumes rose by 15.9 per cent on average in year-on-year terms over the January to May period. An exceptionally buoyant performance from the modern side and specifically the pharmaceutical sector led to a particularly pronounced pick-up in April and May, thereby serving to boost the expansion over the first five months of 2014. It appears that the unusual patterns in industrial production in 2013 arising from the downward impact of the expiry of patents had a strong base effect for the year-on-year rates of change in 2014, explaining some of the recent volatility observed. It is also, however, noteworthy that the industrial production series is notoriously volatile on a month-on-month basis and is prone to revision. Accordingly, the outturn for the year to date needs to be interpreted with a degree of caution.

While data from the Quarterly National Accounts (QNA) are not directly comparable to the industrial production series, the QNA outturn for the first quarter of 2014 also points to tentative signs of a recovery for the industrial sector and thereby appears to reinforce the recent findings of the monthly industrial production series. Output in the industrial sector, which includes building and construction, rose by 2.1 per cent, year-on-year in the first quarter of 2014 and by 2.8 per cent, quarter-on-quarter, on a seasonally adjusted basis. There have been some further signs of an improved performance by the manufacturing sector during the second quarter of 2014, according to the Investec Manufacturing Purchasing Managers' Index (PMI), with a pronounced expansion in output registered throughout the quarter. Moreover, the outturn for June signalled growth in new orders at the fastest pace since February 2011.

The outlook for industrial output for 2014 has been revised upwards relative to the previous Bulletin on the basis of the outturn for the first quarter of 2014 and more recent PMI data, with industrial output now expected to rise by around 5 per cent this year. Looking ahead to 2015, further growth is anticipated, sustained by both a pickup in merchandise exports and improved prospects for domestic economic conditions, which should translate into increased demand for manufacturing output. As a result, industrial output is projected to increase by around 3.8 per cent in 2015.

As regards the services side, data from the QNA reveals that the output of Other Services (including rent) rose by 3.9 per cent in the first quarter of 2014 relative to the same period last year and by 1.1 per cent quarter-on-quarter, seasonally adjusted. Such an outturn is consistent with the more qualitative evidence from the Investec Services PMI, which was noticeably stronger in the first quarter of 2014. The Services PMI also suggests that the pace of output growth rose further during the second quarter - in the first quarter the index averaged 59.2 compared with 62.7 in the second quarter. The most recent Investec Services PMI data for June finds that the rate of expansion in business activity accelerated to its sharpest pace of expansion since February 2007 primarily due to increased new orders, both domestically and abroad.

Agricultural Output

The performance of the agriculture sector improved in 2013 following a pronounced weakening in 2012. Final estimates from the CSO reveal that agricultural incomes, as measured by operating surplus, rose by 1.5 per cent on an annual basis last year, following a decline of 9.2 per cent the preceding year. Furthermore, goods output at producer prices rose by 8.3 per cent last year. The rise in operating surplus in agriculture last year can be largely attributed to a rise in the value of milk output totalling 27.2 per cent. As highlighted in the previous Bulletin, operating surplus in the agriculture sector has tended to display a somewhat unpredictable pattern over recent times largely due to the impact of price changes on farm output.

The latest available QNA data suggests that the performance of the broader agriculture, fishing and forestry sector improved further in the first quarter of 2014. In terms of volume of output, an expansion in the order of 11.1 per cent was registered over the year to the first quarter of 2014; this compares with an annual increase of 21.1 per cent in the previous quarter. Turning to the outlook for 2014 and 2015, further gains in agricultural incomes are expected as output growth continues and the gap between output and input prices improves. Agricultural incomes are projected to rise by 3 per cent and 3.5 per cent, respectively, largely reflecting the corresponding rise in the volume of output of 5.7 per cent and 6 per cent. These forecasts are subject to considerable uncertainty relating, most notably, to weather conditions, exchange rate movements and commodity price developments.

The Labour Market

The Quarterly National Household Survey (QNHS) results for Q1 2014 were weaker than expected and suggest that, following strong gains last year, the pace of improvement in the labour market paused in the first quarter of 2014. In the first quarter, employment increased marginally by 0.1 per cent. This compares to average quarterly employment growth of 0.8 per cent over the previous four quarters. Further signs of a slightly weaker labour market performance during 2014 are evident in the monthly data from the Live Register. While the

Table 5: Employment, Labour Force and Unemployment 2012, 2013, 2014[f] and 2015[f]	2012	2013	2014[f]	2015[f]
Agriculture	86	107	115	115
Industry (including construction)	336	343	347	354
Services	1417	1432	1463	1498
Total Employment	1838	1881	1925	1968
Unemployment	315	282	247	230
Labour Force	2154	2163	2172	2198
Unemployment Rate (%)	14.6	13.1	11.4	10.5

Note: Figures may not sum due to rounding.

seasonally adjusted number of claimants has continued to fall on a monthly basis this year, the average monthly fall in the first six months of 2014 was 2,800 compared to an average drop of over 3,000 from July to December 2013.

Encouragingly, the first quarter data indicate that, although slowing, full-time employment continued to grow in the early part of 2014. However, the small increase in full-time employment in the first quarter was offset by a decline in part-time employment, resulting in only the second annual decline in part-time employment since 1998. The Earnings, Hours and Employment Costs Survey (EHECS) from the CSO provides information on public and private sector employment. The latest data for Q1 show that overall employment growth continues to be driven by the private sector with public sector employment recording its twelfth consecutive year-on-year decline in Q1 2014.

An encouraging aspect of labour market developments in 2013 was the small rise in the labour force participation rate which led to the first increase in the overall size of the labour force since 2008. The labour force increased again in Q1 2014, although at a slower pace than recorded during 2013. The increase in the labour force in the first three months of the year was again driven by a positive labour force participation effect. The size of the population aged 15 to 64 (demographic effect) declined in Q1 compared to a year earlier. This negative demographic effect is consistent with outward migration and is concentrated among those aged under 34.

While recent developments have been slightly weaker than expected, the strong labour market performance in 2013 has helped to make inroads into alleviating some of the most severe labour market problems to emerge during the crisis. In particular, the long-term unemployment rate has fallen from 9.5 per cent in Q1 2012 to 7.3 per cent in Q1 2014. The youth unemployment rate has declined by almost 5 percentage points over the same period.

Reflecting the projections for output and demand, the recovery in the labour market which commenced last year is expected to continue at a steady pace over the forecast horizon. Overall employment is projected to grow at a similar rate as in 2013 and further falls in the unemployment rate are expected. Nevertheless, it is likely that unemployment will still be above 10 per cent of the labour force in 2015, seven years after the crisis began.

Pay

Data from the NIE Accounts for 2013 show that nominal compensation per employee increased by 2 per cent in 2013 following a small rise in 2012. The return to strong employment growth and generally improving labour market conditions appears to have exerted some marginal upward pressure on pay.

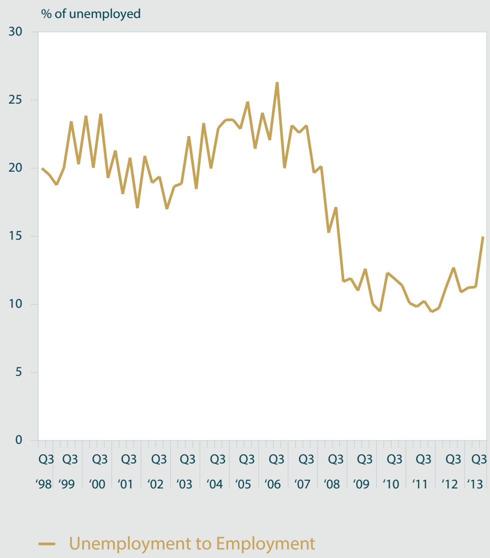
The most recent data for Q1 2014 point to a weak trend in earnings growth during the early months of the year. On an annual basis, hourly earnings decreased for the third consecutive quarter, although the pace of decline eased. Mirroring the trend in previous quarters, hourly earnings in the private sector recorded a small increase while public sector pay declined. Overall, annual declines in hourly earnings were recorded across six sectors in the first quarter. This could reflect a number of developments; the bulk of new jobs being created may be in lower paid sectors or the salaries for new starters may be reduced compared to pre-crisis. A further contributory factor to the weakness in overall earnings is the reductions in public sector pay following the introduction of the Haddington Road Agreement in July 2013.

A small increase in compensation per employee is projected in 2014. This should reflect an easing in the pace of decline in public sector earnings as the year progresses along with stronger growth in private sector wages. The latter will be supported by on-going improvements in the overall labour market and in the domestic economy.

Box C: Employment and Unemployment Flows in the Irish Labour Market
by Thomas Conefrey[7]

Following five consecutive years of job losses, employment increased again in 2013 providing the most solid evidence that a recovery in the economy has taken hold. Between Q4 2008 and Q4 2012, close to 235,000 jobs were lost as a consequence of the fall in output and activity in the economy. The fall in employment produced a sharp rise in the unemployment rate to a peak of 15.1 per cent in early 2012. Since then the situation has improved with employment increasing by over 63,000 between Q1 2012 and Q1 2014 and the unemployment rate falling by 3 percentage points. These developments in employment and unemployment stocks are underpinned by changes in the labour market flows into and out of employment, unemployment and inactivity. In this box, we focus on changes in flows between employment and unemployment. An analysis of changes in the worker flows series can provide useful information on labour market dynamics and can uncover important differences in entry and exit rates from employment and unemployment.

Box C Fig 1: Transitions, Unemployment to Employment



Source: QNHS and author's calculations.

Micro data from the Quarterly National Household Survey[8] allow the movements of workers to be tracked over the consecutive quarters during which they remain in the survey and the changes in their activity status (employed, unemployed etc.) to be computed. Looking first at job destruction rates, Figure 1 shows exits from employment to unemployment as a percentage of the stock of employed up to Q3 2013. The Figure shows that exits to unemployment from employment averaged around 0.8 per cent between 1998 and 2007 before increasing sharply from 2008. The stabilisation and gradual improvement in economic conditions has seen the job destruction rate fall during 2012 and 2013 although the rate remains well above its pre-recession level.

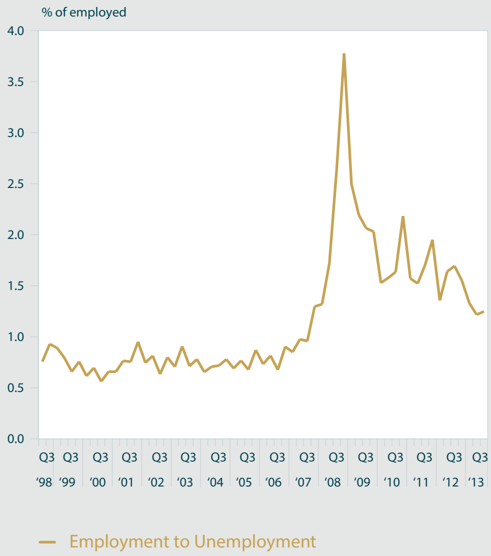
7 Irish Economic Analysis Division.

8 We would like to thank Brian Ring (CSO) for access to the micro data.

Box C: Employment and Unemployment Flows in the Irish Labour Market
by Thomas Conefrey

Labour market flows from unemployment to employment are shown in Figure 2 with the fall in transitions out of unemployment during the recession clearly evident. The probability of a worker moving from unemployment into employment declined from almost 21 per cent pre-2007 to around 11 per cent from 2008. The data show a recovery in the job creation rate during 2013 with around 15 per cent of workers exiting unemployment by Q3 2013 on a quarterly basis compared to around 10 per cent in the same quarter of 2011.

Box C Fig 2: Transitions, Employment to Unemployment



Source: QNHS and author's calculations.

The flows data reveal that the increase in unemployment during the crisis reflected both a large increase in employment exit rates and a decrease in outflows from unemployment. Similarly, the recovery in the labour market during 2013 has been due to a slow reversal of these trends with a decrease in the rate of job destruction and an increase in the exit rate from unemployment. The evidence of a cyclical pattern in employment and unemployment flows is encouraging as it suggests that further improvements in the labour market could be realised as economic activity recovers. Despite the recent improvements, both the job destruction and job creation rates are considerably removed from pre-2008 levels. Increasing exit rates from unemployment, particularly for long-term unemployed workers who are significantly less likely to move back to employment, will be important in ensuring that recent progress in the labour market is sustained.

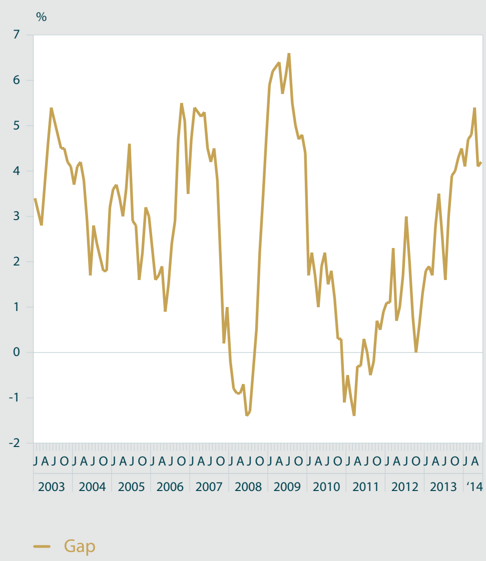
Inflation

The latest available consumer price data suggests that price pressures remained subdued in June, rising by 0.5 per cent year-on-year and 0.2 per cent month-on-month on a HICP basis. The corresponding rates of change in the CPI in June were 0.4 per cent and 0.1 per cent, respectively. HICP data for the first six months of 2014 suggests that consumer prices have risen by 0.3 per cent on average in year-on-year terms; this compares with an increase of 0.8 per cent for the same period last year. Excluding the volatile unprocessed food and energy components, HICP inflation averaged 0.8 per cent over the year to June 2014, considerably exceeding the corresponding headline rate. This suggests that the weaker inflation outturn over the year to date largely relates to downward pressure arising from external factors, with domestically generated inflation making a positive contribution over the first six months of 2014 (See Box D for further analysis).

Box D: Recent Developments in the Gap between HICP Goods and Services Inflation
by Suzanne Linehan[9]

A feature of recent inflation developments has been the increased divergence between the rates of HICP goods and services inflation, with services inflation outpacing that of goods. While a positive gap between services and goods inflation has been observed since September 2011, a marked widening has been noticeable since the second half of 2013, with the gap reaching 5.4 percentage points in April of this year. This reflects the fact that goods prices, on a HICP basis, have declined year-on-year since March 2013,[10] while HICP services prices have risen, consistently exceeding 2 per cent since November 2013. To place the recent upward movement in the gap between goods and services inflation in context, it is useful to briefly consider its evolution from a historical perspective, as illustrated in Figure 1. It is clear that a divergence between goods and services inflation has not been an unusual phenomenon - services inflation has, on average, been 2.6 percentage points higher than goods over the period between January 2003 and June 2014. While the gap remained largely positive over this period, it has tended to fluctuate sharply and peaked at 6.6 percentage points in July of that year. The most recent peak of 5.4 percentage points was reached in April of this year and, considering the preceding trough of 1.6 percentage points was in July 2013, points to a sizable widening over a relatively short period of time.

Box D Fig 1: Gap between HICP Services and Goods Inflation



Source: CSO.

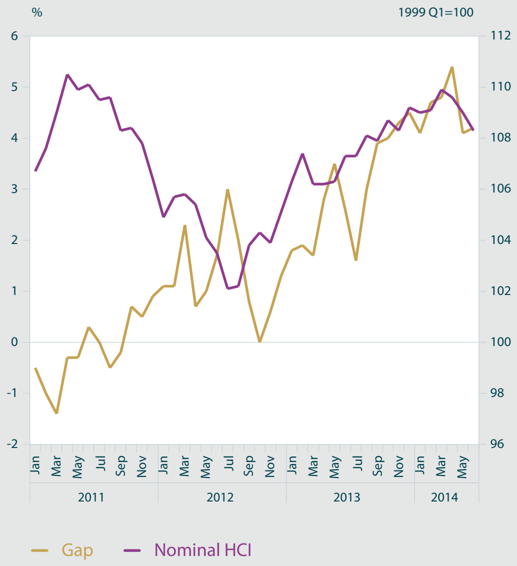
The recent marked widening of the gap between goods and services inflation is partially related to the fact that the goods and services components of Irish HICP inflation tend to be affected to varying degrees by external and domestic factors. Most items included in the goods component of the HICP are either imported or produced domestically with a high import content; as a result, goods inflation tends to be highly sensitive to external developments. In contrast, services are generally non-traded and therefore, domestic factors tend to play a more prominent role.

9 Irish Economic Analysis Division.
10 With the exception of July 2013.

Box D: Recent Developments in the Gap between HICP Goods and Services Inflation
by Suzanne Linehan

The single most important potential explanation for the falloff in goods inflation relative to services is the rise in the value of the euro since the second half of 2012, with the nominal effective exchange rate of the euro 6.1 per cent higher in June 2014 than in July 2012. Such an appreciation makes imports cheaper and assuming pass-through to consumers can be expected to lower consumer price inflation. A stronger euro also contributes indirectly to lower inflation as import prices and market competition may place downward pressure on the prices of domestically-produced goods. As international trade in goods is considerably larger than for services, an appreciation in the euro should, ceteris paribus, cause goods prices to fall relative to the price of services. Figure 2 clearly supports this, highlighting that the appreciation of the euro on a trade-weighted basis since mid-2012 has been associated with an upward movement in the gap between goods and services inflation.

Box D Fig 2: Effective Exchange Rate and HICP Services and Goods Gap

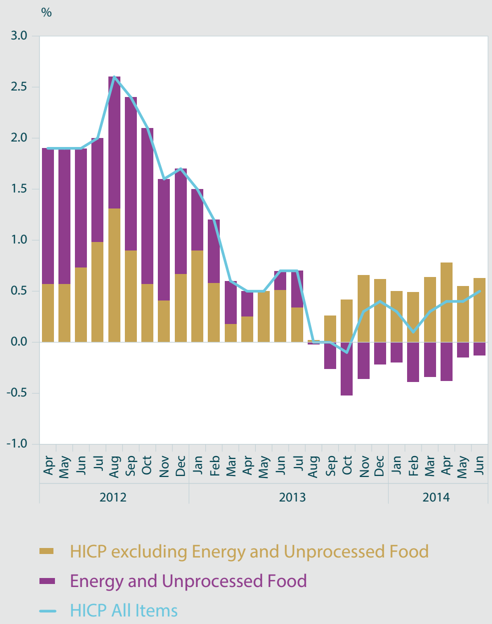


Source: CSO and Central Bank of Ireland.

Recent subdued developments in HICP goods inflation has also been strongly influenced by weaker commodity prices. Most notable in this respect has been falling energy prices, which have featured prominently over recent times amid strong fluctuations in oil prices, as evidenced by the fact that the energy component of the HICP declined by 0.1 per cent in 2013 following an increase of 9.4 per cent in 2012. The moderation in international food prices, most notably in the second half of 2013, has further served to ease external inflationary pressures. Reflecting these developments, the contributions from energy and unprocessed food to the headline HICP inflation rate have been consistently negative since September 2013 (see Figure 3). A further factor placing downward pressure on goods price inflation has been the slowing pace of global inflation, with a number of non-commodity goods either imported or produced directly with a high import content. With the falloff of goods price inflation relative to services largely explained by subdued external pressures arising from the appreciation of the euro and developments in commodity prices, it seems likely to be temporary in nature.

Box D: Recent Developments in the Gap between HICP Goods and Services Inflation
by Suzanne Linehan

Box D Fig 3: Contribution of Energy and Unprocessed Food Components to HICP Inflation (%, y-o-y)



Source: CSO.

On the other hand, the rate at which services prices have been rising, having exceeded 2 per cent since November 2013, clearly suggests that factors other than the non-traded nature of services have played a role in recent HICP services developments. In particular, sharp increases in some components of core services prices, which comprise a heterogenous range of items, have been behind recent elevated rates of services inflation.[11] At a more disaggregated level, core services price inflation has been led by private rents, rising by 8.4 per cent in annual terms during the first six months of 2014. This item accounts for around 11.3 per cent of the services component of the HICP basket and as a result, sizable price fluctuations have had a noticeable impact on overall services inflation. Miscellaneous items such as air travel and health insurance have also risen markedly over recent times. A comparison of the annual rate of change in HICP services inflation with the services producer price index, a proxy for the costs faced by businesses, reveals that services prices rose faster than producer prices throughout 2013,[12] with the rise in consumer services prices not entirely explained by higher costs.

This suggests that, in addition to the buoyancy of private rents, the recent upward trend in some components of HICP services inflation may reflect rising mark-ups as firms rebuild margins following a period during which they have been squeezed.

11 Four subcategories within the services component have been identified, namely, core services, administered services, alcohol services and telecoms.

12 The experimental services producer price index measures changes in the average prices charged by domestic service producers to other businesses for a selected range of services. In most cases, these services are provided to business customers only.

Table 6: Inflation Measures – Annual Averages, Per Cent

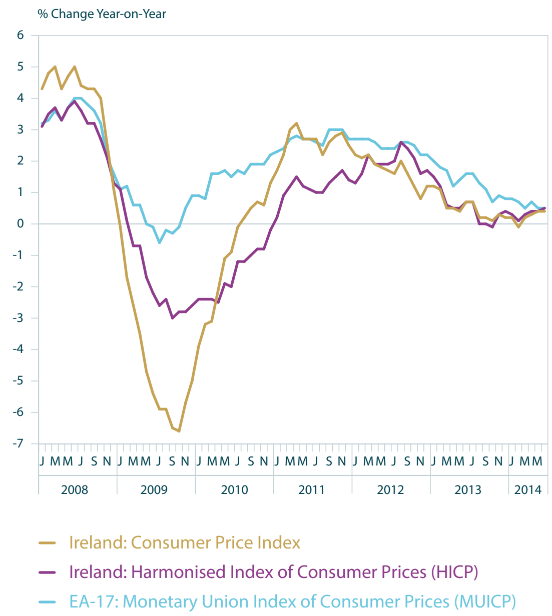
Measure	HICP	HICP excluding Energy	Services[a]	Goods[a]	CPI
2010	-1.6	-2.7	-0.7	-2.4	-0.9
2011	1.2	0.0	0.8	1.5	2.6
2012	1.9	0.9	1.9	1.9	1.7
2013	0.5	0.6	1.6	-0.4	0.5
2014[f]	0.5	0.6	2.2	-1.3	0.4
2015[f]	1.0	1.3	2.3	-0.3	1.0

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

On the basis of currently available information and prevailing futures prices for energy, the headline HICP inflation rate seems set to remain modest throughout the projection period, contained to a large degree by subdued external price pressures. Most notable in this respect are energy prices, which seem set to continue to place downward pressure in the short to medium term, as the declining path of oil price futures in dollar terms is reinforced by the strength of the euro vis-à-vis the dollar; oil prices in euro terms are now assumed to be 2.2 per cent and 4.3 per cent lower in 2014 and 2015, respectively. In contrast, services inflation is expected to continue to make a strong positive contribution throughout 2014 and 2015 amid continuing signs of recovery in the labour market. Reflecting such a combination of developments, the annual HICP inflation rate is expected to average 0.5 per cent in 2014 and 1 per cent in 2015. Meanwhile, the annual CPI inflation rate is projected to decline slightly this year to 0.4 per cent followed by 1 per cent in 2015. It is noteworthy that the envisaged pick-up in the headline inflation rate in 2015 reflects the fact that domestic factors tend to dominate beyond a one year forecast horizon and as a result, the drag from external factors should lessen next year.

While the projected profile for headline inflation is unchanged relative to the last Bulletin, the outlook for the main HICP components has been revised somewhat. Most notable in this respect has been the upward revision to the services component in line with recent perceptibly stronger services inflation outturns and the continuing signs of a labour market recovery.

Chart 4: Consumer Prices

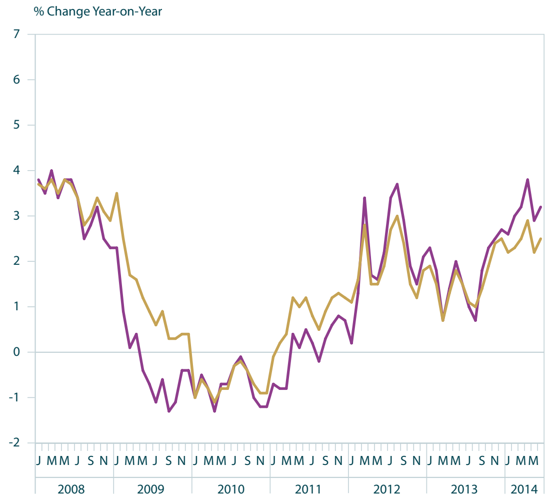


Source: CSO.

Property Prices

Residential property prices in Dublin increased by 15 per cent in the first four months of 2014 compared to the same period in 2013. Outside of Dublin, house prices rose at an average annual rate of 2 per cent in the first four months of the year, with slightly weaker growth in the latest month's data (1.3 per cent in April 2014).

Chart 5: Services Sector Inflation

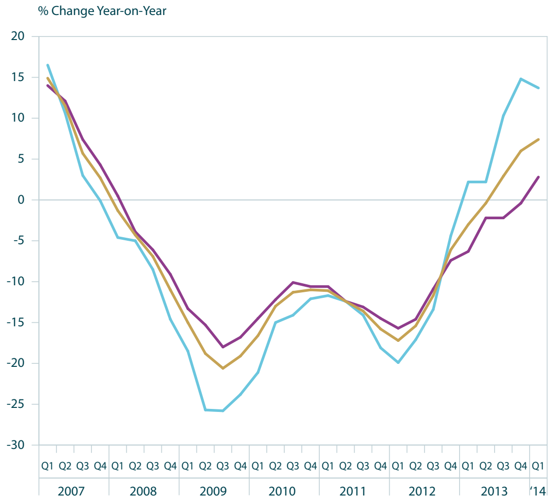


— HICP Services (Overall) — HICP Core Services

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

Source: CSO.

Chart 6: Residential Property Price Indices



— National – All Residential Properties
— National Excluding Dublin – All Residential Properties
— Dublin – All Residential Properties

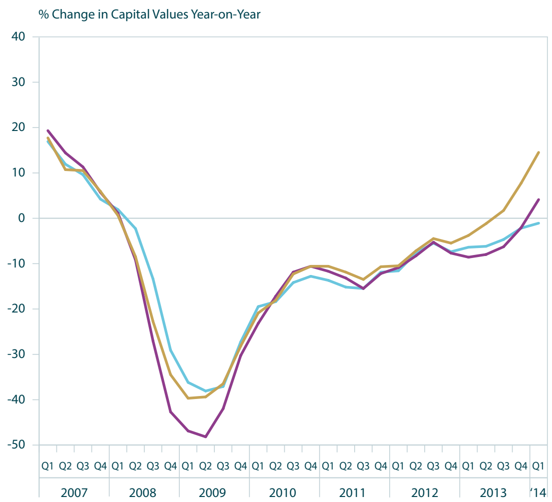
Source: CSO.

As noted in earlier bulletins, low levels of supply – either of newly-built homes or existing homes turning over – is a key factor driving recent house prices. Box B shows that housing starts are far below historical averages, implying that current low levels of new housing supply are likely to persist in the short- to medium-term. These views are echoed in official data on housing completions as well as in a number of publications which measure house price expectations, such as the Central Bank's own Quarterly Property Survey (Macro Financial Review, Central Bank of Ireland, 2014:1) and the ESRI/AIB Housing Market Index (ESRI, Q1 2014).

Commercial Property

Commercial property prices have continued to trend upwards in 2014, registering a 9.6 per cent annual increase in capital values in the first quarter of 2014. As per previous bulletins, overall increases mask contrasting sectoral developments, with significantly stronger capital growth in the office and retail sectors compared with the industrial sector, where price developments remain weak. The Central Bank's recent Macro-Financial Review (June 2014) contains a full overview of recent developments in the commercial property market.

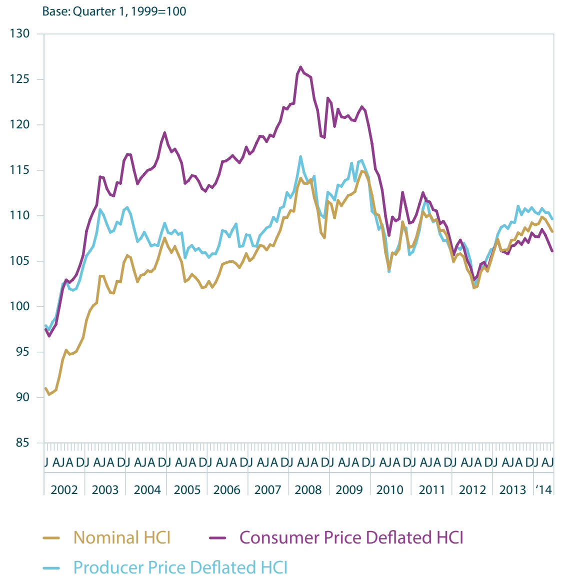
Chart 7: SCS/IPD Irish Commercial Property Index



— Office — Retail — Industrial

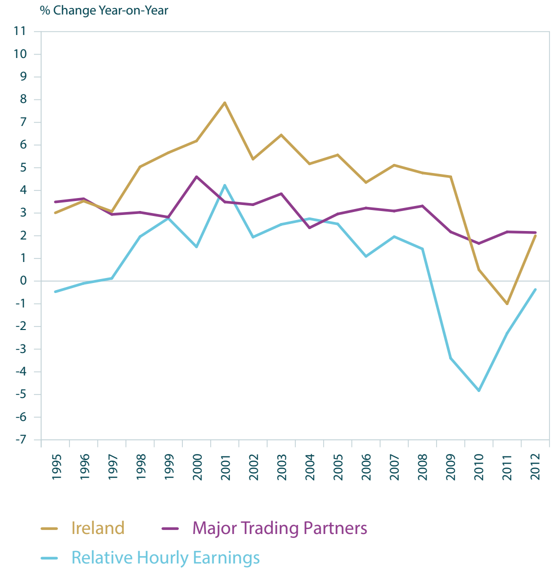
Source: SCS/IPD.

Chart 8: Harmonised Competitiveness Indicators



Source: Central Bank of Ireland and ECB.

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



Source: Central Bank of Ireland calculations.

Competitiveness

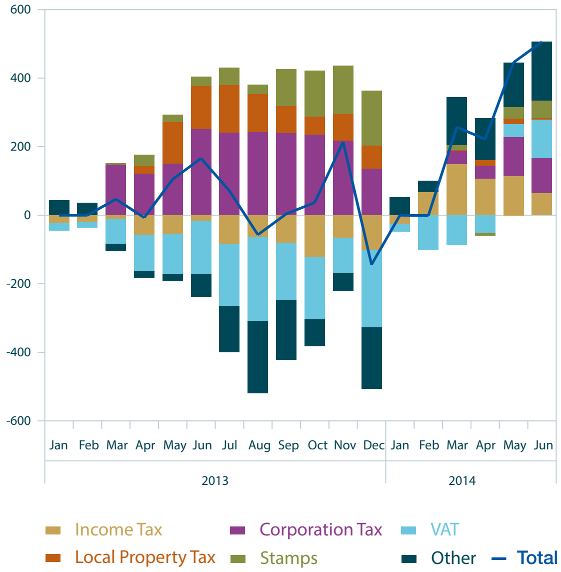
Exchange Rate Developments

The euro strengthened against the dollar in the first five months of 2014, but to a much slower degree than was evident through 2013. In contrast, it has been depreciating marginally against the UK's sterling. The upward trend relative to the dollar is reflected in an increase in the Harmonised Competitiveness Index (HCI - an increase in the index indicates a reduction in competitiveness). The deterioration in competitiveness since mid-2012 is slightly more pronounced when deflated by producer prices, which rose on a relative basis in early 2013. Since Autumn 2013, the appreciation of the nominal exchange rate has driven the overall deterioration in real competitiveness. This represents a partial reversal of competitiveness improvements achieved in the 2009 – 2011 period and brings the overall competitiveness position back to levels pertaining in 2002.

Productivity and Cost Competitiveness

The improvements in productivity and unit labour costs posted in the aftermath of the crisis are unlikely to be repeated over the recovery phase projected in this Bulletin. Productivity declined by 2.1 per cent when measured on a GDP basis in 2013, but increased by 0.8 per cent when measured on a GNP basis. The negative productivity outcome on the GDP measure is primarily due to the statistical treatment of patent expiry on reducing the volume of output in the pharmaceutical sector while employment in the sector remained stable. It has also been the case, however, that the employment growth evident over the past year has been concentrated in low productivity sectors. This is also evident to a degree in labour cost dynamics. Chart 9 illustrates the evolution of hourly earnings in manufacturing relative to Ireland's main trading partners, pointing to a closing of the relative wage growth gap in 2012. In the wake of an increase of 2.7 per cent in 2013, absolute unit labour costs are projected to increase by 0.3 per cent this year and decline by 0.3 per cent in 2015.

Chart 10: Divergence of Tax Heads from Profile



Source: Department of Finance.

The Public Finances

Overview

The latest Central Bank of Ireland estimate of Government Finance Statistics under ESA 2010 suggests[13] that the general government balance continued to improve last year. The deficit outturn of around 6.5 per cent of GDP was down a full percentage point from 2012 and would ensure that the Excessive Deficit Procedure (EDP) target was successfully achieved once again. With regard to this year, exchequer returns figures for the first six months have been encouraging, with tax revenue coming in €500 million ahead of expectations and total government spending broadly in line with its profile. As a result, it appears that this year's EDP requirement, a deficit of 5.1 per cent of GDP, will be met. Gross general government debt continued to increase in 2013, albeit at a slower pace than in previous years, with a Central Bank ESA 2010 estimate of 116 per cent of GDP. The improving budget position and a run down in cash balances are expected to support a gradual decline in the debt ratio in the coming years.

Exchequer Returns

The latest data reveal that the Exchequer ran a deficit of €4.9 billion in the first six months of the year, a decrease of €1.7 billion from the corresponding period of 2013 (see Table 7). This represents a positive outturn; while an improvement over the period was anticipated, revenue developments are stronger than expected while expenditure is broadly in line with expectations. Tax receipts recorded strong growth over the period, boosted by the measures adopted in Budget 2014 and the recovering economy. Tax revenue was up 4.9 per cent in annual terms and was €221 million ahead of profile. This reflected better than expected developments in three of the 'big four' tax heads – income tax, excise duty and VAT – while stamp duty also performed strongly. Corporation tax would also have been ahead of its target but for a temporary delay of €285 million in payments caused by the Single European Payments Area (SEPA) which should be resolved in July. Were it not for this delay tax revenue would have been a considerable €500 million ahead of expectations at the halfway point of the year. When the impact of intra-government loans – which are broadly offset by developments on the expenditure side – are excluded,[14] other revenue sources[15] were lower in annual terms, mainly due to last year's sale of contingent convertible capital notes not being repeated. This decline was fully expected, however, and compared to profile, other revenue was an additional €251 million ahead of expectations, primarily due to positive developments in Central Bank surplus income.

Turning to the expenditure side, and again excluding the impact of intra-government loans, gross current primary and capital spending were down by 4.2 and 19.8 per cent respectively from last year. While lower current spending partly reflected a reduction of bank guarantee payments from the very high level caused by the liquidation of IBRC, day-to-day voted current expenditure and interest costs were also down, the former by 1.2 per cent. Compared to expectations, spending was

13 The Latest Official Government Finance Statistics produced by the CSO are based on the ESAs methodology.

14 Repayments of loans to the Social Insurance Fund and the Insurance Compensation Fund, and a repayment of an Advance to the supply account have been excluded from the calculations of other revenue sources.

15 Composed of appropriations in aid, non-tax revenue and capital receipts.

Table 7: Summary of Exchequer Returns, June 2014 (€ millions)[16]

	Jan-June 2013 €m	Jan-June 2014 €m	Annual Change
Revenue			
– Tax revenue	17,599	18,467	4.9%
– Appropriations-in-aid	5,337	5,429	1.7%
– Non-tax revenue	1,897	1,734	-8.6%
– Capital receipts	2,519	4,031	60.0%
Total	**27,352**	**29,661**	**8.4%**
Expenditure			
– Gross voted current primary	25,311	24,996	-1.2%
– Gross non-voted current primary	2,714	1,856	-31.6%
– Gross voted capital	999	955	-4.4%
– Gross non-voted capital	561	2,496	345.1%
– Interest	4,361	4,297	-1.5%
Total	**33,946**	**34,600**	**1.9%**
Current Budget Balance	**-7,624**	**-5,615**	
Capital Budget Balance	**1,031**	**677**	
Exchequer Balance	**-6,593**	**-4,938**	**25.1%**
Source and Application of Funds			
– Total Borrowing/Repayments	-38,363	-6,655	
– Cancellation of IBRC Promissory Notes	25,034	0	
– Total Increase in Exchequer Deposits	6,736	1,716	
Exchequer Balance	**-6,593**	**-4,938**	

16 Excluding intra-government loans reduces capital receipts to €1,563 million and gross non-voted capital spending to €296 million. Tax revenue does not include €285 million corporation tax receipts which were delayed due to SEPA.

broadly in line with its target for the first half of the year. From a Departmental perspective, a gross overspend of €178 million in the Department of Health was more than offset by developments in other vote groups, repeating the trend that occurred in 2013. The deficit in the first six months of the year was financed by borrowing €6.7 billion and, as a result, government cash balances increased by €1.7 billion over the period.

Funding and Other Developments

The National Treasury Management Agency (NTMA) raised a further €2.25 billion through 10-year bond auctions in April, May and July, and, as a result, has now raised around 85 per cent of the €8 billion funding that it had planned for the year as a whole. The auctions were oversubscribed, with the funds raised in July at a yield of 2.3 per cent, 2 percentage points lower than the yield achieved a year earlier. Recent months have also seen the NTMA cancel €650 million of the February 2015 Treasury bond and €2 billion of the April 2016 Treasury bond, improving the country's maturity profile for the coming years. Reflecting recent positive developments meanwhile, Ireland's sovereign credit rating has been upgraded by Moodys (from Baa3 to Baa1 in May) and S&P (from BBB+ to A- in June), with the latter representing the country's first A rating since the crisis began.

An Timpeallacht Gheilleagrach

Ón bpictiúr cothrom le dáta arna chur ar fáil leis na hathbhreithnithe le déanaí ar shonraí Cuntas Náisiúnta agus leis na meastacháin tosaigh don chéad ráithe in 2014, tugtar le tuiscint go bhfuil treocht níos láidre á léiriú ag an téarnamh leanúnach ar ghníomhaíocht eacnamaíoch ná mar a cuireadh in iúl roimhe seo leis na sonraí ioncaim náisiúnta agus caiteachais. Mar thoradh ar athbhreithniú aníos ar ghlan-onnmhairí, meastar anois gur tháinig méadú 0.2 faoin gcéad ar OTI in 2013 i gcomparáid leis an meastachán roimhe seo inar measadh go raibh cúngú 0.3 faoin gcéad i gceist. Sna hathbhreithnithe don bhliain 2013, áirítear athrú suntasach ar phróifíl fhás ráithiúil OTI sa mhéid nach ann a thuilleadh don chúngú mór a tuairiscíodh ar OTI sa cheathrú ráithe de 2013. I dteannta le fás láidir gan choinne ar OTI sa chéad ráithe, tugtar le tuiscint anois leis na sonraí Cuntas Náisiúnta go bhfuil fuinneamh níos láidre faoin bhfás ar an ngeilleagar ná mar a ceapadh roimhe seo. Tá sé seo ag teacht leis na comharthaí atá le feiceáil ó raon leathan táscairí eile, go háirithe ó shonraí fostaíochta, lena dtugtar le fios go bhfuil neartú céimseach ar an téarnamh ar ghníomhaíocht eacnamaíoch le tamall anuas.

Tá an feabhas ar an bhfás le ráithí beaga anuas, arna chur in iúl leis na sonraí Cuntas Náisiúnta, á spreagadh go mórmhór ag an aisphreabadh ar onnmhairí ó dheireadh 2013 i leith. Is cosúil go léiríonn sé sin go bhfuil téarnamh éigin tagtha ar aschur agus ar onnmhairí na hearnála cógaisíochta, rud a thugann le tuiscint go bhfuil maolú ag teacht ar an tionchar a bhíonn ag deirí tréimhsí paitinne ar onnmhairí cógaisíochta agus a léiríonn éifeacht dhearfach na timpeallachta feabhsaithe idirnáisiúnta geilleagraí. Os a choinne sin, tá caiteachas tomhaltóirí maolaithe i gcónaí, d'ainneoin an téarnaimh leanúnaigh ar fhostaíocht, agus taifeadadh laghduithe neamhthoirtéiseacha ar an gcaiteachas sin sa cheathrú ráithe de 2013 agus sa chéad ráithe den bhliain seo. Ar a shon sin, is ábhar misnigh iad na treochtaí is déanaí agus tugann na sonraí miondíolacháin ón dara ráithe le tuiscint gur cosúil go bhfuil caiteachas tomhaltóirí ag dul i bhfeabhas.

Ag féachaint romhainn, tá feabhas ar an ionchas don fhás ar onnmhairí, rud a léiríonn feidhmiú láidir na n-onnmhairí go dtí seo i mbliana, mar aon le feabhas ar dhálaí éilimh eachtraigh agus maolú ionchasach thionchar dheirí tréimhsí paitinne ar onnmhairí cógaisíochta. Ar an taobh intíre, tháinig cobhsú tríd is tríd ar an éileamh intíre in 2013 agus, cé go bhfuil roinnt bacainní ar théarnamh ann i gcónaí, táthar ag súil go gcuirfidh an t-éileamh intíre leis an bhfás i mbliana. Le méadú breise ar fhostaíocht, ba cheart go spreagfaí méaduithe ar ioncam teaghlaigh agus muinín tomhaltóirí agus go dtacófaí le méadú measartha ar chaiteachas tomhaltóirí. Ina theannta sin, tá luas mór tagtha faoin gcaiteachas buninfheistíochta, cé is moite de ghné luaineach na n-aerárthaí, agus táthar ag súil go leanfaidh an luas sin thar thréimhse na réamhaisnéise.

Ag féachaint do na hionchais sin, i dteannta le neart na sonraí Cuntas Náisiúnta ón gcéad ráithe agus leis an bhfás deimhneach arna thabhairt ar aghaidh ón mbliain seo caite agus arna eascairt as próifíl ráithiúil athbhreithnithe an fháis in 2013, tá an t-ionchas d'fhás OTI i mbliana feabhsaithe i gcomparáid leis na réamhaisnéisí arna bhfoilsiú san Fhaisnéis Ráithiúil dheireanach. Meastar anois go mbeidh méadú 2.5 faoin gcéad ar OTI i mbliana, is é sin athbhreithniú 0.5 faoin gcéad aníos ar an meastachán roimhe seo, fad atá an réamhaisnéis d'fhás OTI beagáinín níos airde, is é sin 2.8 faoin gcéad. Meastar go mbeidh méadú 3.3 faoin gcéad ar OTI agus méadú 2.7 faoin gcéad ar OTN in 2015, is é sin le rá 0.1 faoin gcéad níos airde ná na réamh-mheastacháin a cuimsíodh san Fhaisnéis Ráithiúil dheireanach. Tá na réamh-mheastacháin fáis do 2015 bunaithe ar thoimhdí comhdhearcaidh ó na príomh-institiúidí eacnamaíocha idirnáisiúnta. Baineann éiginnteacht leis na meastacháin seo, áfach, agus beidh siad faoi réir forbairtí sa gheilleagar idirnáisiúnta agus sa gheilleagar Eorpach.

Maidir le saincheisteanna beartais, d'éirigh le hÉirinn imeacht as Clár AE/CAI ar bhealach rianúil ní hamháin de thoradh na timpeallachta seachtraí feabhsaithe agus dálaí fabhracha margaidh airgeadais, ach chomh maith leis sin, toisc gur chloígh sí leis an gconair um chomhdhlúthú agus um choigeartú. Tá sé ríthábhachtach go leanfar de bheith ag cur leis an méid atá bainte amach le blianta beaga anuas d'fhonn leochaileachtaí a laghdú agus chun a áirithiú go bhféadfar filleadh ar fhás cothrom.

Maidir leis an airgeadas poiblí, is é toradh na n-athbhreithnithe arna ndéanamh ar na Cuntais Náisiúnta go dtí seo, lenar méadaíodh méid OTI ainmniúil, go n-íslítear go meicniúil cóimheas easnaimh-OTI agus cóimheas fiachais OTI, fiú ag leibhéil gan athrú easnaimh agus fiachais i ndearbhthéarmaí (cé gur cheart a chur san áireamh go bhfuil roinnt athruithe sainmhínitheacha maidir le haicmiú nua idirnáisiúnta ESA 2012 fós le hionchorprú i gCuntais Náisiúnta na Príomh-Oifige Staidrimh, ar athruithe iad a mbeidh tionchar acu ar easnamh agus ar fhiachas). Bhí na sonraí maidir leis an Státchiste fabhrach don chéad leath de 2014. Tá an t-ioncam cánach chun tosaigh ar an sprioc fad atá caiteachas ag gluaiseacht sa treo cheart, a bheag nó a mhór. Má leanann na treochtaí seo sa dara leath den bhliain, beidh an t-easnamh faoi bhun sprioc EDP (an nós imeachta maidir le heasnamh iomarcach), is é sin 5.1 faoin gcéad, agus faoi bhun sprioc Bhuiséad 2014, is é sin 4.8 faoin gcéad den OTI. Chun a léiriú go bhfuil Éire fós ar an gconair cheart maidir le comhdhlúthú fioscach agus chun muinín an mhargaidh a chothabháil, ní foláir cloí le gealltanais chomhaontaithe sna pleananna buiséadacha do 2015. Tá sé mar phríomhthosaíocht i gcónaí an cóimheas easnaimh OTI a laghdú faoi bhun 3 faoin gcéad in 2015, príomhthosaíocht a aithníonn an Rialtas. Is sprioc ardphróifíle í seo, a mbeidh stuamacht speisialta sa phleanáil bhuiséadach ag teastáil ina leith, mar aon le soláthar breise mar mhaolán, más féidir, chun suaití díobhálacha a sheachaint. Dá mbeadh aschur easnaimh níos fabhraí ann i mbliana, laghdófaí méid an chomhdhlúthaithe a bheadh ag teastáil chun an toradh sin a bhaint amach, cé nach bhféadfaí a rá go dtí tráth níos déanaí sa bhliain a mhéid a laghdófaí é amhlaidh. Beidh comhdhlúthú breise ag teastáil i ndiaidh 2015 chun go n-imeoidh fiachas ceann le fána agus chun inmharthanacht a áirithiú. Chuige sin, is iomchuí an cuspóir go mbainfear iarmhéid an bhuiséid struchtúraigh amach faoi 2018.

San earnáil baincéireachta, tá an timpeallacht oibríochtúil ag feabhsú i gcónaí de réir mar a thagann maolú ar chostais cistiúcháin agus de réir mar a fheictear comharthaí téarnaimh ar bhrabúsacht na mbanc. Is í an phríomh-shaincheist i gcónaí, áfach, an gá atá le dul chun cinn maidir le dul i ngleic le hiasachtaí lagaithe trína gcur ar bhonn inmharthana aon uair is féidir. Cé go bhfuil an feabhas sin céimseach, tá comharthaí soiléire ann go bhfuil dul chun cinn á dhéanamh. Agus úsáid á baint as spriocanna réitigh do riaráistí morgáiste, cheangail an Banc Ceannais ar na bainc socruithe inmharthana fadtéarmacha a luathú le custaiméirí a bhfuil riaráistí acu. Tugann na sonraí is déanaí le fios go bhfuil laghdú tar éis teacht ar riaráistí fadtéarmacha don dara ráithe chomhleanúnach, cé go leanann aistriú áirithe iasachtaí chuig aicme na riaráistí fadtéarmacha. I mórán cásanna, áfach, is trí imeachtaí dlí amháin a chomhlíontar sprioc an Bhainc Ceannais i gcás nach mbíonn comhoibriú leordhóthanach idir na bainc agus an t-iasachtaí: i gcásanna den sórt sin, ina mainníonn an t-iasachtaí comhoibriú leis an iasachtóir, tá fíor-riosca ann go n-eascróidh toradh níos measa as imeachtaí dlí don iasachtaí agus don iasachtóir. Ina theannta sin, tá monatóireacht á déanamh ag an mBanc Ceannais ar dhul chun cinn na mbanc maidir le riaráistí a réiteach i ndáil le punanna tráchtála agus FBM, agus cuimsíonn sé sin iniúchóireacht a dhéanamh ar mharthanacht na socruithe. Cé go bhfuil an próiseas dúshlánach, tá dul chun cinn á dhéanamh maidir le hathstruchtúrú iasachtaí agus tá cláir chomhardaithe na mbanc agus a gcuid iasachtaithe á réiteach de réir a chéile.

Financing Developments in the Irish Economy

Overview

Financial market conditions in Ireland continued to stabilise in recent months, as evidenced by a further reduction in the banking sector's reliance on central bank funding, an improvement in market sentiment towards Irish banks, and upgrades to Ireland's credit rating by both Moody's and S&P. Nonetheless, the financial sector in Ireland continues to face challenges. While mortgage arrears over 90 days have begun to decline for the first time since data collection commenced in late 2009, persistent growth among longer-term arrears cases continues to be a cause for concern. Furthermore, credit to the private sector remains depressed, reflecting ongoing deleveraging efforts by both banks and the non-financial economy.

The funding position of Irish banks has strengthened further in recent months, albeit against the backdrop of lower funding requirements, given the ongoing reduction in the size of their balance sheets. Reliance on Eurosystem financing continued to decline during the first five months of the year, as deposits from the Irish resident non-financial private sector grew by almost 3 per cent in the year ending May 2014, despite further reductions in the deposit rates offered by credit institutions. Issuance of debt securities by credit institutions in recent months also reflects greater stabilisation in this funding source. Borrowing costs for the Irish Government have also declined, with yields on ten-year bonds falling to 2.4 per cent by mid-June, reflecting a spread of just 100 basis points over German government bonds.

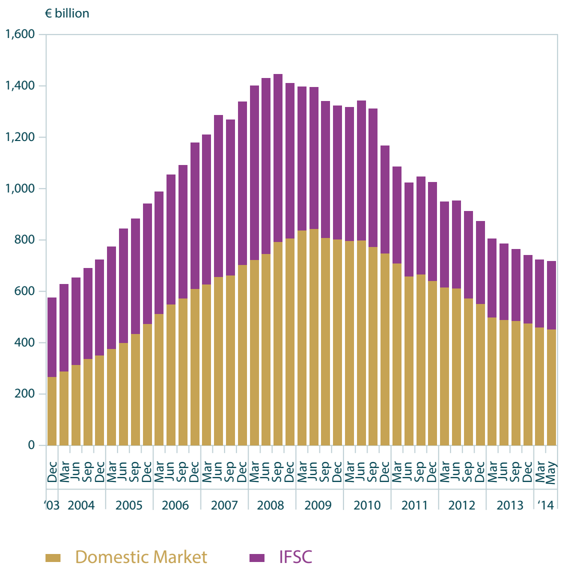
Despite these improvements in their funding position, lending by Irish resident credit institutions to the domestic private sector remains subdued. This partly reflects the net repayment of debt by households and non-financial corporations (NFCs) as they continue to repair their balance sheets. Lending to the resident NFC sector declined at an average annual rate of 5.9 per cent in the six months to end-May 2014. During that period, net monthly repayments by NFCs to resident credit institutions averaged €481 million. Lending to SMEs also remains weak, as total outstanding credit to non-financial SMEs fell by 4.8 per cent in the year ending March 2014. Meanwhile, the household sector continues to reduce its debt levels, making net repayments to Irish resident credit institutions of €2.4 billion in the six months ending May 2014. Household debt stood at €166.3 billion at end-2013 – its lowest level in more than seven years.

Notwithstanding the decline in household debt levels, the level of mortgage arrears continues to be a cause for concern. The overall number of mortgage accounts in arrears has declined in recent quarters, reflecting efforts by mortgage lenders to adopt sustainable solutions to address the problem of distressed mortgages. While these efforts appear to have been successful in reducing the number of short- and medium-term arrears cases, the growing trend among longer-term arrears continues to be of particular concern. At end-March 2014, there were more than 48,000 mortgage accounts in arrears over 720 days, with a total outstanding balance of €11.6 billion.

Developments in the non-bank financial sector, which are heavily influenced by the international environment, have been relatively positive in 2014. Significant inflows into

Irish resident money market funds (MMFs) contributed to an increase of €16 billion in their net asset value during the first five months of the year. The balance sheet of investment funds resident in Ireland also grew strongly during the first quarter of the year, with net asset values increasing by €45 billion to €1,115 billion. Net investor inflows accounted for almost two thirds of this increase, while positive revaluations arising from strong global debt security prices accounted for most of the remainder. Meanwhile, Irish resident financial vehicle corporations (FVCs) recorded an increase in their balance sheet in Q1, with assets growing by €3.4 billion. This increase was largely due to reclassification effects, as there was an outflow from transactions of €4.1 billion during the quarter.

Chart 1: Total Assets of Irish Resident Credit Institutions



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

Monetary Financial Institutions

Credit Institutions

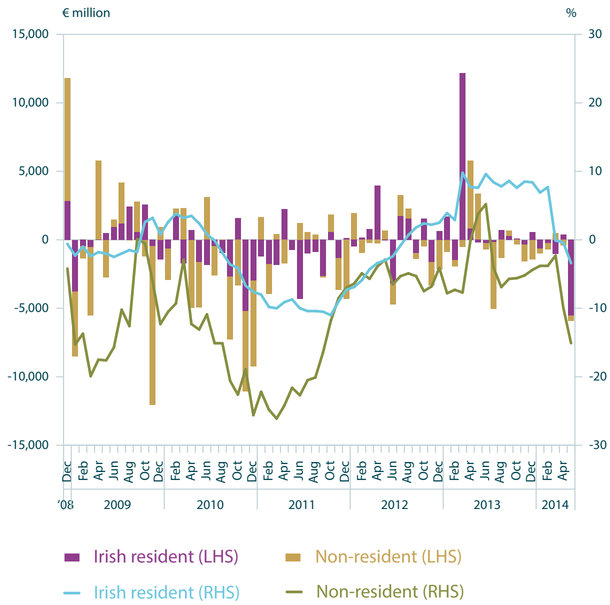
The banking system in Ireland has continued to contract in line with the trend observed in recent quarters. Total assets of credit institutions operating in Ireland were €718 billion at end-May 2014, following a reduction of 10.2 per cent over the previous twelve-month period. Total assets of the domestic market banking system (excluding IFSC banks) declined by 8 per cent over the twelve months to end-May 2014. Meanwhile, the rate of decline of the IFSC banking sector was 13.2 per cent over the same period. These developments reflect the ongoing deleveraging efforts by the Irish-owned credit institutions, as well as the wider retrenchment of all banks to their domestic markets.

Over the course of 2013, the funding requirements of Irish resident credit institutions gradually returned to a more sustainable position. This can be attributed, in part, to the decline in the funding requirements of the banking system as its overall size reduced. Eurosystem funding of Irish resident credit institutions, which peaked at €138 billion in November 2010, has been falling steadily over the past year, and stood at €30 billion at end-May 2014. The domestic market credit institutions' share of Eurosystem refinancing operations was €22.4 billion at end-May, reflecting a decline of 44 per cent over the previous twelve months. The fall in central bank funding is also attributable to transactions related to the liquidation of the Irish Bank Resolution Corporation (IBRC), whose liability to the Central Bank of Ireland was replaced in March 2013 by a liability to the National Asset Management Agency (NAMA), classified as an other financial intermediary (OFI) overnight deposit.

Debt funding as a share of both total and resident credit institutions' funding profiles, appears to have stabilised in recent months, as market sentiment towards Irish-owned banks improves. Redemptions during the six months to end-April 2014, totalled €29.4 billion, while the gross issuance of MFI debt securities over the same period amounted to €33 billion.

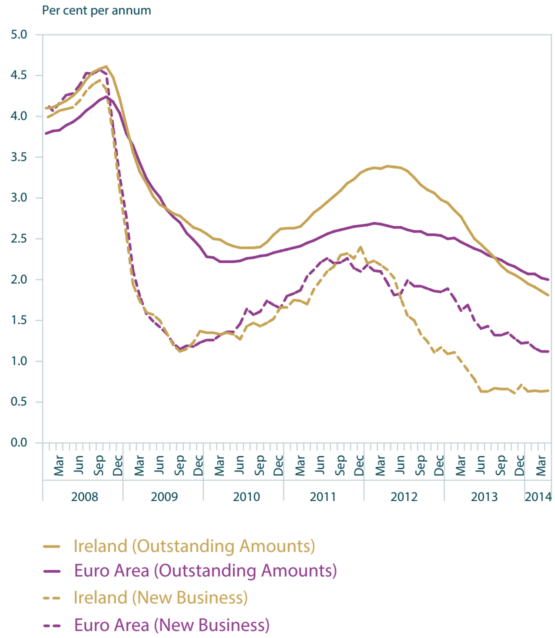
The growth of deposit-based funding continued to rise until end-February 2014, when the growth in Irish resident private-sector deposits stood at 7.7 per cent on an annual basis.

Chart 2: 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.

Chart 3: Interest Rates on Deposits with Agreed Maturity from Households and NFCs



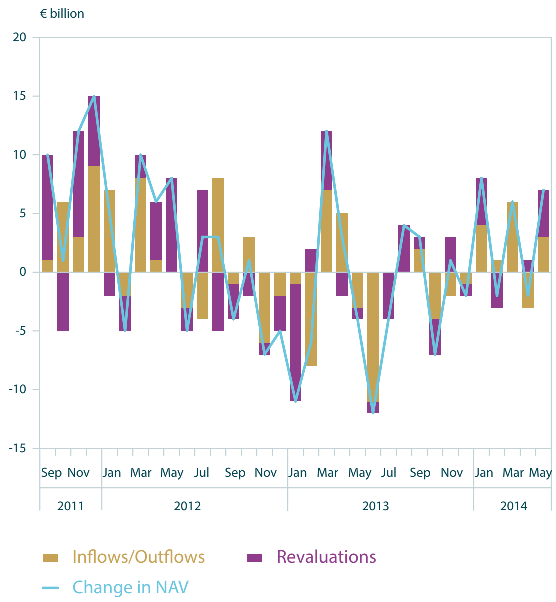
Sources: Central Bank of Ireland and the ECB.

However, this trend was reversed in March 2014, as the growth rate of resident private-sector deposits turned negative, standing at minus 3.4 per cent at end-May 2014. The slowdown in Irish private-sector deposits was also reflected in overnight deposits, which despite increasing by 26 per cent on an annual basis in January, rose by just 1.2 per cent at end-May 2014. However, it is important to note that, annual developments in overnight deposits, and by extension total private-sector deposits, are significantly impacted by transactions related to the liquidation of IBRC, as outlined above. Irish household and NFC overnight deposits recorded strong growth in May 2014, increasing on an annual basis by 8.7 per cent and 23.2 per cent, respectively. Conversely, the annual growth rate of long-term deposits, with an agreed maturity of over two years, was negative in the year ending May 2014, falling by minus 5 per cent and minus 5.3 per cent for households and NFCs, respectively. Over the same period, private-sector deposits from non-residents declined by 15.1 per cent on an annual basis (Chart 2).

In general, deposit rates continued to decline towards end-April 2014. Retail interest rates on outstanding household and NFC deposits with agreed maturity fell by over 82 basis points to 1.81 per cent in the year ending April 2014, remaining below the euro area average rate of 2 per cent (Chart 3). New business rates agreed on household and NFC deposits were also lower than the euro area average, by 48 basis points, but the pace of decline appears to be stabilising. The applicable new business rates for Ireland stood at 0.64 per cent at end-April 2014. Meanwhile, retail interest rates on new business lending to households and NFCs have not fluctuated to any great extent in the first four months of the year. This relative stability in lending rates combined with lower deposit rates has allowed for some degree of improvement in net interest margins generated by credit institutions in Ireland.

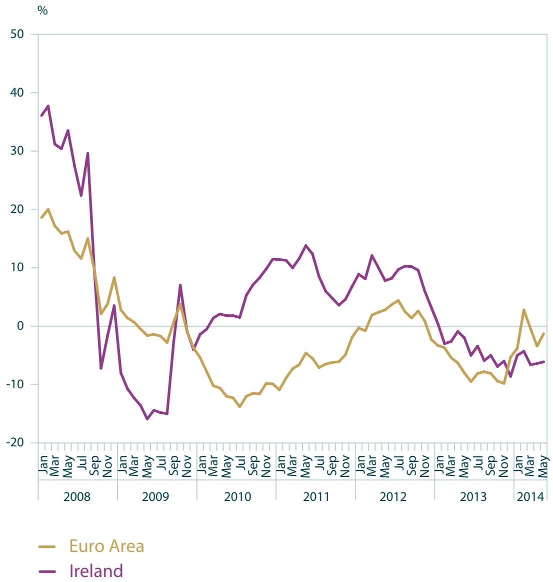
Developments on the asset side of credit institutions' balance sheets are being driven by both a need to adjust business strategies in a sustainable fashion and the wider debt dynamics faced by the Irish non-financial private

Chart 4: Monthly Change in Money Market Funds' Net Asset Values



Source: Central Bank of Ireland.

Chart 5: Annual Growth Rate of MMF Shares/Units



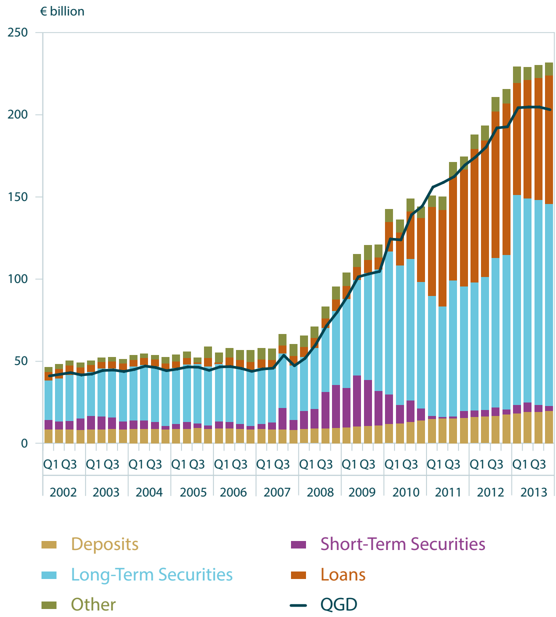
Source: ECB.

and public sectors as part of their ongoing deleveraging process. Loans to the Irish private sector declined by 5.8 per cent over the year to end-May 2014, as deleveraging by the household and NFC sectors continued. Despite these reductions, credit to the Irish private sector as a share of total assets of domestic market credit institutions has risen to 46 per cent. This development is reflected in a general retrenchment from foreign markets, particularly for Irish-owned credit institutions. In evidence of this, Irish resident credit institutions' holdings of debt securities issued by non-residents have contracted by 11.8 per cent in the year to end-May 2014.

Money Market Funds

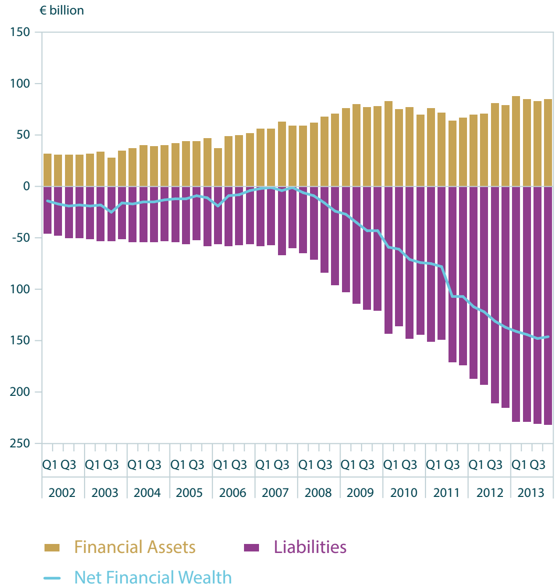
Overall, the first five months of 2014 have been relatively positive for Irish resident MMFs, with their net asset value (NAV) increasing by €16 billion. The annual growth rate of MMF shares/units became negative in February 2013, and reached a low of minus 7 per cent in October 2013. However, the rate of decline has slowed since then, particularly as a result of significant inflows into Irish resident MMFs over the first three months of 2014, and had fallen to minus 1.3 per cent by May 2014. Holdings of MMF shares/units by investors can fluctuate significantly from month to month. Over the five months to May 2014, net purchases of MMF shares/units accounted for €11 billion of the increase in the NAV of MMF shares/units. Most of the increase was attributable to purchases by residents outside the euro area. MMFs increased their holdings of debt securities issued by MFIs resident in other euro area countries by €12 billion. Positive revaluations of €6 billion were recorded during the first five months of the year, which is an indicator of the slightly more positive environment Irish MMFs are operating in. However, over the twelve months to May 2014, euro area resident MMFs, in aggregate, continued to record a sizeable decrease in their NAVs. This reflects the difficult environment that MMFs have been operating in, as the current environment of low interest rates has made it more difficult to generate positive returns.

Chart 6: Government Liabilities



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

Chart 7: Government Net Financial Wealth



Source: Quarterly Financial Accounts, Central Bank of Ireland.

Government

Debt and Deficit Developments

Government liabilities continued to rise during Q4 2013, reaching €231.6 billion (Chart 6), representing an increase of €396 million compared with the previous quarter. The increase was largely due to valuation changes in securities and occurred despite an overall net redemption in securities of €7 billion. Quarterly Government Debt (QGD), which is the standard quarterly measure of debt consistent with Excessive Deficit Procedure (EDP)[1] methodology, declined by €1.6 billion, reaching €202.9 billion. This decrease in QGD, the first since Q2 2010, is largely as a result of bond redemptions. QGD is measured at nominal value and therefore, unlike government liabilities, does not fluctuate in accordance with market values.

Government net worth increased during Q4 by €1.8 billion to reach minus €146.1 billion, representing the first rise since Q4 2009 (Chart 7). This reflected an increase in financial assets of €2.2 billion which was largely driven by positive 'other changes and revaluations' of shares and other equity. Overall net worth has declined by almost €145 billion since Q3 2007.

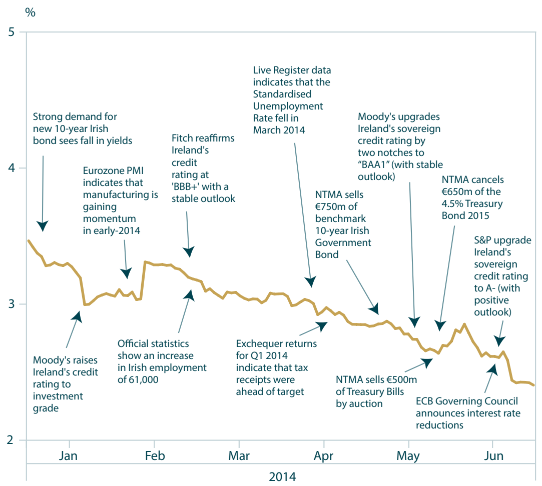
Sovereign Debt Market

Developments in sovereign bond markets during late-Q1 2014 and into Q2 2014 were influenced by a combination of mixed data releases, geopolitical turbulence and further developments in the US. Over the period from end-February to early-April, AAA-rated long-term euro area government bond yields remained broadly stable. Although marginal bond yield rises were observed in March following the adoption of additional tapering action by the Federal Open Market Committee (FOMC), these were reversed later in the month amidst mixed economic data and rising concerns around the Ukrainian crisis.

Similar factors influenced developments throughout April. By May, euro area long-term bond yields were generally lower than in late-Q1 and yields continued to decline as a result of weaker than expected GDP data releases and rising market expectations

1 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.

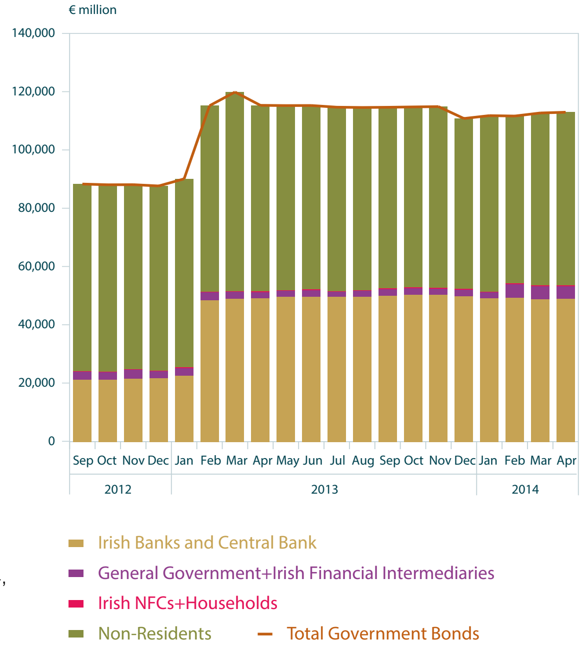
Chart 8: Irish Government Ten-Year Bond Yields



Note: Datastream updates the underlying basket of bonds periodically to maintain a suite of bonds suitable for a ten-year lifespan. This underlying basket was updated on 6 February 2014, leading to a temporary jump in the yield overall.

Source: Thomson Reuters Datastream.

Chart 9: Holders of Irish Government Bonds



Source: Central Bank of Ireland.

regarding ECB monetary policy actions. Geopolitical factors contributed to temporary volatility in mid-May with rises observed for AAA-rated euro area government bond yields. For the period spanning end-February to early-June, long-term bond yields decreased in many euro area countries. This reflected returning investor confidence on foot of successful bond issuance and positive credit rating developments in a number of countries.

Developments in long-term Irish government bond yields in recent months have largely mirrored developments across the euro area. By end-February, the yield on ten-year Irish government bonds stood at just over 3 per cent. Thereafter, the yield declined throughout March and April, albeit this trend was reversed with yields rising by some 20 basis points in mid-May, which was in line with developments in a number of euro area sovereign bond markets. Towards the end of May, the downward movement in long-term Irish government bond yields had resumed with yields falling to just 2.4 per cent by mid-June, a yield spread of just 100 basis points over German Bunds. This later easing came on foot of an announcement by S&P upgrading Ireland's credit rating to A- with a positive outlook. The move by S&P followed an earlier upgrade of Ireland's rating by Moody's in May, see Chart 8.

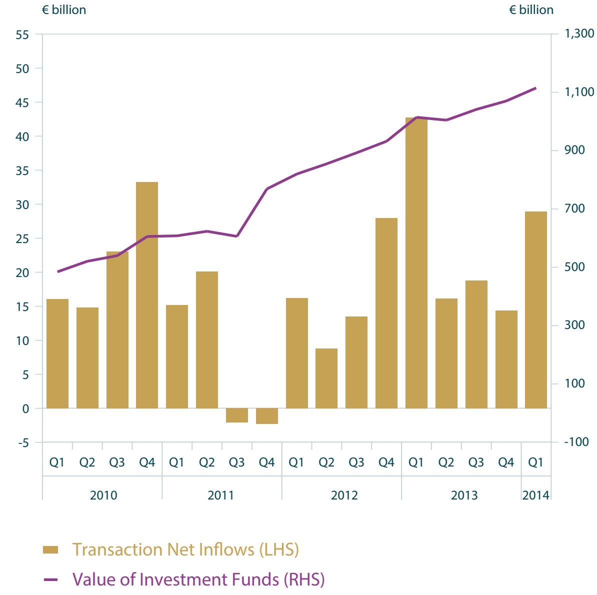
The outstanding nominal volume of existing Irish government long-term bonds in issue was approximately €113 billion at end-April 2014, a reduction of €2.4 billion from the same period in 2013. By end-April, the holders of government bonds continued to be predominantly non-resident, with almost 53 per cent of government bonds in issue held by foreign investors. Banks were predominant among resident holders, accounting for approximately 43 per cent of the total amount outstanding, see Chart 9.

Institutional Investors

Investment Funds

Investment funds (IFs) resident in Ireland expanded strongly once again in Q1 2014, with net asset values increasing to €1,115 billion from €1,070 billion at the end of 2013. Net

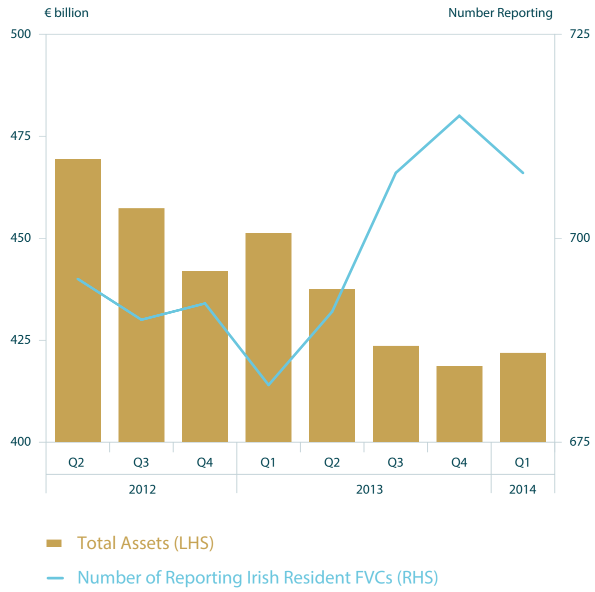
Chart 10: Value of Investment Funds Shares/Units



Note: The movement from Q3 2011 to Q4 2011 includes €114 billion of money market funds that were reclassified as investment funds.

Source: Investment Funds Statistics, Central Bank of Ireland.

Chart 11: Total Assets and Number of Reporting Irish Resident FVCs



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

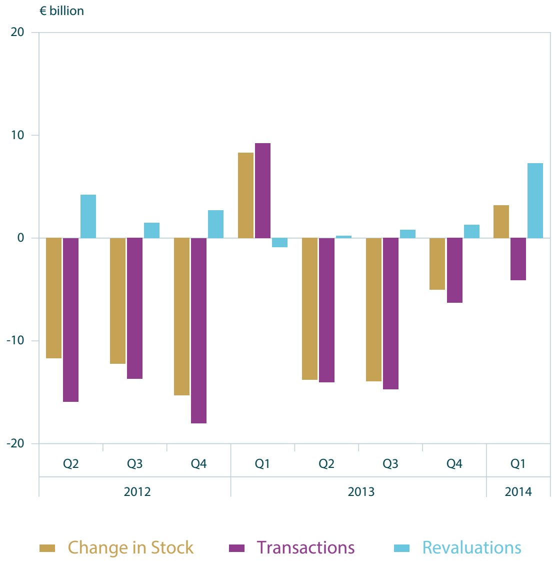
transaction inflows amounted to €29 billion, representing the ninth successive quarter of positive net inflows from investors. In addition, assets held by IFs rose in value by €12 billion, driven primarily by positive revaluations in debt security holdings. This reflected a strong recovery in global debt security prices during the quarter, which was quite broadly based but particularly concentrated in higher yielding bonds. Global equity prices were relatively flat and IF equity holdings experienced a small negative revaluation. Despite weak equity markets in Q1 2014, there were still inflows of €8.1 billion into equity funds, although this was outstripped by inflows of €15.6 billion into debt securities, reflecting the stronger market performance of these debt instruments.

Investment funds portfolio allocations illustrate a distinct preference for higher-yielding debt securities in Q1 2014, broadly reflecting the pattern for global markets as a whole. Holdings of lower-yielding debt increased relatively weakly and IFs actually sold €2 billion of US Treasuries in net terms. In contrast, there were strong increases in combined holdings of UK and US bank debt and other corporate debt, of €3.8 billion and €2.3 billion, respectively. Transactions in euro area debt securities were somewhat different, with inflows to government debt accounting for €3.4 billion of total inflows of €5.5 billion. Italian and Spanish debt security holdings rose strongly, by €1.9 billion, or almost 10 per cent. This marked the second successive quarter of strong growth in peripheral country debt holdings that has, broadly speaking, unwound outflows triggered by the euro area debt crisis.

Financial Vehicle Corporations

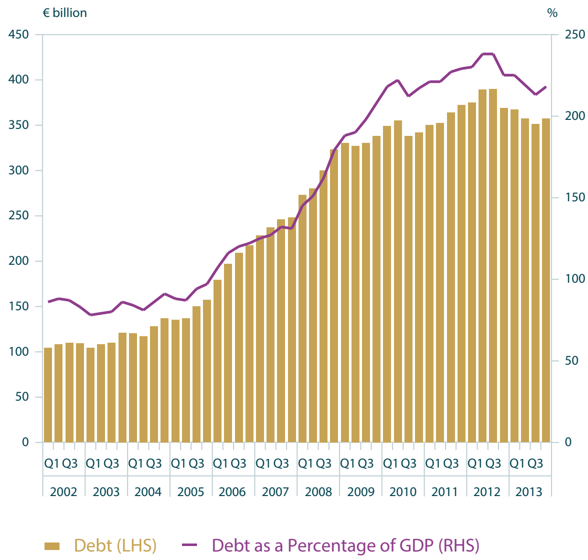
The value of total FVC assets increased by €3.4 billion to €421.9 billion in Q1 2014, despite negative transactions of €4.1 billion as shown in Chart 11. The increase in assets was entirely driven by valuation changes and reclassifications within NAMA vehicles. Outflows were mainly as a result of the repayment of deposits and loan claims by the NAMA vehicles, as NAMA sold a portion of its loan portfolio. Despite the increase in asset values, the number of reporting vehicles decreased from 715 in Q4 2013 to 708 in Q1 2014, as shown in Chart 12, the first fall in reporting numbers since Q1 2013. This

Chart 12: Quarterly Change in Total FVC Assets



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

Chart 13: NFC Debt



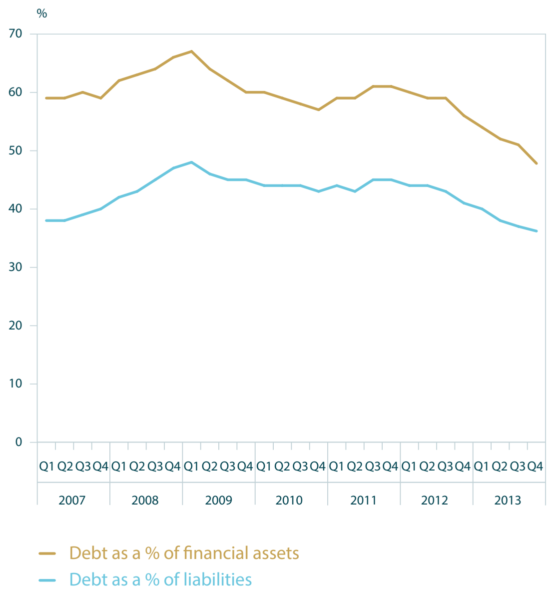
Sources: Quarterly Financial Accounts, Central Bank of Ireland; and Quarterly National Accounts, CSO.

was driven by a fall in reporting numbers for multi-issuance, residential mortgage-backed and synthetic collateralised debt obligation type vehicles. A new FVC reporting template was introduced in Q1 2014 in order to fulfil new European Central Bank and Balance of Payments reporting requirements. As a result, FVC reporting agents used this as an opportunity to make some reclassifications to the FVC data reported.

Non-Financial Corporations

Non-financial corporation (NFC) debt[2] increased by €6.3 billion during Q4 2013 to €357 billion, as seen in Chart 13. This marked the first quarter where debt outstanding rose since Q3 2012. Similarly, debt as a percentage of GDP increased by 4.5 percentage points to reach 218 per cent of GDP. The rise in debt was largely driven by new borrowing of €5.2 billion and positive other changes and revaluations in loans[3] of €3.6 billion. The increase in NFC debt was largely driven by multinational corporations, which have

Chart 14: NFC Debt to Financial Assets and Liabilities



Source: Quarterly Financial Accounts, Central Bank of Ireland.

2 NFC debt is defined as the sum of its 'securities other than shares' and 'loans' liabilities. The NFC sector's loan liabilities are now presented on a gross basis. This means that outstanding amounts for NFC loans include all impairment provisions recognised against the sector's loans. Debt is also non-consolidated, meaning that inter-company debt is included.

3 Other changes and revaluations include the effects of statistical reclassifications, changes in definitions, write-offs, revaluation effects and exchange-rate effects.

greater access to financial markets and other types of non-bank funding. Box A looks at one particular aspect of non-bank funding, specifically security issuance by re-domiciled NFCs.

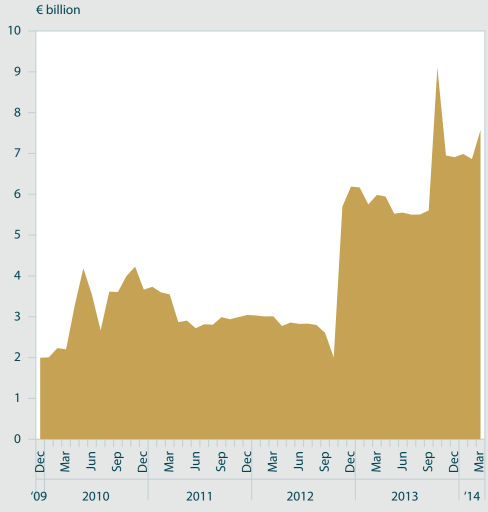
NFC debt relative to the size of its financial assets and also its liabilities continued a downward trend during Q4 2013 (Chart 14). The ratio of debt to financial assets declined to 47.8 per cent, due to a large rise in NFC financial assets of €55 billion arising from positive market revaluations and other changes, plus merger and acquisition activities. The ratio of NFC debt to total liabilities decreased during the quarter to 36 per cent, due to an increase in NFC total liabilities of €47 billion. The rise in non-debt liabilities arose from greater use by NFCs of funding from 'shares and equity' and 'other accounts payable'.

Box A: The Impact of Redomiciled NFCs on Irish Securities Issues Statistics

by Dermot Coates and Anne McHugh[4]

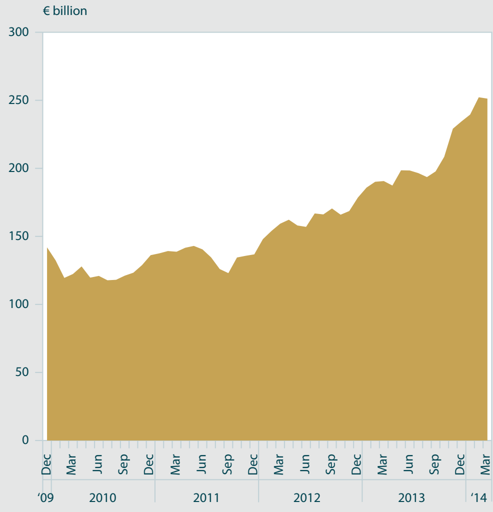
The Central Bank of Ireland publishes statistics on market-based financing activities of all entities incorporated in Ireland. Debt and equity securities constitute an alternative to traditional bank loans, and represent an important source of funding for all institutional sectors, including Irish-resident non-financial corporations (NFCs). In recent years, there has been a marked increase in the outstanding value of the debt (as in public bonds) and equities issued by Irish-resident NFCs, and particularly so over the past 18 months. For instance, the outstanding amount of debt securities issued by Irish NFCs stood at some €7.6 billion by end-Q1 2014, albeit a small number of entities were predominant. The equivalent figure for Q3 2012 was a more modest €2 billion. The equity market capitalisation of Irish-resident NFCs has also increased significantly in recent years (see Box A Charts 1 and 2). In part, these movements reflect net issuance activity as entities seek new sources of funding, as well as rising share prices in the case of quoted shares. This, however, is not the full picture, as the redomiciling of NFCs into Ireland has contributed significantly to increased private-sector debt and equity levels. The objective of this Box is to shed light on the impact of the relocation of NFC headquarters to Ireland upon these statistics.

Box A Chart 1: Outstanding Amount of NFC Debt Securities



Source: Central Bank of Ireland.

Box A Chart 2: Market Capitalisation (Outstanding Value of NFC Equities)



Source: Central Bank of Ireland.

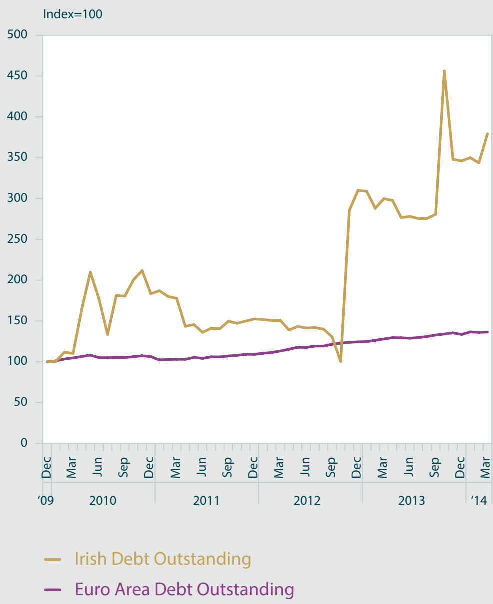
4 The authors are, respectively, an Economist and Bank Executive in the Statistics Division of the Central Bank.

Box A: The Impact of Redomiciled NFCs on Irish Securities Issues Statistics
by Dermot Coates and Anne McHugh

Changes in US legislation have resulted in the increasingly significant phenomenon of US entities relocating to Ireland (Everett, 2012)[5]. Redomiciled NFCs are legally incorporated in Ireland but have little interaction with the domestic economy and often do not contribute much in terms of employment or taxes (FitzGerald, 2013; Cussen, 2014)[6]. The classification of these NFCs as Irish-resident can also, however, distort a number of official statistical indicators for the Irish economy, such as current account balance, and measures of private-sector debt. Similarly, under the guidelines applicable to the compilation of securities issues statistics, issuance of debt and/or equity securities by a head office located in Ireland are considered to be those of an Irish-resident entity[7], even where the relevant entity operates internationally. Consequently, where an NFC has relocated its headquarters to Ireland, the relevant amounts outstanding have to be reported in the Irish statistics.

Over the past two years, the amount outstanding of debt securities issued by Irish-resident NFCs has increased substantially. The total quantity of debt securities outstanding by late-Q3 2012 (€2 billion) was unchanged from the equivalent figure nearly three years earlier. By contrast, the total had grown to €7.6 billion (or 278 per cent) by end-Q1 2014. Much of this growth takes the form of notable spikes in the data, reflecting the inclusion of newly-redomiciled entities at various points in time since 2012 (see Box A Charts 3 and 4). Similarly, over the past 18 months, the market value of quoted shares issued by Irish resident NFCs has increased by 51 per cent.

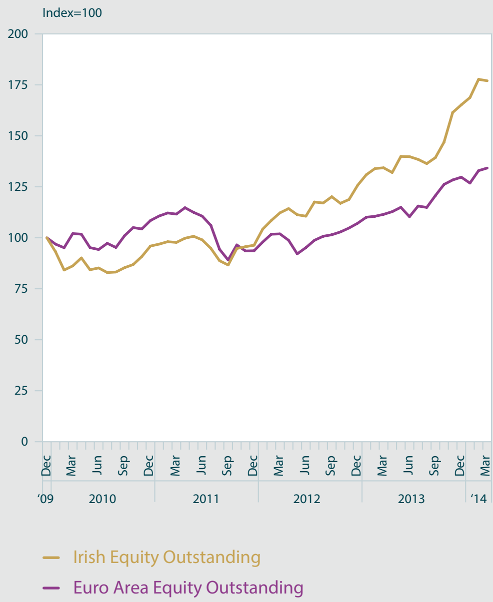
Box A Chart 3: Comparative Index for Irish and Euro Area Debt Securities



Notes:
(i) Base (=100) as at end-Q4 2009.
(ii) Excludes debt issued by related entities in the other financial intermediaries sector.

Source: Central Bank of Ireland.

Box A Chart 4: Comparative Index for Irish and Euro Area Equities



Notes:
(i) Base (=100) as at end-Q4 2009.
(ii) Excludes debt issued by related entities in the other financial intermediaries sector.

Source: Central Bank of Ireland.

Since 2012, there have been an increasing number of instances of NFCs relocating to Ireland. This includes mergers and acquisitions, primarily in the pharmaceutical and medical devices sector, where NFCs have relocated their headquarters from the United States to Ireland by means of incorporating the new entity in Ireland. These transactions, sometimes referred to as 'tax inversions', allow the relocated NFC to benefit from a lower corporate tax rate in Ireland.

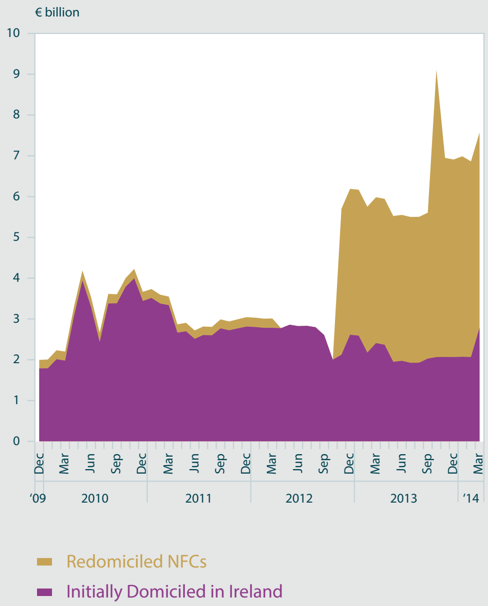
5 Everett, M. (2012), 'Box 3: The Statistical Implications of Multinational Companies' Corporate Structures', Central Bank of Ireland, Quarterly Bulletin, No. 2.

6 FitzGerald, J. (2013), 'The Effect of Redomiciled PLCs on GNP and the Irish Balance of Payments', The Economic and Social Research Institute, Quarterly Economic Commentary, Research Notes 2013/1/2; Cussen, M. (2014), 'Unravelling Macroeconomic Imbalance Indicators for Ireland', http://www.centralbank.ie/events/Pages/home.aspx

7 Under ESA 2010, in the absence of a physical dimension to an enterprise, its residence is determined according to the economic territory under whose laws the enterprise is incorporated.

Box A: The Impact of Redomiciled NFCs on Irish Securities Issues Statistics
by Dermot Coates and Anne McHugh

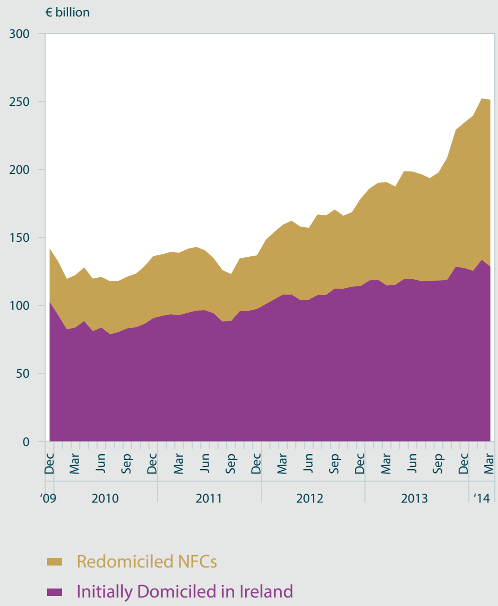
Box A Chart 5: Contribution of Redomiciled NFCs to Total Irish Debt Securities



Note: Each redomiciled NFC identified by the authors was a publicly-listed company (and so was included in the published equities figures from the date of relocation), but not all of these NFCs had issued public bonds.

Source: Central Bank of Ireland.

Box A Chart 6: Contribution of Redomiciled NFCs to Total Irish Equities



Note: Each redomiciled NFC identified by the authors was a publicly-listed company (and so was included in the published equities figures from the date of relocation), but not all of these NFCs had issued public bonds.

Source: Central Bank of Ireland.

These developments are also sometimes 'driven by expectations of changes in the tax code in other jurisdictions' (FitzGerald, 2013). In addition, the relocated NFC can avail of further advantages, such as strategic and cost-base synergies. An effect of these relocations is to significantly distort the securities issues statistics for Irish NFCs (see Box A Charts 5 and 6).

In the case of debt securities, redomiciled NFCs accounted for a large proportion of the amount outstanding, particularly from Q4 2012 onwards. By Q1 2014, these entities accounted for €4.8 billion of this debt (that is 63 per cent of the total). When redomiciled NFC debt is excluded from the total, the amount outstanding increased from €1.8 billion to €2.8 billion between 2009 and 2014 (or by 56 per cent). This rate is much closer to the growth rate for all euro area NFCs. A similar trend can be observed in the case of quoted shares. The redomiciled NFCs accounted for €122 billion (or 49 per cent) of the cumulative equity market capitalisation of all Irish-resident NFCs by Q1 2014. Once again, the exclusion of the quoted shares of the redomiciled entities lowers the growth rate for Irish NFCs closer to the euro area figure (i.e. downwards from 77 per cent to 25 per cent). The scale of the impact upon these measures demonstrates how redomiciled NFCs can contribute to the distortion of Macroeconomic Imbalance Procedure (MIP) indicators, such as private-sector debt[8].

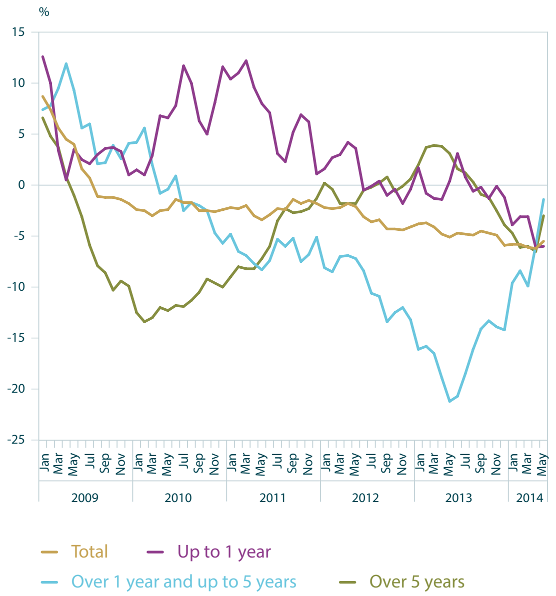
8 See Box B for Cussen (2014) from the Central Bank of Ireland conference 'Macro to Micro – A New Era in Financial Statistics'.

Multinational NFC Developments

Investment by foreign-owned multinational NFCs in their Irish operations decreased substantially over the first quarter of 2014, having eased towards the end of last year. Foreign Direct Investment (FDI) inflows decreased by €7.7 billion, reflecting declines in equity and other capital of €13.3 billion, which was offset slightly by an increase in reinvested earnings of €5.6 billion.

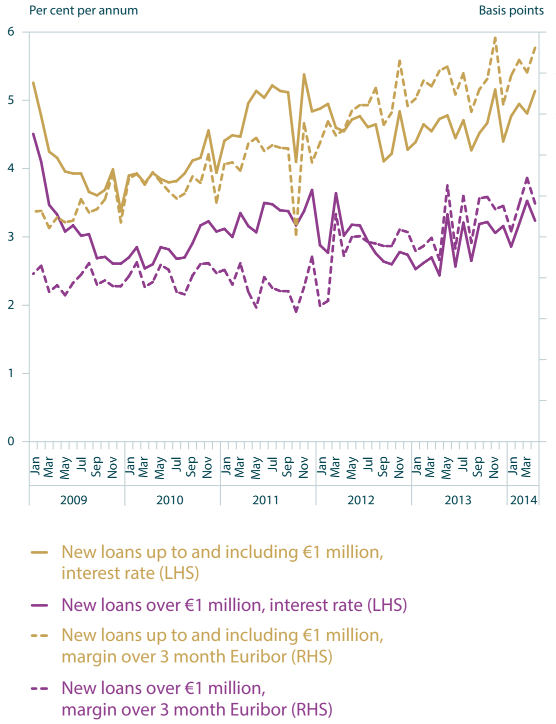
Investment by Irish-owned NFCs abroad continued in Q1 with over €10.5 billion invested over the quarter, an increase of almost 25 per cent from the previous quarter. Meanwhile, direct investment income earned abroad remained steady at just over €4 billion, primarily comprising income on equity related to the multinational NFCs who have established headquarters in Ireland.

Chart 15: Loans to Irish Resident NFCs, Annual Rates of Change



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

Chart 16: Interest Rates on New NFC Loan Agreements



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

Credit Advanced to the NFC Sector by Irish Resident Credit Institutions

Over the course of the six months to end-May 2014, credit advanced to the resident NFC sector[9] has declined at an average annual rate of 5.9 per cent; during the preceding six months a 4.8 per cent decline was recorded. Loans issued by resident credit institutions are an important source of funding for indigenous corporations. This is particularly true for small- and medium-sized enterprises (SMEs), which, unlike the multinational sector, may not have easy recourse to alternative market-based funding or capital injections from overseas parent entities. Accordingly, this continued decline in the supply of credit is of some concern. The monthly net flow of credit to the NFC sector[10] averaged minus €481 million over the last six months to end-May 2014.

Longer-term NFC loans, with an original maturity of over five years, began to show negative growth rates in September 2013. The annual rate of change in these loans averaged minus 5 per cent over the six-month period to end-May 2014. However, there is some evidence of a drop off in the pace of decline in these longer-term loans with an annual decrease of 3 per cent reported for end-May 2014.

Loans with an original maturity of up to one year fell by an average of 3.9 per cent over the six-month period to end-May 2014 as loan repayments continued to exceed drawdowns. Meanwhile, the pace of decline in loans with a maturity of between one and five years has reduced somewhat over the past number of months, with an average annual decline of 8.2 per cent for the six months ending May 2014, compared with an average annual decline of 16.1 per cent for the six months ending November 2013.

The larger declines in lending to NFCs are also reflected in credit advanced to non-financial *enterprises*, which include non-incorporated businesses as well as larger corporations. The annual pace of contraction was 6.1 per cent

9 Credit advanced to the NFC sector includes loans to NFCs as well as credit institutions' holdings of securities issued by NFCs.

10 The monthly net flow of credit is based on actual transactions and removes non-transaction effects.

Table 1: Credit Advanced to Non-Financial Enterprises - Annual Percentage Change

	All Enterprises					SMEs				
	Mar-13	**Jun-13**	**Sep-13**	**Dec-13**	**Mar-14**	**Mar-13**	**Jun-13**	**Sep-13**	**Dec-13**	**Mar-14**
Construction and Real Estate	-5.1	-5.7	-5.6	-6.4	-6.5	-3.6	-3.6	-3.6	-4.2	-5.0
Agriculture	-1.8	-1.6	-2.0	-1.4	-2.1	-5.7	-5.4	-3.6	-4.3	-2.9
Manufacturing	0.3	-1.8	-0.3	-0.6	-6.4	-1.3	-1.8	-2.3	-6.7	-5.8
Wholesale/Retail Trade & Repairs	-6.1	-7.5	-6.7	-3.3	-3.2	-8.0	-7.0	-5.3	-3.5	-0.9
Hotels and Restaurants	-2.1	-5.5	-5.5	-11.1	-10.9	-3.5	-4.9	-4.7	-8.3	-7.5
Business and Administrative Services	-3.8	-0.3	-3.1	-6.0	-5.4	-7.9	-8.0	-8.3	-9.4	-4.2
Other	-7.1	-6.5	-3.0	-6.7	-4.5	-6.6	-6.1	-4.9	-6.9	-6.4
Total	**-4.6**	**-5.3**	**-4.9**	**-5.9**	**-6.1**	**-4.6**	**-4.6**	**-4.1**	**-5.1**	**-4.8**

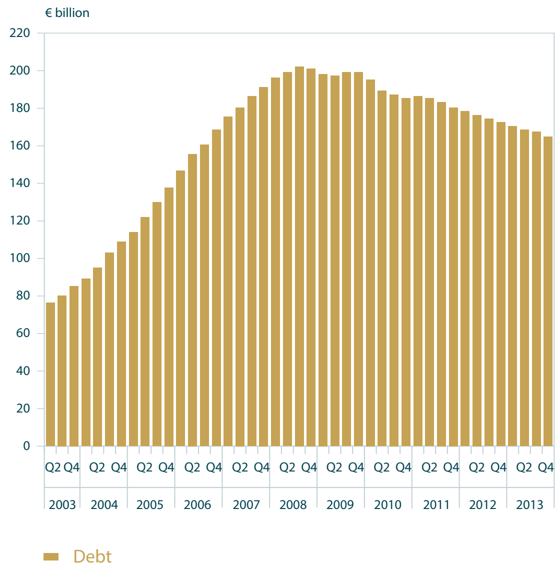
Source: Trends in Business Credit and Deposits, Central Bank of Ireland.

at end-March 2014, with enterprises engaged in the Hotels & Restaurants, Construction & Real Estate, and Manufacturing sectors experiencing the most significant declines (Table 1). Credit advanced to non-financial SMEs fell by 4.8 per cent at end-March 2014. The decline in credit advanced to SMEs was most evident in the Hotels & Restaurants, Manufacturing, and Construction & Real Estate sectors. New lending drawdowns in the Agriculture sector continued to be strong at end-March 2014, amounting to €587 million over the last four quarters. Total new lending to non-financial enterprises amounted to just under €2.2 billion during the last four quarters to end-March 2014.

Weighted average interest rates on outstanding loans to NFCs issued by Irish resident credit institutions have fallen substantially from their peak of 6.7 per cent in October 2008, to stand at 3.1 per cent at end-April 2014. This brings the twelve-month average for the period ending April 2014 to 3.04 per cent. Equivalent euro area interest rates also peaked in October 2008 at a more modest 5.9 per cent; by end-April 2014, euro area rates had fallen to 3.28 per cent.

In terms of new business, rates applicable to loans up to €1 million averaged 4.87 per cent over the six months ending April 2014. The corresponding rate at end-April was 5.14 per cent. In relation to new business loans over €1 million, rates have averaged 3.17 per cent for the six-month period to end-April 2014. The corresponding monthly rate at end-April 2014 stood at 3.24 per cent.

Chart 17: Household Debt



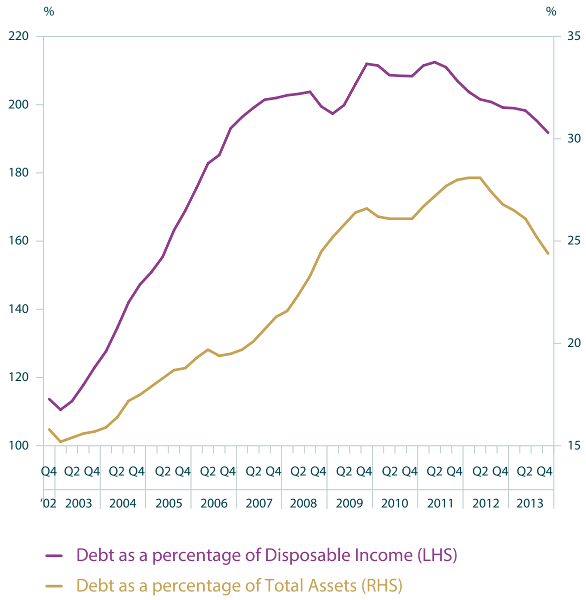
Source: Quarterly Financial Accounts, Central Bank of Ireland.

Households

Household debt[11] continued to decline during Q4 2013, falling by €2.4 billion (Chart 17). Debt stood at €166.3 billion, or €36,203 per capita, its lowest level since Q3 2006. In overall terms, debt is 18.3 per cent below its peak of €204 billion at Q4 2008.

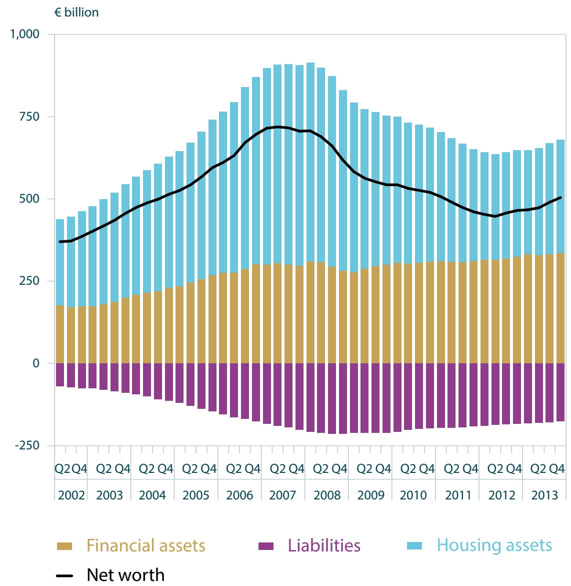
11 Household debt is defined as total loans.

Chart 18: Household Debt Indicators



Sources: Quarterly Financial Accounts, Central Bank of Ireland; and Quarterly National Accounts, CSO.

Chart 19: Household Net Worth

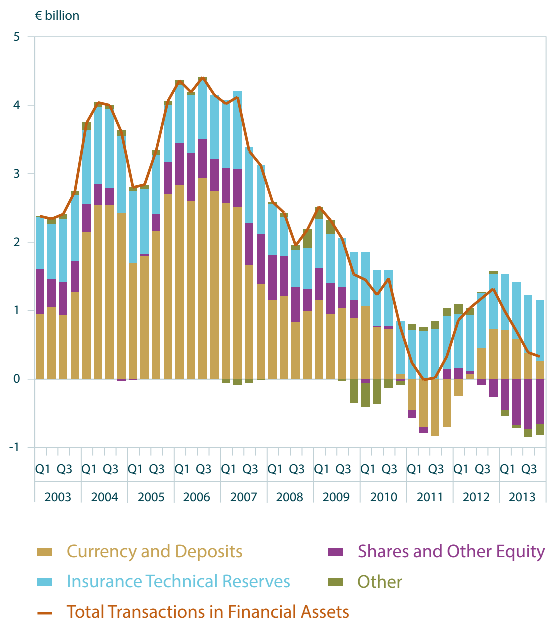


Source: Quarterly Financial Accounts, Central Bank of Ireland.

As a result of the decline in debt, indicators of household debt sustainability showed a significant improvement during Q4 2013 (Chart 18). Debt as a proportion of disposable income[12] decreased by 3.5 per cent over the quarter, to equal 191.8 per cent. This reflected a fall in debt of 1.4 per cent and an increase in disposable income of 0.4 per cent. Debt as a proportion of total assets reduced by 0.8 per cent during Q4 2013, to stand at 24.4 per cent. The increase in total household assets of 1.8 per cent contributed to the fall in this indicator.

Household net worth[13] increased by €14.2 billion during Q4 2013 to stand at €504.2 billion (Chart 19). This corresponded to a net worth of €109,771 per capita. The increase in net worth over the quarter largely reflected the rise in the value of housing assets of €8.7 billion. Household liabilities declined by 1.4 per cent and household financial assets rose by 0.9 per cent, over the quarter. The latter increase was largely driven by the rise

Chart 20: Household Transactions in Financial Assets, Four-Quarter Moving Average

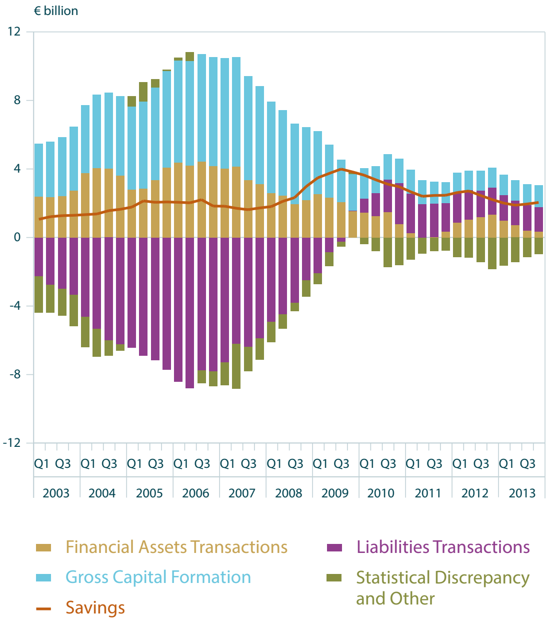


Source: Quarterly Financial Accounts, Central Bank of Ireland.

12 The disposable income figures use the four-sum moving average of gross disposable income adjusted for the change in net equity of households in pension funds reserves.

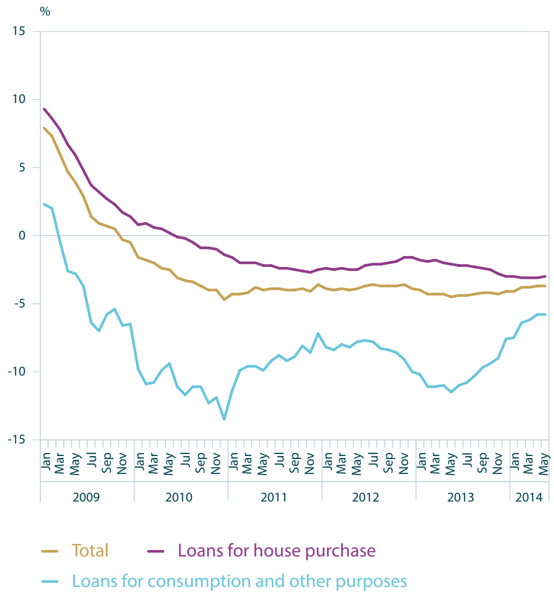
13 Household net worth is calculated as the sum of household housing and financial assets minus their liabilities. The Central Bank of Ireland's estimate of housing assets is based on the size and value of housing stock. Data on the value of housing is obtained from the CSO's 'Residential Property Price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

Chart 21: Household Savings Decomposed by Use, Four-Quarter Moving Average



Sources: Quarterly Financial Accounts, Central Bank of Ireland; and Quarterly Sectoral Accounts, CSO.

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



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

in the value of 'net equity of households in pension funds reserves'.

Household investment in financial assets totalled €0.3 billion during Q4 2013 (Chart 20). This was the lowest level of investment since Q4 2011. Households marginally increased their investment in 'technical reserves' over the quarter. Inflows to 'currency and deposits' fell to its lowest level since Q2 2012, and there was a further decrease in investment by households in 'shares and other equity'.

Combining household saving and gross capital formation[14] data from the CSO's non-financial accounts (i.e. the real side of the economy) with households' transactions data from Quarterly Financial Accounts allows for a decomposition of how households use their savings. Chart 21 shows that, when measured as a four-quarter moving average, household savings remained largely unchanged during Q4 2013, rising by just €90 million. This rise was due to increased investment in gross capital fixed formation, such as housing and related improvements. This was largely offset by reduced investment in financial assets and slightly lower net debt repayment.

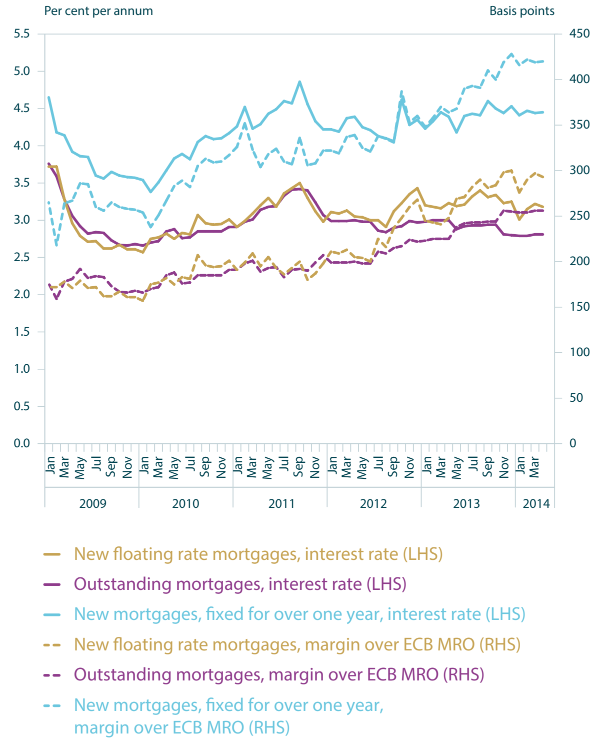
Lending to Households by Irish Resident Credit Institutions

Lending to Irish households continued to decline over recent months, with loans advanced by Irish resident credit institutions falling by €2.4 billion, or 2.2 per cent, over the six months to end-May 2014. The decline in mortgage lending increased over this period, as loans for house purchase fell by almost €1.6 billion, or 1.9 per cent, in the six months to end-May. The cumulative decline in mortgage lending over the last three years now stands at approximately €6.5 billion. Loans for consumption purposes, which include the use of credit cards and overdraft facilities, recorded a decline of €495 million, while loans for other purposes fell by €353 million over the six months to end-May 2014.

14 Gross capital formation consists of acquisitions of fixed assets less disposals. It includes acquisitions of dwelling.

The number of mortgage holders entering early arrears fell further in Q1 2014, representing four consecutive quarters' decline. The number of mortgage accounts in arrears of over 90 days also decreased over the quarter, representing the second consecutive decline in this category since the series began in September 2009. At end-March 2014, 12.2 per cent of all private residential mortgage accounts for principal dwelling houses (PDH) were in arrears of over 90 days. This reflects a decrease of 3.5 per cent from the over-90-day arrears rate reported at end-December 2013. Meanwhile, 21.5 per cent of mortgage accounts for buy-to-let (BTL) properties were in arrears of over 90 days at end-March 2014. The trend emerging among longer-term arrears continues to be of particular concern, as the number of PDH accounts in arrears of over 720 days rose to 35,314, a 5.1 per cent increase on the previous quarter. In addition, over 13,000 BTL accounts were in arrears of over 720 days. The outstanding balance on all mortgage accounts in arrears of over 720 days was €11.6 billion at end-March.

Chart 23: Mortgage Interest Rates to Households



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

Over 92,000 PDH mortgage accounts were categorised as restructured at end-March 2014. Of this total stock, 58 per cent were not in arrears. Restructured accounts in arrears include accounts that were in arrears prior to restructuring where the arrears balance has not yet been eliminated, as well as accounts that are in arrears on the current restructuring arrangement. The most recent data indicate that 80.6 per cent of restructured PDH accounts were deemed to be meeting the terms of their current arrangement. This means that the borrower is, at a minimum, meeting the agreed monthly repayments according to the current restructure arrangement. It is important to note that 'meeting the terms of the arrangement' is not a measure of sustainability, as not all restructure types represent longer-term sustainable solutions as defined within the Mortgage Arrears Resolution Targets[15]. Of the total stock of PDH accounts in arrears over 90 days at end-March 2014, only 27.5 per cent of these were classified as restructured at that time, indicating limited progress in tackling longer-term arrears cases thus far. Restructuring activity had, for the most part, been short-term in nature, but recent data has shown an increase in longer-term solutions. Lenders have introduced new loan modification options with the aim of providing longer-term and more sustainable solutions for borrowers in arrears. Also, the Central Bank recently announced further quarterly targets requiring lenders to propose and conclude sustainable solutions with a percentage of borrowers by end-2014.

Existing mortgage holders experienced a slight decrease in the cost of their borrowings over the last six months. The weighted average interest rate on existing mortgage loans with an original maturity over five years decreased by 13 basis points, to 2.81 per cent, over the six months to end-April 2014. Meanwhile, interest rates on existing loans for consumption and other purposes increased, with the weighted average rate across all maturities rising by 9 basis points to 6.52 per cent over the same period.

15 Sustainable solutions are defined on Page 25 of the Mortgage Arrears Resolution Targets document.

Box B: Macro to Micro: A New Era in Financial Statistics
by Mary Cussen

Statistics, at an *aggregate* level, allow economists to analyse developments in the various sectors or subsectors of the economy. These aggregate statistics often have the advantage, over more granular survey-level data, of being much timelier and offering more comprehensive coverage. The difficulty with carrying out analysis using only aggregate data, however, is that the activities of particular groups of households or firms may be partially or fully masked. It is, therefore, extremely useful when the developments observed at an aggregate level for a particular sector can also be analysed using more granular statistics. Some recently developed granular datasets available to the Central Bank have made this type of 'macro to micro' analysis increasingly possible. To highlight the progress and emerging research using this approach, the Statistics Division of the Central Bank held a conference entitled 'Macro to Micro: A New Era in Financial Statistics' on 29 April 2014. This Box briefly summarises some of the findings from the conference, which clearly highlight the advantages of combining aggregate and more granular data[16].

Household Deleveraging

Analysing developments in household debt levels is important for a number of reasons. Firstly, high debt levels can make households more vulnerable to interest rate increases or unexpected economic events. Secondly, if household debt is impaired, this can negatively impact the balance sheets of those entities that lend to households. Finally, when households deleverage, this can act as a drag on economic growth. Given that the ability and the inclination to deleverage will vary across different groups of households, analysing deleveraging using aggregate data in conjunction with more granular data can provide greater insights into household behavior.

The paper presented by McCarthy and McQuinn (2014)[17] at the Macro to Micro conference uses a unique combination of regulatory and survey data to examine deleveraging amongst a representative sample of mortgaged Irish households. Their results suggest that it is older, more affluent Irish households, who are deleveraging. In particular, the probability of deleveraging is highest among those households with higher levels of income, with older heads of household, and in households where the head of household is relatively well-educated.

Mortgage Arrears

By December 2013, data, at an aggregate level, reveals that approximately a fifth of residential mortgages were in some form of arrears. The high rate of mortgage arrears has prompted a significant amount of debate, as well as a number of policy interventions aimed at alleviating the problem. In order to fully understand the significant amount of arrears, it is very useful to complement aggregate arrears data with more granular data to reveal the characteristics of those in arrears.

The paper presented by Frost, Goggin and Lyons (2014)[18] uses granular loan level data to provide additional information on the characteristics of mortgages in arrears. The paper finds that the Border and Midlands regions had the highest levels of total mortgages in arrears of more than 360 days. In addition, households who have been in long-term arrears have experienced the biggest decline in housing asset values. Furthermore, most properties in arrears have standard variable interest rate mortgages, as opposed to tracker or fixed interest rate mortgages. The authors state that given the upward changes to standard variable rate loans in recent years and the downward direction of tracker loans linked to the ECB main refinancing rate, this trend is not overly surprising.

16 All the papers and presentations from the conference are available at http://www.centralbank.ie/events/Pages/home.aspx.

17 McCarthy, Y. and K. McQuinn (2014), 'Deleveraging in a Highly Indebted Property Market: Who Does it and Are There Implications for Household Consumption?'

18 Frost, S., J. Goggin and P. Lyons (2014), 'Analysing Mortgage Arrears with Aggregated and Granular Data'.

Box B: Macro to Micro: A New Era in Financial Statistics
by Mary Cussen

SME Credit

As a hugely important contributor to Irish employment and growth, SMEs are considered one of the most significant sectors in terms of their potential to underpin the Irish economic recovery. Indeed, in recent years the access to credit by SMEs has triggered a significant amount of debate and a number of policy interventions.

The paper presented by Menton and Sherman (2014)[19] matches aggregate Central Bank statistics with the more granular loan-level data to provide further information on the profile of SME debt in Ireland. While the aggregate data shows that the wholesale/retail trade and repairs sector is the most indebted sector, the loan-level data shows that hotels and restaurants have the highest average outstanding loan values. In addition, the loan-level data reveals how lending to SMEs by banks has changed in recent years. Compared to loans issued prior to 2013, new loans issued in the first six months of 2013 have smaller average outstanding amounts and attract higher interest rates. Furthermore, loan terms are now shorter. Loans issued prior to 2013 had an average loan term of over eight years. In contrast, new loans have average loan terms of less than four years.

National Accounts

Cussen (2014)[20] and Coates et al. (2014)[21] both have shown how granular data, provided by the CSO, can lead to greater insights into the trends in national accounts, financial accounts and balance of payments statistics. Cussen (2014) finds that for countries with substantial international investment, such as Ireland, five of the eleven Macroeconomic Imbalance Procedure indicators are materially distorted by financial and non-financial multinational activities. Coates et al. (2014), in a joint Central Bank of Ireland/CSO paper, find that different methods of measuring FISIM (Financial Intermediation Services Indirectly Measured) can materially impact the level of Irish GDP.

Conclusion

This Box has highlighted the additional insight which can be gained by combining aggregate and more granular data when analysing both the activities of the private sector and trends in national accounts. Over the coming years, the Central Bank will continue to develop its aggregate statistics, as well as more granular data sources. In 2014, it will release the results of the Household Finance and Consumption Survey which was conducted during 2013. This survey will allow users to analyse household finance and consumption by type of household. Michael Ehrmann (2014)[22] highlighted in his keynote speech at the conference, the usefulness of these wealth surveys when analysing the activities of the households. In particular, his presentation has shown how granular data is used at the Bank of Canada to examine the household debt sustainability for different subgroups of the population. In the coming years, statistical compilers will continue to expand current data sources and address the data gaps highlighted by the financial crisis. Van den Bergh (2014)[23] outlines the progress which has been made so far at the international level in addressing the data gaps identified by the G20.

19 Menton, A. and M. Sherman (2014), 'Analysis of the SME Market Using Macro-Data'.

20 Cussen, M. (2014), 'Unravelling Macroeconomic Imbalance Indicators for Ireland'.

21 Coates, D., A. Moloney, J. Osborne-Kinch and C. Sibley, 'An Alternative Methodology for Measuring Financial Services Sector Output in Ireland'.

22 Ehrmann, M. (2014), 'Survey-Based Assessments of Household Financial Vulnerabilities'.

23 Van den Bergh, P. (2014), 'The Financial Crisis and Information Gaps'.

Developments in the International and Euro Area Economy

Overview

Accommodative monetary policies continue to support growth in the global economy which started 2014 at varied speeds across the major economies. The euro area failed to gain momentum, while Japan's growth spurt may prove short-lived. The UK, however, continues to lead in terms of economic growth among the major economies. The US economy slowed sharply in Q1 for weather-related reasons, but the latest data indicate a pick-up in growth in Q2. Indicators of economic activity in China are in line with expectations of a slower pace of growth across the major emerging economies. Global risks are overall better-balanced although still tilted to the downside. This is reflected in high unemployment and high levels of government debt that leave limited scope for fiscal accommodation in the context of ongoing structural reforms. Financial tensions in emerging markets could drive the global recovery off course and have larger spillovers than anticipated. Significantly below-target inflation in the euro area requires careful monitoring and geopolitical risks have also increased since the start of the year. Despite soft Q1 growth in many of the major economies, equity and debt markets performed well in the second quarter, squarely focused on the prospect of a long period of monetary policy easing.

The global economy is moving forward, but divergences between regions and countries have widened. The growth momentum moderated somewhat in the first quarter of 2014 as a result of temporary factors mainly affecting the United States and China. In line with the slowdown in activity, global trade rates also cooled in the first four months of the year. The decline in import volume was concentrated in the emerging economies, while falls in export volumes were evident in both advanced economies and emerging Asia. In the near term, a lack of a recovery in investment, particularly in Europe, is likely to restrain the pace of the global trade recovery and the demand for durable goods – items with high import content. Surveys are not indicating an expansion in new export orders and as such, global growth indicators signal only moderate growth in the second half of the year.

The swing in growth dynamics away from the emerging markets has become more evident. In particular, geopolitical and economic risks weigh on emerging market prospects. Latest data are consistent with emerging market GDP growing at a sub-5 per cent annual rate for the second quarter. The emerging market languor has spread beyond Asia with contractionary PMIs recorded in India, Brazil and Russia. Russia saw the most marked downturn, with the PMI down to its lowest since May 2009. China's composite PMI activity index rose in June to 52.4 which suggests that recent targeted stimulus measures are having an impact. However, other indicator data suggest a downside risk to Chinese GDP growth in Q2 from the 7.4 per cent rate seen in Q1.

Regarding the advanced economies, the unusually cold winter in the United States adversely affected consumption in the first quarter but negative inventory developments, a decline in net exports as well as a retrenchment of private fixed investment also

Table 1: Changes in forecasted real GDP in selected economies

	Percentage Change		
	2013	2014f	2015f
Global	2.8	3.4	3.9
United States	1.9	2.6	3.5
Euro Area	-0.4	1.2	1.7
United Kingdom	1.7	3.2	2.7
China	7.7	7.4	7.3
Japan	1.5	1.2	1.2

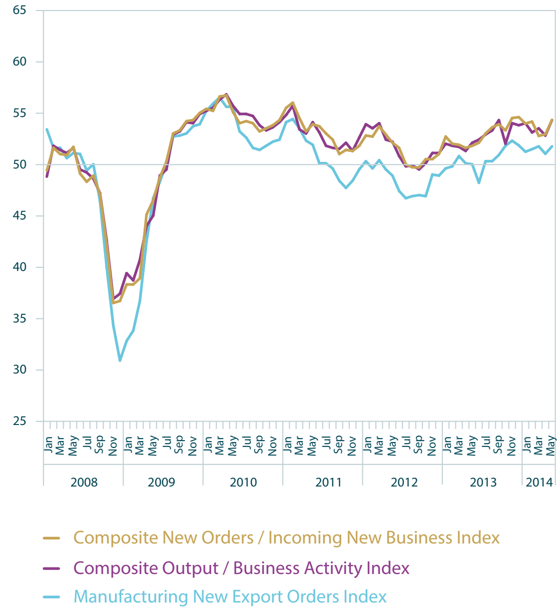
Source: OECD Economic Outlook no.95.

f Forecast

contributed. Available indicators for the second quarter are consistent with acceleration in growth, as evidenced by improving consumer confidence and the continued recovery in the US job market. Since the start of the year, economic activity has been strong in the UK on foot of robust domestic demand, which in turn reflects improvements in employment and the sustained momentum in investment. The slowdown in Japan was reversed during the first quarter of 2014, as GDP surged by 1.6 per cent quarter on quarter according to the second official estimate. This acceleration was higher than expected and was driven by frontloaded private consumption in advance of a consumption tax rise on 1 April. Trade figures were also better. As a result, some rebalancing is expected in the second quarter, led by lower levels of consumption.

Turning to the euro area, the recovery continued but did not gain momentum at the start of 2014. At the same time, economic performance diverged significantly across member states. According to Table 1, GDP growth is expected to accelerate to 1.2 per

Chart 1: Global Purchasing Managers' Index



Source: Markit.

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

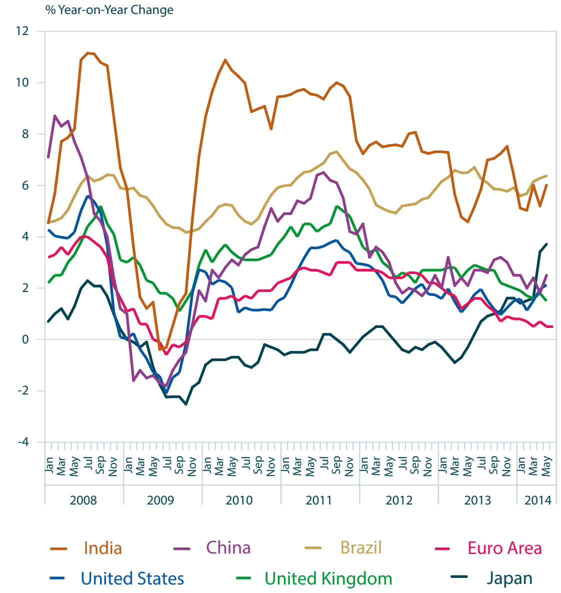
Table 2: Inflation in selected economies, 2013 and forecasts for 2014 and 2015

	Percentage Change		
	2013	2014f	2015f
Euro Area	1.3	0.7	1.1
United States	1.1	1.3	1.6
United Kingdom	2.6	2.0	2.1
China	2.6	2.4	3.0
Japan	0.4	2.6	2.0

Source: OECD Economic Outlook no.95.

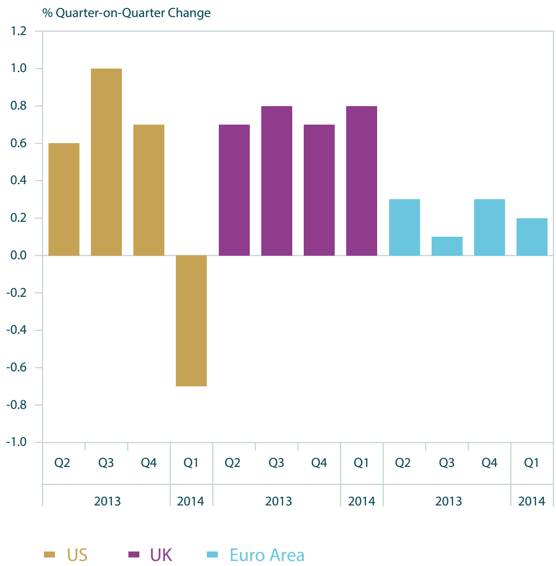
f Forecast

Chart 2: Selected Global Inflation Rates



Source: Thomson Reuters Datastream.

Chart 3: GDP Growth Rates



Source: Thomson Reuters Datastream.

cent in the euro area in 2014, before gaining some further traction in 2015 to 1.7 per cent. Unemployment is set to gradually decline in the second half of the year, though remaining very high in the periphery. Inflation is expected to remain low for some time, reflecting not only the slack in the economy but also the ongoing competitiveness adjustments. The ECB has confirmed its decision to maintain an accommodative monetary policy stance for as long as necessary.

Risk taking in financial markets has returned and disparities in financing conditions across euro-area countries eased somewhat. However, these favourable developments have not fully translated into credit creation in support of economic growth. The continued necessary adjustment of bank balance sheets weighs on credit supply, while a still fragile economic outlook and high private debt continue to restrain credit demand. Other challenges weighing on a continued stabilisation of financial intermediation include: high levels of public and private debt; fragile economic prospects; risks from emerging markets; and the uncertainties surrounding the results of the asset quality review and consequent stress tests.

Global inflation remains modest. Consumer prices in the OECD area increased by 2.1 per cent in the year to May 2014, compared with 2.0 per cent in the year to April 2014. Excluding food and energy, the OECD annual inflation rate also increased to 1.9 per cent in May, compared with 2.0 per cent in April. Annual inflation increased strongly in Japan as a consequence of the increase in the consumption tax rate from 5 per cent to 8 per cent, effective from the start of Q2. Based on the most recent national data, inflation picked up in May in the majority of the other advanced economies and emerging markets outside Europe.

Section 1: Euro Area

Economic Growth – Recent Developments

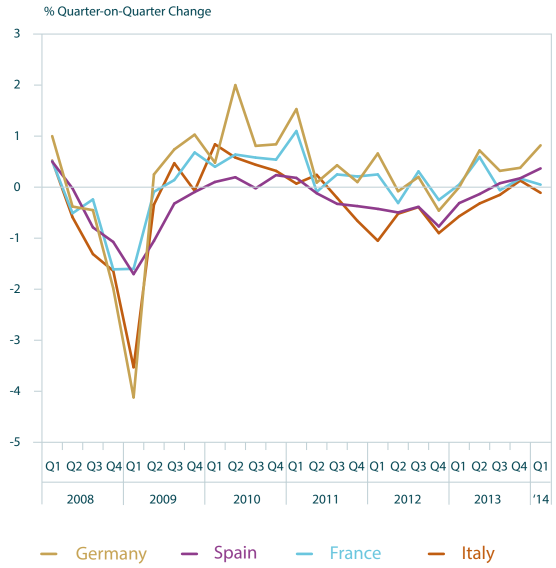
The euro area expanded by 0.2 per cent in the first quarter of 2014 (Eurostat), lower than expected. Growth was supported primarily by developments in Germany and Spain, while conditions in France stagnated and Italy returned to mild contraction. The Netherlands recorded a contraction of 1.4 per cent, while Finland has recorded two consecutive quarters of negative growth, constituting a technical recession.

Table 3: Contributions of Expenditure Components to Quarterly Change in Euro Area GDP

	2013Q2	2013Q3	2013Q4	2014Q1
Consumption	0.1	0.1	0.0	0.1
Government	0.0	0.1	-0.1	0.2
Investment	0.0	0.1	0.2	0.0
Inventories	-0.2	0.3	-0.2	0.2
Exports	1.0	0.1	0.6	0.1
Imports	-0.7	-0.5	-0.3	-0.3
GDP	**0.3**	**0.1**	**0.3**	**0.2**

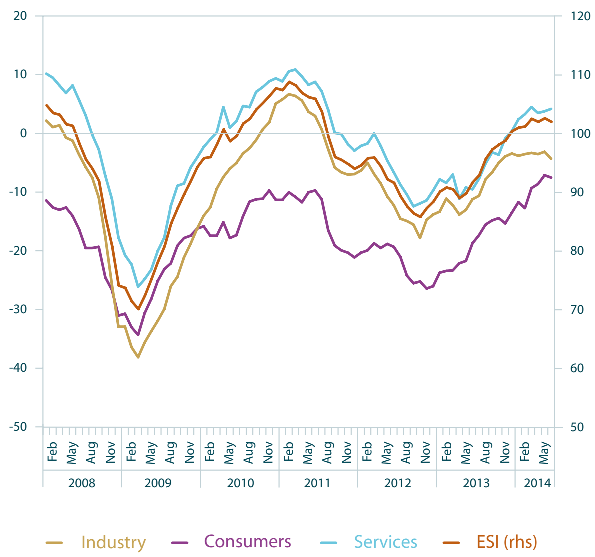
Source: Eurostat.

Chart 4: Euro Area GDP Growth



Source: Thomson Reuters Datastream.

Chart 5: Economic Sentiment Indicator & Selected Components



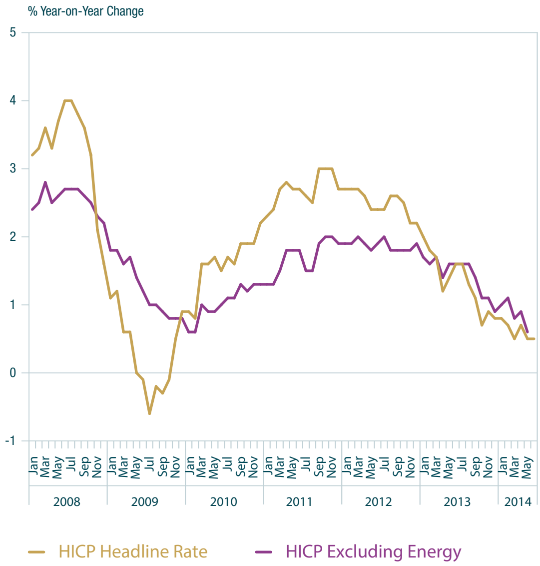
Source: European Commission.

The private expenditure components of euro area domestic demand expanded modestly during the first quarter of 2014. Private consumption remained weak, expanding by just 0.1 per cent, providing little impetus to overall GDP. Investment expanded by 0.2 per cent, supported primarily by developments in Germany, while a build-up of inventories also lent support to the modest growth outcome. The contribution from net exports to GDP growth was negative in the latest quarterly data, with exports recording a weak 0.2 per cent growth, reflecting the strengthening of the euro over the quarter and disappointing world trade conditions, while imports grew by 0.8 per cent.

Early activity data for the second quarter of 2014 point towards a continued mild GDP momentum. Retail sales grew by 0.4 per cent in April, improving on the preceding two months, supported by an acceleration in Spain and France. Industrial production expanded by 0.8 per cent in April, reflecting increased activity in energy production, non-durable consumer goods and intermediate goods. Exports of merchandise goods weakened for the second consecutive month in April, reflecting weaker global trade and the relative strength of the euro.

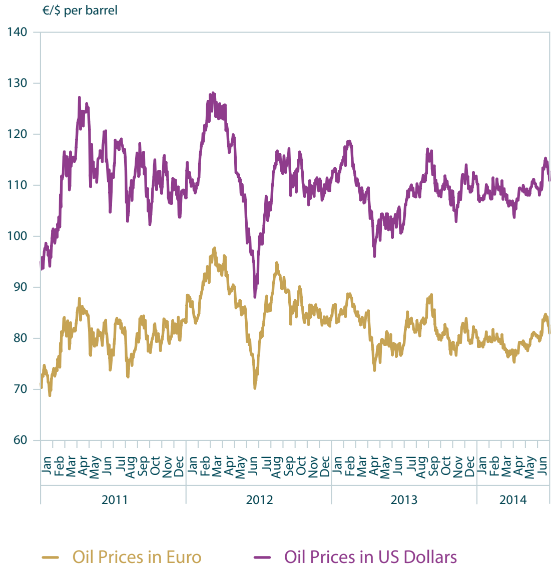
Recent survey data continue to point to positive sentiment overall in the euro area.

Chart 6: Euro Area Inflation



Source: Thomson Reuters Datastream.

Chart 7: Oil Prices – Brent Crude



Source: Thomson Reuters Datastream.

The EU Commission's Economic Sentiment Indicator (ESI) has remained above its long-term average value to date in 2014, standing at 102.0 in June, although the pace of improvement appears to have eased. Industrial confidence remains above its long-term average value, albeit weakening in June reflecting more cautious views on production expectations and current levels of overall order books. Euro area consumer confidence also moderated a little in June due to a less optimistic outlook regarding future unemployment and expectations on savings. Recent PMI data suggest that the euro area remained in modest expansion territory during the second quarter of 2014. The composite output PMI stood at 52.8 in June 2014, with a value of 50.0 or more indicating output expansion. The euro area PMI continues to reflect solid readings from Germany, while data for France lie below the 50.0 mark in June, indicating a renewed downturn in activity.

Euro area employment expanded by a marginal 0.1 per cent during each of the past two quarters, according to national accounts definitions. The euro area unemployment rate has declined slightly in tandem, standing at 11.6 per cent in May. Unemployment rates have declined over the past twelve months in some of the periphery countries, most notably Ireland, Spain and Portugal, albeit from very high levels. Youth unemployment remains very high in the euro area, especially in the southern periphery, while long-term unemployment also remains elevated.

Economic Growth – Outlook

Euro area GDP is expected to expand modestly during the second quarter of 2014, with the pace of growth picking up in 2015. A gradual recovery in domestic demand is expected to support growth as the year progresses. Improving sentiment, accommodative monetary stance and waning credit supply constraints are expected to underpin the pick-up in domestic demand. In particular, private investment may gain some momentum over the course of 2014 and 2015 as domestic and export demand stimulates machinery and equipment investment. Government consumption, having been fairly flat over 2013 reflecting on-going fiscal consolidation efforts across the euro area, is due to pick up modestly this year and next. Consumption is also expected to gain some momentum as labour markets stabilise, fiscal effects wane and disposable income rises. Inflation is expected to remain low, supporting real incomes. On-going balance sheet adjustment in several countries, however, could continue to constrain household spending capacity – but this effect is expected to dissipate over the forecasting horizon.

Demand from the euro area's main trading partners is predicted to improve during 2014, allowing net exports to augment growth, albeit at a modest rate. Imports are expected to pick up throughout the year in response to growing domestic demand and also in response to increased activity in exports with high import content. As such, the net trade position is expected to contribute only modestly to GDP growth during 2014.

In their June "*Broad Macroeconomic Projection Exercise*", ECB staff revised down their forecast for 2014 to 1.0 per cent following the weaker-than-expected Q1 data, and so are expecting lower activity overall this year than the latest forecasts from other international institutions. They project 1.7 per cent real GDP growth in 2015 and 1.8 per cent in 2016. While adverse risks attached to euro area growth forecasts have abated somewhat, they are still judged to be on the downside. In particular, weaker-than-expected labour markets, increased geo-political tensions, together with any further loss in momentum in global trade would adversely affect the outlook for 2014 and beyond.

Inflation – Recent Developments

Headline inflation in the euro area has been lower than expected in the first half of 2014, remaining at 0.5 per cent in June 2014, having averaged 0.7 per cent in the first three months of the year. A number of factors have been contributing to lower inflation in the euro area. There is a global disinflationary trend related to weaker commodity prices. Lower food and energy prices explain a large proportion of the decline in euro area inflation over the past year. The appreciation of the euro has led to lower import prices and in turn lower prices for non-energy industrial goods. There has been a gradual fading of the impact of past increases in taxes and administered prices. Finally, the large degree of persistent economic slack has also weighed on prices. HICP excluding food and energy, which averaged 1.1 per cent year-on-year in 2013, declined to an average of 0.8 per cent in the first quarter of 2014 and 0.7 per cent in May 2014.

Domestic price pressures remain limited, against the background of elevated unemployment rates and weak economic activity. Labour cost growth remained weak in the first quarter of 2014. Total hourly labour costs fell to 0.9 per cent year-on-year from 1.6 per cent the previous quarter. Meanwhile, unit labour costs decreased to 0.5 per cent, following 0.7 per cent in the previous quarter, reflecting lower compensation per employee and labour productivity growth. Finally, pipeline price pressures are expected to remain subdued, as suggested by a number of indicators. Producer price inflation (excluding construction and energy), which averaged -1.6 per cent in the first quarter, was -1.0 per cent year-on-year in May 2014. Furthermore, forward looking survey indicators such as the PMI input prices in the manufacturing sector have been falling since February 2014.

Inflation – Outlook

Euro area inflation is expected to remain low in 2014 and gradually increase thereafter. According to the June 2014 Eurosystem staff macroeconomic projections for the euro area, annual HICP inflation is expected to be 0.7 per cent in 2014 and 1.1 per cent in 2015 and 1.4 per cent in 2016. The projected pick-up in overall HICP inflation reflects the gradual strengthening of the economic recovery, which is leading to rising growth in domestic wages and profits.

Box A: Probability of Negative Inflation for the Euro Area

By Nicolas Gobalraja[1] and John Larkin[2]

As inflation in the euro area has continued to fall, attention has increasingly focused on the risk of deflation. Using a simple autoregressive model to represent the dynamics of prices, and making use of Monte Carlo statistical experiments, we find that there is a probability of around 26 per cent that the euro area experiences at least one month of negative inflation in the next two years.

First, we model the euro area harmonised index of consumer prices (HICP) from Eurostat with a simple univariate autoregressive specification:

$$\pi_t = c + \alpha.\pi_{t-1} + \beta.\pi_{t-2} + \varepsilon_t$$

where π stands for the monthly year-on-year HICP inflation rate for EA, t represents time, c is a constant, α is the coefficient of the first autoregressive term, β is the coefficient of the second autoregressive term, and ε is a normally distributed innovation term. This specification is chosen for both its simplicity and effectiveness. The model is estimated on a sample ranging from January 1997 to March 2014. The estimation output shows convergence, no serial autocorrelation and no structural break.

Second, with our model specified we can implement the statistical experiment required to calculate a probability of deflation. We generate a large number ("n") of sequences of 24 successive random predictions of monthly year-on-year inflation obtained with the model described by equation (2). For that purpose we use a data generator process to create n innovation series, distributed according to the empirical law of ε. Intuitively one understands that the probability of negative inflation in the following two years can be approximated by the proportion of these sequences with at least one of their elements negative[3].

Theoretically the higher the number n the more precise the estimated probability will be. Here we choose for successive experiments n = {1000, 5000, 10000}.[4]

Table 1 shows the results of the simulations. It displays an estimation of the probability of at least one month, at least three months (not necessarily consecutive) and at least 12 months of negative inflation for the different values of n retained.

Box A Table 1: Monte Carlo simulations of probability of deflation in the Euro Area

	HICP (AR2)		
Probability of deflation in the following 2 years	**At least 1 month**	**At least 3 months**	**At least 12 months**
n = 1000 iterations	24.9	12.2	0.9
n = 5000 iterations	25.6	11.0	1.3
n = 10000 iterations	26.2	11.7	1.3

Source: Eurostat, authors' calculation

1 Monetary Policy Division and Banque de France

2 Monetary Policy Division

3 Consider a random draw with replacement of one of these generated sequences. The probability to draw a sequence with negative inflation should be equal to the proportion p of sequences with negative inflation. By contrast, the probability to draw a sequence with all its elements positive is equal to 1-p, ie the proportion of sequences with only positive inflation rate. Intuitively, one understands that we should obtain a proxy $\hat{p}$ of this proportion/probability p by simply repeating these draws a large number of times, and reporting the ratio of the sequences with negative inflation obtained to the total number of draws. In theory, this result comes from the law of large numbers that ensures that after performing the same statistical experiment a large number of times, the average of the results obtained should be close to the expected value.

4 Remember that the accuracy of the Monte Carlo experiment is not monotonically increasing in n, but trending in the right direction.

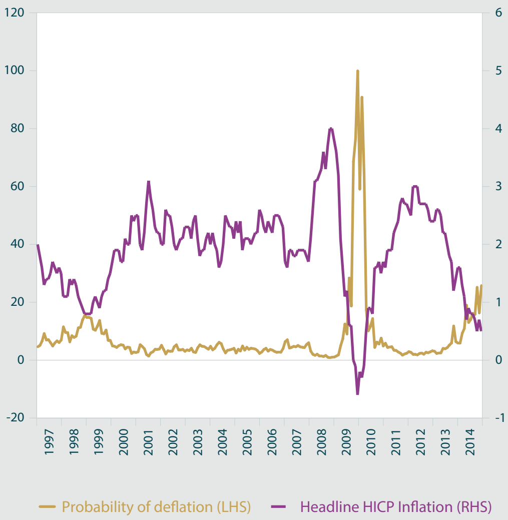
Box A: Probability of Negative Inflation for the Euro Area
By Nicolas Gobalraja and John Larkin

On the basis of the probability distribution of this basic univariate AR(2) model, we estimate a 26.2 per cent probability that inflation in the EA falls below zero during at least one month in the following two years. Unsurprisingly this probability diminishes to 11.3 per cent for at least three months of negative inflation and to over 1 per cent when it implies negative rates during at least 12 months over the next two year period.

Overall, these figures suggest that while the event of an extended period of below-zero inflation in the EA in the next couple of years should be considered as an extreme (forecast) scenario, the probability of a limited period of negative inflation is not negligible.

Chart 1 below displays the results of both in-sample and out-of sample estimations of the probability of deflation in the EA, providing a useful historical perspective on these probability calculations. This series was obtained by rolling our calculation process over the entire sample. The chart shows the probability that there is at least one month of negative inflation in the following two years for each month since January 1997.

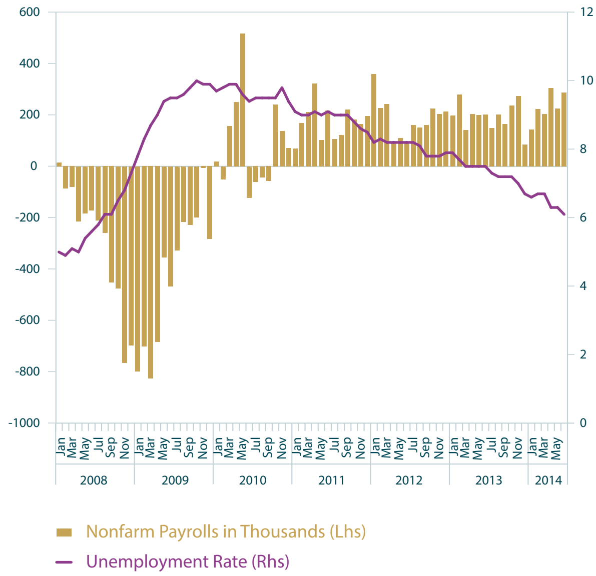
Box A Chart 1: Euro area inflation vs probability of at least one month negative inflation



Source: Eurostat and authors' calculations.

What we see from Chart 1 is that this probability of negative inflation has remained low, less than 5 per cent, in general since 1997. Three episodes can be reasonably distinguished from the rest of the sample. The first episode occurred in late 1990s when the probability of inflation increased to close to 20 per cent. This directly reflects the fact that HICP declined below 1 per cent for a short period of time in 1999. The second episode occurred in the heart of the financial crisis in 2009-2010. At that time inflation reached unprecedented negative levels, and as a consequence the probability of negative inflation increased sharply, recording 100 per cent in July 2009 when the year-on-year inflation rate reached a trough of -0.6 per cent. The last episode is the present time. For the third time in the sample, inflation as measured by the HICP growth rate has fallen below 1 per cent. As a result the probability of deflation has gradually increased to reach 26 per cent in March 2014. This is only the second time that this probability indicator increased above 20 per cent.

Chart 8: US Labour Market



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

Section 2: External Environment

United States

Real GDP growth declined in the first quarter of 2014 for the first time in the last three years. It decreased at an annual rate of 2.9 per cent, after an increase of 2.6 per cent in the fourth quarter of 2013. Private domestic investment, net exports and government expenditures contributions were all negative, leaving personal consumption expenditures as the only source of GDP growth.

Conditions on the labour market have moderately improved in the last three months. Non-farm payrolls increased by 288,000 in June, 224,000 in May, and 304,000 in April, compared with a monthly average of 190,000 in the first three months of 2014. The unemployment rate decreased to 6.1 per cent in June, down from 6.7 per cent in December 2013. Recovery in the housing market has significantly slowed since the end of 2013. Residential investment decreased to an annual rate of 4.2 per cent in the first quarter of 2014, after -7.9 per cent in the fourth quarter of 2013. The increase over the previous year in house prices as measured by the S&P/Case-Shiller 20 index slowed to 10.8 per cent in April, down from 12.4 per cent in March.

Sentiment indicators relating to the second quarter of 2014 are encouraging. In June, the US ISM manufacturing and services PMI remained above the 50 threshold at respectively 55.3 (down from 55.4 in May) and 56.0 (down from 56.3), indicating sustained activity growth in both sectors. The Thomson Reuters/ University of Michigan's index of consumer sentiment in June remained above the average level of the prior four months, at 82.5. Overall, economic growth in the US is expected to be slightly more sustained in 2014, with the drag from fiscal austerity measures phasing out. The OECD is forecasting growth of 2.6 per cent for 2014 and 3.5 per cent for 2015.

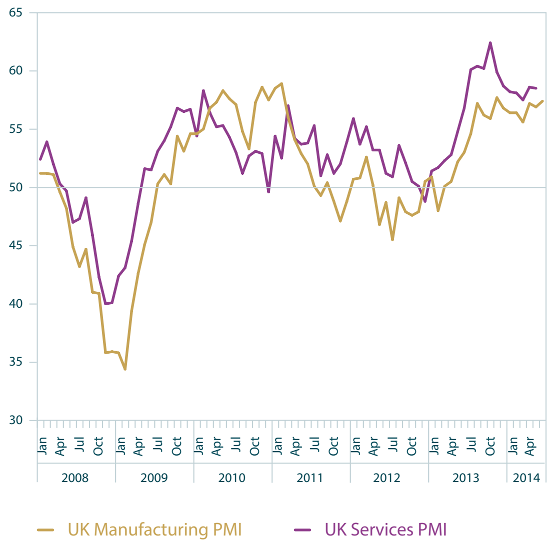
Consumer price inflation increased for the third consecutive month in May reaching an annual rate of 2.1 per cent, after 2.0 per cent in April. In particular the food index posted its largest increase since August 2011. Excluding food and energy, inflation increased to 2.0 per cent from 1.8 per cent in April.

At its last meeting the Federal Reserve's Open Market Operations Committee (FOMC) decided to continue tapering, adding to its holdings of securities at a reduced pace of $35 billion per month. The FOMC reaffirmed its view that a highly accommodative stance of monetary policy will remain appropriate for a considerable time after the asset purchase program ends and the economic recovery strengthens. On this basis, it maintained the target range for the federal funds rate at 0 to 0.25 per cent.

United Kingdom

According to the Office of National Statistics' most recent estimate, the UK economy grew by 0.8 per cent during the first quarter of 2014 compared with the previous quarter. The expansion in economic activity was

Chart 9: PMI Indicators for the UK



Source: Markit.

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

largely attributed to increases in household expenditure and gross capital formation, the latter of which was driven by business investment. The decline in exports was more than offset by a decline in imports resulting in a positive contribution from net trade.

There was a significant expansion in the labour market between February and April 2014, with employment growing by 0.6 per cent, compared with the previous three months. The unemployment rate continued to improve gradually and fell by 0.5 percentage points to 6.6 per cent over the same period. The annual increase in average UK house prices was 9.9 per cent in April 2014, driven largely by increases in the property markets in London and the South East. Exclusive of these regions, annual average UK property prices in the remainder of the UK rose by 6.3 per cent.

Sentiment indicators relating to the second quarter of 2014 point to a further expansion in output. With regard to the outlook for growth, the manufacturing PMI was 57.5, reflecting a slight increase from May of 0.5, and remaining at an overall historically high level. The PMI for services declined to 57.7 in June but continued to remain above its long-term trend of 55. Employment in services recorded an increase from 56.2 to 58.8. Construction activity continued its strong performance evident since May 2013 increasing from 60 in May to 62.6 in June. Residential construction and commercial construction activities contributed to the growth in output leading to a rise in construction employment during the second quarter. The OECD has forecast UK GDP growth to be 3.2 per cent for 2014 as a whole, falling back to 2.7 per cent for 2015 (Table 1).

The consumer price index of annual inflation slowed from 1.8 per cent in April to 1.5 per cent in May. A decline in inflation has been recorded for each month since May 2013 with the exception of April 2014 when upward price movement were driven by services (transport services costs, including air fares) related to the Easter holiday. The most significant contribution to the latest decrease in inflation was transport services, followed by a fall in the cost of food, non-alcoholic beverages and clothing sectors. The upward contribution in price movements which prevented the rate of inflation falling further was related to motor fuels.

No changes were made by the Bank of England's Monetary Policy Committee (MPC) to the bank rate during June, which continues to remain at 0.5 per cent. At its June meeting, the MPC considered that the economy will continue to expand and absorb excess capacity over the next two to three years. Inflation expectations, however, continue to remain subdued and will be close to the 2 per cent target level. The MPC raised concerns that the long period at which the bank rate has remained at 0.5 per cent could generate financial imbalances in the UK, for example in the housing market. Macro-prudential tools available to the Financial Policy Committee (FPC) would, however, provide a buffer to offset these imbalances in the initial stages. The MPC considered that a return to normal economic growth would lead to a rise in the bank rate, but the timing of the increase would depend on inflationary pressures across prices and wages.

Japan

According to the Government's most recent estimate, real GDP expanded by 1.6 per cent quarter-on-quarter, or 6.7 per cent on an annualised basis during the first quarter of 2014. The increase in output was primarily driven by private demand, with particularly strong growth evident in the private residential and non-residential investment components, which grew on an annualised basis of 13 and 34.2 per cent, respectively. The anticipated increase in consumption tax from 5 to 8 per cent in April led to a front-loading of private consumption in the first quarter, and the annual increase in private consumption of 9.2 per cent is expected to decline in the second quarter following the implementation of the hike. Net exports of goods and services acted as a drag on growth in the first quarter of 2013, driven by demand for imports in advance of the consumption tax hike.

Sentiment data relating to the second quarter point to a slowdown in output, reflected in declines in new manufacturing and export orders. The manufacturing PMI was 49.9 in May, down from 49.6 in April. Employment in the manufacturing sector continued to grow for the eighth month in a row. The OECD projects the GDP outturn will be 1.2 per cent for 2014 and for 2015 (Table 1).

There was a significant rise in consumer prices in April, with annual inflation increasing to 3.4 per cent in April up from 2.1 per cent in March. The pickup in inflation was largely attributable to the increase in consumption tax. Looking ahead, the increase in inflation is likely to be temporary. According to the Bank of Japan, approximately two-thirds of the Japanese consumer price index is directly influenced by the increase in consumption tax. Excluding the effects of the consumption tax hike, the Bank of Japan considers the year-on-year increase in the consumer price index to be around 1.25 per cent and overall inflation expectations appear to be rising.

The monetary base grew by 45.6 per cent on an annualised basis in May, a decline when compared with an increase of 48.5 per cent in April. At its May meeting, the Bank of Japan left monetary policy unchanged and considered it appropriate to maintain the existing framework for money market operations, where the monetary base will continue to expand at an annual pace of about 60-70 trillion yen in order to achieve the price stability target of 2 per cent.

Box B: Recent Monetary Policy Measures
By Sarah Holton and Rebecca Stuart[1]

On June 5 the Governing Council of the ECB announced a range of measures easing the monetary policy stance. The announcement came in the context of a downward revision in the ECB staff's projections for both growth and inflation. The policy changes include both standard and non-standard measures, which were more comprehensive than market commentators generally expected. This Box outlines the measures announced by the Governing Council on 5 June, as well as some of the additional detail on the measures provided following the Council's meeting on July 3.

In terms of standard monetary policy, the Governing Council cut interest rates by 10 basis points, bringing the main refinancing rate to a historic low of 15 basis points. This cut resulted in a negative deposit rate of -10 basis points. The negative rate applies to average reserve holdings in excess of the minimum reserve requirements and other deposits held with the Eurosystem.

1 Monetary Policy Division.

Box B: Recent Monetary Policy Measures
By Sarah Holton and Rebecca Stuart

Non-standard measures related to liquidity provision. The Governing Council announced a series of targeted longer-term refinancing operations (TLTROs), which aim to support bank lending to households (excluding loans for house purchases) and non-financial corporations. The TLTROs will enable counterparties to initially borrow up to 7% of the total amount of their outstanding loans to the euro area non-financial private sector excluding loans to households for house purchases on 30 April 2014, potentially amounting to about €400 billion. These operations will be conducted in September and December 2014, and both will mature in September 2018. The interest rate on the TLTROs will be fixed at the main refinancing rate prevailing at the time of take-up, plus a fixed spread of 10 basis points. Repayment of the TLTRO can begin 24 months after take-up.

A number of provisions of the TLTRO aim to ensure that the funds support the real economy. On a quarterly basis from March 2015 to June 2016, all counterparties will be able to borrow up to three times the amount of their net lending to the euro area non-financial private sector excluding loans for house purchases in excess of a specified benchmark. On 3 July the Governing Council clarified that this benchmark would be zero for banks that had positive eligible net lending in the year to 30 April 2014. For banks with negative eligible net lending during this period, the benchmark will be calculated as their average monthly net lending in the year to 30 April 2014 extrapolated forward to 30 April 2015. From this time until 30 April 2016, the benchmark for these banks will be set at zero. Eligible net lending will be measured in terms of new loans minus redemptions; loan sales, securitisations and write-downs do not affect the net lending measure. Those counterparties that have not met their benchmark for the volume of their net lending to the real economy will be required to pay back borrowings in full in September 2016.

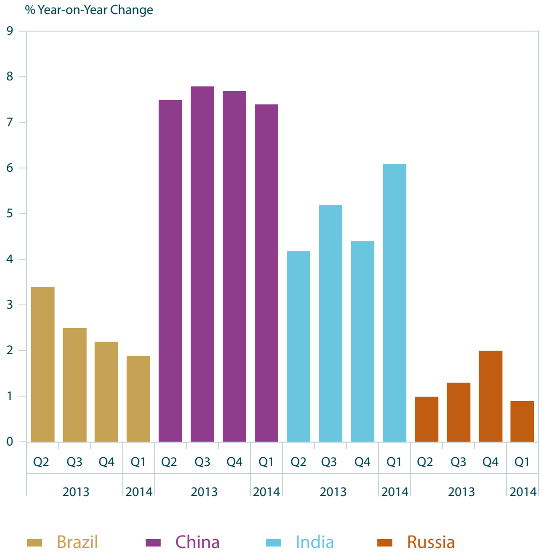
In addition, the fixed rate full allotment programme, which is to be in effect ‘for as long as necessary’, will be in effect at least until December 2016. It also announced a decision to conduct three-month longer-term refinancing operations (LTROs) up to December 2016 as fixed rate tender procedures with full allotment. Furthermore, the Governing Council suspended the weekly fine-tuning operation sterilising the liquidity injected under the Securities Markets Programme. When the programme was launched, the Governing Council announced that it would sterilise the resulting additional liquidity, but President Draghi clarified that the change in policy in this regard was based on the effect this additional liquidity might have on inflation. When the SMP started, the inflation rate was close to 2 per cent, however the current environment is characterised by low inflation, a weak recovery, weak monetary and credit dynamics. Therefore, there is little upside risk to inflation arising from the additional liquidity.

Finally, the Governing Council announced that it was intensifying preparatory work related to outright purchases in the ABS market. The effect of this policy is to enhance the functioning of the monetary policy transmission mechanism. Preparatory work includes determining the key requirements that the ABS will have to meet in order to be eligible. While the details are not yet available, President Draghi stressed that such a programme would focus on purchasing simple and transparent asset-backed securities with underlying assets consisting of claims against the euro area non-financial private sector.

BRIC Economies

The outlook for emerging markets remained subdued during the second quarter of 2014 due to weaker domestic demand, continued reversals in capital flows and rising geopolitical uncertainty. Exports were weaker than expected during the second quarter largely due to declines in demand in advanced economies, but the outlook is positive as the economic prospects for advanced economies are expected to improve. According to the World Bank, growth in emerging economies is expected to remain flat in 2014, due to the geopolitical risks emanating from Ukraine, but output is expected to grow in 2015 and 2016.

Chart 10: BRIC GDP Growth Rates



Source: Thomson Reuters Datastream.

In Brazil, real GDP growth continued its decline from 2.2 per cent in the final quarter of 2013 to 1.9 per cent in the first quarter of 2014. Following a decline in inflation for the first quarter of 2014, inflation increased in May to 6.08 per cent, the highest rate since August 2013 and was mainly due to household items and health care services. The main policy rate, the Selic, of the central bank was maintained at 11 per cent in May.

In India GDP growth was 6.1 per cent year-on-year in the first quarter of 2014, an increase of 1.7 percentage points from the previous quarter. Growth in agriculture continued, but a decline in services acted as a drag on total output. Measures introduced to restrict the import of gold led to improvements on the current account. Inflation, as measured by the wholesale price index, rose to 6.01 per cent in May 2014, up from 4.58 per cent in the same month last year. At its June meeting India's central bank maintained its key interest rate at 8 per cent. The cash reserve ratio was kept unchanged at 4 per cent, as was the marginal standing facility at 9 per cent.

In China real GDP growth decreased from 7.7 per cent in the fourth quarter of 2013 to 7.4 per cent in the first quarter of 2014. The decline in output growth was due to a slowdown in the momentum of real credit growth. Business sentiment data relating to the second quarter point towards a more moderate GDP expansion in Q2. The manufacturing PMI increased from 50.4 in April to 50.8 in May, reflecting a stabilisation in output. New export orders rose by 0.2 to 49.3 but stayed below the threshold of 50. At end-May credit and loan growth in local currency increased by 13.9 per cent, an increase of 2 percentage points from the previous month but a decline of 0.6 percentage points from the corresponding month last year. While inflation remains below the People's Bank of China's target of 3.5 per cent, consumer prices rose in April by 1.8 per cent year-on-year. The increase was driven primarily by food prices, in particular fresh fruit, aquatic products and grain prices.

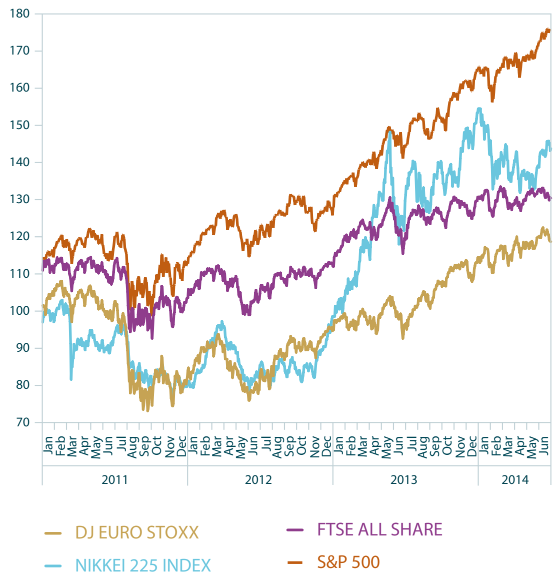
According to the first flash estimate of the Federal State Statistics service, Russian GDP grew by 0.9 per cent in the first quarter of 2014. According to the Bank of Russia, annual CPI inflation was at 7.6 per cent in June. The observed acceleration in inflation since February is attributable to the depreciation of the rouble which affected the prices of a wide range of goods and services. The Bank of Russia maintained its main interest rate at 7.5 per cent in June in order to ensure a slowdown in consumer price inflation to its target level of 5 per cent in the medium term.

Section 3: Financial Markets

Financial Market Developments

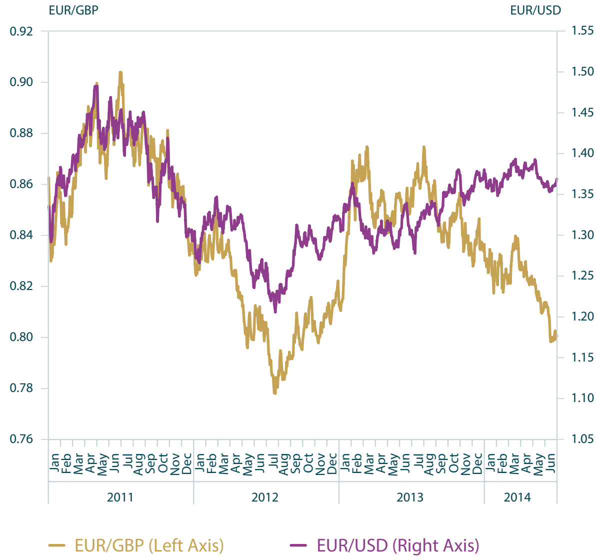
Market sentiment improved during the second quarter of 2014 and volatility continued to fall. The key drivers of market movements were geopolitical events in the Ukraine and monetary policy developments at the major central banks. At the beginning of the quarter, the announcement of a further reduction in asset purchases by the US Federal Reserve had a muted impact on markets but there was some turbulence due to increased geopolitical tensions, with a particular impact on commodities and emerging market equities.

Chart 11: International Share Price Indices (end-December 2009 = 100)



Source: Thomson Reuters Datastream.

Chart 12: Euro Exchange Rates



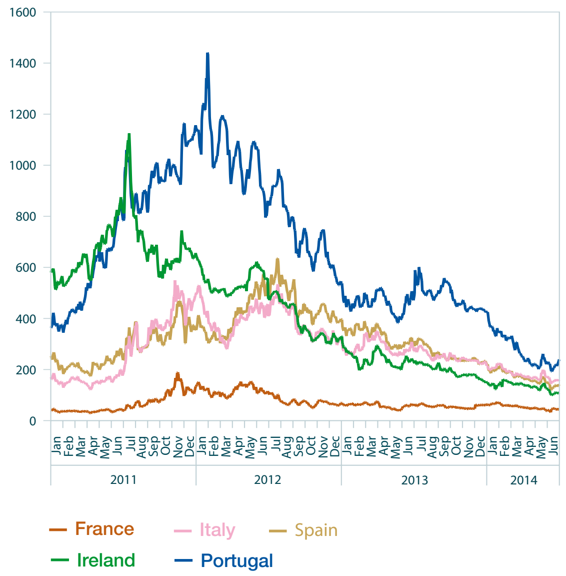
Source: Thomson Reuters Datastream.

As the quarter progressed, the suggestion of the introduction of unconventional monetary policy by the ECB and the subsequent announcement of a targeted long-term refinancing operation (TLTRO) and policy rate cut was well received by market participants and contributed further to the positive trend in asset prices. Over the quarter, the euro depreciated against its main trading partner currencies and euro money market rates fell across a range of maturities. Equity indices in developed and emerging markets rose, supported by positive US data releases and the expectation of a more prolonged period of low US interest rates. At the same time, US and euro area sovereign bond yields fell, as did the non-core segments of the euro area sovereign debt market.

Equity Markets

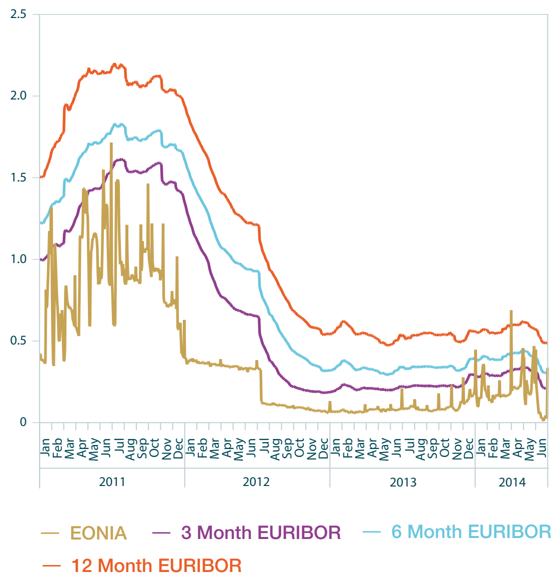
Global equity markets performed solidly in the second quarter, with indices rising across the period under review in both emerging and developed markets. This was largely driven by positive data releases in the US and accommodative monetary policy action in the euro area. In mid-April, equities were negatively affected by temporarily heightened geopolitical tensions and weak trade data from China, but the selling pressure was rather short-lived. Subsequent movements in global markets over the quarter were largely positive. Over the quarter, the S&P 500 index recorded an increase of 4.7 per cent, supported by positive data releases on unemployment and expectations that interest rate increases by the Federal Reserve will be delayed. In Europe, markets reacted positively to the ECB Governing Council's June meeting, where a suite of new monetary policy measures was announced, including a policy rate cut, a negative deposit facility rate and a targeted long-term refinancing operations (TLTRO). The broad based Dow Jones Euro Stoxx Index finished the quarter up 0.9 per cent. Equity prices in Japan rose as well, benefiting from domestic factors such as a better than expected PMI and a strong rebound in capital spending, as well as market expectations that the central bank could prolong its quantitative easing programme. The Nikkei ended the quarter 2.3 per cent higher.

Chart 13: Selected Euro Area 10-Year Sovereign Bond Yield Spreads over Germany (bps)



Source: Thomson Reuters Datastream

Chart 14: Selected Euro Area Money Market Interest Rates



Source: Thomson Reuters Datastream.

Foreign Currency Developments

In the second quarter of 2014, the euro depreciated overall against most of the euro area's key trading partner currencies. On 30 June, the nominal effective exchange rate of the euro, as measured against 20 other currencies, stood 1.4 per cent below its level at the end of March and 0.9 per cent below the year-end level. During April, the nominal effective exchange rate remained roughly unchanged. Subsequent depreciation in the exchange rate over the remainder of the quarter was driven largely by expectations of monetary policy action which was signalled at the May ECB Governing Council press conference and then by the ECB's announcement of a policy rate cut in June.

In terms of bilateral exchange rate movements, the euro appreciated against the US dollar in April and finished the month at $1.39. The euro US dollar exchange rate subsequently reached a two and a half year peak of $1.393 in early May before depreciating over the remainder of the quarter, as a result of the ECB's action. The euro finished the quarter at $1.369 versus the US dollar. The euro also depreciated against the pound during the period under review and finished the quarter 3.1 per cent lower.

Sovereign Debt Markets

Sovereign yields in the stressed segment of the euro area fell by varying degrees during the second quarter of 2014 after also reducing in the first quarter. The 10-year government bond yield spreads for Italy, France, Portugal and Spain over the German yield also fell during the period. The narrowing of spreads is consistent with positive credit rating news, more accommodative monetary policy in the euro area and the return of investors' confidence, which has been supported by successful government bond issuance in a number of countries that had previously been negatively affected by the crisis. From 01 April to 30 June, the 10 year spread versus Germany fell by 32, 13, 25 and 11 basis points in Ireland, Italy, Spain and Portugal respectively.

Over the second quarter, both US and euro area AAA-rated government bond yields decreased. During the early part of the period, long-term bond yields on both sides of the

Atlantic were relatively volatile, as markets weighed positive data releases, particularly for industrial production in both economic areas, against evolving concerns about increased geopolitical risks. Subsequently yields fell in the euro area as a result of the ECB's announcement of its stimulus package.

Money Markets

Money market interest rates declined during the second quarter of 2014. The decline in euro money market rates followed the decision of the ECB Governing Council to reduce the main refinancing operation (MRO) rate by 10 basis points to 15 basis points, the cancelation of the SMP liquidity absorbing operations (which boosted excess liquidity) and the decision to extend fixed rate full allotment until end-2016. The Governing Council also decided to lower the deposit facility rate, turning it negative for the first time, at minus 10 basis points. This resulted in a decrease in EONIA, which fell to an average rate of 0.08 per cent in June compared to an average rate of 0.25 per cent for the first two months of the quarter. EURIBOR rates also fell across the 3, 6 and 12 month maturities.

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.

Ireland and the Macroeconomic Imbalance Procedure

Rónán Hickey and Linda Kane[1]

Abstract

The Macroeconomic Imbalance Procedure (MIP), introduced in late 2011, is one of the key components of the reformed European economic governance framework. With its goal of ensuring that macroeconomic imbalances do not emerge as they did in the 2000s, the MIP is part of a strengthened EU economic surveillance framework and is designed to complement the revised Stability and Growth Pact. While it is not clear to what extent the presence of an MIP in the last decade would have reduced Irish imbalances before the financial crisis, it would, at the very least, have placed more of a spotlight on credit and competitiveness developments. With Ireland exiting its Economic Adjustment Programme in December 2013 it is now subject to the MIP. There has been a reduction in the scale of Irish imbalances since the recession; internal imbalances are improving but some will take time to unwind from their current high levels, while external imbalances are currently less of a concern.

1 Irish Economic Analysis Division, Central Bank of Ireland. The views expressed in this article are those of the authors only and do not necessarily reflect the views of the Central Bank of Ireland. We would like to thank Reamonn Lydon, John Flynn, Daragh Clancy, Thomas Conefrey, Martin O'Brien, Mary Cussen and Terry Quinn for very helpful comments.

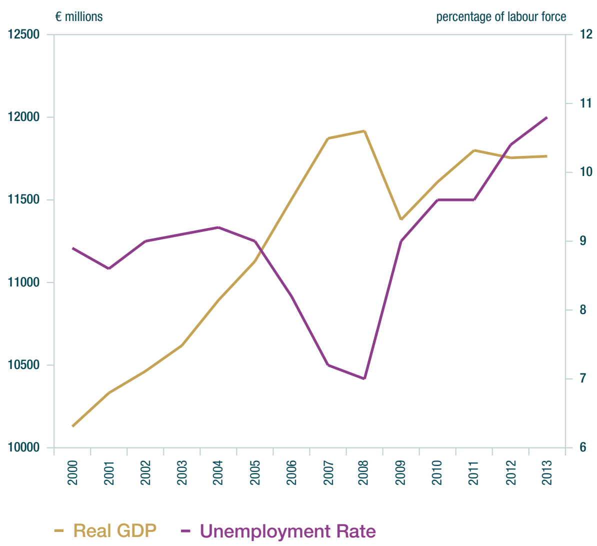
1. Introduction

The financial and public debt crises have had a substantial impact on economic and budgetary conditions in the European Union (EU); economic output has yet to return to its pre-crisis level while public debt remains extremely high (see Chart 1). The crises also highlighted the considerable weaknesses that existed in EU economic governance, the rules and procedures underpinning economic decision making in the region. As a result, significant reforms have been implemented at a European level to improve the coordination and surveillance of economic and fiscal policies and facilitate the provision of timely policy guidance to Member States. Specifically, the reforms have included the creation of the European Semester, a significant strengthening of the Stability and Growth Pact (SGP), and the creation of the Macroeconomic Imbalance Procedure (MIP). The latter, introduced in late 2011, is designed to ensure that macroeconomic imbalances do not develop as a threat to economic stability as they did in the previous decade and should complement other elements of the governance framework by providing a macro-stability focus. The remainder of this Article is organised as follows; Section 2 takes a closer look at economic governance in Europe before the crisis and how it allowed large imbalances to develop in the region; Section 3 outlines the various stages of the MIP which, as in the case of the SGP can be broadly divided into preventive and corrective arms; Section 4 focuses on the evolution of imbalances in Ireland before and after the crisis and, finally, Section 5 concludes.

2. European Economic Governance Before the Crisis

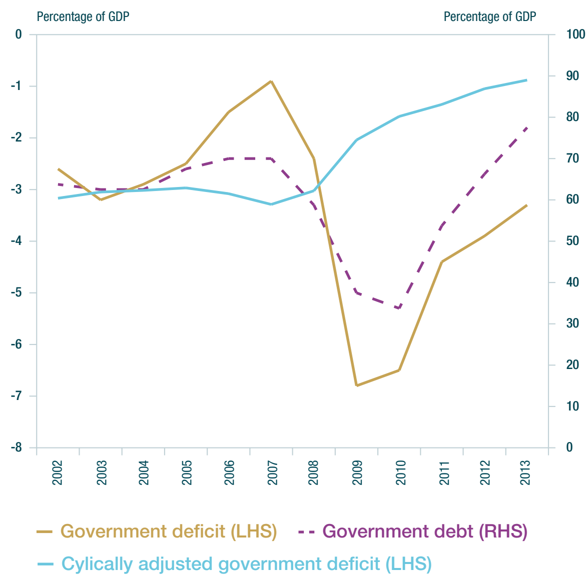
Prior to the financial crisis economic governance in the EU was primarily delivered through the Stability and Growth Pact (SGP) and the Broad Economic Policy Guidelines (BEPGs). The former aimed to deliver sound public finances by facilitating balanced national budgets and lower debt levels, while the latter provided economic policy recommendations for Member States and the region as a whole. In both cases the EU Council could warn countries that were undertaking unsustainable policies, although only the SGP also contained the threat of sanctions.

Chart 1a: Economic Developments in the EU28, 2000 - 2013



Source: European Commission.

Chart 1b: Fiscal Developments in the EU27, 2002 - 2013

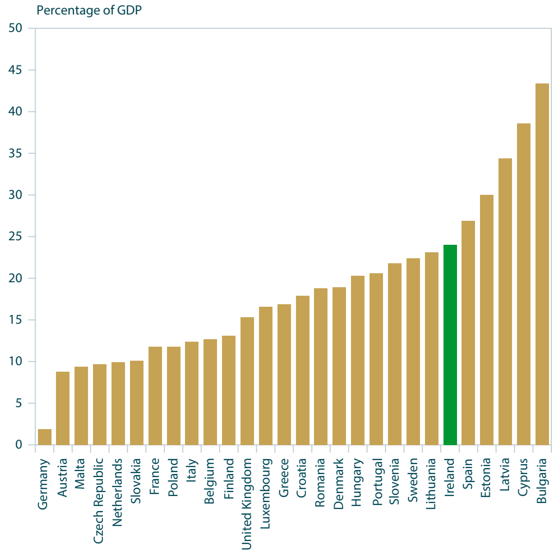


Source: European Commission.

On the surface, these procedures appeared to be supporting favourable economic and fiscal developments. Real output expanded at an above potential rate in the four years to 2007, the unemployment rate declined to its lowest level on record and the general government deficit improved by over 2 percentage points (see Chart 1). In reality, however, the governance measures did not fulfil their objectives, failed to identify emerging problems and left the region increasingly vulnerable to negative shocks. With regard to the SGP, for example, the preventive arm failed to deliver sufficient adjustment in good times to ensure an adequate buffer when the downturn occurred; much of the improvement that took place during this period reflected cyclical factors, with a much smaller decline in the structural deficit. What's more countries were given too long to correct excessive deficits and at no time were sanctions applied despite incidences where insufficient action was identified. Finally there was also clearly no real focus placed on the debt criteria as, despite the strong economic environment, government debt declined only marginally over the period, falling just 3 per cent of GDP between 2003 and 2007.

The BEPGs, meanwhile, were published on a three-yearly basis from 2003, and while annual updates for some countries were provided, in many cases – including Ireland in 2004 for example – it was deemed that no update was necessary. There was also no real pressure placed on countries to ensure that they were following suitable policies; as Tutty (2013) notes the EU Council only once used its power to warn and make a recommendation to a Member State whose policies were not considered consistent with the guidelines and this was not followed up on[2]. With no specific focus on macroeconomic imbalances, meanwhile, emerging problems were not identified. The ineffectiveness of the governance measures left the EU economy as a whole particularly exposed to the financial crisis and played a direct role in the public debt crisis that followed.

Chart 2: Private sector credit flows in EU28, 2007



Source: Eurostat.

With no formal macroeconomic surveillance system in place, large persistent internal and external imbalances were allowed to build-up in many countries. In particular, the crisis highlighted how lax financial conditions can foster credit booms with wide ranging and damaging consequences. Looking back, the European Commission[3] (2011) noted that high private sector credit flows `appear to be one of the best indicators to predict crises early on' and 'large credit fluctuations can be very often associated with boom and bust cycles in asset markets, potential banking sector vulnerabilities, house price bubbles and also current account imbalances'. The very high level of private sector credit flows in the region in 2007 is shown in Chart 2, when 17 of the EU-28 were experiencing flows of greater than 14 per cent of GDP (the significance of this figure will become apparent in Section 3). This was not a once off development, but had been gradually building; in 2003 five countries had private sector credit flows above this threshold, but by 2005 that figure had increased to 12. This

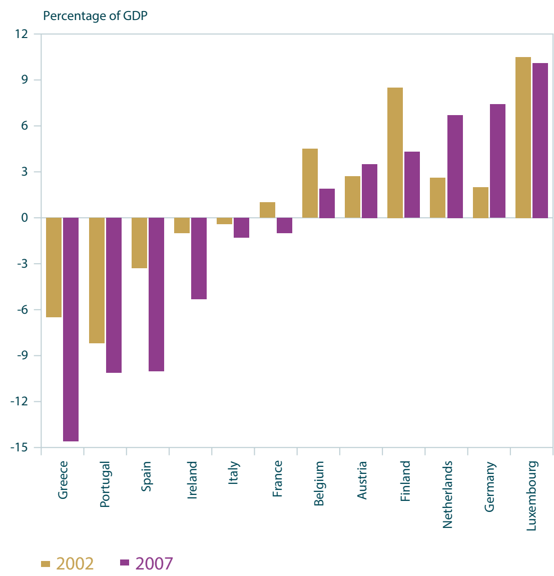
2 The recommendation was made to Ireland in 2001 to adopt a less expansionary budgetary policy.

3 Referred to as 'the Commission ' in the remainder of this Article.

corresponded with double-digit real house price growth in one-third of the countries for which data is available in 2007 and a rapid expansion of financial sector liabilities across the region in the three years to 2007.

In many instances, meanwhile, growing internal imbalances at a national level were linked to the emergence of significant external imbalances. The development of the latter is best illustrated by movements in the current account of the balance of payments, which measures an economy's transactions with the rest of the world. While the EU current account position was relatively stable over the period 2002 to 2007, this masked developments in individual countries which widened significantly. As Chart 3 shows for the Euro Area 12 for example, the variance of the outturns increased between 2002 and 2007 as the average current account surplus grew from 4.5 to 5.7 per cent of GDP and the average deficit almost doubled to 7.1 per cent of GDP. It should come as no surprise, meanwhile, that the countries which experienced the largest current account deterioration over this period generally also experienced the largest competitiveness losses, as measured by unit labour costs and real effective exchange rates.

Chart 3: Current account in Euro Area 12, 2002 and 2007



Source: Eurostat.

Table 1 – The MIP Scoreboard

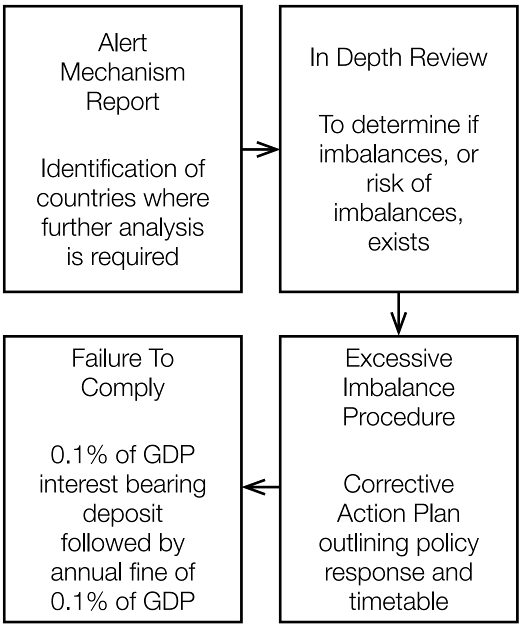
	Indicator	Threshold
External Imbalances & Competitiveness	Current Account Balance as % of GDP (3-yr avg)	-4%/+6%
	Net International Investment Position as % of GDP	-35%
	Real Effective Exchange Rate % change (3 yrs)	±5%
	Export Market Share % change (5 yrs)	-6%
	Nominal Unit Labour Costs % change (3 yrs)	+9%
Internal Imbalances	Deflated House Prices yoy % change	+6%
	Private Sector Credit Flow as % of GDP	14%
	Private Sector Debt as % of GDP	133%
	General Government Debt as % of GDP	60%
	Unemployment Rate (3-yr avg)	10%
	Financial Sector Liabilities yoy % change	16.5%

3. The Macroeconomic Imbalance Procedure

The deep impact of the crises reinforced how interlinked European economies are and, as discussed above, emphasised the shortcomings in the existing economic governance framework. As a result, the Commission, EU Council and European Parliament have undertaken a substantial reform of the rules and regulations underpinning economic decision making in the region. This has included the creation of the European Semester; a coordinated policy-making timetable which allows national policies and performance to be analysed collectively and timely guidance to be provided[4]. It has also seen a significant strengthening of the SGP which has introduced components such as country specific structural adjustment requirements, the expenditure rule, sanctions earlier in the process and the debt rule. The latter should ensure effective activation of the debt criteria[5].

More fundamentally, the crisis highlighted that there are many dimensions to stability and that without sound underlying macroeconomic and financial conditions, fiscal and external stability can prove fragile and unsustainable. As a result the third major reform of the governance framework has seen the introduction of a macro-stability element to ensure effective surveillance of competitiveness and macroeconomic developments occurs. This element, the Macroeconomic Imbalance Procedure (MIP), aims to identify and prevent internal and external imbalances before they have a harmful impact on economic activity and correct those that are already doing so. The MIP is based on a set of measurable national macroeconomic indicators grouped in a scoreboard, each of which has a threshold that should not be breached. The scoreboard indicators are neither policy targets nor policy instruments but instead are used to identify developments in Member States that may point to a risk of imbalances. The full list of indicators is shown in Table 1 and consists of five indicators of external imbalances and

Chart 4: Stages of the MIP



competitiveness, and six indicators of internal imbalances. As can be seen from the list, the indicators are a mixture of stock (e.g. debt levels) and flow (e.g. credit) variables to ensure that both problems that have already emerged and ones that may be emerging are identified. There are four main stages of the Procedure which are summarized in Chart 4.

The first step in the MIP is the publication of the Alert Mechanism Report (AMR) by the Commission. This initial stage assesses countries using the above mentioned scoreboard to identify which of them require more detailed analysis to determine if imbalances exist or not. The external indicators currently used in the scoreboard are the current account balance, net international investment position (NIIP), real effective exchange rate (REER), export market share and nominal unit labour costs (ULCs). Internal indicators used are real house prices, private sector credit flow, private sector debt, general government debt, unemployment and financial sector liabilities. The number and severity of breaches, more general economic judgement and previous MIP performance all determine which countries require more extensive

4 See Hickey (2013) for more.

5 See Federal Ministry of Finance (2012), pages 4 to 7, for a nice summary of the changes made to the Stability and Growth Pact post crisis.

analysis in the next stage of the procedure. In the latest AMR, published in November 2013, 16 countries were identified as requiring more detailed analysis[6]. This did not include Ireland, as it was in an Economic Adjustment Programme at the time and so already under enhanced surveillance. It was, however, subsequently determined that Ireland did require more detailed analysis making it the seventeenth country included in the second stage.

The AMR is intended as a type of initial screening device. Following this the second stage of the MIP involves the Commission undertaking In-Depth Reviews (IDRs) on the countries identified in the AMR as requiring more substantial analysis to determine whether imbalances exist there or if there is the risk of them emerging. This is an important stage as it allows developments to be analysed in detail and should ensure that relevant country specific factors are taken into account. In relation to Ireland, for example, issues relating to the structure of the economy which might distort certain indicators – and are discussed briefly in Section 4 - can be clarified here. An IDR can result in one of three outcomes:

- The conclusion that no imbalances or risk of imbalances exist;
- The conclusion that macroeconomic imbalances exist or could arise. In this case the Commission and EU Council provides guidance on appropriate policy responses which are embedded in the country specific recommendations and should be incorporated into national budgets[7];
- The conclusion that severe or excessive macroeconomic imbalances exist, imbalances which could jeopardise the proper functioning of Economic and Monetary Union. In this case the Commission can recommend to the EU Council that the country enter an Excessive Imbalance Procedure (EIP).

The latest IDR's were released in March 2014. These identified various level of imbalances in 14 countries[8], with 3 countries – Croatia, Italy and Slovenia – experiencing excessive imbalances.

While not explicitly stated, the MIP has a similar structure to the SGP. The AMR and IDRs represent the preventive arm of the Procedure, aiming to identify imbalances, or risks of imbalances, before they become severe, and provide policy recommendations to deal with them. The EIP, meanwhile, is the corrective arm, aiming to ensure that imbalances that jeopardise, or risk jeopardising, the proper functioning of EMU are dealt with before they become entrenched. If a member state is placed in an EIP it is obliged to submit a Corrective Action Plan, setting out details of the policies it will implement to reverse the situation and deadlines for this corrective action to take place. Enforcement measures are applicable to members of the euro area in the event of sustained failure to take corrective action. Sanctions begin with the payment of a 0.1 per cent of GDP interest bearing deposit to the European Stability Mechanism which can convert to a fine after on-going failure to comply. The EU Council will determine in the summer if the three countries identified as having excessive imbalances in the March IDR will face an EIP.

The introduction of the MIP is part of a gradual and on-going process designed to improve the economic governance structure of the EU. Having a procedure with a specific focus on macroeconomic surveillance is certainly to be welcomed. It complements the fiscal focus of the SGP and has the potential to ensure inconsistencies between economic and fiscal policies do not occur. While the large number of countries currently identified

6 These countries were Belgium, Bulgaria, Croatia, Denmark, Finland, France, Germany, Hungary, Italy, Luxembourg, Malta, Netherlands, Slovenia, Spain, Sweden, and UK. Countries in an Economic Adjustment Programme are not included in the AMR.

7 For more information on Country Specific Recommendations see Hickey (2013)

8 Belgium, Bulgaria, Finland, Germany, Netherland, Sweden and UK were seen as experiencing imbalances which require monitoring and policy action; France, Hungary, Ireland and Spain were seen as experiencing imbalances which require specific monitoring and decisive policy action; and Croatia, Italy and Slovenia were seen as experiencing excessive imbalances requiring specific monitoring and strong policy action.

as experiencing imbalances might appear to dilute the significance of the process, this is a consequence of the recent crises and numbers involved should reduce over time. What is crucial going forward is that there is strong implementation of both the 'preventive' and 'corrective' arms to ensure that full confidence in the mechanism is established and it fulfils its objectives effectively.

4. The Evolution of Imbalances in Ireland[10]

Ireland experienced a large increase in macroeconomic imbalances in the years leading up to the financial crisis. This increase is summarised in Appendix 1, which outlines developments in the country's 11 MIP scoreboard indicators from 2003 onwards. On the external side, the economy experienced a weakening in export performance from the turn of the decade as competitiveness and export market share deteriorated. On the internal side, rapid increases in house prices occurred alongside unsustainable private sector credit flows and significant growth in financial sector liabilities, resulting in accelerating private sector debt. While continued strong economic growth meant that indicators such as government debt and unemployment remained low for most of this period, underlying vulnerabilities meant both spiralled once the downturn occurred.

Two questions worth considering are (i) had the MIP been in place at the start of 2000s would these imbalances have been allowed to build up, and (ii) how have Irish imbalances developed since the crisis?

With regard to the former it is, of course, impossible to say for sure. What does seem likely, however, is that developments would have led to Ireland being subject to an IDR at some point. There was never a single year where Ireland satisfied all of the thresholds outlined in the MIP scoreboard and the number of indicators exceeding their thresholds increased steadily over time; from five in 2003 to seven in 2006. By 2004, when six of the indicators were flashing as warnings, the scoreboard identified strong growth in the REER and ULCs, emphasising the deterioration in competitiveness that would lead to sharp declines in the current account and export market share in subsequent years. It also saw private sector credit flows of greater than 20 per cent, and real house prices, private sector debt and financial sector liabilities beyond their thresholds as the property boom gathered pace. Given the lag in data, these developments would have become apparent in the 2005 IDR.

Had Ireland been subject to more detailed analysis that year it would, at the very least, have resulted in more formal external surveillance by the Commission, ensuring more attention was placed on competitiveness and credit developments. It is less clear whether this process would have resulted in Ireland entering an EIP or the extent to which the MIP would have, more generally, reduced Irish imbalances prior to the downturn. Given the performance of the SGP over this period – failing to deliver sufficient adjustment in good times, never imposing sanctions and giving countries a very long timeframe to correct their excessive deficits – it is far from certain that macroeconomic conditions would have been brought to more sustainable levels before the financial crisis struck.

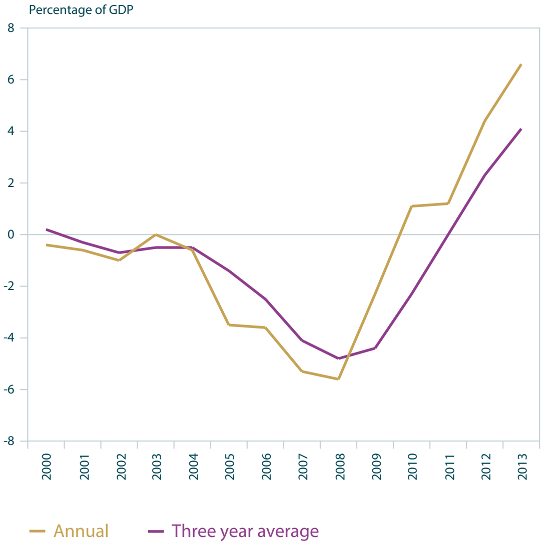
Turning to the present, it appears that five indicators remained beyond their threshold in 2013[11], down from a peak of seven in 2008. This does not fully reflect the reduction in the scale of imbalances that has taken place over this period, however. Some internal imbalances will take time to unwind from their current high levels and, as a result, require ongoing monitoring. These include imbalances that

9 The MIP and other governance reforms such as the strengthened SGP need not be thought of in isolation, but will coexist with initiatives such as the Single Supervisory Mechanism which will be monitoring financial developments.

10 For an excellent discussion of statistical issues related to the calculation of Irish MIP indicators see Cussen (2014).

11 Official MIP data is not available for all eleven of the scoreboard indicators in 2013. However, using credit data, harmonised competitiveness indicators and quarterly financial accounts produced by the Central Bank it appears that private sector credit flows, financial sector liabilities and the REER will be within their thresholds while private sector debt will remain beyond its threshold.

Chart 5: Ireland's Current Account, 2000 to 2013



Source: CSO.

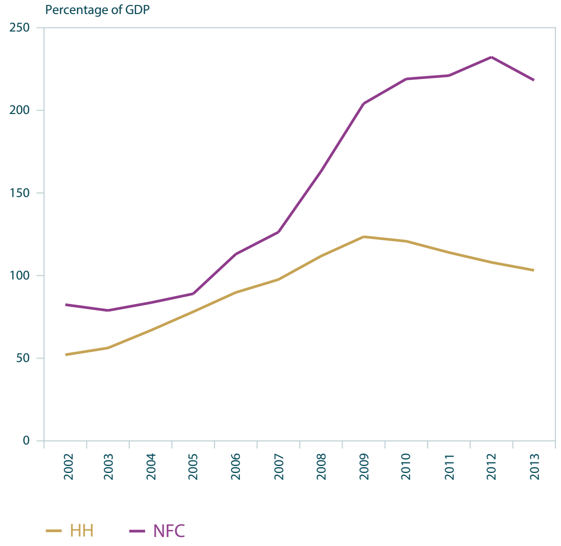
existed prior to the crises and those that have emerged as a result of the sharp downturn that occured. For reasons outlined in more detail below, meanwhile, external imbalances are currently not a significant concern.

Taking a closer look at external imbalances:

- With domestic demand contracting during the crisis and foreign trade driving growth once again, the Irish current account position has improved, moving into surplus (see Chart 5). The three-year average surplus was 4.1 per cent of GDP in 2013 and is expected to increase further in the coming years. As a result it may well surpass the upper threshold for the indicator and flash a warning for being too high. In the Irish case this is not a concern, however, as it reflects ongoing structural realignment of the economy following the crisis[12];
- This return to a current account surplus has occurred against the backdrop of improving competitiveness. The three year change in nominal Unit Labour Costs (ULCs) was sharply negative in 2011 and 2012, and continued to contract last year, regaining some of the losses made in the previous decade (the shortcomings of using nominal ULCs to assess competitiveness in the Irish context have been emphasised by the Central Bank, however they are a measure of choice used in the MIP[13]). The three year change in the real effective exchange rate, meanwhile, depreciated to such an extent in the period 2010 to 2012 that it was flashing as a warning indicator for declining too fast. This should be seen in the context of very strong appreciation prior to the crisis, however, and the Harmonised Competitiveness Indicator from the Central Bank suggests that it was back within its threshold last year;
- The net international investment position (NIIP) is highly negative, having been over 75 per cent of GDP since 2008. Developments in Ireland's NIIP are complicated by funding activities of the large multinational sector and the presence of the IFSC. In recent years, however, it has mainly been official funding related to the Economic Adjustment Programme that has been responsible for the rise in the NIIP to its current very high level. This reduces concerns about its magnitude somewhat[14].
- While continued declines in the five-year export market share is a negative development, it must be considered against a backdrop where it is contracting in most European economies (only 5 of the EU-28 recorded increases in 2013). Furthermore in annual terms Ireland's share increased in 2013 for the first time in four years and export growth is expected to be relatively robust in the coming years as it drives the Irish recovery.

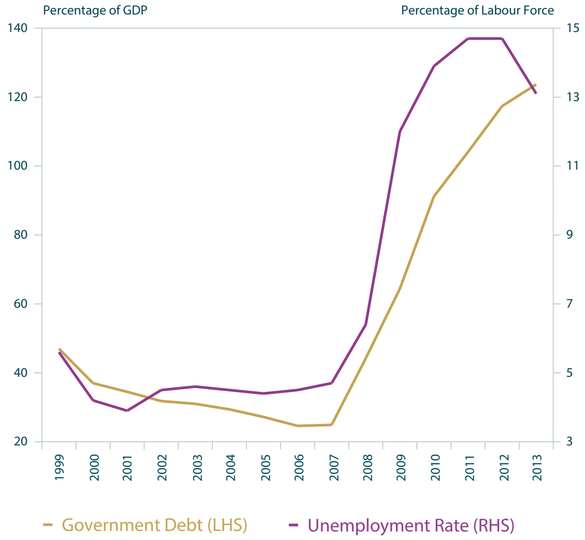
12 See European Commission (2013b) for more on current account surpluses.
13 See O'Brien (2011) for more on these shortcomings.
14 For a more detailed discussion of measurement issues relating to the Irish NIIP see Lane (2011).

Chart 6: Irish Private Sector Debt, 2002 - 2013



Source: Central Bank of Ireland.

Chart 7: Irish Unemployment and Government Debt, 1999 - 2013



Source: Eurostat.

Turning to developments in internal imbalances:

- The stock of outstanding private sector debt remains at a very high level, despite Quarterly Financial Account (QFA) data from the Central Bank showing that it declined last year (see Chart 6). As in the case of the NIIP, the large presence of multi-nationals is largely responsible for the strength of non-financial corporation debt (reflecting factors such as funding through inter-group loans and the gross reporting of intra-company positions[15]). Household debt, however, also remained very high at over 100 per cent of GDP last year, despite deleveraging having taken place in recent years;
- The general government debt position deteriorated rapidly from 2008 onwards as government revenues were negatively affected by the loss of property based taxes, and expenditure increased sharply due to government support for the financial sector and increased social payments. General government debt was a very high 123.7 per cent of GDP in 2013 and while this is expected to represent its peak, improvement is expected to occur at a gradual pace;
- The unemployment rate accelerated rapidly as economic output collapsed, peaking in annual terms at 15.1 per cent at the start of 2012. It has fallen since then but remains considerable, reaching 12 per cent in Q1 2014. While further declines in the rate are forecast by the Central Bank this year and next it will remain elevated in three-year and annual terms as the legacy of the crisis takes time to unwind;
- With the bursting of the housing market bubble in 2007, and the need for private sector agents to deleverage, house prices, financial sector liabilities and private sector credit are no longer flashing as warnings on the scoreboard. In the case of the latter, contractions occurred in three of the four years to 2012, with Central Bank credit data indicating a further decline last year. Real house prices recorded a small increase in 2013 following five years of very strong declines, while QFA data suggests financial sector liabilities recorded a small increase last year following successive annual falls.

15 See Cussen and O'Leary (2013) for a detailed discussion of these issues.

5. Conclusion

It is now clear that the economic governance framework that existed in the EU at the start of the last decade was not fit for purpose. While on the surface economic developments appeared benign for most of this period, the framework failed to deliver a sustainable improvement in the public finances or identify a significant build-up of macroeconomic imbalances. These developments left the region exposed to the financial crisis and played a direct role in the debt crisis that followed. As a result strengthening economic governance measures was one of the key priorities of policymakers in recent years with the creation of the MIP one of the main elements of this process. The crises highlighted that there are many dimensions to stability and that without sound underlying macroeconomic and financial conditions, fiscal and external stability can prove fragile and unsustainable. Accordingly, the introduction of a specific surveillance procedure for macroeconomic developments is a very welcome addition and has the potential to ensure more consistency between macroeconomic and fiscal developments. Going forward it is important that there is full implementation of both the ‘preventive’ and ‘corrective’ arms to ensure that full confidence in the mechanism is established and it fulfils its objectives effectively.

In relation to Ireland, it is impossible to know for sure whether that the existence of such a procedure would have prevented the dangerous build-up in imbalances from occurring in the previous decade. It appears likely that, at the very least, the country would have been placed in an IDR by 2005 at the latest, when six of the scoreboard indicators were flashing, including the combination of accelerating real house prices, high financial sector liability growth and very strong credit flows. This would have resulted in enhanced external surveillance from the Commission and placed more of a spotlight on competitiveness, credit and house price developments. It is less clear whether this process would have resulted in Ireland entering an EIP or, given the performance of the SGP during the priod, the extent to which the MIP would have reduced Irish imbalances prior to the financial crisis.

Turning to more recent developments there has been a reduction in the scale of imbalances since the recession. While internal imbalances are generally improving, some will take time to unwind from their current high levels. This includes both pre (high private sector debt) and post (high public debt and unemployment) crisis imbalances. External imbalances, meanwhile, are currently not a significant concern. Ireland underwent its first In Depth Review in March 2014 having exited the Economic Adjustment Programme at the end of last year. Appropriately, given the above assessment, the Commission identified Ireland as a country where imbalances 'require specific monitoring and decisive policy action'.

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Appendix 1: The MIP Scoreboard for Ireland

Indicator	Threshold	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Current Account^ (3-yr avg)	-4%/+6%	-0.5	-0.5	-1.4	-2.5	-4.1	-4.8	-4.4	-2.3	0.0	2.3	4.1
NIIP^	-35%	-20	-18	-25	-5	-20	-76	-92	-88	-112	-112	-105
REER* (3 yrs)	±5%	18.3	18.4	12.1	2.7	3.1	7.3	5.0	-5.5	-9.7	-12.2	Na
Export Market Share* (5 yrs)	-6%	26.6	12.6	5.9	-12.5	-15.7	-21.2	-5.3	-12.7	-12.2	-16.3	-8.0
Nominal ULC* (3 yrs)	+9%	12.4	10.7	13.9	12.8	13.5	16.1	9.2	-2.9	-12.7	-10.4	-3.0
Deflated House Prices*	+6%	10.1	9.2	6.5	11.9	4.2	-8.4	-12.7	-10.5	-15.4	-11.7	1.2
Private Sector Credit Flow^	14%	8.8	24.9	36.2	49.3	24	19.9	-3.8	-1.5	15.4	-1.6	Na
Private Sector Debt^	133%	155	164	187	214	219	257	281	283	301	306	Na
General Government Debt^	60%	31	29	27	25	25	44	64	91	104	117	123.7
Unemployment Rate (3-yr avg)	10%	4.3	4.5	4.5	4.5	4.5	5.2	7.7	10.7	13.5	14.4	14.2
Financial Sector Liabilities*	16.5%	23.1	20.4	35.3	20.5	10.2	6.5	2.9	6.2	-0.7	-0.7	Na

Sources: Eurostat MIP Database, Central Bank of Ireland.

^ as % of GDP; * % change (year on year unless otherwise stated)

Note: MIP consistent data is not available for all indicators for 2013. Using Central Bank of Ireland data as a proxy, however, it appears that the REER, private sector credit flow and financial sector liabilities were within their thresholds in 2013, while private sector debt continued to be above its threshold.

Note: Shaded data represent indicator that has surpassed its threshold.

Reinsurance in Ireland: Development and Issues

by Anne-Marie Kelly and Brídín O'Leary[1]

Abstract

Ireland has the second-highest number of reinsurance companies in Europe, with its asset size corresponding to over 30 per cent of GDP. The Irish reinsurance industry plays a significant role in the global market. Using aggregated company-level data, the contribution of reinsurance to the Irish economy is shown to be relatively low compared with other insurance businesses. This article examines factors which contribute to reinsurance companies locating in Ireland, and attempts to review the potential implications for the reinsurance industry from the introduction of the new EU regulatory framework, Solvency II. The financial stability considerations arising from the location of these companies in Ireland are also explored.

1 The authors are Economists in the Statistics Division of the Central Bank of Ireland. The views expressed in this article are solely the views of the authors and are not necessarily those held by the Central Bank of Ireland or the European System of Central Banks. The authors would like to acknowledge the helpful comments of Joe McNeill, Gerard O'Reilly, Rory McElligott, Terry Quinn, Mary Cussen and Caroline Gavin in the Economics Directorate, and thank Tim O'Hanrahan, Andrew Coffey, Tom Mulholland and Karl Quinn in the Insurance Supervision Directorate for their assistance with the reinsurance data.

1. Introduction

Ireland has developed into a global centre for reinsurance services and during 2012 it had the second-highest number of reinsurance companies in Europe. In addition, the size of the reinsurance sector is quite large in Ireland, with their total assets equivalent to over 30 per cent of GDP. Given the magnitude of the reinsurance sector in Ireland, an understanding of the contribution of the sector to the domestic economy and its potential risks to financial stability is crucial.

It is somewhat surprising that there is a relative absence of publicly available analysis of the structure of the reinsurance industry in Ireland and the reasons behind this industry's development. This article aims to address that gap. Section 2 provides insights into the reasons behind the evolution of the industry in Ireland. The contribution of the industry to the Irish economy, both in terms of gross value added (GVA) and employment is discussed in Section 3. Section 4 examines the implications of the introduction of Solvency II on the industry in Ireland and the growing competition from insurance-linked securities (ILS) entering the market. The potential financial stability implications arising from the location of reinsurance companies in Ireland are analysed in Section 5. Section 6 concludes.

2. Evolution of the Reinsurance Industry in Ireland

Reinsurance is a form of insurance, purchased by insurance companies to manage the risks involved with underwriting policies. Insurance companies transfer part or all of the risk to the reinsurance company and pay a premium for this service. Reinsurance contracts can be structured in a number of ways including 'sharing losses proportionally', or 'in excess of a fixed amount'.

In general, reinsurance companies can be split into two categories, both of which are present in Ireland:

- 'Captive' reinsurance companies: These are insurance companies established by a parent firm for the purpose of insuring the exposures of its parent or affiliates.
- 'Non-Captive' reinsurance companies: These provide reinsurance cover across different business risks and to a variety of clients.

There were 85 reinsurance companies operating in Ireland in 2012. These companies are predominantly foreign-owned, with only one Irish-owned captive. France was the home country for 12 of the 85 Irish-based reinsurance companies, followed by Bermuda with 10. The European headquarters and also the subsidiaries of large global reinsurance groups for many reinsurance companies are located in Ireland. Like most other countries, the reinsurance industry is relatively concentrated with the 10 largest companies accounting for 75 per cent of all premiums written in Ireland in 2012, as seen in the European Insurance and Occupational Pensions Authority (EIOPA)[2] statistics.

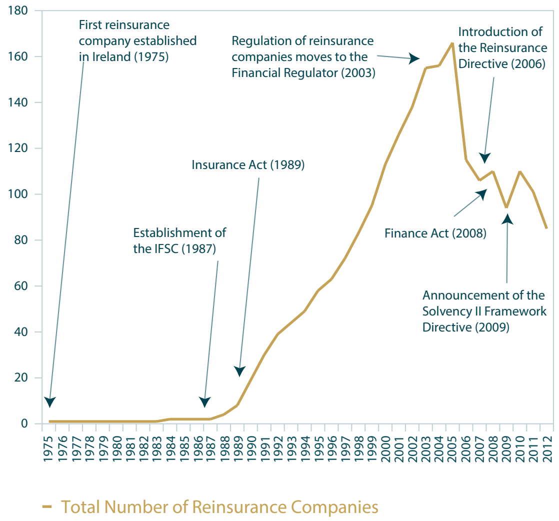
Table 1: Parent Countries of Reinsurance Companies in Ireland - 2012

Parent Country	No. of Non-Captives	Parent Country	No. of Captives
Bermuda	10	Spain	7
France	8	Germany	5
Germany	4	France	4
U.S.	4	U.S.	4
Netherlands	4	Sweden	3
Other	21	Other	11
Total	**51**	**Total**	**34**

Source: Central Bank of Ireland Supervisory Data.

2 The EIOPA statistics are available at this link: https://eiopa.europa.eu/publications/financial-stability/statistics/index.html

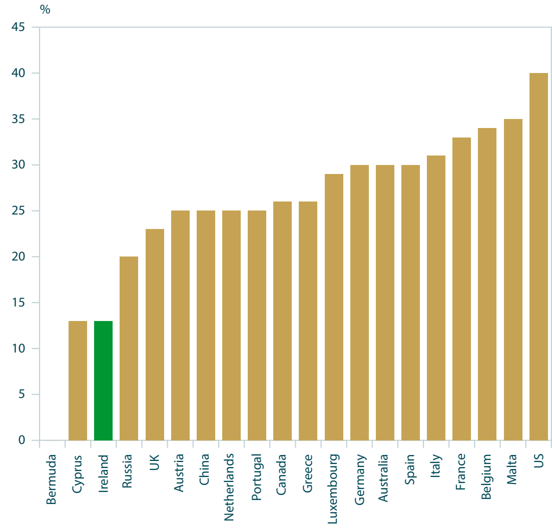
Chart 1: Number of Reinsurance Companies in Ireland



Note: IFSC in this chart represents the Irish Financial Services Centre.

Source: Central Bank of Ireland.

Chart 2: Global Corporation Tax Rates in 2013



Source: KPMG Financial Services.

The reinsurance industry is a relatively recent addition to the Irish economy, with the first company setting up its non-captive life reinsurance business in 1975 (Chart 1). The industry remained relatively small until the establishment of the Irish Financial Services Centre (IFSC) in 1987. In the decade after the formation of the IFSC, the number of companies grew from 4 to 83 companies. Some of the reasons quoted for the establishment of reinsurance business in Ireland include the tax regime, along with the Government reform of the IFSC regulations in 1999 which resulted in companies no longer being required to commit to job creation when applying for an IFSC licence. This may partly explain why the growth of the industry was not matched by an equivalent growth in employment. Since 2006, all financial companies operating in the IFSC pay corporation tax at 12.5 per cent, which remains among the most competitive in the world (Chart 2). However, this has not prevented the contraction in the number of companies operating in the industry, observed since 2005.

There was a slight increase in the numbers of Irish-based reinsurance companies operating in 2008. The introduction of the Finance Act, 2008, included changes such as some tax deductions, and the removal of value added tax payable for particular services. Ireland has also built an extensive tax treaty network, which may benefit reinsurance companies operating globally.

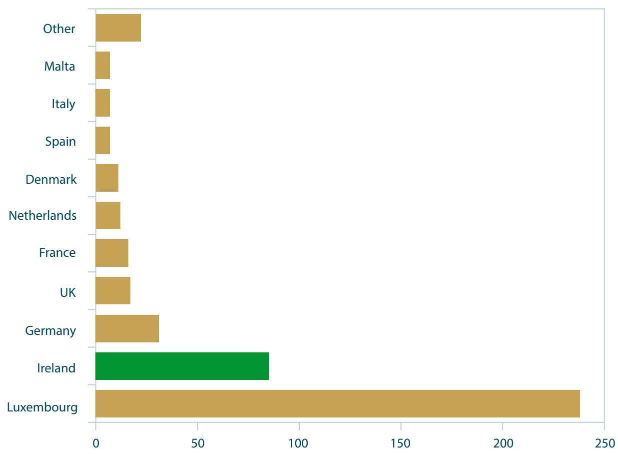
Regulation for reinsurance companies has developed significantly in Ireland over recent years. The introduction of the Insurance Act, 1989, required reinsurance companies to have full authorisation before conducting business in Ireland. During the early years, the (re)insurance industry was regulated by the Department of Enterprise, Trade and Employment. In 2003, the Central Bank and Financial Services Authority of Ireland (CBFSAI)[3] assumed responsibility for regulating the industry.

The introduction of the Reinsurance Directive 2006[4] marked a significant change to the

3 In 2010, the Central Bank of Ireland was created as a new single entity replacing the CBFSAI, which had two component entities – the Central Bank, and the Financial Regulator.

4 S.I. No. 380/2006 - European Communities (Reinsurance) Regulations 2006.

Chart 3: Number of Reinsurance Companies in Europe, 2012



Note: 'Other' includes reinsurance companies based in Liechtenstein, Austria, Belgium, Iceland, Sweden, Slovenia, Bulgaria, Cyprus, Czech Republic, Portugal, and Croatia.

Source: EIOPA Statistics.

regulatory framework in Ireland and across Europe including a new prudential regulatory framework for the supervision of reinsurance companies. This directive required the reinsurance industry to hold adequate reserves, to monitor the quality of their assets, and to ensure company solvency. It also created an onus on the companies to inform the regulator about their strategic business plans. It is likely that the introduction of this regulation forced a review of the business models of reinsurance companies in Ireland.

The 2006 directive also provided the legal framework that allowed reinsurance companies to conduct their services across the internal European market. This made it easier for companies to set up operations in a single country, and to offer their services anywhere within the EU. It was intended that this would further enhance the internal market for financial services. The change reduced the need for reinsurance companies to locate in the same country as their customer and enabled reinsurance companies to distribute their services easily across the EU under either 'freedom of establishment' or 'freedom of services' basis. These developments allowed reinsurance companies to consolidate business in a single location, which also contributed to a reduction in the overall number of companies.

Despite the recent decline in the number of reinsurance companies operating in Ireland, the industry continues to have the second-highest number of these companies in Europe as highlighted in Chart 3. At end-2012, 19 per cent of all reinsurance companies in Europe were based in Ireland, with only Luxembourg having a higher proportion at 53 per cent. On average, from 2010 to 2012, 40 per cent of the reinsurance companies based in Ireland were captives. Ireland ranked fourth for the number of captives located in a European country in 2011 (Business Insurance, 2012).

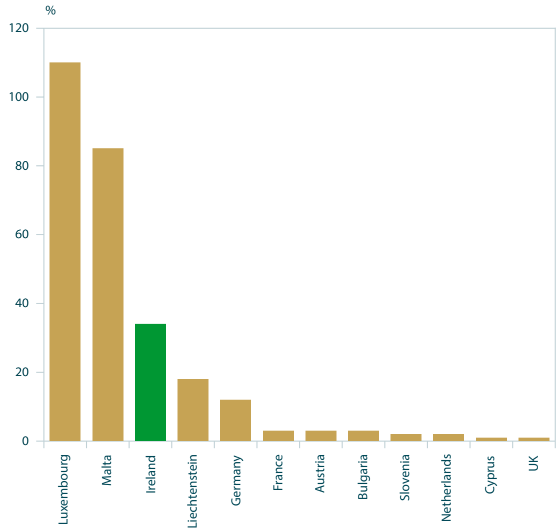
3. The Contribution of the Reinsurance Industry to the Irish Economy

This section examines the contribution to the Irish economy from the Irish reinsurance industry, in terms of a statistical estimate of its value added, the generation of employment and the payment of taxes. In 2012, on average each company had €647 million in assets, which highlights the significant balance sheet size of the industry in Ireland, totalling €55 billion at end-2012. The magnitude of the Irish industry's assets is in contrast with the estimates of the value added and numbers employed by the industry presented below.

When measured in terms of GDP, Ireland had the third-highest total assets to GDP ratio in Europe in 2012, at 34 per cent (Chart 4). It should be noted that these total assets includes funds withheld[5]. The German reinsurance industry had the largest amount of assets, at €328 billion, yet in terms of its total assets to GDP ratio, it ranked fifth in Europe in 2012.

5 'Funds withheld' represent assets that are withheld by the cedent (the insured party), which would usually be paid to the reinsurer.

Chart 4: Total Assets to GDP Ratio of Reinsurance Companies in Europe, 2012



Note: Total assets are net of the assets relating to retrocession activities. The reinsurance sector engages in retrocession when reinsurance companies insure other reinsurance companies, through the transfer of specific underwriting risks from one reinsurance company to another.

Sources: EIOPA and Eurostat.

The contribution of a sector to the Irish economy is represented as the gross value added (GVA) in the national accounting framework, used by the Central Statistics Office (CSO). The GVA of the total insurance sector (i.e. life, non-life, and reinsurance companies) in 2011 was approximately €2.5 billion (CSO, 2013). While no detailed breakdown of GVA for the reinsurance industry is available, a replication of the national accounting methodology is attempted in this article.

GVA for the reinsurance industry is calculated as the sum of each company's gross operating surplus plus wages and salaries. Gross operating surplus is a statistical concept calculated to measure profits or losses[6] in line with the international framework for the system of national accounts. It is calculated for each reinsurance company as:

Gross Operating Surplus = (Premiums – Claims) + (Net Investment Income before Deduction of Tax) – (Commission Payments) - (Net Other Operating Expenses)

Wages and salaries were estimated by multiplying the number of Irish staff and employees of reinsurance companies (and their related affiliates), by the CSO's figure for average wages and salaries for 'financial, insurance and real estate' activities[7]. This may be a lower-bound estimate as non-captives employ highly-skilled staff such as actuaries and underwriters, with high average wages. Wages and salaries were combined with gross operating surplus to get an estimated GVA for the reinsurance industry of €607 million in 2011 (Chart 5). This represented just 0.4 per cent of GDP or €133 per capita of gross value added. In 2011, the GVA of the reinsurance sector was predominantly earned from the gross operating surplus, with wages and salaries estimated to contribute only €20 million.

The Irish reinsurance industry's contribution to GVA has fluctuated between 2008 and 2012 (Chart 6). The fall in GVA between 2008 and 2010 is, in part, due to the declining number of reinsurance companies, as mentioned in Section 2. Some of the fluctuations in the GVA can also be explained by changes to the settlement date of claims, or the transfer of portfolio of claims following mergers within the industry. This contributes to the difficulties in estimating the financial sector's output, which have been well documented (Everett, McNeill and Phelan, 2013; Burgess, 2011; and Blades and Lequiller, 2006). It should be noted that while these reinsurance companies are located in Ireland, much of the GVA does not contribute to the domestic economy, as profits are repatriated out of Ireland.

Despite the reinsurance industry's balance sheet size, it is not a major contributor to employment in Ireland. The number of employees in the reinsurance industry is low, with a total number of just over 400 employees in Ireland in 2011. This reflects the wholesale nature of the business within the insurance industry. Non-captive companies tend to employ a higher number of employees than captives. Captives, by their nature, do not generally have any employees and are managed by professional service providers. In contrast, life and non-life insurance companies in Ireland

6 Gross operating surplus differs from accounting profits in that it aims to measure the surplus generated by operating activities after the labour factor input has been paid. It is the balance available to the company to "recompense the providers of own funds and debt, to pay taxes and eventually to finance all or a part of its investment" (OECD).

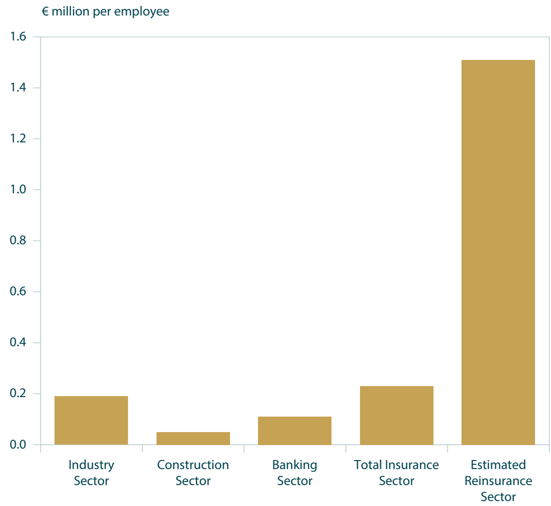
7 The wages and salaries figures used in the GVA calculation are taken from the CSO's Average Annual Survey on Earnings and Other Labour Costs for All Employees by Industry Sector and NACE code.

Chart 5: Sum of the Formula to Estimate 2011 Gross Value Added

Note: Claims includes some adjustments for miscellaneous other income.

Source: Estimated using Central Bank of Ireland Data.

Chart 7: GVA per Employee across all Business Sectors in Ireland, 2011



Sources: Business in Ireland, Central Statistics Office; and Central Bank of Ireland estimates.

Chart 6: GVA of Irish-Based Reinsurance Companies

Source: Estimated using Central Bank of Ireland Supervisory Data.

employed 12,852 in 2012 (Insurance Ireland, 2012). The reinsurance industry also contributes indirectly to the domestic economy through the purchase of services, particularly lawyers, consultants and actuaries. As with any niche sector, once a location has built up a pool of specialists, this can encourage other companies to establish operations here. This may result in further employment and taxation opportunities in the future.

An analysis of the relative size of GVA per employee, compared across different sectors is presented in Chart 7. The GVA is highest for the Irish reinsurance industry, highlighting the disproportionate contribution to GDP relative to the amount of people employed in the sector.

While the reinsurance industry's contribution to employment is very low in relation to the size of its assets, the industry contributes to the State via tax revenue, through their payment of income tax and corporation tax. The reinsurance industry paid an average of €237 million in taxes to the Irish and other countries' exchequers from 2010 to 2012. However, this represents tax paid globally, as it is not possible to separately identify how much of this was paid in Ireland.

Table 2: Summary of Solvency II Structure: Three Pillars[10]		
Pillar I	Pillar II	Pillar III
Minimum Capital Requirements	Qualitative Assessment of Internal Controls & Risk Management	Public Disclosure & Market Discipline

Source: Fitch (2014).

4. Challenges in the Reinsurance Industry

A number of pending developments may impact on the future progression of the reinsurance industry in Ireland. This section examines the opportunities and challenges to the industry as it faces two key changes: the introduction of Solvency II and the growing competition from insurance-linked securities (ILS).

4.1 Solvency II

Solvency II[8] is an EU directive that harmonises EU insurance regulation and intends to reduce the risk that an insurer would be unable to meet claims, or become insolvent. It will be introduced for the insurance sector, including reinsurance, in Ireland and other EU countries in 2016[9].

The objectives of Solvency II are to increase the protection of policyholders, minimise market disruption, and promote stability in the financial sector and broader economy. This will involve an overhaul of the current regulatory regime (Solvency I), affecting reinsurers, as well as life and non-life insurance companies. The introduction of Solvency II will mean European insurance markets must comply with an agreed set of regulatory rules, which in some cases represents a move towards a more stringent supervisory regime. Three pillars of Solvency II are listed in Table 2, each representing a different aspect of risk mitigation. The reinsurance industry will be obliged to meet the regulatory criteria outlined for each pillar. Swarup (2012) has identified some concerns about the regulatory regime that could potentially lead "to unintended consequences for the wider economy". Some of these concerns are explored in further detail below.

4.1.1 Company Size

There may be further movement towards an industry with fewer, but larger reinsurance companies in coming years. The size of a reinsurance company could influence how it is impacted by the Solvency II criteria. In particular, Solvency II may benefit larger companies, rather than smaller companies with a less diversified range of business. This is because higher compliance costs could be less burdensome for larger companies as they may be better placed to invest in the necessary changes. Also, many larger reinsurance companies are either in the process of applying, or have already implemented, the new guidelines outlined in the Solvency II framework, smoothing out any transition effects. In contrast, smaller companies are likely to have more concentrated business lines, which may make it difficult for them to achieve the same level of efficiency in their capital management. These smaller companies may, therefore, seek to benefit from merger opportunities to improve their balance sheet position and use of capital to fulfill the Solvency II criteria. Ireland has already experienced a fall of 53 per cent in the number of captives, and 32 per cent in non-captives between 2010 and 2012.

4.1.2 Use of Reinsurance to Diversify Risks

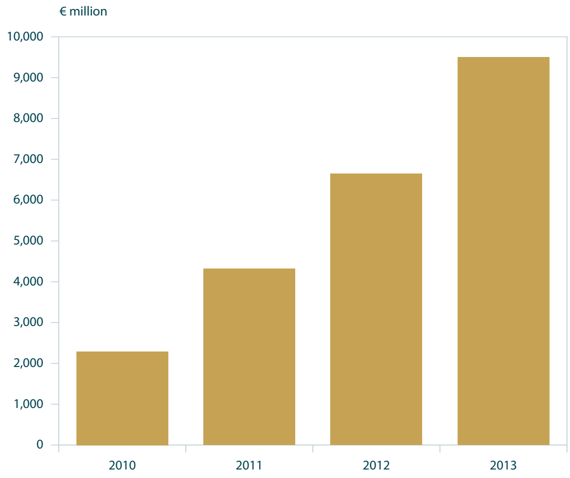
The focus on insurance companies' risk management techniques may result in

8 Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II).

9 EIOPA (2011) published the implementation date for the first application of the Solvency II regime as 1st January 2016.

10 This article does not attempt to present all details of Solvency II. Interested readers should refer to the EIOPA website on Solvency II for further details, https://eiopa.europa.eu/en/activities/insurance/solvency-ii/index.html greater demand for reinsurance cover. The effectiveness of reinsurance cover in minimising risk will depend on how the industry transfers risks and the types of products that are used. Additional demands for reinsurance services could be met by new entrants into the industry or through new forms of regulatory arbitrage and the establishment of a 'shadow insurance' sector in the same way that the shadow banking sector has developed. These shadow insurance companies could, in effect, engineer instruments with similar pay-out structures as the contracts offered by reinsurance companies, but would operate outside of the standard insurance regulatory regime, discussed in more detail in Section 4.2.

Chart 8: Global Issuance of Catastrophe Bonds



Source: Bloomberg Data.

4.1.3 Impact of Equivalence

Solvency II will require reinsurance companies to assess the default risks of the reinsurance companies they use when reinsuring some of their own risks. This process will be easier for companies that have contracts with companies based in the EU or countries where the regulatory regime is deemed 'equivalent' with the EU. Equivalence will result in all contracts being treated the same. In the situation where equivalence does not exist, further European level group supervision will be required. Many countries, such as Bermuda and Switzerland, have achieved Solvency II equivalence between their regulatory regimes and the EU's. Although the number of US reinsurance companies located here are relatively small, it has yet to agree an equivalence regime with the EU, and "this is likely to have significant risk management, data, and system implications" (KPMG, 2011).

4.2 Insurance-Linked Securities

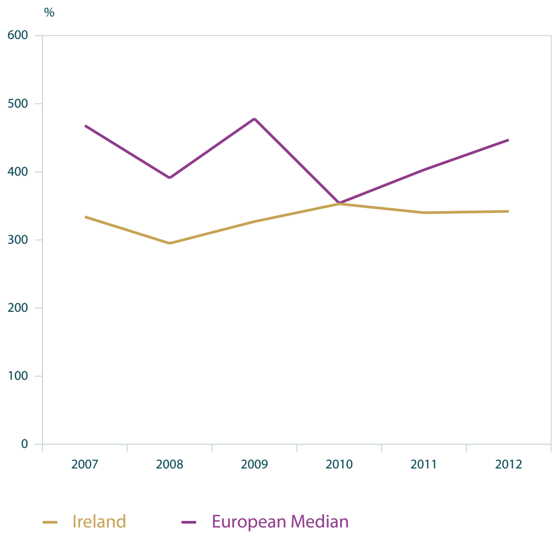
The development of insurance-linked securities (ILS) and other investment vehicles, issuing for example catastrophe, or 'cat', bonds, has led to increased competition for the reinsurance industry. Cat bonds are issued by (re)insurance special purpose vehicles, to cover losses in the event of natural disasters. Cat bonds allow the (re)insurance company to transfer some of the risk of catastrophic events onto investors, as some or all of the loss is covered by premiums and the principal amount of the cat bond.

Reinsurance companies in Ireland, and around the world, are facing greater competition as new investors are making it increasingly attractive for insurance companies to issue cat bonds directly to the markets. The demand for these bonds is being driven by hedge funds, investment banks, private equity, and other investors. These are entering the market to take advantage of the uncorrelated financial market risk, and the relatively high rates of return offered by these bonds. New issuance and outstanding volumes of cat bonds are at record high levels and since 2010, there has been a global increase in cat bond issuance of 314 per cent (Chart 8).

There has been an influx of capital into this sector, putting downward pressure on the reinsurance industry's prices, as shown by PWC (2012). As a result, the reinsurance industry was unable to increase prices to recoup the costs of the natural catastrophes that occurred in 2011. According to McKinsey (2013), "16 per cent of the approximately $300 billion in catastrophe reinsurance capacity worldwide is provided by third-party capital", posing a serious competitive threat to the industry. This could result in reinsurance company closures and mergers in Ireland, as the industry adjusts to lower prices. It should be noted that the stability of this source of capital is yet to be tested, as an increase in interest rates or large catastrophe losses could see an outflow of capital from the insurance industry.

Many reinsurers have also begun to issue cat bonds in specific circumstances as this offers them an opportunity to combine their experience of risk analysis with new financial products. Reinsurance companies issue cat bonds using vehicles known as 'sidecars'[11]. Sidecars are generally concentrated in the property catastrophe retrocession market, and are unlikely to enter into longer-term casualty reinsurance lines such as general liability lines[12].

Chart 9: Reinsurance Industry Solvency Ratio: Ireland and European Median



Source: Estimated using EIOPA data. The European Median is calculated using estimates for 13 European countries.

5. Reinsurance Companies and Financial Stability

The opportunities and challenges from the introduction of Solvency II and the growing demand for ILS will impact the reinsurance industry. Given this, it is important to consider the potential effects on Irish financial stability caused by the collapse of a reinsurance company, and the factors that should be taken into consideration in an assessment of financial stability. The financial stability risks are examined under several categories in this section, including the health of the sector (e.g. solvency ratios, profitability, and technical reserves), the impact of a low interest-rate environment, and systemic risk.

5.1 Health of the Reinsurance Sector

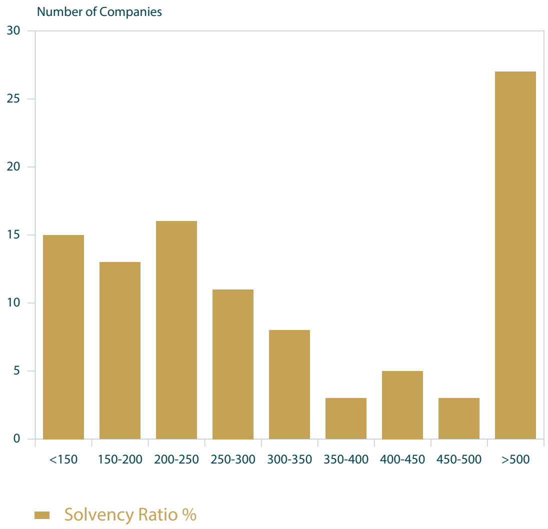
The solvency ratio can be an indicator of the health of the reinsurance industry. It determines the ability of a company to stay solvent and its ability to meet its financial obligations and claims. It is a measure of the ratio of the available solvency margin[13] relative to the required regulatory solvency margin. The Central Bank of Ireland requires all direct writers to maintain capital of at least 150 per cent of the calculated Required Minimum Solvency Margin or 100 per cent of the Minimum Guaranteed Fund. In Ireland, the solvency ratio for reinsurers stood at 342 per cent in 2012, with the majority of reinsurance companies in Ireland strengthening their solvency ratio since 2008. The median of European reinsurance solvency ratios is more volatile than Ireland's ratio which has been trending upwards for a number of years. Captives tend to operate at a lower level of solvency compared with non-captives, which have higher margins. The large number of captives operating in Ireland may, therefore, push the average solvency ratio downwards.

11 Sidecars are special-purpose reinsurers that provide dedicated collateralised quota-share reinsurance, often for a single ceding company that transfers a proportion of its underwriting risk (and relative capital investment), and in turn receives a ceding commission.

12 Liability lines insurance protects an individual/business from being legally liable for the injuries of others.

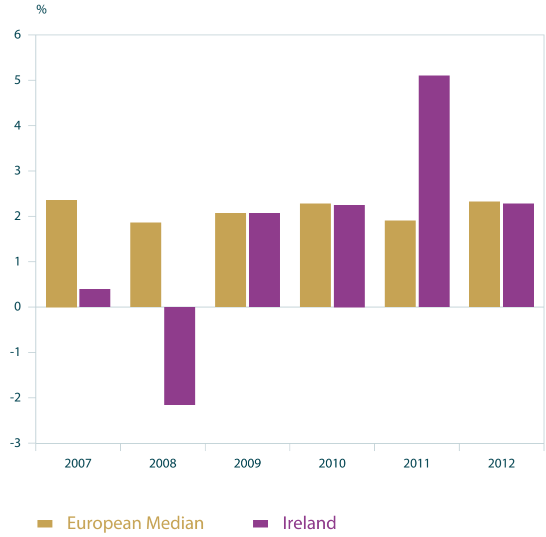
13 Available solvency margin is the difference between the value under the regulatory measurement of the eligible capital held by an insurer, and the sum of the values under regulatory measurement of the obligations.

Chart 10: Distribution of Reinsurance Companies in Ireland by Solvency Ratio, 2011



Source: Central Bank of Ireland Supervisory Data.

Chart 11: Profit/Loss to Total Balance Sheet Assets Ratio of Reinsurance Companies



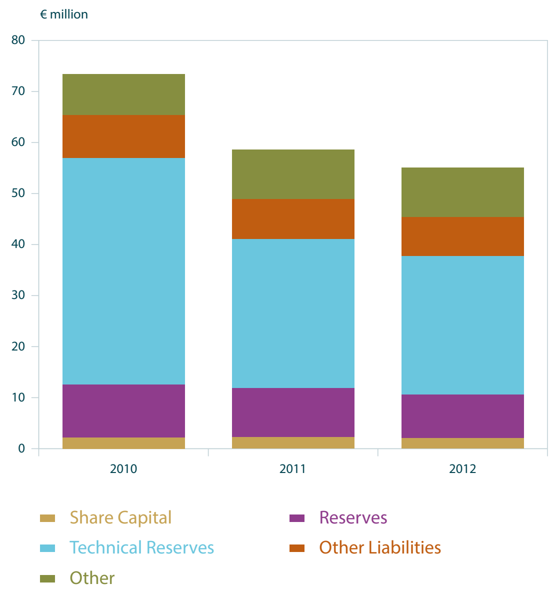
Source: EIOPA.

In order to further analyse the solvency position of the Irish reinsurance industry, the distribution of solvency ratios across all Irish-based reinsurance companies is presented in Chart 10. The capital management practices in the industry appear fragmented with a large number of companies maintaining capital far in excess of the required solvency (i.e. > 500 per cent). The companies with a solvency ratio in excess of 500 per cent are concentrated in the non-captive business, which generally have large operations and retain wider margins, which are held as a buffer for unforeseen expenses/losses. Other reinsurance companies maintain more modest solvency ratios, with smaller reinsurance companies typically holding a solvency ratio below 150 per cent.

The strength of the reinsurance industry can also be analysed using profitability ratios (Chart 11). Irish-based reinsurance companies collectively made a profit in every year from 2007 to 2012, with the exception of 2008. Profits remained broadly in line with the European norms from 2009 to 2012, with the exception of 2011 when the Irish industry reported exceptionally large profits primarily due to one-off items.

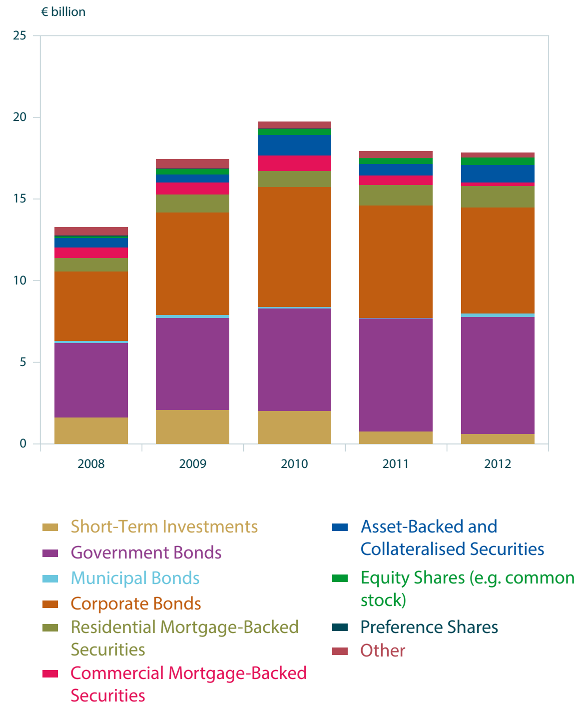
The amount of gross technical reserves on a reinsurer's balance sheet is an indication of its ability to withstand claims, both anticipated and otherwise. While the overall balance sheet size of Irish-based reinsurance companies has fallen between 2010 and 2012, the share of liabilities held in gross reserves have fallen more sharply (Chart 12). Irish-based reinsurance companies held 78 per cent of total liabilities in reserves and technical reserves in 2010, but this fell to 66 per cent in 2011, and 65 per cent in 2012. The ideal level of gross reserves changes from company to company, depending on the size of their operations and the business lines written. However, reinsurance companies should aim to hold, at a minimum, the expected claims from the level of their underwritings plus a risk margin. Diminishing reserves could be as a result of the release of reserves by reinsurance

Chart 12: Irish-Based Reinsurance Companies' Liability Structure



Source: Central Bank of Ireland Supervisory Data.

Chart 13: Total Irish Reinsurance Industry's Investment Assets by Categories



Source: Central Bank of Ireland Supervisory Data.

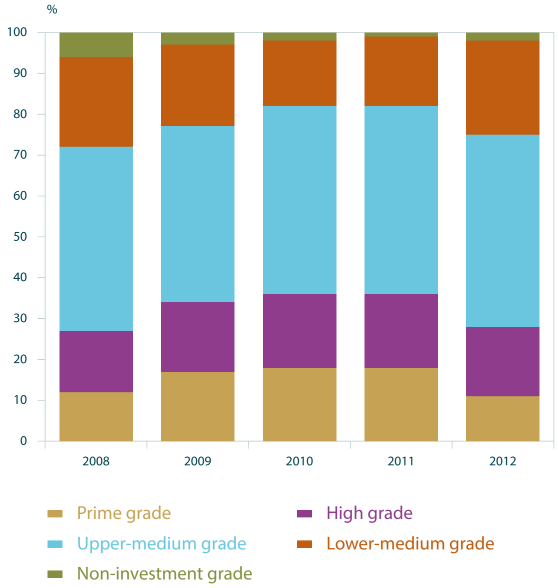
companies to maintain steady profit levels given the competitive, low-yield environment they are faced with. This means some reinsurance companies may release technical reserves into profit, ensuring profit levels remain unchanged from year to year. In a survey of 30 global non-life insurers, including reinsurers, it was found that "industry underwriting profitability would have been 4.1 percentage points lower if not for the reserve releases" (Central Bank of Ireland, 2013). Releasing reserves is not a sustainable profit base for (re)insurers, as an increase in the competitive environment, or a continuation of the low interest-rate environment could put further pressure on its reserve levels and on profitability.

5.2 Low Interest-Rate Environment

The reinsurance industry maintains large financial investments to help ensure adequate funding to cover claims and other expenses. Therefore, it is vulnerable to changes within the financial system, such as changes in interest rates. In the light of the current low interest-rate environment, the industry faces lower investment returns which, "complicates asset-liability management" (BIS, 2011). As the industry also faces downward pressures on demand, prices and underwriting profitability, increased reliance is placed on investment income to maintain overall profitability. As a result of this, reinsurance companies could be forced to re-allocate assets in their portfolios, as prolonged periods of low interest rates reduce returns on traditionally 'safe' financial assets. A potential downside of this asset reallocation is that investments could switch towards higher-yielding assets, which may not offer stable returns. This would change their associated risk profile, and could lead to (un)realised investment losses in the event of changes to the interest rate.

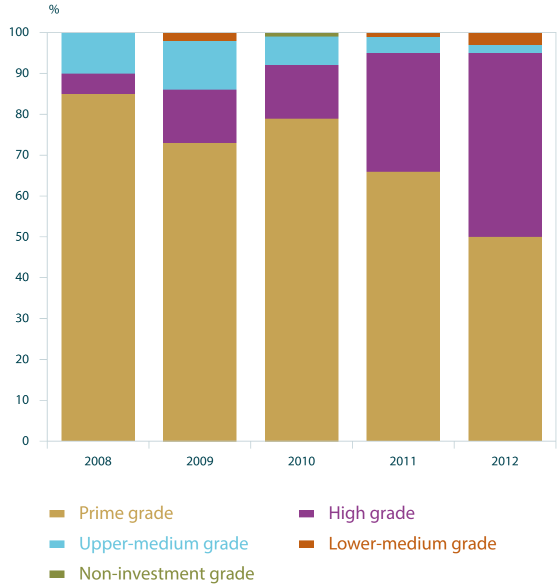
Reinsurance industry investment assets, broken down by category from 2008 to 2012 are presented in Chart 13. It can be clearly seen that the two largest investment categories for reinsurance companies are government bonds and corporate bonds. Total investment holdings increased between 2008 and 2010, before experiencing a fall in 2011 and 2012.

Chart 14: Percentage Breakdown of Irish-Based Reinsurance Sector's Corporate Bonds by Grades



Source: Central Bank of Ireland Supervisory Data.

Chart 15: Percentage Breakdown of Irish-Based Reinsurance Sector's Government Bonds by Grades



Source: Central Bank of Ireland Supervisory Data.

In the context of movements within asset categories, holdings of corporate bonds and government bonds by grade, from 2008 to 2012, are analysed. Between 2010 and 2012, reinsurance companies increased their holdings of riskier grade corporate bonds, as there was a shift in holdings of prime grade to lower-medium grade corporate bonds with the former declining by 7 percentage points, and the latter rising by 6 percentage points (Chart 14)[14]. Irish-based reinsurance companies' holdings of prime grade government bonds decreased by 35 percentage points, while their holdings of high grade government bonds increased by 40 percentage points between 2008 and 2012 (Chart 15). This reflects either movements between holdings of prime and high grade government bonds, or downgrades of the prime sovereign held by these reinsurance companies. The movements between grades in holdings of corporate and government bonds are influenced by many major events, including the low interest-rate environment, the introduction of Solvency II, and changes to the international accounting standards, which "are expected to affect investment decisions and influence investment horizons" (BIS, 2011).

Data analysed in Chart 14 and Chart 15 show that the asset portfolio of these reinsurance companies has worsened in terms of grades between 2008 and 2012. As stated above, the reasons may include the downgrading of existing assets or a search for higher yield. However, Becker and Ivashina (2013) states that insurance portfolios "exhibit a strong preference for safer bonds", while showing a bias towards higher yields. This can be seen in most of the movements in the large investment categories of reinsurance companies, as they increase holdings of high and upper-medium grade investments, while maintaining investment grade status. However, the overall portfolio of Irish-based reinsurance companies remains conservative, with changes largely taking place within asset grades rather than switching to new assets.

14 For this analysis, the ratings correspond to the following by Standard & Poor's, and Fitch: Prime grade: AAA; High grade: AA+ to AA-; Upper-medium grade: A+ to A-; Lower-medium grade: BBB+ to BBB-; and Non-investment grade: BB+ to BB-. Note: These ratings are also comparable to AM Best and Moody's categories of credit grade ratings.

5.3 Systemic Risk

The ownership and funding of Irish-based reinsurance companies is predominantly foreign. The majority of reinsurance business by companies located in Ireland relates to foreign risk, with the amount of Irish risk exposure limited. As a result, assessments of global systemic risks relating to the reinsurance industry are required. These are regularly undertaken by EIOPA[15] and the International Association of Insurance Supervisors (IAIS)[16]. In general, systemic risk is inherent to the industry and is extremely difficult to remove, with changing market conditions not only affecting the reinsurance industry, but systemically affecting the overall insurance sector and many other sectors with which it has links. The Financial Stability Board has identified large insurers known as the globally systemically important insurers (G-SIIs), which could potentially pose a systemic risk in the future. Some Irish reinsurance companies are part of these global insurance groups. These companies are required to enter into enhanced group-wide supervision by the end of 2014, with a recovery and resolution plan to be developed over the next couple of years.

Conclusion

Ireland continues to be a prime location for reinsurance companies. However, since its peak in 2005, there has been a reduction in the number of these companies operating in Ireland, due to forthcoming changes in regulation and competition from alternative financial products. The GVA of reinsurance companies in the Irish economy is shown to be low compared with the sum of life and non-life insurance activities. This article highlighted some financial stability risks arising from pending regulatory changes, increased competition and a low interest-rate environment. However, the risks to domestic financial stability are limited, as the reinsurance business is predominantly with non-residents.

15 The EIOPA Financial Stability Reports are available at this link: https://eiopa.europa.eu/publications/financial-stability/index.html

16 The IAIS publishes financial stability, macro-prudential policy and surveillance reports on its website at this link: http://www.iaisweb.org/Supervisory-Material/Financial-Stability-Macroprudential-Policy-Surveillance-988

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Statistical Appendix

Statistical Appendix

The publication of the Statistical Appendix of the Quarterly Bulletin was discontinued from Quarterly Bulletin 1 2014. Statistical data compiled by the Central Bank are accessible on the Statistics page of the Central Bank's website, http://www.centralbank.ie/polstats/stats/Pages/default.aspx. Some tables, previously published in the Statistical Appendix, have been expanded to provide more comprehensive data. A number of statistical tables, which were not published in earlier Bulletins, have also been added.

The list of statistical tables and links to access them on the website are given on the following page.

STATISTICAL TABLES: CENTRAL BANK WEBSITE LINKS

Money and Banking:
http://www.centralbank.ie/polstats/stats/cmab/Pages/Money%20and%20Banking.aspx
- Summary Irish Private Sector Credit and Deposits
- Financial Statement of the Central Bank of Ireland
- Credit Institutions – Aggregate Balance Sheet
- Credit Institutions (Domestic Market Group) – Aggregate Balance Sheet

Business Credit and Deposits:
http://www.centralbank.ie/polstats/stats/cmab/Pages/BusinessCredit.aspx
- Credit Advanced to Irish Resident Private-Sector Enterprises
- Deposits from Irish Resident Private-Sector Enterprises

Private Household Credit and Deposits:
http://www.centralbank.ie/polstats/stats/cmab/Pages/HouseholdCredit.aspx
- Credit Advanced to and Deposits from Irish Private Households

Money Market Funds:
http://www.centralbank.ie/polstats/stats/cmab/Pages/MoneyMarketFunds.aspx
- Money Market Funds Aggregate Balance Sheet
- Money Market Funds Currency Breakdown of Assets

Retail Interest Rates:
http://www.centralbank.ie/POLSTATS/STATS/CMAB/Pages/Retail%20Interest%20Rate%20Statistics.aspx
- Retail Interest Rates - Deposits, Outstanding Amounts
- Retail Interest Rates - Loans, Outstanding Amounts
- Retail Interest Rates and Volumes - Loans and Deposits, New Business
- Official and Selected Interest Rates

Investment Funds:
http://www.centralbank.ie/polstats/stats/investfunds/Pages/data.aspx
- Ireland: Investment Funds Data

Securities Issues:
http://www.centralbank.ie/polstats/stats/sis/Pages/Issues.aspx
- Securities Issues Statistics

Financial Vehicle Corporations:
http://www.centralbank.ie/polstats/stats/fvc/Pages/data.aspx
- Irish Financial Vehicle Corporations

Locational Banking Statistics:
http://www.centralbank.ie/polstats/stats/locational/Pages/data.aspx
- Total Positions of Banking Offices Resident in Ireland vis-a-vis Residents and Non-Residents

Quarterly Financial Accounts:
http://www.centralbank.ie/polstats/stats/qfaccounts/Pages/Data.aspx
- Financial Accounts for Ireland Quarter 1, 2002 – present

Public Finances and Competitiveness Indicators:
http://www.centralbank.ie/polstats/stats/sis/Pages/SecuritiesHoldingsStatistics.aspx
- Gross National Debt
- Holdings of Irish Government Long-term Bonds

http://www.centralbank.ie/polstats/stats/Pages/hcis.aspx
- Nominal and Real HCIs

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