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# Q4

Central Bank Quarterly Bulletin



Banc Ceannais na hÉireann  
Central Bank of Ireland  
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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. Updates of selected Tables from the Statistical Appendix, concerning monetary and financial market developments, are provided in *Money and Banking Statistics*. Data on euro exchange rates are available on our website at [www.centralbank.ie](http://www.centralbank.ie) and by telephone at 353 1 2246380.

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## Forecast Summary Table

	2011	2012	2013	2014 <sup>f</sup>	2015 <sup>f</sup>
<b>Real Economic Activity</b>					
(% change)					
Personal consumer expenditure	-1.2	-1.2	-0.8	1.4	1.6
Public consumption	-2.1	-2.1	1.4	-1.7	-1.1
Gross fixed capital formation	-2.9	5.0	-2.4	11.9	9.2
<i>of which:</i> Building and construction	-15.1	-1.3	14.1	11.9	9.1
Machinery and equipment	1.5	-2.1	1.8	17.7	14.8
Exports of goods and services	5.5	4.7	1.1	7.3	5.1
Imports of goods and services	-0.6	6.9	0.6	6.3	4.8
Gross Domestic Product (GDP)	2.8	-0.3	0.2	4.5	3.4
Gross National Product (GNP)	-0.8	1.9	3.2	4.9	3.1
<b>External Trade and Payments</b>					
Balance-of-Payments Current Account (€ million)	2,001	2,698	7,634	11,832	12,408
Current Account (% of GDP)	1.2	1.6	4.4	6.4	6.4
<b>Prices, Costs and Competitiveness</b>					
(% change)					
Harmonised Index of Consumer Prices (HICP)	1.2	1.9	0.5	0.6	1.2
<i>of which:</i> Goods	1.5	1.9	-0.4	-1.4	0.0
Services	0.8	1.9	1.6	2.6	2.5
HICP excluding energy	0.0	0.9	0.6	0.7	1.2
Consumer Price Index (CPI)	2.6	1.7	0.5	0.4	1.1
Nominal Harmonised Competitiveness Indicator (Nominal HCI) <sup>a</sup>	0.8	-4.0	3.1	n.a.	n.a.
Compensation per Employee	1.2	0.7	2.0	1.8	1.8
<b>Labour Market</b>					
(% change year-on-year)					
Total employment	-1.8	-0.6	2.2	1.6	1.7
Labour force	-0.9	-0.6	0.4	-0.8	0.8
Unemployment rate (ILO)	14.6	14.6	13.1	11.1	10.3
<b>Technical Assumptions<sup>b</sup></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 <sup>c</sup> (3-month fixed)	1.39	0.57	0.22	0.21	0.09

<sup>a</sup> Based upon the annual change in the average nominal HCI.

<sup>b</sup> The technical assumption made is that exchange rates remain unchanged at their average levels in mid-September. Oil prices and interest rates are assumed to move in line with the futures market.

<sup>c</sup> 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](http://www.euribor.org).

## Comment

The recovery in the Irish economy has gained momentum and is broadening, though the underlying strength of the economy is less than that suggested by the recent exceptionally buoyant Quarterly National Accounts data. However, while the latest year-on-year headline growth rate overstates the scale of the improvement in economic performance, the evidence from a range of other data indicates that the recovery has strengthened and is becoming more balanced. Encouragingly, the domestic economic recovery has become more broad-based, supported by gradually improving employment and incomes. Against this background, consumer spending is growing and, allied to strong growth in investment spending, domestic demand is set to contribute positively to growth in 2014, for the first time since the downturn.

The first half of 2014 has also seen a very strong acceleration in recorded export growth. This reflects the positive effect of stronger growth in trading partner countries, some recovery in the output and exports of the pharmaceutical sector, as the impact of patent expirations eases, but also, significantly, the impact of methodological changes recently introduced in the National Accounts. As a result of these changes, goods owned by an Irish entity that are manufactured in and shipped from a foreign country are now recorded as Irish exports.

Looking ahead, reflecting the strong performance of exports in the first half of the year, favourable external demand conditions and a further easing in the impact of the patent cliff on pharmaceutical exports, the outlook for export growth in 2014 has been revised up significantly as compared to the forecasts contained in the last Bulletin. For next year it is assumed that exports will largely grow in line with demand in trading partner countries which, while still generating a strong growth rate, would represent a slowdown in export growth as compared to 2014. On the domestic side, reflecting the stronger first-half performance and a gradually improving outlook, the forecasts for consumer and investment spending for 2014 and 2015 have also been revised higher. While further growth in employment should stimulate some increase in household incomes, high unemployment

and debt levels remain headwinds to any strong recovery in consumer spending.

Largely as a result of the strong upward revision to the export projections, the outlook for GDP growth in 2014 has been raised significantly as compared to the forecasts published in the previous Bulletin. GDP growth of 4.5 per cent is now projected for this year, an upward revision of 2.0 per cent relative to the previous projection, while the forecast for GNP growth of 4.9 per cent is also correspondingly higher. A much smaller revision is being made to our forecasts for 2015, for which GDP growth of 3.4 per cent and GNP growth of 3.1 per cent are forecast, just 0.1 per cent and 0.4 per cent higher than the projections contained in the previous Bulletin.

Turning to policy issues, since exiting the EU/IMF Programme, Ireland has benefitted from signalling that it will continue along the path of consolidation and adjustment. In the absence of external oversight, markets will look more closely to ensure that Ireland continues to build on the achievements of recent years. Further progress in policy implementation across a range of areas will be crucial in order to reduce vulnerabilities and ensure a sustainable return to steady growth.

With respect to the public finances, reflecting the improvement in the economy, Exchequer

data have been favourable. Tax revenues have grown ahead of target and expenditure has remained broadly on track which, when combined with the projected higher level of nominal GDP, leaves the 2014 General Government Deficit on course to come in well below target. While this provides a favourable background to Budget 2015, it is important to stress that a 3 per cent deficit-to-GDP ratio is not an end-point. Budget 2015 will be the first in a series of post-Troika budgets that will need to ensure that Ireland moves progressively towards meeting the medium-term budgetary objectives. In the short-term, it would be advisable to take advantage of temporary revenue surges to reduce debt more quickly, thereby easing the vulnerability that continues to result from the overhang of indebtedness. Thus, doing more than the minimum necessary and bringing the budget deficit comfortably below 3 per cent of GDP in 2015 would provide an important buffer to guard against adverse shocks. This first post-programme Budget offers the opportunity to further solidify Ireland's reputation for creditworthiness. It is important that this opportunity is taken. Beyond 2015, it is imperative to facilitate the return of the economy to lower and safer levels of public debt. Securing debt sustainability through a sequence of primary surpluses is necessary to underpin a more durable recovery. Just as unexpectedly unfavourable developments resulted in unwanted increases in public debt in recent years, windfall revenue gains should be employed to reduce that debt.

In the banking sector, liquidity and funding positions are continuing to improve and are returning to a more sustainable profile. Bank profitability is also continuing to show signs of recovering. The key issues, however, revolve around making further progress in dealing with the resolution of impaired loans, which continues to cloud the sector as it deleverages. Using the 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 third successive quarter, although there continues to be some migration of loans into the very long-term arrears category. The Central Bank will continue to work to ensure that banks and mortgage borrowers in arrears move to conclude durable solutions. The Bank also continues to monitor and audit the progress of banks in resolving arrears in relation to commercial and SME portfolios. While challenging, progress is being made and the balance sheets of banks and their borrowers are gradually being repaired.

Although, with overall lending volumes still low, bank credit has not been the main driver of the recent surge in Dublin property prices, lenders will need to exercise prudence in mortgage lending standards.

Turning to competitiveness, it is important to ensure not only that the gains made in recent years are maintained but that there continues to be further improvement in Ireland's competitiveness. To the extent that price and wage developments over the past five years have been a cyclical response to economic weakness rather than to structural changes in the economy, there is the risk that a stronger than expected recovery exerts pressure for a rebound in wages and prices. This must be resisted. Despite low levels of inflation in recent years, Ireland remains a relatively high cost location in terms of the broad cost environment. While gaining momentum, Ireland's economic recovery is still at an early stage. A strong external performance will remain central to ensuring a sustainable return to steady growth and rising living standards in the future. Further improvements in productivity and competitiveness would boost Ireland's growth potential and support continued employment growth.

# The Domestic Economy

## Overview

- A rise in the volume of GDP of 4.5 per cent is projected for this year, reflecting a stronger than previously expected contribution from net exports and improved prospects for domestic demand. Growth is forecast to ease back to 3.4 per cent in 2015, with domestic demand being the key driver as net exports make a smaller but still positive contribution. GNP growth of 4.9 per cent is expected in 2014, while a rise of 3.1 per cent is forecast for 2015.
  - The upward revision in our forecasts for 2014 are driven in part by a stronger than expected export performance reported for the year thus far. It is yet to be seen whether the sharp increase in exports, which also partly reflects methodological changes recently introduced in the National Accounts, is a transitory or fundamental change in the nature of export activity. Import growth has also been revised upwards. Given the scale of the changes, the degree of uncertainty around the forecasts for net exports is relatively high. Export and import growth are both projected to moderate next year, predicated on Irish exports responding to rising world demand consistent with historical norms.
  - Domestic demand is set to contribute positively to growth for the first time since 2007. Consumer spending, particularly on goods, grew strongly in the second quarter even when excluding the purchase of cars which has been driving overall retail sales. Investment growth has been supported by higher machinery and equipment outlays and strong increases in R&D investment, which now accounts for a third of total investment. Overall the forecasts for consumption and investment growth are projected to lead to a 2.9 per cent rise in domestic demand in 2014.
  - Gradually improving employment and incomes are projected to support a strengthening in consumer spending this year (1.4 per cent) and next (1.6 per cent).
- While still remaining strong, investment growth is forecast to ease next year as underlying machinery and equipment, building and construction and R&D increase at a slower pace, although a high degree of uncertainty attaches to the profile of investment growth, particularly given the new R&D component.*
- The recovery in the labour market has taken on a different trajectory this year compared to last, with employment growth slowing in the first half of the year following very strong growth in 2013. Labour market dynamics this year and next are likely to be more conventional than in 2013, with the projected drivers of final demand being less employment intensive. On the basis of a more muted increase in labour force participation over the forecast horizon, annual employment growth is expected to moderate to about 1.7 per cent on average in 2014 and 2015, bringing unemployment to an average rate of 11.1 per cent this year, with a further reduction to about 10.3 per cent in 2015.
  - External factors such as subdued commodity price growth and a relatively strong exchange rate continue to weigh on headline inflation. In line with futures prices, the dampening influence of external factors is expected to gradually ease over the forecast horizon. Domestically generated inflation remains somewhat higher, and this is likely to continue given the sustained recovery in domestic economic conditions envisaged in this Bulletin. Overall, inflation is expected to be marginally higher this year and next than forecast in our previous Bulletin, but is likely to be broadly in line with the euro area average over the horizon, with the HICP expected to increase by 0.6 per cent in 2014 and 1.2 per cent in 2015.

## Demand

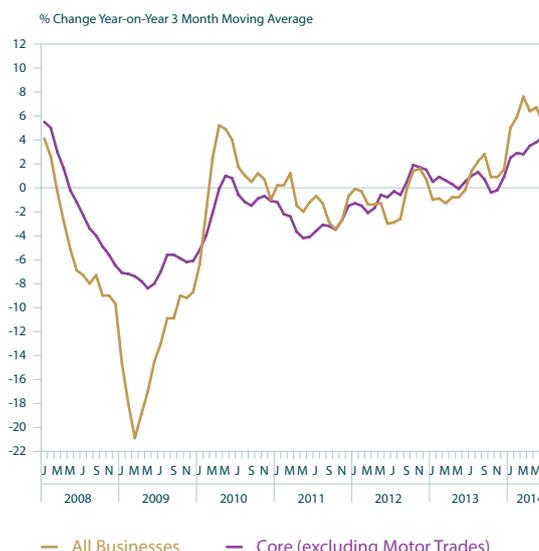
### Consumer spending

Consumer spending in 2014 is set to record positive growth for the first time since 2010 given data in the first half of the year. The most recent Quarterly National Accounts showed that personal consumption increased for a second successive quarter in the April-June period, with seasonally adjusted growth of 0.3 per cent. The CSO also revised the estimated growth rate in the first quarter up from a slight contraction to modest growth. Overall, personal consumption expenditure was up 1.2 per cent annually in the first half of the year (the strongest half-yearly rate of growth since 2008).

The strengthening in consumer spending has also been evident in other indicators. Seasonally adjusted retail sales grew by 1.6 per cent in the most recent quarter to end-July helped in part by stronger car sales. When motor trades are excluded, retail sales grew by 1 per cent over the same period. The monthly Exchequer tax numbers also indicate a rebound in consumer spending with indirect taxes and notably VAT receipts recording sizable year-on-year increases.

While the outlook for the labour market is slightly weaker relative to the previous *Bulletin*,

Chart 1: Index of Volume of Retail Sales



Source: CSO.

expectations for average earnings growth have been revised upwards, based on the composition of employment growth – notably the rise in full time employment. Levels of activity in the housing market are also projected to strengthen over the forecast period, which should provide further impetus to spending on consumer durables in the latter part of 2014 and into 2015.

Table 1: Expenditure on Gross National Product 2013, 2014<sup>f</sup> and 2015<sup>f</sup>

	2013			2014 <sup>f</sup>			2015 <sup>f</sup>
	EUR volume price	% change in		EUR volume price	% change in		EUR
	millions			millions			millions
Personal Consumption Expenditure	83,334	1.4	1.4	85,684	1.6	1.5	88,360
Public Net Current Expenditure	25,956	-1.7	1.6	25,922	-1.1	1.0	25,884
Gross Domestic Fixed Capital Formation	26,541	11.9	1.4	30,108	9.2	1.0	33,194
<i>Building and Construction</i>	10,996	11.9	2.9	12,631	9.1	1.4	13,956
<i>Machinery and Equipment</i>	6,793	17.7	0.0	8,002	14.8	0.2	9,213
Value of Physical Changes in Stocks	837			837			837
<b>GROSS DOMESTIC EXPENDITURE</b>	136,668	2.9	1.4	142,551	2.7	1.3	148,275
Exports of Goods & Services	184,055	7.3	-0.1	197,258	5.1	1.3	210,116
<b>FINAL DEMAND</b>	320,723	5.4	0.5	339,809	4.1	1.3	358,391
Imports of Goods & Services	-147,693	6.3	-0.6	-158,000	4.8	-1.2	-167,530
<i>Statistical Discrepancy</i>	1,761			1,761			1,761
<b>GROSS DOMESTIC PRODUCT</b>	174,791	4.5	0.5	183,570	3.4	1.4	192,621
Net Factor Income from Rest of the World	-27,286	2.4	-0.1	-27,926	5.2	1.3	-29,777
<b>GROSS NATIONAL PRODUCT</b>	147,505	4.9	0.6	155,644	3.1	1.5	162,844

Overall, we expect that the current momentum in personal consumption spending will persist into the second half of the year, with positive carryover into 2015. On this basis, the volume of personal consumption expenditure is forecast to increase by 1.4 per cent in 2014 and by 1.6 per cent in 2015, both of which represent upward revisions relative to the previous *Bulletin*.

### **Investment**

The recovery underway in investment spending gained further traction in the second quarter of the year with overall investment up by 18.5 per cent year-on-year, helped by a broad based recovery in the main investment sub-components.

In terms of building and construction, activity levels continue to rise (albeit from a low base). Recovery in the levels of new house building is becoming more established, with a third successive quarter of annual growth recorded in the April-June period – the first time this has occurred since end-2005/early-2006. Further, the main housing market indicators (including completions, registrations and commencements) point to a sharp pick-up in house building levels in the remainder of 2014 with significant positive carryover expected into 2015. Non-housing related construction activity has also continued to firm – with annual growth of 11.8 per cent in the first half of 2014. Overall building and construction investment is forecast to grow by 11.9 per cent in 2014 and by 9.2 per cent in 2015. This should see the annual level of house completions increasing towards 13,250 units by end-2015 (up from 8,300 in 2013).

The strong rebound in machinery and equipment investment which has been apparent since early-2013 shows no signs of abating. When the volatile transport component is excluded (predominantly aircraft purchases), machinery and equipment investment was up 34 per cent in the first six months of the year, as firms continue to replenish capital stock levels after a number of years of retrenchment. Based on these trends and overall growth prospects, we anticipate

that machinery and equipment investment will grow by 17.7 per cent this year and by 14.8 per cent in 2015.

The final major investment sub-category includes research and development spending.<sup>1</sup> For the first half of the year, investment in intangible assets grew by 7.5 per cent year-on-year. It is assumed that this growth rate will be broadly maintained for the rest of the year, with a moderation projected for 2015. However, a high degree of uncertainty surrounds the forecasts for the new R&D component of investment.

Overall, investment is forecast to grow by 11.9 per cent in 2014 and 9.2 per cent in 2015. This should see a gradual rise in the share of investment spending in GDP to over 17 per cent by the end of the forecast period (from a low of 14.5 per cent in 2011). The long-term average for the investment ratio is around 20 per cent of GDP.

### **Government Consumption**

Following on from a volume increase of 1.4 per cent in 2013, government consumption, as measured in the National Accounts, increased by 5.2 per cent in the first half of the year. The outlook to 2015 will depend on the measures announced in the upcoming Budget. The most recent Stability Programme Update 2014 (published last April) projected volume declines of 0.9 per cent and 1.6 per cent in 2014 and 2015, respectively.

## **External Demand and the Balance of Payments**

### **Exports and Imports**

Net exports contributed strongly to the year-on-year increase in GDP reported for Q2 2014, as export growth of 13 per cent more than offset a rise of 11.8 per cent for imports. The strength of the export performance during the first half of 2014 is significantly above previous expectations, and is being driven by several goods side factors that are different from their

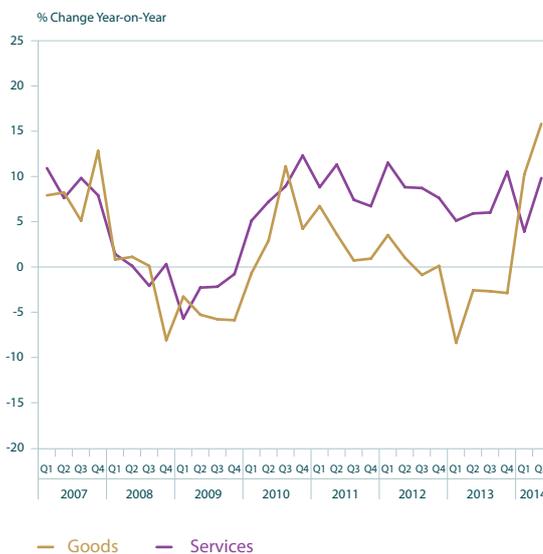
<sup>1</sup> For a fuller description of changes brought about by the new system of national accounts, see T. Conefrey and M. O'Brien, "Box A: The Implications of the Recent Changes to Macroeconomic Statistics", Quarterly Bulletin 3, 2014.

**Table 2: Goods and Services Trade 2013, 2014<sup>f</sup>, 2015<sup>f</sup>**

	2013	% change in		2014 <sup>f</sup>	% change in		2015 <sup>f</sup>
	EUR millions	volume	price	EUR millions	volume	price	EUR millions
Exports	184,055	7.3	-0.1	197,258	5.1	1.3	210,116
Goods	91,763	9.0	-1.3	98,721	5.2	1.0	104,893
Services	92,292	5.5	1.2	98,536	5.0	1.7	105,222
Imports	147,693	6.3	0.6	158,000	4.8	1.2	167,530
Goods	55,580	5.7	0.9	59,271	4.7	1.3	62,846
Services	92,113	6.8	0.4	98,729	4.9	1.1	104,685

historical norms. Our projections, above, imply a stronger contribution from net exports to overall GDP growth over the forecast horizon than was forecast in our previous *Bulletin*.

The strength of export growth has been particularly noticeable on the goods side, which increased by 15.9 per cent on a year-to-year basis in Q2 2014. In part this reflects base effects from the weak 2013 performance due to the patent cliff in the pharmaceutical sector. However the largest driver of goods export growth follows on from changes in the National Accounts<sup>2</sup> and the manner in which goods owned by an Irish entity that are processed in and shipped from a foreign country on their sale are reflected. These goods are classified as Irish up until the time that they are sold, irrespective of whether the processing of those goods from their components to the final product for sale takes place in Ireland or not. While the activity is tracked in the higher frequency Industrial Production series as Irish manufacturing, it does not involve goods moving into and out of the State, and consequently is not recorded in the monthly CSO Goods Exports and Imports release. According to the latter, the year-on-year growth in goods exports has averaged 0.1 per cent in the first seven months of 2014, and 0.3 per cent for non-pharmaceutical goods. Assuming that the effects of foreign processing recorded in the National Accounts are dominated by the less employment intensive ICT and Chemicals sectors, it is relevant to

**Chart 2: Volume of Exports**

Source: CSO Quarterly National Accounts.

note that exports in the more traditional export oriented agri-food sector continue to grow strongly, averaging 9.5 per cent year-on-year to July 2014.

Growth in services exports accelerated again in the second quarter of 2014, with growth of 9.9 per cent in volume terms on a year-to-year basis. Data from the Balance of Payments statistics show that computer and business services sectors continued to be the major contributors to this expansion, growing in value

<sup>2</sup> See T. Conefrey and M. O'Brien, footnote 1.

terms by 14.3 and 15.8 per cent respectively over the same period.

The stronger than expected outturn for exports reported so far for 2014 raises the outlook for export growth for the year as a whole. Conventional benchmarks used in our forecast, such as sentiment indicators for manufacturing and services sectors, as well as the latest set of external demand assumptions, in general also support an upward revision. However the pace of export growth now envisaged for 2014 is much stronger than traditional indicators would suggest. This is partly due to the incorporation of the new measurement of certain goods exports in the National Accounts. It is yet to be seen whether the most recent strong data indicate a need for a fundamental change in the analysis of export activity or is a transitory issue. In either case, export activity may be more volatile over our forecast horizon than would have previously been expected.

Considering these factors, overall export growth of 7.3 per cent in volume terms is now projected for 2014, and 5.1 per cent in 2015. Taking account of the easing of the patent cliff, the rise in external demand, and the impact of the new treatment in the National Accounts, goods exports are forecast to grow by 9 per cent this year followed by a further expansion next year of 5.2 per cent. Services are now anticipated to grow at a more modest pace, rising by a projected 5.5 per cent and 5 per cent this year and next.

Goods imports in the first half of 2014 have been supported by domestic demand. In particular, some of the components growing more strongly tend to be quite import intensive – namely the purchase of cars and certain categories of machinery and equipment investment. 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 in Ireland. These imports have been stronger than would have been expected during 2014, and rose by 25.9 per cent in value terms in the second quarter of 2014 on a year-to-year basis, with

overall services imports rising by 13.9 per cent in volume. Given the outlook for growth in consumption, investment and export activity over the forecast horizon, a further increase in the pace of growth in overall imports in 2014 and 2015 of 6.3 and 4.8 per cent respectively is forecast.

### ***Net Trade, Factor Incomes and International Transfers***

The trade balance widened further in the first half of 2014, as an increase in the net goods exports more than offset a decline in net services exports. The overall trade balance for the first half of the year was €20.2 billion, an increase of 9.6 per cent on the same period in 2013.

Net factor income flows for the first half of 2014 have been marginally more negative than during the same period in 2013. Lower profits generated by foreign multi-nationals operating in Ireland was a major feature of lower net factor income flows in absolute terms in 2013 and appears to be still present but to a lesser degree. This is likely due to a less pronounced impact of the pharmaceutical patent cliff being offset by the further increase in royalty/licensing payments and research and development services imports on the intellectual property related to chemical and computer software activities. Combined, these items have reduced the profits generated in Ireland. A reduction in payments to service loans received from non-residents also features in the more negative net factor income position in 2014 to date.

Combined, the trade and factor income developments have led to a further improvement in the current account of the balance of payments, which rose to 5.2 per cent of annual GDP in the second 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. Taking this into account, the forecasts for

**Table 3: Balance of Payments 2013, 2014<sup>f</sup>, 2015<sup>f</sup>**

€ million	2013	2014 <sup>f</sup>	2015 <sup>f</sup>
Trade Balance	36,362	39,258	42,585
Goods	36,183	39,451	42,048
Services	179	-193	538
Net Factor Income from the Rest of the World	-26,266	-27,926	-29,777
Current International Transfers	-2,462	-2,462	-2,462
<b>Balance on Current Account</b>	7,634	11,832	12,408
(% of GDP)	4.4	6.4	6.4

exports and imports imply that the current account will remain in surplus over the forecast horizon.

## 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 up to July 2014, while volatile, provides signs of a pick-up in the sector - industrial output volumes rose by 19.9 per cent in year-on-year terms to July. An exceptionally buoyant performance from the modern sector and specifically the pharmaceutical sector led to a particularly strong increase in the first quarter, although the pace of expansion has subsequently eased. It appears that the unusual patterns in industrial production in 2013 arising from the expiry of patents in the pharmaceutical sector has had a strong upward 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 and is prone to revision. Accordingly, the outturn for the year to date needs to be interpreted with caution.

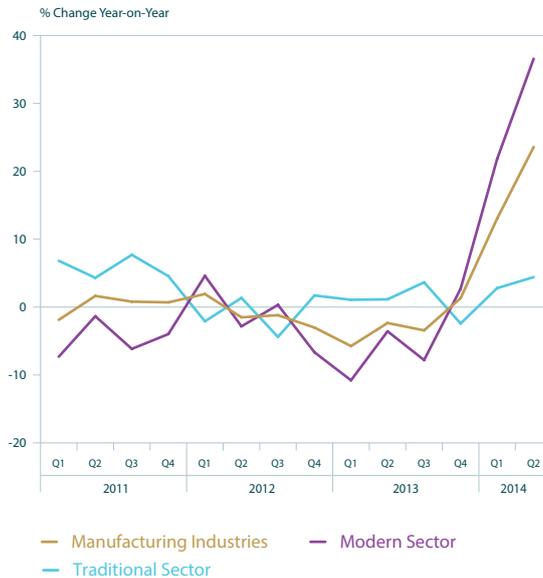
While data from the Quarterly National Accounts (QNA) are not directly comparable with the industrial production series, the outturn for the second quarter of 2014 indicated that the larger industrial sector (which includes building and construction), grew on

a seasonally adjusted basis by 4.7 per cent quarter-on-quarter. Qualitative evidence from the latest Investec Purchasing Manager Index (PMI) points to continuing improvements in output and new orders for the Irish manufacturing sector, with the activity index now expanding for 15 consecutive months.

Developments since the previous *Bulletin* have seen prospects for industrial output revised upwards. This is consistent with trends in the qualitative data provided by the PMI releases to the end of August, which point to continuing growth in new orders and the on-going indications of resilience in external demand. Further growth is anticipated in 2015, driven by both an increase in merchandise exports to the UK and US markets and better prospects for demand in the domestic economy. On balance, such developments should translate into increased demand for manufacturing output.

As regards the services side, on a National Accounts basis, output in the broad Other Services category grew in the second quarter of 2014 by 2.7 per cent year-on-year. The Services PMI suggests that the pace of output growth continues to accelerate. Other indicators also suggest that external demand for Irish based services remains positive in the expanding markets of the UK and US, providing some insulation from the continued moderation in activity levels in the EU.

**Chart 3: Volume of Industrial Production**



Source: CSO.

**Agricultural Output**

The latest available Quarterly National Accounts data indicate that the Agriculture, Fishing and Forestry sector showed an annual volume increase of 13.9 per cent in the second quarter of 2014. The external trade data show that agricultural exports (excluding Forestry and Fishing) accounted for 7.3 per cent of total exports in 2013, which is an improvement from the recent low of 2009 when the agriculture share of exports was 5 per cent. Taking account of the impact of cost, price and demand changes in the year to date, 2014 is likely to be another year of positive growth, but with the prospect of diverse outcomes for producers within the agriculture sector.

Overall, the outlook for 2014 and 2015 indicates additional gains in agricultural incomes with continued output growth and favourable improvements in the gap between output and input prices. Agricultural incomes are projected to rise in 2014 and 2015, largely reflecting the corresponding projected rise in the volume of output. The above forecasts are subject to a degree of uncertainty, however.

**The Labour Market**

The Quarterly National Household Survey (QNHS) results for Q2 2014 show a continued gradual expansion in employment and a sustained contraction in unemployment. The strong employment gains in the second half of last year have been replaced by more moderate growth in the first half of 2014. Employment increased by 0.2 per cent on a seasonally adjusted basis in the second quarter of 2014 (this compares to average quarterly employment growth throughout 2013 of 0.8 per cent).

The standardised unemployment rate (SUR) had fallen to 11.2 per cent by August 2014, representing a fall of 1 percentage point over the year to date, a small deceleration in the rate of decline when compared to the SUR contraction seen in 2013. The SUR available to August 2014 is consistent with the trends in the Live Register and show a steady decline in those registering as unemployed. The average number of claimants leaving the Live Register each month in 2014 has risen to over 2,900 from a monthly average decline of just under 2,400 in 2013. The employment growth slowdown alongside a contraction in unemployment has been made possible by a contraction in the labour force. Indeed, the labour force expansion seen throughout 2013 appears to have reversed in Q2 2014, despite slower outward migration. This is due to the labour force participation rate returning to its pre-2013 downward trend. However, the potential labour force increased strongly in Q2 2014 for the first time since early 2012, meaning that those exiting the labour force, as evidenced by the declining participation rate, may yet be available for employment in the future (see Box A for further discussion).

Despite the moderation in headline employment growth in the first half of 2014, the underlying characteristics of this growth remain broadly encouraging. While part-time employment appears to have plateaued, full-time employment has continued to grow. In addition, the long-term unemployment rate has fallen further and stands at 6.8 per cent in Q2 2014, as compared with 9.5 per cent in Q1 2012.

**Table 4: Employment, Labour Force and Unemployment 2012, 2013, 2014<sup>f</sup> and 2015<sup>f</sup>**

	2012	2013	2014 <sup>f</sup>	2015 <sup>f</sup>
Agriculture	86	107	112	113
Industry (including construction)	336	343	344	350
Services	1,417	1,430	1,453	1,479
Total Employment	1,838	1,880	1,910	1,943
Unemployment	315	284	237	222
Labour Force	2,154	2,163	2,147	2,165
Unemployment Rate (%)	14.6	13.1	11.1	10.3

**Note:** Figures may not sum due to rounding.

Another feature of the employment data is that while both men and women are benefitting from on-going employment generation, they are doing so to different degrees. The larger employment losses seen for men during the crisis, and increasing levels of full-time as opposed to part-time employment gains in recent quarters mean that it is unsurprising that these gains have predominantly accrued to men.

Of note also is the moderation in the numbers emigrating since figures were last released in Q2 2013. Net migration has moderated to an outflow of 21,400 people annually in the year to June 2014, the smallest outflow since net migration turned negative in 2010. This is due to both the moderation of outflows and an increase in immigration seen in the latest figures. Both emigrants and immigrants are increasingly likely to be either employed or in education prior to migration, rather than unemployed. Similarly,

both those leaving and entering the country are likely to be well qualified with over 50 per cent of all immigrants to Ireland and 43 per cent of emigrants from Ireland having a tertiary level qualification in the year to Q2 2014. This gives an indication of the type of domestic jobs available to immigrants, both returning Irish and non-Irish nationals, and confirms the trends in the QNHS data regarding the location and types of employment creation being currently experienced.

Reflecting projections for output and especially domestic demand, the recovery in the labour market is set to continue albeit at a more moderate pace over the forecast horizon. Employment growth is forecast to grow on average by 1.7 per cent per annum over this year and next. Unemployment is expected to fall in line with the steady declines seen over the last 24 months.

#### **Box A: Employment Growth Dynamics in 2013-2014**

*by Tara McIndoe-Calder and Martin O'Brien<sup>3</sup>*

The strong employment expansion seen in 2013 (2.3 per cent) has eased in the year to date with employment growth in 2014 now expected to come in at around 1.6 per cent for the year. The large employment expansion in 2013 followed by more muted growth in 2014 have been met, in the main, by changes in the labour force participation rate over the two years. This box examines components of the labour force in an attempt to increase our understanding of participation rate dynamics in the wider economic recovery.

By definition, an increase in employment is met through a combination of changes in the working age population, the labour force participation rate and the unemployment rate.

<sup>3</sup> Irish Economic Analysis Division.

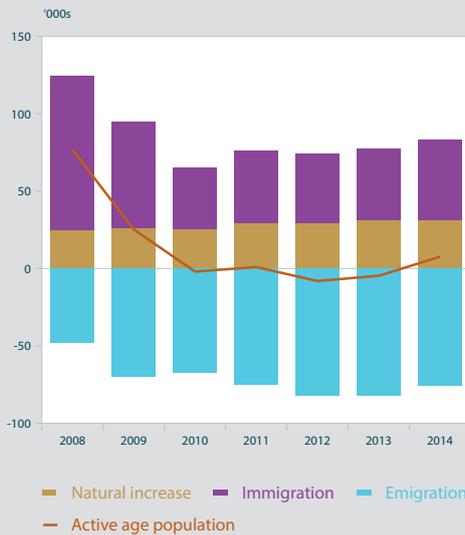
**Box A: Employment Growth Dynamics in 2013-2014**

by Tara McIndoe-Calder and Martin O'Brien

Figure 1A shows the increase in the active age population since 2008. The chart shows that the differences in the active age population between 2013 and 2014 were small in comparison to the numbers of new jobs created. This implies that it has been changes in the labour force that facilitated the differences in employment growth between 2013 and the first half of 2014.

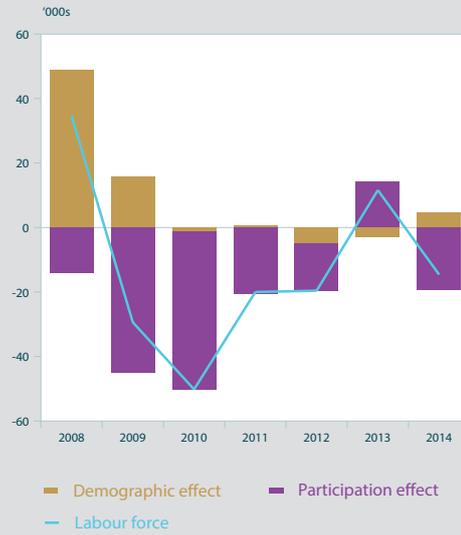
Figure 1B decomposes the influence that demographic (mostly net migration) and participation effects have on labour force growth. The charts show that the contribution from demographic effects has been muted since 2010. It is the participation effect, reflecting the decision of individuals to make themselves available or not for employment, that has driven changes in the labour force in more recent years.

**Box A Fig 1A: Annual change in active age population**



Note: In order to make annual comparisons with the latest QNHS (Q2 2014), the years shown in the table are Q2 to Q2.  
Source: QNHS and Population and Migration Estimates, CSO.

**Box A Fig 1B: Annual change in the labour force\***



Note: In order to make annual comparisons with the latest QNHS (Q2 2014), the years shown in the table are Q2 to Q2.  
Source: QNHS and Population and Migration Estimates, CSO.

In the year to Q2 2013 the participation effect was positive for the first time since the onset of the economic crisis. However, in the four quarters to Q2 2014 the marked increase in the number of people classifying themselves as unavailable for employment has, once again, led to a contraction in the labour force.

In order to better understand the 2013/14 divergence in the participation effect, Table 1 compares changes in the inactive population in both years. The inactive population can be disaggregated into the potential additional labour force (i.e. those who report as being more likely to (re-)enter the labour force) and those who more fundamentally consider themselves unavailable for employment. The largest changes in the inactive population in both 2013 and 2014 are in this latter category, with a reduction of 18,400 in the year to Q2 2013 and an increase of 30,400 in the year to Q2 2014.

**Box A: Employment Growth Dynamics in 2013-2014**

by Tara McIndoe-Calder and Martin O'Brien

**Box A Table 1: Comparison of annual changes in the labour market, Q2 2013 and Q2 2014 ('000s)\***

	Inactive population (15 years+)	=	Potential additional labour force	+	Others	=	Net migration	+	Residents
2013	-16.3		2.1		-18.4		-11.5		-4.8
2014	22.1		-8.2		30.4		-11.2		33.3

	Others**	=	At work**	+	Unemployed**	+	Student	+	Home duties	+	Retired	+	Not classified
2013	-18.4		-1.4		-14.9		9.4		-29.3		19.7		-1.8
2014	30.4		4.2		0.5		12.8		-0.5		7.5		5.6

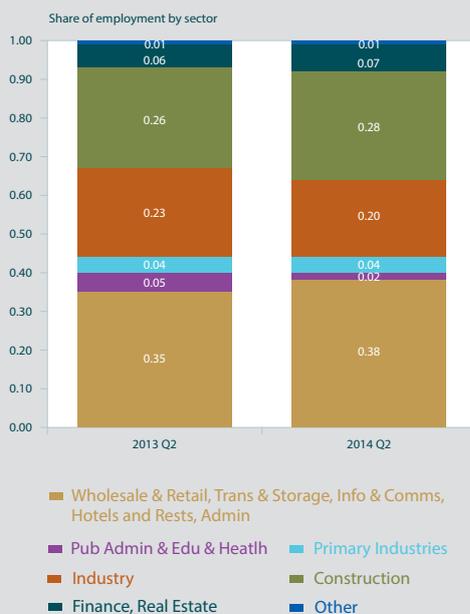
Source: QNHS and Population and Migration Estimates, CSO

\*Data refers to the change in the year ending Q2 2013 and Q2 2014.

\*\*This categorisation relates to the individual's self-reported Principal Economic Status, which differs from the official ILO definition of employed and unemployed.

Examining this in more detail, the decline in the inactive population in 2013 is largely attributable to the fall in the number of people engaged in 'home duties'. This, mostly female, cohort drove the participation rate increase during 2013, which, combined with the fall in the unemployment rate, produced enough people to fill the newly available jobs in that year. This also happened at a time when part-time employment made up approximately 36 per cent of total employment growth, which may have made the transition from home duties to employment more achievable. This cohort has not seen any further move into the labour force in the year to Q2 2014. As Table 1 shows, the rise in the inactive population in 2014 is spread across students, retirees and those who consider themselves to be working but do not fall under the official definition of being in employment.

**Box A Fig 2: Sector of activity for those transitioning from inactivity to employment, per cent\***



Note: Figures are calculated as four quarter moving averages taken at Q2 for each year of interest.

Source: QNHS, CSO.

In addition to the net figures in Table 1, we use the gross flows data to identify which sectors the people transitioning from inactivity to employment are working in (Figure 2). The sectoral distribution is very similar for both years (Figure 2), with new workers concentrated in services and construction and less likely to be in industry or agriculture than the share of overall employment would suggest.<sup>4</sup>

4 For example, in the year to Q2 2013, 61 per cent of those moving from inactivity to employment went into jobs in the Services or Construction sectors, whereas these sectors accounted for 41 per cent of overall employment over the same time period.

**Box A: Employment Growth Dynamics in 2013-2014***by Tara McIndoe-Calder and Martin O'Brien*

Employment growth in 2013 was facilitated by a rising participation rate as people moved from outside the labour force (mostly engaged in home duties) to employment. These jobs were concentrated in construction and services, with a higher tendency to be part-time. Looking ahead, our forecasts assume the rise in the participation rate in 2013 was outside of the participation rate path seen prior to 2013 and does not seem to have been repeated this year.

The growth in employment and participation is projected to occur more slowly than the high rates of growth observed in 2013. In the first half of 2014 employment growth appears to have returned to its more conventional pattern of lagging output growth in the initial phases of an economic recovery. Further, economic growth in the first half of 2014 has been concentrated in higher value added sectors than in 2013. Mirroring this, the jobs created in the first half of 2014 are more likely to have been full-time jobs in higher value added sectors relative to 2013.

**Pay**

Data from the Institutional Sector Accounts for Q1 2014 shows a continuation of the upward trend in total compensation seen in the 2013 National Income and Expenditure (NIE) data. Improving labour market conditions, along with the composition of employment generation, appear to be contributing to increases in the total pay bill.

The change in compensation per employee is made up of the changes in total compensation and the numbers employed as well as being affected by wage formation (which can affect those already in employment and those entering employment differently). The latest available data indicate that overall compensation growth is stronger than employment growth, generating a rise in compensation per employee. This may indicate some upward pressure on wages or alternatively it may reflect the impact of the pick-up in the growth of full-time employment vis-à-vis part-time employment.

The Earnings, Hours and Employment Costs Survey (EHECS) data for the second quarter of 2014 show an on-going contraction in public sector employment, balanced by a strong increase in private sector employment, which is driving overall employment growth. This is a continuation of the trend seen in 2013 and early 2014. The EHECS data also show an increase in the number of hours worked in both the

private and public sectors resulting in a small reduction in total hourly earnings. This reduction in hourly earnings is stronger in the public than the private sector, mirroring the larger increase in hours worked and the reduction in overall employment in the public sector.

Compensation per employee is projected to rise in 2014 and 2015 based on the trends observed to date and overall labour market prospects. This reflects broadly improving labour market dynamics, including the composition of employment generation across the private sector, the stabilisation of public sector employment and the upward pressure on wages observed in the data.

**Inflation**

The latest available HICP data for August suggests that consumer price pressures remain subdued, with the HICP index rising by 0.6 per cent annually and 0.3 per cent month-on-month. A modest pick-up was nevertheless evident with August's year-on-year outturn representing the largest such increase since July 2013. The CPI rose by a slightly more modest 0.4 per cent annually and 0.2 per cent month-on-month as a pronounced decline in mortgage interest payments, included in the CPI yet not in the HICP, applied downward pressure.

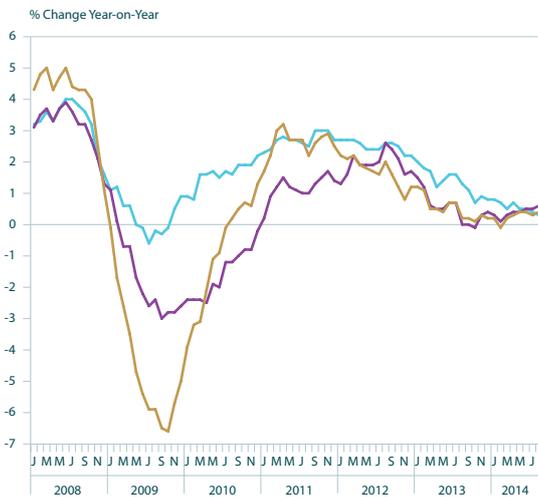
As highlighted in recent bulletins, inflation has over recent times been contained to a large

**Table 5: Inflation Measures - Annual Averages, Per Cent**

Measure	HICP	HICP excluding Energy	Services <sup>a</sup>	Goods <sup>a</sup>	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 <sup>f</sup>	0.6	0.7	2.6	-1.4	0.4
2015 <sup>f</sup>	1.2	1.2	2.5	0.0	1.1

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

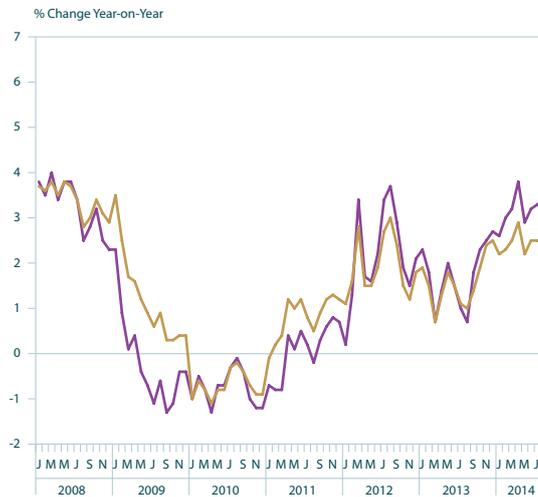
**Chart 4: Consumer Prices**



— Ireland: Consumer Price Index  
 — Ireland: Harmonised Index of Consumer Prices (HICP)  
 — EA-17: Monetary Union Index of Consumer Prices (MUICP)

Source: CSO.

**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.

degree by subdued external price pressures (specifically, the declining path of oil prices), as illustrated by the divergence between the headline and core HICP inflation rates - HICP inflation excluding the volatile unprocessed food and energy components averaged 0.8 per cent over the year to August, outpacing the corresponding headline HICP rate of 0.4 per cent. Domestically generated inflation, as proxied by the HICP services index, has, in contrast, remained strong, averaging 2.6 per cent year-on-year over the same period and thereby fully offsets the impact of external pressures.

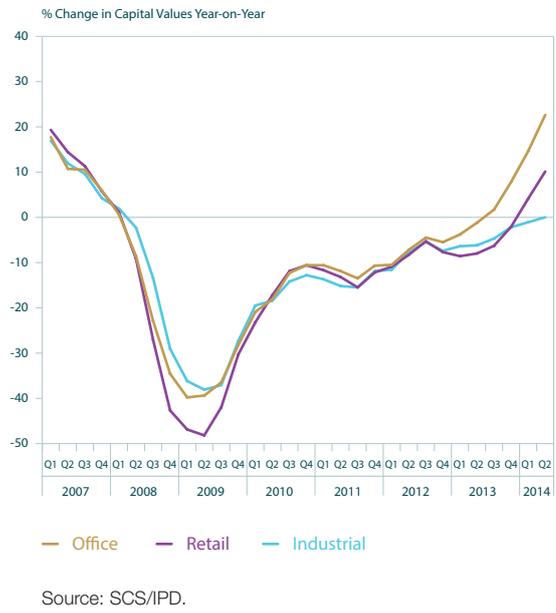
Energy price developments seem set to apply further downward pressure on the headline rate during the remaining months of 2014, with prevailing futures prices suggesting that oil prices will ease back, albeit partially offset by the weakening euro-dollar exchange rate over more recent months. While remaining at low levels, the headline HICP inflation rate is expected to gain momentum throughout the remainder of this year due largely to the aforementioned depreciation of the euro and assumed deceleration in food price declines. Domestically generated inflation is also expected to remain robust over this period. Reflecting this combination of developments,

**Chart 6: Residential Property Price Indices**



Source: CSO.

**Chart 7: SCS/IPD Irish Commercial Property Index**



Source: SCS/IPD.

HICP inflation is projected to average 0.6 per cent during 2014 as a whole, with a corresponding CPI rate of 0.4 per cent.

The drag on the headline HICP inflation rate from external factors is expected to wane in 2015. In addition to the fact that external factors automatically play a less prominent role beyond a one-year horizon, energy prices are expected to place upward pressure in 2015 in line with the rising path of oil price futures. It is also envisaged that services inflation will continue to make a strong positive contribution to the headline rate next year amid a more sustained recovery in domestic economic conditions. As a result, consumer price pressures are projected to gradually rise during the course of 2015, with an average annual HICP inflation rate of 1.2 per cent. This represents a slight upward revision to the HICP inflation outlook for next year relative to the previous *Bulletin*, mainly reflecting a higher assumption for international oil prices for 2015 reinforced by a stronger euro-dollar exchange rate assumption. In terms of the CPI, the annual average rate for 2015 is projected to be 1.1 per cent.

**Property Prices**

Nationally, property prices increased by 10 per cent in the first eight months of the year compared to the same period in 2013. As has been the pattern throughout the year, house price growth in Dublin has been exceptionally strong, registering an increase of 23 per cent in the 12 months to August 2014. Low levels of supply contributing to high levels of excess demand are one factor behind the rise in house prices (see Box B, Quarterly Bulletin 3, 2014). In this respect, the increase in commencement notices in recent months, albeit from a very low base, is notable. In the past, commencements have fed through to completions with a lag of 9 to 12 months.

**Commercial Property**

Commercial property prices grew strongly throughout the first half of 2014, with industrial property finally joining retail and offices in positive territory for the first time since Q1 2008. Notwithstanding this, both retail and office capital values have risen strongly, registering

**Chart 8: Harmonised Competitiveness Indicators**

Source: Central Bank of Ireland and ECB.

double-digit increases of 10.2 and 22.7 per cent respectively in Q2 2014. The Bank's Macro-Financial Review (June 2014) contains a detailed overview of recent developments in the commercial property market.

## Competitiveness

### Exchange Rate Developments

Over the first eight months of 2014, the euro appreciated relative to the US dollar by approximately 3.7 per cent. Against the pound sterling, the euro fell by about 4.5 per cent over the same period. The upward trend in the dollar is reflected in an increase in the Harmonised Competitiveness Index (HCI), with an increase in the index indicating a reduction in competitiveness. The nominal HCI rose by 1.7 per cent over the year to August, while the real HCI increased by 0.5 per cent and 1 per cent when deflated by consumer prices and producer prices, respectively. It is however noteworthy that the exchange rate of the euro has weakened relative to the US dollar since June and as a result, the HCI has fallen back somewhat over more recent months.

## Productivity and Cost Competitiveness

The considerable improvements in productivity and unit labour costs in the years following the recession are not projected to be a feature of the economy in the period to 2015. This is primarily because the bulk of the adjustment in employment and salaries has already occurred. On a GDP basis, productivity declined by 2 per cent in 2013. This decrease reflected the composition of employment growth as the economy recovered with job growth occurring mainly in low productivity sectors. Moreover, the statistical treatment of patent expiry in the pharmaceutical sector is also likely to have been a major factor. The impact of the latter is expected to diminish over the forecast horizon and, abstracting from GDP and employment forecasts, productivity is projected to grow by 2.9 per cent in 2014. Following a strong increase in 2013, unit labour costs are expected to fall this year before rising moderately in 2015.

## The Public Finances

### Overview

Revisions to the National Accounts reveal a better fiscal outcome in 2013 than had previously been estimated, with the deficit ratio declining to 5.7 per cent of GDP and the debt ratio marginally lower at 123.3 per cent of GDP (see Box B for a detailed discussion of these revisions). This positive trend continued in the first quarter of the year, when both ratios continued to fall. Furthermore, the performance of the Exchequer was well ahead of expectations in the period January to August, when tax receipts were €971 million ahead of the Department of Finance's profile and total expenditure was broadly on target. These developments as well as the upward revisions to nominal GDP suggest that this year's EDP deficit ceiling of 5.1 per cent of GDP, will be met by a considerable margin.

**Box B: Recent Revisions to Government Finance Statistics***by Rónán Hickey<sup>5</sup>*

The Central Statistics Office (CSO) introduced the new European methodology for the compilation of national accounts (ESA 2010) in July of this year, replacing the ESA95 methodology which had been in existence for almost two decades. The introduction of ESA 2010 has had a notable impact on GDP, balance of payments and government finance statistics in Ireland, with its effect on the former two discussed in the Q3 2014 Quarterly Bulletin (Box A, pages 11 to 13). Following the subsequent release of revised fiscal data, this Box now outlines the impact of ESA 2010 on the government deficit and debt statistics.<sup>6</sup> It is important to note that more general revisions that regularly occur between data releases have also impacted the data, although their effect is considerably smaller.

**Impact of ESA 2010**

ESA 2010 has impacted on government finance statistics through three channels:

- sector classification changes;
- the transfer of pension obligations to government;
- the removal of swaps from the calculation of interest.

The first of these resulted in the reclassification of Irish Bank Resolution Corporation (IBRC) to be part of the general government sector from July 2011, the date of the merger between Anglo Irish Bank and Irish Nationwide.<sup>7</sup> As a result, IBRC's own surplus/deficit is now included in the calculation of the general government balance from that date forward, with its borrowings incorporated in general government debt. This has had a small negative effect on the deficit in 2011 and 2012, increasing it by 0.2 and 0.4 per cent of GDP in these years respectively, and improved the position in 2013 by 0.7 per cent of GDP. The latter reflects the fact that payments made under the Eligible Liabilities Guarantee Scheme (ELG) last year are now treated as intra-government transfers rather than government expenditure. It has had an upward influence on general government debt throughout the period 2011 to 2013, increasing debt by 7.2 per cent of GDP in the last of these years. The impact of the reclassification of IBRC is expected to be temporary, with a negligible impact anticipated this year given the winding down of the former bank's activities.

In 2009 and 2010 the Government assumed responsibility for the pension schemes of universities and a number of semi-state bodies. Under ESA95 this had a positive impact on the deficit, with the transfer of the assets of the pension fund increasing government revenue in the years the transfer took place. Under ESA 2010, however, the transfer is either treated as a financial transaction when the assets and liabilities of the pension scheme are equal (not affecting the budget balance) or deficit worsening when the liabilities exceed the assets of the scheme. The latter was the case in Ireland and, as a result, the change worsens the budget balance by 1 per cent of GDP in 2009 and 1.5 per cent of GDP in 2010. In subsequent years it leads to a small improvement in the position, however, due to the inclusion of imputed revenue.

The removal of swaps from the calculation of interest ensures consistency between ESA 2010 and the measure of the deficit used for the Excessive Deficit Procedure (EDP). Swap transactions had increased Irish interest payments in each of the three years to 2013 and so their removal has a favourable impact on the deficit. In 2013, for example, flows on debt interest swap contracts amounted to €273 million.

The introduction of ESA 2010 has also seen a change in the treatment of payable tax credits, the most notable current ones in the Irish case being mortgage interest relief and health insurance relief. Tax revenues were previously reported net of such tax credits and reliefs, whereas now they must be treated in gross terms. This has the effect of increasing both government revenue (through higher tax) and expenditure (the cost of the credit or relief) and, as a result, overall deficit and debt levels are unchanged.

<sup>5</sup> Irish Economic Analysis Division. Thanks to Ruth O'Shaughnessy at the CSO for very helpful comments.

<sup>6</sup> This data is provisional.

<sup>7</sup> Under ESA95 entities that were classified as Monetary Financial Institutions were excluded from the General Government sector. Under ESA 2010, however, this automatic exclusion no longer applies.

**Box B: Recent Revisions to Government Finance Statistics**

by Rónán Hickey

**Revised Government Finance Statistics Data**

The developments outlined above, coupled with the strong upward revision to GDP discussed in the previous *Quarterly Bulletin*, have resulted in lower government deficit ratios throughout the period 2010 to 2013 than had previously been estimated (see Table 1). The improvement is particularly sharp in 2013, with the deficit 1.5 percentage points lower at 5.7 per cent of GDP. This is due to all of the channels outlined above having a favourable impact - with the removal of the ELG payments and swaps from government expenditure, and a small benefit from the pension transfer - and a larger upward GDP revision last year. Focusing on the general government debt ratio, this is now higher in 2011 and 2012, but broadly unchanged in 2013 as the impact of higher GDP in the denominator offsets higher nominal debt arising from the effect of the IBRC reclassification.

**Box B Table 1: Revised Government Finance Statistics**

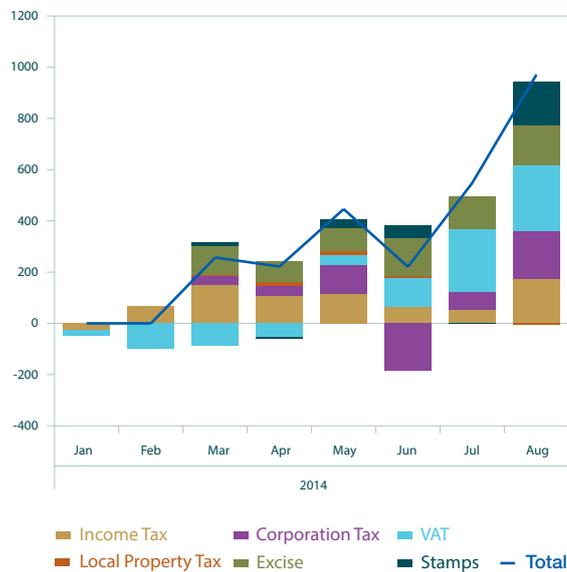
		% of GDP	2010	2011	2012	2013
ESA 2010	General Government Balance		-30.1	-12.6	-8.1	-5.7
ESA 2010	General Government Debt		87.4	111.1	121.7	123.3
ESA95	General Government Balance		-30.6	-13.1	-8.2	-7.2
ESA95	General Government Debt		91.2	104.1	117.4	123.7

**Exchequer Returns**

The latest data reveal that, excluding transactions with no general government impact,<sup>8</sup> the Exchequer ran a deficit of €6.7 billion in the first eight months of the year, a substantial decrease from the corresponding period of 2013 (see Table 6). Revenue strongly outperformed its target while expenditure was broadly in line with expectations.

Taking a closer look at revenue developments, tax receipts continued to record strong growth over the period, boosted by the measures adopted in Budget 2014 and the recovering economy. Tax receipts were up 8.7 per cent in annual terms and, more significantly, were €971 million ahead of Department of Finance expectations. This reflected better than expected developments in all of the ‘big four’ tax heads - income tax, corporation tax, excise duty and VAT – with income tax being €172 million ahead of target. Other revenue sources – appropriations in aid, non-tax revenue and capital resources - were an additional

**Chart 9: Divergence of Tax Heads from Profile**



Source: Department of Finance.

<sup>8</sup> The Department of Finance now separates the main transactions which impact the Exchequer but not the general government balance in its Alternative Exchequer Statement. The latter is the relevant measure used for the Excessive Deficit Procedure.

€548 million ahead of profile, led by positive developments in Central Bank surplus income, dividends and PRSI receipts.

On the expenditure side, total spending was 2.1 per cent lower in year-on-year terms and broadly in line with government expectations. The latter disguises divergent developments across spending categories, however, with higher than expected current and capital spending almost entirely offset by lower interest costs. While interest on the national debt was 2.5 per cent higher year-on-year, this was €390 million below expectations reflecting more favourable market conditions and operations undertaken by the National Treasury Management Agency (NTMA) during the year. Current expenditure, by comparison, was €382 million above profile, primarily reflecting overspending in the Department of Health, with capital spending a further €108 million ahead of expectations reflecting a capital contribution to Irish Water.

### Funding and Other Developments

The 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.

**Table 6: Analytical Exchequer Statement, August 2014**

	Jan-Aug 2013 €m	Jan-Aug 2014 €m	Annual Change
<b>Revenue</b>			
– Tax revenue	22,910	24,914	8.7%
– Appropriations-in-aid	7,082	7,269	2.6%
– Non-tax revenue	2,222	2,198	-1.1%
– Capital receipts	82	262	221.8%
<b>Total</b>	<b>32,295</b>	<b>34,644</b>	<b>7.3%</b>
<b>Expenditure</b>			
– Gross voted current primary <sup>9</sup>	33,617	33,320	-0.9%
– Gross non-voted current primary <sup>10</sup>	2,403	1,496	-37.7%
– Gross voted capital	1,448	1,456	0.6%
– Gross non-voted capital	12	197	1541.7%
– Interest	4,711	4,829	2.5%
<b>Total</b>	<b>42,190</b>	<b>41,298</b>	<b>-2.1%</b>
<b>Balance excluding transactions with no general government impact</b>	<b>-9,895</b>	<b>-6,654</b>	<b>-32.8%</b>
<b>Transactions with no general government impact</b>	<b>2,573</b>	<b>322</b>	<b>-87.5%</b>
<i>Exchequer Balance</i>	<b>-7,322</b>	<b>-6,332</b>	<b>13.5%</b>

<sup>9</sup> Government current expenditure voted on by the Dáil in the areas of Social Welfare, Health, etc.

<sup>10</sup> Includes items such as debt servicing and EU Budget contribution.



## An Timpeallacht Gheilleagrach

Tá an téarnamh ar an ngeilleagar Éireannach ag leathnú agus tá fuinneamh tagtha faoi ach tá neart bunúsach an gheilleagair níos laige ná mar a tugadh le tuiscint sna Cuntais Náisiúnta Ráithiúla fhíorbhuacacha a eisíodh le déanaí. Ar a shon sin, cé go leagtar róbhéim ar scála an fheabhais ar an bhfeidhmíocht eacnamaíoch leis an ráta príomha fáis is déanaí bliain-ar-bhlain, tugann sonraí eile le fios go bhfuil an téarnamh ag neartú agus go bhfuil sé ag éirí níos cothroime. Is ábhar dóchais é go bhfuil an téarnamh eacnamaíoch intíre níos leithne anois de thoradh an fheabhais ar fhostaíocht agus ar ioncam. I bhfianaise an méid sin go léir, tá méadú ag teacht ar chaiteachas tomhaltóirí, agus i dteannta le fás láidir ar chaiteachas infheistíochta, is cosúil go gcuirfidh an t-éileamh intíre go dearfach le fás in 2014, don chéad uair ón gcor chun donais.

Sa chéad leath de 2014, chonacthas luasghéarú an-láidir freisin ar an bhfás ar onnmhairí. Léiríonn sé sin éifeacht dhearfach fáis níos láidre sna comhpháirtithe trádála, téarnamh áirithe ar aschur agus ar onnmhairí na hearnála cógaisíochta de réir mar a thagann maolú ar an tionchar a bhíonn ag deirí thréimhsí paitinne ar onnmhairí cógaisíochta agus, ina theannta sin, tionchar na n-athruithe modheolaíochta a tugadh isteach le déanaí sna Cuntais Náisiúnta. De thoradh na n-athruithe sin, aon earraí atá ar úinéireacht ag eintiteas Éireannach agus a mhonaraítear i dtír choigríche agus a dhíluchtófar ó thír choigríche, déantar iad a thaifeadadh mar onnmhairí Éireannacha.

Ag féachaint romhainn, rinneadh athbhreithniú suntasach aníos ar an ionchas don fhás ar onnmhairí do 2014 i gcomparáid leis na réamhaisnéisí san Fhaisnéis Ráithiúil dheireanach, rud a léiríonn feidhmíocht láidir na n-onnmhairí sa chéad leath den bhliain, dálaí fabhracha an éilimh sheachtraigh agus maolú breise ar an tionchar a bhíonn ag deirí thréimhsí paitinne ar onnmhairí cógaisíochta. Glactar leis go méadóidh onnmhairí an bhliain seo chugainn i gcomhréir, a bheag nó a mhór, leis an éileamh sna comhpháirtithe trádála, rud arbh ionann agus moilliú ar an bhfás ar onnmhairí i gcomparáid le 2014, cé gur ráta láidir fáis a bheadh ann go fóill. Ar an taobh intíre, rinneadh athbhreithniú aníos freisin ar na réamhaisnéisí do chaiteachas tomhaltóirí agus infheistíochta do 2014 agus 2015, rud a léiríonn an fheidhmíocht ní ba láidre sa chéad leath den bhliain agus ionchas atá ag feabhsú de réir a chéile. Cé gur

cheart go spreagfaí méadú áirithe ar ioncam teaghlach leis an bhfás breise ar fhostaíocht, tá na leibhéil arda difhostaíochta agus fiachais ina mbacainní go fóill ar aon téarnamh ar chaiteachas tomhaltóirí.

Mar thoradh ar an athbhreithniú suntasach aníos ar na réamh-mheastacháin d'onnmhairí, rinneadh an t-ionchas d'fhás OTI in 2014 a ardú go suntasach i gcomparáid leis na réamhaisnéisí a foilsíodh san Fhaisnéis Ráithiúil roimhe seo. Meastar anois go mbeidh fás 4.5 faoin gcéad ar OTI i mbliana, is é sin athbhreithniú 2.0 faoin gcéad aníos ar an meastachán roimhe seo, fad atá an réamhaisnéis d'fhás OTN níos airde freisin dá réir sin ag 4.9 faoin gcéad. Tá athbhreithniú i bhfad níos lú á dhéanamh ar ár réamhaisnéisí do 2015, mar atá fás 3.4 faoin gcéad ar OTI agus fás 3.1 faoin gcéad ar OTN, is é sin le rá 0.1 faoin gcéad agus 0.4 faoin gcéad níos airde ná na réamh-mheastacháin a cuimsíodh san Fhaisnéis Ráithiúil dheireanach.

Maidir le saincheisteanna beartais, ó d'fhág Éire Clár AE/CAI, tá sí ag tairbhiú de na comharthaí atá tugtha aici go bhfuil sé i gceist aici leanúint ar an gconair um chomhdhlúthú agus um choigeartú. D'uireasa na maoirseachta seachtraí, beidh na margáí ag breathnú níos géire ar Éirinn chun a chinntiú go gcuirfidh sí leis an méid atá bainte amach le blianta beaga anuas. Beidh sé rithábhachtach go ndéanfar dul chun cinn breise maidir le cur chun feidhme beartas thar réimsí éagsúla d'fhonn leochaileachtaí a laghdú agus chun a áirithiú go bhféadfar fillleadh ar fhás cothrom.

Maidir leis an airgeadas poiblí, bhí na sonraí maidir leis an Stáchtiste fabhrach, rud a léiríonn an feabhas ar an ngeilleagar. Tá an t-ioncam cánach chun tosaigh ar an sprioc fad atá caiteachas ag gluaiseacht sa treo ceart a bheag nó a mhór, rud a fhágann, nuair a chuirtear leibhéal níos airde réamh-mheasta na OTI ainmniúla san áireamh, go dtiocfaidh an tEasnamh Rialtais Ghinearálta do 2014 go mór faoi bhun na sprice. Cé gcuireann an méid sin cúlra fabhrach ar fáil do Bhuiséad 2015, ní foláir a chur san áireamh nach pointe deiridh é cóimheas easnaimh OTI de 3 faoin gcéad. Tá Buiséad 2015 ar an gcéad cheann de shraith buiséad iar-Troika lena n-áiritheofar go bhfuil Éire ag gluaiseacht de réir a chéile i dtreo cuspóirí meántéarmacha buiséadacha a bhaint amach. Sa ghearrthearma, b'innholta leas a bhaint as an mborrach sealadach ioncaim chun an fiachas a laghdú níos sciobtha, agus ar an gcaoi sin, an leochaileacht a eascraíonn as an iarmharach féichiúnais a mhaolú. Dá bhrí sin, dá ndéanfaí níos mó ná an méid íosta is gá agus dá dtabharfaí an t-easnamh sa buiséad go mór faoi bhun 3 faoin gcéad den OTI in 2015, chuirfí maolán tábhachtach ar fáil chun suaití díobhálacha a sheachaint. Leis an gcéad Bhuiséad iar-chláir seo, tá an deis ann clú na hÉireann maidir le hacmhainneacht creidmheasa a neartú tuilleadh. Tá sé tábhachtach go dtapófar an deis seo. I ndiaidh 2015, beidh sé ríthábhachtach go n-éascófar don gheilleagar fillleadh ar leibhéal níos ísle agus níos sabháilte fiachais phoiblí. Is gá inbhuanaitheacht fiachais a áirithiú trí shraith príomhbharrachais chun buntacú le téarnamh níos marthanaí. Faoi mar a d'eascair forbairt mífhabhracha gan choinne as méaduithe gan iarraidh ar an bhfiachas poiblí le blianta beaga anuas, ba cheart go mbainfí úsáid as gnóchain ioncaim amhantair chun an fiachas sin a laghdú.

San earnáil baincéireachta, tá suíomhanna leachtachta agus maoinithe ag feabhsú i gcónaí agus tá siad ag fillleadh ar phróifíl níos inmharthana. Tá comharthaí téarnaimh ann i ndáil le brabúsacht na mbanc freisin. Ar a shon sin, baineann na príomh-shaincheistean go fóill le dul chun cinn breise a dhéanamh maidir le hiasachtaí lagaithe a láimhseáil, rud a fhágann go bhfuil an earnáil faoi dhuifean de réir mar a dhéanann sí díghiaráil. Agus úsáid á baint as

na 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 tríú ráithe chomhleanúnach, cé go leanann aistriú áirithe iasachtaí chuig aicme na riaráistí fadtéarmacha. Leanfaidh an Banc Ceannais den obair seo chun a áirithiú go ndéanfaidh na bainc agus aon iasachtaithe morgáiste a bhfuil riaráistí acu buanréitigh a thabhairt chun críche. Ina theannta sin, leanfaidh an Banc de mhonatóireacht agus d'iniúcháireacht a dhéanamh ar dhul chun cinn na mbanc maidir le riaráistí a réiteach i dtaca le punanna tráchtála agus FBM. Cé go bhfuil sé seo dúshlánach, tá dul chun cinn á dhéanamh agus tá clár chomhardaithe na mbanc agus a gcuid iasachtaithe á réiteach de réir a chéile.

Ó tharla go bhfuil méid foriomlán na n-iasachtaí fós íseal, níl an borradh le déanaí ar phraghsanna titheochta i mBaile Átha Cliath á spreagadh ag creidmheas bainc, ach mar sin féin, ní mór d'iasachtóirí stuamacht a léiriú i ndáil le caighdeáin um iasachtú morgáiste.

Maidir leis an iomaíochas, tá sé tábhachtach ní hamháin go ndéanfar an méid a baineadh amach le blianta beaga anuas a chothabháil ach go leanfar d'iomaíochas na hÉireann a fheabhsú freisin. Sa mhéid gur freagairt thimthriallach ar laigeacht eacnamaíoch seachas ar athruithe struchtúracha sa gheilleagar iad na forbairt ar phraghsanna agus ar thuarastail le cúig bliana anuas, tá an baol ann go mbeidh brú i gceist maidir le haisphreabhadh ar thuarastail agus ar phraghsanna. Ní foláir cur ina aghaidh sin. D'ainneoin leibhéal ísle an bhoilscithe le blianta beaga anuas, is tír ardchostais go fóill í Éire i dtéarmaí an gheilleagair leathanchostais. Cé go bhfuil fuinneamh faoi théarnamh eacnamaíoch na hÉireann, tá an téarnamh sin ag céim luath go fóill. Tá sé bunriachtanach go mbeidh feidhmíocht sheachtrach láidir ann chun a áirithiú go mbeifear in ann fillleadh ar fhás cothrom agus go mbeidh caighdeáin mhaireachtála níos airde ann amach anseo. Le feabhsuithe breise ar tháirgiúlacht agus ar iomaíochas, neartófaí cumas fáis na hÉireann agus thacófaí le fás leanúnach ar fhóstaíocht.

# 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 and a further upgrade to Ireland's sovereign credit rating by Fitch. Borrowing costs for the Irish Government have continued to decline, with yields on ten-year bonds falling to less than 1.7 per cent by early-September 2014 whilst Ireland's two-year bond yield fell below zero temporarily. These movements followed on from President Draghi's address to the Jackson Hole Symposium and the announcement of a more accommodative monetary policy stance by the Governing Council. Despite these positive developments, however, challenges to the Irish financial system persist. While mortgage arrears over 90 days continued to decline, there was an ongoing increase in longer-term arrears cases (720 days). Furthermore, credit to the private sector continued to contract as repayments exceeded new lending.

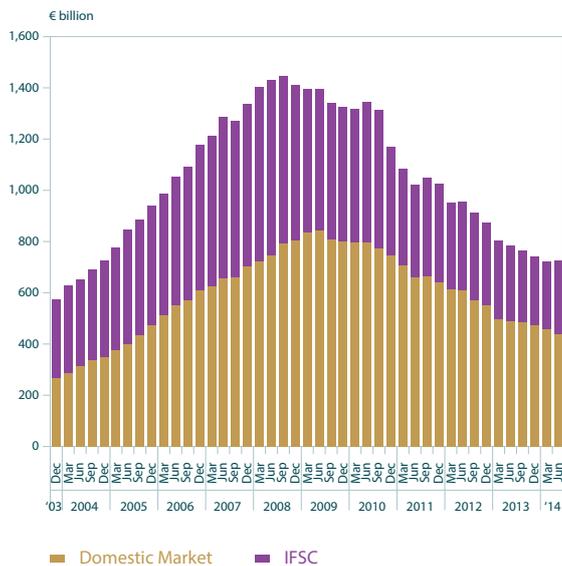
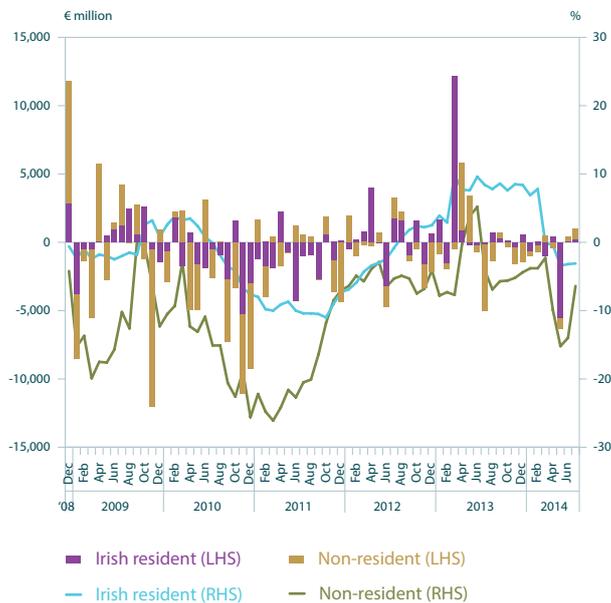
## Monetary Financial Institutions

The funding position of Irish resident banks has strengthened further in recent months, albeit against a backdrop of lower funding requirements. The banking system has continued to contract (Chart 1) reflecting the deleveraging efforts of Irish-owned credit institutions. This includes the ongoing downsizing of domestic banking groups' operations abroad, with the foreign claims of these domestic banks continuing to decrease on an annual basis, despite recording a quarterly increase in Q2 2014. Reliance on Eurosystem financing continued to decline<sup>1</sup>, albeit at a slower pace than in recent months. Debt securities issuance has stabilised and is now slightly higher than for the same period in 2013. Deposits from the Irish resident non-financial private sector grew by more than 4 per cent in the year ending July 2014, despite the continued decline in the weighted average interest rate on deposits, and particularly household term deposits. Rates in this category have been in decline since May 2012 and there is tentative evidence

that household deposit volumes are moving from medium-term categories towards the overnight category, highlighting the low deposit rates currently on offer across all maturities. Declining funding costs coupled with relatively stable lending rates in recent months have allowed some improvements in the net margin on lending by Irish credit institutions. Total resident and non-resident private-sector deposits, however, continued to decline despite positive net flows for two consecutive months (Chart 2). This decline is largely attributable to a technical reclassification of deposits from the resident other financial intermediaries (OFI) sector on foot of the special liquidation of IBRC.

Continued inflows into Irish resident money market funds (MMFs) contributed to an increase of €20 billion in their net asset value (NAV) during the three months to July 2014. While the largest increase in the NAV was due to investments in euro area securities, strong inflows were also recorded for securities issued by non-euro area residents.

<sup>1</sup> The fall in Central Bank funding is also attributable to transactions related to the Irish Bank Resolution Corporation (IBRC).

**Chart 1: Total Assets of Irish Resident Credit Institutions****Chart 2: Monthly Net Flows (LHS) and Annual Rates of Change (RHS) of Private-Sector Deposits in Irish Resident Credit Institutions**

## Non-Financial Private Sector

Lending by Irish resident credit institutions to the domestic non-financial private sector remains subdued. Lending to both households and non-financial corporations (NFCs) continued to contract, on both a monthly and annual basis, with repayments exceeding new lending (Chart 3). Gross new lending advanced by Irish credit institutions to small- and medium-sized enterprises (SMEs), however, increased in the first half of 2014 by comparison with the same period in 2013. SMEs are largely dependent on bank funding, unlike larger multinational corporations, which have recourse to capital markets or funding from parents. Agriculture continues to comprise the largest share of gross new lending. SME lending is further explored in Box A below. NFC debt as a percentage of GDP resumed a downward trend during Q1 2014, falling by 2.2 per cent to reach 205 per cent. This represented a decline in debt over the quarter of €1.5 billion. This decline partly reflected net debt repayments of €0.3 billion, as well as loan write-downs and

reclassifications. The weighted average interest rate on new loan agreements to NFCs up to €1 million (often used as a proxy for SME lending) increased by 33 basis points since June 2014, standing at 5.23 per cent by end-July. The corresponding interest rate charged by euro area credit institutions in July was 168 basis points lower, at 3.55 per cent.

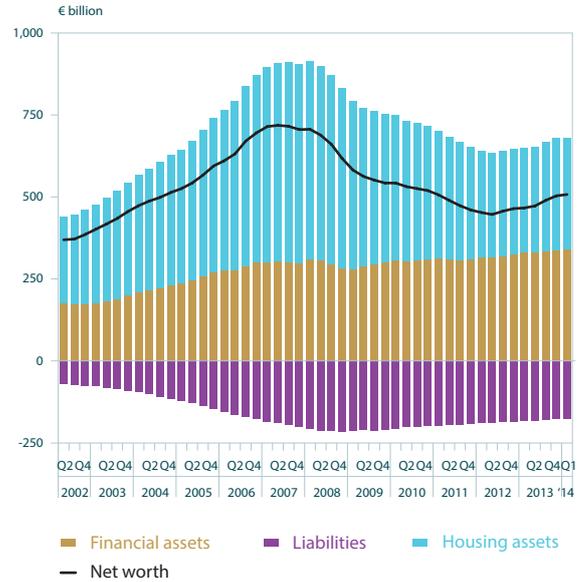
Meanwhile, household net worth rose by 0.9 per cent during Q1 2014, marking its seventh consecutive quarterly increase (Chart 4). At end-Q1 2014, net worth stood at €508.5 billion (or €110,312 per capita). Overall, net worth has risen by 13.7 per cent since Q2 2012. Increases in household financial assets (+€4.5 billion) and the continued reduction in household liabilities (-€1.9 billion) in Q1 2014 contributed towards this rise. Household debt fell by almost €2 billion during Q1 2014, whilst household debt sustainability continued to improve (Chart 5). Debt as a proportion of disposable income fell to 182.3 per cent with this decline largely reflecting reductions in household debt and, to a lesser extent, a slight increase in disposable income (€185 million).

**Chart 3: Loans to Irish Households and NFCs, Annual Rates of Change**



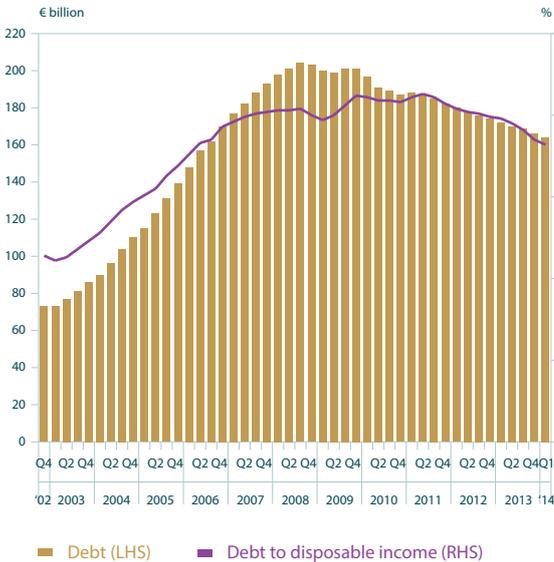
Source: Money and Banking Statistics, Central Bank of Ireland.

**Chart 4: Household Net Worth**



Source: Quarterly Financial Accounts, Central Bank of Ireland.

**Chart 5: Household Debt to Disposable Income**



Source: Quarterly Financial Accounts, Central Bank of Ireland.

**Chart 6: Q-on-Q Change in Long-Term PDH Arrears (in value terms)**



Source: Residential Mortgage Arrears and Repossessions Statistics, Central Bank of Ireland.

Notwithstanding improved household debt sustainability, the level of mortgage arrears continues to be a cause for concern. The number of mortgage accounts for principal dwelling houses (PDH) in arrears continues to decline. This, however, masks an increase in arrears of 720 days (Chart 6). In terms of buy-to-let (BTL) mortgages, accounts in arrears of over 90 days increased during Q2 2014, with a more pronounced increase among those accounts in arrears of over 720 days. For both PDH and BTL mortgages, the stock of restructured accounts increased over the quarter, with the largest increases recorded in the categories of split mortgages, arrears capitalisations, and reduced payment arrangements. Close to 102,000 PDH mortgage accounts were restructured at end-

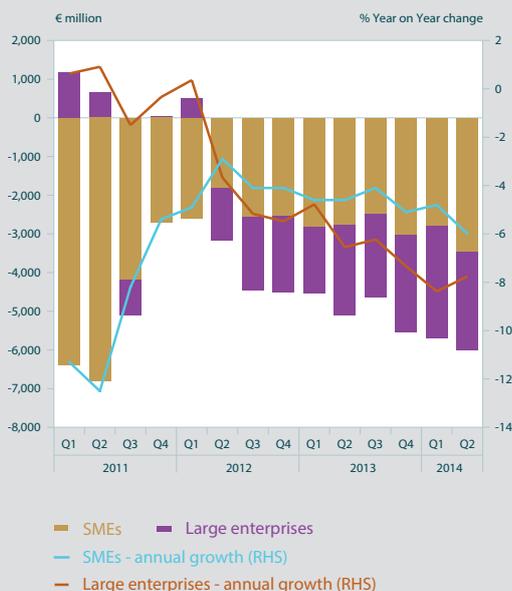
June, representing an increase of over 10 per cent during Q2. Of these, just over 81 per cent are meeting the terms of the restructure arrangement.

The interest rate on new loan agreements to households for house purchase (with either a floating rate or initial rate fixation of up to one year) fell by 14 basis points to 3.29 per cent at end-July 2014. This is some 66 basis points higher than the equivalent euro area rate. Lending rates for non-housing loans have not fallen over the past year despite ECB rate reductions. Overdraft rates for households were 86 basis points higher at end-July, compared to one year earlier. The methodology underlying the interest rate calculations is further elaborated in Box B.

### Box A: Trends in Bank Credit, Deposits and Real Economy Indicators for the SME Sector by Martina Sherman<sup>2</sup>

Recently released data show that total credit advanced to domestic private-sector enterprises by Irish credit institutions continues to decline, as it has been since mid-2009. The first six months of 2014 registered an annual decline of 9.8 per cent in bank credit extended to Irish businesses (excluding financial-intermediation related sectors) as repayments continued to outpace new lending (see Box A Chart 1). Even when property-related sectors are excluded, credit advanced has shown a deteriorating trend in recent quarters.

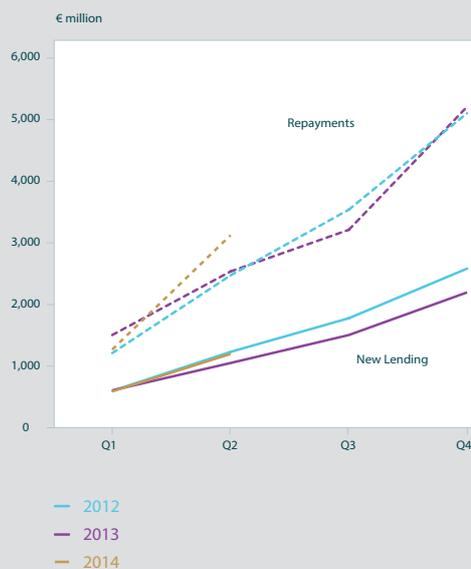
**Box A Chart 1: Net Flows in Credit to Irish Private-Sector Enterprises (12-month moving sum) and Annual Percentage Change**



Note: Chart excludes Financial Intermediation sectors.

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

**Box A Chart 2: Irish SME Cumulative Gross New Lending and Repayments**



Note: Chart excludes Financial Intermediation sectors. Repayments series is a proxy.

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

<sup>2</sup> The author is an Economist in the Statistics Division of the Central Bank of Ireland.

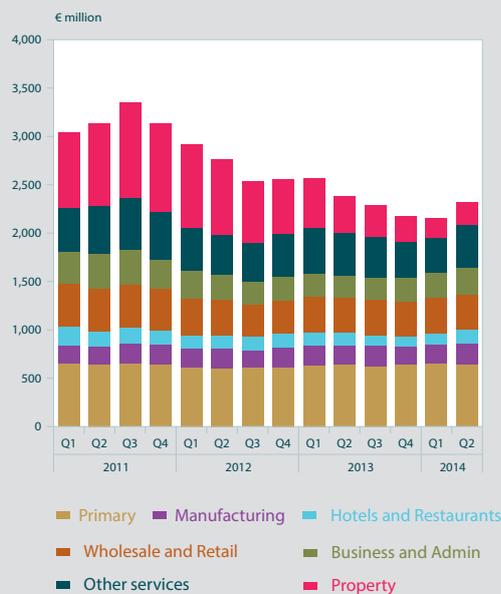
**Box A: Trends in Bank Credit, Deposits and Real Economy Indicators for the SME Sector**  
by Martina Sherman

Small- and medium-sized enterprises (SMEs) account for approximately 66 per cent of lending to non-financial private sector enterprises. Trends in SME credit are broadly similar to all enterprise credit, with more debt being repaid than being extended in new lending (see Box A Chart 1).

The *Business Credit and Deposits* series allows for the break-out of gross new lending and, by extension, the derivation of repayments. Box A Chart 2 shows the cumulative gross new lending and repayments made to and from Irish SMEs since 2012. Evident from the chart is the increase in new lending over the first half of 2014 when compared to 2013, albeit this is marginally lower than 2012 figures.

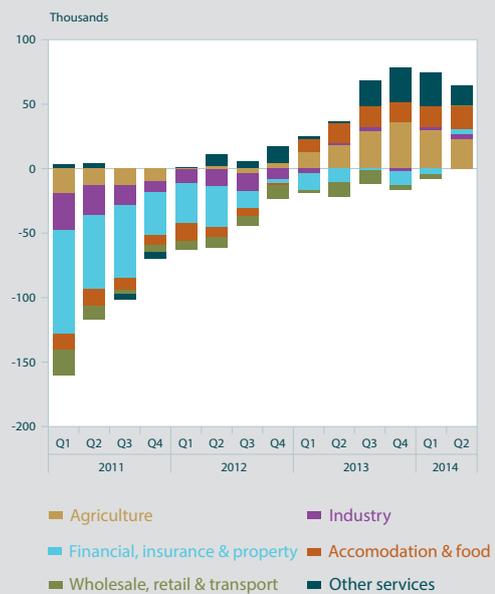
In line with trends from previous quarters, SMEs engaged in agricultural sectors continue to secure the highest share of gross new lending (excluding financial intermediation sectors), followed somewhat behind by SMEs in the wholesale/retail trade and repairs sector.<sup>3</sup> Over the year to end-Q2 2014, 90 per cent of gross new SME lending by Irish credit institutions was extended to SMEs engaged in sectors outside of property (core economic sectors). Interestingly, these sectors accounted for less than half (44 per cent) of outstanding SME credit over the same period, with the remaining 56 per cent owing entirely to outstanding property-related credit. This would indicate a more balanced distribution of credit (see Box A Chart 3). Another useful measure is to look at gross new lending as a percentage of the previous period's outstanding stock for each sector. Using this measure, new SME lending to agriculture over the year to end-Q2 2014 accounted for 15 per cent of the Q2 2013 outstanding stock of credit. Conversely, SMEs in the wholesale/retail trade and repairs sector drew-down 6 per cent of their Q2 2013 outstanding stock, while SMEs operating in the hotel and restaurants sector received just 2.6 per cent of their Q2 2013 outstanding stock. Lending to SMEs in property-related sectors was particularly weak, with draw-downs of 0.7 per cent of the previous quarter's stock. There also appears to be a rebalancing within property-related lending, with a tendency towards lending for construction purposes rather than speculative development.

**Box A Chart 3: Irish Gross New SME Lending (12-month moving sum)**



Note: Chart excludes Financial Intermediation sectors.  
Source: Money and Banking Statistics, Central Bank of Ireland.

**Box A Chart 4: Total Employment – Net Flows by Economic Sector, 2-year moving average**



Note: Data are seasonally adjusted.  
Source: Central Statistics Office (CSO).

3 See the 'Trends in Business Credit and Deposits: Q2 2014' Statistical Release on the Statistics page of [www.centralbank.ie](http://www.centralbank.ie).

**Box A: Trends in Bank Credit, Deposits and Real Economy Indicators for the SME Sector**  
by Martina Sherman

The increase in bank credit to the traditional SME sectors of agriculture and manufacturing, while indicative of a welcome rebalancing of the allocation of sectoral credit, does raise questions, however, over the disparity between trends in gross new lending and other available macro-economic indicators. The above trends in SME credit, as evident in Box A Chart 3, have remained broadly similar over the last few quarters and are not in line with discernible improvements in other economic indicators.

Central Statistics Office (CSO) data from the Quarterly National Household Survey (QNHS) for Q2 2014 shows that multiple sectors, particularly the tourism sectors of hotel and restaurants, and agriculture, experienced large gains in employment in recent quarters. Box A Chart 4, which presents the two-year moving average of net flows in employment, shows the significant gains in employment across sectors. Agriculture-related sectors recorded an increase of 22,900 persons over the two years to Q2 2014, while employment in the accommodation and food service sectors increased by 17,500 persons. Employment in other services saw an increase of 15,800 persons, with the majority of the increase coming from professional and administrative-related services (13,900 persons). Similar strong performance is recorded for these sectors in the latest Quarterly National Accounts (QNA). Agriculture, forestry and fishing sectors recorded a 17.1 per cent year-on-year increase in gross value added in Q2 2014, with a 10.9 per cent increase in 'Distribution Transport Software and Communication', which includes the hotels and restaurants sector. 'Other Services', which includes professional and administrative-related services, registered a 2.7 per cent annual increase in Q2.

Survey-based data, however, may help explain the apparent variance in macro-economic and credit data. For example, the Department of Finance's *Red C SME Credit Demand Survey*<sup>4</sup> for Q1 2014, finds that Irish SMEs are currently focused on stabilising current business, as opposed to expansion, as trading conditions improve, albeit from a low base. The survey also reports an overall decrease in credit demand on foot of improved trading conditions. The necessity for credit for working capital finance has reduced, reflecting higher retained earnings and the use of internal funds. Furthermore, credit demand is mainly for short-term financing with the renewal and restructure of overdraft products remaining the main bank product requested.

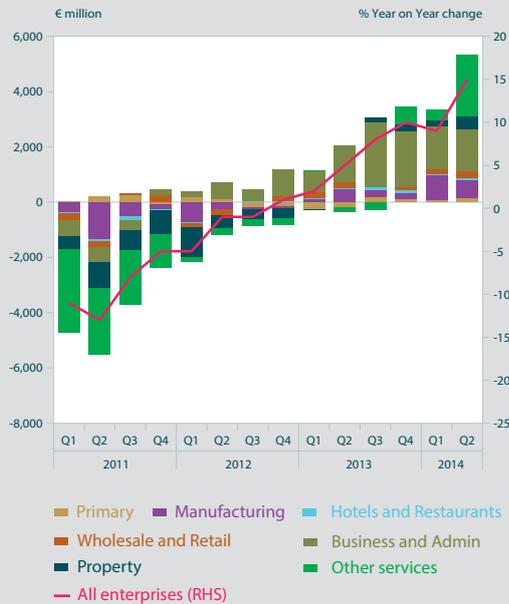
The growth in Irish private-sector enterprise deposits would also indicate a higher reliance on internal funding. Box A Chart 5 shows the marked increase in deposits from Irish private-sector enterprises by economic sector, of which SMEs make up a large proportion. From the monthly *Money and Banking* statistics<sup>5</sup>, we also know that most of the increase in non-financial corporations (NFC) deposits is confined to the overnight and short-term categories. This may also be indicative of a preference for highly liquid deposits given current uncertainty in terms of credit supply, along with the increased use of own funds for working capital purposes. It may also suggest the availability of other sources of funding, although most SMEs tend to be dependent on bank credit for their financing needs.

4 See <http://www.finance.gov.ie/news-centre/press-releases/red-c-survey-shows-trading-conditions-are-improving-irish-smes>.

5 See Table 11.1 in <http://www.centralbank.ie/polstats/stats/cmab/Pages/Money%20and%20Banking.aspx>. Note that variances in methodology applies, see *Business Credit and Deposits Explanatory Notes*: <http://www.centralbank.ie/polstats/stats/cmab/Pages/BusinessCredit.aspx>

**Box A: Trends in Bank Credit, Deposits and Real Economy Indicators for the SME Sector**  
by Martina Sherman

**Box A Chart 5: Net Flows in Deposits of Irish Private-Sector Enterprises (12-month moving sum)**



Note: Chart excludes Financial Intermediation sectors.

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

However, while own resources may have reduced reliance on bank funding for working capital, it is unlikely to provide funding for investment and expansionary purposes. Survey data would suggest that there has been little borrowing for investment to date but it is likely that credit demand for investment purposes will grow as economic conditions improve.

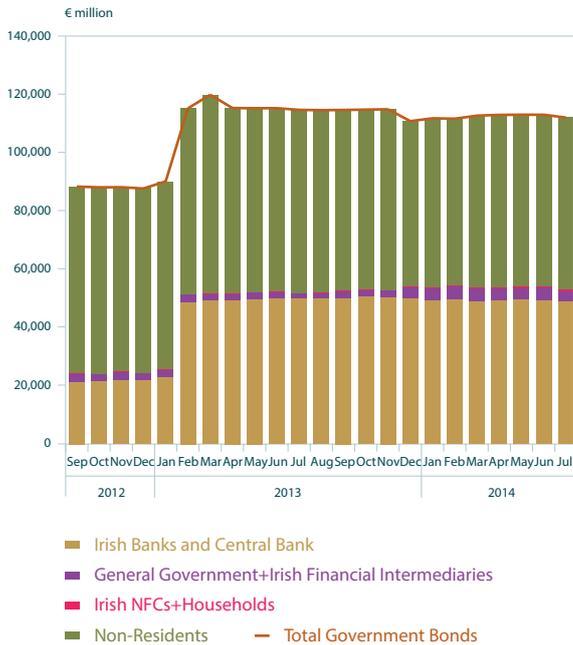
## Government

The outstanding nominal volume of existing Irish government long-term bonds in issue was approximately €112 billion at end-July 2014 (2.3 per cent lower than the equivalent period in 2013). Holders of these bonds are predominantly non-resident, with 53 per cent of government bonds in issue held by foreign investors. Resident holders, predominantly comprising banks, held almost half (47 per cent) of the total amount outstanding (Chart 7). The government deficit, measured as a four-quarter moving average, improved further during Q1 2014, falling from €2.5 billion to €2.2 billion. The deficit has declined every quarter since Q2 2012.

Developments in long-term Irish government bond yields from late Q2 and into Q3 2014

have been positive (Chart 8). By early June, the yield on the ten-year Irish government bonds stood at just over 2.6 per cent. Thereafter, the yield followed a broadly downward trajectory before falling below 2 per cent by mid-August, with some other peripheral euro area countries experiencing similar downward yield trends over the same period. This downward movement in long-term Irish government bonds continued into September with yields falling to under 1.7 per cent. This later easing came on foot of an announcement by Fitch upgrading Ireland's credit rating to A- with a stable outlook. The move by Fitch followed earlier upgrades of Ireland's rating by both Moody's and S&P. Falling yields also reflected the impact of a series of international developments, including anticipation surrounding the launch of a first Targeted LTRO in the euro area and the potential for further

Chart 7: Holders of Irish Government Bonds



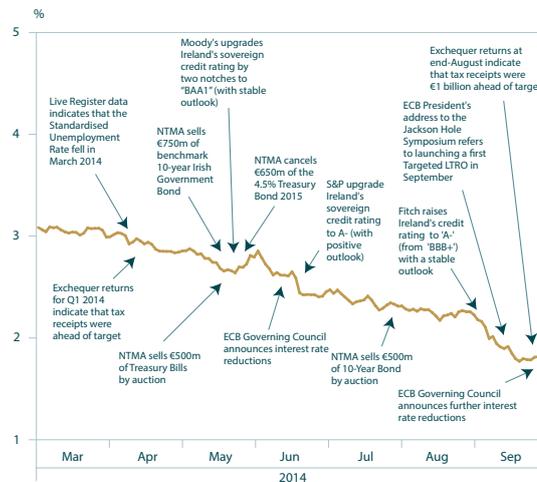
Source: Central Bank of Ireland.

ECB interest rate reductions following President Draghi's address to the Jackson Hole Symposium. Yields continued to fall following the ECB decision in early September to lower the interest rate on its main refinancing operations by 10 basis points, and to purchase a broad range of non-financial private sector assets under an ABS-purchase programme.

## Non-Bank Financial Sector

Developments in the non-bank financial sector, which are heavily influenced by the international environment, were mixed in Q2 2014. The net asset value (NAV) of investment funds (IFs) resident in Ireland expanded by just under 8 per cent in Q2 2014, rising to €1,202 billion (from €1,115 billion in Q1) with the industry nearly doubling in size since end-2010 (Chart 9). The performance of IFs was driven by both investor inflows (€45 billion) and positive revaluation effects (€45 billion). The latter were mainly as a result of an increase in equity prices, especially from gains in US equity markets. Most fund types experienced investor inflows, despite some sell-off, from UK and US bond markets since end-2013, whilst

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 the 6th February 2014, leading to a temporary jump in the yield overall.

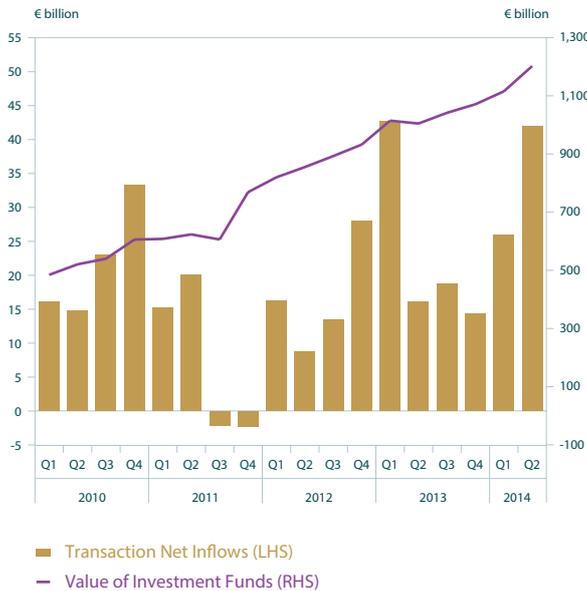
Source: Thomson Reuters Datastream.

all fund types experience NAV growth. Bond, mixed and equity funds benefitted most from this growth, although hedge funds experienced the smallest gains (due to short-selling as part of their investment strategy).

Meanwhile, the assets of Irish resident financial vehicle corporations (FVC) fell to approximately €396 billion<sup>6</sup> as the downward trend in FVC assets re-emerged in Q2 2014, following a small increase in the previous quarter (Chart 10). This fall was largely driven by National Asset Management Agency (NAMA) transactions, as NAMA sold off IBRC assets of around €7.4 billion. NAMA also sold off other securitised loans of just under €2 billion in Q2. Despite falling FVC assets, reporting numbers increased to 722 in Q2 (up from 708 in Q1), an increase driven by a rise in the number of Commercial Mortgage-Backed Securities (CMBS)-type FVCs. Similar to Ireland, euro area FVC assets fell by €24 billion to €1,861 billion, with Ireland's share of euro area FVC assets declining to 21.3 per cent (from 22.4 per cent in Q1 2014).

<sup>6</sup> This reflected net transactions of minus €23.5 billion combined with negative revaluations of €2.6 billion.

**Chart 9: 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 10: Total Assets and Number of Reporting Irish Resident FVCs**



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

**Box B: MIR - Interest Rate Statistics**  
by Gavin Doherty<sup>7</sup>

**Background**

Monetary Financial Institution Interest Rate (MIR) statistics are compiled on a monthly basis from data submitted to the Central Bank by resident monetary financial institutions (MFIs). MIR statistics relate to euro-denominated loans and deposits vis-à-vis both households and non-financial corporations (NFCs). The aim of MIR statistics is to produce a comparable set of euro area interest rates on deposit and lending business compiled on a harmonised basis across countries, primarily for monetary policy purposes. MIR statistics are primarily used for:

- Facilitating a more complete assessment of the impact of monetary policy on the macro economy.
- Analysing the monetary policy transmission mechanism, and particularly, the extent and speed of the interest rate pass-through between official/market rates and lending/deposit rates.
- Assessing the effect of interest rate movements on the cost of capital and how this influences investment and saving decisions of various economic agents.
- Monitoring structural developments in the banking and financial system arising from changes in MFI interest rates and in volumes of both lending and borrowing.

<sup>7</sup> The author is an Economist in the Statistics Division of the Central Bank of Ireland.

**Box B: MIR - Interest Rate Statistics***by Gavin Doheny***New Business Rates**

MIR statistics are collected on the volumes and corresponding interest rates for both outstanding amounts and new business with respect to loans and deposits. For retail interest rate statistics purposes, new business is defined as any new agreement between the customer and the credit institution. This agreement covers all financial contracts that specify, for the first time, the interest rate of the deposit or loan, including any renegotiation of existing deposits and loans. Automatic renewals of existing contracts, which occur without any involvement by the customer, are not included in new business. The rationale for the MIR new business series is, therefore, to capture interest rate changes for all transactions within each instrument category.

The instrument category pertaining to new household loans for house purchase with a 'floating rate or initial fixation period of up to 1 year' is broader in scope than just 'new mortgages'. There are a number of reasons the definition of this instrument category does not track headline mortgage rates as advertised:

- New business for MIR series includes 'renegotiated' contracts which increases the volume of new business above the level of new mortgages issued.
- In the MIR framework, loans to households for house purchase are defined as '*...for the purpose of investing in housing, including building and home improvements*'. This includes home improvement loans in addition to mortgages issued.
- Interest rates derived from agreed contract rates between customers and issuing institutions will differ from broader rates typically advertised by credit institutions.

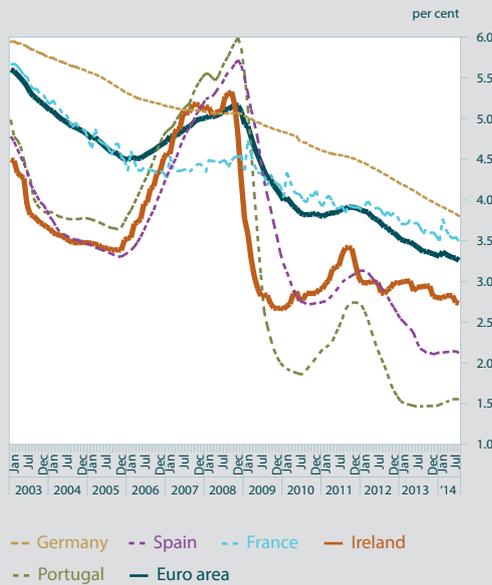
**Euro Area Comparisons**

Following the creation of a harmonised MIR statistical framework, one might have expected credit institutions with the same monetary environment and broadly similar wholesale funding market conditions to converge in their pricing of retail banking products. However, as Box B Chart 1 shows, retail interest rates have continued to diverge across countries in recent years. A number of factors can contribute to these differences:

- Credit Risk – The perceived risk of credit default has an obvious link with the pricing of retail banking products. In countries with a higher perceived risk of default, higher retail interest rates may be offered. The perceived risk of default can be influenced by developments in house prices, weakening household/NFC financial strength and the growth prospects of the wider macro economy.

**Box B: MIR - Interest Rate Statistics**  
by Gavin Doherty

**Box B Chart 1: Interest Rates on Outstanding Loans to Households for House Purchase**



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

**Box B Chart 2: Volume of New Business Loans for House Purchase**



Note: Box B Chart 2 depicts Loans with a 'floating or initial fixation period of up to one year' as a percentage of the Total New Business Loans to Households for House Purchases.

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

- **Market Structure** – Structural differences in retail financial markets can lead to divergent interest rates. For example, some markets tend to have higher levels of loan collateralisation. The level of collateralisation can impact on the prevailing interest rate offered. In addition, different levels of competition can lead to interest rate variations across markets and affect the pass-through mechanism.
- **Regulatory Framework** – While great strides have been made in recent years to harmonise regulatory structures across Europe, legislation at national level can still impact retail interest rates differently. National regulations may restrict the number of times a variable interest rate can be changed annually or control the maximum rate than can be applied to customers.

**Initial Period of Loan Rate Fixation**

MIR loans are categorised based on the initial period of interest rate fixation, while deposits are classified on their respective maturity length. For loans with an initial fixation period of between 1 and 5 years, some countries may have an average fixation period of just 1 year, while others might average 5 years. This variance will lead to different retail interest rates being reported within the same instrument category across countries. In Ireland, credit institutions have a large portion of loans for house purchase on variable rates. For illustrative purposes, Box B Chart 2 outlines the volume of new business loans for house purchase with a 'floating rate or initial fixation period of up to 1 year' as a percentage of total household loans. In Ireland and Portugal, variable or one year fixation contracts constitute a very high percentage of their respective mortgage markets. In contrast, Germany and France have a much lower proportion, as longer-term fixed-rate contracts tend to be much more prevalent. This structural difference means countries are impacted differently by movements in benchmark ECB rates.

**Box B: MIR - Interest Rate Statistics***by Gavin Doheny***Future Developments**

The forthcoming regulation (EU) No 1072/2013, effective from 2015, will introduce a number of changes to the MIR statistics. The MIR statistics will be enhanced to provide increased granularity to the existing data. In addition, the sample of banks submitting MIR data to the Central Bank will be increased.

The current new business series does not distinguish between actual new business and renegotiated contracts. The forthcoming enhancement of the MIR series will allow this distinction. Data will also be collected on rates applicable to standard variable rate, tracked and fixed rate instrument categories.

The interest rate applicable to lower volume loans to NFCs is often used to measure rates offered to the SME sector, although the accuracy of this proxy is somewhat uncertain. The new reporting template will provide a sectoral breakdown of the interest rates charged to SME loans in order to provide increased granularity.

For detailed commentary on the latest developments in financial statistics, please see the following:

- **Monetary Financial Institutions**

Money and Banking Statistics, July 2014

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

Security Issues Statistics, July 2014

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

Locational Banking Statistics, Q2 2014

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

Consolidated Banking Statistics, Q1 2014

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

- **Non-Financial Private Sector**

Money and Banking Statistics, July 2014

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

Trends in Personal Credit and Deposits, June 2014

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

Trends in Business Credit and Deposits, June 2014

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

Interest Rate Statistics, July 2014

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

Quarterly Financial Accounts, 2014 Q1

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

Mortgage Arrears Statistics, June 2014

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

- **Government**

Quarterly Financial Accounts, 2014 Q1

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

Holders of Irish Government Bonds, July 2014

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

- **Non-Bank Financial Sector**

Investment Fund Statistics, 2014 Q2  
[http://www.centralbank.ie/polstats/stats/  
investfunds/Pages/default.aspx](http://www.centralbank.ie/polstats/stats/investfunds/Pages/default.aspx)

Financial Vehicle Corporation Statistics,  
2014 Q2  
[http://www.centralbank.ie/polstats/stats/  
fvc/Pages/fvc.aspx](http://www.centralbank.ie/polstats/stats/fvc/Pages/fvc.aspx)

For up-to-date charts on the latest financial  
statistics, please see the following:  
[http://www.centralbank.ie/polstats/stats/  
summarychart/Documents/ie\\_financial\\_  
statistics\\_summary\\_chart\\_pack.pdf](http://www.centralbank.ie/polstats/stats/summarychart/Documents/ie_financial_statistics_summary_chart_pack.pdf)



# Developments in the International and Euro Area Economy

## Overview

Six years after the start of the crisis, international growth continues along an insipid but not yet robust recovery path. Very accommodative monetary policies in advanced economies continue to support a modest economic recovery. While it is hoped that strengthened demand in advanced economies will foster a faster rebound in the rest of the world, business and consumer confidence remains fragile in many areas. Led by the strong acceleration in China following fiscal stimulus and a further surge in credit, overall activity in emerging markets improved during the second quarter. Since the last Bulletin, financial conditions have shifted towards more caution for the euro area amid softer economic data, escalating geopolitical risks and expectations of monetary policy tightening in the US. There is also considerable uncertainty about the recovery of private demand in the euro area due to ongoing bank and corporate balance sheet repair affecting business investment, despite reasonable earnings growth and very low interest rates. However, monetary policy in the euro area remains accommodative, as indicated by the September announcement of a combination of measures to provide additional monetary accommodation with a view to supporting lending to the real economy.

The global recovery continues but remains moderate and uneven. Growth rates have not improved for the past three years, are slower than during the initial rebound from the global crisis and remain well-below their pre-crisis pace. This is set to continue as mid-year projections for 2014 have been marked down, reflecting both weak first quarter outturns, particularly in the United States and Japan, and a less optimistic outlook for the remainder of the year. The composite global PMI rose in July but looking further forward, the OECD's composite leading indicators point to a continued slow recovery, heavily dependent on improving prospects in the non-euro area advanced economies. Some of the drivers underlying first quarter weakness, such as the severe weather and an inventory correction in the United States, have only had temporary effects. US private consumption is expected to pick up as balance sheet deleveraging wanes, household wealth increases and the labour market improves. Japan continues to recover

from April's sales tax rise, though growth is likely to remain modest having contracted in Q2. The UK expanded at a brisk pace in the first half of this year, driven by improving domestic demand and a rejuvenated housing market, but the recovery may moderate slightly if household consumption is constrained by modest real income growth in the face of still sluggish productivity growth. Continued fiscal consolidation is not expected to dampen a broadening out of the UK recovery where investment is already picking up.

In contrast, euro area real GDP remained flat in the second quarter of this year. While it partly reflected one-off factors, this outcome was weaker than expected. Positive contributions to growth from domestic demand and net exports were counterbalanced by a negative contribution from changes in inventories and various temporary factors.

**Table 1: Changes in forecasted real GDP in selected economies**

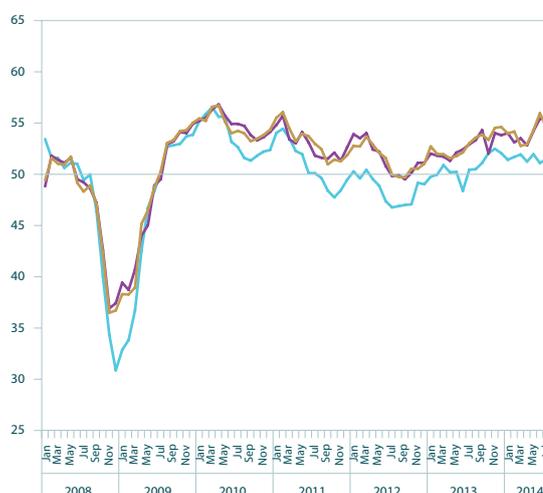
	Percentage Change		
	2013	2014 <sup>f</sup>	2015 <sup>f</sup>
Global	3.2	3.4	4.0
United States	1.9	1.7	3.0
Euro Area	-0.4	1.1	1.5
United Kingdom	1.7	3.2	2.7
China	7.7	7.4	7.1
Japan	1.5	1.6	1.1

Source: IMF World Economic Outlook, July Update 2014.

f Forecast

Economic conditions improved on aggregate across emerging market economies but activity has varied among them. Real GDP growth in the second quarter rebounded strongly in China, underpinned by fiscal stimulus, a relaxation in credit conditions and an upturn in net trade. It moderated in India, owing to persistently high inflation and infrastructure gaps, and faltered in Brazil and Russia. While emerging markets have benefitted from some respite in financial market pressures in recent months, they could face a sudden worsening of financial conditions and a reversal in capital flows in the event of a shift in financial market sentiment, particularly if U.S. long-term rates were to increase more rapidly than expected as monetary policy normalisation proceeds.

Growth in world trade turned marginally negative in the second quarter, continuing its path of weakening since the end of last year. The volume of world imports of goods declined by 0.1 per cent in the second quarter, reflecting trade weakness in Asia and central and eastern Europe, as well as in Japan. Balance of payments data on trade in goods and

**Chart 1: Global Purchasing Managers' Index**

— Composite New Orders / Incoming New Business Index  
 — Composite Output / Business Activity Index  
 — Manufacturing New Export Orders Index

Source: Markit.

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

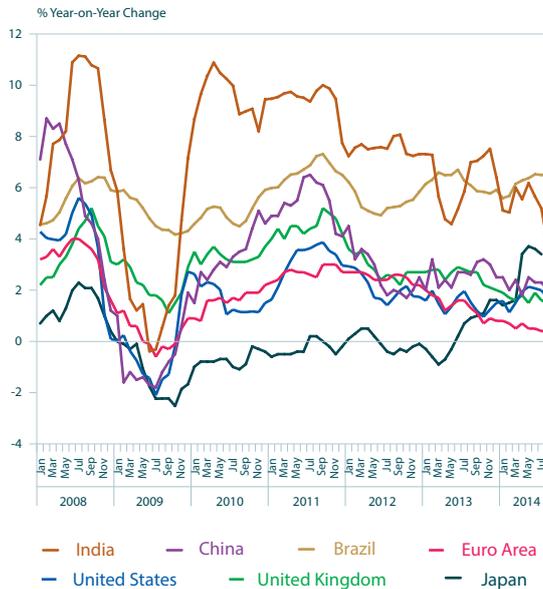
**Table 2: Inflation in selected economies, 2013 and forecasts for 2014 and 2015**

	Percentage Change		
	2013	2014 <sup>f</sup>	2015 <sup>f</sup>
Euro Area	1.3	0.9	1.2
United States	1.5	1.4	1.6
United Kingdom	2.6	1.9	1.9
China	2.6	3.0	3.0
Japan	0.4	2.8	1.7

Source: IMF World Economic Outlook, April 2014.

f Forecast

Chart 2: Selected Global Inflation Rates



Source: Thomson Reuters Datastream.

services confirm this recent weakness in world trade but the global PMI for new manufacturing export orders picked up in August, after having remained flat since the beginning of the year, pointing to a possible improvement in global trade momentum in the near term.

Following a period of relatively subdued rates in 2013 into 2014, global inflation increased in the second quarter. Headline consumer price inflation in the OECD area had picked up to 2.1 per cent in the second quarter from 1.6 per cent in the first quarter, but decreased slightly to 1.9 per cent in July reflecting a slightly weaker contribution from the energy component. Recent inflation developments in the largest emerging market economies have been mixed with CPI inflation since the start of 2014 showing an increasing trend in Russia and Brazil, but becoming more stable at lower rates in India and China compared with the same period last year. Looking forward, inflation pressures are expected to remain contained, in an environment of slowly diminishing economic slack and relatively well-anchored inflation expectations.

Chart 3: GDP Growth Rates



Source: Thomson Reuters Datastream.

## Section 1: Euro Area

### Economic Growth – Recent Developments

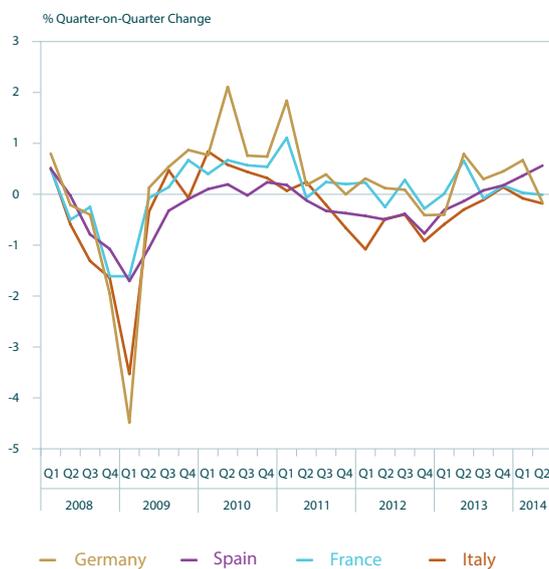
Following four quarters of moderate expansion, euro area real GDP displayed zero growth in the second quarter of this year compared with the previous quarter. While it partly reflected one-off factors, this outcome was weaker than expected. The lack of growth was driven by negative developments in Germany and Italy (both -0.2 per cent), while France remained flat for the second consecutive quarter. The Netherlands, Finland and Portugal returned to weak growth having contracted in Q1. Available country data and short-term indicators suggest that positive contributions to growth from domestic demand and net exports were counterbalanced by a negative contribution from changes in inventories. Although the second quarter outcome was disappointing, part of the weakness reflected temporary and technical factors relating to the mild winter and the timing of Easter which may partly explain why survey results did not fully capture the decline.

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

	2013Q3	2013Q4	2014Q1	2014Q2 <sup>e</sup>
<b>Consumption</b>	0.1	0.0	0.1	0.1
<b>Government</b>	0.1	-0.1	0.1	0.0
<b>Investment</b>	0.1	0.2	0.1	0.0
<b>Inventories</b>	0.3	-0.2	0.2	-0.1
<b>Exports</b>	0.0	0.6	0.1	0.1
<b>Imports</b>	-0.4	-0.3	-0.4	-0.1
<b>GDP</b>	<b>0.1</b>	<b>0.3</b>	<b>0.2</b>	<b>0.0</b>

Source: Eurostat.

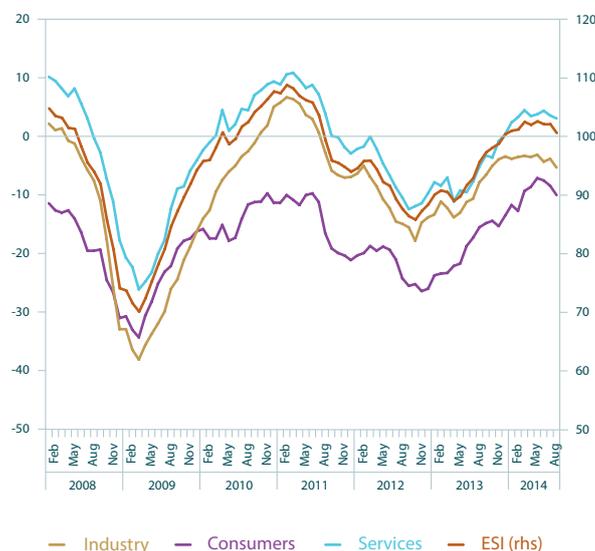
e estimated by ECB staff

**Chart 4: Euro Area GDP Growth**

Source: Thomson Reuters Datastream.

Total investment rose by only 0.2 per cent in the first quarter and this continued weakness is expected for the second quarter as reflected in weak recent data for capital goods and construction production. The growth in real government consumption is also expected to have declined in the second quarter following a quarterly increase of 0.7 per cent in the first quarter.

With regard to the third quarter, early activity data available to August indicate some return of cyclical growth momentum, consistent with a very modest expansion. New passenger car registrations rose by almost 2 per cent quarter-on-quarter in Q2 and rose again in July thereby

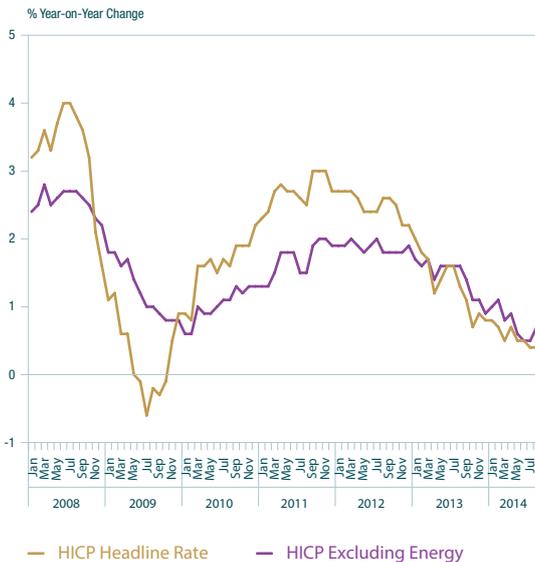
**Chart 5: Economic Sentiment Indicator & Selected Components**

Source: European Commission.

producing a positive carry-over effect for the third quarter. Industrial production expanded by 1.0 per cent in July, with increased activity in capital goods, non-durable consumer goods and intermediate goods. However, exports of merchandise goods weakened for the second consecutive month in July, reflecting weaker global trade and the then relative strength of the euro. Furthermore, retail sales fell by 0.4 per cent in July – the first monthly decrease so far in 2014 – on the back of disappointing results from Germany, Austria and France.

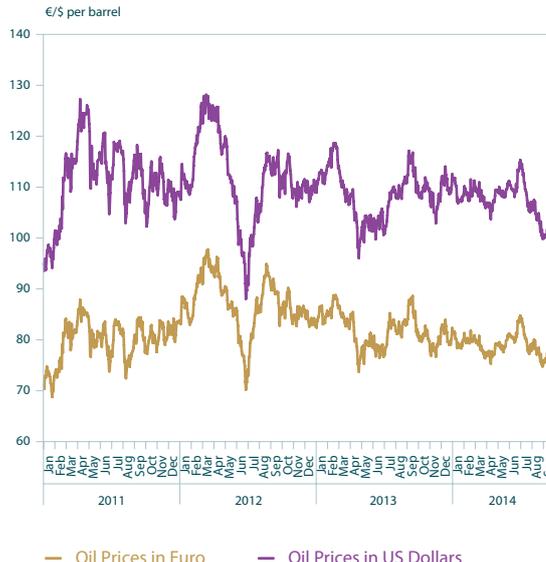
Recent survey data point to a fall in sentiment in the euro area. The EU Commission's Economic Sentiment Indicator (ESI) has

**Chart 6: Euro Area Inflation**



Source: Thomson Reuters Datastream.

**Chart 7: Oil Prices – Brent Crude**



Source: Thomson Reuters Datastream.

remained above its long-term average value to date in 2014, standing at 100.6 in August, although the index fell by 1.5 points in that month alone. Industrial confidence remains above its long-term average value, also weakening significantly in August reflecting more cautious views on production expectations and current levels of overall order books. Euro area consumer confidence also decreased in September due to a less optimistic outlook regarding future unemployment and the future general economic situation. Recent PMI data suggest that the euro area remained in modest expansionary territory during the third quarter of 2014. The composite output PMI stood at 52.5 in August 2014, with a value of 50.0 or more indicating output expansion. The euro area PMI continues to reflect solid readings from Germany and Spain, while data for France lay below the 50.0 mark in August, indicating a downturn in activity there.

Available indicators point to an improvement in euro area exports in the third quarter of 2014 with the PMI for new export orders remaining above the expansion threshold of 50 and its long-term average level. After a small increase from 52.4 in June to 52.6 in July, the index fell in August to 51.7. Euro area imports are also likely to grow in the near term, albeit at a subdued pace, broadly in line with the gradual recovery in

domestic demand. Overall these developments point to a broadly neutral contribution from net trade to quarterly GDP in Q3.

Labour markets show signs of improvement, in line with the modest recovery in economic activity since this time last year. Employment rose further by 0.1 per cent, quarter-on-quarter, in Q1. The unemployment rate has continued to decline from its 12 per cent peak reached in Q2 2013 and fell by another 0.1 percentage point, to average 11.6 per cent in the second quarter of 2014.

**Economic Growth – Outlook**

Over a longer perspective, business and consumer confidence have so far remained above their long-term averages and real income growth has increased. Domestic demand should be supported by the range of monetary policy measures taken, the ongoing improvements in financial conditions, the progress made in fiscal consolidation and structural reforms and lower energy prices supporting real disposable income. At the same time, the recovery is likely to continue to be dampened by still high unemployment, sizeable unutilised capacity, continued negative loan growth to the private sector and the

necessary balance sheet adjustments in the public and private sectors. The projections for the euro area foresee annual real GDP growth increasing by 0.9 per cent in 2014, 1.2 per cent next year and 1.9 per cent in 2016. However, compared with the projections from April 2014, the projections for 2014 and 2015 have been revised downwards. The

risks surrounding the economic outlook for the euro area are assessed to be mainly on the downside. In particular, the loss in cyclical growth momentum, while remaining consistent with a modest expansion, continues to dampen private investment, and heightened geopolitical risks could have a further negative impact on business and consumer confidence.

### Box A: The Importance of Housing Assets Across the Wealth Distribution

By William Hynes

The extent to which different forms of asset price shocks affect the economy is the subject of much interest to researchers and policy makers. Empirical evidence suggests that property price bubbles have greater consequences for economic activity than other forms of asset price volatility, with the ensuing price corrections shown to cause the deepest and most prolonged recessions (Claessens et al., 2008). This result is potentially related to the heterogeneous distribution of asset ownership – that is to say, the number of individuals that are affected by price changes and the extent to which they are affected – as well as the leverage associated with property price bubbles. As identified by Honohan (2014), the importance of the distribution of housing assets only becomes truly evident when property values fall but the associated leverage remains.

Asset price volatility can have important consequences for real economic activity. One of the transmission channels between asset prices and consumption is the wealth effect, according to which households maximise utility under a lifetime resource constraint (Altissimo et al., 2005). A decline in net worth, and potentially income, due to an asset price fall reduces the resources available for consumption and requires an increase in the portion of income that is saved. Given that housing assets tend to represent a large share of a household's asset portfolio, price decreases can thus have strong wealth effects. This effect is less strong for price falls in other asset classes, where the holders are better diversified and less leveraged. Using panel data for US states over a 37 year period, Case, Quigley and Shiller (2012) find a consistently stronger effect of housing wealth on consumption than the effect of stock prices on consumption. It should be noted however that there is less evidence in the literature that it has the same strength of effect in the euro area.

This box examines the role that housing assets play in the wealth of households at different points along the wealth distribution in the Euro Area. The data used are from the Eurosystem Household and Finance Consumption Survey (HFCS) which analyses the composition of household balance sheets. The first wave of the survey was conducted during 2010 in a harmonized manner across fifteen euro area countries, with the sample including over 62,000 households. Ireland, along with Estonia, did not participate in the first wave but will be included in the sample when the results of the second wave of the survey are released.

In order to measure the proportion of net worth composed of housing assets, two different ratios were calculated for each household in the sample. The first of these measures identified the percentage of net worth that is composed solely of a household's Primary Dwelling House (PDH). A more comprehensive measure of housing wealth was also estimated, where the numerator includes additional housing assets such as investment and holiday property. The denominator to both ratios, net worth, is the net asset value held by each household (i.e. the sum of real and financial assets minus liabilities). In order to assess how these ratios vary across the wealth distribution, households were placed into wealth "buckets" according to their net worth standing.<sup>1</sup> A weighted median ratio of housing assets to net worth was estimated for each wealth bucket. In each case, the weighted median<sup>2</sup> omits households without housing assets, whose ratio would have been zero.

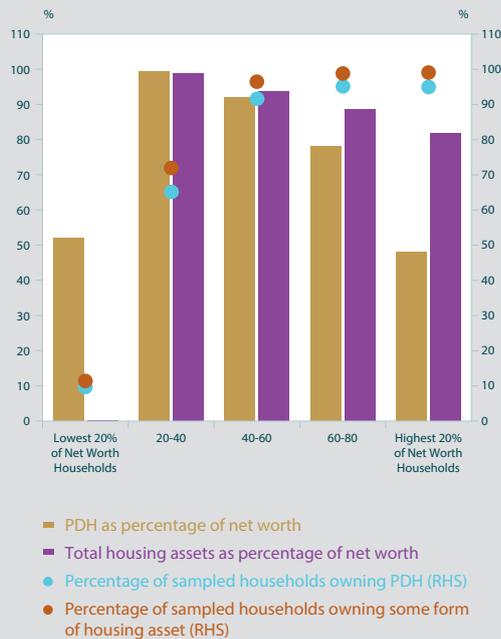
<sup>1</sup> All households, regardless of whether they are homeowners, were included when calculating these net worth quantiles.

<sup>2</sup> The weighted median is used as opposed to a weighted mean as it is less influenced by outliers. The suggested HFCS weights were used for each household in order to improve the representativeness of the sample.

**Box A: The Importance of Housing Assets Across the Wealth Distribution**  
By William Hynes

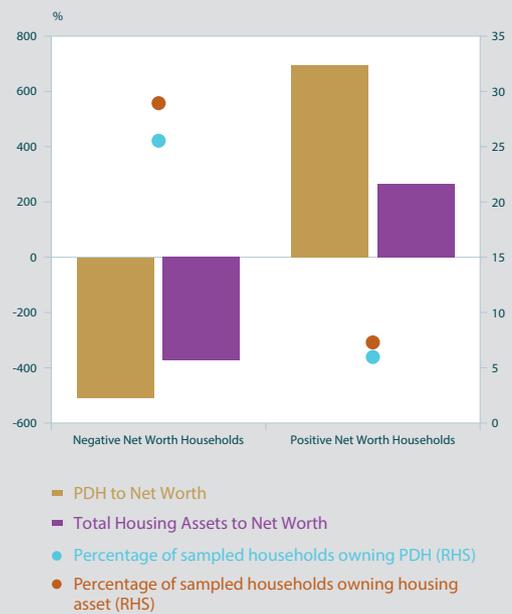
Chart 1 shows the proportion of net worth held in the household's PDH and total housing investments across the fifteen euro area countries in the HFCS sample, as well as the percentage of sampled households that own housing assets. The metric analysed is the weighted median ratio in each wealth bucket. Those households with negative ratios, reflecting negative net worth positions, are extrapolated from the lowest wealth bucket and shown separately in Chart 2.

**Box A Chart 1: Housing Assets as a Percentage of Net Worth**



Source: Eurosystem Household Finance and Consumption Survey.

**Box A Chart 2: Lowest 20% of Net Worth Households**



Source: Eurosystem Household Finance and Consumption Survey.

As would perhaps be expected, the percentage of households owning a housing asset gets progressively higher as net worth increases. The exception to this is the lowest wealth bucket, where only 11.4 per cent of sampled households own housing assets. Looking in more detail at this bucket, the percentage of property owners is considerably higher for negative net worth households; 28.9 per cent of negative net worth households own a housing asset compared to 7.3 per cent of positive net worth households. It can therefore be inferred that for the poorest category of households, owning a housing asset increases the likelihood of being in a negative net worth position in 2010. The effects of house price decreases on net worth in the euro area since the beginning of the financial crisis are evidently a strong reason for this finding; 67.8 per cent of negative net worth property owners are in a negative equity position on their property investments.

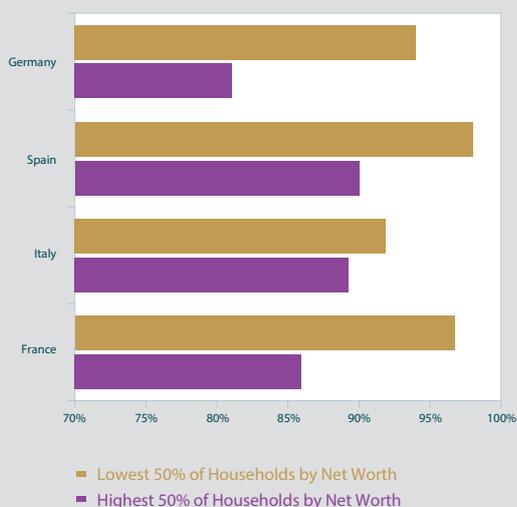
Looking at the weighted median ratios of housing assets to net worth, the results demonstrate that housing constitutes a considerably higher proportion of net worth for relatively poorer households. When looking solely at PDH holdings, and excluding negative net worth observations, the lowest net worth bucket of households has more than 14 times the share of net worth invested in this asset category than the wealthiest quintile of the population; a weighted median of 693 per cent for the former as opposed to 48 per cent for the latter. In terms of total housing investments, the difference is less pronounced (265 per cent versus 82 per cent) but the contrast is still clearly evident. To put these figures in context, this means that a 10 per cent fall in property prices will result in an average 26.5 per cent decline in net worth for the poorest fifth of the population while only reducing the net worth of the wealthiest quintile by 8.2 per cent.

**Box A: The Importance of Housing Assets Across the Wealth Distribution**

By William Hynes

The differing impacts discussed above are due to asset diversification and leverage. For those households that have a ratio of less than 100 per cent, other non-housing assets are greater than total liabilities and this dampens the impact on net worth of a property price decrease. In other words, as the diversification of assets increases and leverage decreases, exposure to property price volatility diminishes.

**Box A Chart 3: Total Housing Assets as a Percentage of Net Worth**



Source: Eurosystem Household Finance and Consumption Survey.

Chart 3 shows cross-country comparisons of housing assets to net worth for the four largest Euro Area countries. The ratios shown for each country include all housing assets in the numerator and households are split into two wealth buckets, with the median ratio shown for each group.<sup>3</sup> All 4 countries exhibit the same pattern as that of the euro area as a whole, with the lower net worth households having a greater share of their wealth in housing assets than their wealthier counterparts. In both France and Germany, the lower net worth half of the population holds more than 10 per cent more of their total net worth in housing assets. The differences also become more pronounced when households are categorised into a greater number of net worth buckets.

The results shown demonstrate that, apart from the poorest element of society, housing asset ownership increases as net worth increases. In this lowest category of net worth in 2010, being in a negative net worth position instead increases the likelihood of property ownership. Additionally, it is shown that as net worth increases across the distribution, the relative proportion of wealth stored by households in housing assets decreases. This is a consequence of increased asset diversification and lower leverage ratios at higher points on the net worth distribution.

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<sup>3</sup> Calculation of weighted median statistics exclude negative net worth households.

### ***Inflation – Recent Developments***

Headline inflation in the euro area has been on a downward trend for several quarters, declining to 0.4 per cent in August 2014, having averaged 0.5 per cent in the second three months of the year. Lower food and energy prices explain a large proportion of the decline in inflation over the past year. However, the past appreciation of the euro, weak economic growth and a gradual fading of the impact of past increases in taxes and administered prices have also been contributory factors.

Looking at the individual components that make up headline HICP inflation in detail, food inflation was negative in the three months up to August, driven principally by developments in unprocessed food prices as favourable weather weighs on the price of fruits and vegetables. Energy inflation has been negative in every month of 2014, reflecting lower oil prices and downward base effects. HICP excluding food and energy increased marginally to 0.9 per cent in August 2014, up from an average of 0.8 per cent in the second quarter. Two components make up this measure of core inflation: non-energy industrial goods and services. Non-energy industrial goods prices have been weak throughout 2014, reflecting anaemic demand, modest wage increases and lower import prices. On the other hand, services inflation has been somewhat higher at 1.3 per cent in the three months up to August, although this is considerably below its average since 1999.

Both hard and soft data continue to indicate limited price pressures in the pipeline. Producer price inflation (excluding construction and energy) was -1.1 per cent year-on-year in July 2014. Regarding forward-looking survey indicators, PMI input prices in the manufacturing sector increased above 50 indicating rising prices. However, manufacturing selling prices have been below 50 since early 2012, indicating falling prices. Labour cost growth remained weak in the second quarter of 2014. Total hourly

labour costs increased to 1.2 per cent year-on-year from 0.6 per cent in the first quarter. Meanwhile, unit labour costs increased to 0.9 per cent, up from 0.4 per cent in the previous quarter.

### ***Inflation – Outlook***

Euro area inflation is expected to remain low in 2014 and gradually increase thereafter. According to the September 2014 Eurosystem staff macroeconomic projections for the euro area, annual HICP inflation is expected to be 0.6 per cent in 2014, 1.1 per cent in 2015 and 1.4 per cent in 2016. The projected pick-up in overall HICP inflation reflects the expected gradual strengthening of the economic recovery.

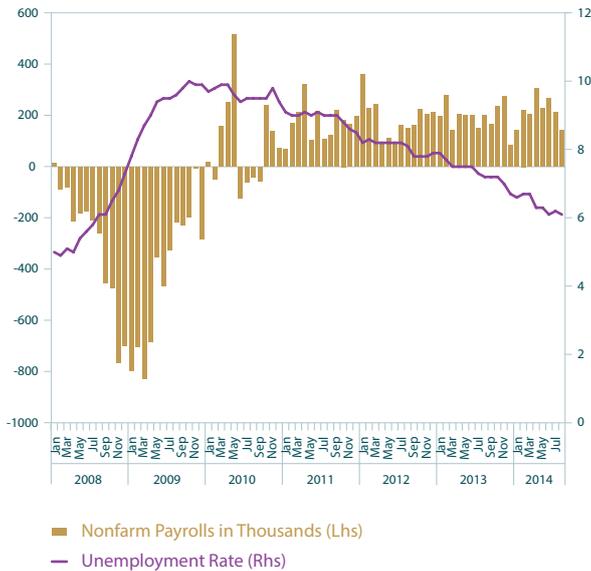
## **Section 2: External Environment**

### ***United States***

According to the Bureau of Economic Analysis, real GDP rebounded strongly in the second quarter, following a weather-related contraction in the first quarter of 2014. Real GDP increased at an annualised rate of 4.6 per cent in the second quarter of 2014, slightly higher than previously estimated and following the decline of 2.1 per cent in the first quarter. The expansion in the second quarter was supported mainly by the reversal of the temporary factors affecting inventories and exports that had restrained growth in the previous quarter. In addition, personal consumption expenditure and private fixed investment also made a positive contribution to growth. On the other hand, net exports contributed negatively to GDP growth, but less so than in the previous quarter.

Soft indicators relating to the third quarter are also encouraging and suggest that the US economy is likely to maintain its positive growth momentum. Retail sales rose 0.6 per cent in August, improving on the 0.3 per cent rise seen in July. Private consumption is expected to increase further arising

Chart 8: US Labour Market



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

from positive wealth effects and continued improvements in labour market conditions that support disposable income. Over the past six months, monthly job creation averaged in excess of 200,000 while the rise in August of just 142,000 disappointed. The unemployment rate has fallen to 6.1 per cent while the labour force participation rate also fell back marginally according to the related Survey of Households. Indicators of business activity remain favourable with positive indicators from business sentiment, industrial production and factory orders. In addition, significant gains in housing starts and building permits provide further signs of resumed growth in the housing sector, which had been affected by adverse weather earlier in the year. Real residential fixed investment increased an annualised 7.2 per cent in Q2, in contrast to a decrease of 5.3 per cent in the previous quarter. In July, existing home sales were at their highest pace of 2014 and have risen for four consecutive months. Housing starts jumped 15.7 per cent in July over the previous month while house prices as measured by the S&P/Case-Shiller 20 index fell from an annualised rate of 9.4 per cent to 8.1 cent for the same period.

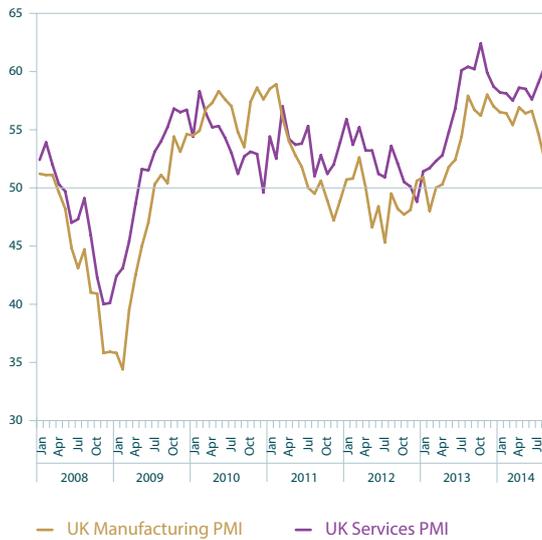
The recent dynamics of inflation has reflected the strengthening in economic activity. In August inflation decreased 0.2 per cent to an annual headline CPI rate of 1.7 per cent after rising 0.1 per cent in July. Excluding food and energy, inflation held steady also at 1.7 per cent. This reflects the unwinding of some temporary factors which had accounted for the pickup in CPI inflation earlier this year. In particular, energy prices eased in recent months. Looking ahead, inflation is expected to increase only gradually, as slack in the labour market and subdued wage growth are expected to keep price pressures contained.

In the context of generally improving economic prospects, at its meeting in mid-September 2014, the Federal Open Market Committee (FOMC) announced that it would add to its holdings of agency mortgage-backed securities at a pace of \$5 billion per month rather than \$10 billion per month, and will add to its holdings of longer-term Treasury securities at a pace of \$10 billion per month rather than \$15 billion per month. If incoming information broadly supports the Committee's expectation of ongoing improvement in labour market conditions and inflation moving back toward its longer-run objective, the Committee is expected to end its current programme of asset purchases at its next meeting. The FOMC reaffirmed that, in determining how long to maintain the 0 to 0.25 per cent target range for the federal funds rate, it is "likely it will be appropriate to maintain the current target range for the federal funds rate for a considerable time after the asset purchase programme ends, especially if projected inflation continues to run below the Committee's 2 per cent longer-run goal, and provided that longer-term inflation expectations remain well anchored".

### United Kingdom

According to the Office of National Statistics' most recent estimate, the UK economy grew by 0.8 per cent during the second quarter of 2014 compared with the previous quarter. The

Chart 9: PMI Indicators for the UK



Source: Markit.

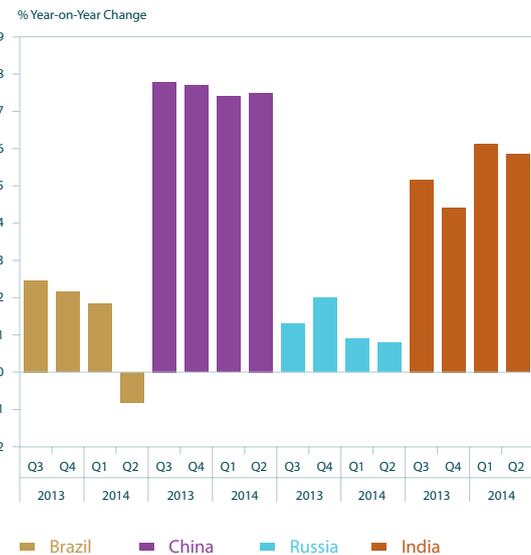
Note: For PMI indicators, above 50 represents expansion, below 50 represents contraction.

expansion in economic activity was largely attributed to output in services and production. Output from the construction sector was unchanged, and agricultural output acted as a drag on economic growth, reflected in a decline of 0.2 per cent during the second quarter.

The expansion in the labour market continued between April and June 2014, with employment rising by 167,000, compared with the previous three months. The unemployment rate continued to improve gradually, and fell by 0.2 percentage points to 6.4 per cent over the same period, which is the lowest level of unemployment since 2008. The annual increase in average UK house prices was 10.2 per cent in June, a marginal decline from 10.4 per cent in the year to May, driven largely by increases in the property market 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 in the year to June.

Sentiment indicators relating to the third quarter of 2014 are, however, consistent with

Chart 10: BRIC GDP Growth Rates



Source: Thomson Reuters Datastream.

a slowdown in economic output. With regard to the outlook for growth, the manufacturing PMI was 52.5 in August, the fourth month of consecutive declines. Moreover, there was a drop in new orders of 1.79 to 57.8 in August. The PMI for services increased marginally by 1.4 to 60.5 in August, and continued to remain above its long-term trend of 55. Construction activity continued to retain its strong performance, increasing from 64.7 in July to 67 in August. The IMF 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 1.9 per cent in June to 1.6 per cent in July. Recent months have witnessed some volatility in inflation, but the rate continues its trend of remaining below 2 per cent. The most significant contribution to the latest decrease in inflation was clothing, followed by a fall in the cost of alcoholic beverages and financial services. The downward contribution from clothing reflected larger than usual falls in clothing prices during the summer sales, due to increases in prices in May and June.

No changes were made by the Bank of England's Monetary Policy Committee (MPC) to the bank rate during August, which continues to remain at 0.5 per cent. Bank of England staff expect slight upward revisions to GDP for the first half of 2014, after which growth is expected to ease. Despite the upward pressure on inflation due to the increase in clothing prices in May and June, inflation expectations remain slightly below the 2 per cent target level. Two members of the MPC considered that the continued economic expansion and improvements in credit conditions warranted an immediate rise in the bank rate. The MPC concluded that insufficient inflationary pressures were present to justify a change in the bank rate.

### **Japan**

According to the Government's most recent estimate, real GDP contracted by 1.8 per cent quarter-on-quarter, or 7.1 per cent on an annualised basis during the second quarter of 2014. The decrease in output was primarily driven by private demand, with a particularly strong decline evident in the consumption of households, which fell on a quarterly basis by 3.2 per cent. The increase in consumption tax from 5 to 8 per cent in April had led to a front loading of private consumption in the first quarter, and the decline in household consumption in the second quarter was, therefore, consistent with expectations. The external sector's contribution to economic growth improved in the second quarter with net exports increasing from -0.3 per cent to 1.1 per cent.

Sentiment data relating to the third quarter point to an expansion in output, reflected in increases in manufacturing and new orders. The manufacturing PMI was 52.2 in August, up from 50.5 in July. The external sector showed further signs of improvement with new export orders increasing by 2 to 52.8 in August. The IMF projects the GDP outturn will be 1.6 per cent for 2014 and 1.1 per cent for 2015 (Table 1).

Consumer prices continued on an upward trend, and annual inflation was 3.4 per cent

in July. Looking ahead, inflation expectations appear to be rising. According to the Bank of Japan, excluding fresh food, the year-on-year increase in the consumer price index is expected to be 1.25 per cent for some time.

The monetary base grew by 40.5 per cent on an annualised basis in August, the smallest expansion since July 2013. At its August meeting, the Bank of Japan left monetary policy unchanged. It was considered appropriate to retain the existing framework for money market operations, maintain the expansion of the monetary base at an annual pace of about 60-70 trillion yen, and continue its quantitative and qualitative monetary easing in order to achieve the price stability target of 2 per cent.

### **BRIC Economies**

The outlook for emerging markets was mixed during the second quarter of 2014 due to rising geopolitical uncertainty and upward inflationary pressures in some countries, and stronger economic growth in others. According to the IMF's World Economic Outlook, the growth of emerging economies is likely to be 4.9 per cent in 2014, before expanding to 5.9 per cent in 2015.

In Brazil, real GDP growth continued to decline from 1.8 per cent in the first quarter of 2014 to -0.8 per cent in the second quarter of 2014. Inflation increased marginally in August to 6.51 per cent, up from 6.5 per cent in July, and was mainly due to increased transport and education costs, and remained above the Central Bank of Brazil's inflation target of 4.5 per cent. The main policy rate of the central bank, the Selic, was maintained at 11 per cent in September.

In India GDP growth was 5.9 per cent year-on-year in the second quarter of 2014, a decrease from 6.1 per cent in the previous quarter. Economic growth in the services sector provided the greatest contribution to output in the second quarter. The balance on the current account narrowed sharply in the second quarter to 1.7 per cent of GDP, down from 4.8

per cent of GDP in the second quarter last year. The improvement was mainly driven by growth in exports and government restrictions on the import of gold. Inflation, as measured by the wholesale price index, declined to 5.19 per cent in July, down from 5.85 per cent in the same month last year. At its August 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 increased from 7.4 per cent in the first quarter to 7.5 per cent in the second quarter of 2014, which reflected stimulus measures introduced by the government to protect economic growth. Both manufacturing and services PMI data relating to the third quarter point towards an expansion, amounting to 50.2 and 54.1 respectively, in August. New export orders during the third quarter were above the threshold of 50, indicating an expansion.

At end-July annual credit and loan growth in local currency increased by 13.5 per cent, a decrease of 1.2 percentage points from the previous month, and a decline of one percentage point from the corresponding month last year. While inflation remains below the Peoples' Bank of China's target of 3.5 per cent, consumer prices rose by 2.3 per cent year-on-year. The increase was driven primarily by food prices, in particular fresh fruit, eggs and aquatic products.

According to the Federal State Statistics' Service, Russian GDP grew by 0.8 per cent in the second quarter of 2014, continuing the decline in economic output. Annual CPI inflation rose 7.5 per cent and 7.6 per cent in July and August respectively. The upward pressure on prices is attributable to larger than anticipated effects of the ban on food imports from the US and EU. The Bank of Russia increased its main interest rate to 8 per cent at its July meeting in order to ensure a slowdown in consumer price inflation to its target level of 4 per cent in the medium term.

### Section 3: Financial Market Developments

Financial market volatility increased during the third quarter of 2014. The key drivers of market movements were geopolitical events in Eastern Europe and the Middle East, as well as monetary policy developments in the euro area. An apparent increase in the divergence of monetary policy paths across major central banks was also in focus during the period. The beginning of the quarter was dominated by increased risk aversion, as investors remained cautious about the potential effect of political instability. As the quarter progressed, disappointing economic data in the euro area prompted expectations of further unconventional monetary policy action by the ECB which was followed in early September by an announcement of a policy rate cut in the euro area, combined with details of a covered bond and an asset-backed securities (ABS) purchase programme. 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 markets remained roughly unchanged between the end of June and mid-September, despite displaying increased volatility during the period. On the debt markets, US and euro area sovereign bond yields fell and in some cases historical lows were reached. Despite elevated geopolitical tensions, the impact on commodities was minimal, with gold and crude oil both falling in price.

#### Equity Markets

Global equity markets were volatile in the third quarter against a backdrop of increased uncertainty. In July, the imposition of trade sanctions by the European Union impacted upon risk sentiment among market participants, prompting concern about further instability. Equity markets performed better in August despite poor economic activity data releases for the euro area, given increased expectations among market participants of further policy easing. Overall, the broad-based

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

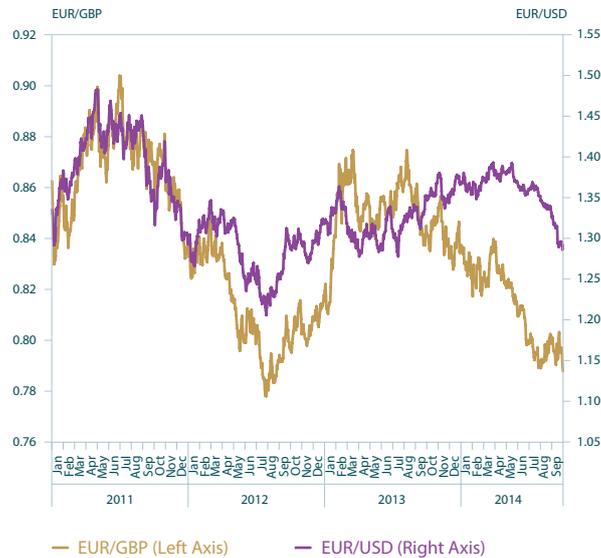
Source: Thomson Reuters Datastream.

Dow Jones Euro Stoxx Index remained roughly unchanged across the period between the end of June and mid-September. Of the other major equity indices, the Nikkei 225 performed strongest over this period, with a 3.5 per cent rise while the S&P 500 and the FTSE All Share recorded smaller gains in the US and UK respectively.

### Foreign Currency Developments

In the third quarter of 2014, the euro depreciated noticeably against most of the euro area's key trading partner currencies. By mid-September, the nominal effective exchange rate of the euro, as measured against 20 other currencies, stood at 2.5 per cent below its level at the end of June and 3.3 per cent below the year-end level. Increased expectations of ECB monetary policy action put downward pressure on the euro's value in the second half of August. This pattern continued after the announcement of additional policy easing at the start of September.

In terms of bilateral exchange rate movements, the market's perception of increased monetary policy divergence resulted in the euro

**Chart 12: Euro Exchange Rates**

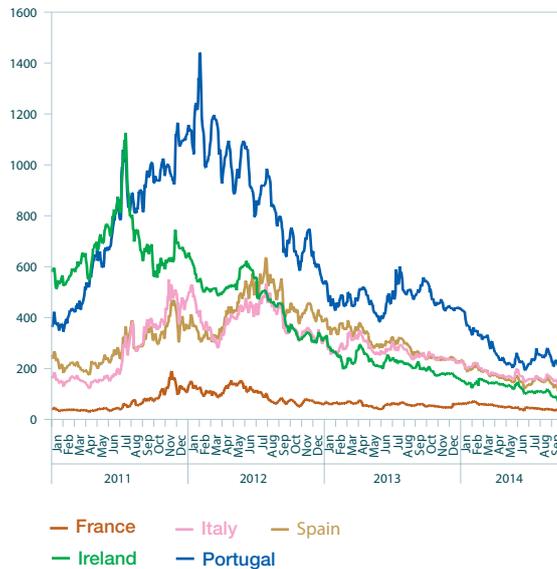
Source: Thomson Reuters Datastream.

depreciating against both the US dollar and, to a lesser extent, the pound sterling. Between the end of the second quarter and mid-September, the euro depreciated against the US dollar by 5.5 per cent and stood at \$1.29 on the 15 September. The heightened level of volatility is evidenced by the euro reaching a 14-month low versus the dollar in the first week of September, despite reaching a 30-month peak during the second quarter. The euro also depreciated against the pound during the period under review by 0.9 per cent.

### Sovereign Debt Markets

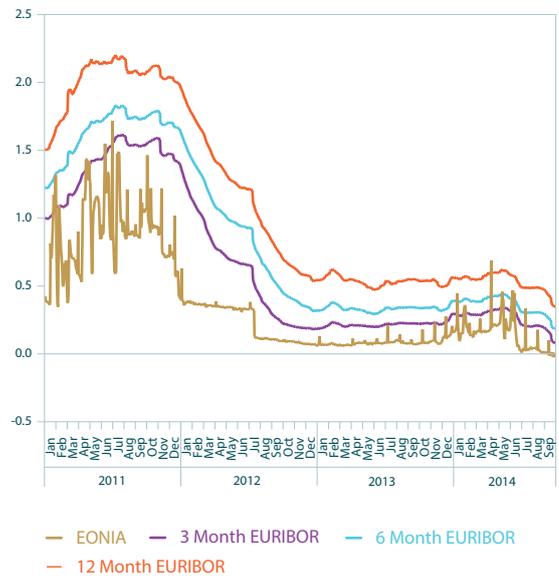
Sovereign yields in the euro area were driven to record lows during the third quarter. The 10-year government bond yield spreads for Italy, France, Portugal and Spain over the German yield all fell between the end of June and early September. The German 10-year yield also fell and remained comfortably below 1 per cent for the first time in August. This downward movement in spreads and nominal yields was a continuation of a pattern seen throughout 2013. The decline in yields is consistent with successful bond issuance in previously stressed countries and the

**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.

additional accommodative monetary policy measures announced in early September. From 30 June to mid-September, the 10 year spread versus Germany fell by 16, 4, 10 and 20 basis points in Italy, France, Portugal and Spain respectively. The period under review also saw a flattening of government bond yield curves in the euro area.

**Money Markets**

Money market interest rates declined during the third quarter of 2014. EONIA remained below the level of the MRO and became negative for the first occasion in history on August 28. The average EONIA rate stood at 0.02 per cent for the period from the end of June until mid-September, down from 0.2 per cent on average in the previous period. The reduction of the deposit rate announced on 4th September, from negative 0.1 per cent to negative 0.2 per cent, added to downward pressure on the overnight rate. EURIBOR rates also fell markedly across the 3, 6 and 12 month maturities between the end of June and mid-September.

**Commodities**

The overall impact of geopolitical tensions on commodities was relatively contained. Despite uncertainty over possible disruption to oil supplies from the Middle East during the second quarter, the price of crude oil fell by over 10 per cent in US dollar terms between the end of June and mid-September. This price adjustment was driven by an incremental supply of new crude oil from the Middle East, as well as decreased expectations of global oil consumption for 2014 and 2015. Precious metals prices, including gold and silver, also fell over the period under review.



## 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.

# Irish Residential Mortgage-Backed Securities – Preliminary Analysis of Loan-Level Data

Andrew Linn, Anne-Marie Kelly and Samuel Bailey<sup>1</sup>

## Abstract

The European DataWarehouse, established in July 2012, provides access to publicly available information on European Asset-Backed Securities (ABS). There was limited detailed information on the underlying securities in Irish Residential Mortgage-Backed Securities (RMBS) prior to this time. This loan-level dataset allows investors in ABS to analyse the underlying assets. It also facilitates a detailed economic analysis of the underlying mortgage characteristics of Irish RMBS. This dataset supplements other currently available Central Bank of Ireland data sources, allowing a comparative analysis to be performed. This article analyses the underlying mortgages in the Irish RMBS dataset, focusing on Loan-to-Value and Loan-to-Income ratios, and mortgage arrears.

<sup>1</sup> The authors work in the Life Insurance, Statistics, and Organisational Risk Divisions 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 ESCB. The authors would like to acknowledge, with thanks, the helpful comments and suggestions of Joe McNeill, Rory McElligott, Robert Kelly, Allan Kearns and John Flynn.

## 1. Introduction

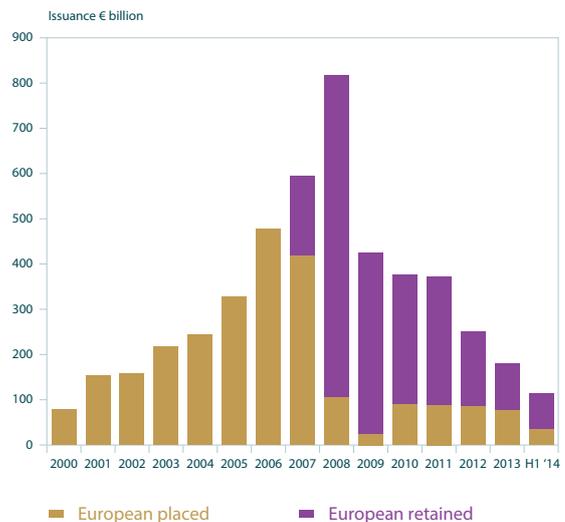
Irish credit supply developments since 2003, such as tracker mortgages, 100 per cent Loan-to-Value ratio mortgages, and mortgage equity withdrawal (MEW)<sup>2</sup>, contributed to the financial industry's risk exposure. The industry managed part of this additional risk through securitisation. These structures provide an income stream for investors from the performance of the underlying assets. An Asset-Backed Security (ABS) is a financial security backed by a specified pool of underlying assets. Residential Mortgage Backed Securities (RMBS) are a type of ABS, where the underlying asset is a packaged pool of mortgage loans, which is known as mortgage securitisation. This article analyses the Irish RMBS market using newly available data provided by originating financial institutions, with particular focus on the profile of the mortgages contained within the RMBS pools.

Section 2 gives an overview of the current Irish ABS market and the impact of the financial crisis. The introduction of loan-level data requirements for ABS and the establishment of the European DataWarehouse are discussed in Section 3. Section 4 examines the RMBS pooled mortgages in terms of the overall mortgage market. Section 5 analyses the key mortgage characteristics of the RMBS dataset's underlying loans, including Loan-to-Value and Loan-to-Income ratios highlighting the unique properties of this micro level dataset. Section 6 concludes.

## 2. Current Irish ABS Market

The financial crisis negatively impacted European ABS issuance levels, as highlighted in Chart 1. There was a large increase in ABS issuance from 2000 (€79 billion) to 2008 (over €800 billion), when ABS was regularly used as

Chart 1: European ABS Issuance



Source: AFME Securitisation Data Report Q4 2013, and AFME Securitisation Data Snapshot Q2 2014.

a source of funding by banks and as collateral for inter-bank lending. This dropped sharply to €424 billion in 2009, following the subprime mortgage crisis<sup>3</sup> that led to deterioration in the underlying mortgages, and a reduction in the quality and ratings of the ABS. These developments led to significant negative market sentiment towards these instruments. From 2008 onwards, issuers retained the majority of ABS issuance for use as collateral within the Eurosystem, rather than issue them into the market<sup>4</sup>, as shown in Chart 1. Some originators issued deals into the market but subsequently repurchased them as market conditions deteriorated, and deal dynamics changed.

Irish RMBS issuance remains subdued post-crisis, with only two cases of RMBS issuance backed by Irish assets since 2010. This is in line with European trends. Additionally, credit enhancements (CE)<sup>5</sup> levels such as subordinated tranches of the ABS structure,

<sup>2</sup> Mortgage equity withdrawal (MEW) is equity that mortgage borrowers withdraw against the real/market value of the property.

<sup>3</sup> A fall in house prices triggered the subprime mortgage crisis, leading to a large amount of lower credit quality mortgages (subprime) defaulting or entering into distress.

<sup>4</sup> From 2000-2005, data on the European ABS issuance split between retained and placed, was not available.

<sup>5</sup> CE refers to any method of improving the credit profile of an ABS transaction, and may include techniques that are internal to the transaction such as subordination or over-collateralisation, and external options such as the maintenance of a cash collateral account. The CE is the sum of the lower ranked tranches of the structure divided by the pool balance, and broadly implies that this amount is available to cover losses.

available to absorb losses, have increased since issuance (by between 2 per cent and 36 per cent<sup>6</sup>), reflecting the underlying loan pool's deterioration. Credit enhancements reduce the risk to investors in ABS structures and can take various forms, such as over-collateralisation or the inclusion of higher levels of subordinated or equity tranches designed to absorb losses that arise.

### 3. The ABS Loan-Level Data Initiative

#### 3.1 Rationale

The increased use of ABS as collateral in the Eurosystem, and the increasingly negative investor perception of ABS following the financial crisis prompted a policy response from the Eurosystem. This involved the provision of loan-level data on the assets underlying ABS to improve the functioning of this market segment. The Governing Council decided, in December 2010, to establish loan-by-loan level reporting requirements for ABS within the Eurosystem collateral framework. The two key aims of the initiative were:

- To facilitate a more detailed risk assessment of ABS used as collateral by Eurosystem counterparties in monetary policy operations;
- To improve transparency in ABS markets, by requiring that loan-level ABS information be available and accessible to investors and market participants.

The Eurosystem was ideally placed to incentivise issuers to provide loan-level data on ABS. It made data provision an eligibility requirement for assets used as collateral in

open market operations<sup>7</sup>. Currently, ABS represent 15.2 per cent of total collateral submitted to the Eurosystem<sup>8</sup>, compared to covered bonds and government debt securities at 18.2 per cent and 16.6 per cent, respectively. In 2010, when the loan-level data initiative was first established, ABS represented 24.4 per cent of total collateral pledged.

#### 3.2 The European DataWarehouse

In December 2009, the Eurosystem consulted publicly on the establishment of loan-level data requirements. Industry responses<sup>9</sup> were very supportive of the initiative, citing the resulting increase in transparency, and the contribution that the initiative would make in restoring investor confidence in the ABS market. Some respondents noted that ABS originators' additional compliance costs, resulting from internal systems changes, would be far outweighed by the benefits of having loan-level information publicly available to investors, the Eurosystem, and other market participants.

Inputs were sought for the development of the reporting templates, from key industry participants (issuers, rating agencies, and industry organisations<sup>10</sup>), the ECB, and several NCBs.

In July 2012, the European DataWarehouse (ED) was established as the initiative's data-handling platform, to manage, store, and monitor<sup>11</sup> the loan-level data submissions provided by ABS originators. The ED is independent of the ECB, and global market participants provide governance and funding. Reporting to the ED of loan-level data for RMBS and ABS backed by loans to small- and medium-sized enterprises (SMEs) started on 3 January 2013. Commercial Mortgage-Backed Securities (CMBS) followed on 1 March 2013, and

<sup>6</sup> Using 15 Irish RMBS issued by EBS Ltd, KBC Bank Ireland plc, Ulster Bank Ireland Ltd and Permanent tsb plc.

<sup>7</sup> Open market operations refer to the provision of central bank liquidity via operations of varying maturities in order to effectively implement monetary policy on behalf of the Eurosystem.

<sup>8</sup> Data at Q2 2012. Source: ECB collateral data, <https://www.ecb.europa.eu/paym/coll/html/index.en.html>

<sup>9</sup> Results of the public consultation: <http://www.ecb.europa.eu/pub/pdf/other/consultationabsloanlevelinformationen.pdf?a09dde00472de7a4f3f665961a5a0094>

<sup>10</sup> List of shareholders: [http://www.eurodw.eu/a\\_brief\\_history.html](http://www.eurodw.eu/a_brief_history.html)

<sup>11</sup> Please note the monitoring role of the ED relates to data quality only, and the DataWarehouse has no remit to impose eligibility requirements on issuers.

**Table 1: Stylised Facts between Total Market and RMBS Population**

	<b>Total Market</b>	<b>RMBS Population</b>	<b>% Cover</b>
<b>No. of Mortgages</b>	907,140	231,506	26
<b>Current Balance € billion</b>	135.89	39.7	29
<b>Average Current Balance €000</b>	149.80	171.49	-
<b>No. of Mortgages in Arrears</b>	171,578	51,428	30
<b>% of Mortgages in Arrears</b>	0.19	0.22	-
<b>Arrears Balance € billion</b>	3.97	0.75	19
<b>Average Arrears Balance €000</b>	23.14	14.58	-
<b>Current Balance for Mortgages in Arrears € billion</b>	34.29	10.58	31
<b>% of Mortgages 'Tracker or SVR'</b>	92	94	-
<b>% of Mortgages 'Fixed or Other'</b>	8	6	-

reporting for the remaining asset classes started in the first quarter of 2014<sup>12</sup>. The Eurosystem requires a data score<sup>13</sup> for each ABS, in order for the assets to remain eligible as Eurosystem collateral. In addition, data consistency and accuracy checks on each loan-level data submission are carried out to ensure that data quality remains high.

#### 4. Market Coverage

The Irish RMBS dataset include securities issued by Permanent tsb plc (PTSB), KBC Bank Ireland plc, Ulster Bank Ireland Ltd, and EBS Ltd. Covered bond legislation led to Allied Irish Bank plc (AIB) and Bank of Ireland (BoI) retaining the majority of their mortgage issuance on balance sheet. They are, therefore, not included in the RMBS dataset analysed. As such, this article provides new information about smaller domestic and foreign-owned banks. While the data provides a valuable insight into time trends of key variables, caution is required when extrapolating findings to the banking sector as a whole, as the excluded banks could have significantly different lending profiles.

A comparative analysis with the aggregate Central Bank of Ireland mortgage arrears dataset establishes the share of the market represented by the RMBS dataset. This aggregate Central Bank mortgage arrears dataset, or total market data<sup>14</sup>, presents a macro level analysis of all mortgage loans in the country, and related trends over time, while the RMBS dataset<sup>15</sup> provides only partial coverage of the market. This coverage of the RMBS loan-level is outlined for particular mortgage characteristics in Table 1.

The stylised facts in Table 1 show that the RMBS dataset accounts for 26 per cent of all mortgages. A further breakdown analysis shows the average current balance for mortgages in the RMBS dataset is higher, at €171,490, compared with the average current balance in the aggregate Central Bank data, €149,800. The RMBS loans account for 30 per cent of mortgage arrears, or 19 per cent when compared by arrears balance. This shows that mortgages in arrears contained within the RMBS pools have a smaller mean arrears balance than the aggregate Central Bank data, €14,580 and €23,140, respectively. Given the

<sup>12</sup> Loan-level reporting for Consumer Finance, Leasing, and Auto ABS started on 1 January 2014, and for Credit Cards ABS on 1 April 2014.

<sup>13</sup> The data score for an ABS is generated by the ED after each regular data submission, and is based on the level of completion of the mandatory data fields in the loan-level reporting template. The RMBS template contains 69 mandatory and 113 optional fields.

<sup>14</sup> The aggregate residential mortgage arrears and repossessions dataset for all regulated entities in Ireland, at March 2014: [http://www.centralbank.ie/polstats/stats/mortgagearrears/Documents/2014q1\\_ie\\_mortgage\\_arrears\\_statistics.pdf](http://www.centralbank.ie/polstats/stats/mortgagearrears/Documents/2014q1_ie_mortgage_arrears_statistics.pdf)  
<http://www.centralbank.ie/polstats/stats/cmab/Pages/HouseholdCredit.aspx>

<sup>15</sup> The RMBS loan-level dataset includes data from Permanent tsb plc, KBC Bank Ireland plc, Ulster Bank Ireland Ltd, First Active Bank and EBS Ltd, at February 2014.

**Table 2: Loan-Level and RMBS Mortgages by Geographical Location**

IE Code	Region	Counties	Loan-Level dataset (%)	RMBS dataset (%)
IE011	Border	Cavan, Donegal, Leitrim, Louth, Monaghan, Sligo	10	14
IE012	Midland	Laois, Longford, Offaly, Westmeath	5	6
IE013	West	Galway, Mayo, Roscommon	9	6
IE021	Dublin	Dublin, (Dun Laoghaire-Rathdown, Fingal, South Dublin)	29	30
IE022	Mid-East	Kildare, Meath, Wicklow	9	14
IE023	Mid-West	Claire, Limerick, North Tipperary	14	8
IE024	South-East	Carlow, Kilkenny, Waterford, Wexford, South Tipperary	15	11
IE025	South-West	Cork, Kerry	9	11

higher average outstanding balance and lower average arrears of mortgages in RMBS pools, caution must be exercised when applying RMBS characteristics to the entire mortgage market.

The majority of mortgages in the aggregate Central Bank data and the RMBS population have ‘Tracker or Standard Variable Rate (SVR)’ interest rate types<sup>16</sup>. The equivalent figures are 92 per cent for the Central Bank aggregate data, and 94 per cent for RMBS mortgages. The RMBS dataset shows six per cent of mortgages having a fixed interest rate, with an equivalent figure of eight per cent for the total market<sup>17</sup>.

The classification system has limited information on the interest rate types in the RMBS dataset. Little can be inferred with respect to this variable, as responses received from the financial institutions contacted<sup>18</sup> show differing reporting across interest rate types for tracker mortgages. However, the aggregate Central Bank data shows that of the 92 per cent of total mortgages within the ‘Tracker or SVR’ category, 50 per cent represent tracker

mortgages, with the remaining 42 per cent of mortgages on SVRs<sup>19</sup>. The majority of mortgages subject to tracker interest rates are linked to the ECB’s main policy rate, reflecting the lending practices of the banks primarily between 2004 and 2008, when this product type was very popular and house prices were elevated.

A separate Central Bank loan-level dataset includes mortgage data for AIB (including EBS Ltd.), BoI and PTSB. This was initially collected in 2011 for the Prudential Capital Assessment Review (PCAR) of banks’ financial performance. It has since been used for stress-test analysis, and more recently for the Central Bank’s balance sheet assessment exercise. The loan-level data includes information on several mortgage variables, similar to those presented in the RMBS dataset. Kennedy and McIndoe Calder (2011), and Frost et al (2014) gave a detailed description of the data.

As the Central Bank loan-level dataset includes AIB (including EBS Ltd.), BoI, and PTSB mortgages, and the RMBS dataset includes mortgage data for PTSB, KBC Bank Ireland

<sup>16</sup> In the RMBS dataset, the ‘Tracker or SVR’ mortgages includes floating rate loan (for life), plus floating rate loan linked to Libor, Euribor, ECB reverting to a bank’s SVR, and discount rate mortgages.

<sup>17</sup> In the RMBS dataset, the ‘Fixed or Other’ mortgages includes fixed rate loan (for life), plus fixed with future periodic resets, plus fixed rate loan with compulsory future switch to floating, plus capped, and other mortgage interest rates.

<sup>18</sup> For the purpose of the analysis performed in this article, particularly with regard to mandatory fields, the covered institutions included in the RMBS dataset, namely Permanent tsb plc, KBC Bank Ireland plc, Ulster Bank Ireland Ltd, and EBS Ltd, were all contacted individually to ensure that the interpretation of the loan-level requirements was consistent and comparable across selected variables.

<sup>19</sup> SVRs and up to one year fixed.

plc, Ulster Bank Ireland Ltd, and EBS Ltd, it is possible to calculate the additional coverage provided by the RMBS dataset.

Both the Central bank loan-level and the RMBS dataset show loan distribution by regional code. The geographical code assigned to the loan-level data in both datasets is a standard known as the Nomenclature of Units for Territorial Statistics (NUTS 3). It divides the country into eight regions and assigns a code to each. The RMBS dataset includes an additional 17 per cent of the total mortgages, which are not covered in the Central Bank loan-level dataset. The Central Bank loan-level and the RMBS dataset are presented in Table 2. Interestingly, the RMBS has a higher proportion of loans in Dublin and its commuter belt<sup>20</sup> (44 per cent compared to 38 per cent), despite having lower average arrears. This may indicate that in overall terms, the loans in the RMBS pools are of a higher quality.

## 5. RMBS Data Analysis

Investors who can analyse the assets underlying an ABS are better able to assess a rating's appropriateness. This dataset is, therefore, particularly useful for those investing in such securities, as it allows investors to monitor movements in the underlying mortgages promptly and in great detail. The ED's RMBS information is updated with interest payments on the underlying assets, at a minimum quarterly. A secondary benefit of the increased transparency is the detail provided on 26 per cent of the total mortgage market, as discussed in Section 4. This can be used to monitor developments in the overall mortgage market.

The RMBS loan characteristics are examined for each year from 1994 to 2012, which all have more than 100 mortgages within the RMBS pools examined. This article also undertakes some preliminary stylistic analysis

of the determinants of mortgage arrears. It should be noted that the mortgage analysis performed on the RMBS dataset solely represents the characteristics of the underlying mortgages in the RMBS dataset, which may not be representative of the market as a whole, as discussed in Section 4 (Table 1).

### 5.1 Loan-to-Value Ratios

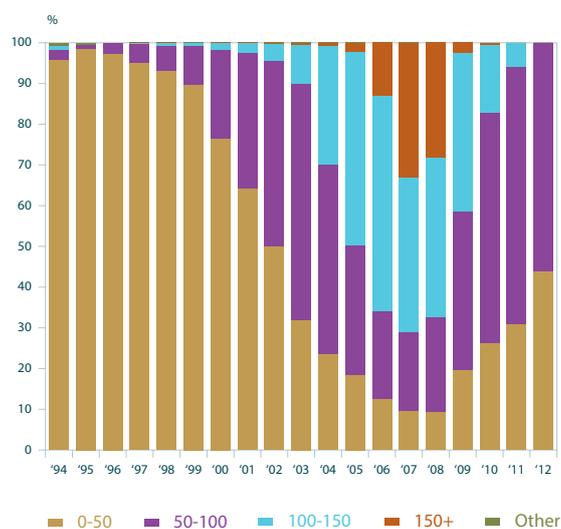
As described by McCarthy and McQuinn (2013), the loosening of Irish financial institutions credit standards during the economic boom led to increases in the Loan-to-Value (LTV) ratio for loans issued. In 2005, many lenders introduced 100 per cent LTV ratio mortgages. LTV ratios are of particular interest as an indicator of credit standards, because of the effect which negative equity (an LTV ratio of greater than 100 per cent) has on borrower behaviour.

The estimated LTV ratio at Q4 2013 for the RMBS mortgages is calculated after deriving the 'current valuation' variable. This was calculated using a house price index, the 'initial valuation' and 'current balance' variables in the RMBS dataset. For each valuation within the RMBS dataset, the date of the valuation and the region in which the associated property is located is known. The individual property valuations are updated to Q4 2013, using the Central Statistics Office (CSO) housing price index<sup>21</sup>, which differentiates between properties located in the Dublin region, and properties located elsewhere.

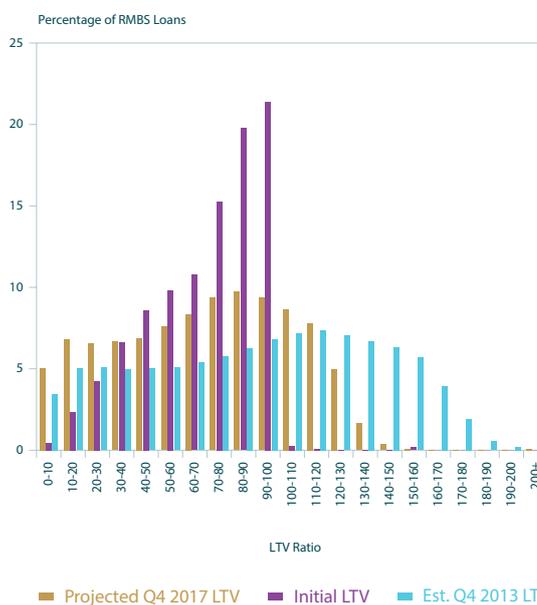
There is a clear relationship between the LTV ratios at Q4 2013 and loan origination year for the mortgages underlying Irish RMBS, as shown in Chart 2. It shows that a large proportion of RMBS loans originating between 2004 and 2009 have an estimated LTV ratio, at Q4 2013, greater than 100 per cent. For RMBS loans originating in 2007, it is estimated that approximately 71 per cent are in negative equity at Q4 2013. The estimated LTV ratio at

<sup>20</sup> Commuter belt includes Kildare, Meath, and Wicklow.

<sup>21</sup> CSO residential property price index from 2005 onwards and the house price index prior to 2005 was backcast using the PTSB/ESRI house price index.

**Chart 2: Estimated LTV Ratio at Q4 2013 in RMBS Pools by Origination Year**

Source: European DataWarehouse.

**Chart 3: Distribution of Initial, Estimated Q4 2013, and Projected Q4 2017 LTV Ratios in RMBS Pools**

Source: European DataWarehouse.

Q4 2013 indicates that roughly 45 per cent of the loans in the RMBS dataset are in negative equity, caused by the decrease in property prices between 2008 and 2013. The estimated LTV ratio at Q4 2013 for the RMBS mortgages is above estimates obtained by Duffy (2014) who estimated that by Q4 2013, 268,000 (or 35 per cent<sup>22</sup>) of all mortgaged households were in negative equity. Differences in coverage may contribute to this higher figure.

The above method, with appropriate assumptions, can also be used to estimate LTV ratios for RMBS mortgages in the future. McQuinn (2014) uses the model also contained in Kelly and McQuinn (2013) that finds a very close relationship between house prices and unemployment in an Irish context from 1980 to 2013. The 'current valuation' variable computed above is used in conjunction with these estimated property price forecasts and Consumer Price Index (CPI) projections<sup>23</sup> to project LTV ratios at Q4 2017 for the RMBS mortgages. According to McQuinn (2014), real

Irish house prices will increase by 8 per cent in 2014, and 9 per cent in 2015, before falling back to 4.9 and 3.9 per cent in 2016 and 2017. These forecasts, as detailed by McQuinn (2014) are based upon three assumptions:

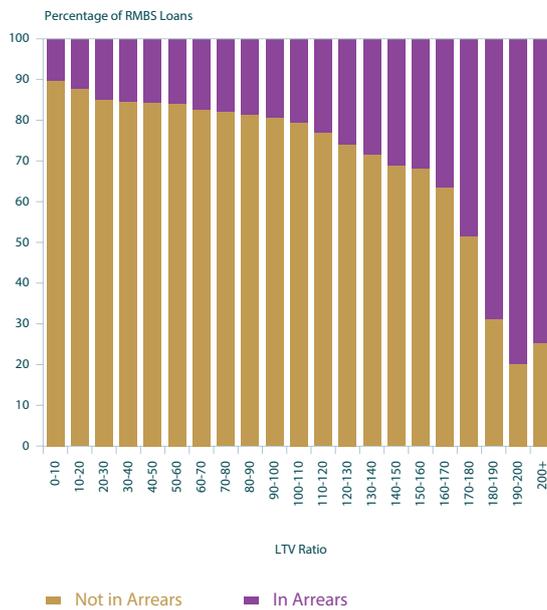
- 1) An improvement in key macroeconomic variables;
- 2) The presence of a degree of undervaluation in the property market;
- 3) No significant change in housing supply.

Furthermore, when calculating the LTV ratio at Q4 2017 for the RMBS mortgages, it is assumed that the current balance does not fall in the intervening period. While this is an unrealistic assumption, it serves to provide an upper limit for LTV ratios in 2017. It should be noted that issuers may switch underlying mortgages in the RMBS pools, so the pool's composition may change between now and Q4 2017. The projected LTV at Q4 2017 may

<sup>22</sup> Using the total number of mortgage accounts in the Central Bank of Ireland's Residential Mortgage Arrears and Repossessions Statistics, December 2013: [http://www.centralbank.ie/polstats/stats/mortgagearrears/Documents/2013q4\\_ie\\_mortgage\\_arrears\\_statistics.pdf](http://www.centralbank.ie/polstats/stats/mortgagearrears/Documents/2013q4_ie_mortgage_arrears_statistics.pdf)

<sup>23</sup> Using the Central Bank of Ireland's CPI forecasts for 2014 and 2015, Quarterly Bulletin, Q3 2014. It should be noted here that the CPI forecast for 2015 was also used for the 2016 and 2017 projected LTV ratios, so the estimates derived may be somewhat conservative.

**Chart 4: Percentage of RMBS Loans in Arrears by LTV Ratio at Q4 2013**



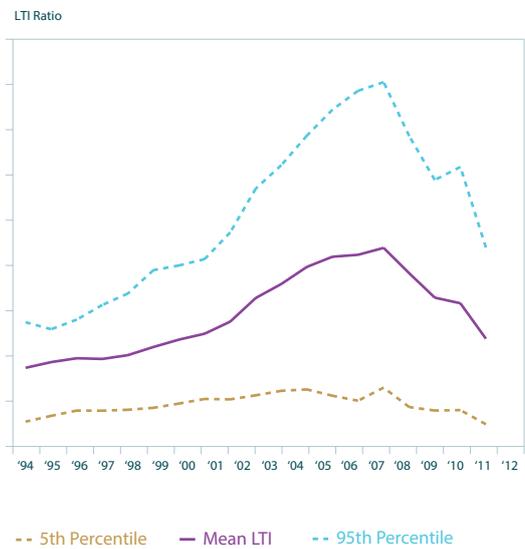
Source: European DataWarehouse.

not, therefore, reflect the underlying mortgages in the RMBS securities at that time.

Also, the RMBS dataset allows us to compute the initial LTV ratio for each loan in the dataset. The distributions of the initial LTV ratios, LTV ratios at Q4 2013, and projected LTV ratios at Q4 2017 for the RMBS mortgages are shown in Chart 3. A large number of RMBS loans (21 per cent) have an initial LTV ratio between 90-100 per cent. Such loans leave borrowers more exposed to negative equity in the event of a fall in property prices, and increases loss given default<sup>24</sup> for the originating financial institution. However, as previously mentioned, the RMBS dataset may not be fully representative. Furthermore, it is assumed that the ‘current balance’ remains constant, so any inferences drawn from this analysis need to be interpreted carefully.

The existence of a particularly strong non-linear positive correlation between the LTV ratio at

**Chart 5: Mean LTI Ratios in RMBS Pools by Origination Year**



Source: European DataWarehouse.

Q4 2013 and proportion of RMBS mortgages in arrears is shown in Chart 4. There is a significant, and in some instances strong, correlation between negative equity and arrears<sup>25</sup> in the RMBS mortgages. The effect of a movement into negative equity appears to significantly strengthen the probability of RMBS mortgages entering into arrears. This generally supports finding by Kelly, McCarthy and McQuinn (2012), and Lydon and McCarthy (2011).

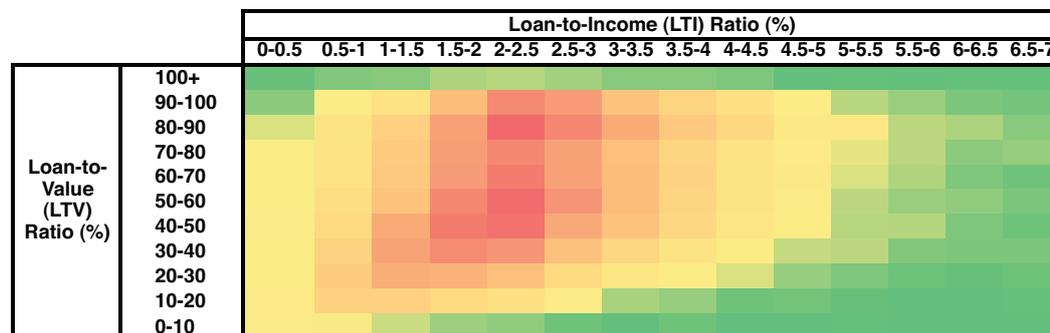
### 5.2 Loan-to-Income Ratios

The RMBS dataset includes the gross income of both the primary and secondary borrower for each RMBS mortgage. These variables, recorded at loan origination, may be combined with the original loan balance variable to obtain the Loan-to-Income (LTI) ratio<sup>26</sup> for the RMBS mortgages at the time of draw-down. The LTI ratios are a general measure of both lending standards and loan affordability at the

<sup>24</sup> 'Loss given default' measures the proportion of the current balance the credit institution can recover through repossessions.

<sup>25</sup> Using the same definition as O'Toole and Prasad (2013) to identify loans as being in arrears; If the account status is available, then a loan is identified as non-performing if account status is 2 (arrears) or 3 (default or foreclosure). If account status is not available, a loan is identified as in arrears if arrears balance > 0, or the number of months in arrears > 0.

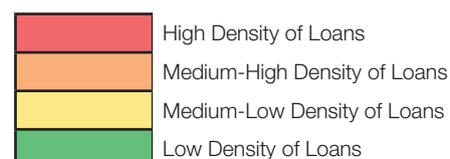
<sup>26</sup> 'Total income' used in the calculation of the LTI ratios is the sum of the 'primary income' and 'secondary income'.

**Table 3: Heat Maps of Initial LTV and LTI Ratios for RMBS Mortgages, 1994-2002**

Source: European DataWarehouse.

**Table 4: Heat Maps of Initial LTV and LTI Ratios for RMBS Mortgages, 2003-2011**

Source: European DataWarehouse.



time of RMBS loan origination. It is important to note that the income data in this dataset is not current, and given the increase in unemployment levels over time, on average, borrowers' current income levels are likely to be significantly lower than at loan origination.

The LTI ratio for RMBS mortgages increased significantly through the 1990s and 2000s, from an average of 1.74 in 1994 to a peak of 4.39 in 2008, as shown in Chart 5<sup>27</sup>. In 2012, the average LTI ratio for RMBS mortgages

declined to 2.38. Given that the mortgages in the RMBS dataset have a higher average current balance, the LTI ratios for RMBS mortgages would generally be higher than the LTI ratios for total mortgages.

### 5.3 Loan-to-Value and Loan-to-Income Ratios

The preceding initial LTV and LTI ratios for RMBS mortgages, and their evolution by loan origination date, may be combined to produce

<sup>27</sup> Chart 5 excludes LTI=0, 'total income' that was less than €20,000, and any outliers where the LTI ratio was greater than or equal to 10.

heat maps (Table 3 and Table 4). Table 3 shows a heat map with a distribution of initial LTV and LTI ratios for RMBS loans originated between 1994 and 2002. Table 4 shows a heat map with a distribution of initial LTV and LTI ratios for RMBS loans originated between 2003 and 2011. The red colour indicates a higher concentration of loans within a category, while green indicates a lower concentration.

The heat maps illustrate a joint movement in LTV and LTI ratios for RMBS mortgages over the period covered in the analysis. Between 1994 and 2002, there is a clustering of loans issued with a LTI ratio between 2 and 2.5, and a LTV ratio between 40 and 90. There is evident movement towards an LTI ratio between 4 and 5, and LTV ratio between 90 and 100 in the subsequent period (2003 to 2011). These movements in LTV and LTI ratios for RMBS mortgages are generally in line with the loosening of credit standards described by McCarthy and McQuinn (2013).

## **6. Conclusion**

The European DataWarehouse has filled a void in information on the underlying mortgages in Irish RMBS. The current Irish ABS market remains relatively subdued, in line with European trends. The underlying mortgages in the Irish RMBS pools have deteriorated, as the number of distressed borrowers has increased, on account of the economic downturn. An analysis of the underlying mortgages in the RMBS dataset shows a particularly strong relationship between the LTV ratio at Q4 2013 and mortgage arrears. Also, as expected, higher LTV and LTI ratios for RMBS mortgages prevail predominantly for RMBS mortgages originating between 2005 and 2008, before falling sharply.

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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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