

OCTOBER 15

# Q4

Central Bank Quarterly Bulletin



Banc Ceannais na hÉireann  
Central Bank of Ireland

Eurosystem







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# Notes

1. The permission of the Government has been obtained for the use in this Bulletin of certain material compiled by the Central Statistics Office and Government Departments. The Bulletin also contains material which has been made available by the courtesy of licensed banks and other financial institutions.
2. Unless otherwise stated, statistics refer to the State, i.e., Ireland exclusive of Northern Ireland.
3. In some cases, owing to the rounding of figures, components do not add to the totals shown.
4. The method of seasonal adjustment used in the Bank is that of the US Bureau of the Census X-11 variant.
5. Annual rates of change are annual extrapolations of specific period-to-period percentage changes.
6. The following symbols are used:

e estimated	n.a. not available
p provisional	. . no figure to be expected
r revised	– nil or negligible
q quarter	f forecast
7. Data on euro exchange rates are available on our website at [www.centralbank.ie](http://www.centralbank.ie) and by telephone at 353 1 2246380.

Designed by: Essentra plc.

Cover Photograph: Stuart Bradfield

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ISSN 0332-2645



## Forecast Summary Table

	2012	2013	2014	2015 <sup>f</sup>	2016 <sup>f</sup>
<b>Real Economic Activity</b>					
(% change)					
Personal consumer expenditure	-0.8	-0.3	2.0	3.0	2.5
Public consumption	-2.2	1.4	4.6	0.5	0.9
Gross fixed capital formation	8.6	-6.6	14.3	15.8	13.2
Exports of goods and services	2.1	2.5	12.1	11.1	6.7
Imports of goods and services	2.9	0.0	14.7	11.9	7.4
Gross Domestic Product (GDP)	0.2	1.4	5.2	5.8	4.7
Gross National Product (GNP)	1.6	4.6	6.9	5.3	4.4
<b>External Trade and Payments</b>					
Balance-of-Payments Current Account (€ million)	-2,694	5,561	6,833	8,316	9,588
Current Account (% of GNP)	-1.5	3.1	3.6	4.0	4.3
<b>Prices, Costs and Competitiveness</b>					
(% change)					
Harmonised Index of Consumer Prices (HICP)	1.9	0.5	0.3	0.3	1.5
<i>of which:</i> Goods	1.9	-0.4	-1.7	-3.3	-0.6
Services	1.9	1.6	2.4	3.8	3.5
HICP excluding energy	0.9	0.6	0.5	1.3	1.7
Consumer Price Index (CPI)	1.7	0.5	0.2	0.3	1.5
Nominal Harmonised Competitiveness Indicator (Nominal HCI) <sup>a</sup>	-4.0	3.1	0.2	n.a.	n.a.
Compensation per Employee	-0.1	-0.7	1.7	2.3	2.4
<b>Labour Market</b>					
(% change year-on-year)					
Total employment	-0.6	2.2	1.9	2.4	2.2
Labour force	-0.6	0.4	-0.3	0.5	1.0
Unemployment rate (ILO)	14.6	13.1	11.2	9.5	8.5
<b>Technical Assumptions<sup>b</sup></b>					
EUR/USD exchange rate	1.28	1.33	1.33	1.12	1.12
EUR/GBP exchange rate	0.81	0.85	0.81	0.73	0.73
Oil price (\$ per barrel)	111.57	108.58	100.10	53.70	54.08
Interbank market – Euribor <sup>c</sup> (3-month fixed)	0.57	0.23	0.21	-0.01	-0.03

<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

National Accounts data for the first half of 2015 indicate a sharp acceleration in the pace of growth of the Irish economy. The recovery has become more widespread and has matured beyond the initial net export-driven rebound in activity. While some of the conventional measures, including GDP and GNP, are affected by the activities of multi-national firms, faster growth in consumption and employment confirm that the domestic economy is now expanding strongly and growth has become much more broadly based. This broadening and acceleration reflects the confluence of a number of growth-supportive developments, including the employment-rich nature of the recovery, a less constrained policy environment, as reflected in easing fiscal consolidation and favourable financial conditions, the boost to purchasing power from lower energy prices, the on-going easing of the balance sheet legacies of the crisis and broadly favourable conditions in Ireland's main export markets. It is the coming together of these factors which underpins the robust growth in the level of economic activity evident in economic data in recent quarters.

Over the past year, the gathering pace of growth has come to be driven by a strengthening impetus from domestic demand. While the rebound on the domestic side was initially driven by a recovery in investment spending, consumer spending has revived and is now playing a more prominent role. Consumption has benefitted from rising employment, particularly full-time employment. Since mid-2013, the economy has generated an additional 90,000 jobs almost all of which are full-time, with the pace of employment creation increasing over the past year. This has helped boost household incomes and, in turn, has stimulated a strong pick-up in consumer spending. Allied to the continuing strong rebound in underlying investment (that is, abstracting from the volatility in aircraft and intangibles investment), this has strengthened the pace of growth in domestic demand.

On the external side, the first-half of 2015 has seen further strong growth in both exports and imports, in part, continuing to be related to Ireland's involvement in global production chains. Of note, however, has also been a rise in the exports of indigenous sectors, such as agri-food and tourism, which are being supported both by favourable demand conditions in their main markets and exchange rate developments. Looking ahead it is assumed that exports will return to growing

broadly in line with projected growth in external demand. Helped by Ireland's trade links with the US and UK markets, this should continue to generate a strong rate of growth for exports in 2016.

On the domestic side, the momentum of growth has accelerated and the outlook is now more favourable than at the time of our last published forecasts. Looking ahead, the prospect of strong increases in employment, rising real disposable incomes and improved consumer confidence should support solid growth in consumer spending, which is now expected to grow faster this year and next than previously projected. In addition, growth in underlying investment spending – again abstracting from the volatile aircraft and intangibles components – is forecast to remain robust.

Largely as a result of the robust growth recorded in the first half of 2015, the projected growth rate of overall economic activity for this year has been raised significantly as compared to the forecasts published in the previous Bulletin, which were based on National Accounts data up to the fourth quarter of last year. GDP growth of 5.8 per cent is now forecast for 2015, an upward revision of 1.7 per cent relative to the previous Bulletin projection. While, in the main, this

upward revision is driven by the strength of the reported data for the first half of 2015, the outlook has also become more favourable. It is primarily this factor, particularly the prospect of a further strengthening of domestic demand, which is responsible for the upward revision to the growth projection for 2016, with GDP now forecast to grow by 4.7 per cent, 0.5 per cent higher than the previous Bulletin forecast. The risks to these forecasts are seen to be broadly balanced, with some risk to the projected outlook for domestic demand broadly offset by some downside risk to the external outlook.

The projections suggest that the economy overall is going through a period of exceptionally strong growth which is forecast to ease only modestly next year. While part of this reflects a rebound from a period of exceptional weakness, more fundamentally it represents the economy moving back towards realising its full productive potential and has been made possible by the ability of the economy, the public and policy to successfully respond to the challenges that were faced since the onset of the crisis. At the overall level, available evidence suggests that there is still sufficient spare capacity to allow the economy to grow rapidly over the forecast horizon without encountering major constraints. This capacity is not limitless, however, and inevitably growth will need to slow down to a lower, more sustainable rate<sup>1</sup> in the years ahead.

Ensuring that the recovery transitions to a sustainable pace of steady growth is the key challenge for policy in the period ahead. The strong growth outlook provides an opportunity to resolve the legacies stemming from still high levels of public and private sector

indebtedness. Focussing policy on reducing remaining vulnerabilities and strengthening resilience is essential to minimise future risks to economic, fiscal and financial stability.

With respect to the public finances, Exchequer developments have continued to be unusually favourable. Reflecting the stronger economic performance, tax revenues have continued to grow ahead of target and overall expenditure has remained lower than profile in the year to date. At the aggregate level, the very strong rise in the nominal, or money value, of GDP which will grow at close to double-digit pace this year and remain high next year, implies that the ratios of government borrowing and debt as a share of GDP should fall more sharply than previously expected in 2015 and 2016. The strong growth outlook provides the opportunity to make greater progress with fiscal consolidation and debt reduction in favourable circumstances. The level and burden of public debt remains high and taking advantage of strong growth to lower it more quickly would reduce the vulnerability of the public finances and the economy more generally to future adverse shocks. It is imperative, from the point of view of stabilisation policy, to avoid a return to the type of pro-cyclical fiscal policies observed in the past. Past experience also highlights the danger of using windfall fiscal gains to finance long-lasting spending commitments. Reaping the benefit of strong growth to reduce debt to lower and safer levels would also solidify Ireland's reputation for creditworthiness, help to maintain current favourable financing conditions and underpin a lasting recovery.

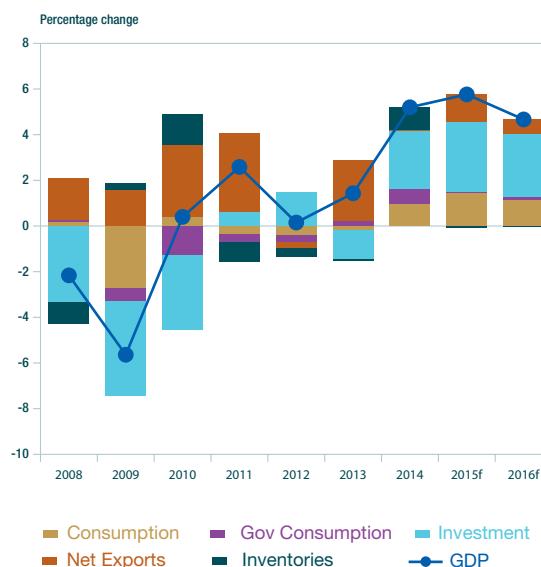
<sup>1</sup> A more extensive discussion of this issue is contained in Box A on page 11.

# The Domestic Economy

## Overview

- The outlook for real GDP growth has been revised upwards to 5.8 per cent and 4.7 per cent in 2015 and 2016, respectively. A much stronger impetus from domestic demand is now anticipated for 2015 following the expansion in consumption and investment in the first half of the year. Similarly, real GNP growth is expected to be marginally stronger than previously forecast this year and next, at 5.3 and 4.4 per cent.
- Growth in domestic demand averaging over 5 per cent this year and next is supported by the substantially greater increase in investment now expected over the forecast horizon of 15.8 and 13.2 per cent respectively. For 2015, much of this expansion is due to growth in the volatile research and development category and reflects the impact of Quarterly National Accounts data reported so far this year. However, building and construction and non-aircraft machinery and equipment investment is anticipated to increase at a slightly slower pace than previously forecast.
- Against a background of improvements in consumer sentiment, growth in disposable incomes, reflecting the continued rise in employment, higher rates of pay and a smaller drag of net transfers from government, is expected to contribute to consumption growth of 3 per cent this year. As the rebound from the crisis in terms of latent demand, particularly for big ticket items eases somewhat, the pace of consumption growth is expected to be 2.5 per cent in 2016.
- Trade and factor income developments remain heavily influenced by issues involving Irish resident multinational firms in high-tech sectors, although indigenous exporting sectors are also growing. Unlike 2014, much of the growth in goods exports so far this year seems to reflect activity within the State, but the pace of growth remains unexpectedly high. This has contributed to large upward revisions to export growth this year (11.1 per cent), with some carry-over to 2016 (6.7 per cent), as growth in the second half of next year is assumed to reflect more fundamental trading partner demand. Imports are also stronger over the forecast horizon due to the stronger outlook for investment, consumption and exports.
- The labour market continues to improve and it is expected that employment will increase by on average 2.3 per cent this year and next. This should see the unemployment rate averaging 9.5 per cent in 2015, with a decline to 8.5 per cent expected for 2016, notwithstanding

Chart 1: Contributions to GDP



Source: CSO and Central Bank of Ireland.

a modest rise in labour force participation. The relative tightening of the labour market, particularly in certain sectors, is expected to support increases in average employee compensation of 2.3-2.4 per cent this year and next.

- Inflation is expected to be negligible in 2015, with the HICP averaging 0.3 per cent over the year, as the drag from weak energy prices continues to offset growth in the more domestically driven consumer services prices. The HICP is expected to rise by 1.5 per cent in 2016, somewhat lower than previously forecast, as international oil prices are now assumed to be relatively flat on 2015 and this partially offsets an expected rise in services prices of 3.5 per cent.
- Risks to the forecasts are slightly on the upside for 2015 and marginally on the downside for 2016. The outturn for domestic demand, particularly investment, may be stronger than envisaged in this Bulletin for 2015, but most of the growth in these components may be offset by higher imports. For next year, downside risks stem mostly from a drag on external demand from persistent weakness in the emerging market economies and its direct and second-round impacts on Irish exports. While domestic factors point to upside potential, the likelihood of sustained rapid growth in domestic demand next year must be considered in light of the very high pace of growth witnessed in recent years.

**Table 1: Expenditure on Gross National Product 2014, 2015<sup>f</sup> and 2016<sup>f</sup>**

	2014			2015 <sup>f</sup>			2016 <sup>f</sup>
	EUR millions	% change in volume	price	EUR millions	volume	price	EUR millions
Personal Consumption Expenditure	88,959	3.0	1.3	92,819	2.5	1.8	96,852
Public Net Current Expenditure	27,236	0.5	1.6	27,792	0.9	0.8	28,244
Gross Domestic Fixed Capital Formation	36,511	15.8	2.3	43,256	13.2	2.6	50,222
<i>Building and Construction</i>	12,510	8.0	6.1	14,264	12.5	6.3	16,949
<i>Machinery and Equipment</i>	14,215	16.5	0.8	16,666	16.2	1.1	19,543
<i>Intangibles</i>	9,786	25.0	1.0	12,326	10.0	1.4	13,730
Value of Physical Changes in Stocks	1,905			1,905			1,905
<b>TOTAL DOMESTIC DEMAND</b>	154,611	5.6	1.6	165,772	5.0	1.8	177,223
Exports of Goods & Services	214,961	11.1	2.7	245,340	6.7	1.9	266,877
<b>FINAL DEMAND</b>	369,572	8.8	2.3	411,112	6.0	1.9	444,100
Imports of Goods & Services	-180,286	11.9	-1.6	-205,149	7.4	-1.2	-222,901
<i>Statistical Discrepancy</i>	-239			-239			-239
<b>GROSS DOMESTIC PRODUCT</b>	189,047	5.8	2.9	205,724	4.7	2.6	220,959
Net Factor Income from Rest of the World	-26,169	8.4	2.7	-29,139	6.6	1.9	-31,652
<b>GROSS NATIONAL PRODUCT</b>	162,878	5.3	2.9	176,585	4.4	2.7	189,308

## Demand

### Domestic Demand Overview

The latest set of *Quarterly National Accounts* figures confirm that the recovery in domestic demand (evident since the second half of 2013) has continued to gather pace. In the first half of the year, domestic demand grew by 8.4 per cent – the fastest rate of growth since 2006. This was driven by continued growth in consumer spending but also by exceptionally strong investment figures, in large part reflecting the volatile research and development (R&D) sub-component (see below). The momentum in domestic demand is

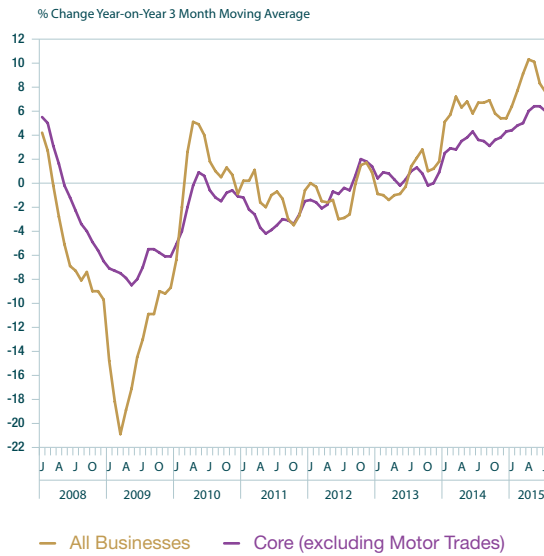
expected to persist over the forecast horizon, with growth of 5.6 per cent and 5 per cent forecast for 2015 and 2016, respectively.

### Consumption

Personal consumption expenditure is expected to grow by 3 per cent this year and by 2.5 per cent in 2016. The outlook for this year has been revised upwards by 0.7 percentage points since the previous *Bulletin*. This reflects, in part, revisions to the growth outturn in 2014 coupled with robust data for the first half of the year.<sup>1</sup> In seasonally adjusted terms, consumer spending grew by 0.7 and 0.4 per cent on a

<sup>1</sup> The CSO revised the growth rate in personal consumption in 2014 upwards from an initial estimate of 1.1 per cent in March to 2 per cent in July.

**Chart 2: Index of Volume of Retail Sales**



Source: CSO.

quarter-on-quarter basis in the first and second quarters – marking a sixth consecutive quarter of expansion. This upturn has been driven largely by purchases of goods. In the year to July, the volume of retail sales increased by 8.8 per cent helped by robust new car sales.<sup>2</sup> Excluding motor trades, retail sales were up by 5.8 per cent over the same period.

The outlook for the rest of this year and for 2016 is driven by a combination of factors. In particular, the robust recovery in the labour market has become more broadly based and is expected to continue in the short-term. Consumer confidence continues to improve as evidenced by sentiment indicators and car sales statistics.<sup>3</sup> Exchequer taxes have also been consistently strong this year indicative of higher levels of consumer activity, with VAT receipts in particular up 7.9 per cent in the year to end-August.

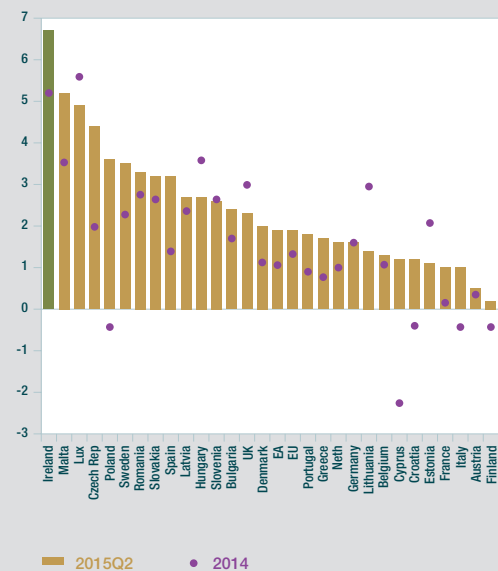
**Box A: The Recent Growth Performance of the Irish Economy**

By Diarmaid Smyth and Martin O'Brien<sup>4</sup>

The recent growth performance of the Irish economy has been exceptionally robust as well as being quite divergent from developments in the euro area (EA) (Figure 1). An obvious question is how long this pace of growth can be expected to persist? This Box seeks to shed some light on this issue by looking at recent growth in the context of the long-term performance of the Irish economy.

The most recent set of *Quarterly National Accounts* (QNA) confirmed the strong rebound in economic activity – GDP grew by 6.7 per cent in the year to the second quarter (a 6th consecutive quarter of expansion). This rapid growth has resulted in a large gap opening up between the rate of GDP expansion in Ireland and the EA. Differences in the growth of domestic demand have dominated the recent growth in Ireland, as well as the much higher rate of GDP growth than what has been seen in the EA.

**Box A Fig 1: Real GDP Growth in the euro area**



Source: Eurostat.

4 Irish Economic Analysis Division.

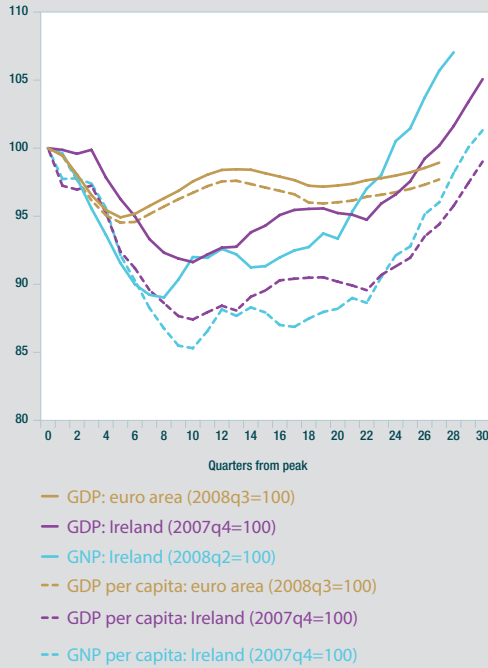
2 According to the CSO, there were 108,522 new private cars licenced in the year to end-August, an increase of 31.9 per cent year-on-year.  
 3 The KBC Ireland/ESRI Consumer Sentiment Indicator (3-month moving average) increased to 101.2 in August from 100.3 in July.

**Box A: The Recent Growth Performance of the Irish Economy**

By Diarmaid Smyth and Martin O'Brien

The reasons for the diverging growth performance lie partly in the after effects of the financial crisis and the relative capacity of the Irish economy to respond to such a shock. While the scale of the shock in Ireland has been larger, at the onset and throughout the crisis, the relative flexibility of Ireland's labour market and the less restrictive and business-friendly product market environment has facilitated a more robust recovery from the trough of the recession.<sup>5</sup>

**Box A Fig 2A: Annual Real GD(N)P and Real GD(N)P per capita from pre-crisis peak**



Source: CSO, Authors' Calculations.

**Box A Fig 2B: Annual Average Employment from pre-crisis peak**



Source: CSO, Authors' Calculations.

In Ireland the crisis was deeper and more prolonged than in the EA. From peak to trough, real GDP contracted in Ireland by 8.4 per cent between 2007q4 and 2010q2, whereas the peak to trough decline in the EA was 5.1 per cent over the course of 5 quarters from 2008q3 (Figure 2a). Considering GNP, the decline in Ireland was more severe at 11.4 per cent over a two year period. On the labour market side, annual average numbers employed fell by 16.7 per cent in Ireland over the course of the crisis, whereas the equivalent fall in the EA was 4.1 per cent (Figure 2b). In terms of domestic demand, the peak to trough decline in Ireland was even more severe at between 17-20 per cent, depending on the treatment of certain categories of investment, with the EA as a whole seeing a fall of 5.5 per cent (Figure 2c).

**Box A Fig 2C: Annual Real Domestic Demand from pre-crisis peak**



Source: CSO, Authors' Calculations.

<sup>5</sup> OECD indicators on the degree of product market regulation and restrictiveness of employment legislation consistently have Ireland below the euro area average for periods before and during the crisis. A proactive policy stance in conjunction with EU/IMF Financial Assistance Programme was also important in restoring confidence and facilitating growth.

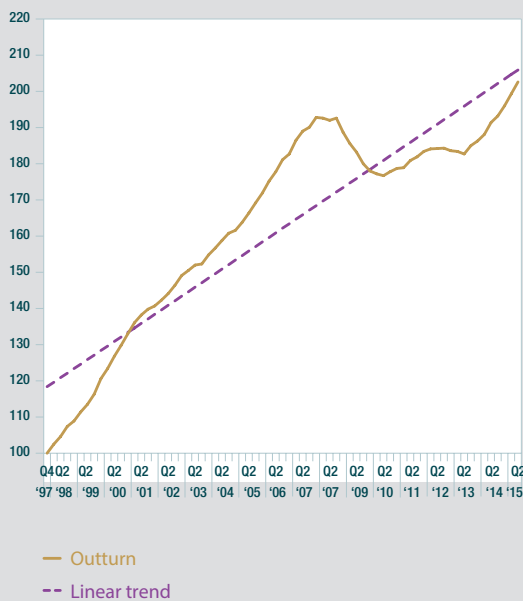
**Box A: The Recent Growth Performance of the Irish Economy**

*By Diarmaid Smyth and Martin O'Brien*

While the initial recovery in GDP in Ireland was driven by net exports, the recent rebound in domestic demand is now the dominant source of growth. Much of this reflects “pent up demand” in the economy following a long period of weakness, which has manifested itself most clearly in rising purchases of “big ticket” items – consumer durables, car sales and housing– all of which are up very strongly in recent quarters. However, the recovery has perhaps manifested itself most strongly in the labour market, with an additional 130,000 persons at work since the low point in 2012. In the quarter to end-June, numbers in employment rose by 1 per cent quarter-on-quarter - an 11th consecutive quarterly increase.<sup>6</sup> Figure 2b, shows that employment is now less than 5 per cent below peak levels (excluding construction) and on the basis of the forecasts in this *Bulletin* non-construction related employment will be 1 per cent below peak levels in 2016.

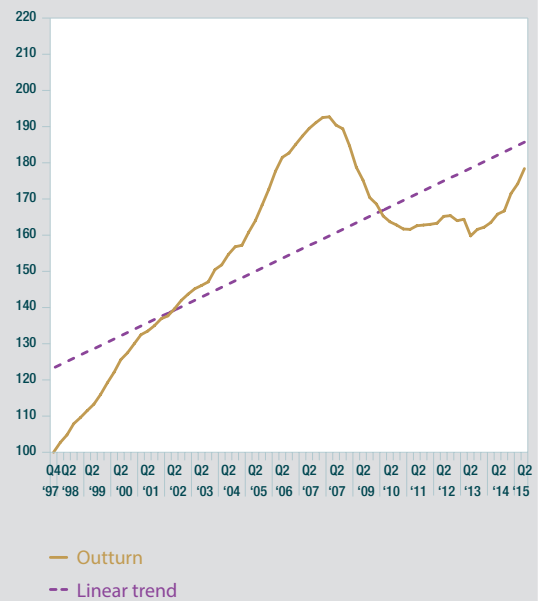
Following the rapid pace of growth over recent quarters, in 2014 the economy surpassed the level it was at pre-crisis in terms of GDP and GNP, while on a per capita basis it will do so in 2015 (Figure 2a). This represents a much lower level of activity than what would have been the case had the trends prevailing at the peak of the boom continued. However the imbalances that had built up in the mid-2000s during the credit-fuelled construction boom were such that both the level and growth rate of economic activity over that period were ultimately unsustainable. It is reasonable to assume that the scale of the Great Recession has been so large, and the positions in the mid-2000s so unsustainable, that the trend rate of growth for the economy is now fundamentally lower than what would have been the case in the early part of this century. A linear trend for GDP estimated over the past 18 years suggests as much from a simple statistical point of view.<sup>7</sup> The rapid rate of growth in recent quarters has moved GDP back towards a level consistent with such a lower trend growth rate (Figure 3a).

**Box A Fig 3A: Ireland - Annual Real GDP (1997q4=100)**



Source: CSO, Authors' Calculations.

**Box A Fig 3B: Ireland - Annual Real Domestic Demand**



Source: CSO, Authors' Calculations.

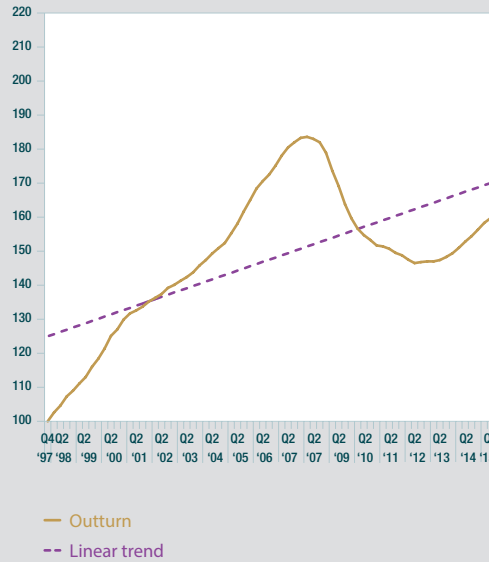
**6** The unemployment rate has also fallen sharply from a high of 15.1 per cent in 2012 to 9.5 per cent at present.  
**7** Alternative statistical methods for estimating the trend in GDP over this time period, such as the Hodrick Prescott filter or Kalman filter, would typically have slightly lower estimates of trend GDP at present than a simple linear trend. One could also consider counterfactual exercises of where the economy would be without the boom-bust experience of the past decade (P. Honohan, “Where did all the money channelled into property-backed lending go?”, *Irish Times*, 31 January 2015).

**Box A: The Recent Growth Performance of the Irish Economy**

By Diarmaid Smyth and Martin O'Brien

Similarly, domestic demand remains well below its pre-crisis peak, but is also approaching a lower post-crisis trend value (Figure 3b). It must be borne in mind that following recent methodological changes in the *National Accounts*, investment in R&D intangibles and all aircraft owned by leasing companies resident in Ireland are now included in domestic demand (see Box B). Conceptually, this investment adds to the productive capacity of the economy, but it is broadly unrelated to developments in the domestic markets for capital, labour, and consumer goods and services. It is therefore also useful to consider domestic demand excluding investment in aircraft and intangibles, the recovery in which has not been as rapid, and the level of which is currently 5 per cent below its value consistent with a lower post-crisis trend growth rate. By the end of the current forecast horizon, this measure of domestic demand is projected to be 2.5 per cent below that trend.

**Box A Fig 3C: Ireland - Annual Domestic Demand ex aircraft and intangibles**



Source: CSO, Authors' Calculations.

When considering the upside capacity of the economy over the coming years a key issue will be the efficiency of the labour market. In Figure 4a, the economy-wide vacancy rate is plotted from 2008q1 to 2015q2.<sup>8</sup> The number of reported vacancies has been on an upward trajectory in recent quarters. In the first half of 2015, the number of reported vacancies increased sharply, by more than a third to 15,100, with increases recorded in nearly all sectors. An economy wide Beveridge curve is shown in Figure 4b.<sup>9</sup> There appears to have been an upward shift in the curve in recent quarters pointing to tighter labour market conditions, something that is also evident from the latest earnings data - hourly earnings increased for a third successive quarter in 2015q2 - the first time this has occurred since 2009 despite still weak inflationary pressures.

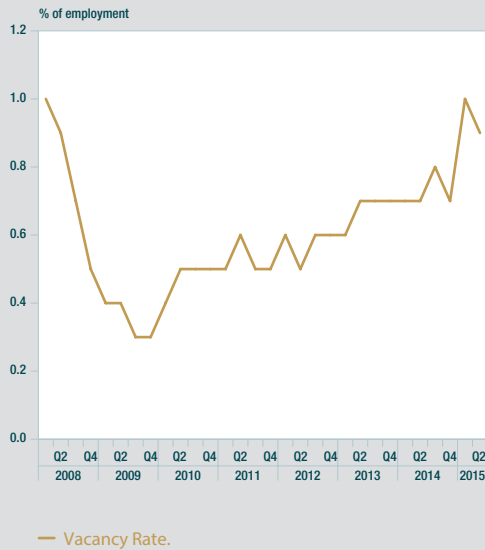
<sup>8</sup> The vacancy rate here is defined as the ratio of job vacancies to numbers employed. The data is taken from the CSO's Earnings and Labour Costs survey (EHECS).

<sup>9</sup> The negative relationship between vacancies and the unemployment rate over the course of the economic cycle was highlighted in 1944 by William Beveridge.



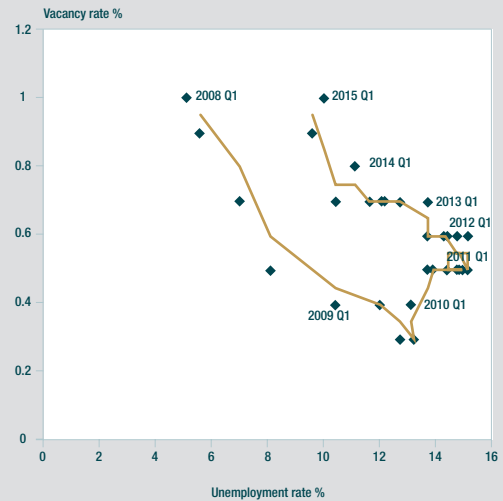
**Box A: The Recent Growth Performance of the Irish Economy**  
*By Diarmaid Smyth and Martin O'Brien*

**Box A Fig 4A: Vacancy Rate**



Source: CSO.

**Box A Fig 4B: Beveridge Curve**



Source: CSO, Authors' Calculations.

Taking a cross-check on these developments, given the relative impact of the crisis on Ireland compared to the EA as well as the typically higher responsiveness of the Irish economy to such shocks, it was always likely that growth here would surpass that of the EA in the recovery phase. At this stage, the economy is moving back towards trend levels in terms of GDP and domestic demand, as well as showing the initial indications of a tighter labour market. However the arguably more relevant measure of domestic demand for evaluating contemporaneous developments in capital, labour and goods and services markets, is not expected to reach what could be considered its trend level over the forecast horizon in this *Bulletin*. This suggests that while growth could reasonably be expected to ease somewhat in 2016, there remains capacity for the Irish economy to continue to expand at a faster pace than the EA over the medium term without encountering binding constraints. This capacity is not limitless, however, and inevitably growth will need to slow down to a lower, more sustainable rate. Any stimulus to growth over and above that envisaged in the coming years would have to be supported by increases in the productive capacity of the economy in order to avoid the risk of unsustainable increases in factor prices such as those for labour and capital.

**Investment**

As noted in previous *Bulletins*, investment forecasts are subject to considerable uncertainty, all the more so with recent statistical changes related to the treatment of aircraft leasing (see Box B). However, after stripping out the volatile components (aircraft and intangibles investment), the latest *Quarterly National Accounts* point to a continued strong rebound in underlying investment, which is up almost 20 per cent year-on-year to the second quarter. On the building and

construction side, growth in the first half of 2015 is coming from the residential sector, with the other components (commercial, industrial and infrastructure) registering only modest increases in year-on-year terms (for the first half of 2015) or even a slight decline (for the second quarter). While the headline rate of machinery and equipment investment was flat, the underlying figure, net of the volatile aircraft investment, points to considerable strength in the economy – up almost 40 per cent in the year to the second quarter.

In the residential sector, house completions look set to register an increase of approximately 25 per cent, which coming from a very low base represents 13,700 new housing units. On the basis of current forward looking indicators and a pick-up in development financing, house completions are forecast to increase to about 18,500 new units in 2016. Investment on the non-residential side is forecast to increase by 5 per cent this year and 8 per cent in 2016, a downward adjustment compared with the previous *Bulletin*, in part reflecting base effects from a higher than expected outturn for 2014.

In conjunction with forecasts from other components of domestic demand and export growth, growth in machinery and equipment is expected to remain strong, with an underlying (excluding aircraft investment) increase of 25 and 20 per cent forecast for 2015 and 2016, respectively.

Intangibles investment, which includes spending on patents and intellectual property rights as well as organisational and human capital, increased by almost 70 per cent in the year to the second quarter of 2015. While this was probably related to activity by a limited number of multinationals, it represents a non-negligible proportion of overall investment and is likely to add considerable noise to the overall investment figures.

With this caveat, total investment is forecast to increase by 15.8 per cent and 13.2 per cent in 2015 and 2016, respectively.

### Box B: The Impact of Changes in Trade in Aircraft in the National Accounts

By Martin O'Brien<sup>10</sup>

With the release of the *National Income and Expenditure Accounts 2014 (NIE 2014)* the CSO have included the physical trade in all aircraft by Irish resident leasing companies on a change in economic ownership basis.<sup>11</sup> Ireland is central to the world's vast and growing aircraft leasing market, with 14 of the world's top 15 aircraft leasing companies operating here, and approximately half of all leased aircraft globally either owned or managed from Ireland.<sup>12</sup> Given the size of the aircraft leasing sector in Ireland, the inclusion of this trade has led to significant revisions to, *inter alia*, investment, imports and the trade balance, and adds another source of complexity in interpreting Irish macroeconomic data.<sup>13</sup> In this Box the impact of these changes on the headline items of relevance in the National Accounts and Balance of Payments over recent years are considered. The implications of these changes for our forecasting approach to investment and imports is then discussed, as well as their impact on estimates of potential output, based on the measure used for fiscal surveillance by the European Commission.

The differences in the level and growth rates of real imports and investment in NIE 2014 and previous vintages of National Accounts are shown in Figures 1a-1d. These mostly arise due to this change in methodology, with some minor revisions due to a change in how the CSO adjust the level of imports from the survey data they collect in compiling the National Accounts. With the inclusion of the new aircraft, the decline in investment during the 2009/10 recession is now estimated to have been smaller than previous accounts, and had a more pronounced rebound in 2011/12. For 2014, investment is now estimated to have grown by 14.3 per cent as opposed to just 11.3 per cent using the previous methodology. These trends are also broadly reflected in the imports series. Since 2010, the level of investment is now on average 20 per cent higher than under the previous methodology, with imports being 9 per cent higher.

<sup>10</sup> Irish Economic Analysis Division.

<sup>11</sup> See <http://www.cso.ie/en/media/csoie/surveysandmethodologies/surveyforms/documents/balancepayments/pdfdocs/Aircraftleasing2015.pdf> for further details.

<sup>12</sup> Dept. of Finance (2015) "IFS 2020: A Strategy for Ireland's International Financial Services Sector 2015-2020".

<sup>13</sup> For a detailed *ex-ante* discussion of the change, with hypothetical examples of the impact see J. FitzGerald (2015) "Problems Interpreting National Accounts in a Globalised Economy – Ireland", Special Article, ESRI Quarterly Economic Commentary, Summer.

**Box B: The Impact of Changes in Trade in Aircraft in the National Accounts**  
 By Martin O'Brien

**Box B Fig 1A: Annual real investment growth**



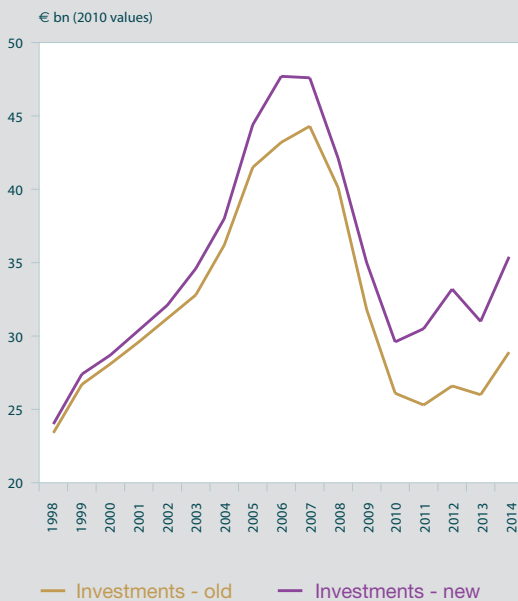
Source: CSO, Eurostat.

**Box B Fig 1B: Annual real imports growth**



Source: CSO, Eurostat.

**Box B Fig 1C: Real investment (chain linked annually referenced to 2010)**



Source: Eurostat.

**Box B Fig 1D: Real imports (chain linked annually referenced to 2010)**

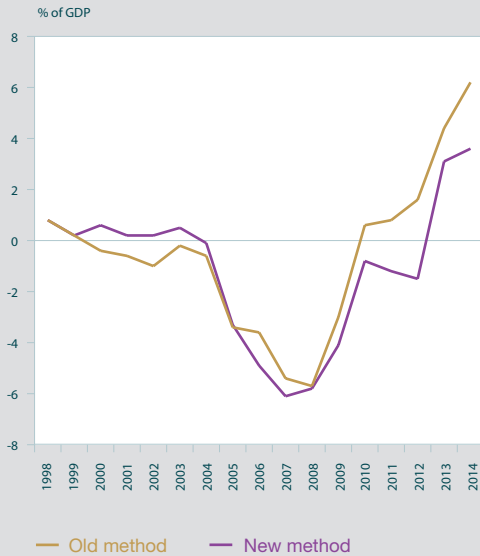


Source: Eurostat.

**Box B: The Impact of Changes in Trade in Aircraft in the National Accounts**  
 By Martin O'Brien

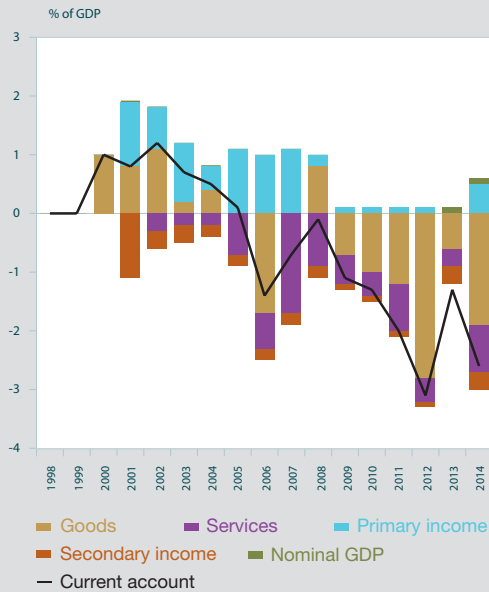
As this additional investment is entirely related to imported goods, the impact on the level and growth rates of GDP and GNP arising from the change in methodology has been negligible. However the composition of GDP is significantly affected, with the investment share now averaging 22.3 per cent since 2000, as opposed to 20.2 per cent under the old methodology.

**Box B Fig 2a: Current account balance**



Source: CSO.

**Box B Fig 2B: Difference in Current Account Components**



Source: CSO.

The additional (net) imports of aircraft now included in the data have reduced the goods trade balance in the current account of the balance of payments. As there has been no change arising from the new methodology in other items within the current account and the level of nominal GDP is slightly higher due to unrelated revisions, the current account surplus of recent years is now lower than what had previously been reported (Figure 2a). While other items regarding the services trade and primary income balances have been revised in line with existing CSO practices, these are small when compared to the impact of the trade in aircraft on the goods trade balance (Figure 2b).

**Box B: The Impact of Changes in Trade in Aircraft in the National Accounts***By Martin O'Brien*

A high degree of uncertainty has always been attached to headline investment forecasts given the timing and volume of aircraft purchases by Irish headquartered airlines. This uncertainty is now magnified given the scale of the trade in aircraft now included, and the number of firms involved. While further analysis will have to be done as more data become available, growth in the global airline industry tends to be correlated with global GDP growth, and this may be a useful preliminary benchmark for aircraft investment forecasts.<sup>14</sup>

As noted above, this additional investment in aircraft now included in the *National Accounts* is all imported. In practice, forecasts for imports are estimated with reference to the marginal propensity to import for a given level of consumption, investment and exports and the forecast path for these expenditure components. The marginal import propensities can be derived from the *Supply and Use Tables* published by the CSO. The latest vintage of the *Tables* refer to 2011 and implies that approximately 50 per cent of investment expenditure in that year was on imports. Now that investment expenditure has been increased by the change in methodology, and all of that increase refers to imported goods, the marginal propensity to import for a given level of investment will typically be higher than 50 per cent in the years that aircraft are purchased. Initial estimates by the Bank suggest that the marginal propensity to import for investment is now closer to 55 per cent, which has the impact of systematically increasing the level of imports in our forecasts.

Arising from their new treatment, all aircraft owned by Irish resident leasing companies are now considered part of the Irish capital stock, despite the fact that the vast majority of them will never actually be based out of Ireland. There will also be an impact on the economy-wide consumption of fixed capital, or depreciation rate, depending on how statisticians evaluate how aircraft depreciate in comparison with other elements of the capital stock. With this rise in the capital stock, standard estimates of the productive capacity, or potential output, of the Irish economy will also change. It is well known that estimates of potential output in the Irish case are fraught with difficulty due to, amongst other things, the high degree of flexibility in both labour and capital markets.<sup>15</sup>

The European Commission (EC) applies a standard methodology across EU Member States in estimating potential output and the related output gap (the difference between potential output and actual GDP). This is used in fiscal surveillance and benchmarking progress in meeting conditions under the Stability and Growth Pact (SGP).<sup>16</sup> Following the EC methodology implies

<sup>14</sup> See IATA (2015) "Economic Performance of the Airline Industry - June", available at <http://www.iata.org/whatwedo/Documents/economics/IATA-Economic-Performance-of-the-Industry-mid-year-2015-report.pdf>.

<sup>15</sup> For a more detailed discussion see Bergin and FitzGerald (2014) "The Structural Balance for Ireland", Special Article, ESRI Quarterly Economic Commentary, Spring.

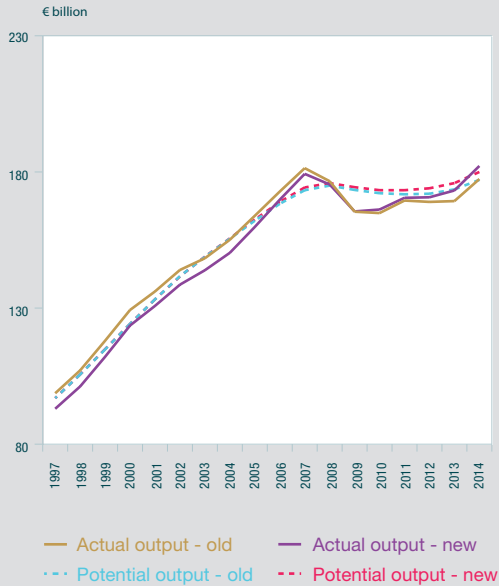
<sup>16</sup> It has been noted that this approach is problematic when applied to Ireland. See "Box B: Towards More Relevant Measures of Potential Output" in the Irish Fiscal Advisory Council's Fiscal Assessment Report, June 2015.

**Box B: The Impact of Changes in Trade in Aircraft in the National Accounts**

By Martin O'Brien

a specific means of deriving the production function for the economy that is common across Member States with very few exceptions to capture country specific idiosyncrasies. On the assumption that this method is applied as it has been to date, the additional capital stock under the new treatment of aircraft investment leads to estimated potential output using the EC methodology being approximately 1.5 per cent higher in 2014 compared to the previous EC estimates, and on average about 1 per cent higher since 2008 (Figure 3a, 3c).<sup>17</sup> The output gap, which is expressed as a per cent of potential output, would now be estimated to have been 1.2 per cent in 2014, significantly more positive than the previous estimate which in essence had an output gap of zero last year (Figure 3b).

**Box B Fig 3A: Potential output estimate using EC methodology (real 2010 values)**



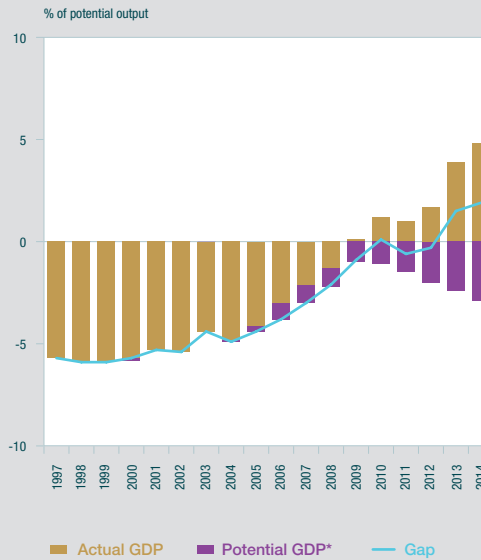
Source: CSO, Authors' Calculations.

**Box B Figure 3B: Output gap estimate using the EC methodology**



Source: CSO, Authors' Calculations.

**Box B Figure 3C: Differences arising from new estimates**



Source: CSO, Authors' Calculations.

<sup>17</sup> DG ECFIN provides computer code to replicate their approach to estimating potential output at <https://circabc.europa.eu>. We update the underlying data used in the estimates from DG ECFIN in their Spring 2015 forecast to reflect the new investment series and GDP estimates. We assume no difference in the aggregate depreciation rate, nor do we adjust the standard EC methodology of a common fixed coefficient on the capital input to the production function. A higher depreciation rate, which may ultimately be the case following the revision to the investment series, would tend to reduce potential output estimates. Further details of the EC methodology can be found in K. Havik et al (2014) "The Production Function Methodology for Calculating Potential Growth Rates and Output Gaps", DG ECFIN European Economy Economic Papers, No. 535.

**Box B: The Impact of Changes in Trade in Aircraft in the National Accounts**

By Martin O'Brien

One implication of the revised estimates is the impact that the practice of chain linking volume measures has on historic levels of real GDP. The EC use chain linked volume measures with a reference year of 2010 in their procedures for calculating the output gap. The chain linked deflator with reference year 2010 now incorporates alternative developments in investment and import prices which were not present in previous estimates. The effect of this is to reduce the size of the economy in real 2010 terms in years prior to 2008 (Figure 3a, 3c). This is the dominant feature in explaining the new output gap measure using the EC methodology in those years. Consequently, the economy was estimated to have a negative output gap using this measure through the late 1990's and early 2000's, as opposed to a positive one. During the height of the construction boom in 2006/7, the economy is assessed to have had a much smaller positive output gap under the new method than previously estimated.

The systematically higher level of potential output under the EC methodology following the additional investment in aircraft will provide the framework within which fiscal policy will be evaluated under the preventive arm of the SGP from 2016.

**Government Consumption**

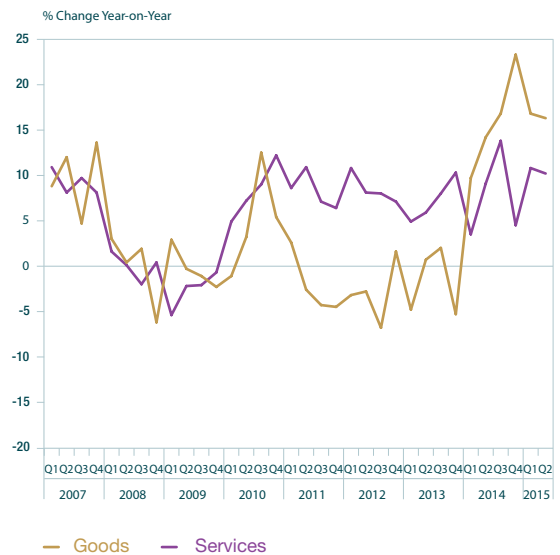
The volume of government consumption increased by 3.5 per cent in the first half of the year, following growth of 4.6 per cent in 2014. For the year as a whole, real government consumption is assumed to increase by 0.5 per cent, with 0.9 per cent growth assumed in 2016.

**External Demand and the Balance of Payments**

**Exports and Imports**

According to the latest *Quarterly National Accounts* export growth continued to be robust in the first half of 2015, rising by 13.8 per cent compared with the first half of 2014. While import growth has also strengthened so far in 2015, particularly for services, net exports have made a stronger contribution to GDP growth in the first six months of the year than in 2014. However revised estimates in the latest set of *National Accounts* indicate that net exports made a much smaller contribution to GDP growth in 2014 than had previously been thought. Looking ahead, the projections in this *Bulletin* for 2015 and 2016 imply a stronger contribution from net exports to GDP growth over the forecast horizon (Chart 1).

**Chart 3: Volume of Exports**



Source: CSO Quarterly National Accounts.

Growth in goods exports continues to dominate overall developments in Irish exports, with volume growth of over 16 per cent on an annual basis in the first half of 2015. The impact of Ireland being a net contract manufacturing user garnered a lot of attention in explaining the growth in goods exports in 2014. This issue is, however, a symptom of

**Table 2: Goods and Services Trade 2014, 2015<sup>f</sup>, 2016<sup>f</sup>**

	2014		2015 <sup>f</sup>		2016 <sup>f</sup>		
	EUR millions	% change in volume	price	EUR millions	% change in volume	price	EUR millions
Exports	214,961	11.1	2.7	245,340	6.7	1.9	266,877
Goods	113,211	13.8	3.6	133,472	7.7	1.5	145,906
Services	101,750	8.0	1.8	111,868	5.5	2.5	120,971
Imports	180,286	11.9	1.6	205,149	7.4	1.2	222,901
Goods	70,910	10.9	1.4	79,745	7.0	1.5	86,646
Services	109,376	12.6	1.8	125,404	7.6	1.0	136,256

the underlying driver of Irish export growth in recent years, namely the role of Irish firms in the international fragmentation of production and changes in corporate structure resulting in shifts in Ireland's position in global value chains.<sup>18</sup> Data so far for 2015 does not point toward changes in contract manufacturing as being the main factor in goods export growth.<sup>19</sup> Consequently, growth in the value of exported goods actually processed in Ireland is the main source of export growth so far in 2015, particularly exports of pharmaceuticals and of professional, scientific and controlling instruments such as medical apparatus.

That being said, developments in Irish goods imports so far in 2015 appear to be driven by activity outside the State of Irish owned firms, or firms operating on contract processing Irish owned materials for Irish resident entities. The most recent growth in goods imports on a *National Accounts* basis is not reflected to the same extent in customs data. Combined with the developments in goods exports, the rise in the goods trade surplus to date in 2015 has for the most part reflected activity within the State.

Services trade is also affected by the involvement of Irish resident multi-national firms in the wider restructuring of production and intra-firm transactions evident in recent years. Services imports continue to grow strongly at just over 20 per cent on an annual basis in

the first half of 2015, reflecting both the import of royalties and licences arising from using intellectual property (IP) from outside Ireland, as well as the outright purchase of such IP assets which gets reflected in intangibles investment. This IP underpins the production of hi-tech goods and services for export here. Regarding services exports, growth is being recorded across all categories, with the strongest contributors continuing to be computer services, insurance and financial services and business services (including leasing and administrative support services). Growth in the value of tourism services exports is also accelerating in 2015.

Sentiment indicators for both manufacturing and services industries continue to be positive regarding the prospects for exports. The outlook for demand in our major trading partners based on the most recent external demand assumptions is marginally stronger than in the previous *Bulletin* for 2015 and somewhat weaker for 2016. This is due to a slightly less optimistic outlook for the world economy in 2016 arising from the slowdown in China (see Box C). The dominant factor in determining our near term projections on exports, however, is the higher than expected growth reported so far this year.

With these factors in mind, the latest projection is for overall export growth of 11.1 per cent

<sup>18</sup> See S. Byrne and M. O'Brien (2015) "The Changing Nature of Irish Exports: Context, Causes and Consequences", Special Article in Central Bank of Ireland Quarterly Bulletin No.2.

<sup>19</sup> The value of goods exports on the basis of customs data in the first half of 2015 increased by €8.6 billion on an annual basis, whereas the adjustment made to these data to match the value of goods exports on a *National Accounts* basis, which includes the contract manufacturing adjustment, rose by €6.3 billion over the same period.



**Table 3: Balance of Payments 2014, 2015<sup>f</sup>, 2016<sup>f</sup>**

€ million	2014	2015 <sup>f</sup>	2016 <sup>f</sup>
Trade Balance	34,674	40,191	43,976
<i>Goods</i>	42,297	53,727	59,260
<i>Services</i>	-7,623	-13,536	-15,284
Net Factor Income from the Rest of the World	-25,105	-29,139	-31,652
Current International Transfers	-2,736	-2,736	-2,736
<b>Balance on Current Account</b>	6,833	8,316	9,588
(% of GDP)	3.6	4.0	4.3

for 2015 in volume terms, and 6.7 per cent in 2016, significantly stronger than in our previous *Bulletin*. Goods exports are expected to grow at a faster pace than services over the forecast horizon.

The outlook for domestic demand and export growth, as well as the higher than expected outturn for the first half of 2015 due to imported IP assets, justify a strengthening of imports over the forecast horizon. Consequently, an 11.9 per cent increase in the volume of imports is expected in 2015 followed by 7.4 per cent in 2016.

Combined with the export outlook this implies a higher net export contribution to overall GDP growth this year and next compared with 2014. A reasonable degree of uncertainty surrounds the net export projections at present as a result of the sector specific issues noted above and the timing of any further big-ticket investment items such as aircraft or IP assets over the forecast horizon.

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

The trade surplus for 2014, revised to reflect the inclusion of the physical trade in aircraft owned by Irish resident leasing companies, was broadly flat compared with 2013 as an increase in net goods exports was offset by deterioration in the services deficit. The overall trade balance for 2014 was €34.7 billion, and is forecast to rise to €40.2 billion in 2015.

Net factor income flows have been marginally less negative in recent years. This mostly reflects lower profit repatriation by multinationals due to a higher tendency for these companies to import intellectual property rights or retain earnings domestically, developments in the IFSC, and an increase in investment income inflows to Ireland. The latter follows from the significant M&A activity and re-domiciling of multi-national enterprises in recent years. There was further evidence of this in the first quarter of 2015, with a large increase in both foreign assets and foreign liabilities for non-IFSC companies. It is likely that the issues underlying factor income flows evident in recent years will prevail over the forecast horizon.

Given the scale of factor income flows and the uncertainty of their timing, small changes in outflows or inflows could have a significant impact on balance of payments projections in this *Bulletin*. Taking this into account, along with the trade developments noted above, the projections imply that the current account will record surpluses above 4 per cent of GDP in both 2015 and 2016.

**Box C: Irish Trade with China**

By Stephen Byrne<sup>20</sup>

Over the past three decades, China's participation in international trade has expanded at a robust pace.<sup>21</sup> In 2014 China overtook the US as the country with the largest share of trade in goods exports. In recent years, Irish trade bodies have identified China as a key market with which to develop trade links.<sup>22</sup> In the context of a possible slowing of the pace of economic activity in China, it is pertinent to examine the nature of Irish trade with China and the potential direct effects of this on Irish foreign demand.<sup>23</sup>

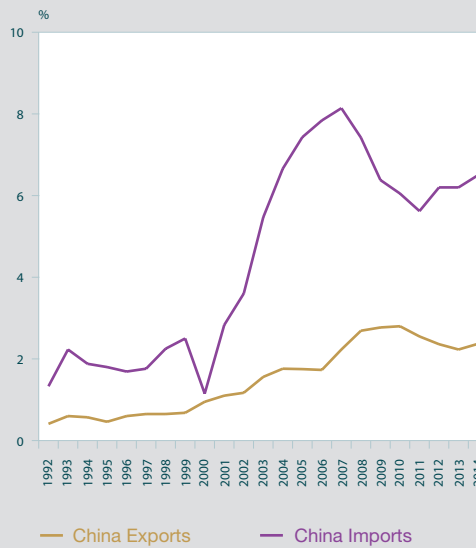
**Goods Exports<sup>24</sup>**

Ireland has an overall goods trade deficit with China, but the gap between exports and imports has narrowed over the past number of years. Figure 1 shows that Irish trade with China has grown at a significant pace. Trade with the Chinese market accounted for 2.3 per cent of total Irish exports in 2014, having risen from just under 1 per cent in 2000. By contrast, exports to Brazil, Russia and India have remained broadly static as a percentage of total exports over the same period.

Figure 2 illustrates the composition of Irish goods exports to China, broken down by commodity group. From the chart it is clear that there are three areas in particular which dominate. Chemicals and Related Products make up the largest share at 35 per cent of total exports to China followed by Agri-Food (25.7 per cent) and Machinery & Transport Equipment (17.6 per cent). Interestingly, the share of machinery and transport equipment exports has fallen steadily over the past number of years, from 44 per cent and 45 per cent in 2011 and 2012 respectively. Examining the broader product basis data from the UN Comtrade database, the strength of Chemicals exports is driven by organic chemicals and basic ingredients used in the preparation of pharmaceutical products.

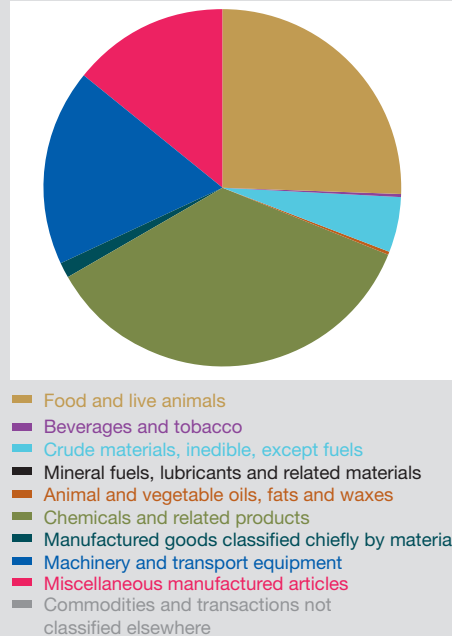
China accounts for 7.4 per cent of Ireland's total machinery and transport exports; it also accounts for 5.2 per cent of Ireland's exports of raw material type items such as rubber, cork, wood and metals.

**Box C Figure 1: China Exports & Imports**



Source: Comtrade Database.

**Box C Figure 2: Exports to China in 2014**



Source: CSO.

<sup>20</sup> Irish Economic Analysis Division

<sup>21</sup> For the purposes of this analysis, data for China, Hong Kong and Macao are aggregated.

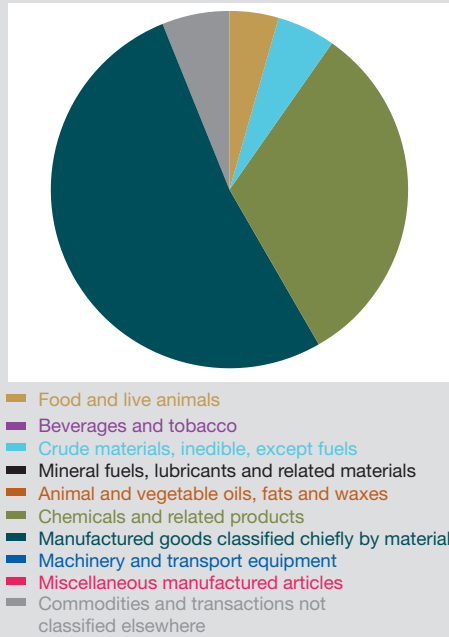
<sup>22</sup> A Strategy for Growth: Medium Term Economic Strategy (2014). Department of Finance.

<sup>23</sup> There would also be indirect impacts through a reduction in activity in third countries arising from such a slowdown in Chinese trade.

<sup>24</sup> Trade in aircraft owned by Irish resident leasing companies, which are included in the CSO Goods Exports and Imports release, are not included in the Comtrade database as yet and as such are not reflected in the parts of this Box which refers to Comtrade.

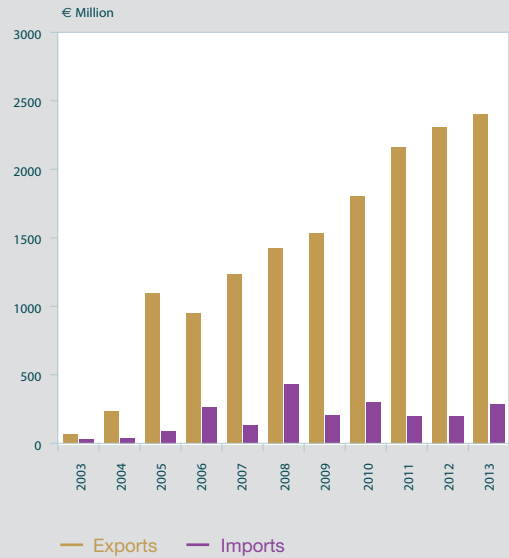
**Box C: Irish Trade with China**  
By Stephen Byrne

**Box C Figure 3: Imports from China in 2014**



Source: CSO.

**Box C Figure 4: Irish Services Trade with China**



Source: CSO.

**Goods Imports**

In terms of imports from China, Machinery & Transport Equipment is the most important component, accounting for 48 per cent of total imports. This category predominantly comprises IT equipment, telecommunications and electrical machinery. The miscellaneous manufactures category which accounts for 32 per cent of imports primarily reflects clothing and footwear as well as articles such as plastic toys, games, musical instruments and sporting goods. Finally, manufacturing goods classified chiefly material accounts for 10 per cent of imports driven mainly by intermediate type goods such as rubber, cork, wood and metals.

**Services**

China has become more important to Irish services exporters in recent times. In 2013, China accounted for 2.6 per cent of total services exports, compared with 0.5 per cent in 2004. Of this, operational leasing accounted for 39 per cent; primarily reflecting activity by Irish resident aircraft leasing companies.<sup>25</sup> Business services, financial services and computer services account for the bulk of the remaining share, but given that a more detailed breakdown is not available, data for the magnitude of these sectors' trade are unavailable. Ireland has an overall surplus in services trade with China (see Figure 4).

<sup>25</sup> According to the Industrial Development Authority (IDA), three Chinese aircraft leasing companies have established headquarters in Ireland since late 2013.

**Box C: Irish Trade with China**

By Stephen Byrne

**Box C, Table 1: Services Exports to China, by Component**

Service	2013 € billion
Tourism and travel	40
Insurance	13
Royalties/licences	1
All business services	1003
<i>Of which: Operational leasing</i>	940
<i>Of which: Other</i>	6
Other services not elsewhere stated	159
<b>Services Exports to China/ Total Services Exports</b>	<b>2.6%</b>

Source: CSO. Owing to data availability issues, the figures here do not sum to the total services exports value. Data are not published by the CSO relating to Financial Services, Computer Services, Merchanting, Trade and Related Services, Advertising and Market Research, Research and Development, Architectural Engineering and other Technical Services and Management Services between Affiliates.<sup>26</sup>

Using the approach of Byrne and O'Brien (2015)<sup>27</sup> which focuses on value added, it is possible to confirm that a somewhat greater proportion of Ireland's exports to China come from the foreign dominated sectors (see table 2). Of total exports to China, it is estimated that 58.4 per cent come from the foreign dominated sectors while 41.6 per cent come from the domestic dominated sectors. The domestic dominated sectors are more reliant on the Chinese market however, with the Chinese exports of the domestic dominated sectors making up 3.2 per cent of their world exports while the comparable figure for the foreign dominated sectors is 2 per cent.

**Box C, Table 2: Chinese Trade by Foreign/Domestic Dominated Sectors**

		Goods	Services	Total	Share of China in Total Exports
<b>Services Exports to China/ Total Services Exports</b>	<b>Foreign Dominated</b>	60.1	57.2	58.4	2.0
	<b>Domestic Dominated</b>	39.9	42.8	41.6	3.2
	<b>Total</b>	100.0	100.0	100.0	2.4

Note: The foreign sectors match as closely as possible to those identified in Table 3 of the CSO release on Gross Value Added For Foreign Owned Multinational Enterprises And Other Sectors Annual Results 2013. Sectors included as foreign dominated in this table are: Printing and reproduction of recorded media, Chemicals and Chemical Products, Basic Pharmaceutical products and pharmaceutical preparations; Computer, electronic and optical products; Electrical Equipment; Telecommunications, computer and information services; Audio visual and related services.

<sup>26</sup> See CSO Balance of Payments - Background Notes, for further details.

<sup>27</sup> Byrne, S., & O'Brien, M. (2015). The Changing Nature of Irish Exports: Context, Causes and Consequences. *Quarterly Bulletin* 02/April 15, 58.

## Supply

According to the latest *Quarterly National Accounts* the volume of output increased in most sectors of the economy in the first half of 2015 on an annual basis, the exception being public administration and defence which contracted by 4.7 per cent. Growth was particularly strong in the market services sectors (distribution, transport, software and communications) at 10.5 per cent, and industry excluding building and construction at 7.6 per cent.

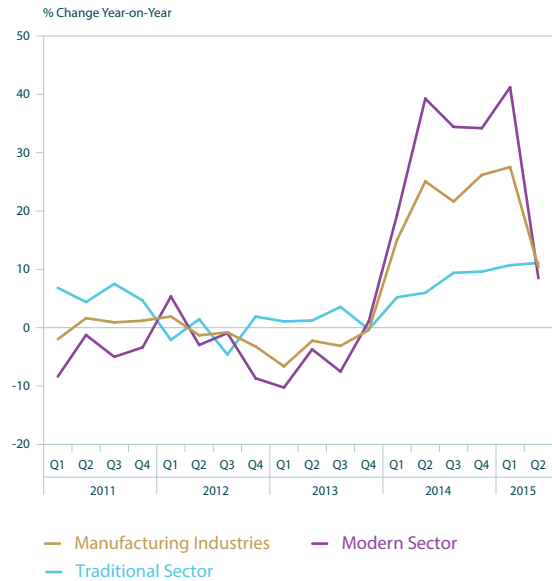
High frequency indicators from the monthly *Industrial Production* series point to a continued expansion in output from manufacturing industries in the first seven months of the year. The volume of industrial production in the second quarter of 2015 was 10.3 per cent higher than in the same period in 2014. However, the volume of output fell by 4.2 per cent in the second quarter of 2015 when compared with the first quarter.

The output of the modern sector, primarily driven by pharmaceuticals and chemicals, was up 8.5 per cent year-on-year in Q2. The output of the traditional sectors continues to expand robustly, increasing in July by 16.7 per cent when compared with July 2014 (see chart 4).

There has been continued growth in the services sector, with the monthly services index expanding by 10.3 per cent year on year in July. This figure is driven by increases in accommodation and food services activities, which rose by 17.2 per cent year on year, and wholesale and retail trade, which increased by 13.4 per cent. These indicators suggest that the continued growth in domestic demand and exports projected in this *Bulletin* will support further growth in the services sector over the forecast horizon.

Further support for this view comes from sentiment indicators for the manufacturing and services sectors which point towards continued expansion in output. The most recent services PMI for August showed that purchasing managers' expectations are for further expansion over the coming twelve

**Chart 4: Volume of Industrial Production**



Source: CSO.

months. The manufacturing PMI however, while still expanding, reduced to 53.7, the lowest rate of expansion for 18 months.

## The Labour Market

Employment is expected to increase by 2.4 per cent in 2015 – the strongest rate of growth since 2007. With the labour force forecast to grow by a more modest 0.5 per cent, the average annual rate of unemployment is projected to decline to 9.5 per cent this year. In 2016, the momentum in the labour market and the economy in general should see further gains in employment with growth of 2.2 per cent leading to an average unemployment rate of 8.5 per cent. Employment is expected to be above 2 million in 2016. The rebalancing in growth towards more domestically driven sources should lend support to more labour intensive sectors, principally construction and services.

The labour market has strengthened significantly throughout the course of this year helped by a broad based recovery in

**Table 4: Employment, Labour Force and Unemployment 2013, 2014, 2015<sup>f</sup> and 2016<sup>f</sup>**

	2013	2014	2015 <sup>f</sup>	2016 <sup>f</sup>
Agriculture	107	109	111	113
Industry (including construction)	343	348	375	393
Services	1,430	1,458	1,475	1,498
<b>Total Employment</b>	<b>1,880</b>	<b>1,916</b>	<b>1,962</b>	<b>2,004</b>
Unemployment	284	241	206	186
Labour Force	2,163	2,157	2,168	2,191
Unemployment Rate (%)	13.1	11.2	9.5	8.5

Note: Figures may not sum due to rounding.

nearly all areas of employment. Numbers in employment increased by 2.6 per cent in the second quarter of the year based on the most recent CSO data from the *Quarterly National Household Survey*. Most of these jobs were created in full-time areas with particularly strong gains recorded in construction, manufacturing and financial, insurance and real estate related activities.

Labour force growth has been much more modest reflecting still outward (albeit declining) migration and a static participation rate. The combination of strong employment growth and weak labour force dynamics has resulted in a very sharp decline in the unemployment rate – to 9.5 per cent in August (from 11.1 per cent in August 2014). The latest data from the Live Register lend support to the labour market outlook presented here. Numbers on the Register declined for a 37th consecutive month in July to 343,100 persons (down 10.3 per cent year-on-year). This brought the average monthly fall in the Register this year to approximately 3,000 persons.

### Pay

Compensation per employee is forecast to increase by 2.3 per cent and 2.4 per cent in 2015 and 2016 respectively. This follows an estimated increase of 1.7 per cent last year based on the *National Income and Expenditure Accounts 2014*. As the labour market improves further, and potential labour supply constraints in some sectors become more evident, there

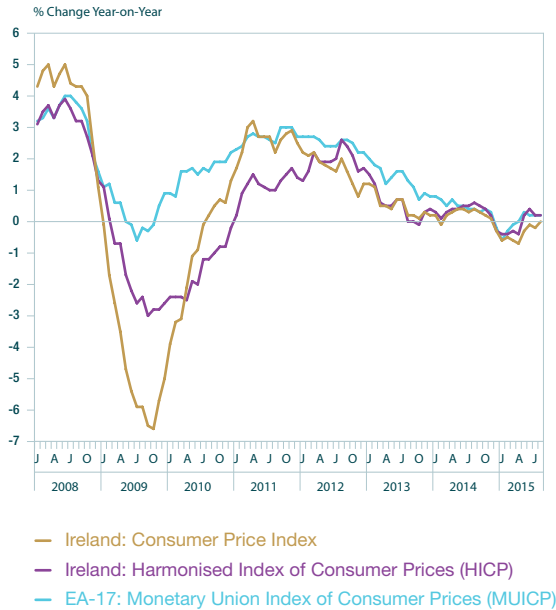
are upside risks to the outlook for wages. Total economy-wide compensation is forecast to increase by 4.8 per cent this year and by 4.6 per cent in 2016 based on the outlook for wages and the employment forecasts detailed above.

Hourly earnings increased by 1.5 per cent in the second quarter of 2015, following an increase of 0.5 per cent in the first quarter, based on the latest *Earnings and Labour Cost Survey*. In total, 8 of the 13 main sectors recorded increases in hourly earnings, with the largest gains recorded in the administration and support activities sector. The latest Exchequer tax data to end-August also point to stronger earnings growth in 2015 with income taxes and social security contributions up 6 and 8.8 per cent respectively in the year.

### Inflation

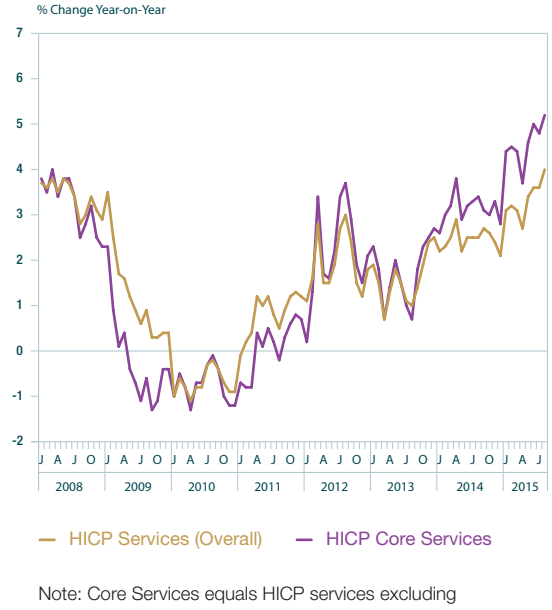
Despite the broad based pick-up in economic activity, the latest available inflation data indicate that consumer price movements remain relatively subdued. The HICP posted a year-on-year increase of 0.2 per cent in August. The negative HICP year-on-year outturn for the first four months of the year turned marginally positive as the year progressed, so that, on average, for the year to August, the HICP was flat. The pressures coming from buoyant domestic economic activity are being offset by external factors, mainly lower commodity and, in particular, lower oil prices; at the time of writing, the price

**Chart 5: Consumer Prices**



Source: CSO.

**Chart 6: Services Sector Inflation**



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

Source: CSO.

of Brent crude oil had fallen to \$44 a barrel – a decline of 55 per cent compared with a year previous.

On the basis of currently available information and prevailing oil futures prices, HICP inflation is expected to remain at 0.3 per cent for the year as a whole, a figure unchanged from 2014. The CPI, which includes a mortgage interest component, is also expected to increase by 0.3 per cent in 2015. Reflecting strength in domestic demand, services inflation (which includes rent prices and water charges) is projected to increase by 3.8 per cent in 2015. Goods price inflation, on the other hand is expected to decline by 3.3 per cent in 2015, driven in the main by lower global food and energy prices.

The downward pressure coming from lower global commodity prices is being partially offset by depreciation in the euro relative to our main trading partners – the US and the UK. *Ceteris paribus*, a decline in the value of the euro serves to increase the euro price that foreign

producers selling in Ireland need to charge to maintain profits in their own currency. The euro has declined by approximately 15 and 9 per cent against the dollar and sterling respectively.

Looking ahead to 2016, a pick-up in headline HICP inflation is envisaged, driven mainly by a smaller reduction in goods prices, as the drag from external factors is expected to wane. The most prominent driver of the projected easing of the pace of decline in goods prices is expected to be the energy component as international commodity prices recover. Services inflation in 2016 is expected to remain elevated on foot of continued growth in domestic demand. There may be some downward impact due to base effects as the impact of the introduction of water and sewerage charges into the HICP basket of goods and services drops out of annual comparisons. Core services inflation, however, is expected to increase by close to 5 per cent in 2016. Reflecting such a combination of developments, both HICP and CPI inflation is projected to rise to 1.5 per cent in 2016.

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

Measure	HICP	HICP excluding Energy	Services <sup>a</sup>	Goods <sup>a</sup>	CPI
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	0.3	0.5	2.4	-1.7	0.2
2015 <sup>f</sup>	0.3	1.3	3.8	-3.3	0.3
2016 <sup>f</sup>	1.5	1.6	3.5	-0.6	1.5

<sup>a</sup> Goods and services inflation refers to the HICP goods and services components.

The projected profile for headline HICP and CPI inflation is slightly lower compared with the previous *Bulletin*, due for the most part to more benign assumptions regarding oil price developments in 2016.

**Residential Property**

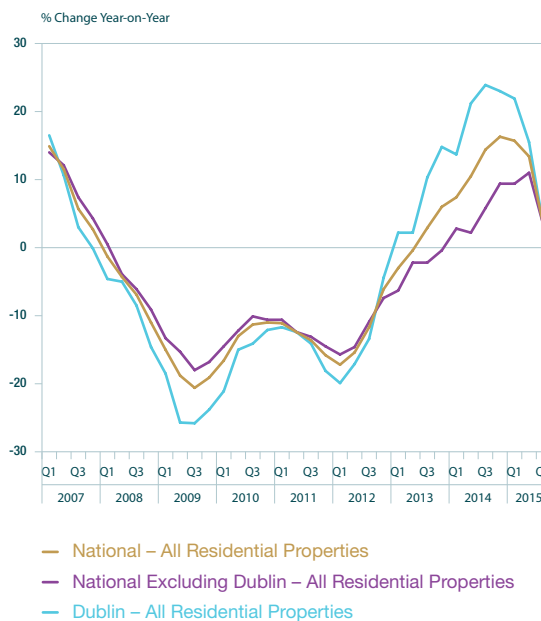
The pace of growth in residential property prices, though still robust, has slowed in the first half of 2015. Nationally, prices increased by 9.4 per cent in year-on-year terms in July. However in July the rate of growth in Dublin (9.2 per cent) fell below the growth rate in national prices. This is in contrast to developments over recent quarters, where prices increases in the Dublin region exceeded the national average.

On the supply side, there were 2,996 house completions in the second quarter of 2015, reflecting a 9.3 per cent increase over the same period last year. Meanwhile, planning permission was granted for 1,058 new houses and apartments in the first quarter of this year. A further increase in house building is anticipated over the forecast horizon.

**Commercial Property**

The latest data from the Society of Chartered Surveyors/ Investment property databank show that commercial property prices have continued to grow strongly in the second quarter of 2015. The year on year rate of growth is fastest in the retail and office sectors

**Chart 7: Residential Property Price Indices**

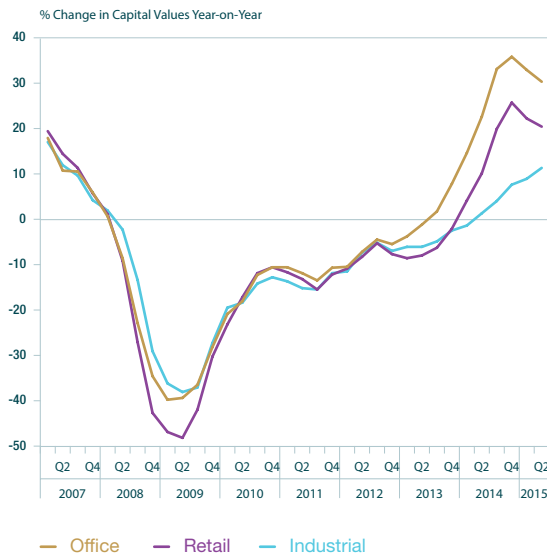


Source: CSO.

at 20.5 per cent and 30.4 per cent respectively. Meanwhile growth remains robust in the industrial sector at 1.4 per cent. Combined, commercial property prices grew by 26 per cent in Q2 2015 compared with the same period last year. The Bank's *Macro Financial Review* (July 2015) contains a comprehensive analysis of recent developments in commercial property prices.



**Chart 8: SCS/IPD Irish Commercial Property Index**



Source: SCS/IPD.

### Competitiveness

Over the past three quarters the euro has become substantially weaker against both the dollar and the pound sterling. Recent trends suggest that the euro has stabilized at around \$1.10 in Q3 2015, which represents a decrease of about \$0.15 when compared with the closing rate of 2014. In year-on-year terms, the euro has declined against the dollar by over 14 per cent. The situation is similar for the euro against the pound, as the rate has settled at £0.71 in the current quarter – down over 9 per cent on a year-on-year basis. Evidence suggests that market participants’ expectations about interest rate differentials and political events in the euro area have been two factors behind recent movements.

The latest Harmonised Competitiveness Index (HCI) data for July 2015 show that the nominal HCI depreciated by 8 per cent on a year-on-year basis. When deflated by consumer prices and producer prices, the real HCI decreased by 8.4 per cent and 9.7 per cent, respectively, over the same period. These HCI

developments are complementary to the latest exchange rate movements in suggesting that the Irish economy has made gains in terms of its competitive stance against its trading partners.

On the basis of the conventional GDP per worker measure, productivity increased by 3.2 per cent in 2014. Employment growth slowed in 2014, while the drag on GDP growth of sector specific issues in pharmaceutical and ICT enterprises was reversed significantly. Looking ahead, average annual productivity growth of 2.9 per cent (on a GDP per worker basis) is forecast for both 2015 and 2016.

Factoring in the projected increases in compensation of employees over the forecast horizon, unit labour costs are expected to remain relatively unchanged over 2015 and 2016.

### The Public Finances

#### Overview

The latest fiscal developments have continued to be broadly positive. Government Finance Statistics reveal that the general government deficit declined once again in the first quarter of the year, while Exchequer returns point to robust tax growth and restrained spending more recently. Tax revenue surpassed Budget day expectations by €500 million in the month of August alone, and was €1.4 billion above profile in the year to August. Reflecting these developments it is very likely that the 2015 EDP budget target – a general government deficit below 3 per cent of GDP – will be met with a margin and Ireland will exit the corrective arm of the Stability and Growth Pact. Public debt also declined in the first quarter of the year, but remains at an elevated level.

#### Government Finance Statistics

First quarter Government Finance Statistics show a decline in both the general government deficit and debt ratios at the start of the year. The deficit ratio declined to 5.4 per cent

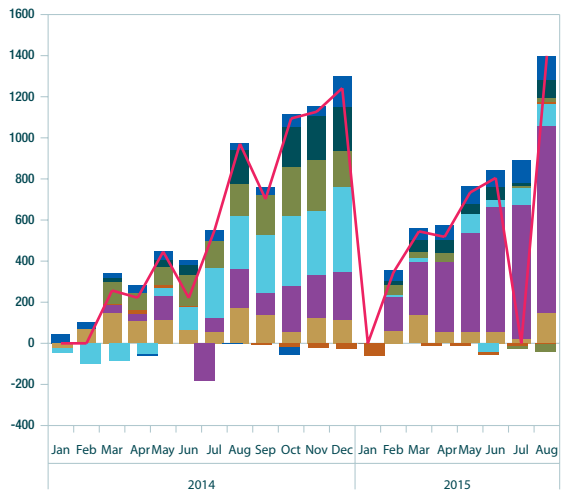
**Chart 9: Harmonised Competitiveness Indicators**



— Nominal HCI — Consumer Price Deflated HCI  
 — Producer Price Deflated HCI

Source: Central Bank of Ireland and ECB.

**Chart 10: Divergence of Tax Heads from Profile**



— Income Tax — Corporation Tax — VAT  
 — Local Property Tax — Excise Duties — Stamps — Other  
 — Total

Source: Department of Finance.

of GDP from 5.8 per cent one year earlier, supported by strong growth in taxes and social contributions and a decline in the interest bill and social benefits. The gross debt ratio recorded a bigger adjustment than implied by the deficit figures - falling from 118.8 at the start of 2014 to 104.7 – as the process of winding up Irish Bank Resolution Corporation (IBRC) continued. This also resulted in a decline in the assets held by government and, as a result, there was a much smaller improvement in net debt, which fell from 89.1 to 86.3 per cent of GDP.

**Exchequer Returns<sup>28</sup>**

The latest data reveal that the Exchequer ran a deficit of €3.7 billion in the first eight months of the year, a decrease of €2.7 billion from the corresponding period of 2014 (see Table 6). This outturn was substantially better than expected at the time of the last Budget. While an improvement over the period was anticipated, the Exchequer balance was €2.2 billion ahead of profile reflecting stronger than expected revenue and weaker expenditure developments.

The performance of tax revenue has been particularly impressive in the year to date. Taxes are up 10 per cent year-on-year and are €1.4 billion (5.4 per cent) ahead of expectations, against the backdrop of very strong corporation tax inflows (€912 million above profile). The other three of the ‘big four’ tax heads – income tax, VAT and excise duties are also growing robustly, with the former 6 per cent higher in annual terms as the labour market continues to recover. As Chart 10 shows, the tax over-performance has strengthened over the course of the year, increasing from €545 million at the end of Q1 and €806 million at the end of Q2. This is following a similar trend seen in 2014. Non-tax revenues were also stronger than expected in the first eight months of the year, led by developments in PRSI, again highlighting the labour market recovery (8.8 per cent growth, €224 million ahead of profile). Central Bank surplus income increased by €500 million this year, although around half of this does not impact the general government balance.

Spending developments have also been favourable, although not to the same extent as those on the revenue side. Total expenditure

<sup>28</sup> The figures in this section exclude transactions with no general government impact, giving a closer approximation to the general government balance. These figures are provided by the Department of Finance in its Analytical Exchequer Statement.

**Table 6: Analytical Exchequer Statement for June 2015 (€ millions)**

	Jan-Aug 2014 €m	Jan-Aug 2015 €m	Annual Change	Outturn vs Profile
<b>Revenue</b>	<b>34,644</b>	<b>36,698</b>	<b>5.9%</b>	<b>4.6%</b>
– Tax revenue	24,914	27,344	9.8%	5.4%
– Appropriations-in-aid	7,269	7,066	-2.8%	2.8%
– Other Revenue	2,461	2,288	-7.0%	1.6%
<b>Expenditure</b>	<b>41,113</b>	<b>40,431</b>	<b>-1.7%</b>	<b>-1.3%</b>
– Current Primary Expenditure	34,816	34,287	-1.5%	-0.2%
– Capital Expenditure	1,468	1,621	+10.4%	-4.6%
– Interest on National Debt	4,829	4,524	-6.3%	-8.1%
<b>Exchequer Balance</b>	<b>-6,469</b>	<b>-3,733</b>	<b>-42.3%</b>	<b>-36.8%</b>

Source: Department of Finance

was down 1.7 per cent on an annual basis in the year to August, and was €549 million below profile. The latter has been primarily driven by much lower interest payments than were expected at the time of the Budget, reflecting the earlier repayment of IMF Programme loans and more favourable market conditions. With regard to non-interest related expenditure, gross voted spending was broadly on target – as small overspends in Health and Social Protection were offset elsewhere.

### **Funding and Other Developments**

Following a very busy and successful first half of the year, there were less new issuances by the National Treasury Management Agency (NTMA) during the third quarter. In August it cancelled €500 million of the 2038 floating bond which was issued in connection with the liquidation of IBRC. The bonds were purchased from the Central Bank of Ireland. In September, meanwhile, the Agency raised €1 billion through the auction of a 15-year Treasury bond. As a result it raised €12 billion in the first nine months, already achieving the lower bound of the €12 to €15 billion target set for the year as a whole. Ireland's sovereign credit rating was revised upwards by Fitch and Moody's in August and September respectively, from stable to positive.



## An Timpeallacht Gheilleagrach

Leis na sonraí Cuntas Náisiúnta don chéad leath de 2015, tugtar le fios go bhfuil luasghéarú tagtha ar ráta fáis gheilleagar na hÉireann. Tá an téarnamh níos leithne anois agus téann sé thar aisphreabhadh tosaigh na gníomhaíochta a bhí bunaithe ar ghlanonnmhairí. Cé go ndéanann gníomhaíochtaí gnólachtaí ilnáisiúnta difear do bhearta gnásúla áirithe, deimhnítear leis an bhfás níos tapúla ar thomhaltas agus ar fhostaíocht go bhfuil an geilleagar intíre ag leathnú go mór agus go bhfuil bonn níos leithne faoin bhfás sin anois. Léiríonn an leathnú agus luasghéarú seo, comhtháthú forbairtí éagsúla lena dtacaítear le fás, lena n-áirítear an méid seo a leanas: cineál an téarnaimh lena gcruthaítear fostaíocht, timpeallacht neamhurchóideach beartais, mar a léirítear le héascú an chomhdhlúthaithe fhioscaigh agus le himthosca fabhracha airgeadais, treisiú na cumhachta ceannaigh de thoradh praghsanna fuinnimh níos ísle, éascú leanúnach iarmhairtí na géarchéime ar an gclár comhardaithe agus imthosca atá fabhrach, a bheag nó a mhór, i bpríomh-mhargáí onnmhairíochta na hÉireann. Is é cumasc na dtosca seo atá mar bhonn taca faoin bhfás láidir ar an ngníomhaíocht eacnamaíoch arna léiriú sna sonraí eacnamaíocha le ráithí beaga anuas.

Le bliain anuas, tá an luasghéarú ar an bhfás bunaithe ar spreagadh níos láidre ón éileamh intíre. Cé go raibh an t-aisphreabhadh ar an taobh intíre bunaithe ar dtús ar théarnamh ar chaiteachas infheistíochta, tá feabhas tagtha ar chaiteachas tomhaltóirí chomh maith agus tá ról níos tábhachtaí aige sin anois. Thairbhígh tomhaltas den mhéadú ar fhostaíocht, go háirithe ar fhostaíocht lánaimseartha. Ó lár 2013, tá 90,000 post breise crutha ar fáil ag an ngeilleagar, ar poist lánaimseartha iad a bhformhór. Chomh maith leis sin, tá méadú tagtha le bliain anuas ar luas chruthú fostaíochta. Leis seo, rannchuidíodh le hioncam teaghlach a mhéadú agus, ar a uain, spreagadh feabhas láidir ar chaiteachas tomhaltóirí. I dteannta leis an aisphreabhadh leanúnach láidir ar bhuninfheistíocht (cé is moite de ghné luaineach na n-aerárthaí agus den infheistíocht i sócmhainní doláimhsithe), neartaigh sé seo luas an fháis ar an éileamh intíre.

Ar an taobh eachtrach, chonacthas fás láidir breise sa chéad leath de 2015 ar onnmhairí agus ar allmhairí araon, rud a bhaineann go páirteach le rannpháirtíocht na hÉireann i sreanga domhanda táirgeachta. Is díol suntais é, áfach, an méadú ar onnmhairí ó na hearnálacha dúchasacha, amhail gnó agraibhia agus turasóireacht, a bhfuil imthosca

fabhracha éilimh ina bpríomh-mhargáí mar aon le forbairtí rátaí malairte ag tacú leo. Ag féachaint romhainn, meastar go dtosóidh onnmhairí de bheith ag fás athuair i gcomhréir, tríd is tríd, leis an bhfás réamh-mheasta ar an éileamh seachtrach. I bhfianaise naisc thrádála na hÉireann le margáí SA agus RA, ba cheart go leanfadh sé seo de ráta láidir fáis a ghiniúint d'onnmhairí in 2016.

Ar an taobh intíre, tá luasghéarú tagtha ar fhuinneamh an fháis agus tá an t-ionchas níos fabhraí anois ná mar a bhí nuair a foilsíodh ár gcuid réamhaisnéisí deireanacha. Ag féachaint romhainn, ba cheart go dtacódh méaduithe breise ar fhostaíocht, treocht in airde ar ioncam indiúscartha agus neartú ar mhuintín tomhaltóirí le fás láidir ar chaiteachas tomhaltóirí, agus meastar go dtiocfaidh fás níos tapúla ar an gcaiteachas sin i mbliana agus an bhliain seo chugainn ná mar a measadh roimhe seo. De bheis air sin, meastar go leanfaidh an fás láidir ar chaiteachas buninfheistíochta, cé is moite arís de ghné luaineach na n-aerárthaí agus de ghné na sócmhainní doláimhsithe.

De thoradh an fháis láidir arna thaifeadadh sa chéad leath de 2015, rinneadh athbhreithniú suntasach aníos ar an ráta reamh-mheasta fáis don ghníomhaíocht eacnamaíoch fhoriomlán i mbliana i gcomparáid leis na réamhaisnéisí a

foilsíodh san Fhaisnéis Ráithiúil dheireanach, ar réamhaisnéisí iad a bhí bunaithe ar na sonraí Cuntas Náisiúnta anuas go dtí an ceathrú ráithe den bhliain seo caite. Meastar anois go mbeidh méadú 5.8 faoin gcéad ar OTI in 2015, is é sin athbhreithniú 1.7 faoin gcéad aníos i gcoibhneas leis an meastachán san Fhaisnéis Ráithiúil roimhe seo. Cé go bhfuil an t-athbhreithniú aníos á spreagadh go príomha ag neart na sonraí tuairiscithe sa chéad leath de 2015, tá ionchas níos fabhraí ann anois freisin. Is í an toisc seo go príomha, agus go háirithe an t-ionchas maidir le neartú breise ar an éileamh intíre, is cúis leis an athbhreithniú aníos ar an réamh-mheastachán fáis do 2016 ina meastar go dtiocfaidh méadú 4.7 faoin gcéad ar an OTI, is é sin le rá 0.5 faoin gcéad níos airde ná an réamh-mheastachán san Fhaisnéis Ráithiúil roimhe seo. Meastar gur rioscaí cothromaithe iad, tríd is tríd, na rioscaí a ghabhann leis na réamhaisnéisí seo, ó tharla go ndéantar riosca maidir leis an ionchas réamh-mheasta don éileamh intíre a fhritháireamh le riosca ar an taobh thíos maidir leis an ionchas eachtrach.

Tugtar le tuiscint leis na réamh-mheastacháin seo, go bhfuil tréimhse fhíorláidir fáis ann don gheilleagar faoi láthair agus meastar nach mbeidh ach éascú measartha ar an bhfás sin an bhliain seo chugainn. Cé go bhfreagraíonn sé sin go páirteach d'aisphreabadh ó thréimhse fhíorlag, léiríonn sé go bunúsach go bhfuil an geilleagar ag gluaiseacht i dtreo a lánacmhainn tháirgiúil a bhaint amach, rud atá indéanta mar gheall ar chumas an gheilleagair, an phobail agus beartais chun freagairt go rathúil do na dúshlán a tháinig chun cinn ó thosach na géarchéime. Ar an leibhéal foriomlán, tugtar le tuiscint leis an bhfianaise atá ar fáil go bhfuil acmhainn leordhóthanach bhreise ann i gcónaí chun go mbeidh an geilleagar ábalta fás go sciobtha thar thréimhse na réamhaisnéise agus gan a bheith ag dréim le constaicí móra. Níl an acmhainn seo gan teorainn, áfach, agus caithfidh go muilleoidh an fás go dtí ráta níos ísle, níos inmhathana sna blianta atá le teacht<sup>1</sup>.

Beidh sé mar phríomhdhúshlán sa tréimhse atá romhainn a áirithiú go ndéanfar an téarnamh eacnamaíoch atá faoi lán seoil a

fhorbairt tuilleadh sa chaoi gur fás cothrom ag luas inmhathana a bheidh ann. Leis an ionchas láidir fáis, cuirtear deis ar fáil chun na hiarmhairtí arna n-eascairt as na léibhéil arda féichiúnais atá ann i gcónaí san earnáil phoiblí agus san earnáil phríobháideach a réiteach. Tá sé rithábhachtach go ndéanfar beartas a dhíriú ar leochaileachtaí atá fós ar marthain a laghdú agus ar stóinseacht a neartú chun go n-íoslaghdófar rioscaí don chobhsaíocht eacnamaíoch, fhioscach agus airgeadais amach anseo.

Tá forbairtí Státchiste fabhrach i gcónaí maidir leis an airgeadas poiblí. Tá an t-ioncam cánach chun tosaigh ar an sprioc agus, go dtí seo i mbliana, tá an caiteachas foriomlán níos ísle ná an phróifíl, rud a léiríonn an fheidhmíocht láidir eacnamaíoch. Ar an leibhéal comhiomlán, tugtar le tuiscint leis an méadú láidir ar OTI ainmniúil, is é sin luach airgid OTI, a fhásfaidh ag luas dédhigiteach, gur cheart go dtiocfadh laghdú níos géire in 2015 agus 2016 ná mar a tuaradh roimhe seo ar chóimheasa iasachtú agus fhiachas an rialtais mar scair den OTI. Leis an ionchas láidir fáis seo, tá deis ann dul chun cinn breise a dhéanamh maidir le comhdhlúthú fioscach agus le laghdú fiachais in imthosca fabhracha. Tá leibhéal agus ualach an fhiachais phoiblí ard i gcónaí agus dá mbainfí leas as fás láidir chun é a laghdú go sciobtha, laghdófaí leochaileacht an airgeadais phoiblí agus an gheilleagair i gcoitinne i leith turraingí díobhálacha amach anseo. Tá sé rithábhachtach, ó thaobh an bheartais cobhsaíochta de, go seachnófaí amach anseo na beartais fhioscacha chomhthimthriallacha arna leanúint san am atá thart. Ina theannta sin, tá seantaithe ar an mbaol a bhaineann le húsáid a bhaint as amhantar gnóthachan chun ceangaltais fhadtréimhseacha caiteachais a mhaoiniú. Dá dtairbheofaí den fhás láidir chun an fiachas a laghdú go dtí leibhéal ní b'ísle agus ní ba shábháilte, neartófaí clú na hÉireann maidir le hacmhainneacht creidmheasa, chuideofaí le himthosca reatha, fabhracha maoiniúcháin a chothabháil agus chuirfí bonn taca faoin téarnamh.

<sup>1</sup> Tá plé níos leithne ar an tsaincheist seo i mBosca A ar leathanach 11.

# Financing Developments in the Irish Economy

## Overview

The year to date has seen a continued balance sheet improvement in the Irish economy. Debt sustainability in the household and the non-financial corporation (NFC) sectors is improving as debt is repaid or restructured and the economic recovery gathers pace. Aggregate household wealth is growing robustly, increasing by 19.3 per cent in the 12 months to March 2015. Signs of improved financial conditions among corporates is evident by the high growth rates in NFC deposits and an increase in gross new lending to the core small- and medium-sized enterprises. The banking sector is also experiencing positive trends, including a return to market-based funding, growth in private sector deposits, and margin stabilisation at higher levels than experienced in recent years. Bank funding from the official sector has shrunk to levels last seen in 2003.

Nevertheless, a number of outstanding weaknesses persist. Firstly, the large number of accounts in mortgage arrears highlights the early and fragile recovery for many households. Arrears are beginning to fall as recovery and restructures take effect, but it will likely take some time before arrears fall to international norms. The second weakness is the high financing interest rates for many customers. Irish interest rates have diverged from the euro area average for mortgage and corporate credit. Mortgage interest rates are now declining as banks announce cuts in pricing on variable rate products, and households enter fixed rate products at a low point in the ECB interest rate cycle. However, Irish rates remain above euro area averages for both mortgage and corporate lending. The reasons for this divergence from euro area averages are complex and varied, but the normalisation of the relationship will be an important component of the return to sustainable financial conditions for banks and other economic agents in Ireland.

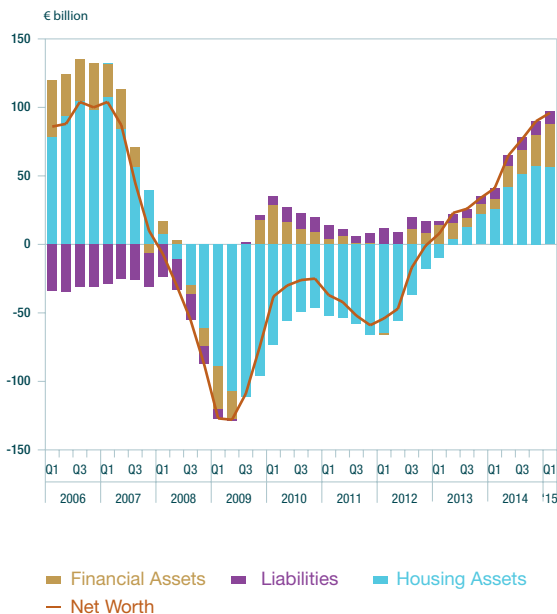
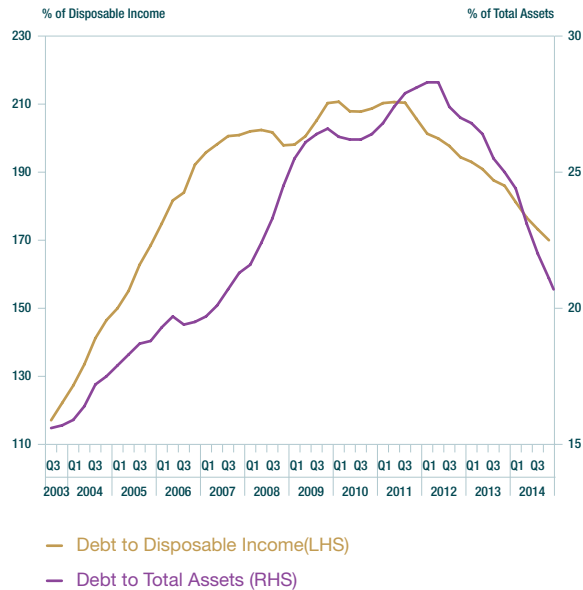
## Household Sector

Household net worth<sup>1</sup> continued to recover during Q1 2015, growing by 2.2 per cent to €129,238 per capita. This increase largely reflected a rise in household financial assets driven by valuation increases in insurance technical reserves. Overall net worth has risen by 34.8 per cent since its lowest level of €441.8 billion in Q2 2012 and by 19.3 per cent in the 12 months to March 2015 (Chart 1). Households also continued to reduce their

financial liabilities which fell by €2.3 billion to €154.6 billion in Q1 2015. This was the largest quarterly decrease in loan debt since Q2 2010. The decline reflected net debt repayments (€1.6 billion), debt write-downs/write-offs (€1.7 billion) and statistical reclassifications (€0.4 billion). Overall household debt has fallen by 24.1 per cent since its peak of €454 billion at Q4 2008.

The improved household wealth has resulted in an improvement in the debt sustainability of

<sup>1</sup> Sum of household housing and financial assets minus their liabilities.

**Chart 1: Household Net Worth, year-on-year change****Chart 2: Household Debt to Disposable Income and Assets**

the household sector. Debt as a proportion of total assets fell to 20.3 per cent, representing a decline of 80 basis points during Q1 2015. Debt as a proportion of household disposable income also fell from a peak of 210 per cent to 170 per cent, reflecting increased disposable income (Chart 2). The continuing low ECB interest rates are also helping to reduce the burden of servicing the high debt levels. Though Irish household debt has decreased significantly in recent years, it still remains high relative to other countries. Only Denmark and the Netherlands had higher household debt to disposable income ratios in the EU during Q1 2015.

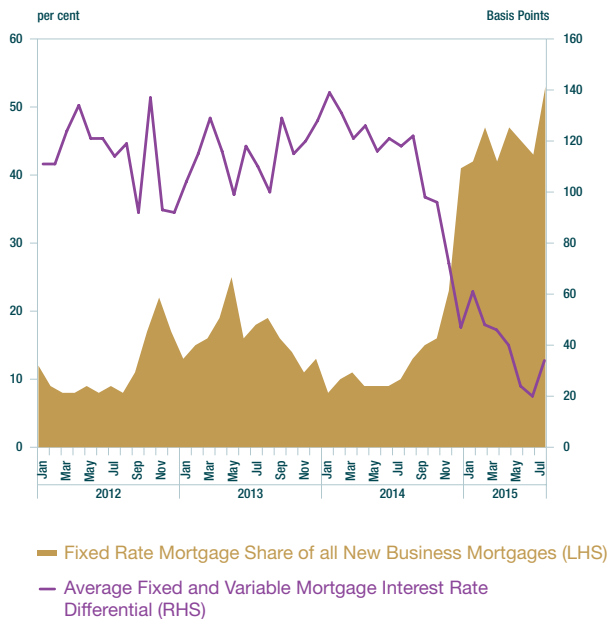
The improvements in the household balance sheet are gradually being reflected in lower mortgage arrears rates. Nonetheless, an unsustainably large amount of borrowers continue to be in financial distress, with a total of 98,137 (13 per cent) of principal dwelling house (PDH) accounts in arrears at end-June 2015. This was a decrease of 6.3 per cent in Q2, the eighth consecutive quarterly decline in a row. Of these, some 70,299 accounts are in arrears

over 90 days, a decrease of 5.5 per cent. The most serious cases of arrears (over 720 days) increased marginally but at a much slower pace than seen during 2014 and early 2015. Similar trends are visible in the buy-to-let (BTL) mortgage market, where arrears over 90 days decreased by 5.2 per cent during Q2 2015, however unlike in the PDH market, the most serious cases of arrears declined marginally (-0.6 per cent). Non-bank entities held 36 per cent of mortgage accounts in arrears at end-June 2015. The amount of arrears across both PDH and BTL is equivalent to 0.7 per cent of the total household net wealth.

While PDH variable rates have remained stable in Q2 2015, fixed rate pricing on new business mortgage contracts have declined. In terms of new business PDH contracts, fixed rates have declined by nearly 20 basis points for both the 1-3 and over 5 years categories, compared to Q1. Similarly, fixed rates on BTL mortgages declined by 125 basis points for the 3-5 year fixation category. In response to the declining fixed interest rates – both in absolute terms and relative to floating rate products – the



**Chart 3: Increase in Fixed Rate Mortgages**



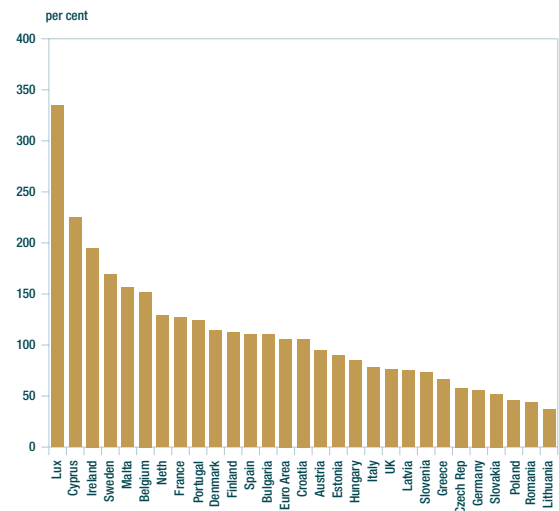
Source: Retail Interest Rate Statistics, Central Bank of Ireland.

share of new business accounted for by fixed rate products has increased sharply over the past year, from 10 per cent to 53 per cent in July 2015 (Chart 3). Notwithstanding the fixed interest rate declines, new business mortgage rates continue to be amongst the highest in the euro area. Variable rate mortgages continue to dominate the outstanding stock of household mortgage debt and the data highlights two very separate pricing structures on outstanding mortgages. PDH tracker mortgages had an average rate of 1.05 per cent at end-Q2 2015 compared to 4.1 per cent for standard (or loan-to-value) mortgages.

### Non-Financial Corporation Sector

Debt levels in the non-financial corporation (NFC) sector remain elevated but there are some signs of improving health and increased economic and investment activity in recent data. NFC debt as a percentage of GDP fell from 205 per cent in Q4 2014 to 194 per cent in Q1 2015<sup>2</sup>. The decline reflected both an increase in the value of annualised GDP, as well

**Chart 4: NFC Debt as a percentage of GDP across all EA Countries, as at Q1 2015**



Source: Quarterly Financial Accounts, Central Bank of Ireland, and the ECB.

as a €10.4 billion fall in the stock of NFC debt. This reduction in NFC debt was the largest contributor to the decline in private-sector debt in Q1 2015. When analysing Irish NFC debt trends, it is important to note that Ireland has substantial multinational corporation (MNC) activities, which can make debt volatile from quarter-to-quarter. In comparison with other EU countries, the NFC debt to GDP ratio in Ireland is relatively high, ranking third behind Luxembourg (335 per cent) and Cyprus (225 per cent). Again, the influence of MNCs is important to note, as both Luxembourg and Cyprus also have large multinational sectors.

Debt levels in the NFC sector have been in decline in recent years after entering the financial crisis at elevated levels. Evidence of the improving financial position of some domestic companies, which rely primarily on bank funding, has begun to emerge with strong growth in NFC deposits during 2014 and early 2015 and an increase in new loan drawdowns during first half of 2015. This recovery in deposits is broadly spread across sectors, with business and administration,

<sup>2</sup> It should be noted that the Q1 2015 data incorporates the most recent CSO revisions to the international investment position data.



**Chart 7: Central Bank of Ireland Lending to Credit Institutions**



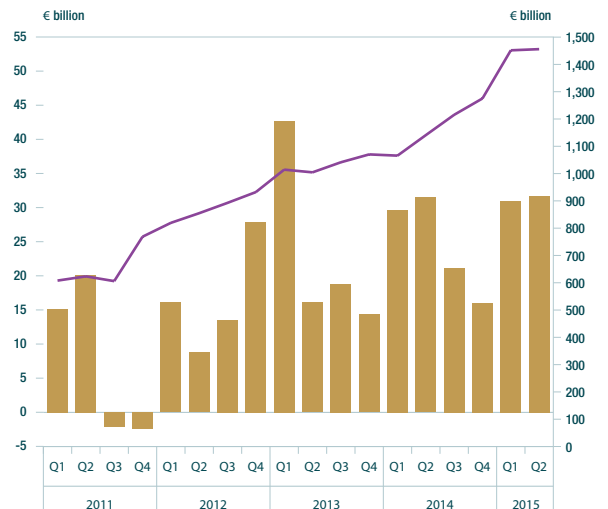
— Lending to euro area credit institutions relating to monetary policy operations in euro

Source: Financial Statement of the Central Bank of Ireland, Central Bank of Ireland.

have also grown during the most recent six month period. Net inflows of NFC deposits for the 12 months to end-July amounted to €5.4 billion. This increase was almost entirely attributable to overnight deposits which recorded an increase of €5.1 billion. Household deposits also increased strongly by €2.1 billion (2.3 per cent) over the same period. The shift towards very short-term deposits from agreed maturity deposits continued for the household sector, with the former increasing by €7.2 billion and the latter declining by €5.2 billion during the 12 months to July 2015.

Deposit inflows into the banking sector appear to show a continuation in the return of confidence in the sector. This is evidenced by a recent reversal of a trend that emerged during the crisis whereby many households switched to government saving accounts, at the expense of deposits with the banking sector (Chart 6). The improved funding outlook of the Irish banking sector is also reflected in the normalisation of Central Bank of Ireland

**Chart 8: Value of Investment Funds Shares/Units**



■ Transaction Net Inflows (LHS)  
— Value of Investment Funds (RHS)

Source: Investment Funds Statistics, Central Bank of Ireland.

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

borrowing, which at €10 billion is at the lowest level since 2003.

The retrenchment of Irish banks from their foreign activities has been a factor since the crisis unfolded. This appears to have stabilised, with some tentative signs of expansion in a narrow range of markets. Domestic banks' claims on foreign residents increased by 1.3 per cent in Q2 2015, bringing the outstanding amount of claims on foreign residents to €100 billion. An increase of 6.7 per cent was observed in the first half of 2015 compared to 2.5 per cent over the same period in 2014, marking a period of stabilisation in foreign claims. The modest quarterly increase was predominantly driven by increased claims on foreign private sectors. Domestic banks' largest foreign claims continue to be on the UK which accounted for 72.6 per cent of claims at end-Q2 2015. In relative terms, the largest change during Q2 2015 was the claims on France, which increased by 9.5 per cent, albeit from a relatively low base.

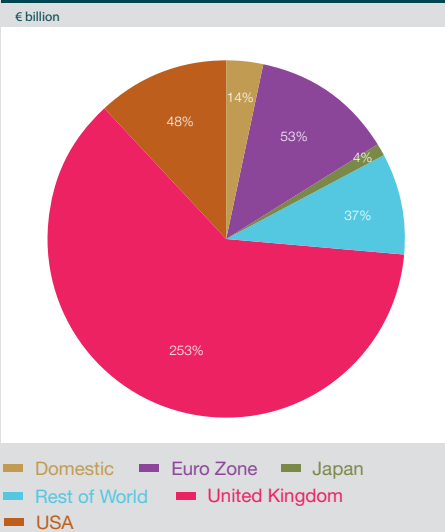
### Box A: Money Market Funds Resident in Ireland: Insights from Enhanced Statistical Reporting

By Siobhán O'Connell<sup>4</sup>

Money market funds (MMFs) invest in short-term, high-graded debt securities with a focus on protecting the principal investment, and act as an alternative to bank deposits for their investors. Irish MMFs accounted for 41 per cent (€405 billion) of the total assets (€986 billion) of the euro area MMFs population in June 2015. Since end-December 2014, MMFs resident in Ireland have been required to report their securities' assets and liabilities monthly on a security-by-security basis, for both stock and transactions. Security-by-security reporting provides the analyst with a clearer insight into the nature of the holdings of each fund and of the whole sector. Individual securities can be matched with information from securities databases, allowing for greater and more flexible analysis of the investment strategies within the sector.

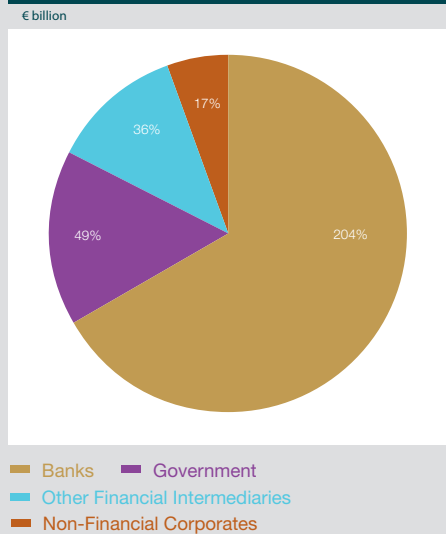
The net asset value of MMFs resident in Ireland grew by over 6 per cent from end-December 2014 to end-July 2015, rising to €409 billion from €387 billion (Box A Chart 1). This was driven in recent months by euro depreciation, as around 86 per cent of total MMFs holdings are denominated in sterling and US dollar. MMF net asset values grew despite net outflows of €13 billion over the seven months from end-December 2014 to end-July 2015. However, these were offset by positive revaluations (including foreign exchange effects) of €35 billion over the same period.

**Box A Chart 1: Equity Liabilities - By Region issued to (July 2015)**



Source: Money Market Fund Statistics, Central Bank of Ireland.

**Box A Chart 2: Debt Securities Assets: By Sector of Issuer (July 2015)**



Source: Money Market Fund Statistics, Central Bank of Ireland.

<sup>4</sup> The author is a Funds Data Analyst in the Statistics Division of the Central Bank of Ireland.

**Box A: Money Market Funds Resident in Ireland: Insights from Enhanced Statistical Reporting**  
By Siobhán O'Connell

On the assets side, debt securities held by MMFs in July amounted to €306 billion, of which €277 billion were in short-term debt securities. The low yield debt environment saw holdings of euro area debt securities (annualised yield of 0.29 per cent<sup>5</sup>) remain broadly stable, with noticeable movements into short term Australian and Canadian debt (annualised yield of 0.48 and 0.42 per cent respectively)<sup>5</sup>. This was largely driven by sterling denominated funds investing into holdings of Australian and Canadian debt issued by banks over the seven months from end-December 2014 to end-July 2015 in search of the slightly higher yields available (Table 1). Conversely, sterling denominated funds saw net outflows in holdings of Singaporean and UK issued debt. Holdings of German debt declined by 3 per cent in the seven months to end-July 2015, with this largely being accounted for by valuation losses in euro denominated funds. However, this was offset by inflows into other euro area securities.

**Box A, Table 1: Debt Securities Holdings: Selected Issuer Countries (July 2015)**

Country	€ billion	Percentage change since Dec-14
Euro Area	97.3	-1
United States	80.5	10
United Kingdom	51.5	-3
<i>France</i>	37.5	3
<i>Germany</i>	21.0	-3
<i>Netherlands</i>	18.9	5
Australia	18.1	11
Sweden	17.8	10
Canada	13.5	42
Singapore	8.4	-15
<i>Belgium</i>	6.3	-5

Note: Countries in italics are in the euro area.

Source: Money Market Fund Statistics, Central Bank of Ireland.

**Box A, Table 2: Debt Securities Holdings: Residual Maturity (July 2015)**

Residual Maturity	Dec-14	Jul-15
3 Months and Under	226.2	222.1
4 - 6 Months	44.8	53.8
7 - 12 Months	26.2	29.2
Over 1 and up to 2 years	2.8	1.1
Over 2 years	0.7	0.1
<b>Total</b>	<b>300.8</b>	<b>306.2</b>

Source: Money Market Fund Statistics, Central Bank of Ireland.

<sup>5</sup> Based on internal calculations of MMF debt holdings for July 2015.

**Box A: Money Market Funds Resident in Ireland: Insights from Enhanced Statistical Reporting***By Siobhán O'Connell*

MMFs also sought to enhance returns by expanding their holdings into securities with longer residual maturities. Securities with residual maturities greater than three months increased by 13 per cent over the period from end-December 2014 to end-July 2015 (Table 2). The largest single holding of debt securities was in UK issued bank debt with €43 billion (14 per cent of Total Debt) in July 2015. Holdings of government debt amounted to €49 billion in July 2015, with the United States, German, and French debt accounting for 85 per cent of holdings. This highlights the requirement by MMFs to hold highly rated debt (Box A Chart 2).

Apart from debt security holdings, MMFs also act as an important source of direct lending to other entities. Deposits and loan claims of €106 billion in July 2015 included €26 billion attributable to securities borrowing, which essentially comprises short-term loans provided to banks with securities acting as collateral. Within the low yield environment, MMFs recorded total operating income profits of €114 million, of which €92 million came from interest income on debt securities in July 2015. Total expenditure was €36 million, with administration fees accounting for €28 million of this figure.

Security-by-security reporting significantly enhances the scope to analyse MMF activity, particularly the strategies used to generate yield in a low interest rate environment. The Central Bank of Ireland has also commenced publishing monthly releases on developments in the sector, based on the enhanced reporting framework.

## IFSC – Investment Funds, Money Market Funds and Financial Vehicle Corporations

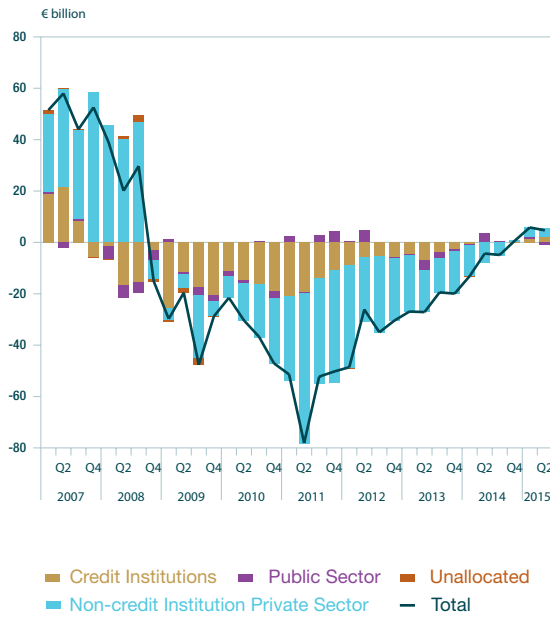
Investment funds (IFs) resident in Ireland remained broadly stable over the quarter to Q2 2015, notwithstanding increased quantitative easing and the Greek debt talks. IFs, as measured by the value of their units/shares in issue, rose to €1,456 billion in Q2 2015 from €1,452 billion in the previous quarter. Investor inflows to IFs amounted to €32 billion, continuing a longer-term trend of strong growth (Chart 9). Assets holdings declined by €10 billion overall and this was mainly driven by negative revaluations of €31 billion in holdings of debt securities.

The net asset value of money market funds (MMFs) resident in Ireland grew by over 13.2 per cent to €403 billion in the year ending June 2015. This was driven in recent months by revaluations arising from euro depreciation which more than offset fund outflows from April to June 2015. Around 87 per cent of total MMFs holdings are denominated in sterling and US dollar. There has also been an increase in the average maturity of debt securities held by MMFs. Holdings of securities with a remaining maturity of over three months

increased 17 per cent, reflecting a search for greater yield in the current low interest rate environment. There is also some tentative evidence that funds have been moving into higher yielding securities from geographical areas such as Australia and Canada, while reducing holdings by UK issuers. The Bank has enhanced its reporting from MMFs and the new data are summarised in Box A.

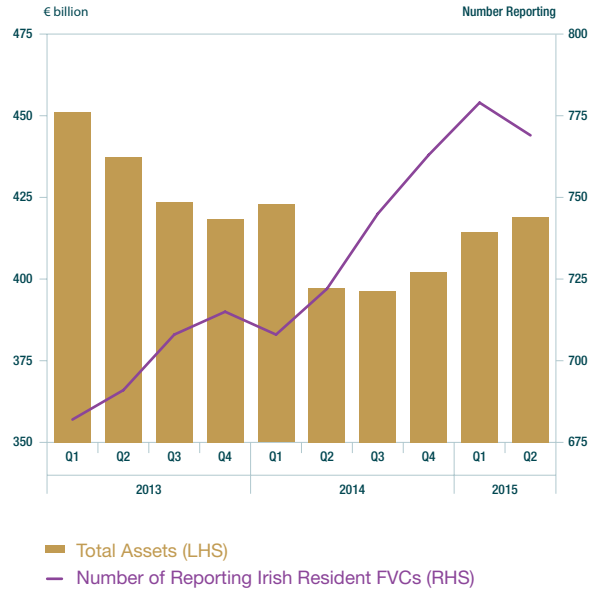
Total assets of financial vehicle corporations (FVCs) expanded by €3.9 billion during Q2 2015 to €418.9 billion, despite a decrease in the FVC population to 769. This represented a third successive quarter of growth in assets, breaking an extended period of decline, as investors return to the securitisation market seeking higher returns in the current low-yield environment. Inflows were mainly driven by increases in deposit and loan claims (€5.6 billion), other assets (€3.2 billion), and other securitised assets (€1.5 billion). Growth in euro area FVCs assets did not mirror the Irish performance in Q2 2015, falling by €22 billion to €1,805 billion, mainly driven by outflows from securitised loans of €18.6 billion. This decline helped to increase Ireland's share of euro area assets from 22.7 per cent in Q1 2015 to 23.2 per cent in Q2 2015.

**Chart 9: Domestic Banks Foreign Claims by Counterparty Sector (Year on Year Changes)**



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

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



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





# Developments in the Euro Area Economy

## Overview

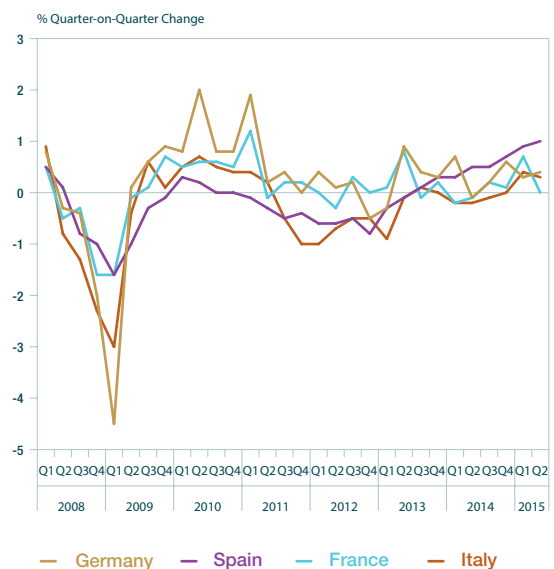
The economic recovery continued at a moderate pace during the first half of 2015. Low oil prices, a still-low external value of the Euro and the effect of the ECB's non-standard monetary policy measures continue to support euro area economic developments. However, recent growth and inflation figures have been lower than previously anticipated. Domestic dynamics, notably private consumption, supported economic activity in the last quarter, but investment fell unexpectedly. Financial markets have experienced a high degree of volatility driven by the ups and downs of the negotiations between the Greek authorities, European institutions and the IMF, doubts over the economic situation in China and growing expectations about the normalisation of monetary policy in other advanced economies. These external influences present sizeable downside risks to the prospects for euro area inflation and growth in the coming quarters. Recent ECB forecasts of real GDP in the euro area have been revised downwards to 1.4 per cent in 2015, 1.7 per cent in 2016 and 1.8 per cent in 2017.

## Section 1: Growth and Inflation

Real GDP grew by 0.4 per cent in the second quarter of the year in both the euro area and the European Union as a whole, following a 0.5 per cent increase in the first quarter. This is the ninth consecutive quarterly increase; although the pace of growth remains slow. Across the euro area (EA), all Member States returned to growth, except France where it remained at zero per cent (Chart 1). The highest growth was recorded for Ireland (+1.9 per cent), Latvia (+1.2 per cent) and Malta (+1.1 per cent). The lowest positive growth rates were registered in the Netherlands and Austria (both +0.1 per cent).

The details of the Q2 euro area GDP figure confirm that growth has been driven by domestic demand, primarily due to an increase in household and government expenditure, reflecting in part the positive effects of lower oil prices and inflation. By contrast, investment fell by 0.5 per cent quarter-on-quarter. Net exports also contributed positively with 1.6 per cent growth over the quarter (Table 1).

Chart 1: Euro Area GDP Growth



Source: Eurostat.

**Table 1: Growth Rates of Expenditure Components and Quarterly Changes in Euro Area GDP**

	2014		2015	
	Q3	Q4	Q1	Q2
<b>Consumption</b>	0.5	0.6	0.5	0.4
<b>Government</b>	0.2	0.2	0.6	0.3
<b>Investment</b>	0.3	0.6	1.4	-0.5
<b>Inventories</b>	-0.1	0.0	0.0	-0.1
<b>Exports</b>	1.5	0.9	1.0	1.6
<b>Imports</b>	1.7	0.9	1.5	1.0
<b>GDP</b>	0.3	0.4	0.5	0.4

Source: Eurostat.

More recent, albeit preliminary, merchandise trade data show that the nominal value of exports increased by 1.4 per cent month-on-month in July while imports increased by 1.2 per cent, confirming indicators of more subdued levels of global trade. The seasonally-adjusted extra-EA trade surplus rose to €22.4 billion in July from €21.9 billion in June.

Both the economic sentiment index (ESI) and the composite purchasing managers index (PMI) stand above their respective average levels in the second quarter and point to a stabilisation and continued, albeit moderate, growth in Q3 (Chart 2). As a leading indicator of domestic consumption in the euro area, the seasonally-adjusted volume of retail trade in July rose by 0.4 per cent reversing falls recorded during June. Euro area consumer confidence also remained relatively stable in the three months to September. On the other hand, while households have reacted positively to lower oil prices since the start of the year, unless oil prices fall further this boost may not continue for the latter quarters of 2015.

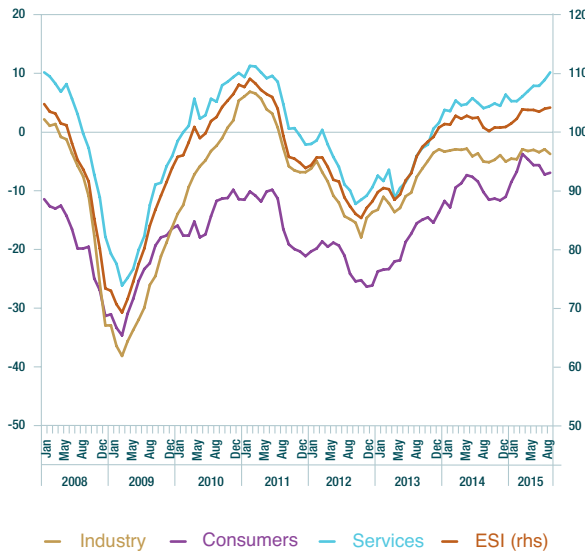
Euro area labour markets are improving slowly with employment rising by 0.3 per cent in Q2. The seasonally-adjusted unemployment rate, which started to decline in mid-2013, fell to 10.9 per cent in July 2015 from 11.1 per cent a month earlier. This is the lowest rate recorded in the euro area since February 2012. Among the Member States, the lowest unemployment rate was recorded in Germany at 4.7 per cent. Compared with a year ago, the

unemployment rate fell in most Member states with the largest decreases registered in the high-unemployment countries including Spain, Slovakia, Portugal and Ireland. Available survey data point to continued moderate employment growth in the current quarter.

Turning to price developments, HICP inflation in the euro area has stabilised in recent months at low positive rates following a rebound from the negative rates seen earlier in the year. According to the Eurostat flash estimate, euro area annual HICP inflation was 0.1 per cent in August down from 0.2 per cent in July. Inflation excluding energy (Chart 4) was 1.1 per cent in August recovering from a slight decline to 0.9 per cent in June and July after the stable recovery up to 1 per cent in May. The stabilisation in the headline HICP inflation rate conceals two contrasting dynamics. The persistent slide in energy inflation, which was -7.2 per cent in August, was counteracted by an increase in inflation in food (in particular a relevant pick-up of inflation in unprocessed food) and non-energy industrial goods.

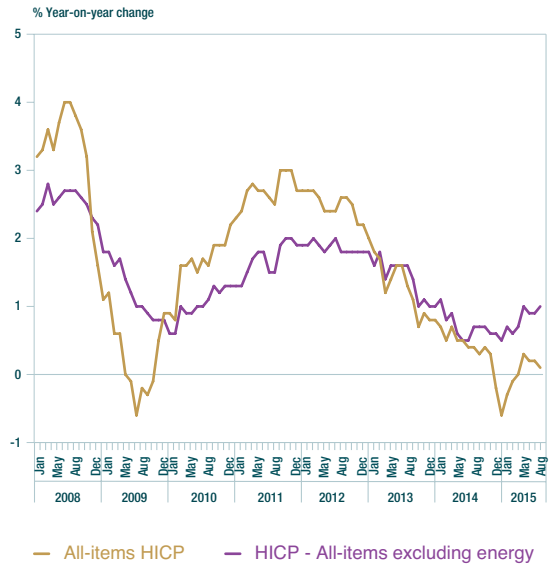
The steady increase in non-energy industrial goods suggests there are signs of a slow pass-through of the depreciation in the Euro. Non-energy industrial goods inflation has been rising steadily from 0.0 per cent in March to 0.6 per cent in August. However, there are not yet signs of pass-through in the early stages of the production chain where price developments remain subdued. Producer price inflation, excluding construction and

**Chart 2: Economic Sentiment Indicator & Selected Components**



Source: European Commission.

**Chart 3: Euro Area Inflation**



Source: Eurostat.

energy, has been declining since June after a slight recovery in May. PMI survey indicators in the manufacturing sector remain stable in the output prices. However, there has been a gradual decline in input prices since June after the recovery observed in May.

Domestic price pressure continues to remain subdued. Inflation in the non-tradable services sector services remained constant at 1.2 per cent in July and August returning to the May level after a slight decline. This dynamic suggests limited domestic price pressure and contained wage growth that might be the result of the persistent slack in the labour market and of increased price flexibility due to the successful implementation of structural reforms. The unemployment rate, although gradually improving, still hovers around 11 per cent.

The fiscal situation is improving and the collective stance – measured as a change in the cyclically adjusted primary balance net of government assistance to the financial sector – across the euro area is expected to be broadly neutral in 2015. ECB staff projections indicate

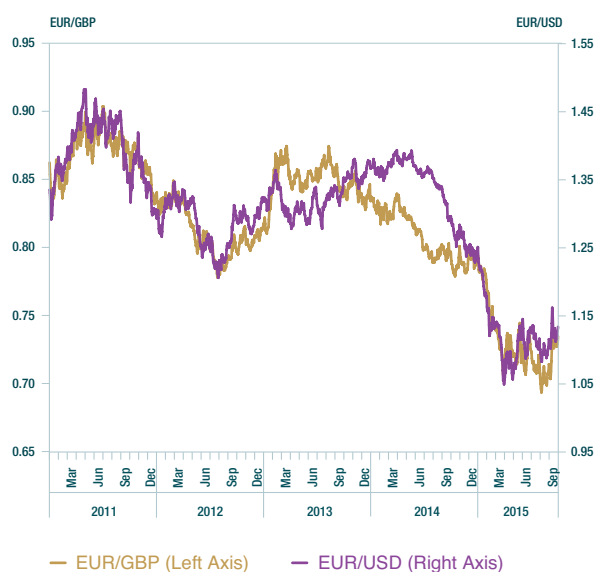
that the general government deficit-to-GDP ratio for the euro area will decline from 2.4 per cent in 2014 to 1.7 per cent in 2017. At the same time, the government debt-to-GDP ratio for the euro area is projected to decline gradually from a peak of 91.7 per cent of GDP in 2014 to below 90 per cent of GDP in 2017. The gradual decline in the debt-to-GDP ratio is driven by an improving primary budget balance, strengthening economic growth and low interest rates.

Financing conditions in the euro area remain supportive. Benchmark sovereign bond yields are slightly higher than earlier in the year though they declined in August against the background of the steep drop in the oil price and some increase in risk aversion among investors. Overall, credit conditions for companies and households have eased in the euro area in the second quarter. Loan growth to non-financial corporations and households are expected to remain subdued, reflecting the lagged relationship with the overall level of aggregate demand, credit risk, deleveraging, credit supply factors and the ongoing adjustment of financial and non-financial sector

**Table 2: Latest forecasts of Euro Area growth in real GDP**

	Date	2015	2016	2017
<b>EU Commission</b>	May 2015	1.5	1.9	–
<b>ECB</b>	September 2015	1.4	1.7	1.8
<b>IMF</b>	July 2015	1.5	1.7	–
<b>OECD</b>	June 2015	1.4	2.1	–

Sources: IMF WEO Update July 2015; OECD Economic Outlook 97 June 2015; European Commission, Spring Forecast 2015; ECB September 2015 MPE.

**Chart 4: Euro Exchange Rates**

Source: Thomson Reuters Datastream.

balance sheets. Banks expect broadly similar credit conditions in the third quarter.

The successful conclusion of the negotiations between the Greek Government and the institutions for a three-year European Stability Mechanism (ESM) loan/programme and the Eurogroup agreement on August 14 reduced the heightened uncertainty at the beginning of the quarter. The Euro's depreciation after the outcome of the Greek referendum was limited while its appreciation was more significant following the latter announcements. The current effective exchange rate is higher than projected earlier in the year but still much lower than on average in 2014. The weaker

euro reflects the Federal Reserve's and ECB's divergent monetary policy stances (Chart 4).

### Outlook

Looking ahead, the moderate economic recovery is expected to continue, but the external risks to growth have increased. Compared with the June Broad Macroeconomic Projection Exercise (BMPE), the recent September ECB staff forecasts have a slightly weaker outlook for activity, largely reflecting a less favourable external environment. It is expected that growth will average close to 1.4 per cent this year, and it is expected to reach 1.7 per cent next year and 1.8 per cent in 2017 (Table 2).

Growth is likely to continue to be driven by domestic demand supported by labour market developments, the ECB monetary policy measures and their favourable impact on financial conditions, and the progress made with fiscal consolidation and structural reforms and the reduced pace of fiscal consolidation. Moreover, the decline in oil prices should provide support for households' real disposable income and corporate profitability. Private and public consumption is expected to broaden and a less variable contribution from investment is expected by the end of the year.

However, recent developments in emerging market economies, particularly China, have the potential to adversely affect global growth through dampened trade and confidence. Accordingly, euro area foreign demand is expected to pick up at a considerably weaker

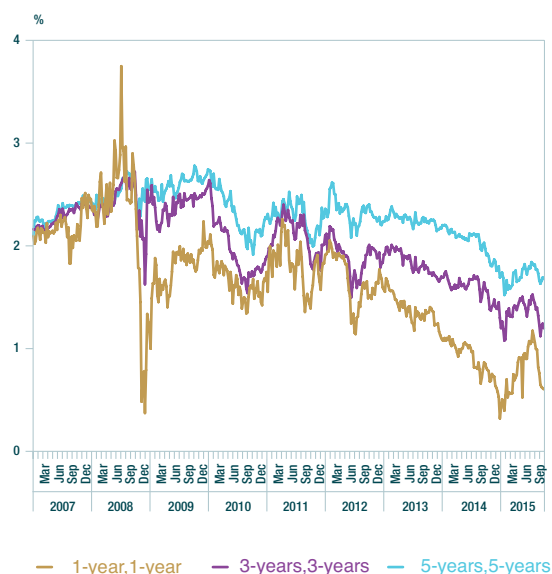
pace than envisaged earlier in the year. However, the past depreciation of the euro is still expected to exert a favourable influence on euro area export growth. In addition, the “normalisation” of monetary policy in the US has the potential to act as a downside factor. Finally, in view of remaining challenges relating to programme implementation, uncertainty regarding IMF involvement and the outcome of the Greek elections, policy uncertainty related to Greece, despite declining from extreme levels following the recent agreements, could persist for longer than expected.

Labour market conditions in the EA continue to show gradual improvement and continuing economic growth should allow for further improvements in labour market conditions from which private consumption will benefit. In terms of the outlook for employment, unemployment is projected by both the ECB and the EU Commission to fall to 10 per cent during 2017 reflecting the downward impact of rising employment, which is partly offset by a growing labour force.

HICP inflation is projected to remain low in the near term and to rise more strongly only towards the end of 2015, averaging 0.1 per cent for 2015 as a whole. Upward base effects, together with an assumed turnaround in oil prices in euro terms are expected to underpin an upward momentum from the Q4 onwards. The September ECB staff macroeconomic projections for the euro area were revised downwards when compared with the June Eurosystem broad macroeconomic projection exercise. The projected annual HICP inflation is 0.1 per cent in 2015, 1.1 per cent in 2016 and 1.7 per cent in 2017 downward from 0.3 per cent in 2015, 1.5 per cent in 2016 and 1.8 per cent in 2017.

Survey measures continue to show stable long-term inflation expectations. According to the third quarter Survey of Professional Forecasters (SPF), inflation expectations for 2015 have been revised up to 0.2 per cent from 0.1 per cent in Q2. Moreover, one-year ahead inflation expectations (2016) have been

**Chart 5: Market's Future Inflation Expectations Based on Implied Forward Inflation Swap Rates**



Source: Bloomberg, CBI calculations.

revised up by 0.1 percentage points to 1.3 per cent, while the two-year ahead remain stable at 1.6 per cent. It is important to note that, while these survey indicators were published in July and they do not include the recent turmoil in the financial markets in the emerging markets economies in their assessment.

Measures of market-based inflation compensations have weakened recently. After a steady recovery since the announcement and implementation of the expanded asset purchase programme (EAPP), longer-term market based inflation expectations have started to decline since July. The five-in-five year inflation swap rate is back to 1.67 per cent after reaching a peak of 1.84 in line with other measures of inflation compensation (Chart 5). In the past months, these measures have been volatile possibly reflecting the volatility in the oil prices and developments in emerging markets economies (Box A).

**Box A: Recent Developments in Market-Based Inflation Expectations**By Laura Moretti<sup>1</sup>

In August 2014, ECB President Draghi gave an important speech at Jackson Hole (Draghi, 2014a) where he singled out the 5-in-5 years swap inflation rate as the ECB preferred measure of medium-term inflation expectations. Moreover, he signaled the importance of monitoring market-based inflation expectations and the risk of them falling below the 2 per cent target.

The ECB has a mandate to maintain price stability defined as a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below, but close to 2 per cent over the medium term. Since the announcement of the expanded asset purchase programme (APP) in January 2015, the euro area long-term market-based measures of inflation expectations have been recovering from the trough of December 2014. After the concerns previously expressed on the possibility of dis-anchoring of inflation expectations (see for example Draghi, 2014b), this has been seen as an important sign of improvement.

In this Box, we review the recent developments in inflation expectations and we discuss whether the recent improvements have been driven by any particular factor. We focus our attention on the impact of short term fluctuations in the oil prices and on the evolution of the inflation risk premium.

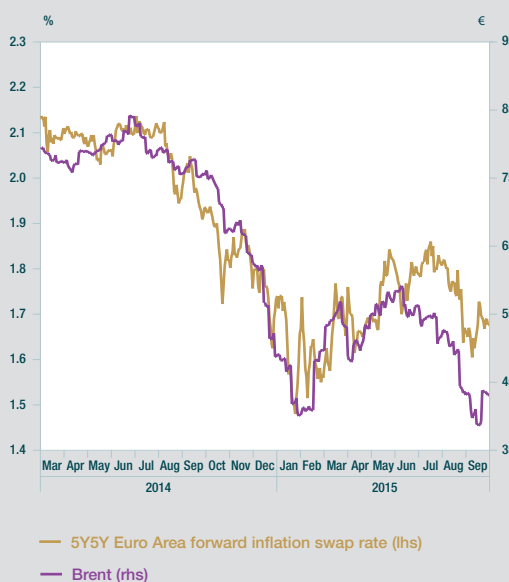
According to economic theory, long-term inflation expectations should not be affected by movements in the level of oil prices because they represent shocks that should be temporary in nature. However, it has been noticed that market-based inflation expectations have recently become more sensitive to fluctuation in oil prices. As reflected in Chart 1, they have been moving closely together in the past year. The fact that shocks, that are supposed to be short-lived, affect medium to long-term inflation expectations could raise some concerns and requires a careful monitoring on how expectations are formed.

In order to analyse whether the recent developments in oil prices have affected medium-term inflation expectations, we estimate a time-varying correlation by regressing the monthly changes in the 5-in-5 years inflation swaps, representing our measure of medium-term inflation expectations, on the monthly changes in real oil prices in euro, also controlling for short-term inflation expectations proxied by the 1-in-1 year inflation swap rate:

$$\Delta swap_{-5} - 5_t = \alpha + \beta_1 \Delta oil_t + \beta_2 \Delta swap_{-1} - 1_t + \varepsilon_t$$

A 24-month rolling window is used and the estimates are plotted within two standard deviations error bands.

Chart 2 shows that the 5-in-5 year swap rate has been significantly affected by changes in oil prices since mid-2014. However, there are signs of reversion of the effect in the past few months with the correlation reverting close to non-significance. It is important to note that, given the use of a 24-month rolling window, caution is required in attributing the recent movement only to the announcement and implementation of APP in the euro area.

**Box A Chart 1: Recent Developments in Forward Inflation Swap Rates and Oil Prices**

Source: Bloomberg, Datastream, CBI calculations.

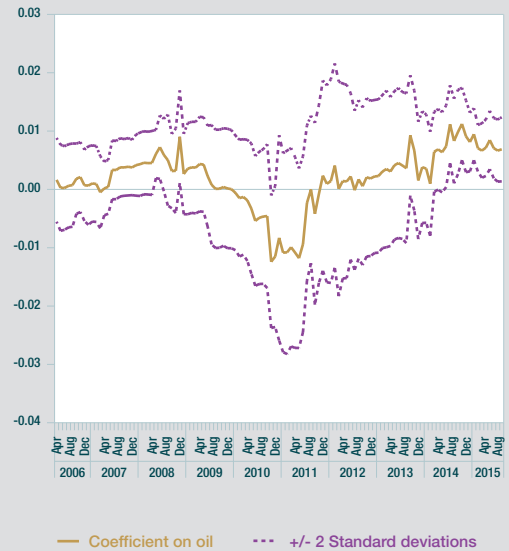
**Box A: Recent Developments in Market-Based Inflation Expectations**

By Laura Moretti

Our analysis suggests that medium-term inflation expectations may have become more sensitive to oil price movements since mid-2014, but there has been a reversion of this dynamics with a reduction in the correlation coefficients since January.

So far we have referred to inflation swap rates as a measure of inflation expectations. However, inflation swap rates are measures of inflation *compensation* because they not only reflect inflation expectations but also include various risk premia.<sup>2</sup> In particular, they incorporate an inflation risk premium – the compensation that holders of nominal securities demand for bearing inflation risk – and a liquidity premium driven by the transactions costs incurred by inflation broker-dealers when hedging the exposure to an inflation swap position with the purchase of a bond.

**Box A Chart 2: Time-Varying Correlations Between 5-in-5 Year Inflation Swap Rates and Oil Prices (24-Months Rolling Windows)**



Source: Bloomberg, Datastream, CBI calculations.

The Survey of Professional Forecasters (SPF) is used as the benchmark for ‘pure’ inflation expectations. Therefore, the difference between measures of market-based inflation compensation and survey-based inflation expectations can be attributed to liquidity and inflation risk premia. The quarterly ECB SPF collects forecasts for the euro area HICP inflation at 1, 2 and 5 years ahead from a panel of more than 70 professional forecasters located across the EU.<sup>3</sup> In Chart 3, we compare the SPF 5-years ahead with the corresponding 1-in-4 year inflation swap rate in order to have the same time horizon. We observe that, while the 1-in-4 year inflation swap rate have sharply declined since 2014, survey measures of inflation expectations have remained more anchored. Our analysis of the liquidity premium based on the difference between agency (i.e. CADES and KfW) and sovereign bonds for France and Germany suggest that it has not changed in the past years. Therefore, the difference between the two measures appears to be driven mainly by changes in the inflation risk premium. This would suggest that the recent recovery in market-based inflation compensation is due to a reversal of the downward trend in the risk premium after the announcement of the expanded APP rather than to an increase in actual inflation expectations.

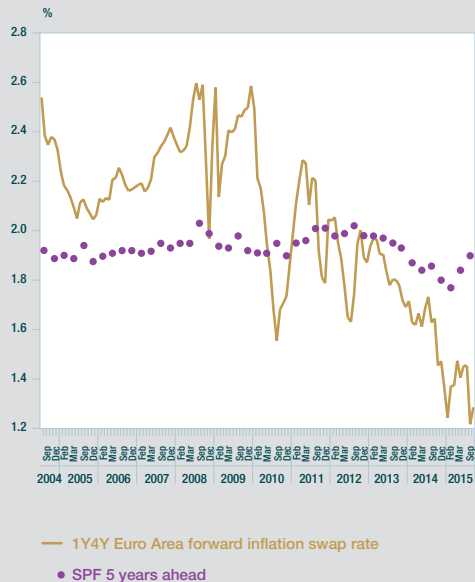
<sup>2</sup> See for example the discussion in Yellen (2014).

<sup>3</sup> Respondents are also required to provide a quantitative assessment of uncertainty surrounding the reported point forecasts. This assessment of uncertainty is reflected in the reported probability distributions of future inflation outcomes falling within given ranges.

**Box A: Recent Developments in Market-Based Inflation Expectations**

By Laura Moretti

Preliminary evidence shows that, after the announcement and implementation of the APP, there are signs of improvements in market based inflation compensations, a reduction in the impact of short-lived shocks, such as oil prices, on medium-term inflation expectations and an improvement in the downward trend of the inflation risk premium.

**Box A Chart 3: SPF 5 Years Ahead and 1-in-4 Years Inflation Swap Rates**

Source: Bloomberg, ECB, CBI calculations.

**References**

Draghi, M. (2014a) *“Unemployment in the euro area”*, Speech by Mario Draghi, Annual Central Bank Symposium in Jackson Hole, 22 August 2014.

Draghi, M. (2014b) *“Monetary policy in the euro area”*, speech by Mario Draghi at the Frankfurt European Banking Congress, Frankfurt am Main, 21 November 2014.

Yellen, J. (2014) Transcript of Chair Yellen’s FOMC Press Conference, December 17.

**Section 2: Euro Area Monetary Policy Developments**

The stance of monetary policy in the euro area has been unchanged over the last quarter. Nonetheless, the Governing Council has indicated its willingness to ease monetary policy further, if necessary. In contrast, the debate in some other major economies continues to focus on timing rate increases, highlighting the increasing decoupling of monetary policy cycles in the euro area and elsewhere.

Despite the unchanged monetary stance, purchases under the euro area expanded

asset purchase programme (APP) have continued in line with the announced level. At the same time, the decline in oil prices and inflation, led the ECB to clarify that it would loosen monetary policy further if necessary. In advance of the September 3 meeting of the Governing Council, Executive Board Member Peter Praet noted that the expanded APP had enough flexibility in terms of size, composition and length to ensure that the Governing Council can achieve a sustainable path for inflation towards 2 per cent.<sup>1</sup> Likewise, at the press conference following the Governing Council meeting, President Draghi clearly stated that the expanded APP purchases are

<sup>1</sup> See: <http://www.bloomberg.com/news/articles/2015-08-26/ecb-ready-to-expand-qe-if-needed-on-inflation-risks-praet-says>



'intended to run until the end of September 2016, or beyond, if necessary'.<sup>2</sup>

In terms of the effect of purchases under the programme, the IMF Article IV Consultation on Euro Area policies included their early assessment of Quantitative Easing. In this, they note that the expanded APP had a positive effect on financial conditions and inflation expectations, but that real economy effects have taken between three and 16 quarters to become evident elsewhere. The IMF highlights a number of channels through which QE has had impacts, including the exchange rate and inflation expectations. The IMF also assesses that the expanded APP signalled a willingness to keep monetary policy sufficiently accommodative for as long as necessary to maintain price stability.

Monetary policy across countries often appears to be synchronised, primarily because global price level shocks — such as that experienced during the global financial crisis or as a result of oil price movements — cause inflation across countries to move in similar ways. However, differing domestic economic conditions will result in monetary policy diverging across countries. This is a phenomenon visible at present: while the market-implied path for the policy rate in the euro area indicates that rates will remain below 0.5 per cent until at least the end of 2018, those for the US and UK imply that both the Federal Funds Rate and the UK Bank Rate will gradually increase towards 2 per cent by the end of 2018.

Indeed, at its July meeting, the Federal Open Market Committee (FOMC) indicated that only “some” further labour market improvement was needed. Since communications earlier in the year indicated that the FOMC would be patient before normalising monetary policy, the July statement gave rise to expectations that the target window for the Federal Funds Rate may soon have been increased for the first time in nine years.

However, the July meeting of the FOMC predated the August moves by the People's Bank of China (PBoC) to devalue the Yuan, which alongside the subsequent Yuan devaluation and further developments in stock and commodity markets, led market participants to believe that a September move by the FOMC was increasingly unlikely (See Box B for a discussion of developments in China in the last quarter). Indeed, during August futures markets and U.S. Treasury yields have implied that there was a growing expectation of a delay in the rate increase. This view was confirmed when the FOMC left rates unchanged at the September meeting.<sup>3</sup>

In the UK, the timing of rate increases is also a much-debated issue. Indeed, Governor Mark Carney discussed global monetary policy cycles in a recent speech, arguing that ‘the prospect of sustained momentum in the UK economy and the gradual firming of underlying inflationary pressures will likely put the decision as to when to start the process of gradual monetary policy normalisation into sharper relief around the turn of this year’.<sup>4</sup> The Bank of England's Monetary Policy Committee believes that inflation expectations remain well-anchored based on both market and survey-based measures. Spare capacity in the British economy has continued to decrease in recent months, and is now judged by the Bank of England to be approximately 0.5 per cent of GDP. Furthermore, unemployment was 5.6 per cent in the second quarter, falling by 2 percentage points since 2013. Acting counter to this is the appreciation of the currency and its effect on import prices. Nonetheless, it is expected that the reduction in slack in the labour market should encourage wage growth and result in domestic cost pressures, eventually warranting an increase in the Bank Rate.

<sup>2</sup> See: <https://www.ecb.europa.eu/press/pressconf/2015/html/is150903.en.html>

<sup>3</sup> See for instance: <http://www.wsj.com/articles/feds-dudley-says-new-york-economy-is-a-bright-spot-1440597601>

<sup>4</sup> See: <http://www.bankofengland.co.uk/publications/Documents/speeches/2015/speech837.pdf>

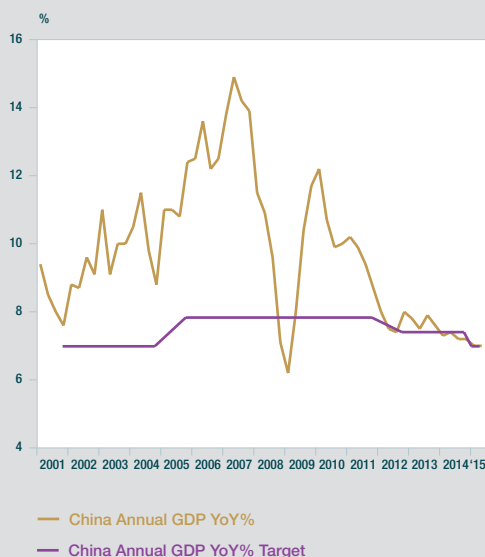
**Box B: Turmoil in Chinese Equity Markets and Global Implications***By Patrick Haran and Neil Lawton<sup>1</sup>***Overview**

Chinese equity markets lost almost 40 per cent from mid-June 2015 to end-August 2015, and have turned negative for the year.<sup>2</sup> This sell-off in equities is believed to have been exacerbated by the rapid growth in equity prices in the preceding months, as well as concerns about growth prospects for the Chinese economy. Following some stabilisation across markets in July and early-August, investor concern regarding China's outlook returned in the wake of a currency devaluation by the People's Bank of China (PBoC) in August. This phase led to a period of significant volatility in equity and commodity prices as investors speculated about the motivation for the devaluation.

This box briefly outlines the developments in the Chinese economy that acted as a background to the financial market volatility, provides detail on the sell-off and the policy responses designed to deal with it, and discusses the global impact of the sell-off and any potential further slowdown of the Chinese economy.

**Chinese Growth Weakening**

Growth in the Chinese economy has been slowing since Q1 2010 (Box B Chart 1). At that time, growth had reached a post-financial crisis peak of 12.2 per cent. By the third quarter of 2012, China's growth rate had reduced to 7.4 per cent, and has remained below 8 per cent ever since. Against this background, the PBoC loosened monetary policy on five occasions between November 2014 and May 2015 (Box B Chart 2). At the same time, despite the weakness in economic activity, Chinese equities had rallied by more than 130 per cent from end-August 2014 to mid-June 2015. However, market commentators have noted that the rapid appreciation of the Chinese equity markets may not have been underpinned by economic fundamentals. Furthermore, as strong credit growth continued despite slowing economic activity, the leverage position of the economy began to look less healthy.

**Box B Chart 1: China Annual GDP Growth Rate vs. Government Target Rate**

Source: Bloomberg.

More recent Chinese data raised concerns that the economy is slowing sharply. During the first two quarters of this year growth was 7 per cent. The manufacturing PMI for July indicated negative growth; while August's manufacturing PMI was the lowest reading for China in 6 and a half years. This continued trend of falling growth rates has led to uncertainty in markets regarding the ability of the Chinese authorities to successfully deal with the slowing domestic economy.

<sup>1</sup> Financial Markets Division<sup>2</sup> Figure based on China's benchmark equity index; the Shanghai Composite

**Box B: Turmoil in Chinese Equity Markets and Global Implications**

*By Patrick Haran and Neil Lawton*

**Box B Chart 2: Shanghai Composite since November 2014 and PBOC Decision Timeline**



PBOC Decisions	
1.	Benchmark Lending Rate Cut by 40bps to 5.6%
2.	Required Reserve Ratio (RRR) Cut: 50bps to 19.5%
3.	Benchmark Lending Rate Cut by 25bps to 5.35%
4.	Benchmark Lending Rate Cut by 25bps to 5.10%
5.	RRR Cut: 100bps to 18.5%
6.	Benchmark Lending Rate Cut by 25bps to 4.85%
7.	Benchmark Lending Rate Cut by 25bps to 4.6%, RRR Cut: 50bps to 18%

— Shanghai Composite Index

Source: Bloomberg.

**Chinese Equity Market Sell-Off and Official Responses**

Against this background, Chinese equity markets lost almost 40 per cent from mid-June 2015 to end-August 2015, and have turned negative for the year. The sharpness of the recent declines were reportedly exacerbated by the unwinding of large quantities of retail leveraged positions in the market, which had helped drive equity prices higher earlier in the year.

Through June and July, the Chinese authorities announced exceptional measures to halt declines in equity markets and contain the sell-off. In June, the PBoC cut its benchmark one-year interest rate by 25 basis points. Furthermore, China Securities Finance Corp., a publicly funded intermediary, received state support to intervene and stabilise the market through the purchase of equities. In July, China’s Securities Regulatory Commission prohibited shareholders from selling more than 5 per cent of the capital of a listed company for 6 months, while also postponing IPOs for the same period. Authorities also announced that more than 40 per cent of companies listed in China were authorised to suspend trading of their stocks.

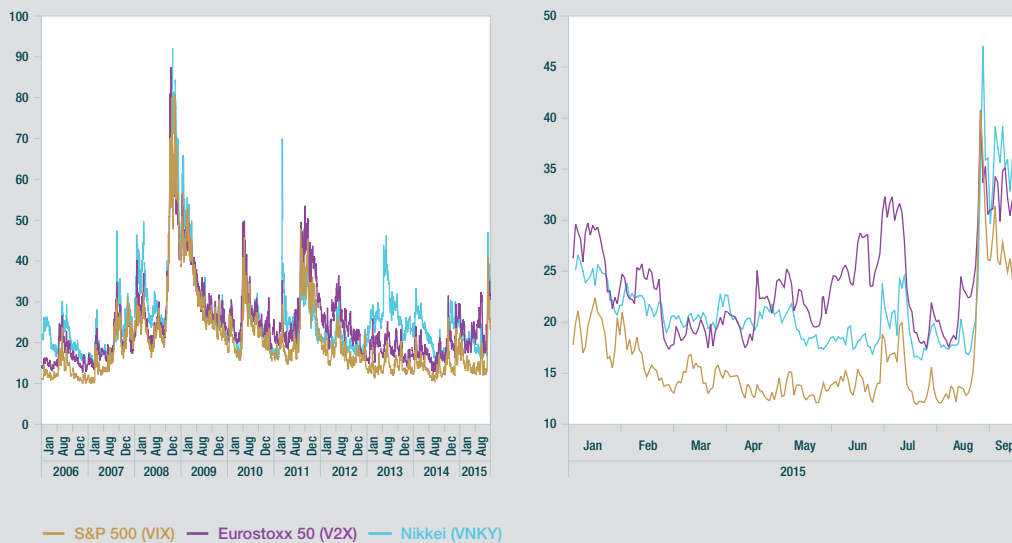
Following these measures, equity markets initially rebounded and stabilised for a time, before the Shanghai Composite index declined 25.5 per cent over a two week period beginning 11 August. Two factors drove this: soft Chinese economic data and the unexpected devaluation of the Chinese renminbi on 11 and 12 August. The PBoC later sought to clarify that the devaluation was a one-off technical adjustment and not the start of a prolonged fall in the Renminbi. However, at the time the devaluation caused major uncertainty in financial markets as investors speculated that the intervention was a further effort to boost a potentially deteriorating domestic economic outlook. The PBoC cut rates on 26 August, this time also reducing the required reserve ratio.

**Box B: Turmoil in Chinese Equity Markets and Global Implications***By Patrick Haran and Neil Lawton***Wider impact**

These sharp declines in Chinese equity markets, coupled with increasing speculation as to the timing of a US Federal Reserve rate hike, had a negative contagion effect through global equity markets over this period. Volatility in European and US markets increased to multi-year highs, while volatility also increased in Japan's major index, although it is important to note that this occurred at a time of expected seasonally low liquidity in markets (Box B Chart 3).

A number of countries with strong economic ties to the Chinese economy saw significant depreciations of their respective currencies following the negative sentiment towards China, and the concurrent decline in commodity prices, on which many emerging economies rely heavily. Emerging market economies and some developed economies, such as Australia, continue to be most impacted by developments in the Chinese economy.

However, the size of the Chinese economy means that a slowdown there will be felt across advanced economies also, with implications for the euro area: Following the ECB Governing Council meeting in September, in his press conference ECB President Mario Draghi stated that "we expect the economic recovery to continue, albeit at a somewhat weaker pace than earlier expected, reflecting in particular the slowdown in emerging market economies". Looking forward, market participants and policy makers alike will be carefully monitoring any further evidence of an economic slowdown in China.

**Box B Chart 3: US, European and Japanese Equity Market Volatility Indices**

Source: Bloomberg.

## 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.

# The Financial Crisis in Ireland and Government Revenues

Rónán Hickey and Diarmaid Smyth<sup>1</sup>

## Abstract

This paper examines trends in government revenues during and after the financial crisis. On taxation, it highlights the strong increase in income tax receipts in recent years. Relying on stable sources of revenue—rather than cyclically sensitive ones—appears desirable from a public finance perspective and reduces a key vulnerability that developed in Ireland in the mid-2000s. There has also been a sharp increase in non-tax revenues since the crisis, partly due to measures introduced by the Government to assist the financial sector. Managing the transition to lower, more normal, non-tax revenues will be a challenge. This financial support has significantly added to the public debt ratio, the high level of which remains a key vulnerability for the economy. Accordingly there would appear to be a strong case that unexpected or windfall gains from these sources be used to exclusively reduce public debt.

<sup>1</sup> This paper was awarded the 2015 Miriam Hederman O'Brien Prize by the Foundation for Fiscal Studies. It is based on Economic Letter, Vol. 2015, No. 7, published by the Central Bank of Ireland in May 2015. Corresponding authors: [ronan.hickey@centralbank.ie](mailto:ronan.hickey@centralbank.ie) and [diarmaid.smyth@centralbank.ie](mailto:diarmaid.smyth@centralbank.ie). The views expressed in this paper are those of the authors only and do not necessarily reflect the views of the Central Bank of Ireland (CBI). We would like to thank Stephen Byrne, Mary Cussen, John Flynn, Gerard O'Reilly and Reamonn Lydon (CBI), and Rod O'Mahony, Patrick Quill and Gillian Roche (CSO) for comments received. All remaining errors are our own.

## 1. Introduction

The past decade has been a turbulent one for the public finances. Ireland's large budgetary surplus in the middle of the last decade quickly reverted to sizable deficits with the onset of the crisis. This culminated in entry into an Excessive Deficit Procedure (EDP) in 2009 and entry into an EU-IMF assistance programme in 2010. A significant budgetary adjustment was required to put the public finances back on a more sustainable footing, with consolidation measures of around €30 billion being introduced between 2008 and 2014. With the General Government (GG) deficit expected to fall below the critical 3 per cent EDP threshold this year, this paper examines the evolution of government tax and non-tax revenues, over the past few years. A number of important features emerge. On the taxation side, there has been a clear movement away from cyclically sensitive tax heads (such as capital gains tax and stamp duty receipts) to more stable taxes, particularly income tax (including the Universal Social Charge). Relying on more stable sources of revenue appears desirable from a public finance perspective given the problems that arose in the last decade when the State became overly reliant on housing related taxes.

At the same time, non-tax revenues in Ireland have increased significantly both in an absolute sense and also relative to the EU. Much of this reflects income accruing to the Government as a result of financial assistance measures. A large proportion of this income can be considered to be transitory and should unwind as the effects of the crisis dissipate. Furthermore, receipts from non-tax related sources have significantly exceeded expectations in recent years creating what we term 'non-tax windfall gains'. Managing these windfalls and the transition to lower levels of non-tax revenues poses a significant challenge. Any windfalls accruing to the Government from financial crisis assistance measures should be used to pay down debt for two reasons.

First, the overall stock of government debt remains high and needs to be reduced to safer levels. This would help with compliance with the fiscal rules while also creating a larger buffer in the event of a negative shock to the economy. Second, financial crisis measures added significantly to the level of debt. Hence, revenues accruing as a result of those same assistance measures should be used to pay down debt. Such a course of action is prudent from a fiscal policy perspective while also ensuring that Ireland avoids the mistakes of the past decade - when transitory revenue streams were relied upon too heavily.

The paper proceeds as follows. Section 2 examines trends in Exchequer taxes since 2007. Section 3 outlines developments in non-tax revenues and their increasing importance. The paper also takes a closer look at the impact on government finances arising from crisis related assistance measures. Finally Section 4 presents some conclusions.

## 2. Recent Trends in Tax Revenue

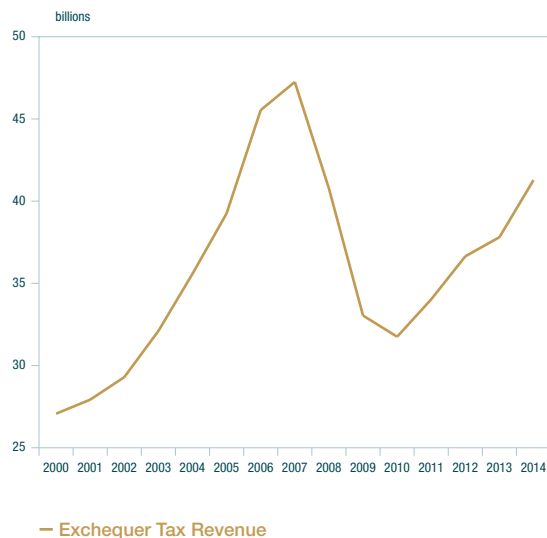
The first half of the 2000s saw the introduction of policy measures which had a profound impact on the structure of tax revenue in Ireland. While overall tax receipts accelerated at a rapid pace during the period, growing by 75 per cent between 2000 and 2007 (see Figure 1), the proportion coming from relatively stable sources such as income tax steadily declined to be replaced by more cyclically sensitive tax heads.<sup>2</sup>

The contribution from income tax went from representing one-third of total tax revenue in 2000 to just one-quarter in 2006, as large numbers of workers were removed from the tax net. Income tax developments over this period are discussed in more detail by Cronin et al (2015), Honohan (2009) and O'Connor (2013).<sup>3</sup> The contribution from stamp duty and capital gains tax, by comparison, doubled in the first half of the decade against the

<sup>2</sup> It should be noted that, in Exchequer terms, PRSI receipts are treated as an appropriation-in-aid and are netted off government expenditure. Accordingly they are not represented in the tax or non-tax data presented here.

<sup>3</sup> Cronin et al highlight the important role that increasing tax credit measures played in reducing receipts, while Honohan illustrates the considerable drop in the average income tax rates that occurred across all income thresholds. O'Connor examined the structure of the Irish taxation system including options for reform.

Figure 1: Exchequer Tax Revenue, 2000 to 2014



Source: Department of Finance.

Figure 2: General Government Revenue as Percentage of GDP



Source: CSO.

backdrop of the booming housing market, while VAT receipts grew sharply, again partly reflecting activity in the housing sector (see Addison-Smyth and McQuinn, 2010). This resulted in a significant rise in the broader General Government (GG) revenue to GDP ratio in the 5-year period to 2006 (Figure 2), reversing the declining trend of the previous five years.<sup>4</sup>

The increasing reliance on property dependent taxes (VAT, stamp duty and capital gains tax) meant that the sensitivity of revenues to cyclical conditions in the economy became unusually high. This left the Irish tax base increasingly vulnerable to both internal and external economic shocks and ensured that the housing market crash, and subsequent movement into recession, had a much bigger impact on the fiscal position than would have otherwise been the case. Tax revenues contracted dramatically between 2007 and 2010, falling by one-third to €32 billion, while the share of GG revenue as a percentage of GDP declined by around 3 percentage points to 33.6 per cent. Figure 3 takes a closer look at the major tax heads to see how they have

evolved since the start of the downturn, taking 2007 as a base year.

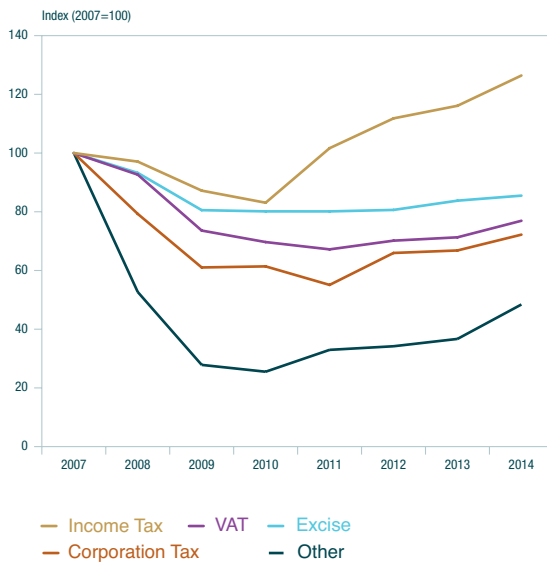
All tax heads contracted sharply with the onset of the financial crisis, with the decline in 'other' taxes (mainly composed of stamp duties and capital gains tax) especially severe at 75 per cent in 2010, reflecting the collapse in the property market. By comparison, the contraction in income tax was smaller at 17 per cent over this period. Even if the introduction of the income levy in 2009 is excluded, the 28 per cent decline in income tax was amongst the lowest of all the major tax heads. This was in spite of a 15 per cent drop in employment over the same period, highlighting its important role as a relatively stable source of revenue.

The recovery in tax receipts since 2010 has reflected a combination of policy measures and stronger economic activity, with total tax receipts surpassing the €40 billion threshold for the first time in six years in 2014 (they nevertheless remained some 13 per cent below their peak, highlighting the magnitude of the contraction that occurred during the crisis). While the taxation measures introduced

<sup>4</sup> GG aggregates provide a more accurate depiction of fiscal performance as they encompass all arms of government.

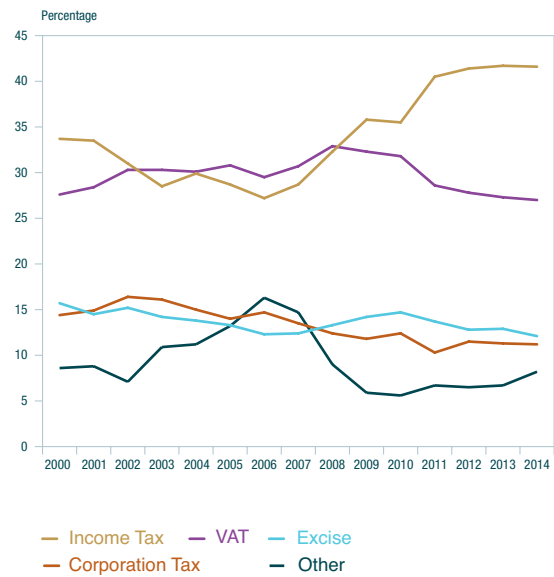


**Figure 3: Change in Major Exchequer Tax Heads, 2007 to 2014 (2007=100)**



Source: Department of Finance.

**Figure 4: Composition of Exchequer Tax Receipts, 2000 to 2014**



Source: Department of Finance.

were primarily an emergency response to the crisis, they also served as steps to correct the structural problems. Figure 3 shows that the recovery in revenues has been driven by developments in income tax, which is the sole tax head to have surpassed its pre-crisis level. In fact it has done so significantly, growing by 26 per cent since 2007. The introduction of the Universal Social Charge (USC) in Budget 2010 has played an important role in this recovery. Data from the Revenue Commissioners reveals that the USC was responsible for 20 per cent of the €17 billion of income tax generated in 2014, and almost 40 per cent<sup>5</sup> of the increase between 2010 and 2014. Changes in PAYE, by comparison, drove half of the increase over this period. ‘Other’ taxes, meanwhile, have experienced the weakest recovery and were still less than half of their 2007 value in 2014. This figure would have been even lower but for the contribution made by the levy on private pension funds to stamp duty in recent years, and the introduction of the property tax.

As Figure 4 shows, these recent developments have ensured that the more stable income tax

head is now providing a much larger proportion of total taxes. Following the introduction of the USC, its share increased to 41 per cent and has remained broadly stable since. Interestingly VAT and ‘other’ taxes are now broadly back to their share of total revenue at the start of the 2000s, while corporation tax and excise duties have experienced small declines. Recent years have also seen a pick-up in the GG revenue to GDP ratio, although at 34.9 per cent in 2014 it remained below both the peak in 2006 and its value at the start of the decade (36.9 and 35.9 per cent respectively). This partly reflects the composition of the fiscal consolidation measures introduced; approximately two-thirds of the consolidation has been expenditure driven.<sup>6</sup>

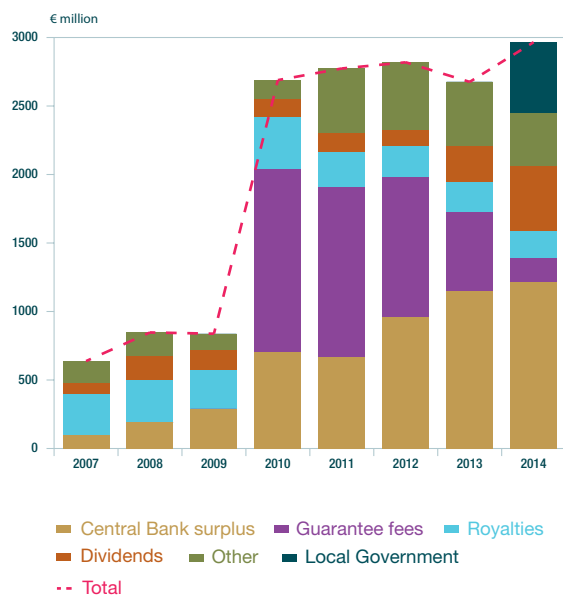
### 3. Recent Trends in Non-Tax Revenues

In recent years non-tax revenues have become an increasingly important source of income for government. On an Exchequer basis, non-tax revenues increased from €0.6 billion

<sup>5</sup> This includes the income levy - the precursor to the USC. Between 2010 and 2014 income tax increased by €5.9 billion. The USC/income levy generated €2.2 billion of this change while PAYE generated €3 billion.

<sup>6</sup> See Department of Finance (2011).

**Figure 5: Composition of Exchequer Non Tax Revenue, 2007 to 2014**



Source: Department of Finance.

in 2007 to €3.0 billion in 2014 (1.3 to 6.7 per cent of overall Exchequer current revenue<sup>7</sup>). These receipts incorporate a broad range of items, including interest and dividend revenue. However as Figure 5 shows, the most important items in recent years have been bank guarantee fees and, increasingly, Central Bank surplus income.<sup>8</sup> This primarily reflects revenue stemming from support provided to the financial sector during the crisis, which is discussed in more detail below.

### **The Impact of the Financial Crisis on the Fiscal Position in Ireland**

Much of the increase in non-tax revenues reflects monies accruing to the Government as a result of assistance provided to the financial sector. While the costs associated with these financial support measures have, quite understandably, received significant attention, receipts arising from the assistance are less

well known. Due to the size, complexity and intricacies of both sets of transactions, it is useful to examine them in more detail here, using Eurostat's database of financial assistance measures (created during the crisis and summarised in Table 1).<sup>9</sup>

Focusing first on revenues, the CSO has estimated that measures taken to support financial institutions resulted in inflows of €12.9 billion between 2008 and 2014. This mainly consisted of bank guarantee fee income (€4.3 billion), interest income (€5.3 billion) and dividends (€2.3 billion - primarily that proportion of Central Bank income directly attributable to financial crisis measures).

The bank guarantee or the Eligible Liabilities Guarantee (ELG) scheme was introduced in 2009 and was closed to new liabilities in March 2013. It provided an unconditional State guarantee for certain eligible liabilities (including deposits) of up to five years in maturity. Participating institutions were charged a fee, with this intended to cover any increase in government interest expenditure caused by the scheme. As Figure 5 shows revenue generated from these fees has declined over time as the magnitude of liabilities guaranteed has fallen, and it is expected to have only a marginal impact on Exchequer revenues this year.

Interest income incorporates payments received from investments made in financial institutions during the crisis, such as interest from preference shares and contingent convertible bonds. It also includes interest income related to Irish Bank Resolution Corporation (IBRC) which became part of general government in 2011. A rundown of IBRC's activities, coupled with the sale of some bank investments, explains the decline in interest income in recent years.

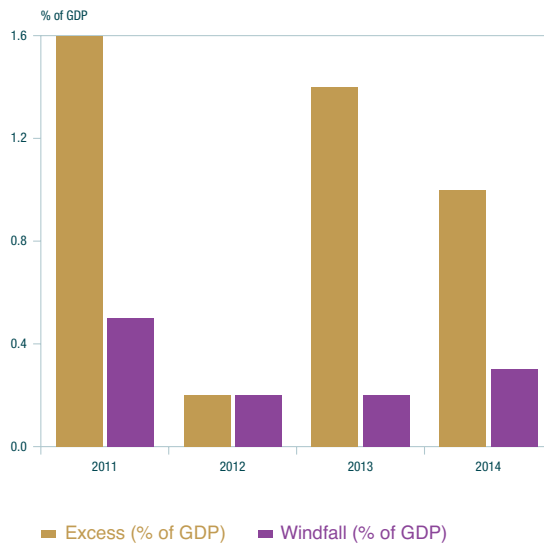
There has been a twelve fold increase in Central Bank surplus income since 2007.

<sup>7</sup> Exchequer current revenue refers to tax and non-tax Exchequer receipts discussed in this paper. In 2014, there was a transfer of funds from local government to Exchequer non-tax revenues amounting to €520 million. The Exchequer also benefits from capital receipts; these have increased sharply in recent years due to bank transactions and inter-governmental transfers which do not affect the GG position.

<sup>8</sup> Approximately 80 per cent of Central Bank surplus income is remitted to the Exchequer. From a GG perspective, surplus income is classified into current and capital government receipts with only the former used to reduce the GG deficit.

<sup>9</sup> In 2009, Eurostat required that governments provide information on the fiscal impact of financial crisis measures. These data are reported twice a year as part of the EDP reporting framework.

**Figure 6: Fiscal Over-performance Relative to the EDP and Non-Tax Windfall Revenues**



Source: Department of Finance, Central Bank of Ireland Calculations

Initially this was driven by higher interest income related to the provision of Exceptional Liquidity Assistance (ELA).<sup>10</sup> More recently, Central Bank profits have been boosted by income earned on the bonds that were used to replace the promissory notes as part of the liquidation of the Irish Bank Resolution Corporation (IBRC) - referred to as the Special Portfolio.<sup>11</sup>

Turning to expenditures associated with financial assistance, these are estimated to have amounted to €57.5 billion (34 per cent of GDP) between 2009 and 2014. The largest impacts were felt between 2009 and 2011, mainly as a result of capital injections provided by the Government to the banking sector (predominantly Anglo Irish Bank). Cumulatively these injections amounted to 28 per cent

of GDP (peaking in 2010). The other main cost arose from higher interest payments on government borrowing directly attributable to financial crisis assistance measures (amounting to 6 per cent of GDP).

Receipts have been dwarfed by expenditures for the period as a whole. In net terms, Table 1 shows that the financial crisis added 2.2 per cent, 21.6 per cent and 3.7 per cent of GDP to the GG deficit in 2009, 2010 and 2011, respectively. More recently, however, they have actually had a positive impact on the GG balance, boosting the position by an average of 0.2 per cent of GDP per annum since 2012.<sup>12</sup>

Reflecting the above, financial assistance measures have also had a negative net impact on GG debt, although the overall magnitude is complicated somewhat by the fact that the Government relied heavily on existing assets (principally the National Pension Reserve Fund and cash balances) as well as new borrowings to fund financial crisis measures. We estimate that around one-fifth of gross GG debt in 2014 was due to financial assistance measures.<sup>13</sup> In addition, the composition of government assets has changed significantly as a result of the banking related interventions.<sup>14</sup>

Looking ahead, and as noted above, income from non-tax related sources in Ireland is expected to decline significantly as the effects of financial crisis measures dissipate. The most recent draft Stability Programme Update (April 2015) projected that non-tax revenues will decline to €2.1 billion in 2020 from a peak of €3.4 billion in 2015. Given the transitory nature of many of these revenue streams, managing the transition to lower and more 'normal' levels will pose a particular challenge.

<sup>10</sup> ELA was provided to the banking system from 2009 to 2013. Interest earned on ELA rose from €0.2 billion in 2009 to a peak of €1.6 billion in 2010 before declining to zero in 2014.

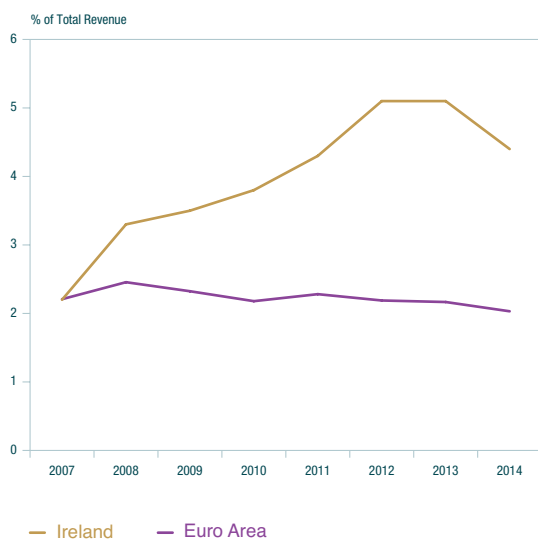
<sup>11</sup> The liquidation of IBRC and subsequent restructuring significantly altered the composition of the Central Bank balance sheet. The composition of assets changed, as ELA (amounting to €39.5 billion) was eliminated and replaced primarily with a portfolio of long-dated Irish Government bonds and short-dated NAMA bonds. These amounted to €25.0 billion in Government floating rate notes, €13.7 billion in Government guaranteed NAMA bonds, a €3.5 billion Irish 2025 Government Bond and some additional collateral of €0.4 billion.

<sup>12</sup> Due to the exceptional nature of the crisis, Eurostat distinguish between the GG balance and the underlying GG balance - the latter excludes financial crisis measures.

<sup>13</sup> The GG debt ratio increased from 43 per cent of GDP in 2008 to 123 per cent in 2013, but declined to 110 per cent in 2014.

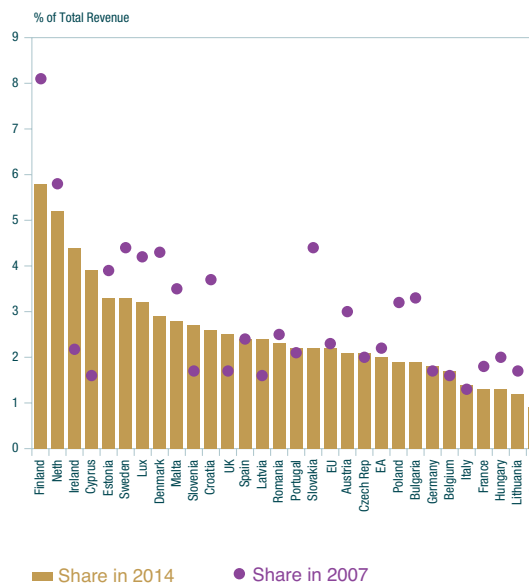
<sup>14</sup> For more details on the changing composition of government financial assets (and liabilities) see Barnes and Smyth (2013).

**Figure 7:** General Government non-tax Revenue as a share of Total Revenue : Ireland relative to the Euro Area



Source: Eurostat.

**Figure 8:** General Government Non-tax Revenue: Cross Country Comparisons



Source: Eurostat.

### Non-tax Revenue Windfall Gains

Looking at the period since 2007, non-tax revenues have consistently over performed relative to Budget expectations (see Table 2 at the end of the Paper). We classify the over performance as 'non-tax windfall gains', that is, the difference between the actual outturn for non-tax revenues and what was anticipated at Budget time. These windfalls peaked in 2011, with receipts €0.8 billion ahead of Budget expectations, while in 2014 the windfall was close to €0.5 billion.<sup>15</sup> These windfalls have undoubtedly helped to cushion the marked decline in other sources of income over the crisis period. They have also helped to ensure that fiscal targets under the EDP have been complied with. As a means of highlighting this, in Figure 6 we plot non-tax windfalls against the EDP over performance.

### Non-tax Revenues and Financial Assistance Measures in Context

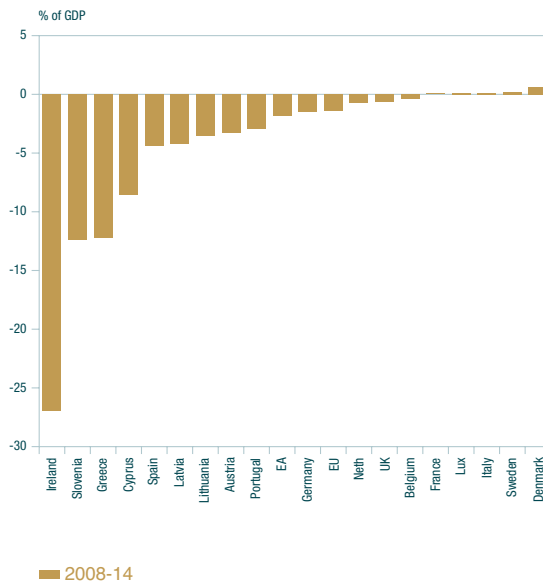
It's useful to put recent developments in Irish non-tax revenues in context by considering trends in broader GG revenues across countries. In Figure 7, we show the share of overall GG revenue accounted for by non-tax revenues in Ireland and in the Euro Area.<sup>16</sup> This is further illustrated in Figure 8 where we plot non-tax revenues across a range of countries in both pre-crisis 2007 and as of end-2014. Both figures highlight the increasingly important role played by non-tax revenues in Ireland both in an absolute sense and relative to the EU.

Taking the cross-country comparison a step further, Table 3 compares the GG impact of the financial crisis measures in Ireland with a selection of European countries. On average, crisis related measures added 0.3 per cent of

<sup>15</sup> Local government receipts of €520 million are excluded from both Figure 6 and Table 2 as this is not considered to be a windfall but rather is viewed as a transfer within government.

<sup>16</sup> We classify GG investment income (predominantly dividend and interest income) as non-tax revenue.

**Figure 9: Net Revenue Impact of the Financial Crisis from 2008 to 2014: Cross Country Comparisons**



Source: Eurostat.

GDP per annum to deficit ratios in the Euro Area, with the impacts largest in 2010 and 2012.<sup>17</sup> In terms of country specific losses, Ireland stands out followed by Slovenia, Greece, Cyprus and Spain (Figure 9).<sup>18</sup> In some limited cases (notably in Ireland, Denmark and Lithuania), the GG effects of financial crisis measures have turned positive as countries have managed to either divest of banking stakes and/or earn return on investments

#### 4. Conclusion

Developments over the past decade have highlighted the susceptibility of the Irish economy to shocks. They have also emphasised the importance of relying on stable sources of government revenue and the risks associated with high public debt. With this in mind, two important trends in government revenue developments were discussed in this paper.

On the taxation side, there has been a strong recovery in income tax, which now represents around 40 per cent of tax revenue, up from just 26 per cent in 2007. Relying on solid, stable sources of tax revenue — rather than more cyclically sensitive sources — is desirable from a public finance perspective as it reduces a key vulnerability that developed in Ireland in the mid-2000s. Accordingly taking measures that reverse such trends would require careful consideration.

On the non-tax revenue side there has been a fourfold increase in inflows since 2007, partly due to the assistance government has provided to the financial sector. As the effects of the financial crisis dissipate, the impact on the public finances should become smaller and managing the transition to more ‘normal’ levels of non-tax related revenue receipts will be a challenge.

Furthermore, given that supporting the financial sector has added significantly to the stock of public debt — we estimate that around one-fifth of gross GG debt in 2014 relates to financial assistance measures — there would appear to be a strong case that any unexpected or windfall gains from these sources be used exclusively for debt reduction purposes. Similar arguments could be made in relation to any future income receipts arising from either the IBRC related Special Portfolio and the expanded Asset Purchase Programme.

The overall stock of government debt remains high and needs to be brought down to safer levels. While 2014 saw Ireland’s GG debt ratio decline for the first time in nine years, the European Commission still expect it to be the sixth highest in the region in 2016 (see European Commission 2015). There are obvious reasons for wanting a lower debt ratio; there is evidence that high public debt is associated with lower GDP growth (see Cecchetti et al 2011), while it requires

<sup>17</sup> A recent paper (Maurer and Grussenmeyer 2015) estimated that the overall financial cost of the financial crisis in the Euro Area up to 2013 was 5.1 per cent of GDP - this includes deficit and non-deficit impacting factors.

<sup>18</sup> Most of the costs arose out of measures taken to support domestic banking systems principally capital injections and/or the nationalisation of certain banks.

a larger proportion of a country's resources go on servicing interest payments rather than being put to better use elsewhere. A quicker decline of public debt would also further reduce Ireland's vulnerability to shocks by providing more fiscal space to deal with cyclical fluctuations and limiting the risk of debt sustainability or funding problems emerging once again.

Finally, many governments now find themselves as significant holders of financial assets. Securing the best possible return on these assets while striking the appropriate balance between meeting the demands of the market (to be creditworthy) and the demands of the electorate will be a further challenge.

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**Table 1: Impact of the Financial Crisis on GG Aggregates in Ireland**

€ millions	2009	2010	2011	2012	2013	2014
<b>Revenue</b>	<b>884</b>	<b>1,744</b>	<b>3,065</b>	<b>3,033</b>	<b>2,365</b>	<b>1,678</b>
<i>Guarantee fees</i>	437	1,074	1,215	934	421	155
<i>Interest</i>	387	508	1,041	1,539	1,092	712
<i>Dividends</i>	–	32	333	502	736	735
<i>Other</i>	60	130	476	59	117	77
<b>Expenditure</b>	<b>4,651</b>	<b>37,286</b>	<b>9,435</b>	<b>2,538</b>	<b>1,902</b>	<b>1,656</b>
<i>Interest</i>	651	1,893	2,142	1,905	1,715	1,432
<i>Capital injections</i>	4,000	35,393	7,121	280	–	–;
<i>Calls on guarantees</i>	–	–	0	0	0	0
<i>Other</i>	–	–	172	353	186	223
<b>Impact on GGB</b>	<b>-3,767</b>	<b>-35,543</b>	<b>-6,370</b>	<b>495</b>	<b>464</b>	<b>22</b>
<b>Underlying GGB<sup>19</sup></b>	<b>-19,673</b>	<b>-18,134</b>	<b>-15,434</b>	<b>-14,560</b>	<b>-10,616</b>	<b>-7,651</b>

Source: CSO.

**Table 2: Non-Tax Revenues: Outturn less Budget Day Expectations**

€ millions	2007	2008	2009	2010	2011	2012	2013	2014
<b>Budget Day Expectation</b>	565	684	726	2,355	1,970	2,495	2,360	1,980
<b>Outturn</b>	638	847	838	2,687	2,774	2,819	2,676	2,446*
<b>Outturn less Expectation</b>	73	163	112	332	804	324	316	466
<b>Outturn less Expectation, %</b>	11.4	19.2	13.3	12.4	29.0	11.5	11.8	19.0

Note: The Budget day expectation refers to the year-ahead projection for Exchequer non-tax revenues from successive Budgets. For example, Budget 2014 (published in October 2013) projected that non-tax revenues would be €1,980 million in 2014.

\*Receipts from local government into non-tax revenues in 2014 are excluded.



**Table 3: Impact of the Financial Crisis for Selected Countries: Net Revenue**

% of GDP	2008	2009	2010	2011	2012	2013	2014
<b>Belgium</b>	-0.0	-0.0	0.1	-0.1	-0.5	0.2	-0.0
<b>Denmark</b>	0.0	0.1	0.2	-0.1	0.2	0.1	0.1
<b>Germany</b>	-0.1	-0.1	-1.3	0.0	-0.1	0.0	0.0
<b>Ireland</b>	–	-2.2	-21.6	-3.7	0.3	0.3	0.0
<b>Greece</b>	-0.0	0.2	0.4	0.3	-2.7	-10.5	0.1
<b>Spain</b>	-0.0	0.1	0.1	-0.3	-3.6	-0.5	-0.1
<b>France</b>	0.0	0.1	0.0	0.0	-0.1	0.0	0.0
<b>Cyprus</b>	–	0.1	0.1	0.1	-0.2	-0.2	-8.5
<b>Latvia</b>	0.0	-1.0	-2.2	-0.3	-0.5	0.1	-0.3
<b>Lithuania</b>	–	–	-0.1	-3.7	-0.2	-0.7	1.1
<b>Netherlands</b>	0.0	-0.4	-0.2	-0.0	-0.0	-0.1	0.0
<b>Austria</b>	0.0	-0.9	-0.1	-0.1	-0.4	-0.4	-1.3
<b>Portugal</b>	0.0	0.0	-1.2	-0.5	-0.6	-0.4	-0.2
<b>Slovenia</b>	–	0.0	0.0	-0.6	-0.2	-10.2	-1.4
<b>UK</b>	-0.3	-0.5	0.1	0.1	0.1	-0.1	-0.0
<b>Euro area</b>	<b>-0.0</b>	<b>-0.1</b>	<b>-0.7</b>	<b>-0.1</b>	<b>-0.5</b>	<b>-0.3</b>	<b>-0.1</b>

Source: Eurostat.



# Locational Banking Statistics in Ireland: Introducing the Enhanced Quarterly Statistics

Dermot Coates and Aoife Moloney<sup>1</sup>

## Abstract

This article introduces the recently expanded *Locational Banking Statistics* published by the Central Bank of Ireland. The enhancements to these statistics proposed by the Committee on the Global Financial System in the aftermath of the Financial Crisis are explained and an outline of key developments in these data for Ireland over the past decade is provided. The enhanced series incorporate changes required for reporting to the Bank for International Settlements whilst the new balance sheet information is supplemented with an income statement. These enhancements provide a better insight into developments across the Irish banking system and allow a more in-depth analysis of recent trends in the aggregate balance sheet and income flows of Irish-resident banking offices. Since 2005, the banking system has contracted sharply with the total external assets and liabilities of the Irish-resident banks falling by more than 50 per cent since their peak. These developments are explored at a granular counterparty and instrument level.

<sup>1</sup> The authors are a Senior Economist and an Economist, respectively, in the Statistics Division of the Central Bank of Ireland. The views expressed in this article are solely the views of the authors and are not necessarily those held by the Central Bank of Ireland or the European System of Central Banks. The authors would like to thank Gabriel Fagan, John Flynn and Joe McNeill for their helpful comments.

## 1. Introduction

The Locational Banking Statistics provide detailed information on the financial liabilities and claims (assets) of Ireland's banking system. In so doing, these statistics enable participating Central Banks to monitor the lending patterns and funding risks of their national banking systems. Specifically, these statistics provide quarterly data on the credit exposures of the national banking system to particular regions and sectors, the usage of different financial instruments and the stability of funding sources. The recent Financial Crisis revealed a number of critical gaps in the broader International Banking Statistics and there has been a coordinated international effort to improve both the coverage and depth of this data. The Committee on the Global Financial System (CGFS) – the body with oversight of the International Banking Statistics – proposed a set of major enhancements to address these data gaps and to better capture the new financial landscape. The process of introducing these enhancements commenced in 2012.

As part of this, the Central Bank of Ireland (CBI) has, in recent years, expanded its quarterly *Locational Banking Statistics* release. The release now provides more detailed balance sheet information on all credit institutions resident in Ireland (referred to as locational by residency) in order to meet the increasing demand for information in this area. These changes address the data gaps previously identified and, in some cases, go further than the enhancements proposed by the CGFS. These enhanced quarterly statistics provide a full financial balance sheet, as well as greater granularity for counterparty country and sector breakdowns. More granular detail is also provided by category for financial instruments employed. In addition, the CBI has begun collecting and publishing an aggregated income statement for banks resident in Ireland.

The objective of this article is to introduce the new data series on Locational Banking

Statistics for Ireland, describe the recent trends in the assets and liabilities of the Irish banking system, and provide an overview of the enhancements introduced for these data. Section 2 summarises the role of the Locational Banking Statistics and provides a brief overview of developments in these statistics for Ireland since 2005. Section 3 outlines the data gaps identified in the aftermath of the Financial Crisis, the enhancements that followed and the additional granularity now available to users of balance sheet data. The additional improvements adopted by the CBI in recent years are discussed in Section 4, while Section 5 concludes.

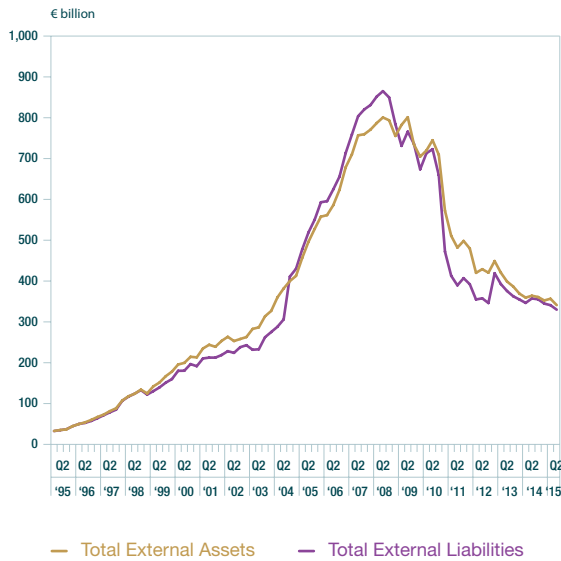
## 2. Overview of the Locational Banking Statistics

The International Banking Statistics (IBS) compiled by the Bank for International Settlements (BIS) are a long-established and important source of data for monitoring the balance sheet positions of internationally-active banks and for understanding the role of banks in the transmission of shocks across borders (Avdjiev et al, 2015). These consist of the Locational Banking Statistics (LBS) and the Consolidated Banking Statistics (CBS), each utilising a different compilation methodology. The former are used to analyse capital flows between countries and the latter are used to measure the country risk exposures of internationally active banking groups.

There are four main datasets: (i) locational by residency; (ii) locational by nationality; (iii) consolidated on an immediate borrower basis; and (iv) consolidated on an ultimate risk basis. This article concentrates on the locational statistics by residency. The LBS ((i) and (ii) above) encompass the international financial assets and liabilities of banks on the basis of the residence of the reporting entity, following similar principles to national accounts and balance of payments<sup>2</sup>. The locational by residency statistics focus on counterparty

<sup>2</sup> As compilation is based on the residence of entities, this does not take account of intragroup or intrasector links.

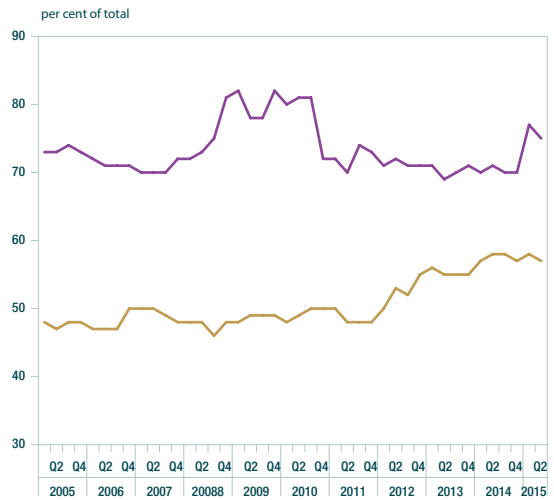
**Chart 1: Total External Assets and Liabilities, Q1 1995 - Q2 2015**



— Total External Assets — Total External Liabilities

Source: Locational Banking Statistics, Central Bank of Ireland.

**Chart 2: Total External Assets and Liabilities vis-à-vis Bank Sector Counterparties, Q1 2005-Q2 2015**



— Assets vis-à-vis Banks as per cent of Total External Assets  
— Liabilities vis-à-vis Banks as per cent of Total External Liabilities

Source: Locational Banking Statistics, Central Bank of Ireland.

information for all resident banking offices with cross-border positions. The locational by nationality statistics concentrate on the nationality of the reporting banks, or the country of controlling nationality (CGFS, 2012). Conceptually, the latter are a re-grouping of the residency-based data according to the nationality of the controlling parent institution, providing important information on who controls resident banking activity. The LBS were developed in the 1960s in response to the growth of the international deposit (or euro-dollar) markets. They initially focussed on the decomposition of asset and liability positions into major currencies but were later expanded to include a greater counterparty country breakdown (Heath, 2013; CGFS, 2012).

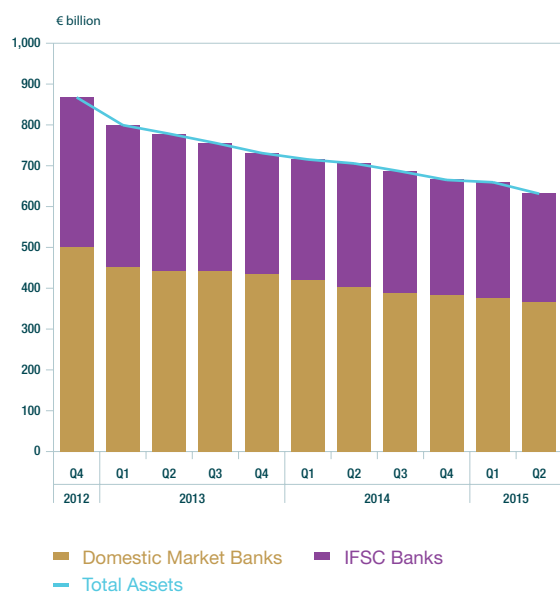
**2.1: Overview of Developments since 2005**

The CBI began providing locational banking data to the BIS in 1977. The CBI also began publishing a new, albeit limited, series on the

international business of Irish-resident credit institutions from 1984<sup>3</sup>: (i) analysis by currency and sector, and (ii) analysis by geographic area. In the early years of these series, the total external assets and external liabilities of the Irish-resident banking offices were relatively small, but these began to expand rapidly from the late 1990s onwards (Chart 1). By 2005, these external assets and external liabilities had each grown to around €500 billion, but developments over the following decade were to prove more volatile. External assets and external liabilities continued to rise before peaking at more than €800 billion between 2008 and 2009.

This period of rapid growth was followed by an equally severe retrenchment, as the cumulative international balance sheet of the banks began to shrink rapidly. By Q2 2015, these external assets and liabilities positions had fallen substantially from their peak. These declines were most notable in the period up

3 This series was previously only available in the Central Bank Quarterly Bulletin (see: Tables A.19.1 and A.19.2 in 2012).

**Chart 3: Total Asset Positions by Bank Type, Q4 2012 - Q2 2015**

Source: Locational Banking Statistics, Central Bank of Ireland.

**Chart 4: Total External Asset Positions by Bank Type**

Source: Locational Banking Statistics, Central Bank of Ireland.

to 2012, when external assets and external liabilities had fallen by 44 per cent and 51 per cent, respectively. In the three years since the introduction of the data enhancements, external assets and external liabilities positions have continued to fall by a further 20 per cent (to €341 billion and €330 billion, respectively).

In addition to these falls in external positions, the euro-denominated asset and liability positions of Irish residents fell by 27 per cent and 30 per cent, respectively<sup>4</sup>. It should be noted, however, that changes over the period have been impacted by changes in the reporting population of banks, and particularly by retrenchment following the crisis.

Whilst the total external asset and liability positions were shrinking, the underlying composition of these was also subject to change. For instance, the counterparty sector exposures of banking offices resident in Ireland saw a move away from non-bank

counterparties on both the asset and liabilities side of the balance sheet<sup>5</sup>. External asset positions with other banks accounted for 48 per cent of total external assets in early 2005, but by mid-2015 this had risen to 57 per cent. Similarly, in the case of external liabilities with other banks, these positions increased from 73 per cent to 76 per cent (Chart 2), albeit that this was still lower than the levels recorded between 2008 and 2010.

### 3. Closing the Data Gaps

International banking statistics have been enhanced over time in response to developments in international financial markets, as past events – from the expansion of offshore centres in the 1970s to the debt crises in developing economies in the 1980s – stimulated improvements in coverage, quality and timeliness. The recent Financial Crisis underscored the need for better data on the funding and lending patterns of the

<sup>4</sup> The locational (by residency) dataset was previously restricted to only international (external) assets and liabilities (or all positions vis-à-vis non-residents and positions vis-à-vis Irish residents not denominated in the local currency). This did not measure these local currency positions against residents of the reporting country prior to Q4 2012. The relevant LBS reporting templates included positions vis-à-vis Irish residents not denominated in the local currency within international (external) asset and liability exposures. This definition is reflected in the text presented here.

<sup>5</sup> Until the introduction of these enhancements, counterparty sector analyses were limited to this simple bank/non-bank split (where non-bank sector includes Non-Bank Financial Institutions, Insurance Corporations and Pension Funds amongst others).

**Table 1: Summary of changes to the Locational Banking Statistics Datasets**

	<b>Residency</b>	<b>Nationality</b>
<b>Stage 1 enhancements</b>	Full financial Balance Sheet	Full financial Balance Sheet  More granular currency breakdown Enhanced counterparty country breakdown
<b>Stage 2 enhancements</b>	More granular reporting institution type breakdown  More granular counterparty sector breakdown  Introduction of maturity split for funding instruments	More granular counterparty sector breakdown  Introduction of maturity split for funding instruments

**Source:** *Guidelines for reporting the BIS International Banking Statistics (2013)*, Bank for International Settlements. *Enhanced data to analyse international banking (2015)*, Avdjiev et al.

international banking system. The CGFS proposed a series of enhancements to the data to be reported to the BIS (CGFS, 2012). These were implemented in two distinct stages over an 18 month period, commencing in mid-2012.

### 3.1: Summary of Recommended Data Enhancements

Stage 1 of the enhancement process focussed on data already collected by many central banks and did not require additional reporting by individual financial institutions. These enhancements provide a more comprehensive breakdown of national banking systems' balance sheets by counterparty country. In the case of the residency statistics, these were broadened to cover reporting banks' total financial assets and liabilities (or full financial balance sheet), not just their international (external) positions. This involved the addition of banks' local currency positions against residents of the reporting country.

Stage 2 involved additional reporting by credit institutions to improve the monitoring of trends in the supply of bank credit and in the assessment of banks' funding risks.

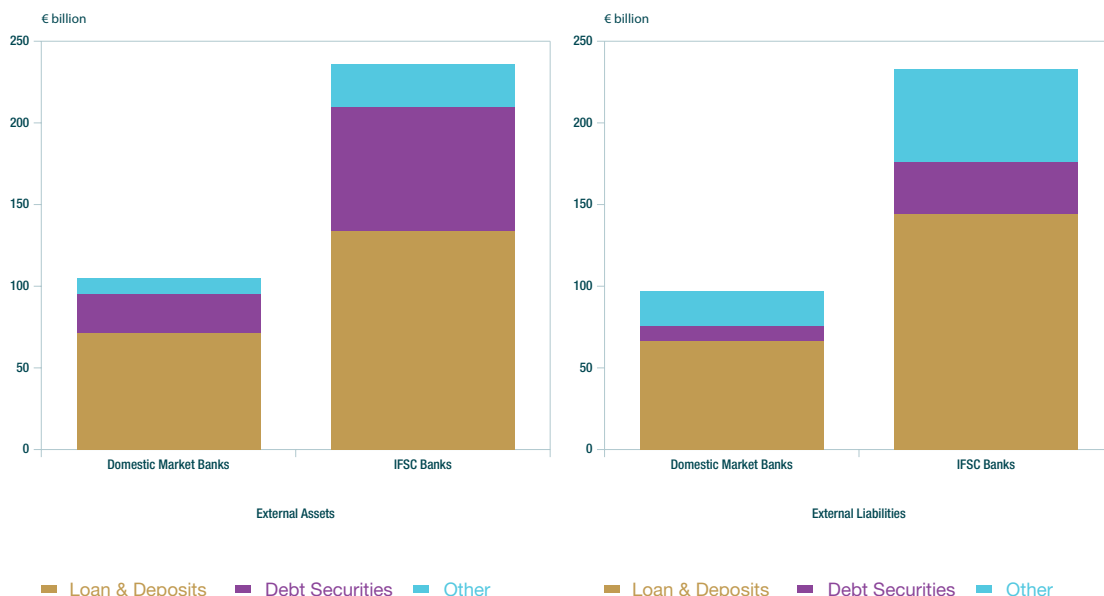
For locational by residency statistics, a more granular counterparty sector breakdown was introduced alongside a distinction between reporting credit institution types (i.e. domestic banks, foreign branches and foreign subsidiaries). The latter change allows users to monitor how developments in the balance sheet may differ according to bank type. A basic maturity split was also introduced for debt securities liabilities.

### 3.2: Ireland's Enhanced Locational Banking Statistics

The CBI incorporated the various changes summarised above in an enhanced *Locational Banking Statistics* release, first published in 2013. This new dataset, however, also contains a number of additional changes beyond those outlined in Table 1. For instance, effective from reporting period Q4 2012, domestic market banks<sup>6</sup> (or Irish domestically-relevant banks) and International Financial Services Centre (IFSC) banks are identified as separate categories in the CBI's published statistics. The former category refers to those banks with a significant retail presence in Ireland, including the Irish (or 'covered') and foreign-owned retail banks. The latter group

<sup>6</sup> Domestic market banks are banks that have a significant level of retail business with Irish households and NFCs, and would exclude the more internationally focused banks in the IFSC. A full list of these institutions is available on the Central Bank of Ireland website. Credit Unions are excluded from this set of statistics.

Chart 5: Total External Positions by Bank Type and Instrument Type, Q2 2015



Source: Locational Banking Statistics, Central Bank of Ireland.

are made up of banks whose business is predominantly with non-residents. The updated publication now also distinguishes between financial instrument type (loans and deposits; debt securities; and other).

Chart 3 provides information on developments in the full financial Balance Sheet (including Irish euro positions) following the introduction of these enhancements. This indicates that the total assets of Irish-resident credit institutions – including euro-denominated positions against Irish counterparties – had fallen by €236 billion (or 27 per cent) since late 2012. These stood at €632 billion at end-Q2 2015. External assets accounted for 54 per cent of this total (or €341 billion) (Chart 4). The domestic market banks accounted for the majority of this reduction (€134 billion) in total assets, albeit the proportionate decrease was similar for both bank types. In the case of external asset and liability positions, the bank type distinction provides some interesting insights. Chart 5 indicates, not surprisingly, that the IFSC banks accounted for the greatest proportion of external positions at around 70 per cent by mid-2015.

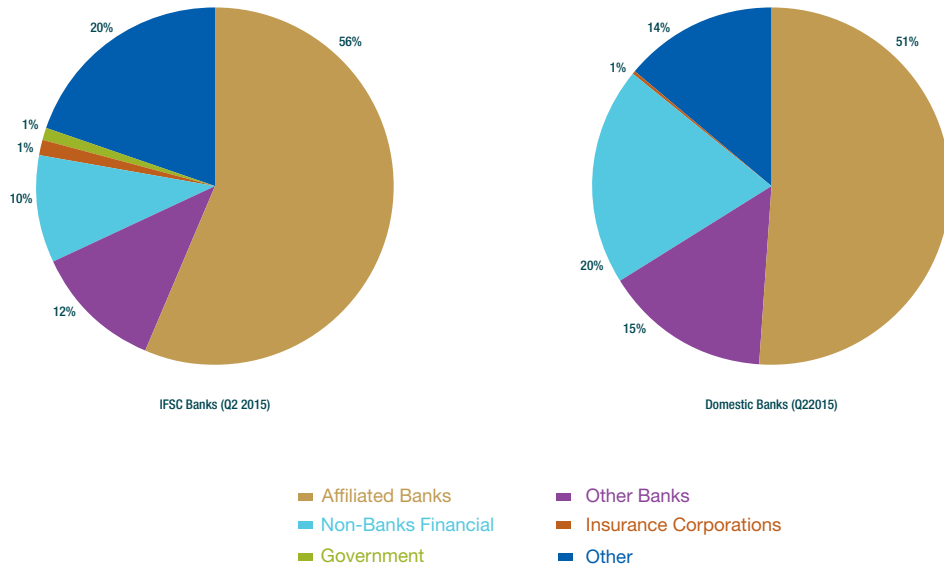
Loans and deposits were the primary instrument type across all banks for external assets and external liabilities (i.e. excluding Irish euro positions). Nonetheless, the financial instrument composition of external assets and liabilities differs somewhat across bank types. For instance, domestic market banks show a greater reliance on loans and deposits than do the IFSC banks (Chart 5). For these banks, loans and deposits accounted for approximately 68 per cent of both external asset and liability positions by mid-2015. In the case of the IFSC banks, assets and liabilities stood at 57 per cent and 62 per cent, respectively. Debt securities play a more significant role in the external positions of the IFSC banks, when compared to the domestic market banks, particularly on the asset side of the balance sheet.

The introduction of a more granular counterparty sector breakdown also allows us to better understand the sectoral compositions of external exposures (Charts 6 and 7). In relation to external assets (loans made<sup>7</sup>), both the domestic market banks and IFSC banks had relatively similar exposures to other banks

7 Or potentially, deposits with.



**Chart 6: Loans and Deposits (External Assets) by Counterparty Sector and Bank Type, Q2 2015**



Source: Locational Banking Statistics, Central Bank of Ireland.

– whether affiliated or non-affiliated credit institutions – at 66 per cent and 68 per cent, respectively. However, the IFSC banks had a greater exposure to affiliates, at 56 per cent, than the domestic market banks had at 51 per cent. Only 10 per cent of IFSC banks external loans were issued to the non-bank financial sector. Conversely, the domestic market banks issued 20 per cent of external loans to this sector.

For external liabilities (deposits received), relatively similar exposures to other banks were also recorded for domestic market banks and IFSC banks (69 per cent and 65 per cent, respectively). Domestic banks had a higher proportion of deposits from the ‘other’ category (including non-financial corporations) at 14 per cent. The equivalent figure for IFSC banks was just 5 per cent.

Finally, the counterparty country breakdown of external assets and liabilities has shown a degree of volatility over the past decade (Table 2). For instance, assets with UK counterparties increased to 34 per cent of the total, from 20

per cent, over the period up to Q2 2015, whilst assets with US counterparties fell from 11 per cent to 8 per cent. By contrast, liabilities with UK counterparties fell by 6 percentage points to 35 per cent of the total, whilst liabilities with counterparties in France and the Netherlands increased markedly.

#### 4. Recent Developments in Income Statement Data

In addition to the enhancements outlined above, a number of other limitations in international banking statistics have also been highlighted. The absence of information on income is one such data gap. The centrality of earnings capacity to the evaluation of resilience of banks means that income statements are a priority for new data collection. Comprehensive income statement information is essential to any assessment of the profitability of banks and of the time horizon required to recover losses and to rebuild capital. Moreover, the importance of such information has increased further with Basel III which envisages

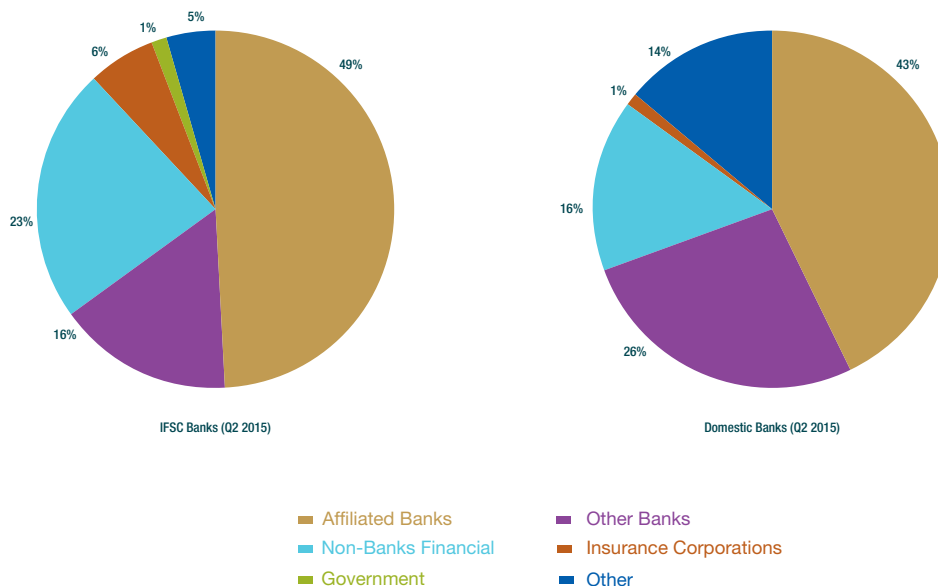
**Table 2: Top 5 Counterparty Countries, Q2 2015**

Country	per cent of Total External Assets	per cent of Total External Assets	Country	per cent of Total External Liabilities	per cent of Total External Liabilities
	Q2 2005	Q2 2015		Q2 2005	Q2 2015
United Kingdom	20%	34%	United Kingdom	41%	35%
Italy	12%	11%	France	4%	12%
France	5%	9%	Ireland	6%	12%
United States	11%	8%	Germany	13%	10%
Ireland	9%	7%	Netherlands	3%	9%

Notes: This table refers to all financial instruments.

Ireland includes only non-euro positions (external assets and external liabilities) only.

Source: Locational Banking Statistics, Central Bank of Ireland.

**Chart 7: Loans and Deposits (External Liabilities) by Counterparty Sector and Bank Type, Q2 2015**

Source: Locational Banking Statistics, Central Bank of Ireland.

sanctions in the form of restrictions on income distribution (Borio, 2013).

Although the IBS enhancements have not specified income statement data, the CBI has endeavoured to fill this data gap by expanding the collection of income statement information<sup>8</sup> from banking offices resident in Ireland. Similar to the balance sheet data presented earlier,

the income statement collected includes a full country breakdown of all items, including a number of additional items such as 'Income Received from Account Fees and Charges', which are being collected for the first time. Domestic market banks and IFSC banks are also identified separately in the income statement. Unlike balance sheet information, the income statement data is only available

<sup>8</sup> The income statement data is collected as part of the Locational Banking Statistics by means of a quarterly statistical return submitted by all resident banking offices (and not consolidated by group). The rules underpinning how items are reported are based on statistical methodology and definitions rather than on accounting concepts.

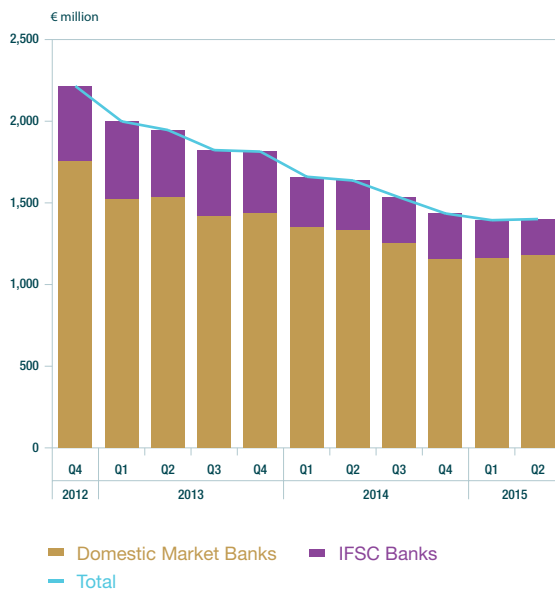
<sup>9</sup> Income Statement data published relates to all positions (i.e. Irish euro positions are included in the figures).

**Table 3: Top 5 Counterparty Countries – Interest Income Receivable from Loans and Deposits, Q2 2015**

Country	per cent of Total Interest Income Loans and Deposits	
	All Banks	Domestic Market Banks
Ireland	77%	87%
United Kingdom	12%	11%
United States	1%	1%
Spain	1%	
Netherlands	1%	

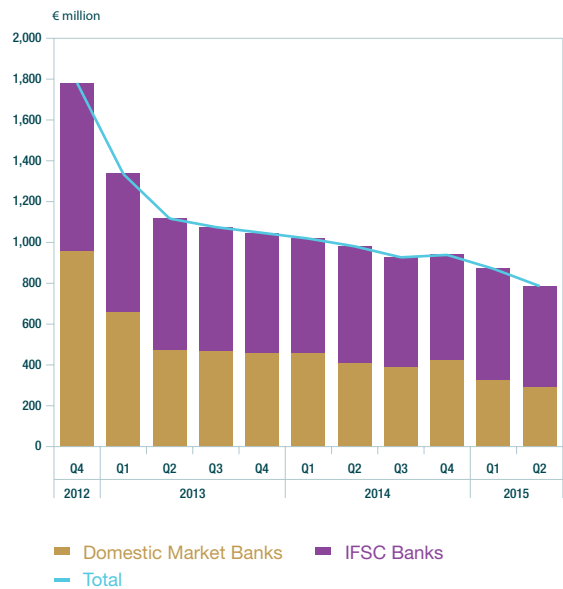
Note: Ireland positions include euro and non-euro positions.  
Source: Income Statement Data, Central Bank of Ireland.

**Chart 8: Interest Income Receivable from Loans and Deposits, Q4 2012- Q2 2015**



Source: Income Statement Data, Central Bank of Ireland.

**Chart 9: Interest Income from Bonds and Money Market Instruments, Q4 2012- Q2 2015**



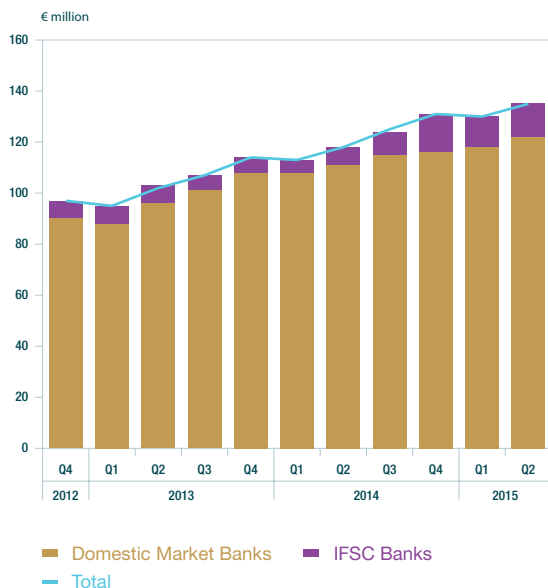
Source: Income Statement Data, Central Bank of Ireland.

since Q4 2012, when the enhancements were implemented<sup>9</sup>. However, it has already provided interesting insights into trends in banks income and expenditure and this will be reinforced over time as a longer time series becomes available. The CBI currently publishes an income statement table as part of the locational statistics release. This income statement, however, will be included independently in a new statistical release to be launched in October 2015.

**4.1 Income Items**

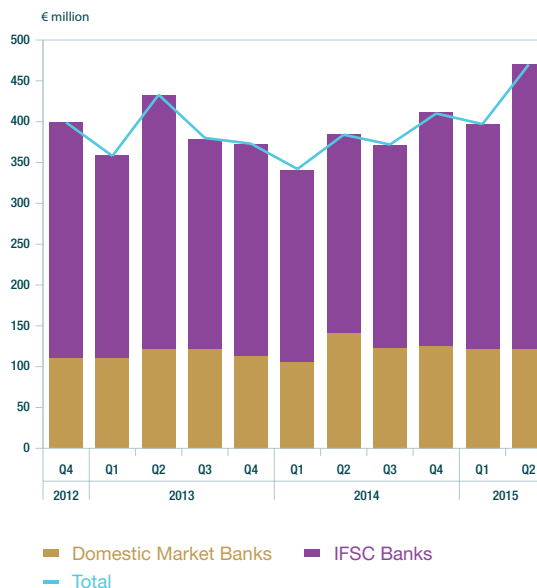
Since Q4 2012, there have been a number of noticeable trends in the income profile of the banks resident in Ireland. As expected, given the low interest rate environment, interest income received from loans and deposits (excluding interest income from group companies) has fallen by 37 per cent, to a total of €1.4 billion by Q2 2015 (Chart 8). In percentage terms, IFSC banks experienced a larger decline, falling by 51 per cent as

Chart 10: Income from Account Fees and Charges



Source: Income Statement Data, Central Bank of Ireland.

Chart 11: Fees and Commissions Receivable



Source: Income Statement Data, Central Bank of Ireland.

opposed to the 33 per cent reported by the domestic market banks. Despite this reduction, interest income from loans and deposits continues to be the primary driver of income for the domestic market banks, accounting for 74 per cent of total operating income and 58 per cent of total overall income (operating and other income) in Q2 2015. Information on the counterpart country, available through the enhancements, indicates that in Q2 2015 the majority of this interest income (77 per cent) was attributable to Ireland and 12 per cent was received from the United Kingdom (Table 3). This is in line with data from the balance sheet (Table 2) where the UK is the top external counterparty country<sup>10</sup>. Although interest income has fallen since Q4 2012, the counterpart country breakdown has remained relatively unchanged.

Interest income from bonds and money market instruments (MMIs) has also declined significantly over the same time period from Q4 2012. At that time, interest income from

bonds and MMIs was a significant contributor to income for both domestic market banks and IFSC banks, at €956 million and €825 million, respectively. The latest data shows how the low interest rate environment has impacted interest income from these instruments. Q2 2015 data indicates that interest income from bonds and MMIs had fallen by 69 per cent (to €292 million) for domestic market banks<sup>11</sup> and by 40 per cent (to €494 million) for the IFSC banks (Chart 9). Interest from bonds and MMIs now represents 38 per cent of total income of the IFSC banks, compared to 46 per cent in Q4 2012.

The data shows that as traditional income sources such as interest income have declined over the last few years, banks resident in Ireland have sought alternative income sources to offset these reductions, such as 'account fees and charges' and 'fees and commissions receivable'. Account fees and charges refer to fee income arising from charges to customers for account maintenance and/or transaction

<sup>10</sup> Balance Sheet data in Table 2 excludes Irish euro positions. However these are included in the Income Statement data in Table 3.

<sup>11</sup> The decrease in interest income received from bonds and MMIs for the domestic market bank is partially due to the liquidation of Irish Bank Resolution Corporation (IBRC).

**Table 4: General Expenses and Other Operating Costs, Q4 2012-Q2 2015**

Expenditure Item € Million	Q4 2012			Q2 2015		
	All Banks	Domestic Market Banks	IFSC Banks	All Banks	Domestic Market Banks	IFSC Banks
Wages and Salaries	633	533	100	587	452	135
Other General Expenses	317	133	183	272	129	143
Other Operating Costs	1,051	881	169	411	268	142
<b>Total</b>	<b>2,000</b>	<b>1,547</b>	<b>452</b>	<b>1,270</b>	<b>849</b>	<b>420</b>

Notes: Other General Expenses includes Insurance, Depreciation and Legal and Accounting.

Other Operating Costs refers to all other operating costs not included in general expenses.

Source: Income Statement Data, Central Bank of Ireland.

fees. Since the banks began reporting this in Q4 2012, the amount reported under this category has increased by 40 per cent to €135 million in Q2 2015 (Chart 10). Domestic market banks account for over 90 per cent of this figure at €122 million, indicating the increasing importance of account fees in the current environment. Similarly, the other fee income source – ‘fees and commissions receivable’ – has also increased (Chart 11). This item captures fee income related to financial services provided (other than account fees and charges) and has risen by 18 per cent to €470 million for all banks, of which IFSC banks accounted for 74 per cent (or €349 million). For IFSC banks, this is a key income source which has gained importance over the last few years and now accounts for nearly 27 per cent of total income, compared to just 16 per cent in Q4 2012.

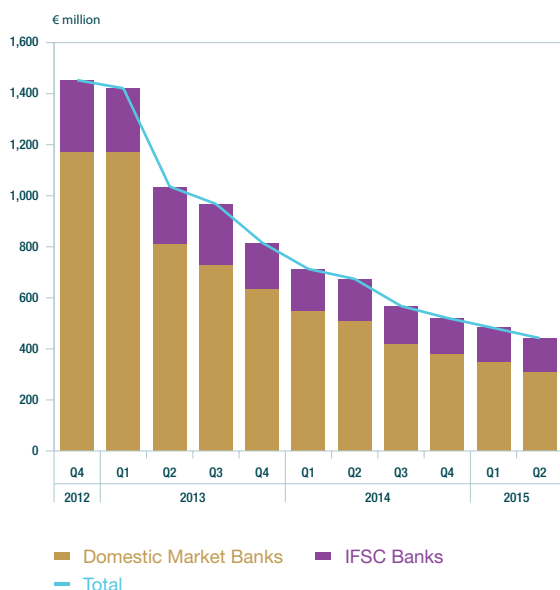
#### 4.2 Expenditure Items

On the expenditure side of the income statement, similar declines are evident. Most expenditure items are reported to have fallen during the time period analysed. Since Q4 2012, interest payable on loans and deposits has fallen by 70 per cent to total €442 million during Q2 2015 (Chart 12). Both bank types experienced large declines in this category with domestic market banks, which account for 69 per cent of total interest payable on

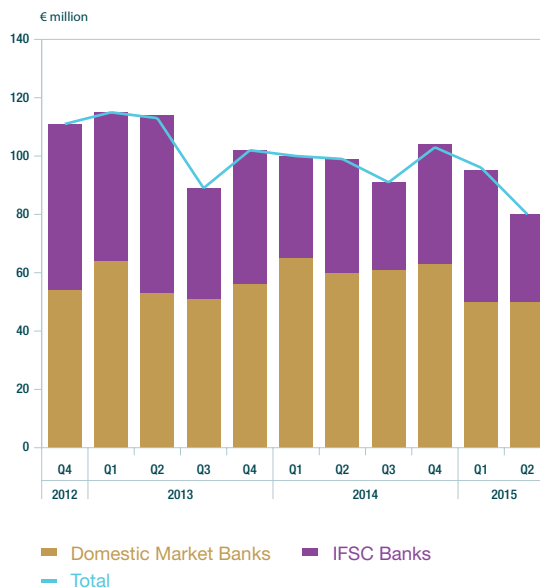
loans and deposits, decreasing by 74 per cent and IFSC banks falling by 52 per cent. Fees and commissions payable, although not a significant expenditure item for the domestic market banks, declined by 7 per cent between Q4 2012 and Q2 2015, to a total of €50 million during Q2 2015. In contrast, IFSC banks reported a 47 per cent decrease to €30 million in Q2 2015.

In conjunction with the decline in interest payable, general expenses and other operating costs also dropped by 37 per cent to €1.3 billion (Table 4), whilst total wages and salaries decreased by 7 per cent to approximately €600 million. Although operating costs fell for all banks, there was a divergent trend in wages and salaries between IFSC and domestic market banks. Between Q4 2012 and Q2 2015, wages and salaries’ expenses increased by 35 per cent at IFSC banks to €135 million. In contrast, wages and salaries’ expenses for domestic market banks decreased by 15 per cent over this period to €452 million in Q2 2015. Despite this decrease, wages and salaries increased significantly as a proportion of total expenses for domestic market banks, up from 15 per cent in Q4 2012 to 27 per cent in Q2 2015.

Finally, the income statement provides information on banks’ profitability. Even though interest income has fallen substantially, this has been offset by a greater decrease in

**Chart 12: Interest Payable - Loans and Deposits, Q4 2012-Q2 2015**

Source: Income Statement Data, Central Bank of Ireland.

**Chart 13: Fees and Commissions Payable**

Source: Income Statement Data, Central Bank of Ireland.

expenditure. As a result the banks resident in Ireland have, from a statistical perspective, returned to profitability. In Q2 2015, all banking offices resident in Ireland reported a cumulative profit after tax of almost €1.9 billion. This compares to €337 million in Q2 2014 and was the sixth successive quarter of reported profitability<sup>12</sup>.

## 6. Conclusion

The expanded quarterly *Locational Banking Statistics* release has addressed a number of data gaps in banking statistics and now provides better insights into Balance Sheet and Income Statement developments across the Irish banking system. The enhancements introduced include reporting a full financial balance sheet, a full counterparty sector breakdown, separation between the types of reporting banks, and a maturity split for debt security liabilities.

The enhanced CBI series incorporate changes required for reporting to the BIS as well as more granular information on the structure of the domestic banking system. These include breakdowns by instrument type and a distinction between domestic market banks and IFSC banks. In addition, the new balance sheet information is supplemented with an income statement to provide a more holistic understanding of the movements within the banking system. The income statement will be launched as a separate statistical release in October 2015.

Since 2012, the domestic banking system has contracted sharply. Over this period, total external assets and liabilities of the domestic banking system (excluding Irish euro positions) have fallen by 20 per cent, to €341 billion and €330 billion, respectively. Retrenchment in positions with non-bank counterparties was the most pronounced. The fall in external assets and liabilities was mirrored by similar developments in euro-denominated positions

<sup>12</sup> Profits for banking offices resident in Ireland have been heavily impacted by both realised and unrealised capital and exchange gains and losses.

with Irish residents. The new data also show that interest income received from loans and deposits by all banks has fallen by 37 per cent to €1.4 billion between Q4 2012 and Q2 2015. By contrast, account fees and charges and other fee income has increased by 40 per cent and 18 per cent, respectively. A proportionally greater decrease in expenditure has resulted in a return to profitability, with Irish-resident banks reporting €1.9 billion net profit in Q2 2015.

The data enhancements allow a more in-depth analysis of recent developments in the aggregate balance sheet and income flows of domestic banking offices. These enhancements will provide greater insights into the dynamics underlying changes in the funding profile and risks for the domestic banking system.

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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: Q1 2012 to present – ESA 2010

### 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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