Locational Banking Statistics in Ireland: Introducing the Enhanced Quarterly Statistics

Dermot Coates and Aoife Moloney¹

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.

¹ 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 internationallyactive 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 payments². The locational by residency statistics focus on counterparty





Source: Locational Banking Statistics, Central Bank of Ireland,

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



- Assets vis-à-vis Banks as per cent of Total External Assets
- Liabilitities 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 eurodollar) 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

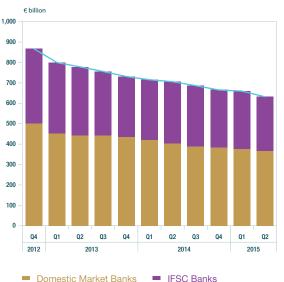
The CBI began providing locational banking data to the BIS in 1977. The CBI also began publishing a new, albeit limited, series on the

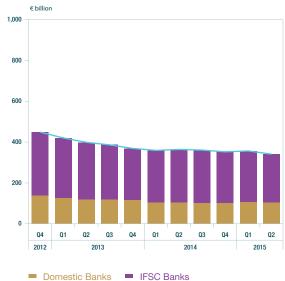
international business of Irish-resident credit institutions from 1984³: (i) analysis by currency and sector, and (ii) analysis by geographic area. In the early years of these series, the total external assets and external liabilities of the Irish-resident banking offices were relatively small, but these 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

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







Total Assets

Source: Locational Banking Statistics, Central Bank of Ireland.

Source: Locational Banking Statistics, Central Bank of Ireland.

Total External Assets

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, respectively⁴. 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 sheet⁵. 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

- 4 The locational (by residency) dataset was previously restricted to only international (external) assets and liabilities (or all positions visá-vis non-residents and positions visá-vis lrish 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 visá-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.
- 5 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					
	Residency	Nationality			
Stage 1 enhancements	Full financial Balance Sheet	Full financial Balance Sheet			
		More granular currency breakdown Enhanced counterparty country breakdown			
Stage 2 enhancements	More granular reporting institution type breakdown	More granular counterparty sector breakdown			
	More granular counterparty sector breakdown	Introduction of maturity split for funding instruments			
	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.

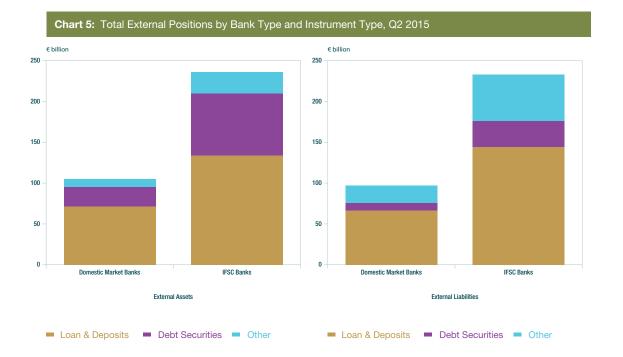
Stage 2 involved additional reporting by credit institutions to improve the monitoring of trends in the supply of bank credit and in the assessment of banks' funding risks.

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 banks⁶ (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

⁶ 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 <u>list</u> of these institutions is available on the Central Bank of Ireland website. Credit Unions are excluded from this set of statistics.



Source: Locational Banking Statistics, Central Bank of Ireland.

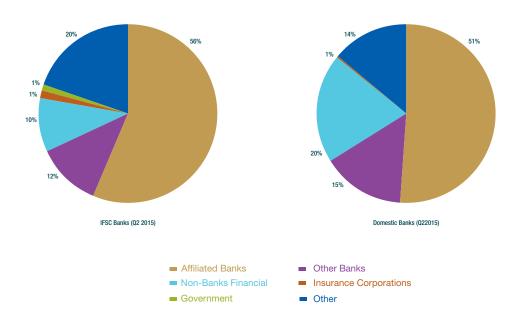
are made up of banks whose business is predominantly with non-residents. The updated publication now also distinguishes between financial instrument type (loans and deposits; debt securities; and other).

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 made⁷), both the domestic market banks and IFSC banks had relatively similar exposures to other banks

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	of Total of Total External External		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 information8 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

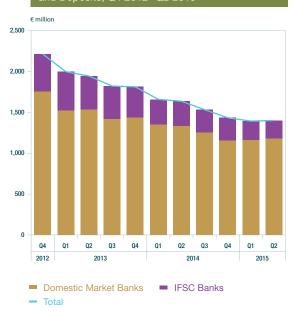
- 8 The income statement data is collected as part of the Locational Banking Statistics by means of a quarterly statistical return submitted by all resident banking offices (and not consolidated by group). The rules underpinning how items are reported are based on statistical methodology and definitions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

	per cent of Total Interest Income Loans and Deposits			
Country	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.

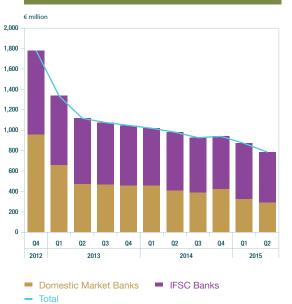
Chart 8: Interest Income Receivable from Loans and Deposits, Q4 2012- Q2 2015



Source: Income Statement Data, Central Bank of Ireland.

since Q4 2012, when the enhancements were implemented⁹. 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.

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

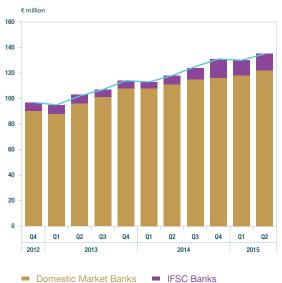


Source: Income Statement Data, Central Bank of Ireland.

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

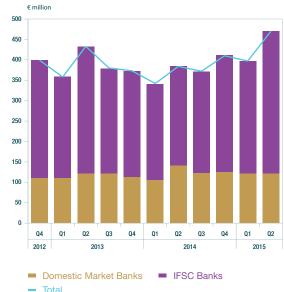




Source: Income Statement Data. Central Bank of Ireland.

Total

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 country¹⁰. 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 banks¹¹ 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

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

¹¹ 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						
	Q4 2012			Q2 2015		
Expenditure Item € Million	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
Total	2,000	1,547	452	1,270	849	420

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

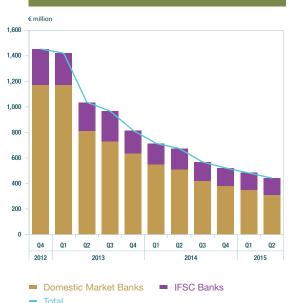
On the expenditure side of the income statement, similar declines are evident. Most expenditure items are reported to have fallen during the time period analysed. Since Q4 2012, interest payable on loans and deposits has fallen by 70 per cent to total €442 million during Q2 2015 (Chart 12). Both bank 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





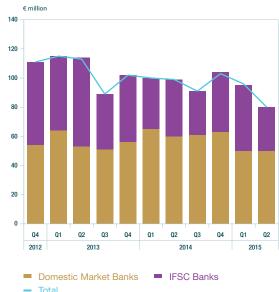
Source: Income Statement Data, Central Bank of Ireland.

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 profitability¹².

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.

Chart 13: Fees and Commissions Payable



Source: Income Statement Data, Central Bank of Ireland

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

¹² 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 indepth 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.

References

Avdjiev, S., McGuire, P. and Wooldridge, P. (2015), 'Enhanced data to analyse interational banking' BIS Quarterly Review (September 2015).

Committee on the Global Financial System (2012), 'Improving the BIS international banking statistics', CGFS Papers, No 47, November.

Heath, R. (2013), 'Why are the G-20 Data Gaps Initiative and the SDDS Plus Relevant for Financial Stability Analysis', IMF Working Paper Series, No 6, January.

Borio, C. (2013), 'The Great Financial Crisis: setting priorities for new statistics', BIS Working Paper Series, No 408, April.

Bank for International Settlements (2013), 'Guidelines for reporting the BIS international banking statistics'.