

2015: II

Macro-Financial Review



Banc Ceannais na hÉireann
Central Bank of Ireland

Eurosystem

MACRO-FINANCIAL REVIEW

Notes

1. Unless otherwise stated, this document refers to data available on 30 November, 2015.
2. Unless otherwise stated, the aggregate banking data refer to all credit institutions operating in the Republic of Ireland.
 - *Domestic banks* refer to Allied Irish Banks (AIB) plc (including EBS), Bank of Ireland (BOI) and Permanent TSB (PTSB). The term *domestic banks*, unless stated otherwise, excludes the Irish Bank Resolution Corporation (IBRC) which has been in Special Liquidation since 7 February, 2013.
 - *Covered banks* refer to those banks covered by the [Eligible Liabilities Guarantee Scheme](#).
 - *Foreign-owned resident banks* are foreign banking groups that have a subsidiary in the Republic of Ireland.
3. The following symbols are used:

e	estimate	H	half-year
f	forecast	rhs	right-hand side
Q	quarter	lhs	left-hand side

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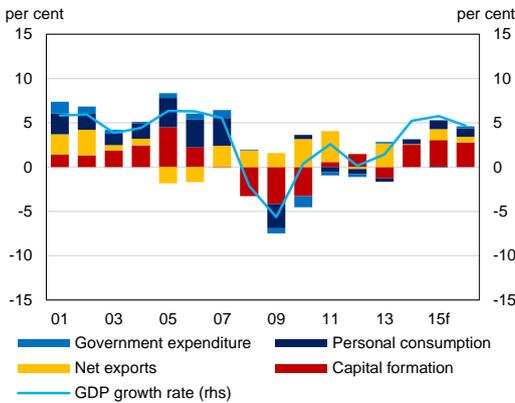
Preface

The Macro-Financial Review offers an overview of the current state of the macro-financial environment in Ireland. Its aims are twofold: (i) to help the public, financial-market participants and international and national authorities better evaluate financial risks; and (ii) to promote informed dialogue on the financial system's strengths and weaknesses and efforts to strengthen its resilience.

The Review assembles some of the material kept under surveillance by the Financial Stability Committee of the Central Bank of Ireland. The Review focuses on downside risks but better-than-expected outcomes are also possible. It evaluates developments since the previous Review, published in June 2015.

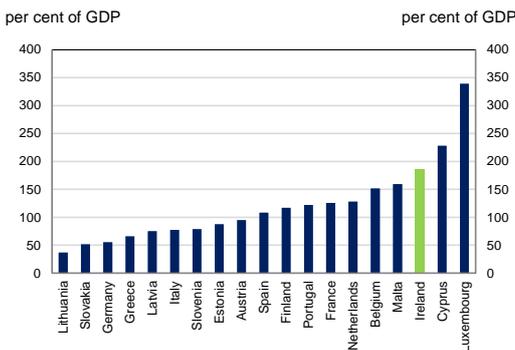
1. Overview

Chart A1: Contributions to GDP growth



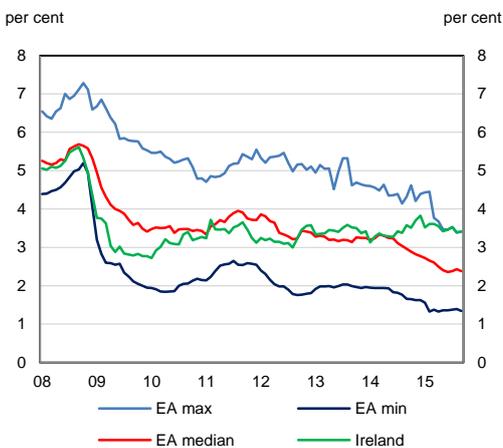
Source: CSO and Central Bank of Ireland.
Notes: 2015 and 2016 forecasts are from the Central Bank's Quarterly Bulletin No. 4 2015.

Chart A2: NFC non-consolidated debt – European comparison



Source: ECB.
Notes: Debt is loans plus debt securities. GDP is neither seasonally nor working day adjusted. Data as of 2015Q2.

Chart A3: Interest rates on bank lending for house purchase – euro area comparison



Source: ECB.
Notes: New business floating rate loans for house purchase excluding revolving loans and overdrafts, convenience and extended credit card debt. Last observation: September 2015.

Overview

The economic outlook for Ireland has improved since the last Review. GDP growth is forecast to be 5.8 per cent and 4.7 per cent in 2015 and 2016, respectively (Chart A1). Stronger domestic demand is evident, supported by an improving labour market and rising real wages which benefit the household sector directly. The non-financial corporate sector is seeing strong growth in exports, while investment is forecast to rise sharply in 2015 and 2016.

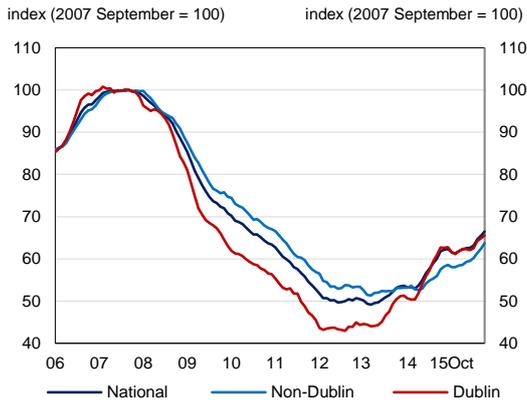
These developments in the Irish economy occur against a backdrop of an uncertain international macroeconomic and financial environment. The outlook for the global economy has weakened since the last Review. The performance of the Chinese economy and its financial markets have been in the spotlight in recent months, with a decline in growth now appearing to be more pronounced than previously anticipated. In the euro area, output growth remains moderate and both headline and core inflation rates are subdued, reflecting, in part, lower commodity prices. Persistently low inflation and muted nominal growth are not supportive of debt sustainability in euro area sovereign and corporate sectors.

Financial sector risks could materialise as a result of the global search for yield that is being observed in financial markets. In an environment where official interest rates are very low, investors have been seeking better returns across investment classes. A risk to financial stability is the potential for excessive risk-taking by investors. A rapid decline in asset prices is possible if investor sentiment changes, a rise in official interest rates occurs, or some adverse economic or financial event arises. Low levels of secondary market liquidity, particularly in fixed-income markets, could exacerbate adjustments.

Although deleveraging is occurring in the domestic economy, both household and NFC sector debt (Chart A2) in Ireland remain high, including by international comparison. This leaves these sectors, and the wider economy, vulnerable to negative economic shocks and higher interest rates, and acts as a drag on consumption and investment. Non-performing corporate loans have been declining in recent years but remain elevated, at approximately 17 per cent of total corporate loans. While gross new lending to SMEs has been rising, interest rates on SME loans remain high relative to other euro area Member States.

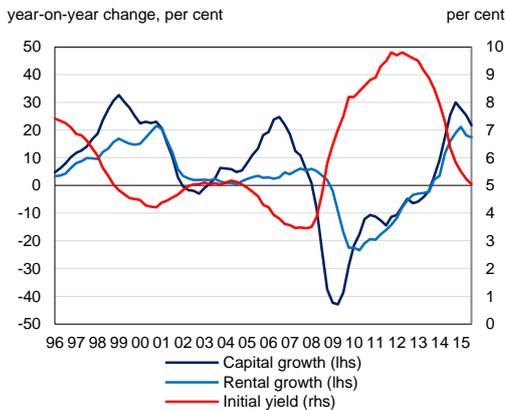
In the household sector, the number of mortgage arrears cases is on a downward trend, with the exception of those in very long-term arrears (i.e., those over 720 days in arrears). The Central Bank continues to supervise the banks intensively to ensure that

Chart A4: Residential property price indices



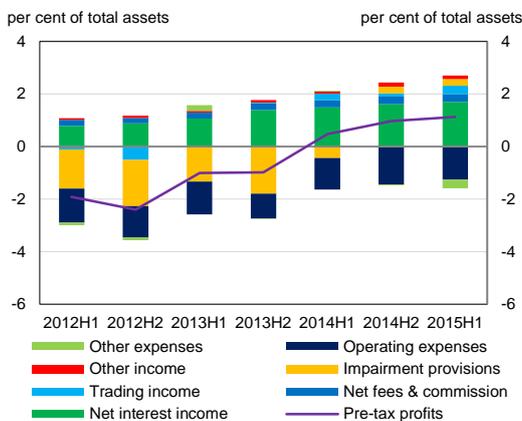
Source: CSO.
Notes: Index values are 100 in September 2007.

Chart A5: Commercial property – capital value growth, rental growth and initial yield



Source: MSCI/IPD.
Notes: Initial yield is calculated as the annualised rents generated by a portfolio, after the deduction of an estimate of annual recurring irrecoverable property outgoings, expressed as a percentage of the portfolio valuation (European Public Real Estate Association). Latest observation: 2015Q3.

Chart A6: Breakdown of domestic banks' income and profitability



Source: SNL Financial and Central Bank of Ireland calculations.
Note: Data are annualised

they are implementing sustainable solutions for distressed borrowers. Floating rates on new loans for house purchase in Ireland are high by euro area comparison making households more vulnerable to interest rate rises (Chart A3).

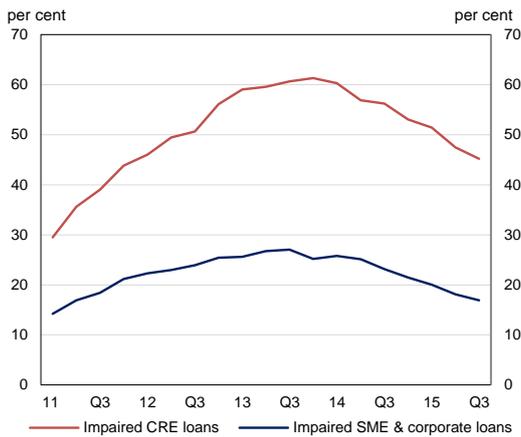
Notwithstanding marked monthly price increases in recent months, annual residential property price growth has eased in 2015, following sharp rises during 2013 and 2014 (Chart A4). This, along with a moderation in expected house price increases, has coincided with the introduction of macro-prudential regulations for the mortgage market, which were primarily designed to strengthen the resilience of households and banks to economic shocks. The number of residential property transactions continues to rise but the level of activity remains low. The number of mortgage drawdowns in the nine months to September 2015 was about 17,200, which compares with 13,200 during the same period of the previous year. Residential rents have been increasing steadily since August 2011 and are now above early-2008 peak values. There are supply issues in the housing market with a scarcity of second-hand properties for sale or rent across the country and a low supply of new units.

The CRE market has registered strong capital and rental growth in recent years (Chart A5). In part, this reflects supply issues, with the continuing shortage of office space in Dublin particularly acute. Investment activity in the Irish CRE market remains high and is mostly originating from overseas. International investment and a greater level of predominantly foreign non-bank finance in the market can assist the dispersal of risk through the wider financial system. The high degree of non-domestic funding, however, leaves the CRE market vulnerable to a change in investor sentiment and to external financial conditions. Adverse developments in the CRE sector could also impact domestic banks by affecting the value of collateral underpinning CRE loans.

While fiscal performance continues to improve in Ireland, the General Government debt-to-GDP ratio remains high, at close to 100 per cent. Other euro area Member States have rising or high government debt ratios. Countries with high debt ratios are more vulnerable to the effects of output and external shocks and to rises in interest rates.

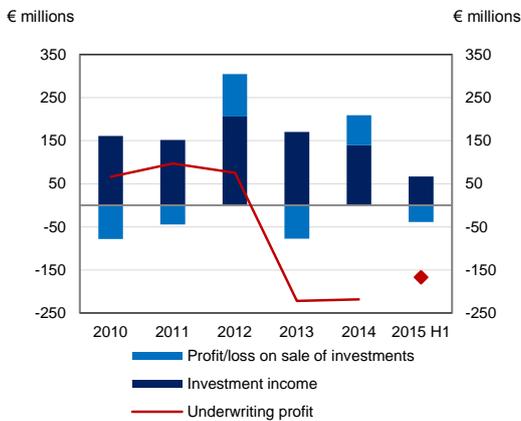
The domestic banking sector has seen further growth in operating income and pre-tax profits (Chart A6), as well as reductions in non-performing loans (Chart A7). The improvement in profitability mainly reflects write-backs of impairment provisions. Bank balance sheets continue to decrease in size with low, albeit increasing, levels of new lending being offset by redemption of existing loans. Alterations to the composition of capital and the ineligibility of certain elements under new capital requirements must also be contended with. The improving domestic economy should help in the work-out of impaired loans. Where write-backs of impairment provisions occur, they

Chart A7: Domestic banks' rate of SME/corporate & CRE impaired loans



Source: Central Bank of Ireland.
Notes: Data are consolidated and represent impairment rates for each sector.

Chart A8: Non-life insurers' underwriting profits and investment income and gains



Source: Central Bank of Ireland.
Note: Data are an aggregation of domestically focused high-impact firms who collectively write approximately 75 per cent of Irish-risk business.

should be conservative in nature. Customer deposits comprise the largest component of funding, accounting for over three-quarters of total funding. Market-based funding remains vulnerable to financial market developments and investor sentiment towards the banks and the Irish sovereign.

The high-impact non-life insurance firms reported further underwriting losses in the first half of 2015 (Chart A8). Downward pressure on insurance premiums and weak underwriting discipline in previous years has left firms exposed to a deteriorating claims environment. Investment income is no longer sufficient to cover underwriting losses and there has been an erosion of the solvency position of the sector. This, and the forthcoming requirements of Solvency II, has resulted in some firms taking action to strengthen their balance sheets. While the outlook for the domestic life sector is broadly positive, generating profitable new business in a competitive market remains a challenge.

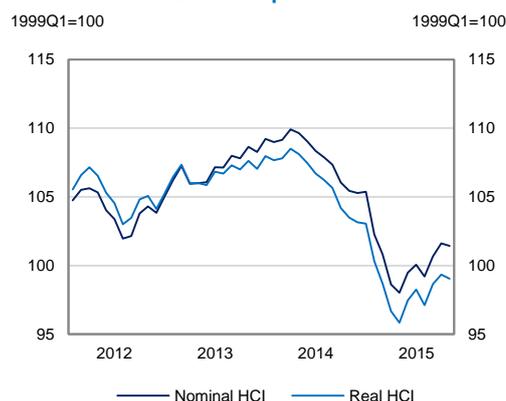
Both the assets and liabilities of the Irish-resident non-bank financial intermediary sector are predominantly located outside of Ireland. While important in its own right, the sector consequently presents limited systemic risks to the Irish financial system. The international shadow banking sector has been increasing in size in recent years. Activity in this sector includes credit intermediation involving leverage and maturity or liquidity transformation. A concern then is that the sector could be susceptible to run risk and that it could act as a transmission channel for shocks to the wider financial system. The Central Bank is actively engaged with international bodies such as the ECB, ESRB, FSB and IMF in this area.

2. Macroeconomic environment

2.1 Macroeconomic overview

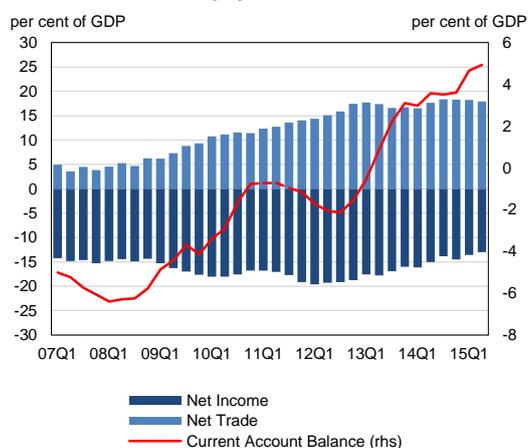
The Irish economy has continued to grow robustly in 2015 with a stronger impetus to growth from domestic demand. GDP growth of 5.8 per cent is now expected this year. The prospects for 2016 have also improved since the last Review, with GDP forecast to increase by 4.7 per cent. Consumption and investment are supporting stronger growth, driven in part by improvements in the labour market and rising real wages. An expansionary budget and the boost to purchasing power from lower energy prices will support demand over the forecast horizon. Risks to the outlook in 2016 are marginally to the downside stemming mostly from a potential drag on external demand from persistent weaknesses in emerging market economies and its direct and second round effects on Irish exports.

Chart 1: Harmonised competitiveness indices



Source: Central Bank of Ireland.
Notes: A rise in the indicator implies deterioration in competitiveness.

Chart 2: Balance of payments current account



Source: CSO.
Note: Data are expressed as four-quarter moving averages.

External environment

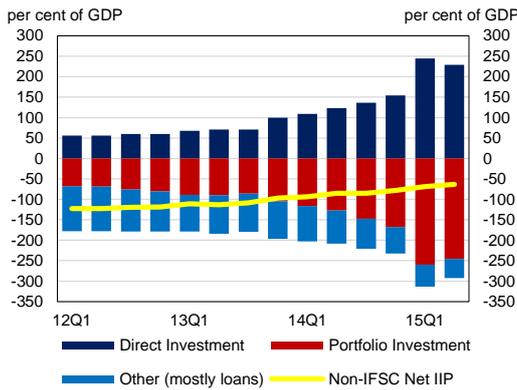
Demand in Ireland's main trading partners has been revised downwards over the forecast horizon (2015 and 2016) in part due to the knock-on effects from slower growth in emerging market economies. Demand for Irish goods and services exports, as well as overall competitiveness (Chart 1), is, however, being supported by continued weakness in the euro exchange rate, following non-conventional monetary policy measures by the ECB, and the positive impact of weak energy prices on GDP growth in the UK, US and the euro area.

Growth in the euro area remains modest and is less than that in the US and the UK. The persistent weakness in some emerging market economies poses a downside risk to the macroeconomic outlook for 2016. The outlook for China, in particular, which has seen a slowdown in growth (albeit from very high rates), has the potential to affect global growth adversely. While the direct effects of such a slowdown on output growth in Ireland are likely to be minimal, there could be indirect effects via its impact on Ireland's main trading partners.¹ Continuing low rates of core inflation in the euro area are also indicative of weak demand conditions.

Geopolitical risks include on-going tensions related to the Middle East and uncertainty surrounding the economic effect of the recent increase in the number of asylum seekers entering the EU from neighbouring conflict zones. Financial markets have continued to experience a high degree of volatility driven in part by developments in China and uncertainty about the pace and impact of normalisation of monetary policy in the US.

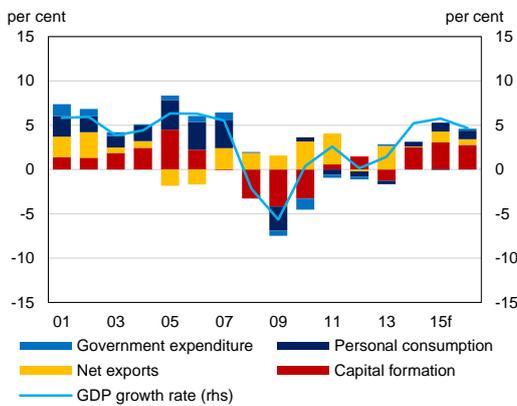
¹ See [Byrne, S. \(2015\) "Irish Trade with China", Central Bank of Ireland Quarterly Bulletin 4, Box C.](#)

Chart 3: Non-IFSC net international investment position



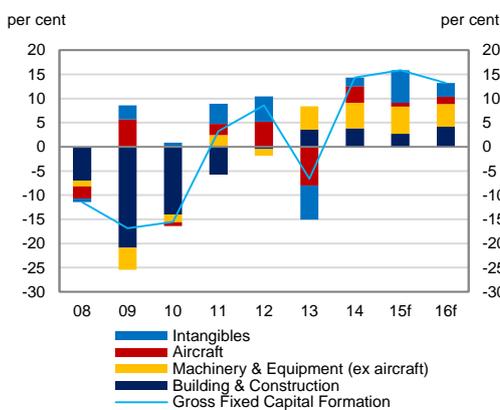
Source: CSO and Central Bank of Ireland.
Notes: Data are expressed as four-quarter moving averages.

Chart 4: Contributions to GDP growth



Source: CSO and Central Bank of Ireland.
Notes: 2015 and 2016 forecasts are from the Central Bank's Quarterly Bulletin No. 4 2015.

Chart 5: Sources of domestic GDP growth



Source: CSO and Central Bank of Ireland.
Notes: 2015 and 2016 forecasts are from the Central Bank's Quarterly Bulletin No. 4 2015.

The surplus on the balance of payments current account for Ireland amounted to 5.2 per cent of GDP in 2015Q2 (Chart 2). This occurred despite significant upward revisions to imports to reflect the inclusion of physical trade in aircraft owned by Irish resident leasing companies. Net factor income flows have been less negative in recent years than would have been the case in previous recoveries, in part due to lower profit repatriation by multinationals and an increase in investment income flows to Ireland. The latter reflects significant mergers-and-acquisitions activity and re-domiciling of multinational enterprises in recent years.

Re-domiciling is also reflected in the non-IFSC IIP, which in the first half of 2015 recorded another large increase in both assets and liabilities, while the net position continues to become less negative (Chart 3). Looking ahead, it is likely that the kind of activity that has depressed negative factor income flows will boost the current account balance beyond what would be directly related to the improving external position of Irish households, government and domestically owned financial and non-financial corporations.

Domestic environment

Growth in the economy has accelerated and become more broadly-based since the last Review. The Central Bank's latest forecast for GDP growth in 2015 is 5.8 per cent (Chart 4), 2 percentage points higher than at the time of the last Review. The outlook has been revised upwards following strong growth in the first half of 2015. The components of domestic demand are continuing to rebound following the crisis (Chart 5). These developments are supported by the improving labour market and rising real wages. In 2016, GDP growth of 4.7 per cent is forecast with consumption and investment spending expected to remain strong. The rebalancing in growth towards more domestically-driven sources and the increasingly broad-based nature of the recovery should see further increases in employment, with the unemployment rate expected to average 8.5 per cent in 2016 (currently at 9.4 per cent).

Indebtedness (both public and private) remains high. Private debt remains a burden for many households and acts as a constraint on consumption and investment. As highlighted in the last Review, Central Bank household finance data have shown that mortgage indebtedness is proving to be a particular drag on the budgets of cohorts aged 18-34 and 35-44. Given that these cohorts usually have a high propensity to consume, this debt overhang could act as a headwind to consumption growth. Nevertheless, it is envisaged that economy-wide consumption growth will remain robust over the forecast period helped in part by improving sentiment and a declining savings ratio.

On the fiscal side, the recent Budget will provide stimulus to economic activity in 2016. The level of government debt, however, remains high. The current strong growth outlook and

the supportive policy environment provides an opportunity to make greater progress in terms of debt reduction.

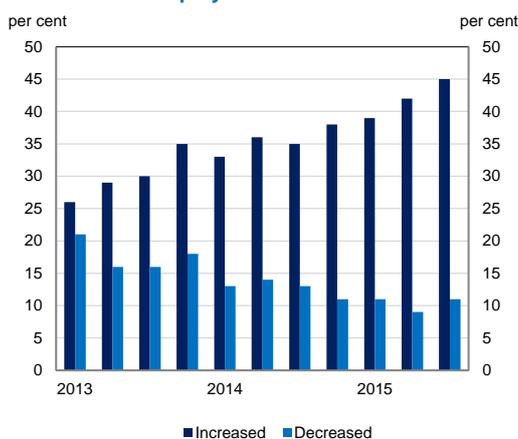
Risks to the outturn for 2015 are broadly to the upside, stemming from the potential for domestic demand to grow more strongly than envisaged. Recent analysis² suggests that capacity remains for the Irish economy to continue to expand at a rate above the euro-area average over the medium term without encountering binding constraints. The capacity is not without limit, however, and growth must inevitably slow down to a lower rate. For 2016, risks are marginally to the downside stemming mostly from a potential drag on external demand from persistent weaknesses in emerging market economies and its direct and second round effects on Irish exports.

² See [Smyth, D. and M. O'Brien \(2015\) "The Recent Growth Performance of the Irish Economy". Central Bank of Ireland Quarterly Bulletin 4, Box A.](#)

2.2 Non-financial corporate sector

Notwithstanding the continuing improvement in the domestic economy, risks arise in the NFC sector. A slowdown in external demand could have a negative impact on exporting firms, while the high overall indebtedness of the NFC sector makes it vulnerable to economic shocks. The Irish CRE market is experiencing strong capital and rental growth, in part reflecting supply shortages. The predominance of international investment and foreign non-bank finance leaves the CRE sector vulnerable to a change in investor sentiment and to external financial conditions.

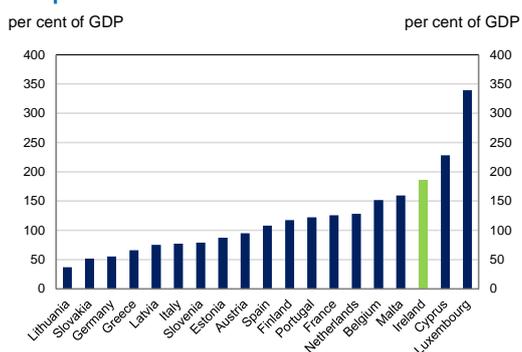
Chart 6: Firm employment indicator



Source: KBC Business Sentiment Index.

Notes: Firms are asked if the number of people they have employed in the last three months has increased or decreased. Last observation: 2015Q3.

Chart 7: NFC non-consolidated debt – European comparison



Source: ECB.

Notes: Debt is loans plus debt securities. GDP is neither seasonally nor working day adjusted. Data as of 2015Q2.

Economic environment

The first-half of 2015 saw strong growth in exports, including a rise in those of the indigenous sector, which is being supported by both favourable demand conditions and exchange rate developments. Export growth is expected to moderate, but remain strong, in 2016, rising broadly in line with external demand.

Investment is contributing to the strengthening recovery in overall domestic demand. While subject to considerable uncertainty, due to both statistical issues and substantial volatility in some of its sub-components, investment is forecast to grow by over 15 per cent this year and 13 per cent in 2016. Recent data point to a continuing strong rebound in underlying investment (i.e., after stripping out volatile components such as aircraft and intangibles).

There are on-going signs of improvement in firms' trading environment. In terms of employment, a growing proportion of firms are reporting an increase in the number of people they employ (Chart 6). Similarly, survey evidence³ points to a general improvement in the level of business activity, albeit with a moderation in the pace of growth in the second quarter of the year. Also indicative of an improving trading environment are the upward trend in new company registrations and the decline in the number of potentially insolvent liquidations.⁴

Indebtedness

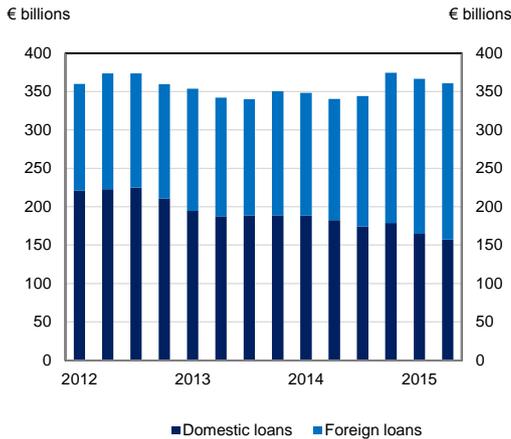
High NFC indebtedness creates vulnerabilities from a financial stability perspective, leaving the sector vulnerable to a fall in revenue/income or an increase in interest rates. Where debt levels are high, even modest changes in rates may cause repayment difficulties.

Under standard benchmarks, such as the debt-to-GDP ratio, the NFC sector in Ireland is among the most highly indebted in Europe (Chart 7). Non-consolidated NFC debt stood at 186 per

³ KBC Business Sentiment Survey

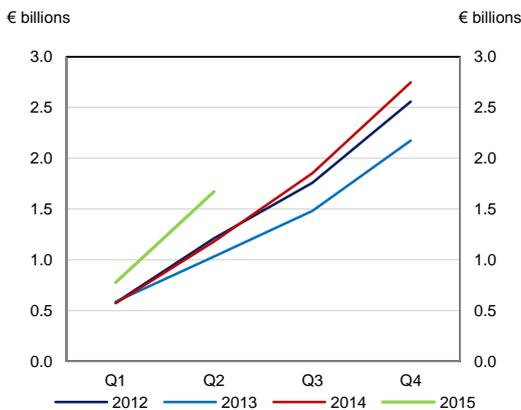
⁴ Data based on company filings with the Companies Registration Office.

Chart 8: Financing of NFC loans



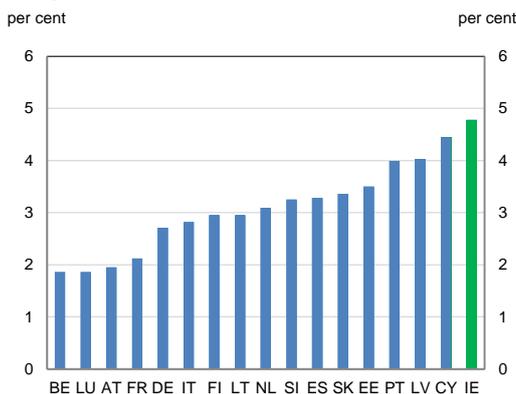
Source: Central Bank of Ireland.
Notes: Last observation: 2015Q2.

Chart 9: Gross new lending to SMEs - cumulative



Source: Central Bank of Ireland.
Notes: Credit advanced by banks to Irish small and medium enterprises excluding financial intermediation. Last observation: 2015Q2.

Chart 10: SME interest rates – European comparison



Source: ECB.
Notes: Rate is NFC interest rate on new business, amounts up to and including €1 million on loans other than revolving loans and overdrafts, convenience and extended credit card debt. Data relate to September 2015.

cent of GDP in 2015Q2. Consolidated NFC debt has been somewhat lower at about 164 per cent of GDP.^{5 6}

Measured relative to financial assets, however, NFC debt has been declining and this trend continues. Non-consolidated NFC debt, as a percentage of NFC financial assets, has almost halved in recent years, from over 60 per cent in 2012 to 33 per cent in 2015Q2. The decline in this ratio has been driven by strong growth in financial assets, particularly equity values in recent quarters, as the stock of debt has not fallen significantly.

As noted in previous Reviews, the prominent role of MNCs – who often source funding from abroad – in the NFC sector in Ireland, impacts the level of NFC debt significantly. Largely reflecting the activities of MNCs, a breakdown of NFC loan liabilities⁷ shows that over half are now funded through foreign sources (Chart 8). This also shows that developments in total loans hide underlying movements in domestic loans which have been on a downward trend.

Non-performing corporate loans have been declining consistently in recent quarters, to 17 per cent in 2015Q3, having peaked at around 27 per cent of total corporate loans in mid-2013. The on-going management of these loans remains an important issue as companies look to emerge from the constraints imposed by high levels of legacy debt. Firms in arrears on their debt repayments are likely to have to cut back spending and may be limited in their ability to undertake new investment. Research⁸ shows that in the post-crisis period a higher debt-to-turnover ratio has a material impact on the investment and employment growth of domestic SMEs as well as being associated with higher credit constraints.

Financing conditions

Year-on-year credit growth to Irish private sector enterprises remains negative as the sector continues to deleverage. Although still outweighed by repayments, gross new lending to SMEs has been picking-up (Chart 9).

The banking sector provided just over €1.6 billion in gross new lending to SMEs in the first half of the year, almost €900 million of which was in Q2. Primary industries continue to see the largest volume of new lending. There has been a significant increase in gross new lending to property-related SMEs in recent quarters. Amounts remain relatively modest however, with 4-quarter totals at similar levels to those seen in early-2013. The wholesale-and-retail trade sector too saw a rise in new lending, driven by motor trade.

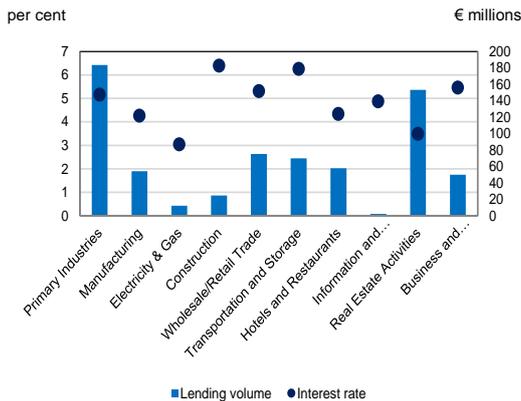
⁵ Traditionally, NFC debt has been measured on a non-consolidated basis. However, the use of consolidated debt, which excludes domestic intra-sector NFC loans, as a measure of NFC debt, is becoming more prevalent recently. The choice between consolidated and non-consolidated is not clear cut. The European Systemic Risk Board now uses consolidated NFC debt as an indicator in its risk dashboard. Similarly, the European Commission's Alert Mechanism Report 2014 employed the consolidated debt concept. For a discussion of conceptual and practical considerations regarding consolidated and non-consolidated measures of NFC debt see [Hertkorn, A. \(2015\), 'Consolidated and non-consolidated debt measures of non-financial corporations', IFC Bulletins chapters, 39.](#)

⁶ The latest [Macroeconomic Imbalance Procedure Scoreboard](#), referencing 2014 data, shows that over half of corporate debt related to NFCs with a foreign parent who predominantly borrow from non-resident counterparties.

⁷ Loan liabilities account for over 95 per cent of NFC debt. Debt securities account for the remaining share. A whom-to-whom breakdown of NFC debt securities is not available at present.

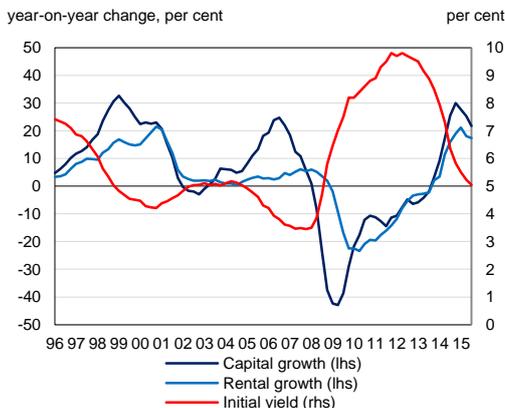
⁸ [Lawless, M., O'Connell, B and O'Toole, C. \(2015\) 'SME recovery following a financial crisis: Does debt overhang matter?', Journal of Financial Stability, Vol. 19 \(2015\).](#)

Chart 11: SME new lending interest rates and drawdowns by sector



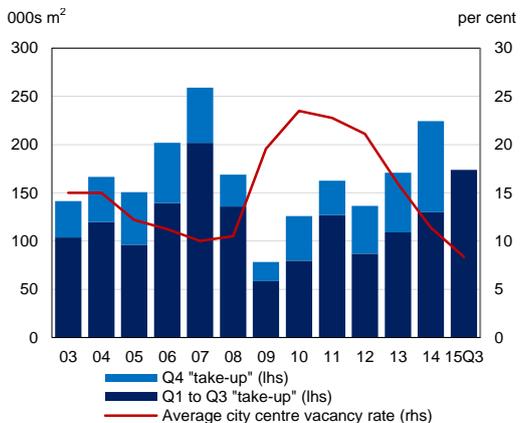
Source: Central Bank of Ireland.
Notes: Interest rates are weighted averages based on a sample of institutions that are most active in the domestic economy. Not all sectors are shown. Drawdowns as reported with interest rates will not exactly match gross new lending figures due to differences in reporting populations. Data relate to 2015Q2.

Chart 12: Commercial property – capital value growth, rental growth and initial yield



Source: MSCI/IPD.
Notes: Initial yield is calculated as the annualised rents generated by a portfolio, after the deduction of an estimate of annual recurring irrecoverable property outgoings, expressed as a percentage of the portfolio valuation (European Public Real Estate Association). Latest observation: 2015Q3.

Chart 13: Dublin office market activity



Source: CBRE Research and Central Bank of Ireland calculations.
Notes: City centre vacancy rate refers to the average of the available end-quarter data from the year to which they relate.

The SBCI was set up to create an additional source of funding for SMEs. In its first four months of operations to end-June, the SBCI issued €45 million in loans. This comes from an initial pool of €800 million available to it.

Evidence from the latest RED C credit demand survey⁹ suggests that demand for bank credit remains steady as SMEs focus on business consolidation and remain cautious in relation to debt. The survey also notes that while the overall rejection rate in the period April-September 2015 was similar to that in the same period in 2014, banks are now more likely to approve credit applications for growth and expansion purposes.

In relation to non-bank finance, trade credit at an aggregate level has accounted for approximately 8 per cent of NFC liabilities in recent years. While that share has remained stable, the value of trade credit has increased and amounted to over €124 million in 2015Q2. The aggregate data do not allow an assessment of the underlying trends in trade credit to SMEs relative to that extended to larger and/or multinational NFCs. Evidence from the RED C credit demand survey suggests that SME demand for non-bank finance is much lower than for bank finance. In the period April-September 2015, 10 per cent of SMEs sought non-bank finance.

In terms of the cost of funding, interest rates on loans to NFCs have seen marginal decreases in recent months. Interest rates remain high relative to those in other European countries, however (Chart 10). Also, smaller loans tend to have higher rates than larger loans suggesting SMEs are faced with higher funding costs than larger firms.

A comparison of interest rates on new lending across economic sectors shows significant differences arising, with approximately a 3 percentage point differential between the weighted average rates on lending for construction and transport-and-communication at the upper end and electricity-and-gas and real estate activities at the lower end (Chart 11). Higher interest rates, by making borrowing more expensive, may act as an impediment to investment.

Commercial property

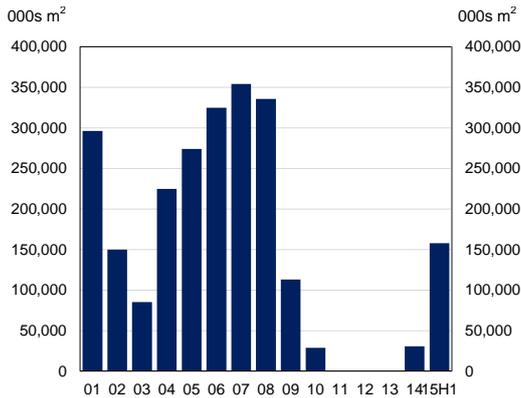
Developments in CRE markets are important from a financial stability perspective. The collapse of the Irish commercial property market in the late 2000s and its negative consequences for the banking sector provides an example of the risks that can arise.

Total returns in the Irish CRE market are currently higher than across many other European markets¹⁰ (see Box 1). According to MSCI data, headline capital values were up 22 per cent year-on-year at the end of 2015Q3 (Chart 12), bringing the cumulative

⁹ RED C SME Credit Demand Survey, April-September 2015

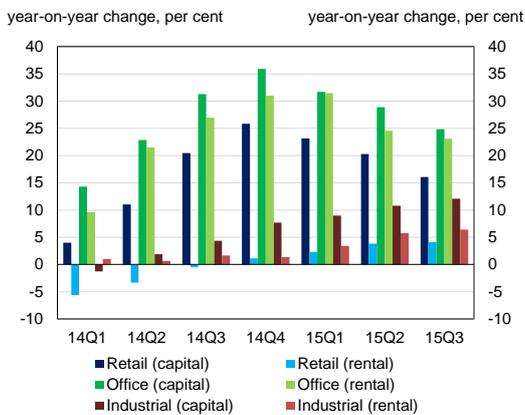
¹⁰ Total return is an indicator of overall investment performance. It takes account of both capital and rental elements of a property's value, and is calculated by MSCI/IPD as the percentage capital value change plus net income accrual, relative to capital employed.

Chart 14: Dublin office stock under-construction



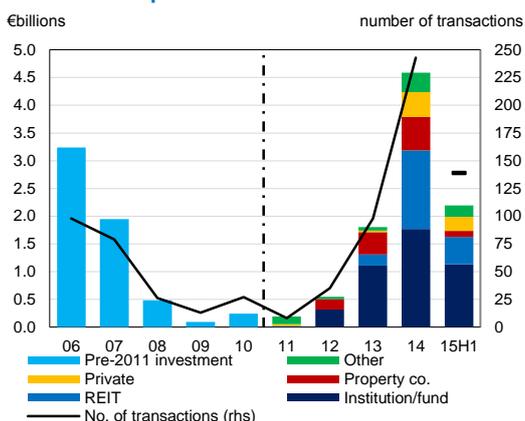
Source: JLL.
Notes: Originally sourced from Figure 4, Duffy, D. and H. Dwyer (2015), "FDI and the Availability of Dublin Office Space", ESRI QEC-Autumn 2015. In the paper, data are presented as square feet but converted to square metres here for consistency.

Chart 15: Breakdown of commercial property capital and rental value growth by sector



Source: MSCI/IPD.

Chart 16: Sources of Irish commercial property investment expenditure



Source: CBRE Research.
Notes: Investment spending relates to individual transactions worth at least €1 million. Breakdown by the original source of funding is only available from 2011.

increase since the mid-2013 low point to 54 per cent. Similarly, the rise in commercial rents continues, up 17 per cent since 2014Q3 and 36 per cent since a low point in late 2013. While capital and rental value growth have had a positive impact in terms of CRE returns, the relative strength of the former in recent quarters has seen initial yields fall below the long-run average, to 5 per cent.¹¹

A large proportion of the gains in the commercial property market are being driven by the office sector. CBRE data show that the take-up¹² of Dublin office space during the first three-quarters of 2015 was at its highest level since 2007 (Chart 13). The current demand for office accommodation, coupled with a sharp drop in the construction of new supply following the property crash (2008) and later cessation of development between 2011 and 2013 (Chart 14), has seen the Dublin city centre vacancy rate fall from a peak of 24 per cent in 2010 to 8.4 per cent in September 2015 (Chart 13). The availability of stock in the Dublin 2 and 4 areas is reported to be even lower, prompting concerns that the current lack of available office space in the capital may deter overseas firms wishing to locate here and impede established firms aiming to expand their operations.¹³

The continuing shortage of office space is also having a direct impact on office rents, which MSCI figures show have risen by more than 55 per cent since their 2012 trough, and by 23 per cent in the past year (Chart 15). While office development activity has increased in Dublin since 2014 (Chart 14), planning statistics referred to in a recent CBRE report suggest that a meaningful improvement in supply is unlikely before 2017.¹⁴ In the interim, prime rents in the capital's office sector are likely to increase further.¹⁵ A failure to increase supply in the face of the current level of demand could be expected to place additional upward pressure on rents, eroding competitiveness and threatening investment.

The recovery in the industrial and retail CRE sectors has become more entrenched and broadly-based. According to data for 2015Q3, the industrial sector recorded a year-on-year increase in national capital and rental values of 12.1 and 6.4 per cent year-on-year, respectively (Chart 15). In Dublin, industrial market take-up in the first nine months of 2015 surpassed the annual total for any of the last 10 years, according to JLL.¹⁶

Improving consumer confidence and an increase in the value of consumer spending and retail sales over recent quarters have provided a boost to the retail sector of the commercial property

¹¹ Initial yield is calculated as the annualised returns generated by a portfolio, following the deduction of an estimate of annual recurring irrecoverable property outgoings, expressed as a percentage of the portfolio valuation (European Public Real Estate Association).

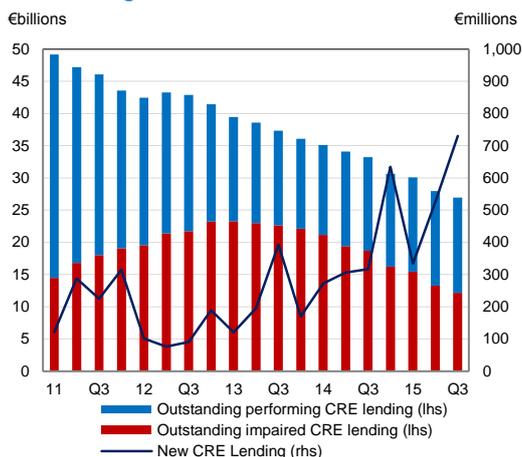
¹² Take-up refers to all leasing activity in the office market.
¹³ See Duffy, D. & H. Dwyer (2015), "FDI and the Availability of Dublin Office Space", ESRI QEC-Autumn 2015, in which the authors observe that early 2017 would be the earliest a firm hoping to establish or relocate a large scale facility of at least 500 employees in Dublin could be accommodated.

¹⁴ See CBRE "Bi-Monthly Research Report, September 2015" in which it is noted that the 19 Dublin office schemes currently under construction account for approximately one year's annual average take-up. In addition, a number of projects are ready to enter the construction phase or have been granted planning permission.

¹⁵ JLL's "Dublin Office Market Report, Q3 2015" reported in July 2015 that prime rents in Dublin city-centre were of the order of €50 to €60 per sq. ft., while a CBRE report on the [Dublin Office Market from 2015Q3](#) suggested that prime rents could reach €55 per sq. ft. by the end of the 2015.

¹⁶ See JLL "Dublin Industrial Market Report, Q3 2015".

Chart 17: Domestic banks' outstanding and new CRE lending



Source: Central Bank of Ireland.
Notes: Data are consolidated. Impairments are represented by default loans as defined in the Capital Requirements Directive (CRD).

market. Annual capital values grew 16 per cent in 2015Q3, while retail rents were up 4 per cent year-on-year (Chart 15). The reduction in retail vacancy rates across a number of regional locations and an improvement in the high-street occupancy rate across the country in the last 6 months is further evidence that the CRE market recovery is spreading beyond Dublin.¹⁷

Investment activity in the Irish commercial property market remains high. Almost 140 transactions of greater than €1 million occurred in the first nine months of 2015, amounting to €2.2 billion by value (Chart 16). Total investment for 2015 is expected to be in the region of €3 billion to 3.5 billion¹⁸, approximately 30 per cent lower than 2014, but still around double the average of the past 10 years. The type of investor operating in the Irish market has changed in recent years following the introduction of REITs legislation in 2013 and the entry of a number of large-scale international investment funds (Chart 16). Participation by foreign players has grown noticeably, with over half of the value of investment so far this year originating from overseas and from North America, the UK and Germany in particular. The combination of capital growth and the potential for additional rental growth, particularly in the office and residential sectors¹⁹ (see above and residential property subsection), has exerted a positive influence on demand for Irish CRE at a time when the low interest rate environment has led to an increase in foreign capital seeking returns and investment diversification possibilities.

The recent changes in the structure of the Irish CRE market could have implications for financial stability. International investment and a greater level of predominantly foreign non-bank finance in the market can assist the dispersal of risk through the wider financial system. Whereas the initial focus of overseas investors following the property crash may have been the purchase of existing office blocks and other income-generating buildings, recent quarters have seen some turn their attention to property development and the completion/development of projects left over since the downturn. The delivery of these schemes to market should help alleviate supply pressures over the next couple of years.

At the same time, the degree of non-domestic funding leaves the sector vulnerable to a change in how investors perceive the market here and to an alteration in external financial conditions. Any revision of sentiment towards Irish CRE could lead investors to exit the market, leading to price falls or volatility. It is possible that the investment horizon of many of these investors may be relatively short (perhaps 2 to 3 years), thereby possibly impacting financing of the sector in the future. External factors, such as the low-yield environment, accommodative monetary policy stance and the favourable sentiment that currently exists

¹⁷ See CBRE "[Bi-Monthly Research Report, September 2015](#)".

¹⁸ See JLL "[Dublin Investment Market Report Q3 2015](#)".

¹⁹ The focus of some REITs and other large international investors have been on the purchase of entire residential apartment blocks.

towards real estate as an asset class amongst investors, could change, which could impact CRE investment internationally, including in Ireland.

Aside from the sums invested directly into Irish commercial property, large sums have also been devoted to purchasing distressed Irish CRE portfolios, enabling NAMA and other Irish financial institutions to continue with their disposal activity. A declining but still sizeable supply of CRE portfolios remains to be sold by NAMA.²⁰ Although the demand for Irish CRE assets remains strong, the pressure for banks in other jurisdictions to accelerate their own deleveraging plans could present a challenge to Irish institutions hoping to dispose of their remaining non-core CRE assets.

Despite a substantial transfer of assets and on-going deleveraging since the property crash, domestic banks continue to hold large portfolios of commercial property on their balance sheets (Chart 17), a high proportion of which are impaired. Irish banks have had a relatively limited involvement in funding commercial property-related activity in recent years. While new lending activity from the domestic banks to the sector has generally been increasing since late 2012 (Chart 17), it remains relatively muted overall and tends to be for investment in existing buildings and for pre-let rather than speculative new builds.²¹ New CRE lending in 2015Q3 amounted to approximately €730 million, equating to less than 3 per cent of the total stock of outstanding lending (€27 billion) and approximately 13 per cent of the domestic banks' total new lending for the quarter (€5.8 billion). (Box 2 discusses recent developments in financing in the Irish CRE market.)

Although the domestic banks are not currently engaged in significant amounts of new CRE lending, a downward adjustment in prices could lead to a retrenchment from the sector and an increase in provisions given the current quality of the portfolio. Conversely, if prices were to continue to grow, it may induce banks to increase their exposures and to adopt potentially less prudent lending standards, in an effort to enhance profits. While some recovery in lending may be important to support economic growth, any mispriced or excessively risky loans could prove to be destabilising. Looking ahead, identifying emerging risks at a sectoral level and the need to ascertain a sustainable level of lending to the domestic economy remain important financial stability considerations.

²⁰ According to [NAMA's 2014 Annual Report](#), the Agency continued to hold an Irish portfolio of €11.1 billion at 31st of December 2014.

²¹ A significant equity component making up part of a project's financing arrangements is reported to be a pre-condition in the case of many new loans.

Box 1: Recent performance of Ireland's CRE market in an international context

Following a severe market collapse, Irish CRE prices increased in 2013 for the first time in six years. With Dublin leading the way, the market is experiencing a sharp recovery. In this box, the recent performance of the Irish commercial property market is examined and placed in an international context.¹ In the first instance, total returns data for Ireland are compared to those of other national markets and to a EA and global average over the period 2005 to 2015Q3. A second chart shows how the office sector is the principal contributor to total returns in the Irish market at present.

The past ten years has been a turbulent period for the Irish CRE market (Chart A). Total returns² on Irish commercial property assets reached 27 per cent in 2006, outperforming markets such as the UK and the US which were also recording strong growth. The financial crisis had a negative impact on CRE values in many countries but had a particularly adverse effect on the Irish market. Irish total returns had their worst year in 2008, when they were down 34 per cent. The UK market posted a 22 per cent loss that year. In other markets, the trough in returns occurred a year later. US and Global total returns fell 19 and 7.4 per cent, respectively, in 2009. Commercial property markets in mainland Europe fared better than elsewhere during the crisis. Austria, Belgium, Finland and Germany posted modest positive returns, with losses for Spain, France and the Netherlands, resulting in a slight contraction in euro area total returns of 0.6 per cent in 2009. There has been a broad turn-around in international commercial property returns since then. Capital and rental growth in the Irish market has been particularly strong in recent years. Intense investment activity, from mainly foreign investors wishing to acquire distressed CRE assets, has characterised the Irish recovery. As a result, total returns on Irish commercial property reached 39 per cent in 2014, over 20 percentage points higher than the UK. Data for 2015Q3 shows that while investment returns in Ireland have been a little lower so far this year, they are still substantially in excess of those available in the UK or US.

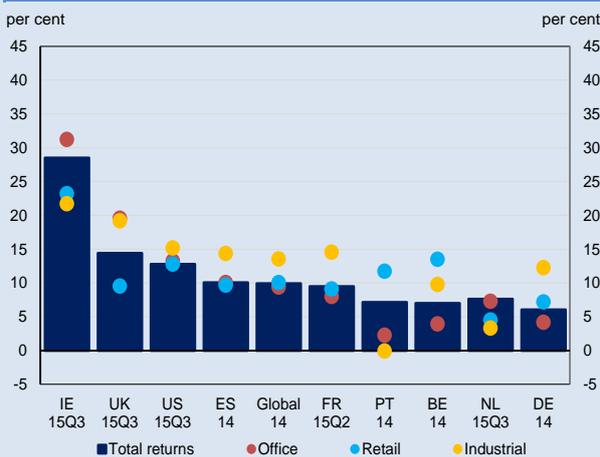
Chart B presents total returns data for the main commercial property sectors (office, retail, industrial) across various countries. The office sub-sector leads the Irish market at present, with total returns of 31 per cent over the past 12 months. Strong rental growth, driven by an improving economy, investor demand and an overall shortage of supply, has boosted capital values and total returns in that sub-sector. This is in contrast to the experience in many other countries at this time, such as Spain, France and Germany, where the industrial sector dominates in terms of return. Demand from international investors for distressed commercial property assets has played a major role in the Irish CRE recovery and the high returns being experienced of late. However, if capital values continue to rise and yields contract or the low yield environment in financial markets was to unwind, it may prompt investors to divert their activity to other markets or asset types.

Chart A: Total returns across selected international commercial property markets



Source: MSCI/IPD.
Note: Data are 12 month total returns. 2015Q3 data available for Ireland, UK and USA.

Chart B: Total return for the retail, office and industrial sectors relative to all commercial property: cross country comparison



Source: MSCI/IPD.
Note: Data are 12 month total returns.

¹ The analysis in this box is carried out using MSCI's Global Intel dataset.

² Total return is an indicator of overall investment performance. It takes account of both capital and rental elements of a property's value, and is calculated by MSCI/IPD as the percentage capital value change plus net income accrual, relative to capital employed.

Box 2: Recent developments in financing in the Irish CRE market

Monitoring developments in the CRE market is important from a financial stability perspective given the role of leverage and external finance in funding market activity. Indeed, the role of the CRE market in both the origins and propagation of the Irish financial crisis is widely known¹. Prior to the crisis, bank credit played a key role in financing development and investment in the CRE market and price and credit developments tended to move together (Chart A). The entry of non-bank finance and a decline in bank financing in recent years, however, has led, in part, to the decoupling of Irish CRE price changes and bank lending. This box explores the reasons for the change in market structure and presents some financial stability implications.

Since 2013, the CRE market in Ireland has performed strongly (see section 2.2 and Box 1). Investment activity in the Irish market has been driven by non-bank sources of finance such as private equity funds, other institutional funds and REITs. Property companies and high net worth individuals have also invested in the Irish market. The arrival of foreign non-bank capital combined with the introduction of indirect investment vehicles are new features of the Irish market. Three factors can be identified to explain the change in investor profile in the market: (1) domestic macroeconomic, fiscal and legal developments; (2) search-for yield and role of CRE as an international investment asset; (3) banking sector deleveraging.

In relation to the first factor, improving macroeconomic conditions and higher occupier demand, especially in the Dublin office market, have increased the potential for income returns in the Irish market. Increased rental potential combined with capital growth may exert a positive influence on demand for Irish CRE. Such factors combined with State-led initiatives such as favourable tax treatment (i.e., stamp duty reduction and capital gains tax waiver up to end-2014) and the introduction of REIT legislation in 2013 increased the attractiveness of Irish CRE as a potential investment asset. On the second factor, the low interest rate environment has led to an increased inflow of foreign capital seeking returns and diversification possibilities. At a European level, real estate remains an attractive option for such investors. According to PWC², although property fundamentals remain muted across a range of markets, investors are expected to remain positive towards European real estate over 2015 due to the availability and lower cost of capital. Dublin is noted as being among the top 5 cities quoted for investment opportunities in 2015 due to expectations of strong rental growth and NAMA sales.

The final factor relates to the reduction in bank activity in this sector since the crisis. Irish banks are currently not projecting significant new CRE lending and have reduced their exposure to this sector through deleveraging and the 2010/2011 transfers to NAMA (Chart B). Across Europe, sales of non-core portfolios, including CRE exposures by Irish banks, have attracted many institutional investors in recent years. According to CBRE (2015)³, approximately €49.2 billion of distressed loan portfolios which were secured by CRE were transacted last year. The top 3 countries-of-origin of these portfolios were UK, Ireland and Spain.

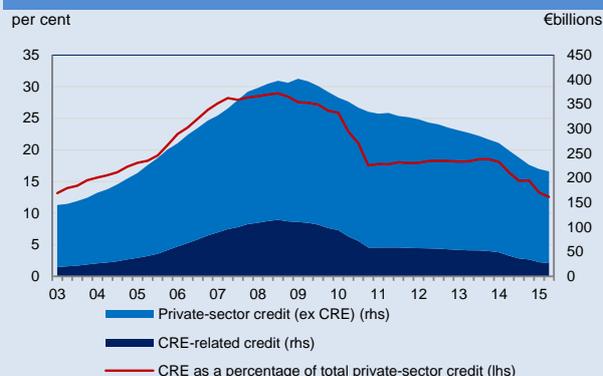
While the arrival of non-bank financing brings benefits such as greater risk-sharing, higher market liquidity and a reduction of supply shortages through new investment, there are also potential vulnerabilities. In addition to traditional demand/supply factors, Irish CRE prices are now determined by the investment and development strategies of these entities. Some entities may have a short-term investment strategy or be very sensitive to changes in market conditions which could lead to CRE price volatility in the future. Such price movements may impact on banks by raising the variance of the value of collateral underpinning CRE lending or by affecting the repayment capacity of CRE borrowers. Any future increase in joint ventures between banks and such investors also creates potential contagion channels across the financial system. From a financial stability perspective, therefore the bridging of any data gaps in this sector remains a priority along with on-going close monitoring to ensure that bank lending remains prudent as the market recovers.

Chart A: CRE-related credit and prices (1995Q1-2015Q2)



Source: MSCI IPD and Central Bank of Ireland.
Notes: Credit data are adjusted for securitisations, reclassifications and FX related activity. CRE credit is defined as the sum of construction and real estate activities.

Chart B: Irish private-sector credit and CRE-related credit



Source: Central Bank of Ireland.
Notes: CRE is defined as the sum of construction and real estate, land and development activity using NACE codes. Private sector credit includes loans and securities. Last observation: 2015Q2.

¹ See Honohan, P. (2010) 'The Irish Banking Crisis Regulatory and Financial Stability Policy 2003-2008' for a discussion of the origins of the Irish crisis and O'Connell, S. and M. Woods (2012) 'Ireland's Financial Crisis: A Comparative Context' Central Bank of Ireland, Quarterly Bulletin Q4.

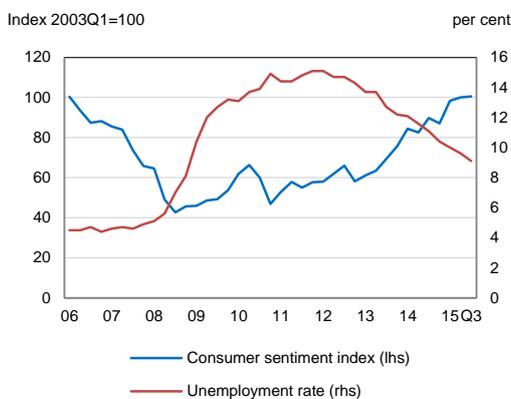
² PWC (2015) 'Emerging Trends in Real Estate, A Balancing Act' PriceWaterhouse Coopers and the Urban Land Institute

³ CBRE (2015) 'European Commercial Real Estate Finance, 2015 Update' CBRE Capital Advisors' Analysis of trends in Europe's Debt Markets

2.3 Household sector

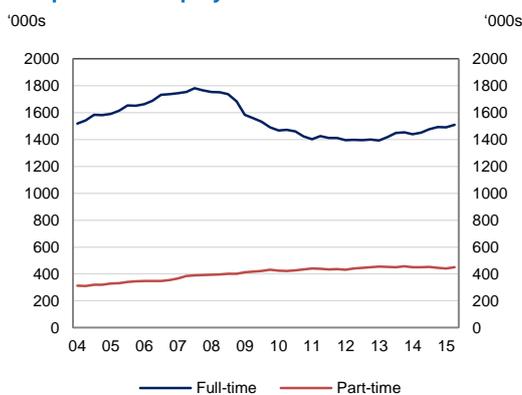
The economic environment faced by households continues to improve. Notwithstanding on-going deleveraging, household debt in aggregate remains elevated and leaves the sector vulnerable to a decline in income or an increase in interest rates. Very long-term arrears also remain a source of concern as the number of arrears cases in this category continues to rise. Floating rates on new loans for house purchase are high by euro area comparison. Notwithstanding marked monthly price increases in August, September and October, annual residential property price growth has eased in 2015. The number of residential property transactions continues to rise but the level of activity is still restrained. There is a scarcity of available second-hand properties for sale or rent across the country and a low supply of new units.

Chart 18: Unemployment rate and consumer sentiment



Source: CSO and ESRI.
Notes: Consumer sentiment is shown as a 3-month moving average.
Last observations: 2015Q3.

Chart 19: Employment – number of people in full and part-time employment



Source: CSO.
Notes: Persons 15 years and over in employment. Last observation: 2015Q2.

Labour market

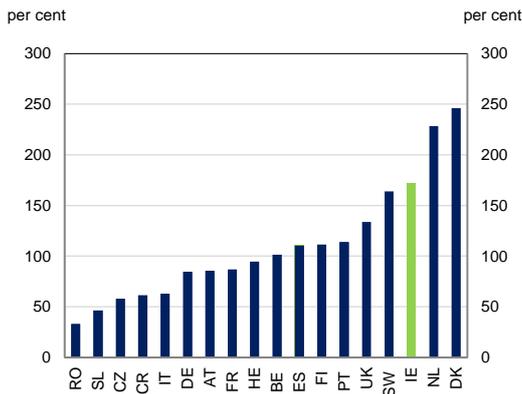
The economic environment faced by households continues to improve. A broad-based improvement in employment is now evident, with most sectors of the economy experiencing a recovery. Employment is expected to exceed two million for the first time since 2008 in the coming months. Strong employment growth and more modest increases in the labour force has seen the unemployment rate fall to 9.1 per cent as of September (Chart 18). The unemployment rate is forecast to fall further in 2016, averaging 8.5 per cent for the year.

Growth in employment is predominantly being recorded in full-time jobs (Chart 19). This is helping to support household incomes and consumer spending. Growth in compensation per employee, which was an estimated 1.7 per cent in 2014, is expected to strengthen this year and next as a relative tightening of labour market conditions begins to occur, particularly in certain sectors. Changes to the USC announced in Budget 2016 should help to reduce the income tax burden of workers. Consumer spending is expected to grow by 3 per cent in 2015 and 2.5 per cent in 2016. Consumer sentiment has been on an upward trend, with the index now at levels last seen in March 2006 (Chart 18).

Indebtedness

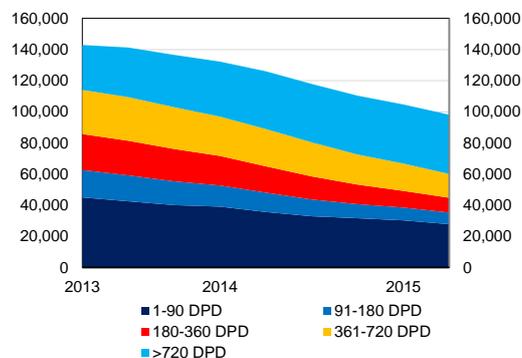
Household debt is in the region of €155 billion, equivalent to about 170 per cent of household disposable income. The level of household debt has been falling in recent years and this trend has continued since the last Review. The ratio of the stock of outstanding debt to gross disposable income, however, is still high relative to European peers (Chart 20). The low rate of inflation, which has persisted for some time now, is not conducive to reducing real debt burdens. A high level of indebtedness makes households vulnerable to a drop in income and/or an interest rate increase. Household net worth continues to increase, albeit slowly.

Chart 20: Household debt to gross household disposable income – European comparison



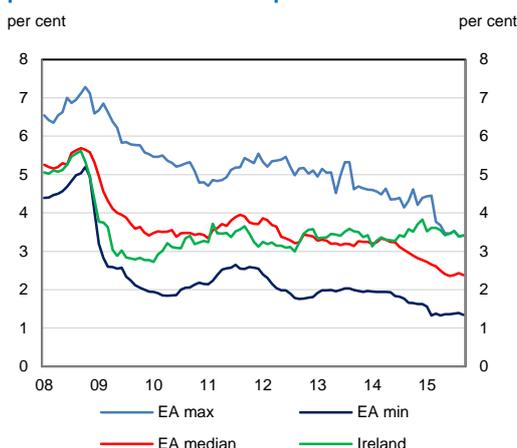
Source: ECB, CSO & Central Bank of Ireland.
Notes: Debt is defined as loans. Data as at 2015Q2.

Chart 21: Mortgage arrears – number of PDH arrears cases by duration of arrears



Source: Central Bank of Ireland.
Notes: PDH stands for primary dwelling house. DPD stands for days-past-due. Last observation: 2015Q2.

Chart 22: Interest rates on bank lending for house purchase – euro area comparison



Source: ECB.
Notes: New business floating rate loans for house purchase excluding revolving loans and overdrafts, convenience and extended credit card debt. Last observation: September 2015.

Mortgage arrears

The resolution of the elevated level of mortgage arrears remains a key point of focus of the Central Bank. A downward trend is evident in the number of mortgage arrears cases, across both PDH and BTL accounts. The number of overall arrears cases has fallen by about 30 per cent in the past 2 years.

Notwithstanding this overall improvement, developments in very long-term arrears cases (i.e. those over 720 days in arrears) remain a concern. Such cases now account for over 40 per cent of total arrears cases. The number of PDH mortgages in arrears of more than 720 days continues to increase, albeit slowly (Chart 21). On the BTL side, the number of very long-term arrears cases appears to have stabilised in recent quarters at just over 15,000.

Of the total of almost 900,000 mortgage accounts in Ireland, nearly 50,000 are held by non-bank entities. Those accounts are performing more poorly than those held by banks. While less than 15 per cent of the total stock of mortgage accounts are in some form of arrears, the corresponding figure for mortgages held by non-bank entities is 50 per cent.

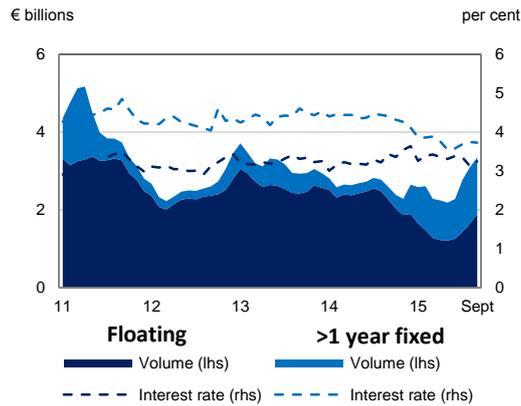
A range of resolution options are available when dealing with cases where households are struggling to meet their mortgage repayments. In some cases, a restructuring of the mortgage may provide a viable solution. To date, almost 150,000 mortgage accounts have been restructured. Of these, over 80 per cent are meeting the terms of the new arrangement. This does not necessarily imply, however, that all restructuring arrangements are sustainable as not all represent long-term sustainable solutions as defined under Mortgage Arrears Resolution Targets.²²

In other cases, repossession of the underlying property will be the outcome. There has been a steady increase in the number of repossessions, particularly in the last 12 months or so. In the year to June-2015, there were over 2,200 residential property repossessions, of which 1,500 related to PDH properties. While the majority of repossessions in the last year resulted from a voluntary surrendering of the property, there has been a relative increase in the number of properties repossessed on foot of a court order of late.

Other options available to those struggling to meet their (secured) debt repayments include bankruptcy or a PIA. There was a notable increase in the number of bankruptcies following the change to bankruptcy legislation which came into effect in December 2013. Recent quarters have seen the number of bankruptcies fall back substantially, from a peak of 162 adjudications in 2015Q1 to 83 in 2015Q3. The number of PIA

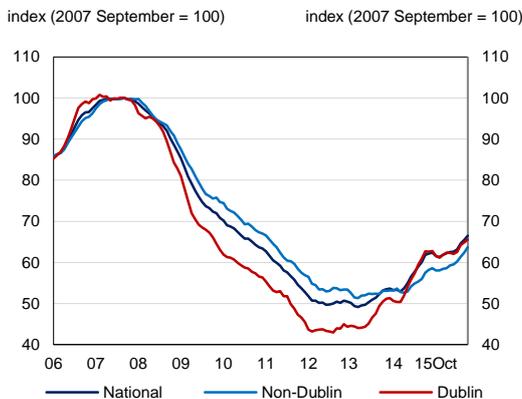
²² While the Central Bank has moved away from the use of common quarterly solution targets, it remains focused on ensuring that the banks continue to improve issues identified in relation to their individual systems and procedures to ensure that they resolve arrears cases by implementing sustainable solutions for distressed borrowers in a fair manner. Banks have been required to submit enhanced information on the resolution of non-performing loans and subject to more granular monitoring of specific cohorts of distressed borrowers where progress has been relatively slow.

Chart 23: New lending for house purchase by interest rate type



Source: Central Bank of Ireland.
Notes: New lending volume is 3-month total of euro denominated new business loans agreed for house purchase. Data includes renegotiations. Floating rate includes up to 1-year fixation. Latest data September 2015.

Chart 24: Residential property price indices



Source: CSO.
Notes: Index values are 100 in September 2007.

Chart 25: Residential property price growth



Source: CSO.

applications, while modest, has increased in the last year. To date, in the region of 650 arrangements have been approved.

Cost of borrowing

A comparison with interest rates in other euro area Member States shows that floating rates on new loans for house purchase in Ireland are relatively high and have not declined in line with the euro area median (Chart 22). Research by the Central Bank²³ noted that the Irish banking sector is currently faced with elevated credit risks, weak competition and constrained bank profitability. These factors are important determinants of the spread between official ECB interest rates and standard variable mortgage rates.

Over 90 per cent of the outstanding stock of loans for house purchase involve floating interest rates. This means most mortgage holders are vulnerable to increases in mortgage interest rates. Just over half of floating rate mortgage loans are on tracker mortgages where movements in the mortgage interest rate are linked to movements in the official ECB rate.

Recent months have seen a greater share of new lending for house purchase at fixed interest rates than was previously the case (Chart 23). The increase coincided with a slight fall in fixed interest rates and a narrowing of the differential between fixed and variable rates.

Residential property

There has been some moderation in the rate of house price growth of late, following sharp rises during 2013 and 2014. The CSO's residential property price indices have registered marked monthly increases in recent months, having been relatively flat throughout the opening half of 2015 (Chart 24). As a result, national year-on-year house price inflation has eased from over 16 per cent in late 2014 to 7.6 per cent in October 2015 (Chart 25). The annual growth rate in Dublin house prices, which was about 25 per cent in mid-2014, has fallen back to 4.5 per cent according to the October data. Outside of Dublin, where prices reached the low point of the cycle much later, prices are 10.7 per cent higher than a year ago.

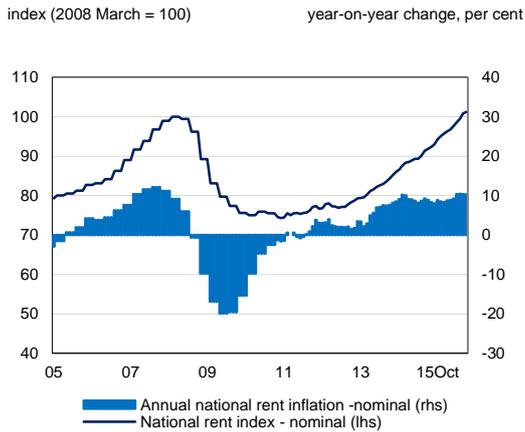
Recent reports from Daft.ie²⁴ and MyHome.ie²⁵ point to a reduction in the growth rate of asking prices, a leading indicator of transaction prices. The latter lists the deterioration in affordability, the introduction of the Central Bank's macro-prudential rules and an increase in the availability of second-hand stock for sale, most noticeably in Dublin, as some of the factors which have led to a cooling of prices. Over the medium term, however, rising disposable incomes, increasing household formation, an overall shortage of housing relative to demand and

²³ Influences on Standard Variable Mortgage Pricing in Ireland, Central Bank of Ireland May 2015.

²⁴ Data from the Daft.ie House Price Report 2015Q3 show that the annual growth rate in national average asking prices has gone from 15.1 per cent to 8.4 per cent between 2014Q3 and 2015Q3, while inflation in Dublin asking prices has fallen from 24.5 per cent to 2.4 per cent over the past year.

²⁵ Among the main findings of the MyHome.ie report Property Report for 2015Q3, are that house price inflation is set to slow to 5 per cent by December and that asking prices on new instructions in Dublin have fallen marginally for the first time since 2012.

Chart 26: Residential rent index

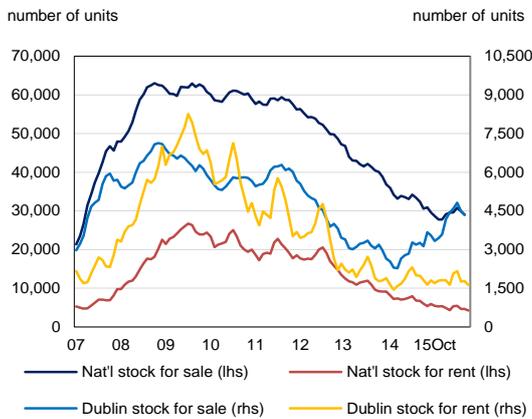


Source: CSO.
Notes: Index value is 100 in March 2008.

strong rental growth can be expected to exercise upward pressure on residential house prices. (Box 3 considers market participants' future house price expectations.)

Annual residential rents have been rising steadily since August 2011 and have now surpassed their early-2008 peak values (Chart 26). CSO data for October 2015 indicate a year-on-year increase of 10.3 per cent in national private rents. Regionally, data from the PRTB rent index indicate that Dublin rents are growing faster than the national average.²⁶ The 2015Q3 "Daft.ie Rental Report" notes that the annual rate of growth in asking rents across parts of the capital is still close to 10 per cent, bringing the cumulative increase since the 2011 low point to over 40 per cent in these areas. It is in counties neighbouring Dublin, however, where rents are currently rising most strongly. Over the past year, counties such as Meath, Kildare and Louth have seen an increase in asking rents of over 11 per cent, as the scale of the rise in rents over time in the capital leads many prospective renters to move further out the commuter belt for accommodation.

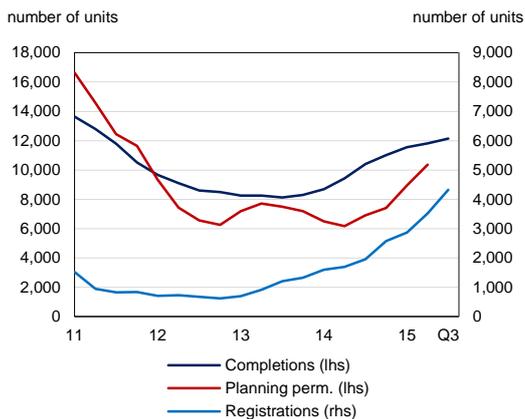
Chart 27: Stock listed for sale or rent on Daft.ie



Source: Daft.ie.

Housing supply is a key determinant of residential property prices and rents. The scarcity of available second-hand units for sale or rent across the country reflects the supply constraints operating within the housing market at present. Despite some stabilization in the number of units for sale nationally, Daft.ie data show that the total of approximately 30,000 units available for sale in September 2015 equates to about half the 2008 level (Chart 27). In Dublin, availability is also down compared to 2008, but has increased markedly over the past 18 months to 4,400 units, from a low of 2,300 in early 2014. Meanwhile, the availability of rental units across the country continues to decline and is at its lowest level since 2007 (Chart 27). According to Daft.ie figures, the number of rental properties listed nationally on their website in October 2015 was less than one-sixth of the 26,600 recorded in 2009 (Chart 27). The Dublin rental market is currently experiencing an acute shortage of units, with less than 1,700 on offer to tenants.²⁷

Chart 28: Recent residential construction activity



Source: Department of the environment, community and local government and CSO.
Notes: Each data point represents the rolling 12 month total of residential property completions (as measured by connections to ESB), planning permissions (of houses and apartments) and registrations data (number of units registered with Homebond). Data on planning permissions are not yet available for 2015Q3.

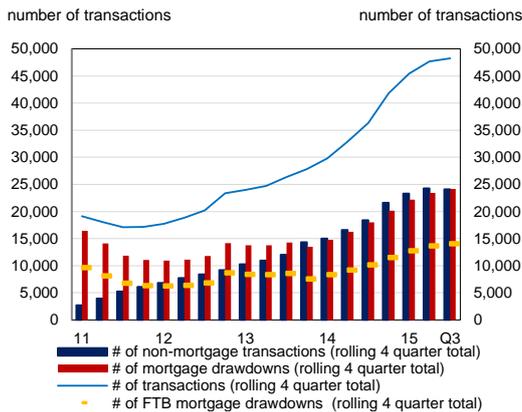
Insufficient house building in recent years is an important reason why supply shortages have arisen in many localities. Even with increasing construction levels (Chart 28), that saw approximately 12,000 completions in the 4 quarters to 2015Q3, the number of new units remains low and well below the estimated 25,000 homes required to meet household formation.²⁸ While forward-looking indicators such as the number of planning permissions, registrations and commencements are rising, they indicate little prospect of an immediate return to the level of construction activity required to meet the current shortfall and to address

²⁶ For further details see the [PRTB Rent Indices Report, Quarter 2 2015](#), produced in conjunction with the ESRI, which shows that, on an annual basis, rents in Dublin were 9.2 per cent higher than 2014Q2 compared to 7.1 per cent nationally.

²⁷ According to Daft.ie data, the average number of Dublin units listed on Daft.ie for rent between 2007 and 2010 was approximately 5,000, compared to less than one third of that at present. Nationally, an average of 17,000 was available during this period, versus approximately 4,200 at present.

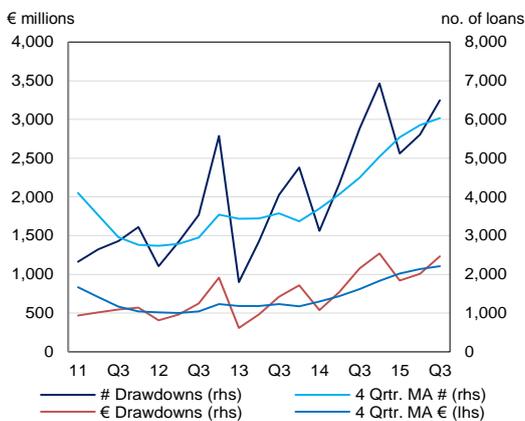
²⁸ See Duffy, D., D. Byrne and J. FitzGerald, "Alternative scenarios for household formation in Ireland", [ESRI QEC, Spring \(2014\)](#). In this article, the authors project a "base case" scenario under which household formation will average c. 25,000 per annum out to 2030.

Chart 29: Residential property transactions and financing



Source: PSRA, BPFi and Central Bank of Ireland calculations.
Notes: The non-mortgage transactions series is calculated as the difference between transactions registered with the PSRA and BPFi mortgage drawdowns for house purchasing activity (i.e. "first time buyers", "movers" and "residential investment letting" purchasers).

Chart 30: Volume and value of quarterly mortgage drawdowns



Source: BPFi.
Notes: Data based on loans for "house purchases" i.e. drawdowns by first-time, subsequent or investment/but-to-let buyers. Drawdown data are quarterly. Chart also includes 4-quarter moving averages (4Qtr. MA) of both series.

Chart 31: Volume of mortgage approvals growth rate



Source: BPFi.
Notes: Series represents annual growth rate of monthly approval (base data) for "house purchases" i.e. drawdowns or approvals granted to first-time, subsequent or investment/but-to-let buyers. Latest observation for September 2015.

projected housing demand. In order to facilitate an expansion in output, matters with the potential to impinge on the provision of new units, such as planning requirements, builder levies, charges and construction costs, access to finance and land availability/usage, need to be reviewed and addressed where necessary.²⁹

The volume of residential property sales grew steadily in the first nine months of 2015, compared with the equivalent period a year earlier. According to the PSRA, approximately 33,000 transactions³⁰, worth €7.2 billion, occurred between January and September, up from 26,500 and a value of €5.5 billion over the same interval in 2014. Recent indications, however, point to a slowing in the rate of growth during the third quarter³¹, resulting in a marginal increase in the volume of annual sales from 47,700 in the 2015Q2 to 48,300 in 2015Q3 (Chart 29). In contrast, the UK recorded approximately 1.2 million transactions, representing 4.4 per cent of total housing stock, in the 12 months to August 2015. To reach a comparable rate of turnover, the current number of sales in the Irish market would need to increase by about 40,000, to 90,000 units per year.³²

Non-mortgage (predominantly cash) buyers are a significant presence in the market and are now consistently accounting for half of total transactions (Chart 29). According to recent data from the UK's Council of Mortgage Lenders, approximately one-in-three homes there are purchased with cash.³³ A high level of cash transactions complicates the analysis of Irish house price developments as the main house price index does not account for non-mortgage sales. The removal of the capital gains tax exemption at the end of 2014 could have been expected to see the proportion of total sales accounted by non-mortgage sales to wane. Instead, the impact of strong rental growth and moderating house prices on rental yields across the country is likely proving attractive to investors (who may be more likely to deal in cash), particularly with bank deposit rates and government bond yields at low levels.

Mortgage drawdown statistics from BPFi for 2015Q3 show that the volume of lending for transactions (i.e. to FTBs, Movers or BTLs) was up 16 per cent on 2015Q2 and 13 per cent on 2014Q2. Approximately 6,500 mortgages were drawn down in the third quarter of 2015, compared to 5,800 a year previously (Chart 30). In value terms, the matching figures are €1.2 billion and €1.1 billion, respectively. About half of those buying houses with a mortgage are FTBs (Chart 29).

Looking ahead, mortgage market activity is likely to remain constrained. Mortgage approvals feed through to drawdown

²⁹ A development worth noting in this regard was the [Government's housing construction announcement \(November 10th\)](#), in which a suite of measures aimed at increasing housing supply were outlined. Changes to planning guidelines and standards, support for housing-enabling infrastructure, the involvement of NAMA in the construction of 20,000 residential units by 2020 and a development contribution rebate for housing schemes which meet certain criteria were among the initiatives listed.

³⁰ In our sample, properties listed as "not full market price" and those which sold for under €20,000 or above €5,000,000 are excluded.

³¹ Cumulative sales in 2015Q3, were 6 per cent higher than the same quarter in 2014. In contrast, cumulative sales in 2015Q2 were 25 per cent higher than the second quarter of 2014.

³² Assuming a total Irish housing stock figure of 2,019, 856, which is calculated using the Department of the Environment, Community and Local Government's housing stock estimate for end 2014, plus new completions to date in 2015. UK data represented by the number of residential property transaction completions with a value of £40,000 or over. For more details on these figures see [NSQ UK Property Transactions Count](#). UK housing stock estimates available [here](#).

³³ See [CML Market Commentary September 2015](#).

trends and provide a sense of what to expect for the remainder of the year. In August, monthly approvals for house purchases fell 4 per cent year-on-year, the first annual decline since November 2013. This was followed by an annual decline of 3 per cent in September. Indeed the pace of annual approvals growth has been falling since early 2015 (Chart 31), which is likely to impact drawdown figures in the coming quarters. It is important to note, however, that these data can experience seasonal fluctuation and some frontloading of lending may have taken place in the final quarters of 2014 before the introduction of macro-prudential lending rules, which may complicate the analysis of mortgage data.

It is difficult to assess what a “normal” or “appropriate” level of mortgage lending for the Irish market would look like. Comparisons with the past do not serve as a satisfactory guide given the unsustainable levels of credit advanced during the 2000s boom. Instead, it may be helpful to gauge developments here relative to those in another mortgage market, such as the UK, where approximately 765,000 mortgages were approved in the 12 months to August 2015, accounting for 2.7 per cent of the UKs current housing stock of about 28 million units. The latest figures for Ireland suggest that the number of mortgages approved over the past year equates to 1.4 per cent of the housing stock, roughly half the current UK level. Negative equity remains a significant issue faced by many borrowers and can be expected to act as a drag on new mortgage lending volumes for some time.

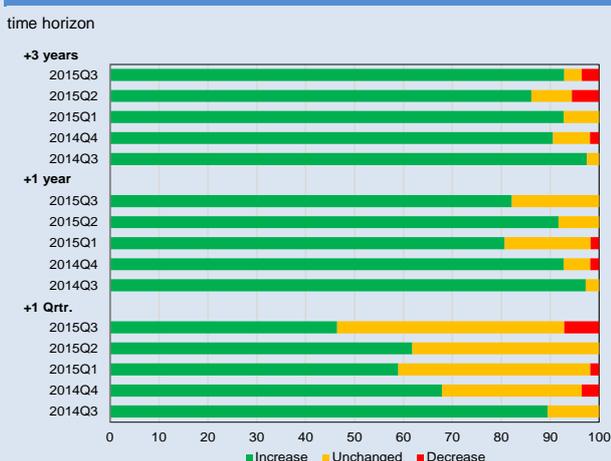
Box 3: Residential property price expectations survey

The Central Bank of Ireland/Society of Chartered Surveyors of Ireland Quarterly Property Survey¹ monitors expectations and developments in the Irish residential housing market, complementing official sources of property market information. The latest survey, covering 2015Q3, was conducted during late-September/mid-October. This Box collates the findings of two questions from the last five surveys (2014Q3 to 2015Q3): the first on participants' future house price expectations and the second seeking assessments of their own current level of sales-related activity compared to the previous quarter. In general, the majority of respondents expect residential property prices to increase in the short-to-medium-term. The share of participants who perceive themselves to be busier than they were the quarter before, in terms of sales-related activity, has been falling in recent surveys. It is important to note that the survey response rate varies over time, with, in particular, a low participation rate in 2015Q3 arising relative to earlier surveys.

Chart A compares data from the five most recent surveys, summarising the outlook for national residential property prices 1-quarter, 1-year and 3-years ahead. In general, while the majority expectation across all three time horizons is that prices will increase, this view is not as widely held as it was 12 months ago. In 2015Q3, the percentage of respondents expecting prices to rise across the +1 quarter, +1 year and +3 year-time frames were 46, 82 and 93 per cent respectively, down from 90, 97 and 98 per cent respectively in 2014Q3. The share of those expecting prices to remain static has grown. In terms of the extent of the anticipated changes, 2015Q3 survey results show that the median expected changes in national residential property prices over all time horizons are lower than comparable figures in the 2014Q3 survey, declining by 3 percentage points over the 1-quarter-ahead (from 4 to 1 per cent) and 1-year-ahead horizons (from 8 to 5 per cent), and by 5 percentage points over the 3-year-ahead category (from 15 to 10 per cent). The trends observed in the CBI/SCSI survey data correspond with evidence from a recent Daft.ie survey² which shows expected national house price changes over the next 12 months declining from a peak of over 5 per cent in 2014Q3 to approximately 3 per cent in 2015Q2.

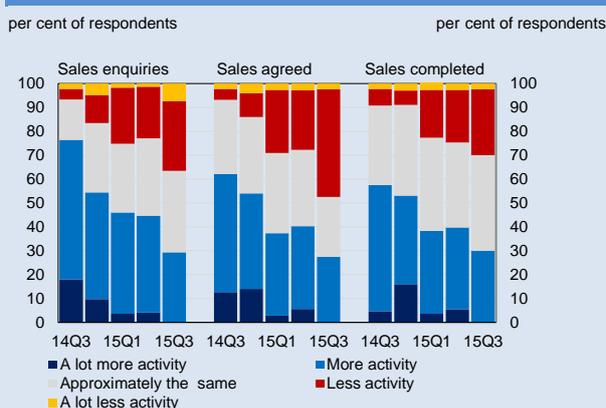
Chart B considers the issue of property market activity, as measured by an individual's perception of their level of sales enquiries, sales agreed and sales completed in a given quarter. Respondents are asked to rank their level of activity against the previous quarter on a five-point scale, ranging from "a lot more activity" to "a lot less activity". In more recent surveys, there appears to be a reduction in the share of respondents considering themselves more active than they were the quarter before, with a corresponding increase in the share reporting themselves to be less active. This is consistent with recent Property Services Regulatory Authority "Residential Property Price Register" data, which show a moderation in the number of transactions of late (see Section 2.3 Residential Property).

Chart A: Expectations of residential property price movements (National): 2014Q3 to 2015Q3



Source: CBI/SCSI.
Note: Based on at least 28 responses.

Chart B: Respondents views on their level of sales-related activity vs. previous quarter: 2014Q3 to 2015Q3



Source: CBI/SCSI.
Note: Based on 52 to 87 responses per survey wave.

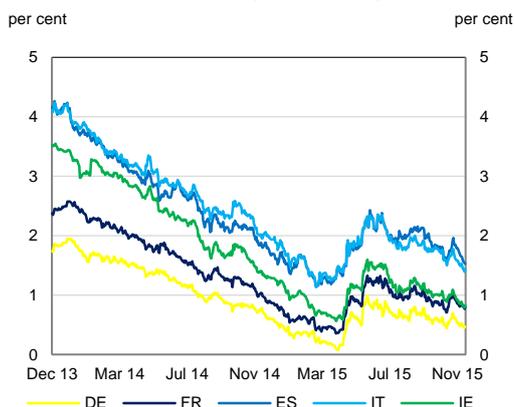
¹ The CBI/SCSI Quarterly Property Survey gauges the views of estate agents, auctioneers and surveyors, as well as those with a more indirect interest in the industry such as economists, market analysts and academics. The main focus of the survey is on participants' price expectations. Questions are also included on activity levels and other market issues. The survey is a snapshot of respondents' views and expectations at a particular point in time and so can provide only limited information about possible future property price developments.

² [Daft.ie 2015Q2 Survey](#)

2.4 Sovereign sector

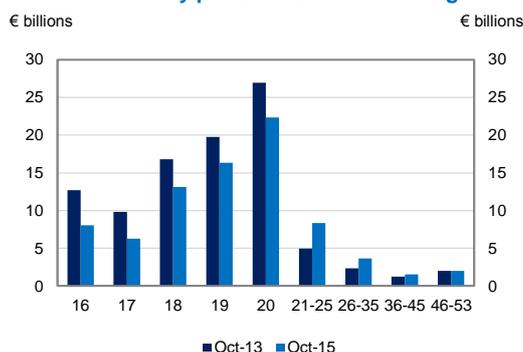
While the domestic fiscal situation continues to improve, the General Government debt ratio remains high. This leaves the sovereign vulnerable to economic and financial shocks. The international financial environment is uncertain with the effects of a future rise in US interest rates on sovereign bond markets unknown, a global search for yield appearing to be impacting asset values, and an Extended Asset Purchase Programme in operation in the euro area since last March. Structural changes in bond markets may render the effects of shocks on yields, and on market conditions more generally, to be amplified.

Chart 32: Sovereign bond yields for selected euro area Member States, 10 year maturity



Source: Thomson Reuters Datastream.
Notes: Chart shows yields on sovereign bonds, ten-year maturity. Last observation: 30 November 2015.

Chart 33: Maturity profile of Ireland sovereign debt



Source: NTMA.
Note: Entries for 2021-25, 2026-35, 2036-2045 and 2046-53 are yearly averages.

Domestic fiscal performance and sovereign financing

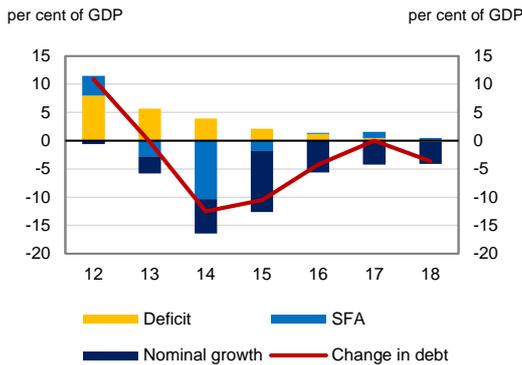
Fiscal performance in Ireland continues to improve. The General Government deficit is now projected to be 2.1 per cent of GDP in 2015, which compares with an initial forecast (in the 2015 Budget) of 2.7 per cent and an outturn for 2014 of 3.9 per cent. Tax revenue being well ahead of target is the main factor behind this better-than-expected performance, although government expenditure is projected to exceed its initial target. The General Government gross debt-to-GDP ratio is falling and is expected to have a value of 97 per cent at year-end, down from a peak of 120 per cent in 2012. The end-2015 net debt ratio is forecast at about 80 per cent. Deficit and gross debt ratios of 1.2 and 93 per cent, respectively, are forecast for 2016. Future budgets will be framed under the “preventive arm” of the EU Stability and Growth Pact. This includes setting a medium-term budgetary objective for each Member State as well as an expenditure benchmark, constraining spending by the potential growth rate of the economy.

Sovereign bond yields remain near historical lows. They increased for many euro area Member States, including Ireland, in late Spring before falling subsequently (Chart 32). The NTMA has raised €13 billion in the year to date, within the target range of €12 billion-€15 billion set for 2015.³⁴ Since the sovereign exited its EU-IMF programme in December 2013, the maturity profile of government debt has been extended through debt issuance and pre-payment of IMF loans (Chart 33). Ratings agency Standard & Poor’s upgraded its Ireland rating from A to A+ in June. More recently, Fitch, Moody’s and DBRS raised their outlook on Ireland from “stable” to “positive”, while leaving existing credit ratings unchanged.

Notwithstanding the improving public finances, Ireland is a small open economy and, consequently, vulnerable to external shocks. Negative shocks could impact adversely on the output growth rate which is a component of deficit and debt dynamics. The reduction in the debt ratio in 2014 and 2015, for example, was heavily reliant on nominal GDP growth (Chart 34). Indebtedness – both private and public – remains relatively high

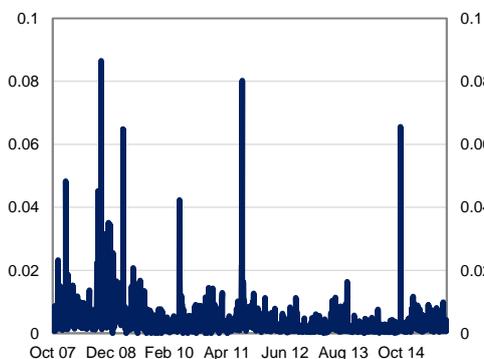
³⁴ NTMA statement, 8 October 2015.

Chart 34: Determinants of changes in the General Government gross debt ratio



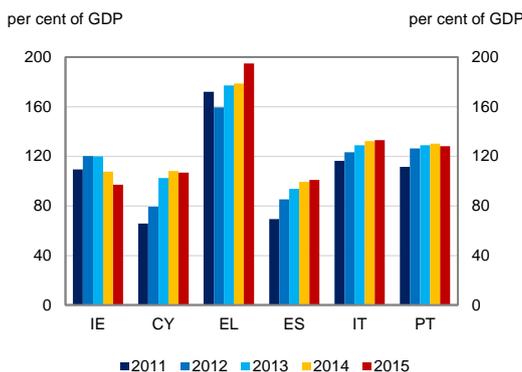
Source: Department of Finance, EU AMECO database.
Notes: SFA refers to stock-flow adjustment. Change in debt refers to the change in the debt ratio from the previous end-year.

Chart 35: Intra-day volatility in US sovereign bond markets



Source: US 10-year yield data from Bloomberg. Internal calculations.
Notes: Volatility calculation based on formula from Garman, M., Klass, M. (1980). "On the estimation of security price volatilities from historical data." *Journal of Business*, 53, 67-78.

Chart 36: General Government gross debt ratios in selected euro area Member States



Source: EU AMECO database and Department of Finance.

in Ireland, which could exacerbate the effects of any economic or financial shock on the public finances.

External environment

The international financial environment is uncertain at this time. Monetary policy has resulted in low interest rates in most developed economies. There is a search for yield in financial markets, including in fixed-income markets. This could have the effect of sovereign bond yields becoming detached from their long-term determinants and, thus, vulnerable to a rapid upward correction if investor sentiment were to change. An ESCB EAPP has been underway since March 2015. Monthly purchases of €60 billion of assets will occur until the end of March 2017, or beyond, if necessary. The monthly purchase of assets relates, principally to sovereign debt. A rise in inflation rates could put upward pressure on bond yields.

The effects of changes to monetary policy, including a rise in official interest rates in the US, on bond markets are unknown. The Federal Reserve increasing interest rates could cause a sharp rise in US bond yields as investors sell sovereign bonds.³⁵ While such a response to changes in monetary policy could originate in larger sovereign markets, it could spill over to markets such as Ireland's and put upward pressure on yield levels. A related issue is that bond markets appear to have become less liquid in recent years and that market liquidity could now be less resilient to shocks.³⁶ This may reflect structural factors, including diminished market-making by banks. Thinner trading in sovereign bond markets could exacerbate the effects on yields of a rise in official interest rates or a reversal of the search for yield. Lower market depth can also add to short-term volatility.

Episodes of high intraday volatility are now occurring in bond markets without any identifiable economic cause and possibly reflecting market structure. In the US sovereign bond market, for example, high intraday volatility occurred on 15 October 2014 (marked by a value of 0.065 in Chart 35). Bond yields moved by about 35 basis points within the day, initially falling and then recovering by close-of-business. An assessment of these market developments indicated that among the factors possibly behind them were "the effects of regulatory changes on banks and broker dealers' ability or willingness to make markets and warehouse risk in times of stress".³⁷ It also concluded that there is an increased potential for further episodes of volatility and impaired liquidity in US Treasury markets.

This summer was marked by uncertainty surrounding Greece and its bailout programme. A €86 billion loan package from the European Stability Mechanism to Greece was agreed in August.

³⁵ See pp.30-31 in [IMF Global Financial Stability Report, April 2015](#)

³⁶ See "Market liquidity - resilient or fleeting", chapter 2, [IMF Global Financial Stability Report, October 2015, pp.49-82](#) and "Market making and proprietary trading: industry trends, drivers and policy implications", [BIS CGFS Paper No. 52, November 2014](#).

³⁷ [Treasury Market Practices Group, 26 February 2015 meeting minutes](#)

Greece is projected to have an extremely high government debt ratio in the years ahead. Debt ratios continue to rise or remain high in many other euro area Member States as well, including many with whom Ireland has been compared in recent years (Chart 36). A rise in yield values or market turbulence can raise questions of fiscal sustainability when debt ratios are at high levels.

Yield rates in many euro area sovereign bond markets increased by about 50 basis points in late April-early May without an obvious trigger. Some of the factors mentioned above may have contributed to that rise, including concern in relation to Greece. Volatility in German bond markets was high during May and June 2015. Particularly high volatility occurred on 7 May when yields on long-term German bonds surged 21 basis points within the day before declining to end the trading day at the previous day's closing value.³⁸

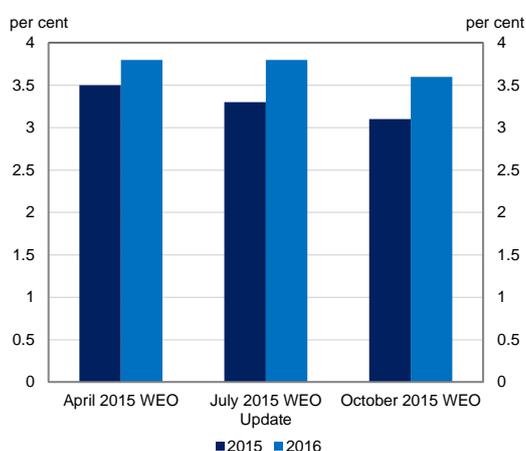
³⁸ See [Riordan, R., and A. Schrimpf, "Volatility and evaporating liquidity during the bund tantrum", BIS Quarterly Review, September 2015, pp. 10-11.](#)

3. Financial system

3.1 International financial environment

The outlook for the global economy has weakened since the last Review. Declines in oil prices, and in commodities more generally, has put downward pressure on inflation rates. Persistently low inflation and muted growth are not supportive of debt sustainability in euro area sovereign and corporate sectors. The potential for an abrupt reversal of prevailing low yields and compressed risk premia in financial markets and the possibility of the growing shadow banking sector acting as a transmission channel for shocks to the wider financial system arise in the international financial system.

Chart 37: Global growth forecasts



Source: IMF WEO.
Notes: Growth rate of global real GDP.

International macroeconomic and financial developments

The outlook for the global economy has deteriorated since the publication of the last Review. As the year has progressed, the IMF has lowered its global growth forecasts for 2015 and 2016 (Chart 37). This reflects downward revisions in projected growth rates for both advanced and emerging market economies.

It is still expected, however, that growth in advanced economies will strengthen this year and next, albeit to a lesser extent than previously anticipated. Growth in the euro area remains moderate as the economic recovery continues to lag behind that of the US and the UK.

The ECB has lowered its euro area growth forecasts marginally for 2015 and 2016 during the year. Both headline and core inflation rates in the euro area remain subdued. A renewed decline in oil prices puts further downward pressure on inflation rates in the euro area and more globally. Persistently low inflation and low nominal growth are not supportive of debt sustainability in the sovereign and corporate sectors in the euro area.

Chart 38: Euro area inflation expectations – 5 Year/5 Year inflation swap

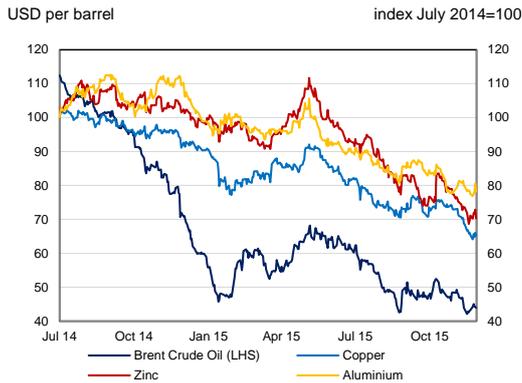


Source: Thomson Reuters Datastream.
Notes: EUR 5Year/5 Year inflation forward swap rate is constructed from the ICAP EU inflation-linked HICP 10 Year and 5 Year swaps. Last observation: 27 November 2015.

Market-based measures of inflation expectations, such as the five-in-five year inflation swap rate, have shown that expectations of medium-term inflation rates have been falling in recent months (Chart 38). However, the ECB's survey-based measure, the Survey of Professional Forecasters, has continued to show more stable long-term expectations, at a value of 1.9 per cent. The EAPP, which commenced in March 2015 and is scheduled to continue until March 2017 at least, has also had a small, upward impact on inflation and inflation expectations in the euro area.

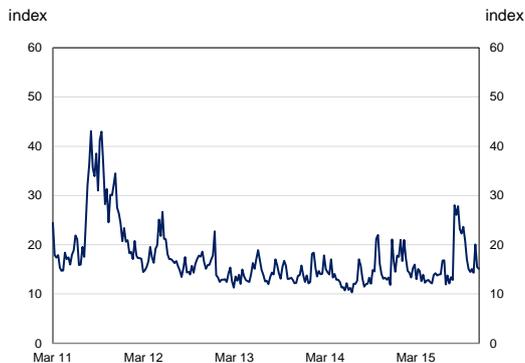
The anticipated tightening of US monetary policy is expected to occur gradually. At present Federal Funds futures prices imply that the first interest rate increase is most likely to occur before end-2015. To date, the US Federal Reserve has cited heightened market volatility and downward pressure on inflation

Chart 39: Oil and commodity prices



Source: Thomson Reuters Datastream. Last observation: 27 November 2015.

Chart 40: Financial market volatility – Chicago Board Options Exchange Volatility Index (VIX)



Source: Thomson Reuters Datastream. Last observation: 27 November 2015.

in maintaining interest rates at existing levels. In the UK, output growth is expected to moderate, but remain above 2 per cent.

In emerging markets, the Chinese economy has been moving to a lower growth path in recent years. The rebalancing process is on-going as China moves away from highly-leveraged, investment-driven growth towards more consumption-driven growth and debt-deleveraging. Recent data indicate that the slowdown may prove to be more pronounced than previously anticipated. Weaker import demand in China would put further downward pressure on commodity prices which have been declining in recent quarters (Chart 39). A greater-than-expected slowdown in Chinese growth would pose risks to global financial stability and economic growth.

While growth and trade are the main channels through which China affects the global economy, financial market and foreign exchange market spill-overs from it to other economies have become more pronounced of late. Developments in Chinese equity markets and a devaluation of the Yuan were instrumental in global financial market volatility indices reaching four-year highs in August (Chart 40).

Financial stability risks to the international financial system

The potential for an abrupt reversal of prevailing low yields and compressed risk premia in financial markets is the main financial stability risk facing the euro area and the international economy more generally (see Box 4 for a further discussion). A tightening of US monetary policy or an adverse economic shock could trigger an increase in risk premia. Low levels of secondary market liquidity, particularly in fixed-income assets, and an increased tendency for different asset classes to move together could amplify any market adjustments to such events.

The shadow banking sector has been increasing in size in recent years and is playing a more important role in the credit intermediation process. As credit intermediaries taking on both maturity and liquidity mismatches, shadow banking entities are susceptible to run risk. A concern then is that the sector could act as a transmission channel for shocks to spread to the wider financial system and real economy.

Weak profitability in the European financial sector remains an issue. On the banking side, continuing modest economic growth and a stock of problem loans weigh on profitability. For the insurance sector, the prevailing low policy interest rates pose challenges. The main risks relate to life insurance companies in some countries where guaranteed returns are high and maturity mismatches between assets and liabilities exist.

Box 4: Risks to financial stability in a low interest rate environment

Market and official interest rates in the euro area and elsewhere are currently at historically low levels. While this may help to stimulate economic activity, raise inflation rates and provide support to heavily-indebted entities, persistently low interest rates can also pose a threat to financial stability by potentially having a negative impact on the financial system and various economic sectors. Potential risks may be considered both in terms of those stemming from the low interest rate environment itself, such as the possibility that it may induce financial institutions to engage in riskier activities to enhance profits, and those risks caused by a change in these financial circumstances. This box summarises some of those risks.

A number of factors are contributing to the low interest rates and yield values currently prevailing in international financial markets, including the level that official interest rates are set at, quantitative easing programmes such as the ECB EAPP, and real economy factors such as a potential slowdown in productivity growth.¹ Addressing low inflation is the primary objective of the EAPP but it should also aid economic growth, enhance asset valuations and improve banks' balance sheets. The medium-term effects of such policies, however, are likely to be complex and uncertain. Moreover, the evaluation of these policies remains challenging due to a lack of consensus regarding particular thresholds, for example in assessing whether asset prices are significantly mis-priced or not.² The conclusion of quantitative easing programmes and an eventual rise in policy rates, along with the corresponding market response, could pose challenges.

The main risk to financial stability from very low interest rates is the potential for excessive risk-taking by investors and financial institutions. This, in turn, may lead to asset mispricing, a situation in which assets are not appropriately priced relative to their underlying risk. This can arise when investors purchase assets at prices above (or, alternatively, below yields) warranted by their risk characteristics. Speculative behaviour caused by long term excessive liquidity may also drive asset price bubbles. A reversal of interest rate expectations could trigger a "flight-to-safety" as investors seek to sell riskier securities and hold their wealth in "safer" assets. Market illiquidity could also arise as investors are unable to sell asset holdings or can only trade against large bid-ask spreads.

In the banking sector, low interest rates have supported banks' balance sheet repair and impacted funding conditions, such as bringing the cost of customer deposits down. They have, however, also led to a flattening of yield curves and put pressure on net interest margins, contributing to weakened profitability. This could lead banks to follow riskier investment strategies in order to boost income. It could also cause them to relax loan standards and increase lending, leading to an excessive expansion of credit in the economy. A change in monetary policy and/or a reversal in the search for yield in financial markets could reduce the value of sovereign bond holdings on bank balance sheets through an increase in yields. Such developments could also raise concerns about fiscal sustainability for high debt countries. For insurance firms and pension funds, an extended period of low interest rates could weaken investment income and profitability, thereby providing an incentive to invest in riskier asset classes. It could also pose difficulties for life insurance firms and pension funds offering products with guaranteed returns, an issue in some countries. The low interest rate environment could lead to further growth in the non-bank financial sector, which is dominated by investment funds. A change to the low interest rate environment could instigate a reversal of investor inflows into the sector, forcing funds to sell debt securities into declining markets.

Beyond the financial sector, the household and NFC sectors will benefit from any improved economic momentum arising from the low interest rate environment. However, high levels of debt in these sectors leaves them vulnerable to any adverse interest rate shocks. For NFCs, rate increases could restrict those firms' access to credit. A low interest rate environment could lead to increased investment in residential and commercial real estate. This would have the potential to move valuations for these assets away from fundamental values. There is also the possibility that interconnectedness between various sectors could lead to feedback loops between them as adverse shocks induced by a reversal in interest rate expectations are transmitted through the macro-financial system.

Recent assessments of conditions under the low interest rate regime have found that global financial market volatility has increased of late and currently financial risk-taking in the euro area is deemed to be high, while financial prices in most asset sectors have continued to increase. Although asset prices have risen relative to fundamentals, this has not been accompanied by increased banking sector leverage or a credit expansion, indicators of asset price bubbles.³

In summary, a prolonged period of low interest rates carries both upside and downside risks to financial stability and, while the long-term effects are likely to be on the upside, the short- and medium-term effects are uncertain. Due to this uncertainty, the situation requires continuous monitoring and assessment, as is on-going in the ESCB.

¹ For more information on the EAPP please see [Box 4 in MFR 2015: I](#).

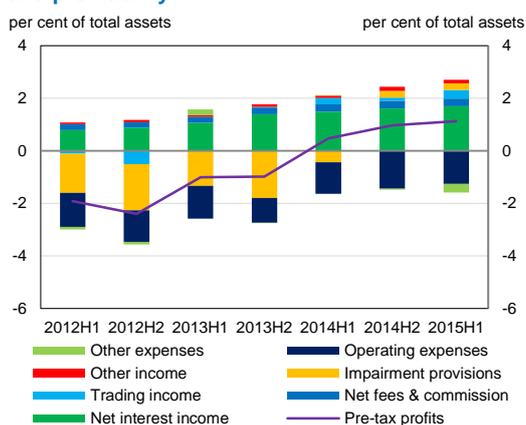
² Due to this complexity the discussion within this Box is restricted to an overview of the issues.

³ For more information please see [May 2015 ECB Financial Stability Review](#).

3.2 Banking sector

While there have been positive developments in the domestic banking sector over the last six months, the recovery in banks' profits remains weak. The improvement in profitability has been mainly driven by write-backs of impairment provisions. The high level of impaired loans remains a challenge for the banking system. The improving domestic economy should help in the work-out of these impaired exposures. Where write-backs of impairment provisions occur they should be conservative in nature and accurately reflect sustainable improvements in loan performance. The capital ratios of domestic banks have improved since the last Review. The composition of capital and the ineligibility of certain aspects under new capital requirements, however, remain issues for domestic banks to contend with. The aggregate balance sheet continues to decrease in size with low, albeit increasing, levels of new lending being offset by redemptions of existing loans. Market funding remains susceptible to changes in investors' risk appetite and sentiment towards the banks and the Irish sovereign.

Chart 41: Breakdown of domestic banks' income and profitability



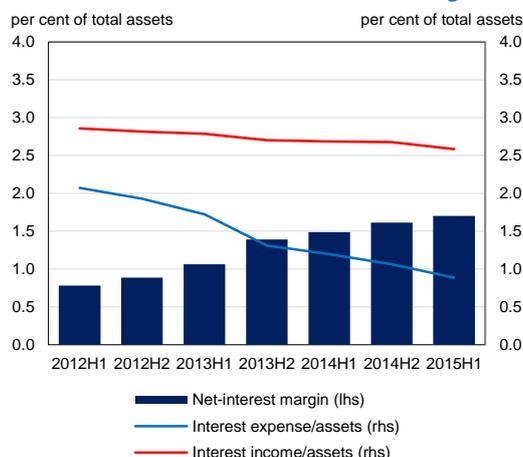
Source: SNL Financial and Central Bank of Ireland calculations.
Note: Data are annualised

Income and profitability

Domestic banks' profits increased further in the first six months of the year (Chart 41) while remaining weak. Broadly favourable conditions in banks' operating environment helped contribute to increases in domestic banks' income during that period (Chart 41). Total operating income was 14 per cent higher in the six months to June than in the corresponding period in 2014. All the main categories of income increased as a combination of economic and financial market conditions supported income growth.

Net-interest income, the largest share of income, increased by 17 per cent year-on-year. Over the same period, reductions in interest expenses were over 27 per cent, and are the main contributing factor to the rise in net-interest income (Chart 42). Gross interest income declined by 6 per cent. As domestic banks' funding has moved away from market-based funding to a greater reliance on customer deposits, they have been able to reduce funding costs. The declining balance of liabilities covered by the Eligible Liabilities Guarantee scheme has also contributed to lower costs. New lending, while increasing, remains at levels which are being offset by redemptions of existing loans. The reliance on lower funding costs to support income growth is not a viable long-term source of earnings growth. A reversal in the prevailing risk appetite of market participants and an eventual increase in official rates are challenges domestic banks will face in maintaining net-interest margins given the high rates of impaired assets (Box 5 discusses challenges in this area).

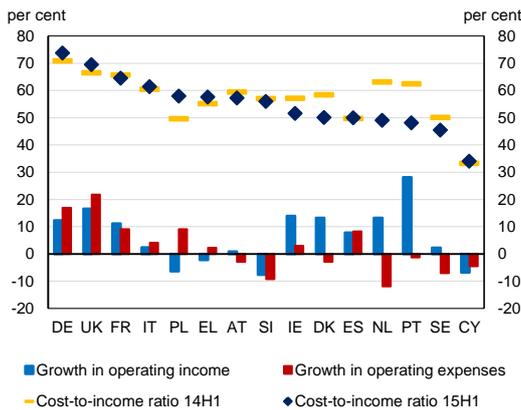
Chart 42: Domestic banks' net-interest margins



Source: SNL Financial and Central Bank of Ireland calculations.
Note: Data are annualised.

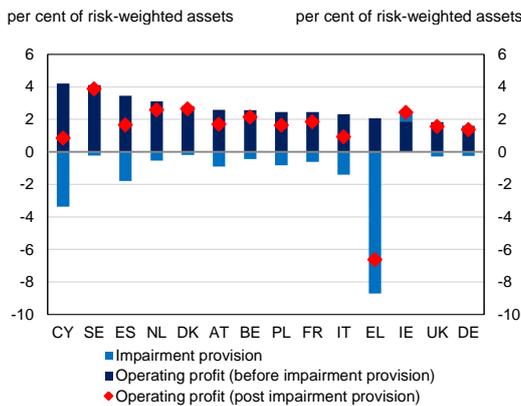
Net fees and commission recorded a small increase, of 2 per cent. On foot of broadly favourable financial market conditions, trading income increased by 27 per cent and accounts for over 13 per cent of total income (Chart 41). A diversification of income sources is a positive development. Given the potential for volatility in financial markets, however, banks need to ensure

Chart 43: Cross-country comparison of cost-to-income ratios



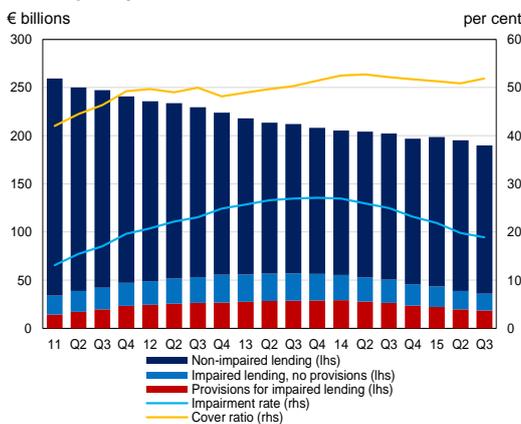
Source: SNL Financial and Central Bank of Ireland calculations.
 Notes: Country values are based on a minimum sample of three banks from each country. The sample of banks was drawn from the list of banks that participated in the 2014 EBA stress testing exercise. Data relate to 2014 H1 and 2015H1. Growth in income and expenses values compare the change in 2015H1 values to those of 2014H1.

Chart 44: International comparison of pre-tax profitability



Source: SNL Financial and Central Bank of Ireland calculations.
 Notes: Country values are based on a minimum sample of three banks from each country. The sample of banks was drawn from the list of banks that participated in the 2014 EBA stress testing exercise. Data relates to 2015H1. A negative impairment provision value implies new provisions have been set aside to deal with impaired assets thus reducing profitability. A positive impairment provision implies there has been a net write-back of provisions which have contributed to overall profitability.

Chart 45: Domestic banks' credit exposures and asset quality



Source: Central Bank of Ireland.
 Notes: Data are consolidated. Total lending is represented by drawn exposures. Impairments are represented by default loans as defined in the CRD. The cover ratio is calculated by dividing the value of provisions for impaired loans by the value of impaired loans.

that their income base is resilient through the cycle. Compressed risk premia and the low interest rate environment may be overstating domestic banks' underlying profitability through the significant growth in trading income and through lower funding costs. Despite some positive developments, domestic banks continue to face challenges in terms of developing business models that are capable of producing sustainable income. A UK exit from the EU could have implications for the profitability and business models of banks and other financial institutions. The Central Bank has been engaging with firms across all sectors regarding these risks (see Box 6 for further discussion of the potential implications for the Irish financial sector of a UK exit from the EU).

Operating expenses increased marginally on the corresponding period last year (Chart 43). Personnel expenses which represent the largest portion of expenses increased by 13 per cent. However, this was partially offset by reductions in other expenses. The combination of low growth in expenses and the increases in income has seen domestic banks' cost-to-income ratios improve further and they compare favourably to other EU banking sectors (Chart 43).

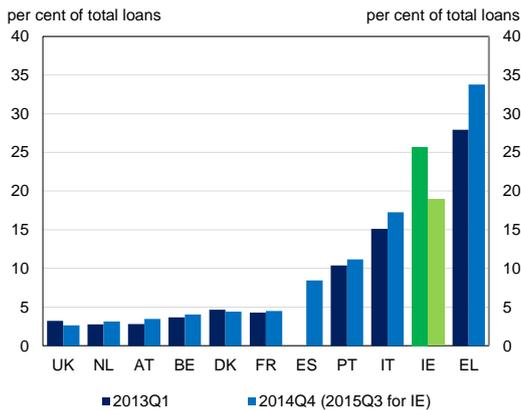
The recovery in profitability of recent years has been mainly driven by write-backs of impairment provisions. Improvements in asset quality and, in turn, write-backs reflect progress in terms of repairing bank balance sheets. However, given the magnitude of impaired loans, it is important that write-backs are balanced and appropriate. In an environment where profitability levels across the European banking system are weak, domestic banks compare poorly when operating profit before impairment provisions is used (Chart 44).

Credit and asset quality

The total outstanding value of NPLs has decreased by almost 40 per cent from its 2013Q3 peak, and by €14.6 billion over the year, to €35.9 billion in 2015Q3 (Chart 45). The fall has been evident across all major loan categories in recent quarters, with the biggest reductions occurring in commercial property portfolios, where delinquent loans are down by €6.5 billion in the last 12 months. Portfolio disposals and write-offs, a slowing in the formation of new arrears due to the economic recovery, greater efforts to re-engage affected borrowers and a more active approach to managing and restructuring existing NPLs have all contributed in this regard.

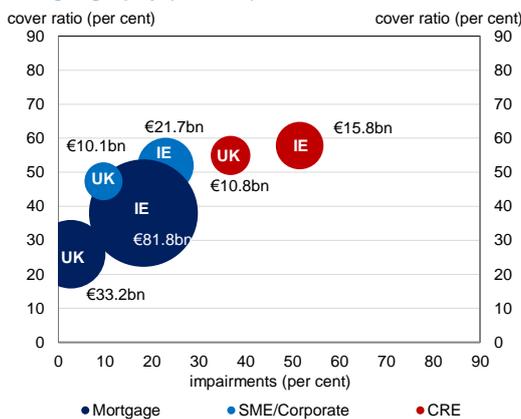
Nevertheless, the level of impaired lending remains elevated. Just under one-fifth of outstanding loans, by value, are non-performing, a high figure by international comparison (Chart 46). In general, the necessity to set aside provisions for a substantial amount of NPLs hampers the ability of banks to supply credit to the real economy. Any additional losses, above those provided for, would have a damaging impact on institutions' profitability and solvency. The resolution of legacy arrears is a crucial

Chart 46: Non-performing loans: European comparison



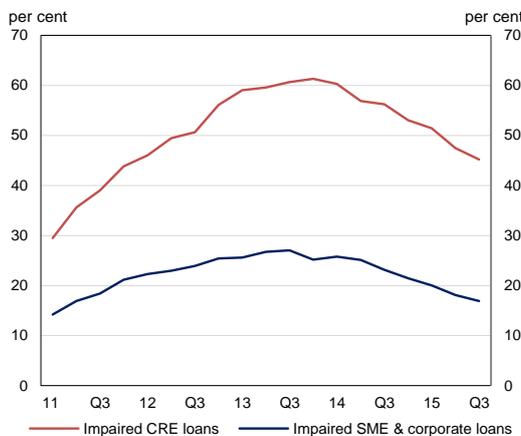
Source: Central Bank of Ireland and IMF, Financial Soundness Indicators.
 Notes: IMF data sourced from [OECD \(2015\), Economic Surveys: Ireland 2015](#). Data for all countries except Ireland are from 2013Q1 (dark blue) and 2014Q4 (light blue). Irish data are from 2013Q1 (dark green) and 2015Q2 (light green). 2013Q1 data for Spain are not available.

Chart 47: Domestic banks' asset quality by sector and geography (2015Q3)



Source: Central Bank of Ireland.
 Notes: Data are consolidated. Impaired loans are expressed as a percentage of lending to that particular sector. Size of circle represents the value of overall lending to that particular sector.

Chart 48: Domestic banks' rate of SME/corporate & CRE impaired loans



Source: Central Bank of Ireland.
 Notes: Data are consolidated and represent impairment rate for each sector.

determinant of the future performance of the domestic banks.

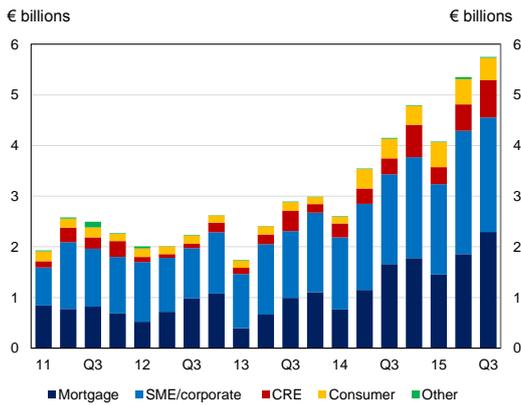
The stock of impairment provisions has fallen since the publication of the last Review, owing to a combination of improving collateral values, a reduction in distressed loan holdings, the use of more benign assumptions in the calibration of loan-loss models and the restructuring of impaired loans. The stock of provisions dropped to €18.6 billion at the end of 2015Q3, approximately €10.5 billion lower than the peak figure of March 2014. Despite this reduction, provision coverage (the cover ratio) has been relatively stable at above 50 per cent over the past few years, increasing marginally to 51.9 per cent at end-September 2015 (Chart 45), and is close to the European average. The large share of NPLs and a provisioning approach based on underlying collateral values means that property price developments are a key factor in determining the level of impairment provisions and, consequently, banks' profitability levels.

Despite signs of progress, the process of arrears resolution is proving protracted and complex. Central Bank statistics for the end of June 2015 show a decline of almost one-quarter in the value of all mortgages (PDH and BTL) greater than 90 days past due since the 2013Q3 peak. PDH loans account for €13.8 billion of the impaired mortgage loan total of €21.1 billion. Some €8.3 billion of those impaired PDH loans are greater than 720 days in arrears. The remaining €7.2 billion of loans greater than 90 days past due relate to BTL mortgages, €4.6 billion of which are at least 2 years past due. The scale of long-term mortgage arrears and the likelihood that many of these exposures will be resolved via legal means ensures their resolution is likely to take some time.

Proportionately, the share of delinquent loans in the CRE and SME/corporate loan books is much higher than in the mortgage book, while the UK portion of the loan book is currently performing better than the Irish component (Chart 47). As of September 2015, €12.2 billion of outstanding CRE loans and €6.5 billion of SME/corporate loans were in arrears. This equates to just under half of total commercial property loans (45.2 per cent) and approximately one-fifth (16.9 per cent) of total SME/corporate loans (Chart 48). The recovery in commercial property values (see section 2.2) has helped reduce the impairment rate in that sector by making it easier for the domestic banks to dispose of commercial property assets. Nevertheless, on-going yield compression and an increase in asset disposals by European banks with deleveraging plans of their own could make future asset sales more challenging. The percentage of distressed SME/corporate loans continues to fall on the back of the wider economic recovery.

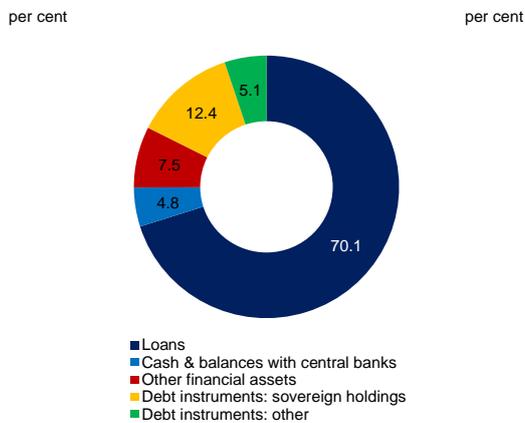
Loan balances at domestic banks contracted once again in 2015Q3. Redemptions, portfolio sales and loan-restructures (including write-offs) during the quarter have seen the value of

Chart 49: Domestic banks' new lending



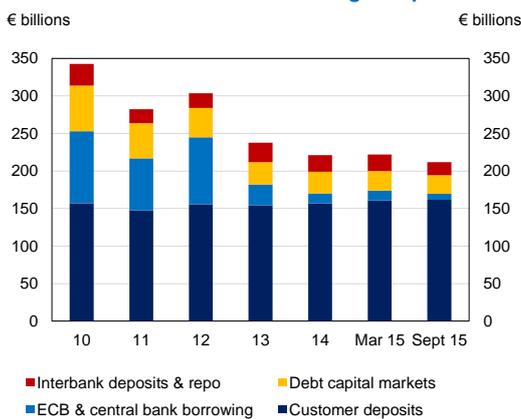
Source: Central Bank of Ireland.
Notes: Data are consolidated.

Chart 50: Domestic banks' breakdown of assets



Source: Central Bank of Ireland.
Note: Data relate to 2015Q2.

Chart 51: Domestic banks' funding composition



Source: Central Bank of Ireland.
Notes: Data are consolidated.

outstanding lending decline by 2.8 per cent since the end of June 2015, and by 6.1 per cent year-on-year, to €190 billion (Chart 45). Domestic banks' loan books remain relatively concentrated with property-related loans³⁹ accounting for about 75 per cent of the total.

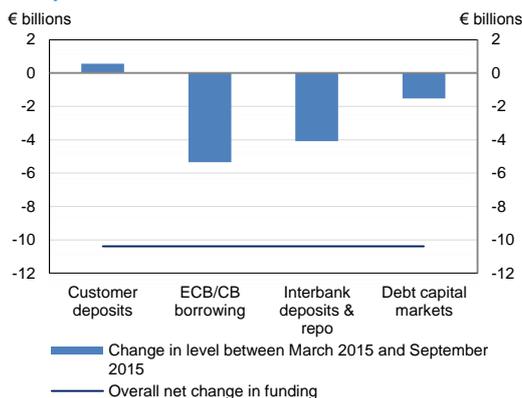
New lending is relatively subdued despite strong economic growth and remains below levels required to offset loan redemptions. Total new lending volumes during 2015Q3 rose to €5.8 billion from €5.3 billion in 2015Q2 (Chart 49). The sectoral mix has remained largely unchanged over the past year. Approximately 43 per cent of new lending is SME/corporate-related, (the manufacturing, hotel and restaurant, wholesale and retail, business and administration services, and primary industry sectors are prominent within this)⁴⁰. A further 37 per cent of new lending volumes since end-September 2014 were residential mortgages. While new CRE lending is still quite muted, it may increase in the coming years through the provision of refinancing facilities to investors as large portfolios of commercial property, purchased in the immediate aftermath of the property crash, are broken up and sold off to investors who will likely require debt financing. It is important, as the economic recovery continues and the demand for credit expands, that banks continue to use prudent lending standards.

In terms of the geographic mix of loans, the Irish share of new lending accounted for 48 per cent of the total in 2015Q3, down from 50 per cent a quarter earlier and 57 per cent in 2014Q3. The bulk of the remainder is made up of UK loans, which made up 40 per cent of new lending in the third quarter, up from 33 per cent a year earlier. The growth in UK lending is being driven predominantly by mortgages which represent €1.3 billion of the €2.3 billion newly originated loans in 2015Q3, increasing the significance of the UK housing market as a source of credit risk.

After customer loans, domestic banks' holdings of debt instruments account for the largest share of assets (Chart 50). Debt instruments constitute approximately 18 per cent of total assets with sovereign bonds accounting for the majority, although the absolute value of holdings has fallen since the last Review. The holdings of government debt may reflect a number of factors ranging from banks' attempts to diversify their balance sheets to precautionary holdings for liquidity purposes.⁴¹ The ESRB argues that the regulatory treatment of sovereign bonds may have led to excessive investment by financial institutions in government debt.⁴² Low, and in some cases, zero risk-weighting of sovereign debt could underestimate the underlying sovereign risk.

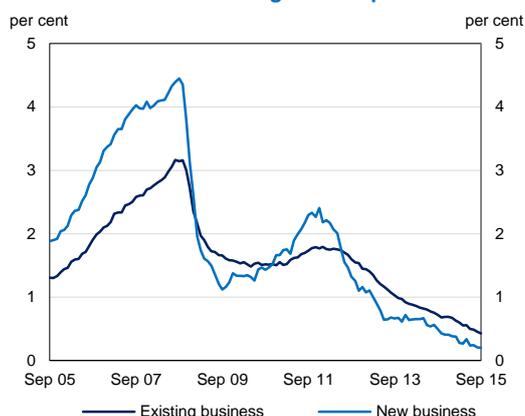
³⁹ Data for the domestic banks show that residential mortgage lending stood at €115 billion, while the value of CRE loans was €27 billion at the end of 2015Q3.
⁴⁰ According to the data, hotels and restaurants received 16.3 per cent, manufacturing 16.2 per cent, wholesale/retail trade and repairs 12.2 per cent and primary industries 10 per cent of new lending to the SME/corporate sector.
⁴¹ Sovereign bonds can count towards banks' liquid assets under the new liquidity coverage ratio (LCR) framework and can also be used as collateral under Eurosystem credit operations.
⁴² For more see [European Systemic Risk Board \(2015\) 'report on the regulatory treatment of sovereign exposures', March 2015](#)

Chart 52: Change in domestic banks' funding composition



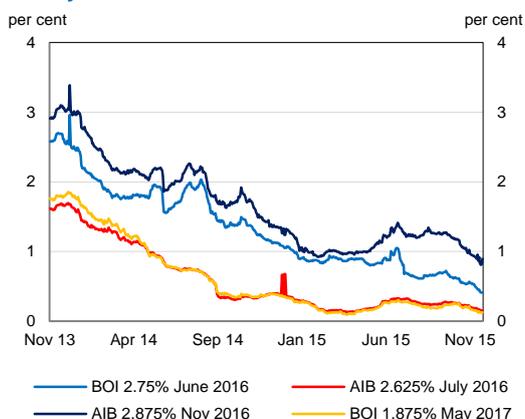
Source: Central Bank of Ireland.
Notes: Data are consolidated.

Chart 53: New and existing retail deposit rates



Source: Central Bank of Ireland.
Notes: Data relate to new and existing business rates offered to households and NFCs conducted through resident offices of banks operating within the State.

Chart 54: Domestic banks' secured and unsecured bond yields



Source: Bloomberg.
Notes: Last observation: 30 November 2015. AIB 2.875% Nov 2016 and BOI 2.75% June 2016 are senior unsecured bonds. AIB 2.625% July 2016 and BOI 1.875% May 2017 are secured bonds.

Funding

Since the last Review, domestic banks' funding levels have decreased. Customer deposits have continued to increase while ECB/central bank funding has fallen. The majority of funding is categorised as having a short maturity, which is due to the high share of customer deposits. Domestic banks are benefiting from the current global search for yield and positive investor sentiment, including towards them and Ireland, in terms of access to and the price of market funding. Banks are meeting liquidity requirements under the CRR, although challenges remain in the medium term. The introduction of the BRRD in early 2016 may impact banks' funding plans.

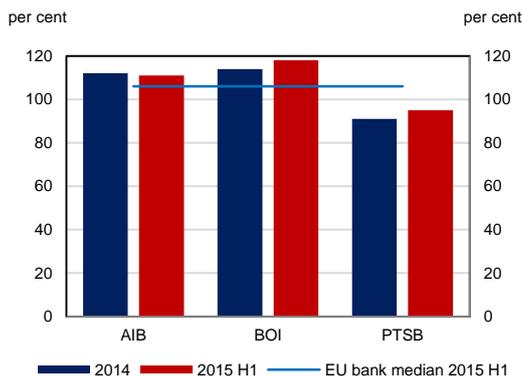
Between March and September 2015, total funding declined to €211.8 billion (Chart 51). Domestic banks' reliance on ECB/central bank funding continues to fall, declining by over €5 billion between March and September and accounting for 3.6 per cent of total funding in September (Chart 52). The reduction in this category has driven an overall net decline in funding of over €10 billion in 2015Q3.

Customer deposits have increased marginally since March 2015. They continue to comprise the largest component of funding, accounting for over 76 per cent of the total. The maturity profile of overall funding remains weighted to the short term due to this large proportion of customer deposits. Deposit rates on new and existing business continue to decline in line with market and policy rates (Chart 53). Between March and September, rates on existing deposits held by the domestic banks declined by almost 17 basis points while interest rates on new business fell by 7 basis points.

Domestic banks' funding costs continue to benefit from the ongoing reduction in liabilities covered by the ELG scheme. By the end of September, less than 2 per cent of domestic banks' liabilities were included in the scheme. Lower levels of covered liabilities have resulted in decreased costs for the domestic banks in the form of ELG fees, which has also contributed positively to banks' profitability. This fall in domestic banks' holdings of guaranteed liabilities is a result of the termination of the ELG Scheme in March 2013. The guarantee is still in place for those liabilities acquired before this date and will remain in place until their maturity date, or 2018 at the latest.

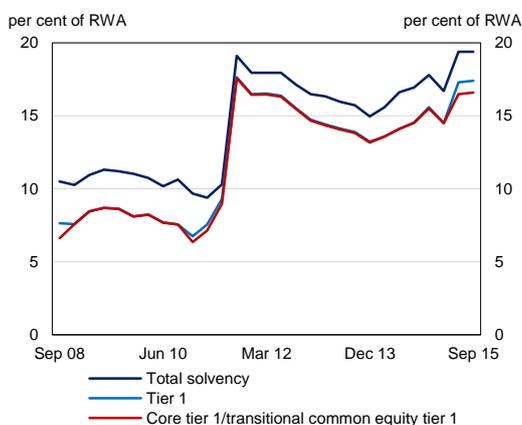
Currently there is a positive market-based funding environment driven largely by investors' search for yield as well as a strong demand for Irish debt. Both secured and unsecured debt of domestic banks have low market yield values at present (Chart 54) and domestic banks have issued debt in 2015. Nevertheless, banks are susceptible to changes in investors' risk appetite and their sentiment towards the institutions themselves and to the Irish sovereign. This could impact banks' funding either through a higher cost of market-based funding or, in more extreme

Chart 55: European comparison of net stable funding ratios (NSFRs)



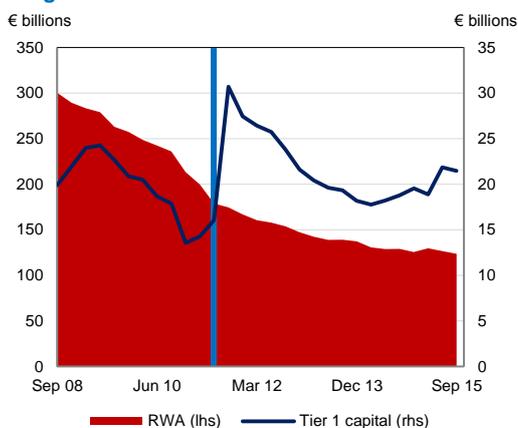
Source: SNL Financial and Central Bank of Ireland calculations.
Notes: Data are based on a sample of EU banks that participated in the European Banking Authority 2014 stress test.

Chart 56: Domestic banks' solvency ratios



Source: Central Bank of Ireland.
Notes: Data are consolidated. Last observations: September 2015. RWA denotes risk weighted assets.

Chart 57: Domestic banks' tier one capital and risk weighted assets



Source: Central Bank of Ireland.
Notes: Data are consolidated. Last observations: June 2015. Light blue line denotes the July 2011 government capital injection.

situations, restricted market access.

There are also a number of regulatory developments which may impact the cost of funding for domestic banks, as well as that of credit institutions more generally across the EU. The BRRD will be introduced in January 2016, with the aim of outlining a basis for dealing with the recovery and resolution of credit institutions and large investment firms at a risk of failing.⁴³ This could lead to greater scrutiny of banks' funding structures and relatively higher funding costs. Bond holders could demand higher premiums as compensation for the possibility of being 'bailed in' under the new arrangements. Higher funding costs could also arise if a large number of banks across Europe attempt to issue debt simultaneously, because of a 'crowding out' effect.

Banks continue to make progress in meeting the liquidity requirements of the CRR. The LCR and NSFR are intended to increase the resilience of the banking sector to liquidity and funding risk. The LCR focusses on liquidity risk over a 30-day period, requiring institutions to hold enough liquid assets to withstand outflows in adverse scenarios over that timeframe. A 60 per cent minimum LCR has been in place since 1 January 2015. This will increase gradually over time to 100 per cent by January 2019. The domestic banks' ratios ranged from 101 per cent to 135 per cent at end-June 2015.

The NSFR focusses on banks' longer term funding structures and requires a minimum amount of stable funding based on the liquidity characteristics of their assets over a one-year time frame. This is due to be implemented in 2018; however, banks have already begun to report their NSFRs. The domestic banks' NSFRs are currently above or near to the EU bank median (Chart 55).

Solvency

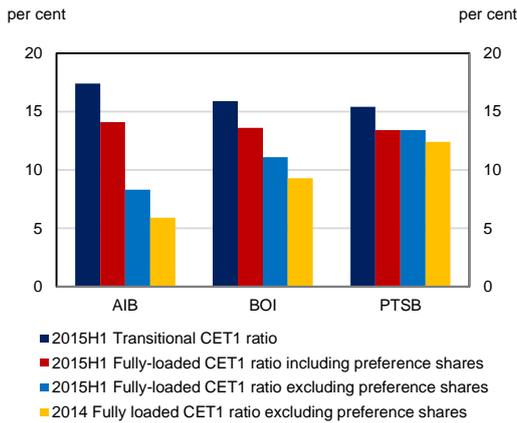
The domestic banks' capital position has improved since the last Review due to the sector's profitability. While this is clearly a positive and necessary step towards a resilient banking sector, some of the factors driving this improved profitability of late are temporary, as outlined at the start of this section. Any shocks to profitability and income would pose a risk to capital levels. The transition to the new capital requirements of the CRR also remains a challenge for the domestic banks.

Transitional tier 1 capital has risen from 14.5 per cent of RWAs in March to 17.4 per cent in September (Chart 56). Total solvency and core tier 1 ratios have increased in line with this.

The improvement in capital ratios has been driven by an increase in the banks' capital stock. Tier 1 capital rose by almost 14 per cent between March and September to €21 billion (Chart 57). RWAs remain relatively unchanged at €126 billion. The dynamics driving the growth in the capital stock differs across

⁴³ For more on the BRRD see http://ec.europa.eu/finance/bank/crisis_management/index_en.htm or <https://www.centralbank.ie/press-area/press-releases/Pages/CentralBankofIrelanddesignatedasIreland%E2%80%99sNationalResolutionAuthority.aspx>

Chart 58: Domestic banks' core tier 1 ratios

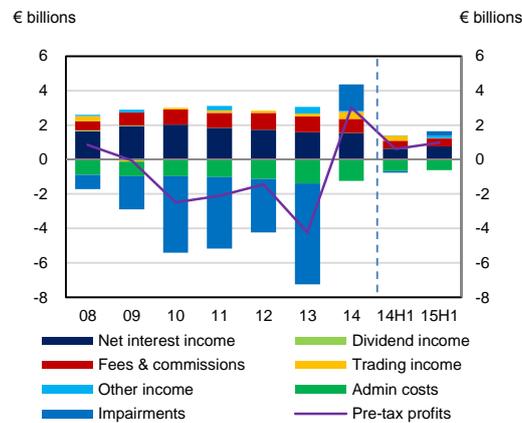


Source: Banks' annual accounts.

the banks. While equity issuances and additional tier 1 issuances account for some capital generation, a significant proportion is also due to transient sources such as pension deficit reductions, available-for-sale asset disposals and impairment write-backs. This highlights the need for the domestic banks to develop business models capable of producing sustainable profitability and income in the future.

Another challenge facing banks' capital structure concerns the transition to the capital requirements under the CRR. On a transitional basis, all three domestic banks appear to be well-capitalised and are above the regulatory minimum. However, on a fully-loaded basis these ratios are lower, and substantially so where Government preference shares are excluded (Chart 58). There has been some improvement relative to 2014 but challenges remain in the medium term.⁴⁴ In addition to changes in the composition of capital, the CRR also allows for additional capital add-ons to reflect the systemic nature of certain institutions (see Box 7 for details as to how these capital add-ons will apply to Irish institutions).

Chart 59: Foreign-owned banks' profitability

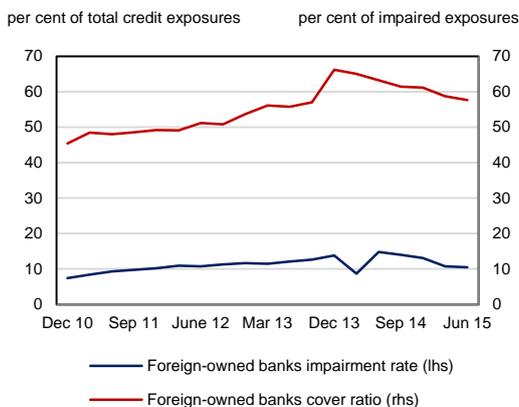


Source: Central Bank of Ireland.
Notes: Data are collected in accordance with the EBA's FINREP reporting requirements. Impairments include provisions. Last observations: June 2015.

Foreign-owned resident banks⁴⁵

Foreign-owned banks resident in Ireland form an important component of the overall banking system by offering additional sources of credit and employment to the economy. Although these entities are operating within the Irish economy, their business models largely determine the manner in which they are affected by conditions prevailing in the domestic macro-financial environment. Institutions with a significant retail presence here, such as KBC Ireland and Ulster Bank Ireland, have more exposure to this environment than banks such as Intesa Sanpaolo Bank Ireland plc and Citibank Europe plc, who do not engage in these activities.

Chart 60: Foreign-owned banks' impairment rates



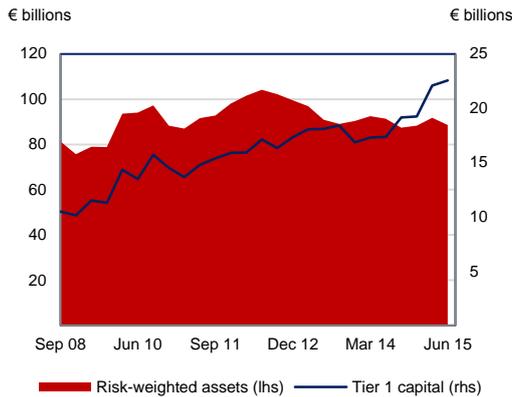
Source: Central Bank of Ireland.
Notes: Data are consolidated. Last observations: June 2015.

The financial crisis led foreign-owned resident banks to reduce their balance sheets. Their total assets fell by almost a third between 2008 and June 2015 to €138 billion. These institutions returned to profitability in 2014 and this has continued into the first half of 2015. Aggregate profits for this sector were approximately €990 million in 2015H1 compared to €611 million twelve months earlier (Chart 59). For banks with a retail presence, impairment write-backs continue to account for a substantial proportion of profits. Banks with an international focus have tended to rely on trading income to support profits in the past; however, this has fallen in the past twelve months.

The economic recovery in Ireland has supported the continued decline of foreign-owned banks' impairment rates (Chart 60). Despite being relatively small in terms of total assets, banks with a domestic retail presence have been the main driver in the reduction of overall impairments. The level of impaired exposures at internationally-focussed institutions remains

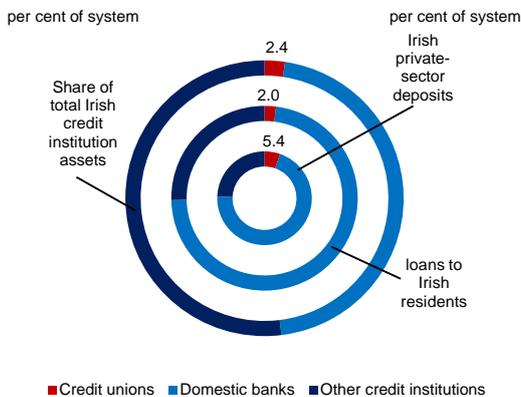
⁴⁴ Both AIB and BOI have announced plans to redeem all or part of the Government preference shares.
⁴⁵ The term 'foreign-owned resident bank' refers here to a selection of the larger banks whose ultimate parent is domiciled outside the State.

Chart 61: Foreign-owned banks' tier one capital and risk-weighted assets



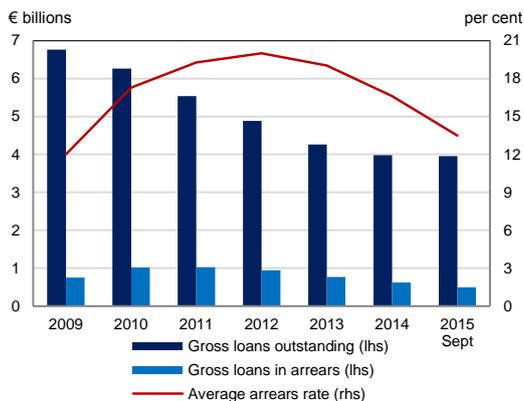
Source: Central Bank of Ireland.
Notes: Data are consolidated.

Chart 62: Credit unions: share of Irish deposits, loans and assets in Ireland



Source: Central Bank of Ireland.
Note: Data are resident statistics for all credit institutions in Ireland. Data as at 30 September 2015.

Chart 63: Credit unions' loans and arrears



Source: Central Bank of Ireland.
Note: Arrears refer to customer loans that are more than nine weeks in arrears.

negligible. Although remaining high compared to peers, the cover ratio for foreign-owned banks also declined by 5 percentage points in the year to June 2015 (Chart 60).

Foreign-owned resident banks continue to rely heavily on intergroup support for funding purposes. Approximately 36 per cent of total funding was obtained from affiliated institutions. While a relatively stable form of funding, intergroup support exposes these institutions to possible contagion or spill-over risk should the parent entity experience adverse shocks. The funding maturity of these banks remains heavily weighted to the short term. The proportion of funding with a maturity of less than one month increased from 35.5 per cent to 40.1 per cent in the year to June 2015.

Since the last Review, foreign-owned resident banks' tier one capital increased, amounting to €22.5 billion at end-June 2015 (Chart 61). This represents an increase of almost 30 per cent over the same period last year while RWAs have remained broadly stable. As a result, capital ratios for foreign-owned resident banks have improved, with the aggregate tier 1 capital ratio at 25.5 per cent in June 2015.

Credit unions

Credit unions account for just over 5 per cent of the total value of resident private-sector deposits (Chart 62).⁴⁶ Since the start of 2015, an increase in the pace of merger activity has seen the number of credit unions decline by 25 to 355, while 13 credit unions are awaiting deregistration. This has primarily related to smaller credit unions. On-going reviews by the Central Bank have raised concerns with regard to the viability of over half of the smaller credit unions, of which there are approximately 170.^{47,48}

Total gross loans outstanding in the sector declined marginally in the nine months to end-September (Chart 63). Concerns surrounding poor asset quality and governance issues had led to the introduction of lending restrictions in recent years.⁴⁹ By March 2015, over half of credit unions were subject to some form of lending restriction. However, as part of an initiative to review lending restrictions, the Central Bank has now reviewed and removed a number of these restrictions following improvements in credit functions and practices. As a result, the percentage of credit unions subject to lending restrictions had declined to approximately 37 per cent by the end of November. The reduction in lending restrictions comes at a time when the level of aggregate arrears balances is declining (Chart 63). While the downward aggregate trend in arrears is welcome, there exist significant differences in terms of loan performance

⁴⁶ The total number of credit union members has increased from 2.8 million in 2006 to 3.1 million by the end of 2014.

⁴⁷ For more see [Central Bank of Ireland \(2015\) "Credit Union News", Issue 3, August](#).

⁴⁸ As part of the 2015 supervisory engagement process the Central Bank has focused on issues facing low-impact credit unions.

⁴⁹ Lending restrictions are just one measure that the Central Bank introduced since the Prudential Capital Assessment Review and loan book reviews in 2011.

across the credit union sector.

Credit unions' balance sheet size has increased in aggregate terms, with total assets amounting to €14.8 billion in September – a rise of 3.8 per cent in the first nine months of 2015. The composition of the balance sheet has changed significantly over the last six years with credit unions increasingly reliant on investment assets for generating income. At the end of 2014, almost 70 per cent of total assets consisted of investments compared to 45 per cent in 2008.

Average return on assets remains low at 1.7 per cent for 2014. Notwithstanding low levels of surpluses, average reserves continue to increase. In aggregate terms, average reserves as a percentage of total assets stood at approximately 16 per cent by September 2015 - above the minimum threshold of 10 per cent set by the Central Bank. However, 11 credit unions reported that they were not meeting the minimum requirements and are subject to an intensive supervisory engagement approach.

The credit union sector continues to face significant challenges relating to its business model. High, albeit decreasing, levels of impairments, declining income growth and the on-going fall in the loan-to-asset ratio in a large number of credit unions point to continued weaknesses. Credit unions will need to address these issues in order to ensure the continued viability of the sector.

Box 5: Evolution of and challenges for net-interest margins

Banks play an important role within the economy, acting as financial intermediaries between depositors and borrowers and charging a margin (loan interest less deposit interest) for doing so. Net-interest income represents the main source of income for domestic banks, currently accounting for some 70 per cent of operating income. From a financial stability perspective, there is a need to ensure that lending rates are set appropriately to reflect the operating conditions that the banks face. Doing so provides the foundation for sustainable profitability and, through retained profits, increases in capital levels. In the case of the domestic banks, the main element of interest income is derived from traditional retail lending activities. This box explores how the determinants of banks' interest income have changed over time and indicates factors with particular relevance to net-interest margins at this time.

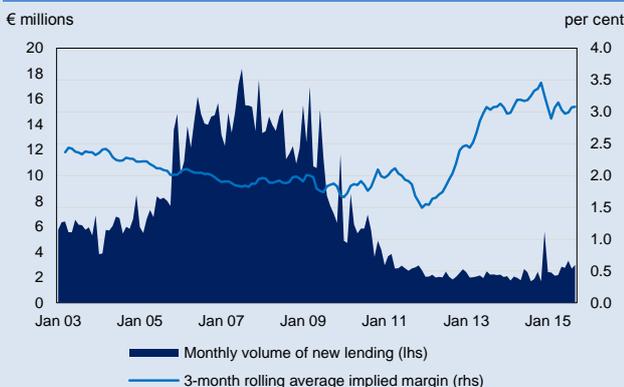
In the simplest representation, net-interest income can be divided into two parts: net-interest margin (price effect) and the amount of loans outstanding (quantity effect). Net-interest margin is the difference between the interest rate generated by banks on loans and interest rate paid out on deposits and other sources of funding. In the 2000s, the low level of interest margins reflected the highly competitive nature of the banking system, with foreign banks having entered the market and a prevalence of securitisation and low cost wholesale funding models. Banks operating in Ireland focused on volume growth to sustain increases in total income (Chart A). The onset of the financial crisis saw the level of new lending slow considerably. Domestic banks have since placed a greater emphasis on increasing margins. Higher lending rates, some run-off of existing lower-margin loans, lower deposit rates and the phase-out of ELG costs have allowed banks to start to rebuild their margins (Chart A). Compared with many other EU banks, net-interest income accounts for a larger share of total operating income for domestic banks (as read against the vertical axis in Chart B). Recent increases in margins have seen domestic banks move towards the EU average (Chart B).

There are a number of internal factors that will influence banks' net-interest margins; these include cost of funds, operating costs, capital adequacy, interest-rate risk and competition. While these are important at any time for banks, there are other, particular factors currently impacting domestic banks' net-interest margin determination:

- On a net basis, the low interest-rate environment has contributed positively to margins by way of a lower cost of funds. However, a change to this environment could lead to an increase in funding costs, either directly, through market sources of funding, or indirectly, through greater competition in deposit markets. New regulatory measures, such as the LCR and forthcoming BRRD, could also negatively impact margins through raising funding costs.
- As a result of changes to the eligibility and composition of capital under CRD IV, domestic banks face a sizeable reduction in their capital base relative to other EU banks. In order to offset this decline in capital, banks need to raise capital either externally or through the generation and retention of profits, which are impacted by net-interest margins. At the same time, banks face higher capital requirements due to the larger risk weightings associated with the large balance of impaired loans.¹

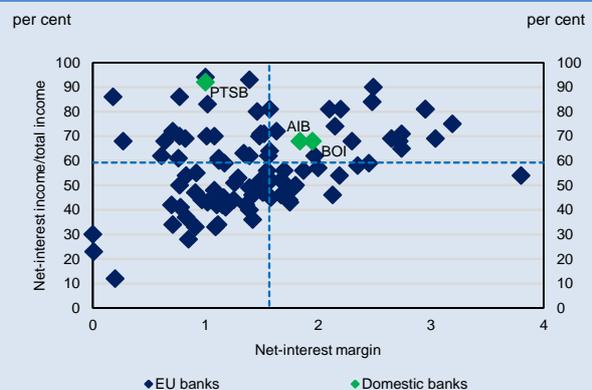
There is a balance to be struck between lending at rates that foster an environment of economic growth and ensuring that the rate of return is sufficient to meet the operational and regulatory challenges that face the banking sector. With lending volumes currently low, the emphasis for banks over the medium term is to ensure that the loan rates they charge, and more generally their net-interest margins, reflect the risks of lending as well as other challenges the banking system faces in order to ensure its long-term sustainability.

Chart A: Irish banks' lending



Source: Central Bank of Ireland.
Notes: Last observations: September 2015. Implied margin is the difference between the weighted lending rate to households and NFC's and the corresponding deposit rate.

Chart B: Comparison of net-interest margins in the EU



Source: SNL Financial & Central Bank of Ireland calculations.
Notes: Data relate to 2015H1. Dotted lines represent the average EU value.

¹ In particular under the internal ratings based approach to calculation of risk weights.

Box 6: Potential implications for the Irish financial sector of a UK exit from the EU

The UK government is committed to holding a referendum before end-2017 on the question of whether the UK should remain in or leave the EU. A UK exit (Brexit) would have economic and financial sector effects for Ireland, depending on the nature of any withdrawal agreement between the EU and the UK and the subsequent evolution of the UK economy. This Box draws on analysis from across the Central Bank of Ireland and highlights some of the potential effects.

The key economic channels through which Brexit would impact Ireland are trade, FDI and the labour market. Analysis undertaken in the Central Bank suggests that Brexit would have a negative impact on exports, GDP and labour market developments in Ireland under a number of different scenarios considered. The scale of this negative impact depends on the extent to which UK-EU trade, labour mobility and financial interactions would become more restricted after Brexit. While the Irish economy has become less reliant on the UK for trade over recent decades, the UK remains a particularly important market for indigenous firms. Some sectors, including agri-food, clothing and footwear, tourism and computer and financial services continue to have a relatively high dependency on exports to the UK and, consequently, would be affected disproportionately.

The Central Bank has been engaging with firms across all parts of the financial sector regarding risks relating to a potential UK withdrawal from the EU. The impact of a Brexit on the Irish financial sector, including banks, insurance firms and non-bank financial intermediaries, could be significant if it occurred in a disorderly manner and/or had a large negative impact on the UK economy. Potential financial sector effects include the impact on firm business models and profitability. In addition, any potential shift in foreign direct investment from the UK to Ireland could lead to an increase in the size of the sector and would have an impact on supervision.

For the banking sector, the impact on profitability could occur as a result of any slowdown in the UK economy and/or property market; spillover effects to the Irish economy, particularly through reduced lending to corporate/SME exporters dependent on UK economic conditions; financial market effects; and/or restricted access to UK markets. Irish banks have sizeable, largely property-related exposures to the UK economy. Currently, the five retail banks have a total loan exposure of approximately €64bn, or 21 per cent of their total assets, in the UK. Any shock to the UK economy could cause issues for future growth, profitability and loan performance. Financial market effects could also impact on banks' profitability through, for example, increased market volatility, potential rating agency actions, impact on funding costs and losses incurred on available-for-sale assets.

In the insurance sector, a substantial volume of both life and non-life business is written on a cross-border basis between Ireland and the UK, on both Freedom of Services and Freedom of Establishment basis. Outward sales to the UK across both life and non-life amounted to €8.6bn in 2014. Depending upon the UK's exit mechanism and post-exit relationship with the EU, Irish insurers might face restrictions upon their ability to conduct cross-border insurance business into the UK. The effect of such restrictions would vary depending upon the business models of individual insurers; the implications being greater for those insurers whose business models are predominantly based upon underwriting UK based risks. Volatility in financial markets as a consequence of Brexit could cause losses within Irish insurers' investment portfolios.

For non-bank financial intermediaries, including investment funds, the loss of access to a UK client base under some potential scenarios might have a negative impact on business although the exit of UK competitors from the market might benefit other firms. A Brexit could also be disruptive in the short term for funds (as well as other entity types) as a large degree of legal/contract novation and repapering might be required.

A disorderly Brexit could be associated with a loss of access to European markets for UK-based financial services firms. It is possible that some of these firms would look to expand/relocate/establish operations in another EU member country as a consequence, with Ireland a potential location. In such an event, the impact on the financial sector here might be significant, with positive and negative consequences from an economic perspective and a direct impact on the scale of Central Bank's mandate, for example arising from increased numbers of authorisations, changes in type and complexity of business models including the possible establishment of financial market infrastructures etc. The internal assessment undertaken within the Bank also examined potential implications for the Central Bank's balance sheet in the event of financial market volatility, as well as the impact on the collateral framework and any other developments directly affecting the Bank. These risks were assessed as being contained under the various scenarios being considered.

Box 7: Capital buffers for systemically important institutions in Ireland

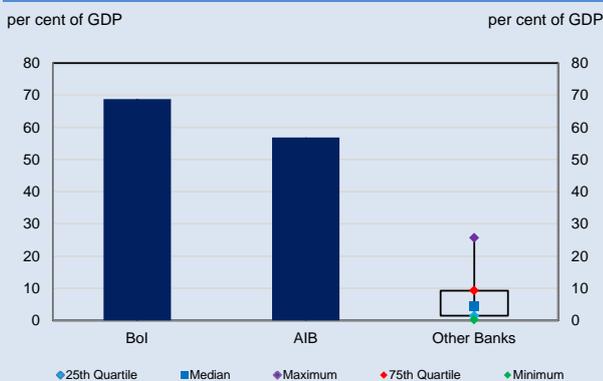
The financial crisis showed the serious impact that the failure of a systemically important financial institution can have on the economy. Since then, there has been a considerable focus internationally on the development of a macro-prudential framework to mitigate the risks associated with such institutions. This is reflected in the European banking regulations introduced in 2014, which introduced capital buffers for institutions which are important at both a global level (G-SIIs) and a domestic level (O-SIIs). Higher capital requirements on these institutions reduce the probability of their failure relative to non-systemic institutions. The Central Bank, together with the ECB, is responsible for identifying O-SIIs for Ireland and setting buffer rates.¹ In line with this framework, the Central Bank has identified AIB and Bank of Ireland as O-SIIs and has set a buffer rate of 1.5 per cent on these banks, to be phased-in between 2019 and 2021.

The identification of O-SIIs is governed by the EBA guidelines.² They specify a two-step process when assessing systemic importance. The first step establishes a scoring process for assessing systemic importance, based on a set of mandatory indicators related to size, importance for the economy, interconnectedness with the financial system and significance of cross-border activities. Institutions with a score above a certain threshold should be automatically designated as O-SIIs. The second step allows for supervisory judgement to be applied using a prescribed list of optional indicators. This allows authorities to assess whether other relevant entities should be designated as O-SIIs based on additional indicators of systemic importance. The assessment of the systemic importance of all institutions authorised by the Central Bank has been carried out and the only institution to be identified using the mandatory indicator scoring step was Bank of Ireland. The mandatory scoring assessment is relative to all banks authorised in Ireland and the fact that only Bank of Ireland was identified from this step reflects the large number of international banks headquartered in Ireland. The mandatory indicators, however, do not put a heavy emphasis on the provision of services to the domestic economy. For these reasons, the supervisory assessment was carried out using a range of optional indicators based on size, presence in the retail, corporate, and payments markets, and reputational indicators. As a result of the overall identification assessment, it has been decided to designate both AIB and Bank of Ireland as O-SIIs. This reflects the significance of these institutions to the domestic economy and their high market share in the retail and corporate markets.

The Central Bank also has the option to set capital buffers for O-SIIs, which can be set at between 0 and 2 per cent. The Basel Framework³ provides some guidelines on the setting of buffers. According to these, the large and concentrated nature of the Irish banking system and the very high degree of systemic importance of AIB and Bank of Ireland are important considerations when setting the level of a buffer. Both AIB and Bank of Ireland have assets greater than 50 per cent of Irish GDP (Chart A) and market shares of over 25 per cent in the deposit and lending markets. Given the importance of these institutions in the provision of credit to the domestic economy, buffers are being set for both banks at 1.5 per cent. The Central Bank will review the list of O-SIIs and the associated buffer rate on an annual basis.

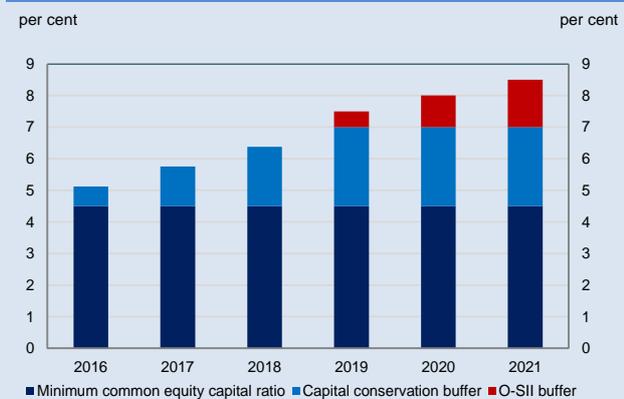
In setting an O-SII buffer, there is a trade-off between building buffers to meet the objectives of the measures and ensuring that banks continue to recover and are in a position to support the on-going recovery in the broader economy. At the current stage in the economic cycle, the buffers will not be effective immediately but will be phased in between 2019 and 2021 (Chart B).

Chart A: Assets of Irish banks and authorised subsidiaries



Source: Annual Reports, CSO and Central Bank of Ireland calculations.
Notes: Data as at December 2014

Chart B: Phase-in period for minimum capital requirements



Source: CSO and Central Bank of Ireland calculations.
Notes: Data as at December 2014

¹ Under Council Regulation (EU) No 1024/2013 and Regulation (EU) No 468/2014 of the ECB, macro-prudential powers, including the capital buffers, are shared between the ECB and the national authorities.

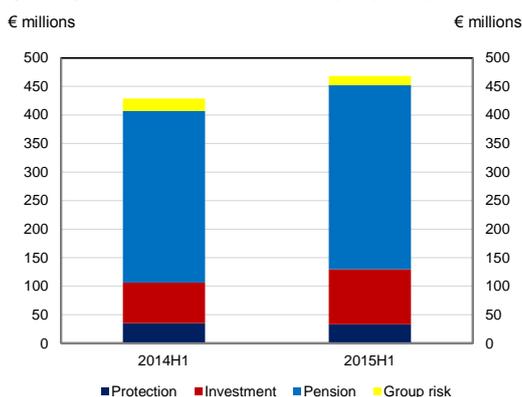
² EBA (2014), "Guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs)", EBA/GL/2014/10.

³ BCBS (2012), "A framework for dealing with domestic systemically important banks", Basel Committee on Banking Supervision, October 2012

3.3 Insurance sector

The domestic non-life insurance sector continues to contend with a difficult operating environment. A number of high-impact firms reported further underwriting losses in the first half of 2015. The outlook for the domestic life sector is broadly positive as the economic recovery continues. Nevertheless, challenges remain in generating profitable new business in a competitive market. The introduction of Solvency II on 1 January 2016 presents significant implementation challenges for all firms.

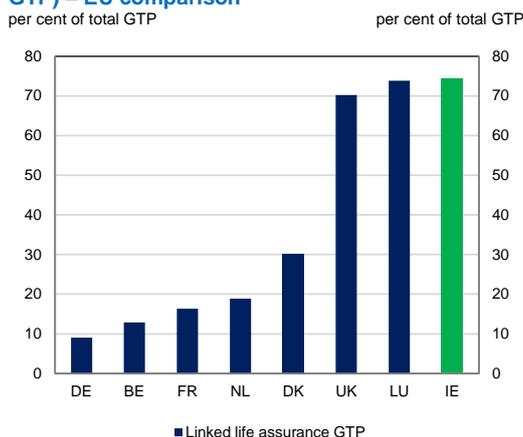
Chart 64: Premium income of life insurers



Source: Central Bank of Ireland.

Notes: Premium income is measured by new business APE which is a measure of what the premium income would be if paid once for a year's period. Data are for the three largest domestically-focused life insurers.

Chart 65: Life insurers' linked assets (proxied by GTP) – EU comparison



Source: EIOPA.

Notes: Data are for 2013. Linked life assurance gross technical provisions as a percentage of total gross technical provisions are used as a proxy measure of the proportion of linked business.

The Irish insurance sector is diverse in nature. The companies providing insurance cover in the domestic market are life and non-life firms. There are also a large number of firms, including reinsurance firms, operating internationally, such that the foreign-risk business of the sector greatly outweighs Irish-risk business. Box 8 describes the structure of the insurance sector in Ireland.

Life sector

The improving economic environment is providing a better operating environment for the domestic life insurance sector.⁵⁰ Increased employment, improving consumer sentiment and rising disposable income, as well as favourable demographic developments supporting demand for life insurance, contribute to a broadly positive outlook for the sector. Nevertheless, competition in the market from other providers of similar products presents a challenge to domestic firms.

Total premium income increased by 9.3 per cent in the first half of 2015 compared with the same period in 2014,⁵¹ with performance across business lines being mixed (Chart 64). Improving economic conditions have contributed to strong growth in the pension segment of the market. Demand for annuities continues to be weak due to the low interest rate environment.

The retail protection business declined by 5 per cent while the investment segment of the market increased by 35 per cent in the first half of 2015 compared with the same period in 2014. These products are quite generic for the most part and are easy for consumers to compare. In the protection line of business, this may prompt firms to engage in price-matching to maintain market share. However, domestic life insurance firms have seen lower volumes as they have refrained from reducing prices to price-match other firms operating in the market, particularly those operating on a branch or a FOS basis⁵².

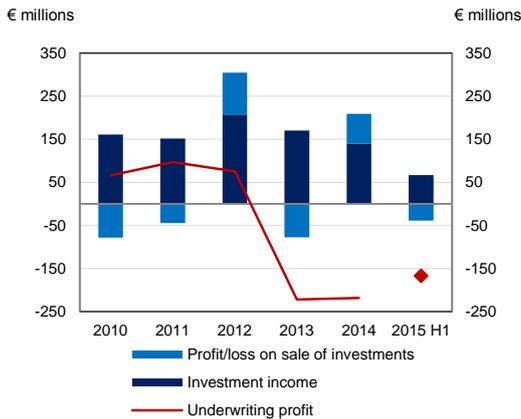
Unit-linked products are the predominant investment product offering by Irish life insurance firms, comprising almost 80 per

⁵⁰ Analysis of the domestic life insurance market is based on the three high-impact firms which comprise approximately 80 per cent of the market. However, the data are only indicative of the markets these firms operate in, given that other non-insurance firms offer similar products, particularly in the non-protection business.

⁵¹ As measured by new business APE which is a measure of what the premium would be if paid once for a year's period.

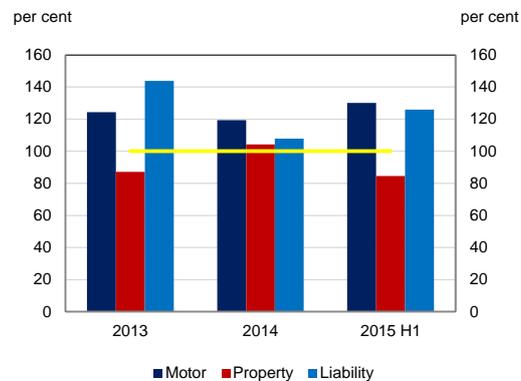
⁵² FOS allows firms regulated in other EU Member States to sell insurance products directly into another Member State.

Chart 66: Non-life insurers' underwriting profits and investment income and gains



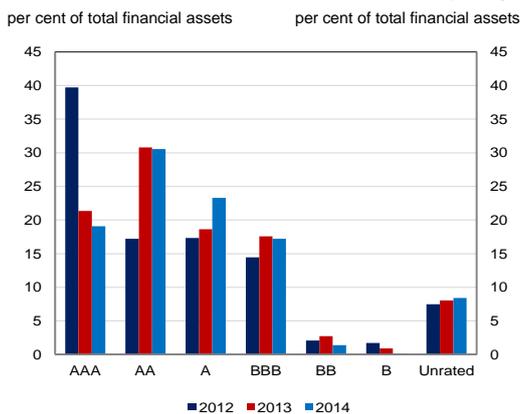
Source: Central Bank of Ireland.
 Note: Data are an aggregation of domestically focused high-impact firms who collectively write approximately 75 per cent of Irish-risk business.

Chart 67: Non-life insurers' combined ratio



Source: Central Bank of Ireland.
 Notes: Combined ratios are calculated as the cost of incurred claims and expenses as a percentage of earned premium income. A combined ratio below 100 per cent indicates that a company is making an underwriting profit, while a ratio above 100 per cent means that the cost of claims is greater than the premium earned, resulting in an underwriting loss. The sample comprises high-impact firms.

Chart 68: Non-life insurers' financial asset quality



Source: Annual Reports and Central Bank of Ireland.
 Note: The sample comprises high-impact firms.

cent of their balance sheet assets, compared with less than 20 per cent for some EU Member States (Chart 65).⁵³ The low interest rate environment, therefore, does not pose the same direct risk to domestic life insurers compared to other EU insurance markets which have a substantial proportion of guarantee-type products,⁵⁴ on their balance sheets. Nevertheless, low yields and any increase in the volatility of financial markets may affect investors' confidence in unit-linked products. This could increase lapse rates⁵⁵ which have been declining across many lines of business. This is due in part to the improving economic circumstances of policyholders, as well as firms' increased focus on policy retention given it being a key factor in maintaining profitability in the medium term.⁵⁶ Firms' investment business is also vulnerable to a decline in asset prices which would result in a reduction in fee income, an important component of profitability, and have a negative impact on potential new business.

The median solvency position of firms was relatively unchanged in June 2015 compared with end-2014. While domestic firms are well placed to meet the capital demands of Solvency II, implementation challenges are not insignificant.⁵⁷

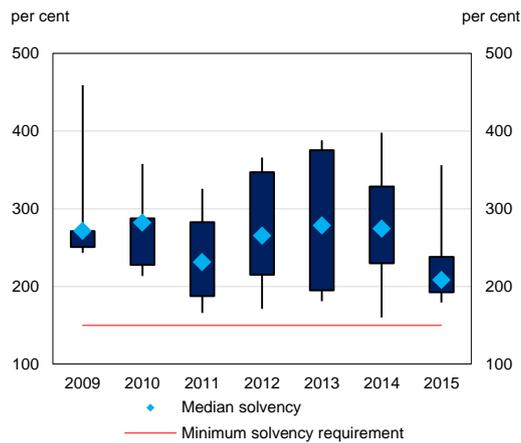
Non-life sector

The domestic non-life sector continues to contend with particular challenges. In aggregate, the domestically focused high-impact non-life insurance firms reported further underwriting losses in the first half of 2015 (Chart 66). The consequences of an intense competition for market share, which has been evident in the non-life sector in recent years, are now impacting firms. Previous downward pressure on insurance premiums and weak underwriting discipline has left firms exposed to the deteriorating claims environment that has developed recently. An increased frequency and severity of claims, as well as changes in the Irish legal environment, are resulting in higher claims costs. This is evident across domestic insurers' principal lines of business. The motor and liability lines of business are performing particularly poorly, as is indicated by a combined ratio in excess of 100 per cent in 2015 H1 (Chart 67).⁵⁸ Claims uncertainty has also increased for firms with the impending introduction of PPOs which are likely to impact all aspects of insurers' business.⁵⁹

In recent years, non-life insurance firms have become increasingly reliant on investment returns to support profits.⁶⁰ However, investment income, which has been declining since 2012, is no longer sufficient to cover underwriting losses (Chart 66). A prolonged low interest rate environment would further

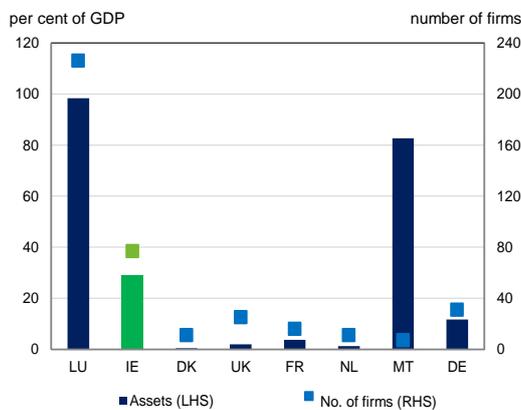
⁵³ Unit-linked products are investment products whose returns are directly linked to market performance and the investment risk is borne entirely by the policy holder.
⁵⁴ Guarantee-type products offer a minimum rate of return to policyholders.
⁵⁵ A policy lapse is the voluntary discontinuance or surrender of a policy before the expected maturity.
⁵⁶ There are significant set-up costs on a new life assurance policy which the company must recoup over the life of the policy through various fees.
⁵⁷ Solvency II will apply a risk-based approach to calculating firms' solvency requirements. There will be a SCR which is a measure of the capital an insurer needs to be able to meet its obligations over the next 12 months with a probability of 99.5 per cent. If this level of capital is not reached it will likely result in regulatory intervention and require remedial action. The MCR is the minimum amount of capital the insurer needs to cover its risks. If an insurer's risk capital falls below the MCR regulatory intervention is likely to be more forceful.
⁵⁸ Domestic non-life insurers' principal lines of business are motor, property and liability which account for 48 per cent, 29 per cent and 20 per cent, respectively, of Irish-risk GWP.
⁵⁹ PPOs pay a proportion of the settlement as a continuing index-linked periodic payment over the claimant's lifetime rather than paying a lump-sum on settlement.
⁶⁰ Box 7 in [MFR 2014](#) illustrates how investment returns have increased as a proportion of firms' total profit; 40 per cent in 2005 to an average of 72 per cent in the period 2010 to 2013.

Chart 69: Solvency position of non-life insurers



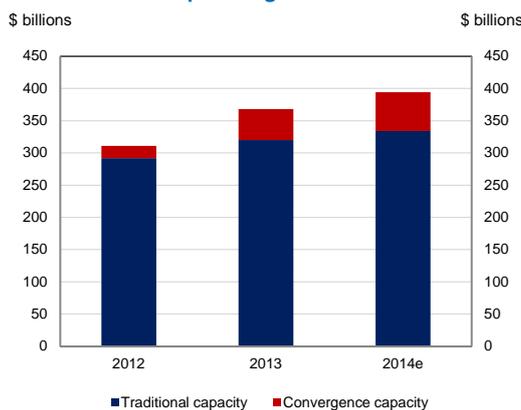
Source: Central Bank of Ireland.
Notes: Data for 2015 are as at end-June. The box at each point shows the interquartile range of solvency positions and the vertical lines show the maximum and minimum solvency positions. The sample comprises high-impact firms.

Chart 70: Reinsurance sector firms' assets in the EU and number of firms



Source: EIOPA and Eurostat.

Chart 71: Total capital of global reinsurance sector



Source: AM Best and Guy Carpenter.
Notes: Data for 2014 are an estimate. Traditional capacity is the capital of traditional reinsurance firms. Convergence capacity is a measure of the reinsurance supply capacity facilitated by capital markets.

impact insurers' future investment returns as firms reinvest cash from maturing investments (predominantly fixed-income assets such as sovereign and corporate bonds) at lower rates. In response to this, firms may seek out higher-yielding assets and there is some evidence that firms' investment portfolios have shifted towards riskier investments in recent years (Chart 68). Alternatively, firms may invest in longer maturity assets in search of additional yield, which could increase liquidity risk.

Despite insurance premium inflation⁶¹ in the motor and property lines of business over the past year, the total gross premium income earned by insurance firms was stable in the first half of 2015 compared to the same period in 2014. In aggregate, the high-impact non-life firms experienced an increase in motor GWP of 5.3 per cent. Nevertheless, some of these firms experienced declines in motor GWP of up to 10 per cent as increased premium rates resulted in loss of business. Firms operating in the domestic market on a branch (or FOE) basis saw increases in motor GWP of almost 10 per cent in aggregate with some firms performing particularly strongly. There was a negligible increase of approximately 0.5 per cent in property GWP for the sector as a whole. Insurance premium rates are expected to increase further, particularly in the motor line of business, as firms respond to their operating environment and attempt to strengthen their financial position.

The deteriorating profitability of firms in the sector has resulted in an erosion of the solvency position of the sector, with median solvency declining from 274 per cent at end-2014 to 208 per cent in June 2015 (Chart 69). This, as well as the forthcoming requirements of Solvency II, has resulted in some firms taking action to strengthen their balance sheet. Some firms have the support of a parent company; RSA Insurance Ireland Limited, for example, received a number of capital injections amounting to approximately €400 million over the course of 2013 and 2014 from its parent company. FBD Insurance plc raised €70 million through the placement of a convertible bond in September 2015 to bolster its capital position.

A recent High Court ruling determined that the MIBI, rather than the ICF, is liable to meet an estimated 1,700 claims still outstanding after the collapse of Setanta Insurance in 2014.⁶² All motor insurance firms operating in Ireland must be members of the MIBI which is funded by levies imposed on motor insurers. The pay-out of claims by the MIBI is unlimited whereas the ICF is limited in what it pays out with respect to each claim.⁶³ This development could put further financial pressure on the sector.

Reinsurance sector

The reinsurance sector in Ireland is the third largest in Europe and is an internationally-focused sector (Chart 70). Seven of the

⁶¹ The average year-on-year change in the motor insurance and dwelling component of the Consumer Price Index (CPI) was 15.5 per cent and 2.6 per cent, respectively, in the first six months of 2015. These lines of business comprise approximately 77 per cent of insurers' Irish risk business.

⁶² This judgement was delivered by the High Court on 4th September 2015.

⁶³ The amount paid out by the ICF must not exceed 65 per cent of the sum due to the policyholder or €825,000, whichever is the less.

world's top ten reinsurers have a presence in Ireland.⁶⁴ Irish reinsurers' global market share in 2014 was 4.7 per cent, unchanged from 2013.⁶⁵ Irish firms' international business model and their reliance on the financial strength of their parent companies mean that developments in the international macro-financial environment are of most relevance to the sector.

The sector, at a global level, has weathered challenges in recent years but the outlook for it remains uncertain as some recent developments in the sector are now perceived to be structural rather than cyclical in nature. A number of the main rating agencies continue to rate the outlook for the sector as negative as it remains to be seen how the sector will evolve in response to these developments in the long term.⁶⁶

These include the reduced demand for reinsurance by primary insurers as they become more sophisticated in their risk management capabilities and the continuing inflow of alternative reinsurance capital⁶⁷ (Chart 71), both of which have contributed to excess supply capacity in the sector. Alternative capital accounted for an estimated 18 per cent of total reinsurance capital in 2014 compared to 8 per cent in 2008⁶⁸. There are signs that the rate of increase in this source of capital is slowing as the return on such capital declines. Investors may, therefore, have a lower future appetite for reinsurance risk. Consequently, the sustained downward pressure on pricing that has been a feature of the sector for the past number of years may be coming close to an end.

Profitability in the sector is being supported by below-average insured catastrophe losses and reserve releases, raising concerns about the sustainability of profitability of the sector. Declining prices and weakening terms-and-conditions may impact future profitability further if it materialises that underwriting discipline has been compromised.

The global reinsurance sector is in a period of transformation as firms endeavour to respond to conditions. There has been a surge of merger and acquisition activity as firms, including some with substantial operations in Ireland, engage in consolidation to deploy excess capital, achieve scale and diversify business lines. Such activity presents integration risk for firms as they merge operations which could be accentuated if the integration phase was to coincide with firms having to deal with a large catastrophe event.

The impact of Solvency II on the re-insurance sector remains to be seen. The current excess supply of capital should serve the sector in good stead. The actual implementation of Solvency II in 2016 will clarify firms' capital needs and will thereby allow firms to make decisions as to how to deploy excess capital efficiently.

⁶⁴ Based on the listing of the top global reinsurance groups in [Standard & Poor's \(2014\) 'Global Reinsurance Highlights 2015'](#).

⁶⁵ Estimate of Irish reinsurers' market share is based on reinsurance listings in [Standard & Poor's \(2014\) 'Global Reinsurance Highlights 2015'](#).

⁶⁶ Moody's and A.M. Best continue to rate the outlook for the sector as negative.

⁶⁷ Alternative reinsurance capital is the vehicle which allows investors in capital markets to have a role in providing insurance and reinsurance protection through the securitisation of risk via catastrophe bonds or reinsurance sidecars, or through the trading of risk via insurance linked securities.

⁶⁸ An estimate by Guy Carpenter in [A.M. Best's Special Report on Global Reinsurance](#).

Box 8: The structure of the Irish insurance sector

This box provides an overview of the structure of the insurance sector in Ireland. The Irish insurance sector comprises life, non-life and reinsurance¹ firms operating across a range of product and geographical markets. The majority of insurance firms regulated in Ireland are subsidiaries of large international insurance groups. While such firms benefit from the support of parent companies, they may also be affected by any adverse shocks which impact other parts of the group.

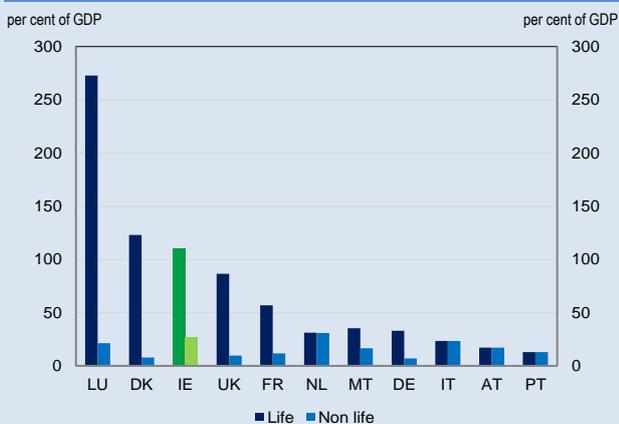
Reflecting in part the size of their cross-border business, the Irish life and non-life insurance sectors' assets are large relative to GDP when compared with many other EU Member States (Chart A).² Irish life insurance firms generated €37 billion of GWP in 2014, comprising €9.9 billion in the domestic market and €27 billion in cross border or foreign-risk business. Similarly, a significant portion of the business of non-life insurance firms operating in Ireland is in foreign-risk business, albeit on a smaller scale, accounting for €12 billion of the total €14 billion GWP written by the sector. The domestic life insurance market is highly concentrated with the top three firms accounting for 80 per cent of the Irish market in terms of premium written. The major life products are term and mortgage protection products, pensions and unit linked products. The domestic non-life insurance market is dominated by six firms. Motor, home and liability risks account for 48 per cent, 29 per cent and 20 per cent, respectively, of the sector's business.

Irish life insurers' cross-border business is predominantly unit-linked business with Italy and the UK being the largest markets. There are also a number of life insurance firms writing variable annuity business into European markets. Irish non-life firms operate across a range of European markets with motor, home and liability being the main risks covered. The ability of insurance firms to operate across borders on a FOS or FOE basis, while enhancing diversification and providing consumers with greater choice, presents regulatory challenges and may increase financial stability risks.³ Firms operating in multiple jurisdictions can pose supervisory difficulties due to the scale of such operations, as well as language and cultural differences. Groups' exposures across jurisdictions, while providing diversification benefits, also provide channels for contagion across borders.

Foreign insurance firms writing business on a FOS basis into the Irish market may also present risks. There are over 175 life and 770 non-life insurance firms authorised to operate in Ireland on a FOS basis. In the case of the non-life insurance sector, these firms account for 39 per cent of the domestic market on a GWP basis (Chart B). The Central Bank has no role in the prudential regulation of these firms although it has responsibilities with regard to the conduct of business regulations. Nevertheless, a failure of such firms could have an adverse impact on the reputation of Ireland's regulatory framework and that of other insurance firms. Also, there exists an ICF, the purpose of which is to cover all non-life insured risk in the State regardless of whether it is insured by an Irish authorised or an EU authorised non-life insurer. The ICF is funded by an ex-post levy imposed on insurance companies which is generally passed on to policy holders in the State. The projected cost of the failure of Setanta Insurance in 2014, which operated in Ireland on a FOS basis and was not regulated by the Central Bank, is €68.5 million.

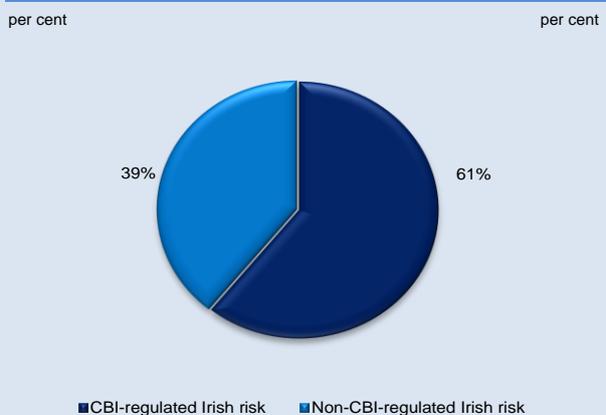
Future developments which may impact the structure of the sector include the implementation of Solvency II and the possibility of Brexit. Solvency II could provide an incentive for firms located in Ireland as subsidiaries to convert to branches as a way of reducing capital requirements, thereby lessening the regulatory oversight of such firms. Depending on the nature of Brexit, if it were to occur, Irish insurers may face restrictions upon their ability to conduct cross-border business in the UK and, likewise, UK firms may be restricted in operating in Ireland.

Chart A: Life and non-life insurance sectors' assets in EU countries in 2013



Source: EIOPA, Eurostat and Central Bank of Ireland.
Note: France is excluded due to the large number of composite insurers and therefore a breakdown of life and non-life assets is not available.

Chart B: Non-life Irish risk GWP regulatory split for 2013



Source: Central Bank of Ireland.

¹ The structure of the reinsurance sector in Ireland is addressed in section 3.3.

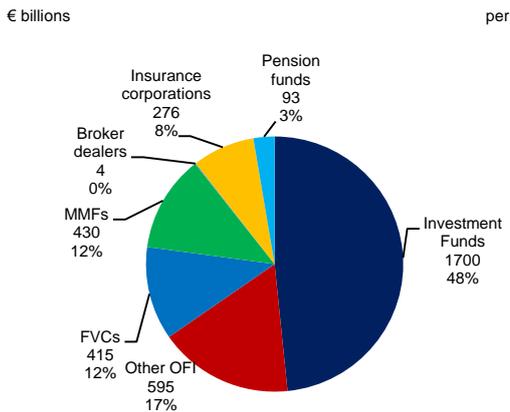
² The cross-border operations of life and non-life insurance firms is facilitated by European legislation whereby undertakings authorised to perform insurance activities in the Member State where their head office is located can also operate, under FOS or under FOE (through a branch office), in other Member States. This allows firms regulated in Ireland to sell insurance in other EU countries and, in addition, insurers authorised in the EU can write business in Ireland.

³ See Box 7 in [MFR 2015:1](#) for a discussion on how insurance may contribute to and impact on financial stability.

3.4 Non-bank financial intermediary sector

The Irish-resident non-bank financial intermediary sector is large in size relative to the domestic economy and covers a diverse range of entities and activities. Both assets and liabilities are predominantly located outside of Ireland so risks pertain largely to the international financial system. These risks arise from the potential for these entities to contribute to market stress given their important role in financial markets. Most of the sector is subject to regulation and/or reporting requirements but some entities are outside the scope of both. Any adverse developments in this sector could cause reputational damage to Ireland.

Chart 72: Non-bank financial intermediaries



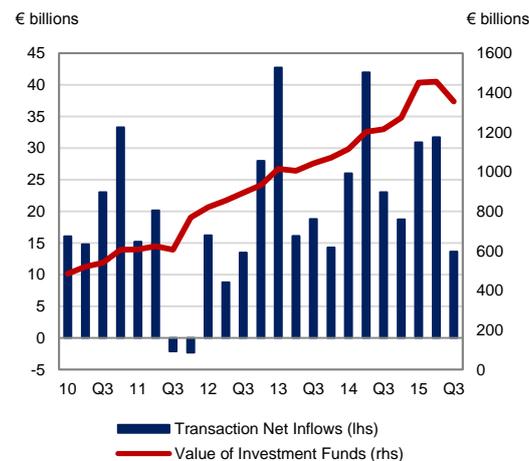
Source: Central Bank of Ireland.
Notes: Data as at Q2/3 2015. Total value of €3,513 billion. Insurance companies are considered in section 3.3 while pension funds are regulated by The Pensions Authority.

Global and national trends

Globally, the non-bank financial sector has increased in size⁶⁹ relative to the banking sector in recent years and is playing an increasingly important role in debt security and lending markets. The sector is a source of liquidity in these markets, which, in turn, are an important source of funding for governments, banks and corporations. Investors bear the investment risk in these entities but, in periods of market stress, sudden investor withdrawals can lead to forced asset sales, the withdrawal of short-term leverage to other entities and counterparty risk. Securitisation markets have also proven vulnerable to financial market uncertainty, as was particularly the case in 2007.

Within Ireland, the non-bank financial sector is around 17 times the size of Irish GDP.⁷⁰ As of 2015Q3, IFs comprised 48 per cent of the entire sector (Chart 72), having doubled in size over the previous three years. MMFs and most IFs are regulated by the Central Bank. IFs, MMFs and FVCs are covered by granular data level reporting requirements. However, the “Other” category is largely unregulated while data coverage is limited.⁷¹

Chart 73: Value of investment funds shares/units



Source: Central Bank of Ireland.

Investment funds

IFs resident in Ireland expanded by €175 billion⁷² to €1,355 billion in terms of net asset value⁷³ in the year to 2015Q3, a growth rate of 10 per cent (Chart 73). This partly reflects positive asset revaluations in both debt security and, particularly, equity markets, which reversed somewhat in 2015Q3 itself. Net investor inflows amounted to €92 billion in the year to 2015Q3, illustrating a strong trend of underlying growth. Assets and liabilities are predominantly located abroad, with figures for Ireland largely reflecting funds holding shares in other funds (Chart 74).

Most IFs adopt conservative investment strategies under European regulations (either through the UCITS or the AIFMD regimes).^{74,75} The largest fund type categories, bond and equity funds, invest almost exclusively in one asset class. The main

⁶⁹ As measured by total assets.

⁷⁰ This is based on Q2 annualised GDP and a mix of Q1 and Q2 data on non-bank financial intermediaries.

⁷¹ Some regulations apply, such as the requirement to report all derivative requirements, but most activity in this category is excluded.

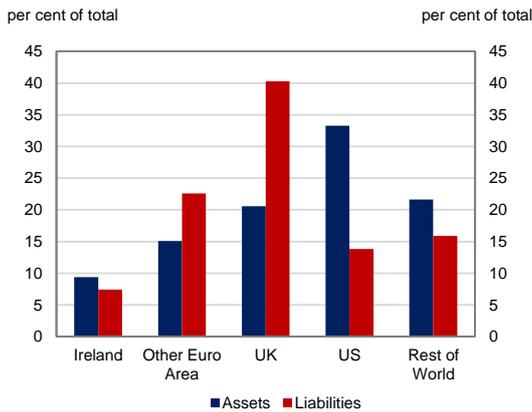
⁷² This €175 billion figure excludes the impact of a reclassification of €25 billion in terms of bond funds moving to MMFs in September 2015.

⁷³ Total assets in Q2 2015 were €1,700 billion. Net asset values reflect the value of share/units in the fund only.

⁷⁴ <http://www.centralbank.ie/regulation/industry-sectors/funds/ucits/Pages/default.aspx>

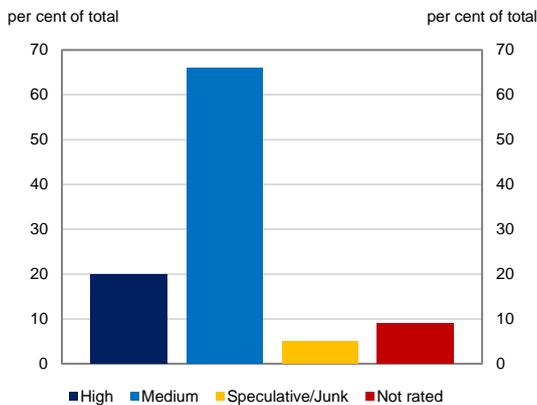
⁷⁵ <https://www.centralbank.ie/regulation/marketsupdate/Pages/AIFMD.aspx>

Chart 74: Investment fund asset and liability location



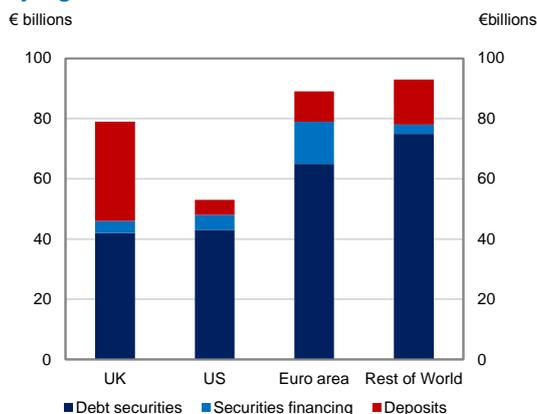
Source: Central Bank of Ireland.
Note: Data as at 2015Q3.

Chart 75: Ratings of non-financial corporate debt held by investment funds



Source: Central Bank of Ireland.
Notes: Numbers within the chart are € billions values for each rating category. Data as at 2015Q3.

Chart 76: MMF asset holdings with respect to banks by region



Source: Central Bank of Ireland.
Notes: Asset holdings related to Irish banks amounted to just €159 million. Data as at September 2015.

financial stability risks pertain to periods of general market stress. This could give rise to the fire sale of assets to meet investor redemptions, particularly into markets that could turn somewhat illiquid and thereby exacerbate market stress. In the low yield environment, some IFs have taken on more risk in their debt portfolios to achieve higher yields. Maturity extension appears to have been the main strategy employed to achieve this. Debt security holdings remain concentrated in advanced economy government and bank debt. Irish IFs held €93 billion of corporate debt in 2015Q3 although few of these securities are rated below medium investment grades (Chart 75). Looking forward, the rising interest rate environment may pose a challenge for IFs, as financial markets, and particularly debt markets, adjust.

Hedge, mixed and other fund types tend to have more active investment strategies, giving rise to some additional risks. First, some of these funds hold less liquid assets which can give rise to liquidity risks, particularly in a highly adverse scenario. Secondly, some hedge funds and exchange traded funds actively engage in leverage to raise returns for investors, which, when losses occur, can amplify the scale of investor redemptions and asset sales.

Money market funds

MMFs expanded by €18 billion to €430 billion in the year to September 2015, measured in terms of assets under management. There was also a reclassification from bond funds into MMFs, of €25 billion in September 2015. This figure peaked at €447 billion in March 2015. Investors have since withdrawn funds as debt security prices have retreated somewhat from record highs. Similar to IFs, MMFs are regulated under European legislation.

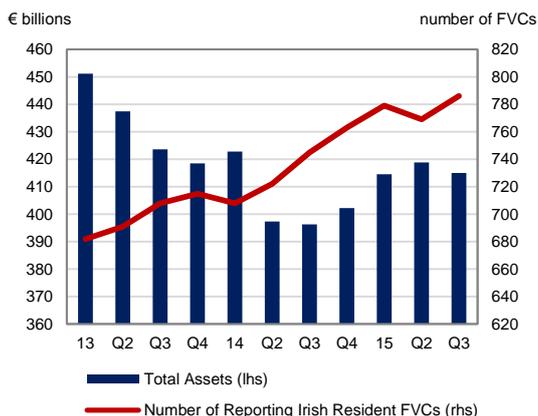
Risks emanating from MMFs primarily relate to liquidity withdrawal in the event of stress. The emphasis for MMF investors is weighted more towards protecting the original investment and achieving relatively low, safe returns. Stress in the MMF sector can quickly transmit itself through financial markets as MMFs play a key role in international markets for short-term debt and are an important source of funding for the banking sector. In September 2015, Irish MMFs held €262 billion in bank debt, lent €31 billion to banks through securities financing arrangements and held €53 billion on deposit with banks (Chart 76).

Rising interest rates may pose a particular challenge for MMFs as returns are already close to zero in most cases. There has been an element of maturity extension within MMF portfolios to achieve somewhat higher yields and these debt security prices can be slightly more volatile.

Financial vehicle corporations

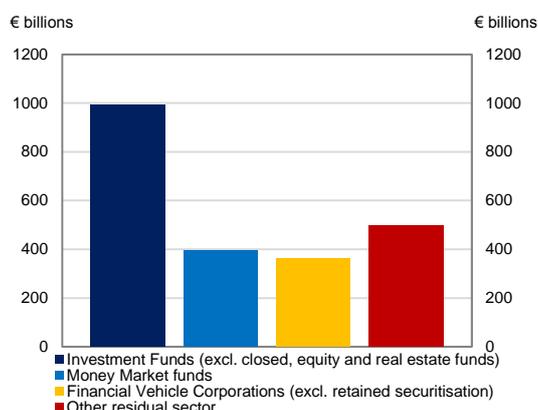
FVCs are a type of SPV where the primary activity is securitisation (e.g. converting illiquid assets, such as bank loans, into debt securities which are marketable instruments). The recovery in the Irish securitisation market since the financial crisis is now well

Chart 77: Total assets and number of reporting Irish resident FVCs



Source: Central Bank of Ireland.

Chart 78: Contributions to the Irish shadow banking sector



Source: Central Bank of Ireland.
Notes: Data as at December 2014. Based on FSB definitions.

established, with total assets rising to €415 billion in 2015Q3, from €396 billion in the previous year (Chart 77). Irish mortgages account for €38 billion of the total in 2015Q3.

Securitisation can facilitate bank finance and, if loans decline in value, the holders of the debt securities bear the adjustment. Nevertheless, securitisation can exacerbate risks during a stressed period. It can encourage an excessive supply of credit when risk is priced too low in debt markets. When investors adjust their risk perceptions, the securitisation market can become highly illiquid, as was the case in 2007. In some cases, loans might move back onto the balance sheet of the originating bank. FVCs remain largely outside the scope of regulation.

Other non-bank financial intermediaries

There is a large residual “other” category, which accounted for €595 billion of the non-bank financial intermediary sector in 2015Q2 (Chart 72). This sub-sector is largely unregulated and there is little data coverage. The main entities within this category are non-FVC special purpose vehicles, financial leasing firms, treasury operations of non-financial corporations and holding companies. The Central Bank is extending granular data level reporting requirements, currently applying to FVCs, to all SPVs. This new reporting will, from 2015Q3, cover entities involved in (but not limited to): loan origination, balance sheet management, reducing tax liabilities, investment transactions, and distressed debt transactions. This will help to refine the measurement of, and the analysis of, this residual sector.

Shadow banking

Shadow banking activity can be defined as entities that undertake bank-like activities, such as credit intermediation involving leverage and maturity or liquidity transformation, but which are not regulated in the way that banks are. The Central Bank is participating for the first time in the FSB’s Global Shadow Banking Monitoring exercise, which is a G20-led exercise. The FSB has a global remit and engages with almost all jurisdictions containing shadow banking activity that is significant from a global perspective.

The FSB applies a conservative approach to shadow banking measurement and further refinement will take place in future years. Under this process, Ireland’s shadow banking sector amounts to €2,250 billion at end-2014 (Chart 78). As well as traditional banking instruments, the FSB definition of credit intermediation includes all debt securities and, as such, all IFs and MMFs containing debt securities are deemed to undertake maturity transformation. Furthermore, all but closed-ended funds are deemed vulnerable to run risk during stressed periods.⁷⁶ These funds accounted for €1,387 billion (€993 billion of IFs and all €394 billion of MMFs), or over half of the shadow banking sector. Securitisation activity is deemed credit risk transfer and

⁷⁶ Closed-end funds comprise a fixed number of shares/units that are not redeemable by investors from the fund.

involves elements of leverage, liquidity and maturity transformation, which facilitates further credit creation. This includes all FVCs, apart from retained securitisation activity, amounting to €362 billion. The “other” sector, of €498 billion at end-2014, is included on a prudential basis given the lack of data coverage. The remaining €4 billion is accounted for by a small amount of broker dealing activity.

To conclude, risks emanating from the other non-bank financial intermediaries sector largely pertain to the international financial system. The Central Bank is actively engaged with international bodies such as the ECB, ESRB, FSB and IMF in this area and is extending reporting requirements.

Abbreviations

Country abbreviations follow the [European Union standards](#).

AIB	Allied Irish Bank	JLL	Jones Lang LaSalle
AIFMD	Alternative Investment Fund Managers Directive	KBC	Kredietbank ABB Insurance CERA Bank
AMECO	Annual Macro-Economic Database	LCR	Liquidity coverage ratio
APE	Annual premium equivalent	MCR	Minimum capital requirement
BOI	Bank of Ireland	MFR	Macro-Financial Review
BPFI	Banking and Payments Federation Ireland	MIBI	Motor Insurance Bureau of Ireland
BRRD	Banking Recovery and Resolution Directive	MMF	Money market fund
BTL	But-to-let	MSCI	Morgan Stanley Capital International
CBRE	Coldwell Banker Richard Ellis Group	NACE	Nomenclature statistique des Activités économiques dans la Communauté européenne
CPI	Consumer Price Index	NAMA	National Asset Management Agency
CRD	Capital Requirements Directive	NFC	Non-financial corporation
CRE	Commercial real estate	NSFR	Net stable funding ratio
CRR	Capital Requirements Regulation	NTMA	National Treasury Management Agency
CSO	Central Statistics Office	OECD	Organisation for Economic Co-operation and Development
DBRS	Dominion Bond Rating Service	O-SII	Other Systemically Important Institutions
DPD	Days-past-due	PDH	Primary dwelling house
EA	Euro Area	PIA	Personal insolvency arrangement
EAPP	Expanded Asset Purchase Programme	PPO	Periodic payment order
EBA	European Banking Authority	PRTB	Private Residents Tenancies Board
EBS	Educational Building Society	PSRA	Property Services Regulatory Authority
ECB	European Central Bank	PTSB	Permanent TSB
EIOPA	European Insurance and Occupational Pensions Authority	PWC	Price Waterhouse and Coopers
ELG	Eligible Liabilities Guarantee	QEC	Quarterly Economic Commentary
ESCB	European System of Central Banks	REIT	Real Estate Investment Fund
ESRB	European Systemic Risk Board	RWA	Risk weighted asset
ESRI	Economic and Social Research Institute	SBCI	Strategic Banking Corporation of Ireland
EU	European Union	SFA	Stock-slow adjustment
FINREP	Financial reporting	SME	Small and Medium Enterprise
FOE	Freedom of establishment	SNL	Savings and Loan Financial
FOS	Freedom of service	SPV	Special Purpose Vehicle
FSB	Financial Stability Board	UCITS	Undertakings for Collective Investment in Transferable Securities
FVC	Financial vehicle corporations	USC	Universal social charge
GDP	Gross domestic product	USD	United States Dollar
G-SII	Global Systemically Important Institutions	VIX	Chicago Board Options Exchange Volatility Index
GTP	Gross technical provision	VNAV	Variable net asset value
GWP	Gross written premium	WEO	World Economic Outlook
IBRC	Irish Banking Resolution Corporations		
ICF	Insurance compensation fund		
IF	Investment fund		
IFSC	International Financial Services Centre		
IIP	International investment position		
IMF	International Monetary Fund		
IPD	Investment Property Databank		

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