

# SME Market Report

2017 H2



Banc Ceannais na hÉireann  
Central Bank of Ireland

Eurosystem

The Central Bank of Ireland's *SME Market Report* is compiled by the Financial Stability Division and aims to collate information from a range of internal and external sources to give an up-to-date picture of developments in the Irish Small and Medium Enterprise (SME) credit market.<sup>1</sup> The report provides information on credit demand, credit access, loan terms and conditions, loan default, interest rates and credit market concentration. The report is released twice yearly. This edition updates previous reports using the latest available data. The data sources are detailed in Appendix 1 and the SME definition adopted in each data source is defined in Appendix 2.

## Overview

- Annual gross new lending to non-financial, non-real estate SMEs in Q3 2017 is 24 per cent higher than a year ago, with the largest increases in the Wholesale, Retail, Trade and Repairs (73 per cent), Hotels and Restaurants (39 per cent) and Manufacturing (39 per cent) sectors.
- Credit outstanding to SMEs in Q3 2017 has declined 3.9 per cent compared to 6 months ago falling to €16 billion with only SMEs in the Agriculture (2 per cent) and Manufacturing (0.1 per cent) sectors recording positive changes. On an annual basis, overall credit outstanding declined 10 per cent from Q3 2016 to Q3 2017.
- The SME lending market has become more concentrated in the last six months, with fewer banks holding an ever larger market share. This holds both in terms of outstanding credit and new lending flows.
- Credit demand is low with the share of SMEs applying for bank loans at 21 per cent in September 2017 according to the ECB SAFE survey. Working capital is the primary purpose of internal and external financing.
- The share of SMEs in Ireland reporting they did not apply for bank loans because of sufficient internal funding was 50.4 per cent in September 2017. In comparator groups of European countries the share was 49.5 per cent in EA1 countries (Austria, Belgium, Germany, Finland, The Netherlands and France) and 37.9 per cent in EA2 countries (Portugal, Italy, Spain and Greece).
- SME loan rejection rates in Ireland have increased to 13.9 per cent in September 2017 from 8.2 per cent in March 2017.
- More SMEs in Ireland are reducing their debt-to-assets ratio than increasing it, with a net percentage change of -12.6 per cent reported in September 2017.
- Interest rates in Ireland for non-financial corporation (NFC) loans below €0.25 million stood at 5 per cent in July 2017 – higher than comparator countries – while the interest rate gap between loans below €0.25 million and loans above €1 million stood at 2.9 per cent in Ireland, which is also above comparator countries.
- Issuance of new loans of up to €1 million expressed as a proportion of domestic demand was 2.1 per cent in Ireland as of Q2 2017. This ratio is substantially lower than in EA1 and EA2 comparator countries.
- The share of SMEs transitioning into default between the period December 2016 and June 2017 is 2.4 per cent. The highest transition rates reported in the Wholesale/Retail sector (2.9 per cent) and the South-east (3.4 per cent). The lowest transition rate is found in the Other Community, Social and Personal (OCSP) sector (1.5) and in the Midlands (1.5 per cent).
- Box 1 examines the financial vulnerability of Irish SMEs over the period 2013 to 2017. Box 2 reviews recent activity in the Strategic Banking Corporation of Ireland loan book.

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# 1 Central Bank of Ireland *Credit, Money and Banking Statistics*

Figure 1 presents annualised gross new lending to non-financial, non-real estate SMEs since 2010.<sup>2</sup> Annualised lending in Q3 2017 (latest data point) totalled €3.7 billion, up slightly from €3.6 billion reported in the previous report. As of Q3 2017, new lending is 24 per cent higher than Q3 2016 and 30.1 per cent higher than Q3 2015.

**Figure 1.** New SME lending (4 quarter rolling summation, by quarter), Q4 2010 - Q3 2017

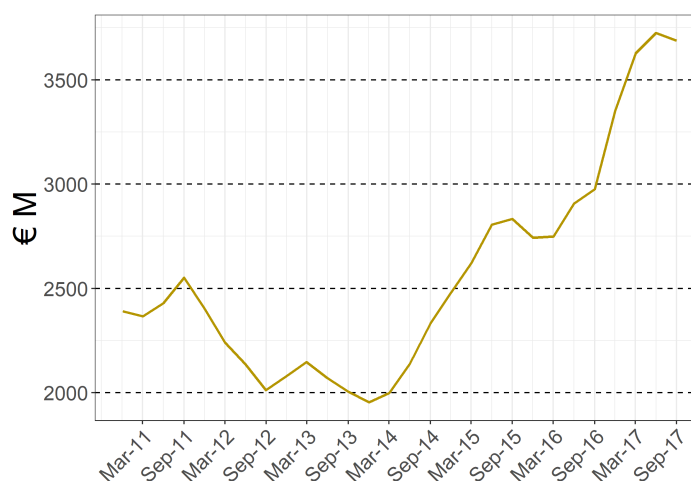
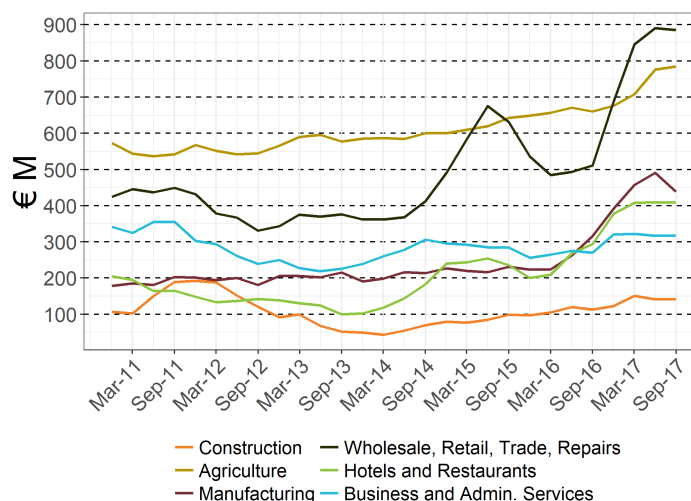


Figure 2 presents annualised gross new lending trends for the six main non-financial, non-real estate sectors. The Agriculture and Wholesale, Retail, Trade and Repairs sectors consistently show the highest shares of new lending. Compared to Q3 2016, annualised new lending in Q3 2017 has increased in all sectors with the largest increases in the Wholesale, Retail, Trade and Repairs (73 per cent), Hotels and Restaurants (39 per cent) and Manufacturing (39 per cent) sectors. Construction (25 per cent), Agriculture (19 per cent) and Business and Administrative Services (18 per cent) experienced a smaller increase in new lending.

**Figure 2.** New SME lending, by sector (4 quarter rolling summation, by quarter), Q4 2010 - Q3 2017



<sup>2</sup>Gross new lending is defined as the 'amount of new credit facilities drawn-down during the quarter by SME counterparties, i.e. where this credit facility was not part of the outstanding amount of credit advanced at the end of the previous quarter'. These data exclude renegotiations. Construction lending is included in these data but real estate activities are excluded.

**Figure 3.** Credit outstanding to SMEs, Q1 2010 - Q3 2017

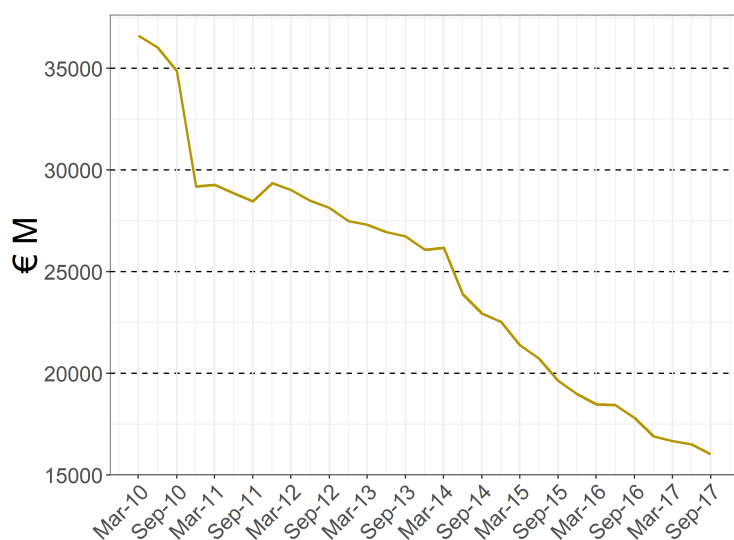


Figure 3 presents the value of outstanding credit to non-financial, non-real-estate SMEs. Credit outstanding has declined by 56 per cent since Q1 2010.<sup>3</sup> Credit outstanding to SMEs currently stands at €16 billion in Q3 2017. Since the last report, credit outstanding has declined by a further 3.9 per cent (Q3 2017 versus Q1 2017). On an annual basis, overall credit outstanding declined 10 per cent from Q3 2016 to Q3 2017.

**Figure 4.** Credit outstanding to SMEs, by sector, Q1 2010 - Q3 2017

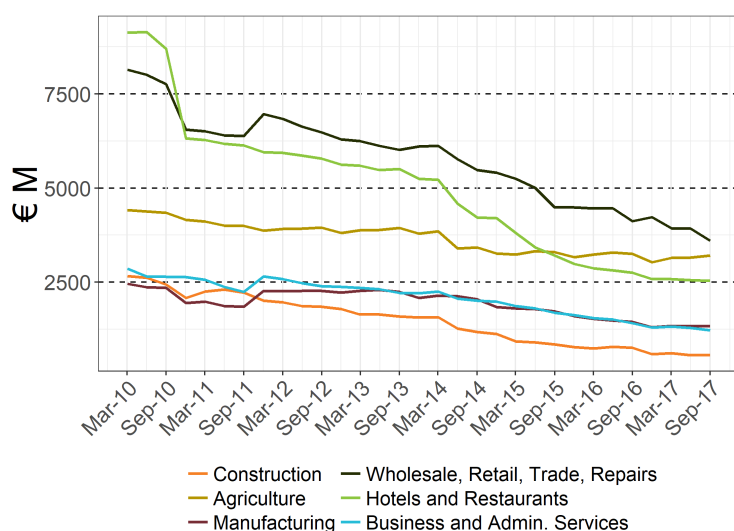
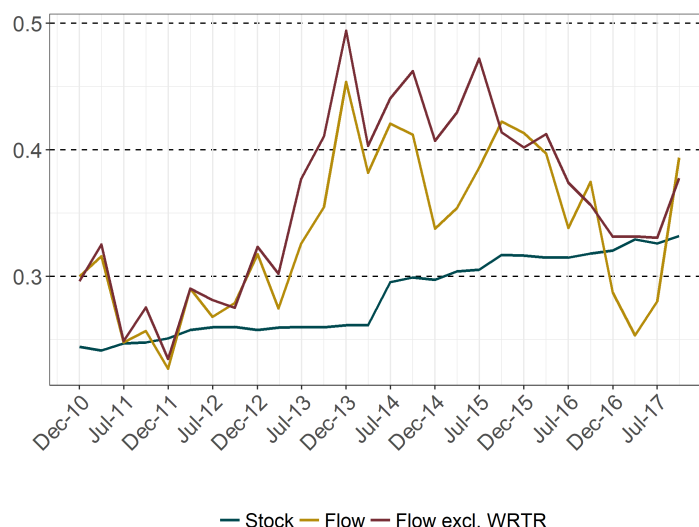


Figure 4 presents trends in outstanding credit for the six main non-financial, non-real estate SME sectors. Since the last report, stocks have increased in the Agriculture (by 2 per cent) and Manufacturing (0.1 per cent) sectors but declined in the Construction (-8.5 per cent), Wholesale, Retail, Trade and Repairs (-8.5 per cent), Hotels and Restaurants (-1.7 per cent) and Business and Administrative Services (-7.6 per cent) sectors.

<sup>3</sup>Declines in outstanding credit are due to a number of factors, including repayments outstripping new lending, revaluations (includes write-offs), loan sales and bank exits.

Figure 5 reports the Herfindahl-Hirschman index, which measures the concentration of lending ‘stocks’ (outstanding balance) and ‘flows’ (gross new lending) for nonfinancial, non-real estate SME lending of all domestic banks.<sup>4</sup> The SME lending market has generally become more concentrated since 2010, reflected by a gradual increase in the stock measure. Figure 5 also shows the concentration of the flow of new lending when excluding the Wholesale, Retail Trade and Repairs (WRTR) sector. The latter is presented as an additional measure of flow concentration which is not biased downward by the unprecedented amount of extremely short-term lending by specialist finance providers in the Wholesale, Retail Trade and Repairs sector in recent quarters. New lending concentration, when measured excluding this sector, shows a less volatile trajectory since Q3 2016.

**Figure 5.** Herfindahl-Hirschman index for non-financial, non-real estate SME lending, Q4 2010 - Q3 2017



<sup>4</sup>The Herfindahl-Hirschman index is calculated as the sum of the squared market shares. Higher values indicate higher market concentration or lower levels of competition.

## Box 1: The Financial Vulnerability of Irish Small and Medium Enterprises, 2013 to 2017<sup>a</sup>

The accumulation of unsustainable levels of debt by firms was a key contributing factor to the financial crisis experienced in Ireland from 2008. In a recent *Economic Letter* (2017, No. 14), we analyse Small and Medium Enterprise (SME) indebtedness as measured by the debt-to-turnover ratio (DTR) from eight waves of a representative six-monthly sample of Irish SMEs over a period of four years to assess the evolution of financial vulnerability in a period of economic recovery. We focus on the ratio of a firm's outstanding debt to annual turnover as our measure of financial vulnerability due to the availability of firm financial information. Our main findings are as follows:

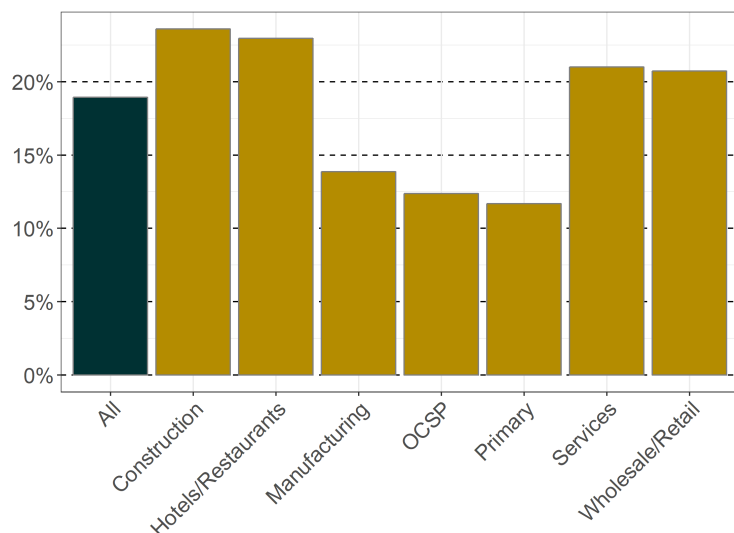
- As many as one-in-two SMEs did not hold any debt in the period from March to September 2017, an increase from one in four SMEs approximately in September 2013.
- Along the intensive margin of debt (the DTR conditional on holding any debt), the DTR has decreased from an average of 46.8 per cent in September 2015 to 30.8 per cent in March 2017.
- The average medium-sized company (those with greater than fifty employees) holding debt has seen a reduction in its DTR from 75 to 28 per cent over the sample period. This reduction is more pronounced than for smaller size classes.
- The share of highly indebted firms (those with debt exceeding turnover) has fallen from 7.8 per cent of SMEs to 2.9 per cent, indicating that vulnerability in the right tail of the distribution, where default risk is most concentrated, has reduced substantially.
- The incidence of high indebtedness has generally been highest among medium-sized firms, of whom 17 per cent were highly indebted in September 2014. These firms have also seen the greatest reduction in the share of high-debt firms, with debt exceeding turnover for just 4 per cent in March 2017.
- Firms in the Hotel and Restaurants sector are shown to be particularly vulnerable, with the highest share of high-debt firms of any sector ranging between 15 and 25 per cent over the sample period. By comparison, in all other sectors the share of high-debt firms has ranged from 5 to 10 per cent.
- Firms in the Business and Administrative Services sector, which are likely to be less capital-intensive than the average, are shown in the data to carry less debt.
- Exporting firms are typically less indebted than those serving only the domestic market.
- Geographically, firms in Dublin are shown to be less indebted than those elsewhere, which may be due to either the industrial structure of the city or the relatively strong economic performance of Dublin firms.

The overarching conclusion of the *Letter* is that the financial vulnerability of the Irish SME sector has decreased substantially between 2013 and 2017. The analysis using firm-level data confirms that this improvement has been broad-based across company size classes, age groups, regions and sectors. The observed changes are likely due to a combination of a changing attitude to debt and leverage from borrower firms after the experience of the recent crisis, and bolstered cash reserves among surviving firms who did not make investments during the post-2008 period.

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## 2 Central Bank of Ireland Loan-Level Data

**Figure 6.** SME default rates by sector, June 2017



Loan-level data from Allied Irish Banks, Bank of Ireland, Permanent TSB and Ulster Bank are employed to describe loan performance.<sup>5</sup> Figure 6 presents the share of outstanding balances in default (19 per cent overall in default) across the main economic sectors as of June 2017.<sup>6</sup> The highest default rates are found in the Construction (23.6 per cent) and Hotels/Restaurants (23 per cent) sectors whereas the Primary (11.7 per cent) and OCSP (12.4 per cent) sectors record the lowest default rates.

**Figure 7.** SME default rates by region, June 2017

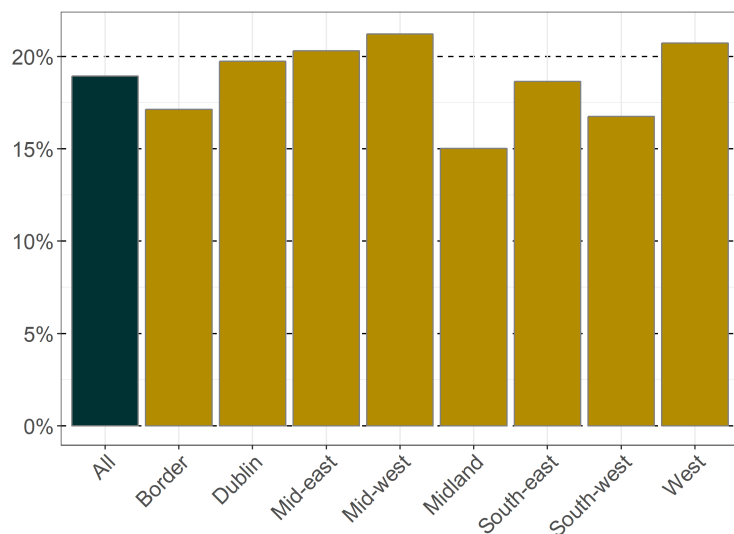


Figure 7 reports default rates across regions.<sup>7</sup> Variation of default rates across regions is less than across sectors. In the latest data (June 2017), default rates are highest in the Mid-west (21.2 per cent) and West (20.1 per cent) while the lowest default rates are found in the Midlands (15 per cent) and South-west (16.8 per cent).

<sup>5</sup>These data are collected every six months with the latest data from June 2017. The finance types are predominantly comprised of loans, overdrafts, hire-purchasing and leasing. 'Default' is defined as loans greater than 90 days past due, or deemed unlikely to repay without giving up collateral.

<sup>6</sup>Sectors with small exposures are subsumed into larger sectors for exposition purposes. The Electricity, Gas, Steam and Air Conditioning Supply, and Water Supply, Sewerage, Waste Management and Remediation Activities sectors are included with the Manufacturing sector; the Transportation and Storage sector is included with Wholesale and Retail; the Human Health and Social Work, and Education sectors are included with the Other Community, Social and Personal (OCSP) sector; the Information and Communication sector and Business and Administrative Services sector are combined into Services.

<sup>7</sup>Nomenclature of Territorial Units for Statistics (NUTS) regions - 'Border': Cavan, Donegal, Leitrim, Louth, Monaghan, Sligo; 'Mid-East': Kildare, Meath, Wicklow; 'Mid-West': Clare, Limerick; 'Midlands': Laois, Longford, Offaly, Westmeath; 'South-East': Carlow, Kilkenny, Tipperary, Waterford, Wexford; 'South-West': Cork, Kerry, 'West': Galway, Mayo, Roscommon.

**Figure 8.** SME percentage of loan balances entering default between December 2016 and June 2017 by sector

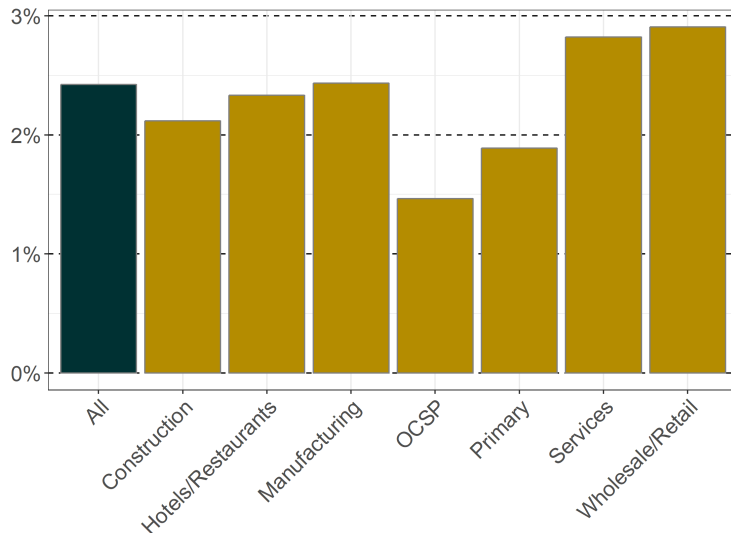


Figure 8 presents loan transition rates into default across the main economic sectors. The percentage of December 2016 performing balance that enters default by June 2017 is reported. The overall transition rate is 2.4 per cent varying by sector from as high as 2.9 per cent in Wholesale/Retail and 2.8 per cent in Services to as low as 1.5 per cent in OCSP and 1.9 per cent in the Primary sector.

**Figure 9.** SME percentage of loan balances entering default between December 2016 and June 2017 by region

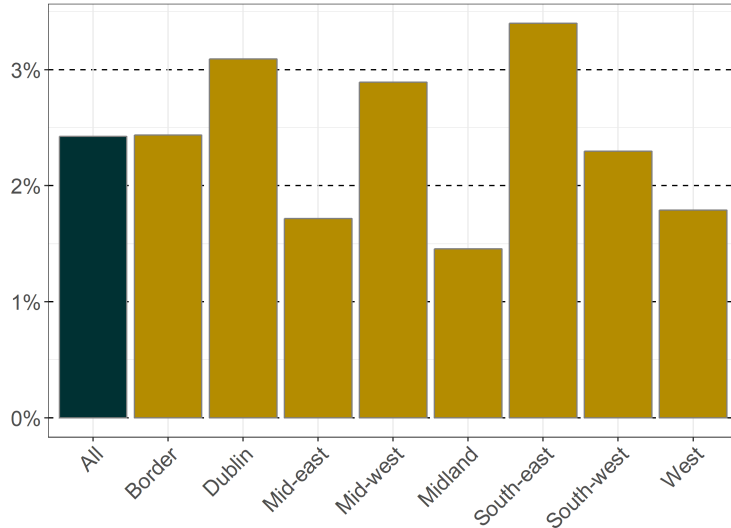


Figure 9 shows transition rates entering default by regions. In the latest data, transition rates from December 2016 to June 2017 are highest in the South-East (3.4 per cent) and Dublin (3.1 per cent) while the Midlands (1.5 per cent) and the West (1.8 per cent) reported the lowest transition rates.

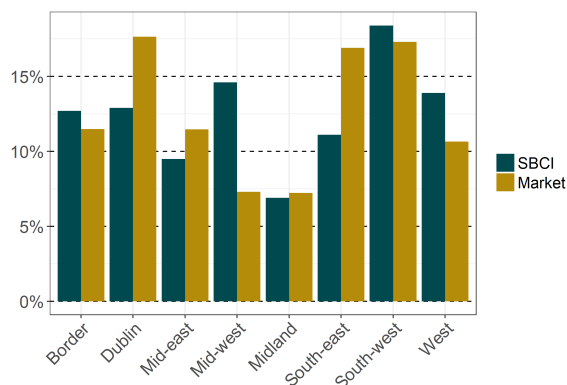


## Box 2: Strategic Banking Corporation of Ireland Loan Book<sup>a</sup>

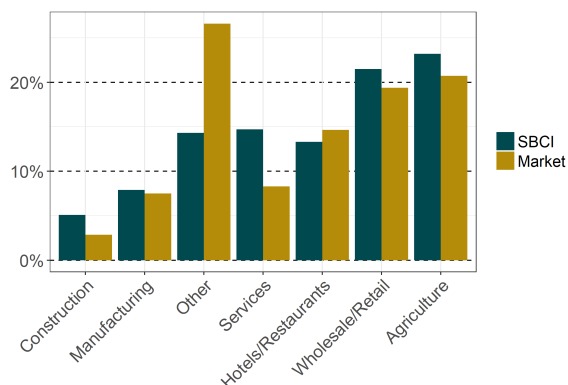
The Strategic Banking Corporation of Ireland (SBCI) commenced operations in March 2015 with the purpose of addressing market failures in the Irish SME lending market. This box provides an update on the activities of the SBCI. The SBCI expanded its responsibilities in October 2016 to include the management and operation of the Government's credit guarantee scheme. Furthermore, the SBCI secured funding in addition to its €790 million initial funding throughout 2016 and 2017. The additional funding comes from the Council of Europe Development Bank (€200 million) and the National Treasury Management Agency (€250 million). An equity injection of €25 million (converted from existing Ireland Strategic Investment Fund debt drawn down by the SBCI) was received from the Department of Finance in February 2017 building upon an initial €10 million equity investment upon the foundation of the SBCI. The development of SBCI's first risk sharing product, the Agriculture Cashflow Support Loan Scheme (launched in January 2017) has focused on the Agriculture sector.

The SBCI has developed on-lending partnerships with four specialised non-bank on-lenders further aiding the range of products and providers. Providers include First Citizen Agri Finance (hire purchase), Finance Ireland (leasing/hire purchase), Bibby Financial Services (invoice financing) and Fexco Asset Finance (leasing/hire purchase). As of December 2017, the SBCI has three bank 'on-lenders' and four non-bank 'on-lenders'. The former consist of 74.5 per cent of the committed funds down from 89.9 per cent in December 2015. Total committed funding as of December 2017 is €906 million, with a further €150 million committed for the SBCI Agriculture Cashflow Support Loan Scheme. From the committed funds, €783 million has been deployed as SBCI supported loans and €142 million has been drawn by SMEs under the SBCI Agriculture Scheme. For the period up to June 2017, the mean loan size for SBCI supported loans was €42,253 similar to the €42,471 average loan size in Central Bank of Ireland (CBI) loan-level data for SMEs over the same period. For SBCI risk sharing loans the average loan size was €32,084 compared to the CBI loan-level data average loan size of €48,597 since the scheme began. Most loans supported by the SBCI to December 2017 were for investment purposes (84 per cent). 12 per cent of loans were used for working capital and 4 per cent were used to refinance loans owed to banks exiting the Irish market. The cost of SBCI supported financing for SMEs was also low with an average interest rate of 4.6 per cent. SBCI loans are generally distributed similar to market lending (CBI loan-level data for SMEs). However, Figure 10 shows lower shares of SBCI loans in Dublin, the Mid-east, Midlands and the South-east and Figure 11 shows SBCI loans have smaller shares in Other and Hotels/Restaurants.<sup>bc</sup>

**Figure 10.** SBCI and market lending shares (loan value) by region, June 2017



**Figure 11.** SBCI and market lending shares (loan value) by sector, June 2017



<sup>a</sup>Box authors: John McQuinn and Fergal McCann. Email: fergal.mccann@centralbank.ie

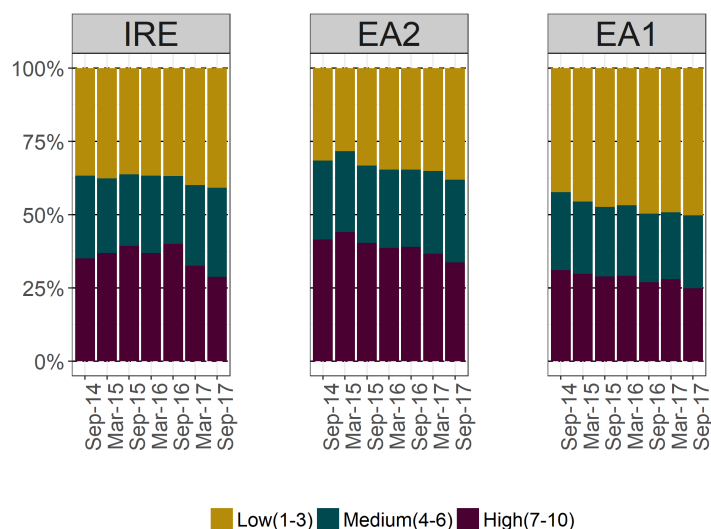
<sup>b</sup>SBCI lending shares include both funded loans and agri cashflow loans together.

<sup>c</sup>CBI loan-level data sector "Other" consists of both "Personal" and "Other Community, Social & Personal". SBCI sector data for "Wholesale & Retail" includes "Transport & Storage". SBCI "Services" sector consists of "Admin & Support" and "Professional & Scientific" sectors while CBI "Services" relates to "Business and Administrative Services".



### 3 ECB/EC SAFE Survey

**Figure 12.** Concerns on access to finance, September 2014 - September 2017



The ECB/EC *Survey on the Access to Finance of Enterprises* (SAFE) is used to compare credit conditions in Ireland to those of the euro area (see Appendix 2 for country groupings).<sup>8</sup> Figure 12 describes how firms' concerns about access to finance have changed over the last seven surveys.<sup>9</sup> Credit concerns continue to decline in Ireland. In the latest survey, the share of Irish SMEs stating a 'high' concern (29 per cent) is at the midpoint between EA2 (34 per cent) and EA1 (25 per cent).

**Figure 13.** SME perceptions of bank willingness to provide credit, September 2014 - September 2017

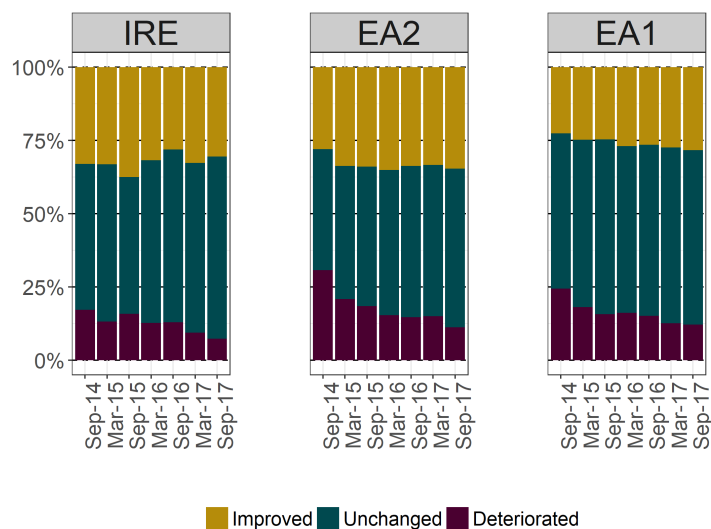


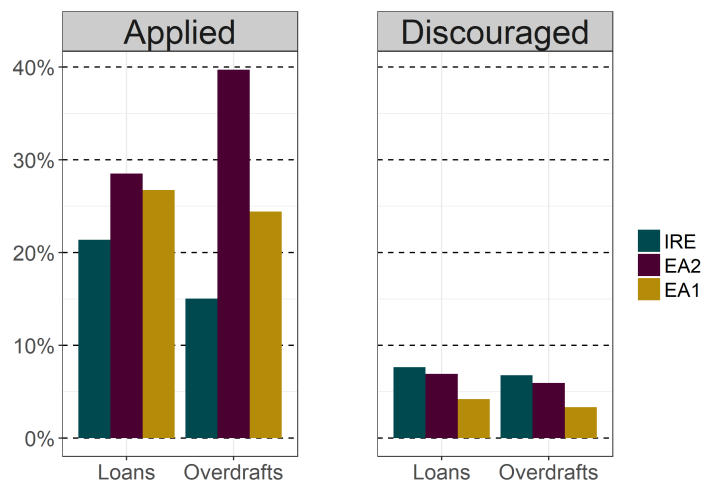
Figure 13 describes SME perceptions of bank willingness to provide credit. The share of SMEs stating a 'deterioration' has declined in Ireland and the euro area. In the latest survey, the net improvement (the share of improvements minus the share of deteriorations) in Ireland is 23 per cent, the same as EA2 (23 per cent) but higher than EA1 (16 per cent).

<sup>8</sup>The survey is conducted twice-yearly with the most recent survey covering the period from April 2017 to September 2017. Ireland is compared to two groups of countries: EA1 which comprises of Austria, Belgium, Germany, Finland, The Netherlands and France, and EA2 which comprises of Portugal, Italy, Spain and Greece.

<sup>9</sup>Responses range from 10 ('extremely pressing') to 1 ('not at all pressing') and finance includes bank loans, trade credit, equity, debt securities and other external financing.

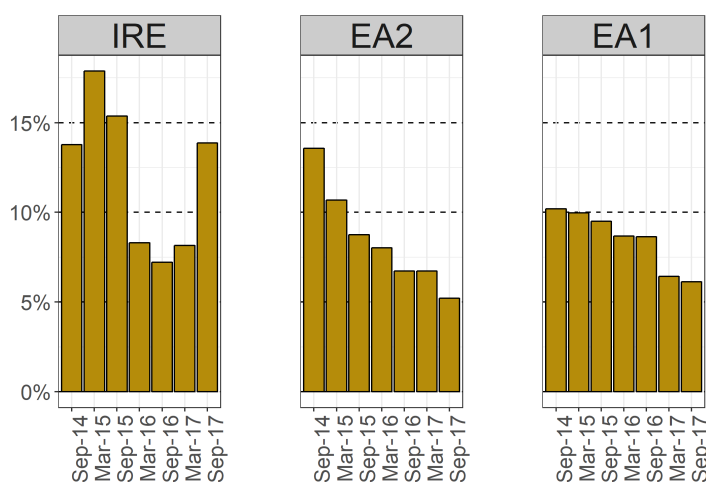
In the latest survey, loan and overdraft application rates are once again considerably lower than euro area averages.<sup>10</sup> For example, the loan application rate in Ireland, EA2 and EA1 is 21 per cent, 29 per cent and 27 per cent respectively. Ireland and EA2 show a higher share of discouraged borrowers (i.e. SMEs that did not apply because of fear of rejection) than EA1.

**Figure 14.** Application and discouraged borrower rates for loans and overdrafts, September 2017



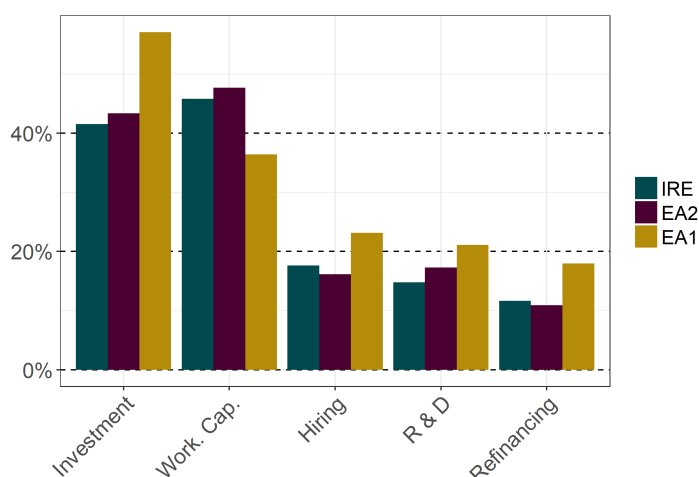
After declining significantly in previous reports, rejection rates on loan/overdraft applications have increased once again in Ireland in contrast to euro area averages which continue to trend downward. The latest rejection rate in Ireland (13.9 per cent in September 2017) has increased from 8.2 reported in March 2017 and is more than twice the rate experienced in EA2 (5.2 per cent) and EA1 (6.1 per cent).<sup>11</sup>

**Figure 15.** Rejection rates for loan and/or overdraft applications, September 2014 - September 2017



<sup>10</sup>Following the SAFE reports, Figure 14 only includes SMEs for which bank loans and overdrafts are relevant.

<sup>11</sup>SMEs that applied for both a loan and an overdraft but received a rejection for either are treated as rejected for Figure 15. SMEs whose applications are “still pending” or “don’t know” are excluded from calculations.

**Figure 16.** Purpose of financing, September 2017

For SMEs that used financing in the previous six months, Figure 16 describes the purpose of these funds.<sup>12</sup> While the largest share is accounted for by ‘working capital’ in Ireland and EA2, ‘fixed investment’ is the main purpose in EA1. The ‘fixed investment’ share in Ireland has decreased since the last report (from 47 per cent to 42 per cent) and is below euro area averages at 43 per cent in EA2 and 57 per cent in EA1.

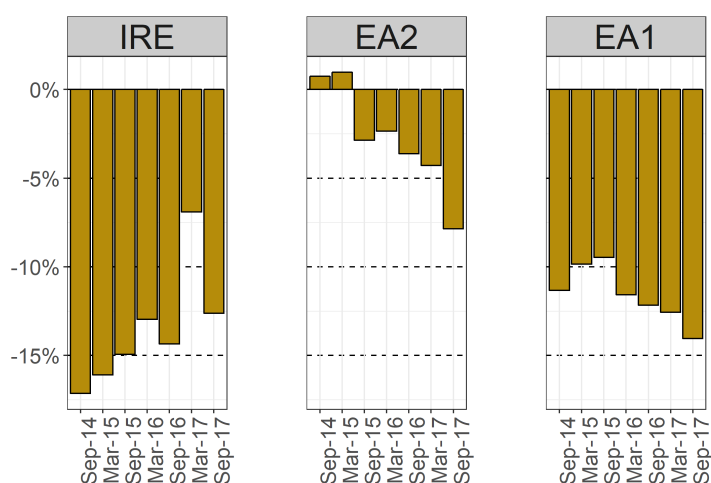
**Figure 17.** Net percentage change in debt-to-assets, September 2014 - September 2017

Figure 17 illustrates the net percentage change in the debt-to-assets ratio among SMEs.<sup>13</sup> SMEs in Ireland reduced their debt-to-assets ratio with a negative net percentage change since September 2014 (the earliest available data period). In contrast, EA2 countries only reported negative net changes since September 2015. As of September 2017, the reported net change in SME debt-to-assets for Ireland was -12.6 per cent while EA1 and EA2 reported net changes of -14 per cent and -7.8 per cent respectively.

<sup>12</sup>In SAFE, financing refers to ‘external sources or from funds generated by your enterprise’. Financing may be used for multiple purposes so that the total may exceed 100 per cent. In Figure 16, ‘Investment’ refers to investment in property, plant, machinery or equipment, ‘Work. Cap.’ refers to inventory or working capital, ‘Hiring’ refers to hiring and training of employees, ‘R & D’ refers to developing and launching new products or services and ‘Refinancing’ refers to refinancing or paying off obligations. The shares presented exclude SMEs who responded with ‘don’t know’ or ‘not applicable’.

<sup>13</sup>The net percentage change in the debt-to-assets ratio is defined as the share of firms increasing their debt-to-assets ratio less the share of firms decreasing their debt-to-assets ratio

**Figure 18.** No application for bank loan because of sufficient internal funds, September 2014 - September 2017

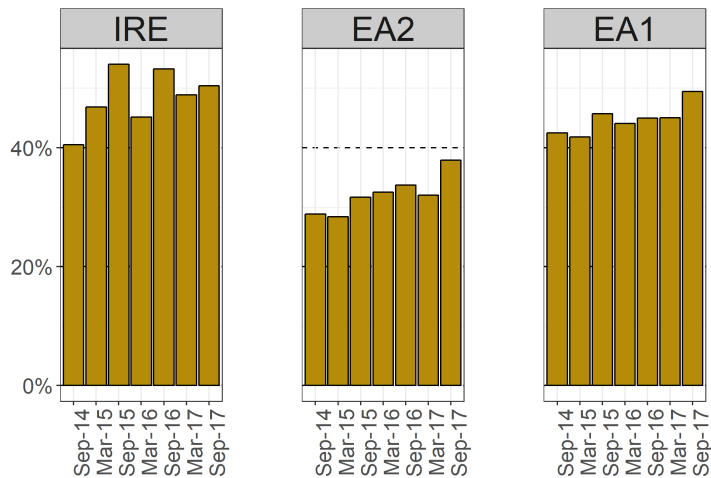
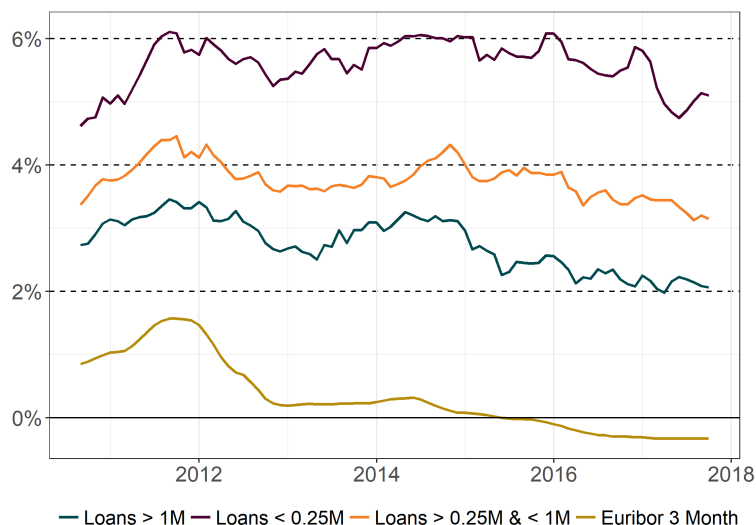


Figure 18 shows the share of SMEs reporting they did not apply for bank loans because of sufficient internal funding. Ireland differs from both EA1 and EA2 countries with a consistently higher share of SMEs reporting sufficient internal funding. More recently, EA1 countries have reported shares of sufficient internal funding similar to Ireland while EA2 countries continue to report increasing shares of sufficient internal funding but below rates in Ireland. As of September 2017, the share of firms reporting sufficient internal funding as the reason they did not apply for a bank loan in Ireland was 50.4 per cent while EA1 and EA2 reported rates of 49.5 per cent and 37.9 per cent respectively.

## 4 ECB Monetary and Financial Statistics

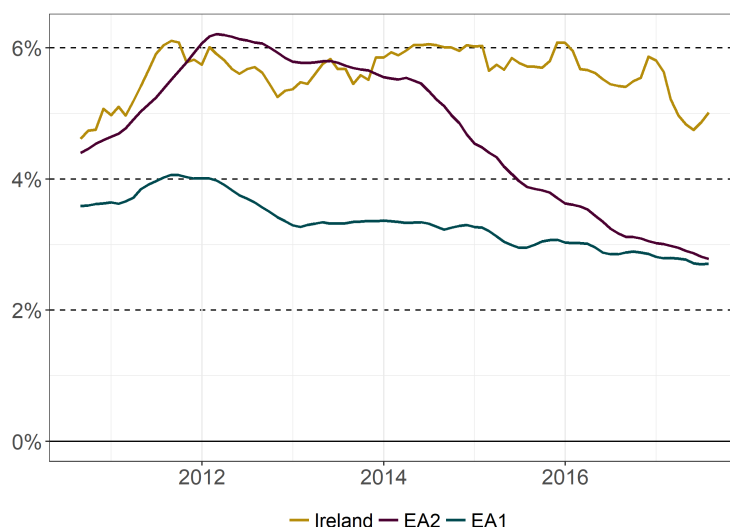
Figure 19 presents interest rates on Irish NFC loans of varying originating balances.<sup>14</sup> We use rates on loans under €0.25 million as a proxy for SME cost of credit. Interest rates are higher for smaller loans – the interest rate for SMEs in the latest month of data (September) is 5.1 per cent, which is 3 percentage points higher than that for loans above €1 million and 2 percentage points higher than that for loans between €0.25 million and €1 million. The most recent SME interest rate is slightly higher than in the previous report (5 per cent – March 2017).

**Figure 19.** Interest rates on NFC loans (3-month moving average), Ireland, August 2010 - September 2017



Interest rates on new NFC loans below €0.25 million (our proxy for SME lending) in Ireland, EA1 and EA2 are presented in Figure 20.<sup>15</sup> Interest rates in Ireland are substantially above euro area averages. The interest rate in Ireland in July 2017 (at 5 per cent) remains 2.2 percentage points higher than EA2 and 2.3 percentage points higher than EA1, while EA2 and EA1 have tended to converge in recent months.

**Figure 20.** Interest rates on NFC loans under €0.25 million (3-month moving average), euro area, June 2010 - July 2017



<sup>14</sup>In this section, interest rates and lending volumes are for ‘new business’ lending to NFCs. This data excludes revolving loans and overdrafts, convenience and extended credit card debt. ‘New business’ is defined as any new agreement between the customer and the credit institution. This agreement covers all financial contracts that specify, for the first time, the interest rate of the loan, *including any renegotiation of existing loans*.

<sup>15</sup>This figure is created by first calculating the three-month moving average in each country. For the comparison country groupings (EA1 and EA2), a direct unweighted average is then used. This figure excludes Belgium and Greece due to missing data. Data is also limited to July 2017 due to missing values for Italy, Netherlands and Portugal for the period after July 2017.

**Figure 21.** Difference between interest rates on small and large NFC loans (3-month moving average), August 2010 - July 2017

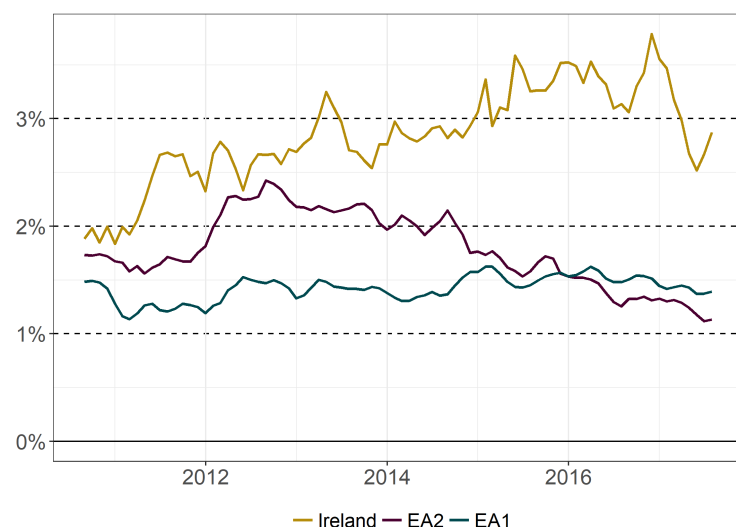


Figure 21 displays the difference in interest rates between small loans (below €0.25 million – proxy for SMEs) and large loans (above €1 million – proxy for larger corporates).<sup>16</sup> The interest gap in Ireland (2.9 per cent) continues to remain higher than EA1 and EA2. The interest rate gap as of July 2017 in Ireland differs by 1.5 per cent with EA1 and 1.8 per cent with EA2.

**Figure 22.** New lending to NFCs (loans up to and including €1 million) as a proportion of domestic demand, Q1 2003 - Q2 2017

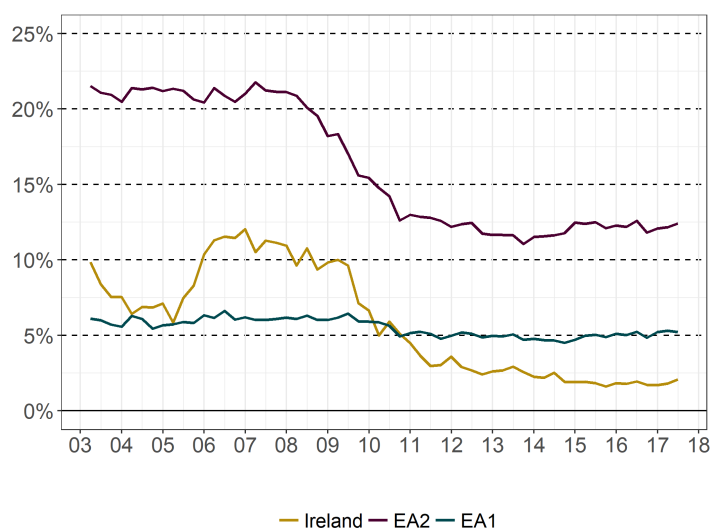


Figure 22 presents the ratio of NFC lending to domestic demand. Lending flow data are for loans on amounts up to and including €1 million.<sup>17</sup> The current ratio in Ireland (2.1 per cent in Q2 2017) is below both EA1 (5.2 per cent) and EA2 (12.4 per cent). Other Member States with current ratios less than 5 per cent include the Netherlands (2.2 per cent), Austria (4.2 per cent), Finland (4.5 per cent), France (4.9 per cent), and Germany (4.6 per cent).

<sup>16</sup>This figure is created by first calculating the three-month moving average for the two interest rate series in each country. The data presented is then the difference between these two moving averages, by month. For the comparison country groupings (EA1 and EA2), a direct unweighted average is used. These averages exclude Belgium and Greece due to missing data. Data is also limited to July 2017 due to missing values for Italy, Netherlands and Portugal for the period after July 2017.

<sup>17</sup>This higher loan threshold is chosen as lending data for loans on amounts up to €0.25 million are not available pre-2010. Euro area (excluding Ireland) quarterly domestic demand data (final consumption expenditure and gross capital formation) are from Eurostat. Irish domestic demand data are from the Central Statistics Office using a modified measure of domestic demand defined as domestic demand less the effects of trade in aircraft by aircraft leasing companies and the imports of intellectual property. In previous market reports, approximations of these effects were subtracted from domestic demand. All data are at current market prices and are non-seasonally adjusted. Monthly new lending data are aggregated to quarterly for comparison. EA2 excludes Greece due to missing data.

## Appendix 1: Data Sources

- Central Bank of Ireland *Credit, Money and Banking* statistics, Q1 2010 to Q3 2017. This source contains lending stocks and flows by quarter and sector for all Irish banks.
- European Central Bank (ECB) / European Commission (EC) *Survey on the Access to Finance of Enterprises* (SAFE), September 2014 to September 2017. The Irish component of this European survey contains information for 500 SMEs. The cross-country nature of the survey allows credit conditions faced by Irish SMEs to be placed in an international context. In this report, Ireland is compared to two groups of EU countries: EA2 is comprised of Portugal, Spain, Italy and Greece while EA1 is comprised of Austria, Germany, Belgium, Finland, The Netherlands and France.
- Central Bank of Ireland loan-level data, December 2016 and June 2017. This dataset provides information on a wide range of loan characteristics including outstanding balances, sector of activity and loan repayment for the population of enterprise loans outstanding at Allied Irish Banks, Bank of Ireland and Permanent TSB and Ulster Bank. ‘Default’ is defined as loans greater than 90 days past due, or deemed unlikely to repay without giving up collateral (Basel II).
- Monthly euro area interest rates and new lending data to non-financial corporations are based on the ECB’s *Monetary and Financial Statistics* (MFI interest rates). These data are for loans other than revolving loans and overdrafts, convenience and extended credit card debt (all maturities), and include renegotiations.

## Appendix 2: Classification of SMEs

In the SAFE survey, SMEs are defined solely by their employment size. Three categories of SME are analysed: Micro firms, with less than 10 employees, Small firms with 10 to 49 employees, while Medium firms are those with 50 to 249 employees. All firms with more than 250 employees are considered to be Large firms and are removed from the analysis.

The Central Bank of Ireland loan-level data do not contain the relevant information on borrowing firms to define SMEs in a similar fashion. Rather, SMEs are separated from Large borrowers in the data in a manner similar to that used by the EBA/SSM Asset Quality Review. All firms whose exposures are managed in retail and business banking units of the subject banks are modelled as SMEs, while all exposures managed in corporate banking divisions are considered to be Large firms and excluded from the analysis.