ESRI Research Note

SME Debt and Interest Costs in Ireland

Conor O'Toole, Petra Gerlach-Kristen and
Brian O'Connell

SME Debt and Interest Costs in Ireland

*Conor O'Toole, Petra Gerlach-Kristen and Brian O'Connell

Introduction

Given the scale of the property boom and bust in Ireland, there has been considerable attention given to how legacy debt is affecting Irish Small and Medium Enterprises (SMEs). Indeed, there have been a number of important policy interventions aimed at providing debt-burdened SMEs with workable solutions, including the decision by the National Pension Reserve Fund to establish the Better Capital Ireland SME Turnaround Fund and the changes to the examinership rules which facilitate the use of the less expensive circuit court in such proceedings.

However, to date, the debate has lacked a statistical profile of loan burdens across Irish SMEs. This short note uses new survey data from the latest wave of the Department of Finance/RedC SME Credit Demand Survey to provide a cross-sectional overview of loan burdens of Irish SMEs and the interest costs associated with these loans. The note examines the debt profiles of different SMEs according to size, sector, age, banking relationship and trading status. For each of these characteristics we illustrate average outstanding loans, average loan-to-turnover ratios and average interest rates.

Context

The solid line in Figure 1 outlines the path of total outstanding credit to non-financial corporations in Ireland since 2003. Volumes in the figure have been normalised to 100 in 2003Q1. For Ireland, we can clearly observe the build up of credit between 2005 and 2008 and the subsequent collapse following the onset of the financial crisis[1].

The other series in Figure 1 put the path of credit growth in Ireland in a European context. We include the crisis countries in the Eurozone as well as Germany as a baseline. All countries analysed saw growth in credit to non-financial corporate

---

[1] Net lending to Irish non-financial corporates was €58bn in 2003Q1, peaked at €192bn in 2008Q3 and stood at €93bn in 2013Q2.

* conor.otoole@esri.ie; petra.gerlach@esri.ie; brian.oconnell@esri.ie

firms in the pre-crisis period. Though the trend was upward for all the countries, the scale of the credit expansion varied markedly. For instance, Germany saw credit growth of 14% from 2003 to the peak in early 2009. On the other end of the scale, Spain and Ireland saw credit to non-financial corporates grow by 176% and 232%, respectively, from 2003 to their pre-crisis peak levels. Figure 1 also suggests that deleveraging has been strongest and fastest in Ireland.

FIGURE 1   Total Lending Volumes in Ireland and Select European Countries
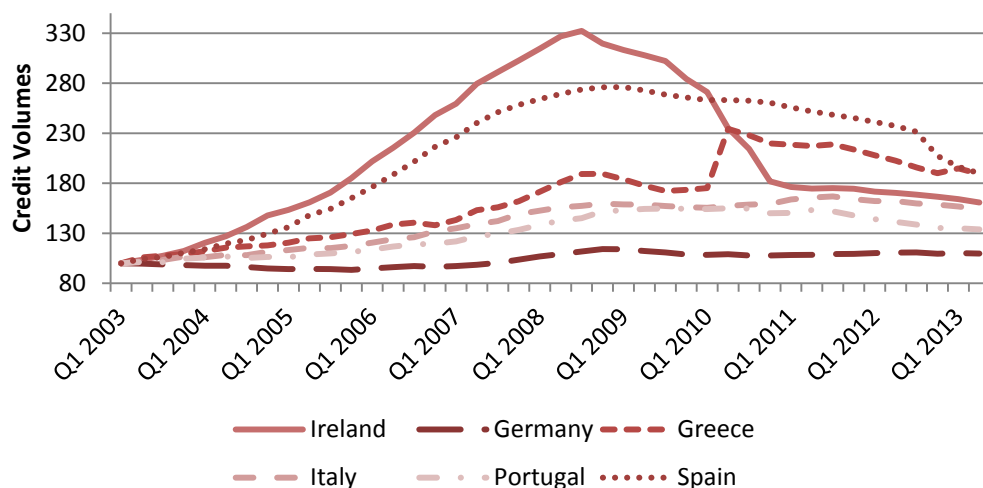
Source: Authors' calculations using ECB data.

Figure 2 illustrates the recent evolution of changes to the interest burden on Irish SMEs against the Eurozone average using data from the ECB Survey on Access to Finance of SMEs (SAFE). In the most recent survey, Irish SMEs reported considerably more increases in the interest burden on their debts than the European average. The previous surveys have, however, seen Irish firms report increasing interest burdens at around the Eurozone average or below it.

**FIGURE 2**   Net Share of Firms Reporting an Increased Interest Burden
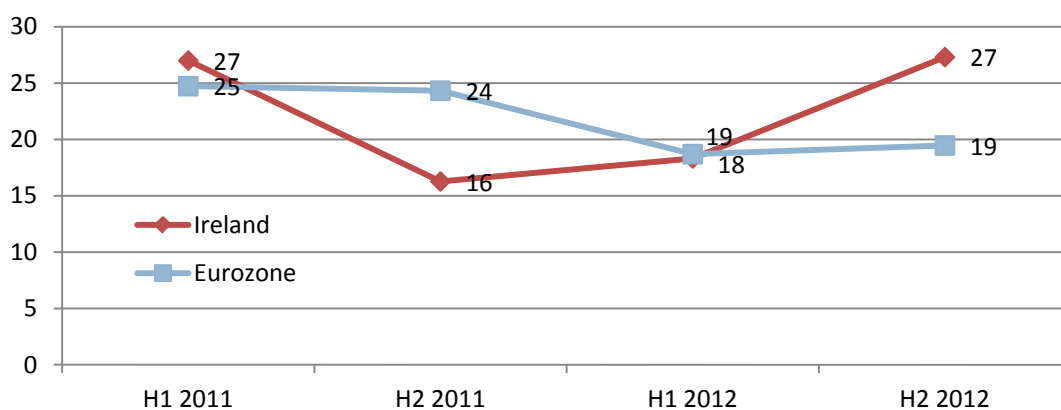
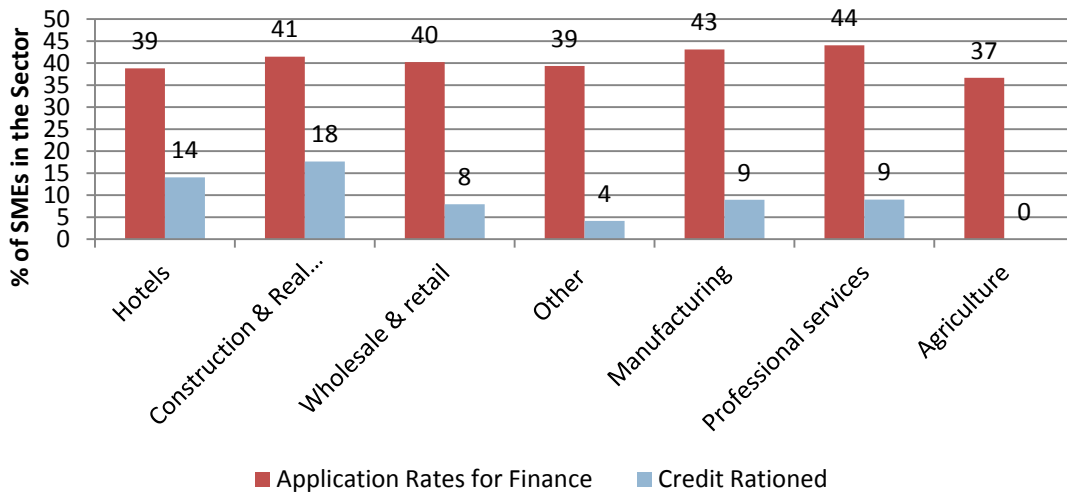*Source:*   Authors' calculations using ECB SAFE data.

Panel A in Figure 3 outlines the change in total outstanding loans to each SME sector in Ireland since Q1 2010. We can clearly observe that all SME sectors have seen a decline in total loans outstanding. The hotels sector and the "other" sector have seen the biggest collapse in credit since 2010 of around 40% in both cases. The construction & real estate and wholesale & retail sectors have also seen substantial declines in outstanding credit volumes.

FIGURE 3   Changes in Lending in the SME Sector

Change in Total Outstanding Lending by SME Sector since 2010
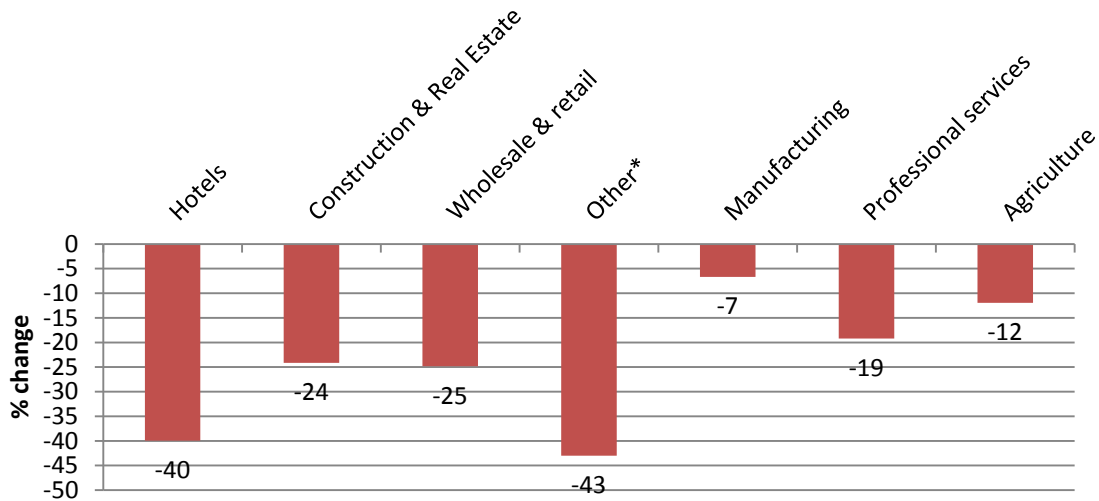
B. Application Rates and Credit Rationing by SME Sector - Oct 2012- March 2013

■ Application Rates for Finance   ■ Credit Rationed

Note: "Other" in this case and throughout the note refers to firms in the transportation, storage, communication and administration sectors.

Source: Authors' calculations using Central Bank of Ireland data & Department of Finance/Red C data.

Of course, credit volumes are determined by credit demand and credit supply. Panel B in Figure 3 shows for each sector what fraction of the firms surveyed applied for a loan between October 2012 and March 2013, the period covered by the latest Department of Finance/RedC survey. We see that around 40% of firms in all sectors applied for credit i.e.   60% of firms did not apply. Some 15% of

those firms which did not apply for credit stated that they did not do so due to existing financing already being in place while 80% said that they simply did not need the funds. This low level of demand for credit is clearly a factor in the reduction of outstanding debt to the various sectors illustrated in panel A.

On the supply side, Gerlach-Kristen et al (forthcoming) study credit constraints in the Irish SME sector and count as "credit-rationed" those firms whose loan applications were rejected because of a change in the bank's lending policy or because the bank does not lend to that particular sector anymore.[2] Panel B shows that credit rationing was highest in the hotels and property-related sectors. This reflects supply-side decisions from the lending institutions to reduce their exposure to these sectors and also goes some way to explaining the large-scale reductions in total outstanding debt of hotels and construction & real estate companies.

Overview of the Debt Burden across Irish SMEs

The Department of Finance/RedC SME Credit Demand Survey covering the six months from October 2012 to March 2013 asked 1,500 SMEs about their debt situation. Due to the incomplete response rate and after the removal of outliers we are, however, only able to report on the debt profiles of around 750 of these 1,500 firms.

It should be noted that the survey specifically asks firms to discuss their outstanding bank-loan debt. This gives rise to two caveats. First, we have no information on non-bank debt which an SME may also have to service. If, for example, an SME has built up unsustainable outstanding trade credit liabilities over the crisis period, this is not captured in our data. Nevertheless, given the high reliance of Irish SMEs on banks for financing as compared to their European counterparts (Lawless et al., 2013), an examination of purely bank lending debt should be reasonably illustrative of general debt trends amongst Irish SMEs.

Second, if an entrepreneur took out personal property-related loans using the SME as collateral, this is not captured in our data either. In this respect, our estimates potentially provide a lower bound on the total debt burden of Irish SMEs.

---

[2] Moreover, firms that were told that their collateral was insufficient and those that were only granted a fraction of the requested sum (but more than 70%) were counted as credit-rationed.

Figure 4 demonstrates both the proportion of SMEs in the sample which indicated that they have a loan and of those firms how many are in arrears on one of more of those loans.[3] We find that just over 60% of SMEs surveyed have outstanding bank debt. We also observe that just under 12% of those firms with outstanding debt are in arrears.

FIGURE 4   Share of Firms with Loans Outstanding and those in Arrears
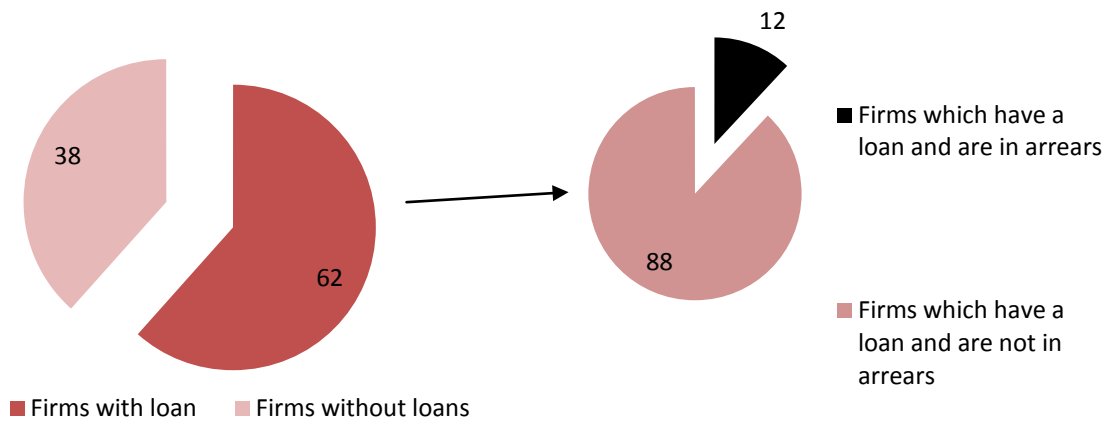
Source: Authors' calculations using Department of Finance/Red C data.

We next discuss average loan size, loan-to-turnover (LTT) ratio and interest rate for different firm characteristics, such as sector, firm size, etc. It should be noted that these are just bi-variate relationships. O'Connell and O'Toole (forthcoming) present a multi-variate analysis, which we draw on when interpreting the figures presented below.

Panel A in Figure 5 gives a breakdown of average loan amounts by sector in millions of euro. As one would expect given the levels of expansion in these sectors in the lead up to the crisis, SMEs in the hotels sector and the construction & real estate sectors have the highest average outstanding loans. Panel B shows that it is these sectors that also have the highest average LTT ratios.

We examine the LTT ratios as a measure of the sustainability of the debt. The sectoral LTT ratios range between 0.30 and 1.84. This implies that in all but the hotels and construction & real estate sectors, a year's turnover would suffice to lift the average firm out of debt.

---

[3]   In this context, we are defining arrears as a firm that has missed a debt repayment in the previous six months.

Panel C in Figure 5 shows the average interest rates paid by firms in each sector. We observe that agricultural firms (farms) pay the lowest average rate of interest. We suspect that this is due to the abundance of collateral these firms can offer as security in the form of both farm land and equipment as well as to the availability of risk-free income streams through EU subsidy supports. Conversely, professional services firms pay the highest average interest rates. This may be due to the relative lack of collateral these firms can offer banks as security on their debts.

**FIGURE 5**   Average Loan Amount, Loan-to-Turnover Ratio and Interest Rate by Sector

Average Loan Amount (€ mn)

Loan-to-turnover ratio

Average Interest Rate on Outstanding Debt
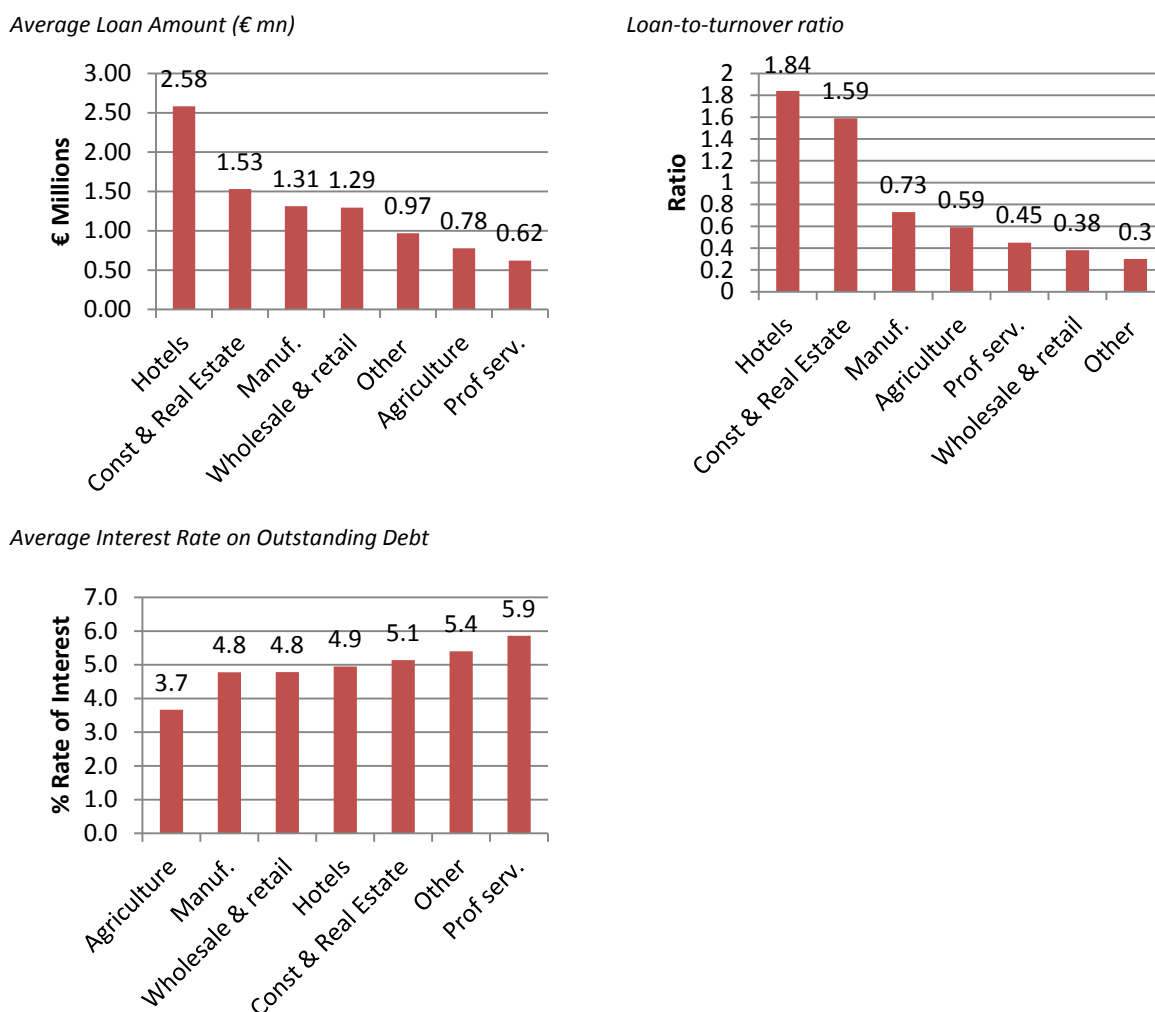
Source: Authors' calculations using Department of Finance/RedC data

Figure 6 examines the debt profile of Irish SMEs by firm size. The survey data largely conform to expectations. We find that micro firms have the lowest average debt levels, the highest LTT ratios and the highest average interest costs. Conversely, we find that medium sized firms, the largest firms in our analysis, have the highest average debt levels, lowest LTT ratio and lowest interest costs.

Overall, this suggests that micro firms struggle most with their debt, both in terms of level relative to turnover and interest rate burden.

FIGURE 6   Average Loan Amount and Loan-to-Turnover Ratio and Interest Rate by Firm Size

Average Loan Amount (€ mn)

Loan-to-turnover ratio

Average Interest Rate on Outstanding Debt
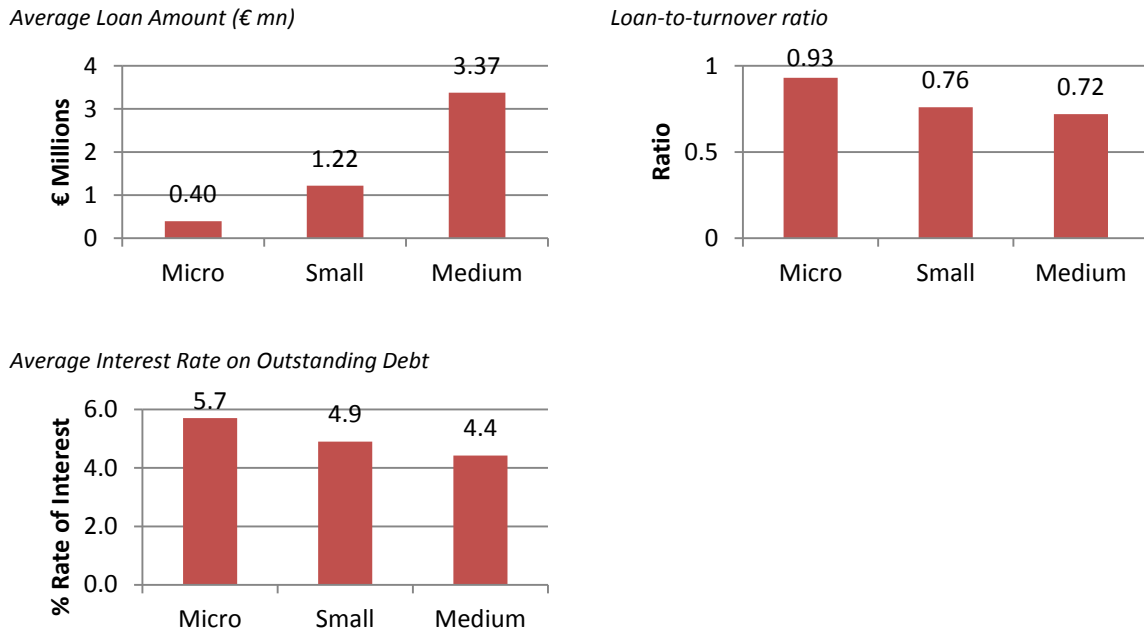
Source: Authors' calculations using Department of Finance/RedC data.

Figure 7 examines SME debt profile by firm age. We see a positive relationship between the level of total average outstanding loans and firm age. It is likely that this reflects the fact that firms that increased their debt during the boom are now older than five years.

We can also observe that those firms which have been in existence for less than five years have a substantially lower LTT ratio. However, beyond the youngest firms, the relationship between firm age and LTT ratio is not as clear as that between age and total outstanding loans. For example, firms between five and ten years old display the highest LTT ratios, potentially due to being in an expansionary phase of their lifecycle during the boom.

Similarly, and unsurprisingly, we find that it is the youngest firms which pay the highest average interest rate but that beyond these younger firms the relationship between age and interest appears to be non-linear. The fact that the youngest firms pay the highest interest rate may reflect their riskiness; another explanation is that banks started charging higher interest rates after the onset of the crisis.

FIGURE 7   Average Loan Amount and Loan-to-Turnover Ratio and Interest Rate by Firm Age

Average Loan Amount (€ mn)

Loan-to-turnover ratio

Average Interest Rate on Outstanding Debt
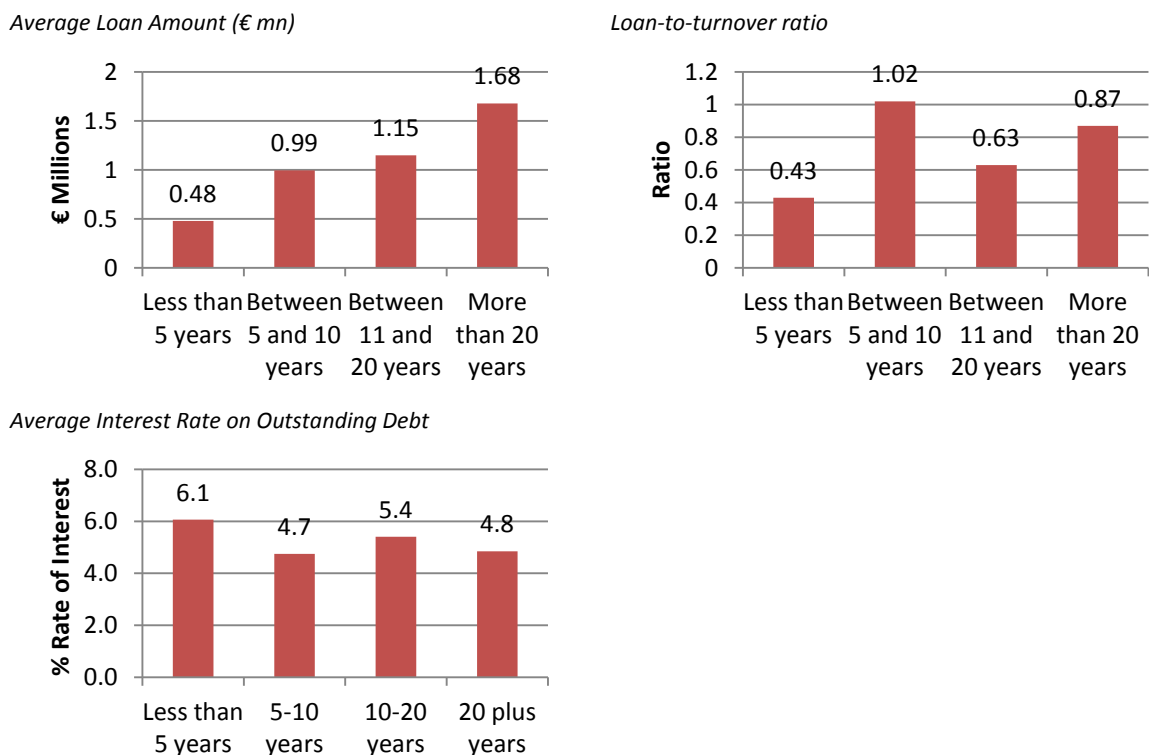
Source: Authors' calculations using Department of Finance/RedC data

Figure 8 contains a similar analysis to Figure 7 but instead of firm age it considers the profile of SME loans according to the length of the relationship between the SME and its bank. Theory would suggest that those firms with longer banking relationships should have easier access to finance at a lower cost than those firms with shorter banking relationships. This is due to the trust built up between the bank and the client firm over the course of the relationship and the gradual elimination of certain information asymmetries between the bank and the client.

We find no simple pattern linking loan volumes, LTT ratios and interest rates to the relationship age. Indeed, O'Connell and O'Toole (forthcoming) show in multivariate regressions explaining debt levels and costs that no simple linear relationship with bank relationship age exists.

**FIGURE 8**   Average Loan Amount and Loan-to-Turnover Ratio and Interest Rate by Bank Relationship Age

Average Loan Amount (€ mn)

Loan-to-turnover ratio

Average Interest Rate on Outstanding Debt
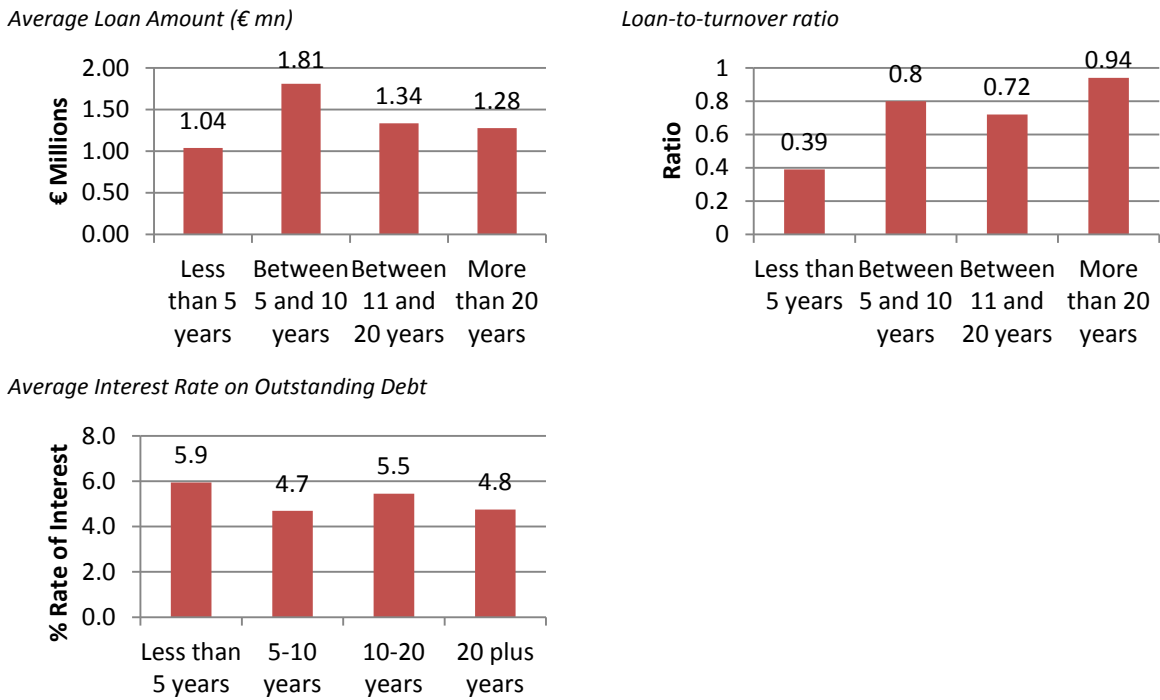
Source: Authors' calculations using Department of Finance/RedC data

Figure 9 examines the debt profile of Irish SMEs according to their trading status i.e. whether or not the firm exports. International research suggests differential access to credit for exporting than non-exporting firms (Greenway el al., 2007). This can be due to a combination of access to financing in other markets and also a lower risk profile by having customers in more than one country and so not being entirely reliant on a single market for business. However, it is difficult to disentangle the causality between exporting and access to finance (Contessi and Nicola, 2012; Manova, 2013).[4]

We observe in the survey data that exporting firms generally have higher outstanding loan amounts, a lower LTT ratio and pay a lower average interest rate on their outstanding loans.

---

[4]   Berman and Hericourt (2010) find that better access to finance improves the link between productivity and exporting.

FIGURE 9   Average Loan Amount and Loan-to-Turnover Ratio and Interest Rate by Trading Status

Average Loan Amount (€ mn)

Loan-to-turnover ratio

Average Interest Rate on Outstanding Debt
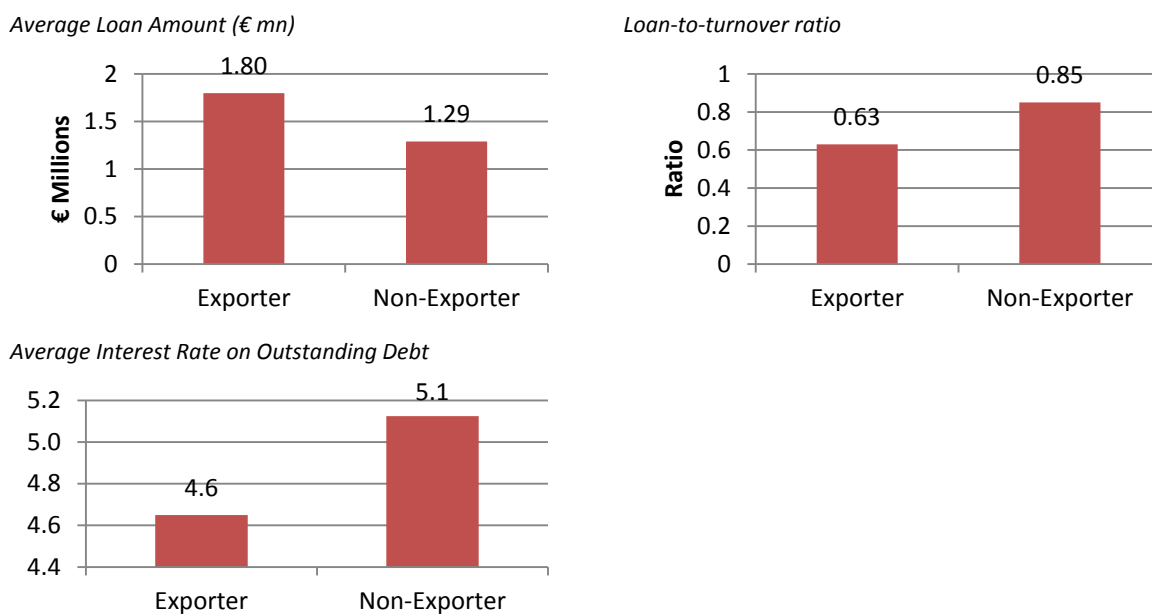
Source: Authors' calculations using Department of Finance/RedC data

In Figure 10 we examine the contrasting debt profiles of Irish SMEs according to the ownership of their bank. Specifically we examine the differences between those SMEs banking with domestically-owned Irish banks and those banking with foreign-owned banks. In our sample 82% of SMEs banked with domestically-owned banks.

We observe in panel A that the average loan amount of firms banking with foreign-owned banks is substantially higher than those firms banking with domestically-owned banks. This is also the case for the average LTT ratio and the average interest rate charged. One interpretation of this finding is that foreign-owned banks entered the Irish market relatively late and in an effort to capture market share operated with laxer lending standards. The foreign banks may thus have charged higher interest rates than their competitors to account for the riskiness of their borrowers.[5] As these borrowers saw turnovers decline in the crisis, their average LTT ratios rose.

---

[5]   A more detailed analysis reveals that micro and small firms, and firms in the hotels trand property sectors are particularly likely to have loans from foreign-owned banks.

FIGURE 10   Average Loan Amount, Loan-to-Turnover Ratio and Interest Rate by Bank Ownership

Average Loan Amount (€ mn)

Loan-to-turnover ratio

Average Interest Rate on Outstanding Debt
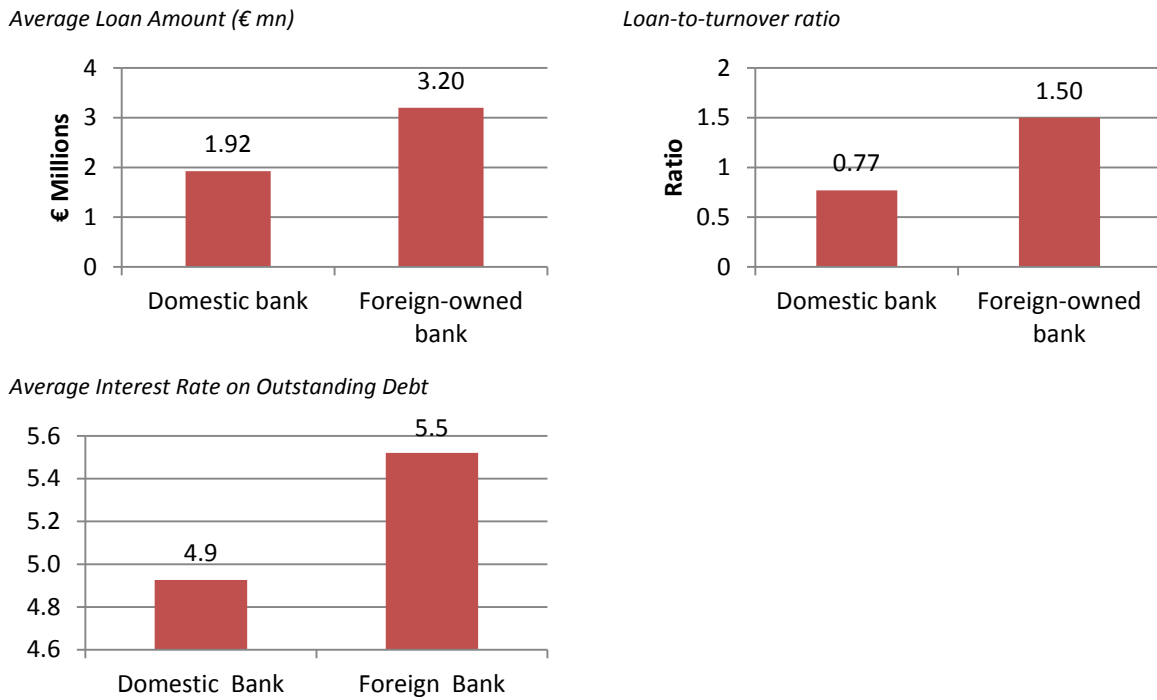
Source: Authors' calculations using Department of Finance/RedC data

Conclusions

Ireland, like the other crisis countries in the Eurozone, saw substantial growth in credit to non-financial corporates in the years leading up to the crisis. From 2003 to its peak in late 2008 credit in Ireland grew by 232%. Since then, credit volumes dropped by more than half. It seems that this is due both to a drop in credit demand, which suggests deleveraging at firm level, and a contraction of credit supply, which reflects banks' attempts to shrink and rebalance their portfolios.

The latest wave of the Department of Finance/RedC SME Credit Demand Survey allows a granular examination of the debt profile of Irish SMEs. We find that of all SMEs with outstanding debt, just under 12% have been in arrears in the 6 month survey period. When examining loan profiles of SMEs across sectors we find, unsurprisingly, that the hotels and property-related sectors have the largest amounts of outstanding debt and the highest loan-to-turnover ratios, and thus struggle most with their existing debt. Professional services firms pay the highest rate of interest on their outstanding debt, while farms are borrowing at the lowest average cost.

Other firms that face higher debt burdens are micro firms and firms that are borrowing from foreign-owned banks. We suspect that the late entry of foreign-

owned banks meant that their loan portfolio was particularly risky and most vulnerable to the economic downturn. Interestingly, young firms, which often are at a disadvantage when dealing with banks, tend to have on average low loan-to-turnover ratios. This may reflect that they were not in operation during the years of the credit boom or have been unwilling or unable to amass outstanding loans to date.

All in all, this examination of the survey data shows that average loan-to-turnover ratios range between 30 and 184%. If compared with the government debt-to-GDP ratio, this suggests that debt today is sustainable for many SMES. This clearly reflects a drastic deleveraging that has taken place since 2008.

That said, certain sectors, like hotels and construction & real estate, continue to face high debt burdens. The data presented here is based on averages both within and across sectors and there are outliers in terms of loan-to-turnover ratio within each sector. This suggests that debt overhang is an issue on a firm by firm basis and not across entire sectors of the economy. The dispersed nature of the problem is in line with the targeted policy approach currently being followed via initiatives such as the NTMA's Better Capital Ireland SME Turnaround Fund. However, as with government debt, the key to a broad-based recovery in the SME sector remains a sustained revival of consumer spending and demand in the Irish economy.

References

Berman, N., & Hericourt, J. (2010), Financial Factors and the Margins of Trade: Evidence from Cross-Country Firm-Level Data, Journal of Development Economics, 93(2), pp. 206-217.

Contessi, S. & de Nicola, F. (2012), What Do We Know about the Relationship Between Access to Finance and Trade?, Working Papers, St. Louis Fed.

Gerlach-Kristen, P., B. O'Connell and C. O'Toole (forthcoming), SME Credit Constraints and Macroeconomic Effects, ESRI Working Paper.

Greenaway, D., Guariglia, A., and Kneller, R., (2007) Financial Factors and Exporting Decisions, Journal of International Economics, 73 (2) pp. 377-395.

Lawless, M. , McCann, F. and O'Toole, C. (2013) "The importance of banks in SME financing: Ireland in a European context.", Economic Letters (forthcoming), Central Bank of Ireland.

Manova, K. (2013), Credit Constraints, Heterogenous Firms, and International Trade, Review of Economic Studies, 80 (2), pp. 711-744.

O'Connell, B. and C. O'Toole (forthcoming), SME Debt in Ireland: Determinants of Size and Cost. (MIMEO)