

Why are Irish Non-Financial Corporations so Indebted?

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Abstract

Based on debt-to-GDP ratio which is the most cited measure of non-financial corporation (NFC) debt, Ireland has one of the most indebted NFC sectors in Europe. This article examines the specific characteristics of the Irish economy to analyse elevated debt levels of NFCs relative to GDP and their continued rise despite the economic downturn. The article finds that Irish NFCs have a high debt-to-GDP ratio when compared with many EU countries. However, they are relatively less indebted when compared with the size of their balance sheets. The article concludes that these trends reflect the large and increasing activities of multi-national corporations (MNCs) in Ireland in recent years. While NFCs have significantly reduced borrowing from credit institutions through net loan repayments and loan write-downs, their borrowing from non-residents has increased substantially by 160 per cent between Q1 2008 and Q2 2012. Results also show that aggregate indicators can mask some of the underlying dynamics in the data.

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1. Introduction

Concerns about the sustainability of debt are at the heart of the ongoing crisis in the euro area. Irish non-financial corporation (NFC) indebtedness has increased significantly in recent years despite reduced consumer demand, the bursting of the property bubble and the financial crisis. Between Q3 2008 and Q2 2012, Irish NFC debt in terms of GDP increased by 58 per cent of GDP. As a result of the rapid increase in NFC debt in the years preceding the crisis and the continued increase in debt since the crisis began, Ireland now has one of the most highly indebted NFC sectors relative to GDP in the EU. By Q2 2012, Ireland had a NFC debt-to-GDP ratio of 204.5 per cent, the second highest in the EU, after Luxembourg. This article examines Ireland's elevated NFC debt levels and why this continues to increase. Identifying the underlying dynamics for this rise in NFC debt is crucial for interpreting such macroeconomic measures of indebtedness.

The continued increase in NFC debt despite the economic downturn is not in line with empirical evidence. Historically, countries usually reduce debt in the aftermath of a financial crisis. McKinsey (2010) found that a long period of deleveraging generally follows a major financial crisis. They find that total debt reduction on average lasted six to seven years and reduced the ratio of debt-to-GDP by 25 per cent. Reinhart and Rogoff (2009) found a similar result. Furthermore, a panel data econometric exercise carried out by Ruscher and Wolff (2012) showed that NFC balance sheet adjustment periods are triggered by macroeconomic downturns as well as by balance sheet stress due to high debt, low liquidity, and negative equity price shocks. While Irish households have reduced debt by 15 per cent of GDP since Q4 2008, the ratio for NFCs has increased by 21 per cent over the same period.

This analysis of NFC debt is important for a number of reasons. Firstly, high levels of indebtedness can make NFCs more

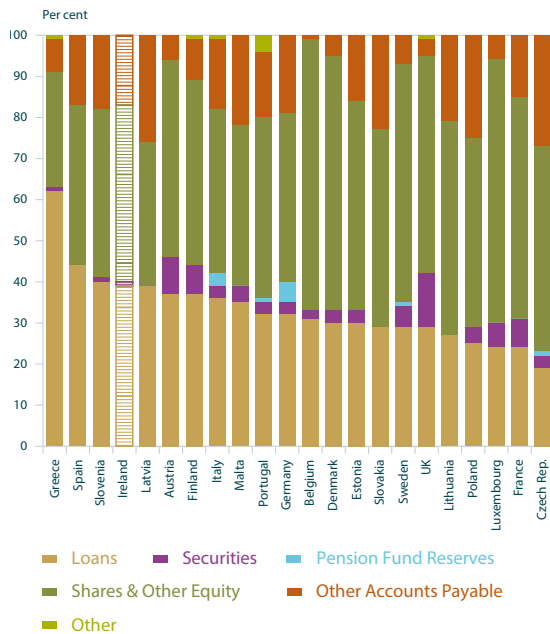
vulnerable to interest rate increases, shocks or unexpected economic events. Secondly, if NFC debt is impaired, this can negatively impact the balance sheets of those that lend to NFCs. Finally, when NFCs with high debt burdens seek to deleverage, this can act as a drag on economic growth. Buiter and Rahbeir (2012) find that the 'GDP loss' relative to trend in the aftermath of financial crises is almost twice as large in countries which had a large pre-crisis increase in debt compared with countries that did not. In the case of Japan, Koo (2008) found that the corporate demand lost, as a result of NFC debt reduction between 1990 and 2003, equated to 20 per cent of GDP. Consequently, when debt ratios rise above a certain level, financial crises tend to become more likely and more severe (Tang and Upper, 2010).

This article focuses on analysing Ireland's NFC indebtedness in the context of the financial crisis. Section 2 provides a brief overview of the analytical framework and NFC data sources employed. Section 3 compares Irish NFC debt with other EU countries based on a number of different indicators. Section 4 decomposes NFC debt by funding source to analyse why it continues to increase despite the current economic environment and Section 5 concludes.

2 Analytical Framework and Data Sources

Public and private debt is of crucial importance for real economic performance and intersectoral funding is a key part of the story. Therefore, when considering relative debt levels of NFCs and assessing the need to deleverage, it is instructive to start at the sectoral level. National accounts provide a range of internationally comparable data to analyse developments in sectoral balance sheets at the macroeconomic level. In particular, the framework for Quarterly Financial Accounts (QFA), which describes the portfolio of assets and liabilities and traces flows between sectors, is particularly relevant in this context.

Chart 2.1: Decomposition of Total Liabilities by Country, Q2 2012



Source: ECB.

QFA² presents the balance sheets and financial flows of the total economy broken down by seven main institutional sectors: NFCs; monetary financial institutions; other financial intermediaries and financial auxiliaries; insurance corporations and pension funds; general government; households and non-profit institutions serving households; and rest of the world. These data are available for all EU countries. This article will primarily focus on the NFC sector.³ This sector includes companies of all sizes from small retail businesses to large multi-national corporations (MNCs) located in a reporting country.⁴

Debt is comprised of the stock of debt securities issued and loan liabilities incurred,

which are both part of NFC total liabilities. NFCs liabilities are decomposed according to their categories, as a proportion of total liabilities, in Chart 2.1. While this article focuses on the debt financing of NFCs, it is important to recognise that funding can also be attained from other sources, such as ‘shares and other equity’; ‘pension fund reserves’; and ‘other accounts payable’. NFCs are heterogeneous in their choice of funding across countries.

In Ireland, QFA results for the NFCs are compiled using Central Statistics Office (CSO) data; the CSO data for NFCs are generated from Balance of Payments surveys, the CSO Central Business Register, corporation tax returns filed with the Revenue Commissioners and company accounts filed with the Companies Registration Office (CRO).

3 NFC Debt: A Cross-Country Perspective

NFC debt increased significantly in many countries, including Ireland, in the years preceding the financial crisis. Although debt is necessary for growth, excessively high private sector indebtedness can “imply significant risks for growth and financial stability and increase overall vulnerability of a country” (EU Commission, 2011). This section assesses the aggregate debt levels of Irish NFCs compared with other EU countries. An important aspect of NFC indebtedness relates to the high degree of heterogeneity across euro area countries, reflecting in part, country-specific factors. Therefore, a number of different measures of NFC debt are used in this analysis.

The European Commission uses the ratio of NFC and household debt to GDP to assess and compare the private-sector debt⁵ of EU

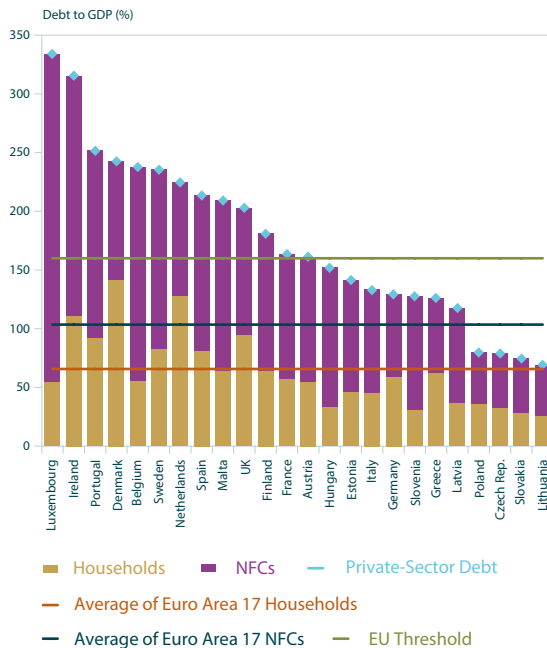
² QFA data for Ireland is published on the Central Bank of Ireland’s website: <http://www.centralbank.ie/polstats/stats/qfaccounts/Pages/Data.aspx>. QFA data for all EU countries is published on the ECB’s website in the ECB Statistical Data Warehouse, <http://sdw.ecb.europa.eu/>.

³ According to the European System of Accounts (ESA) 1995, NFCs consists of “institutional units whose distributive and financial transactions are distinct from those of their owners and which are market producers, whose principal activity is the production of goods and non-financial services”.

⁴ As the NFC sector is composed of only incorporated companies, it excludes non-incorporated enterprises such as sole traders and self-employed businesses, which are classified as households.

⁵ Private sector debt, according to MIP, is the stock of debt securities issued and loan liabilities of NFCs and households.

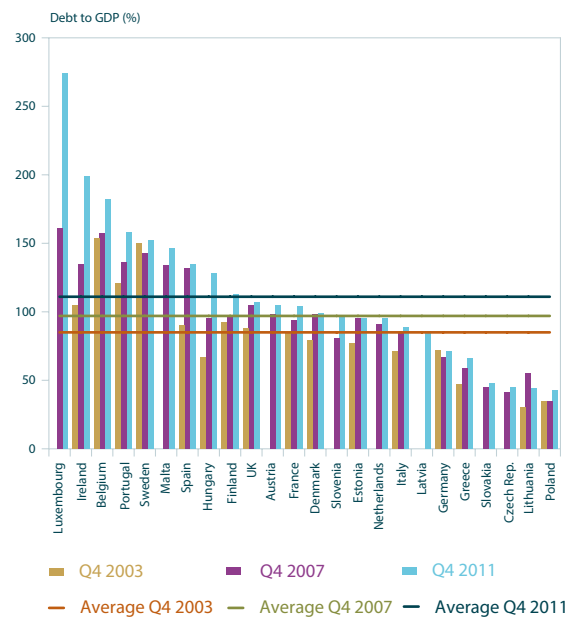
Chart 3.1: Private-Sector Debt to GDP, Q2 2012



Source: ECB.

member states, as part of the Scoreboard for the Surveillance of Macroeconomic Imbalances Procedure (MIP)⁶. The indicative threshold for this indicator is 160 per cent of GDP. The MIP uses annual data, with the latest report presenting 2011 data. Ireland has received considerable attention for having the second highest level of private sector indebtedness to GDP levels, after Luxembourg, at 310 per cent in 2011⁷. Recent QFA data for Q2 2012 shows that Ireland continues to have the second-highest level of private sector indebtedness to GDP, at 315 per cent, as shown in Chart 3.1. The Irish private-sector debt-to-GDP ratio is therefore almost double the EU threshold. In Q2 2012, 65 per cent of Irish private-sector debt is attributable to NFCs. While 11 other countries have NFCs that contribute a greater proportion of total private sector debt than Ireland, it is the overall level which could cause concern about the credit worthiness of the non-financial corporate sector.

Chart 3.2: NFCs' Non-Consolidated Debt to GDP, Q4 2003, Q4 2007, and Q4 2011.



Source: ECB.

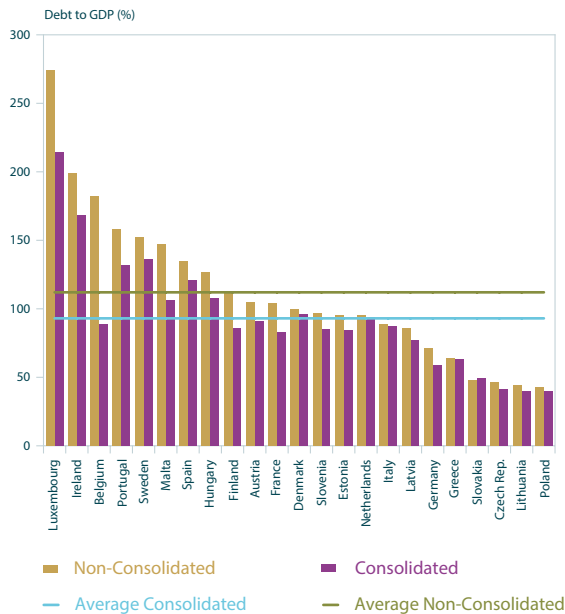
The financial crisis has increased concerns about high levels of debt. Comparing NFC debt in the period prior to the escalation of the property bubble (2003) with current levels, highlights how developments in Ireland differed relative to the other EU countries over the period. A comparison of NFCs' non-consolidated debt to GDP for three points in time: Q4 2003; Q4 2007; and Q4 2011 are shown in Chart 3.2⁸. Irish NFCs exceeded the average debt-to-GDP ratio for all countries analysed for each of the three dates examined: by 19 per cent in Q4 2003, increasing to 38 per cent in Q4 2007 and to 88 per cent in Q4 2011. This growth in debt to GDP coincided with an expansion of MNC activity in Ireland. NFCs also increased debt levels as a result of construction-related borrowing during the property boom, in particular through 2007 and 2008. By 2011, the level of Irish NFC debt was almost double the size of GDP.

6 The MIP was introduced in December 2011, as part of the so-called 'six-pack' legislation, which reinforced the monitoring and surveillance of macroeconomic policies in the EU and the euro area. There are ten headline indicators in the MIP with indicative thresholds, covering the major sources of macroeconomic imbalances. The indicators help identify if macroeconomic imbalances are indicative of vulnerabilities in the economy. http://ec.europa.eu/economy_finance/economic_governance/macroeconomic_imbalance_procedure/index_en.htm.

7 While Ireland is not one of the 12 countries identified for analysis under the MIP, the indicators relating to Ireland are included in the Commission's reports as it is one of the EU loan programme countries.

8 Data was not available for some countries for all time periods.

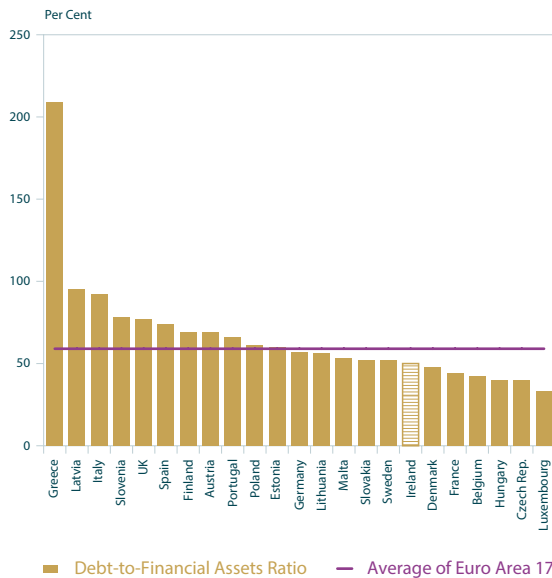
Chart 3.3: NFCs' Non-Consolidated and Consolidated Debt to GDP, End-2011



Sources: ECB and Eurostat.

While the MIP has given prominence to the private-sector debt-to-GDP ratio, it is important to recognise the value of using a wider range of macroeconomic indicators to assess the capacity of NFCs in different countries to manage their debt. The debt-to-GDP ratio adopted by the MIP uses a non-consolidated measure of sectoral debt. This measure is composed of all loan liabilities, including inter-company loans. In some countries, inter-company loans are a significant element of financing for large NFCs. The inclusion of loans between companies within the same corporate group may form a large part of the NFC debt. Bloomberg, Hokkanen and Kahre (2012) find that in the case of Sweden, the non-consolidated debt measure gives an “exaggerated picture of the level of debt in the private sector in countries” where inter-company loans are common. Their research also showed that group loans “are often motivated by an endeavour to keep taxes as low as possible”. This trend reflects, in part, differing tax regimes which may lead to high inter-company lending for NFCs in a particular country, consequently distorting the NFC debt when measured on a non-consolidated basis. By comparing non-consolidated and consolidated measures of debt to GDP, as in Chart 3.3, it is possible to exclude inter-company lending which may be high in countries where MNCs find it beneficial to undertake such activity.

Chart 3.4: NFC Ratio of Debt as a Percentage of Financial Assets, Q2 2012

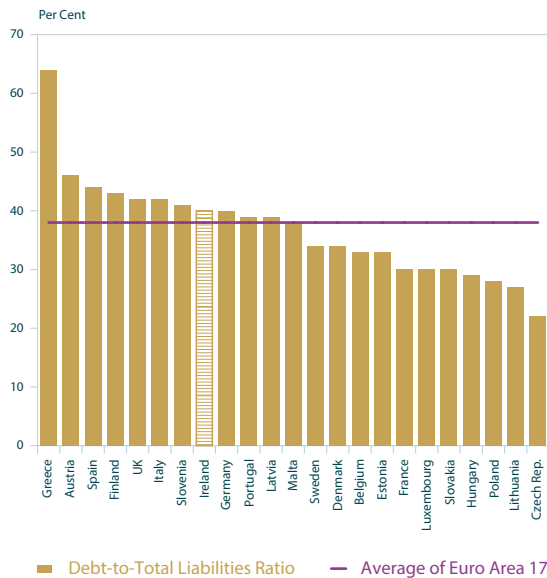


Source: ECB.

In 2011, Irish NFCs had the second-highest level of debt to GDP, both when measured on a non-consolidated and a consolidated basis. Chart 3.3 shows that though Irish NFC debt declined by 31 per cent when measured on a consolidated basis, Irish NFCs continued to be the second most indebted of the countries analysed. Luxembourg and Belgium also have a significant MNC population in their countries engaged in intra-group lending, thereby contributing towards the large difference between consolidated and non-consolidated debt ratios. However, consolidated data does not exclude inter-company NFC debt with non-residents affiliates, which is significant for MNCs resident in Ireland. The impact of MNC activity on NFC debt is further explored in section 4.

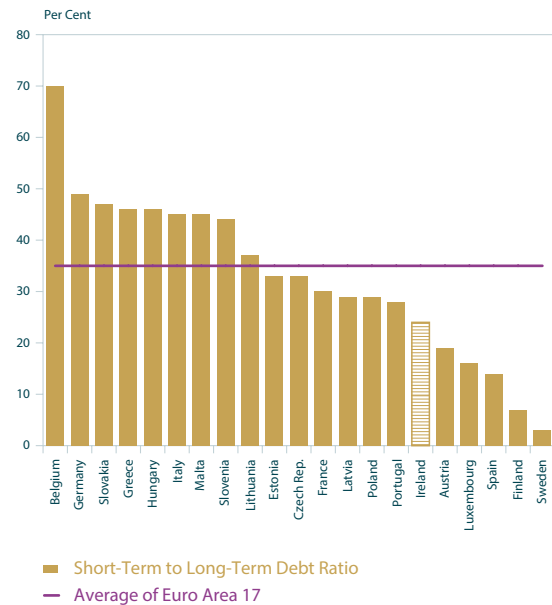
International comparisons of debt have most frequently applied a debt-to-GDP ratio at sectoral level. However, in the Irish case, this approach is problematic, primarily due to the large size of MNCs relative to the overall Irish economy. The ECB (2012) used a range of indicators to provide detailed analysis of developments of corporate indebtedness in the EU area, including the ratio of NFC debt to financial assets. NFCs can employ financial assets to produce income or to repay debt in the case of liquid assets. An analysis of debt relative to financial assets provides a more complete understanding of the NFC balance

Chart 3.5: NFC Ratio of Debt to Total Liabilities, Q2 2012



Source: ECB.

Chart 3.6: Ratio of Short-Term to Long-Term Debt of NFCs, Q2 2012



Source: ECB.

sheet and their capacity to service debt. The ratio of NFC debt⁹ to total financial assets in Q2 2012 is depicted in Chart 3.4. Under this measure, Irish NFCs had a ratio of 50 per cent, which is the seventh lowest among the 23 countries examined. This implies that the debt levels are half the sector's stock of financial assets. It should also be noted that the NFCs also have significant non-financial assets¹⁰, although the value of these may have decreased substantially in recent years. While Luxembourg's NFCs were the most indebted when measured as a proportion of GDP, they, in fact, had the lowest debt ratio according to this measure. The average debt-to-total financial assets ratio for the 17 countries in the euro zone was 59 per cent. The application of this indicator of NFC indebtedness provides a much more favourable result for Ireland.

NFC financing and investment decisions impact both sides of the balance sheet. It is important to recognise that NFCs in many countries also reacted to the financial crisis

by reducing their debt levels or changing the type of debt obtained. "Ongoing deleveraging in the banking sector is likely to render bank financing durably more expensive", as Ruscher and Wolff (2012) noted, resulting in increased use of alternative sources of finance such as equity. Comparing NFC debt to total liabilities allows an assessment of how reliant NFCs are on debt financing compared with other forms of funding such as quoted equity, unquoted equity and other accounts payable¹¹. The ratio of NFC debt to total liabilities is depicted in Chart 3.5. A lower ratio indicates a reduced reliance by NFCs on funding from loans and debt securities, compared with funding from equity and other accounts payable. NFCs in Ireland were joint eighth highest alongside Germany, with a ratio of 40 per cent. This ratio was just 2 per cent higher than the average for the euro area countries. Similar to the financial assets to GDP ratio, this indicator also shows Ireland to be more in line with European norms. It should be noted, however, that Irish indigenous companies and MNCs may have different funding sources,

⁹ Debt here is defined as the sum of debt securities, loans and pension fund reserves. In contrast with the MIP, the ECB and the European Systemic Risk Board measures NFC debt by adding in pension fund reserves with loans and securities. The definition of debt does not differ for NFCs in Ireland with the inclusion of pension fund reserves, as they are negligible. There are seven countries in the EU where NFCs report reserves: Belgium, Czech Republic, Germany, Italy, Luxembourg, Portugal and Sweden.

¹⁰ Non-financial assets include land, buildings, vehicles, machinery and inventory.

¹¹ See Chart 2.1 for a description of the categories of NFC liabilities.

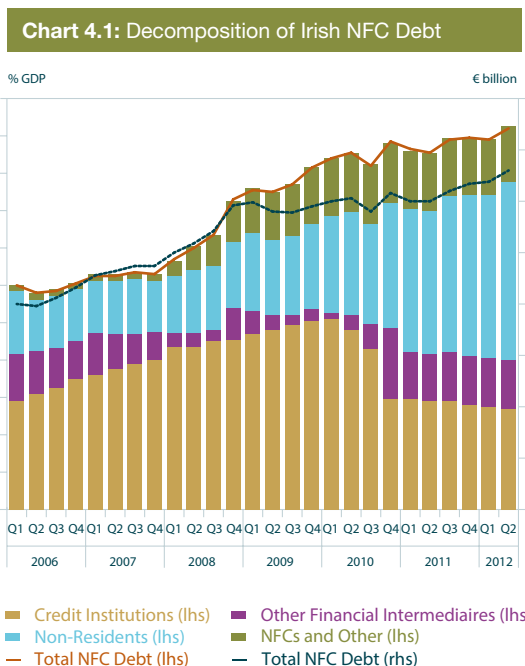
with indigenous companies more reliant on debt financing than multinationals. Therefore, the debt to total liabilities indicator may look quite different for Ireland if calculated excluding MNCs.

Another approach to assessing NFC debt is to compare the maturity of the types of debt used by the sector. If companies rely on short-term loans or securities, this may result in higher liquidity risks and greater sensitivity to increases in interest rates (ECB, 2012). The ratio of short-term to long-term NFC debt for 21 countries in Q2 2012 is shown in Chart 3.6¹². Lower ratios may be an indication of reduced vulnerabilities of NFCs to debt repayments. NFCs in Ireland had the sixth lowest ratio at 24 per cent out of 21 countries. Belgium had the highest ratio of 70 per cent, while Sweden had the lowest ratio of 3 per cent in Q2 2012.

Excessive NFC debt levels can increase risks to financial stability and adversely impact economic growth. NFC debt levels in Ireland can appear striking compared with other EU countries when applying a debt-to-GDP ratio. Under this measure, Ireland records the second-highest level of private sector indebtedness in Europe. This section has shown that this single measure may be misleading and it is also useful to assess the complete balance sheet for the sector. Furthermore, the structure of NFCs is heterogeneous across countries – in Ireland’s case, the data are heavily influenced by the large MNC presence. It is, therefore, important to analyse debt using a range of indicators to get a better understanding of the sector’s financial position. Even where aggregate indicators appear favourable, they may conceal vulnerabilities at sub-sector level. In Ireland there is evidence of difficulties for indigenous enterprises, which is at odds with aggregate data.

4 Irish NFC Debt: A Decomposition

This section examines NFC debt by funding source to explain the continued rise in Irish NFC debt, in the context of the economic downturn. Although most countries do



Sources: CSO, Central Bank of Ireland and internal estimates.

not publish NFC debt by funding source, it is available for Greece, Spain, Italy and Portugal¹³. The availability of these data allows a comparison of the impact of the financial crisis on NFC indebtedness for some of the countries which have been most severely impacted. This more granular NFC data also further highlights the factors which have led to the continued increase in Irish NFC debt. While Section 3 used a number of metrics to analyse NFC debt-to-GDP levels, this section primarily focuses on the composition of the NFC debt-to-GDP ratio, with a view to explaining why it is heterogeneous across countries.

4.1 Irish NFC Debt Funding Sources

Irish NFC primary funding sources over time are illustrated in Chart 4.1. It highlights the considerable increase in NFC debt-to-GDP in recent years. Since Q4 2008 the NFC debt-to-GDP ratio increased by 57 per cent. It should be noted, however, that part of the increase in this ratio is attributable to a decline in GDP. The chart shows that when measured in euro billions, the increase in NFC debt is significantly less, than when measured as a proportion of GDP.

¹² Short-term debt includes short-term loans and short-term securities while long-term loans and long-term securities are summed to give long-term debt.

¹³ In the case of Portugal, NFC debt funding is not explicitly available. The funding of NFC loans is calculated using data on NFC funding from financial corporations and private corporations’ funding from government and non-residents.

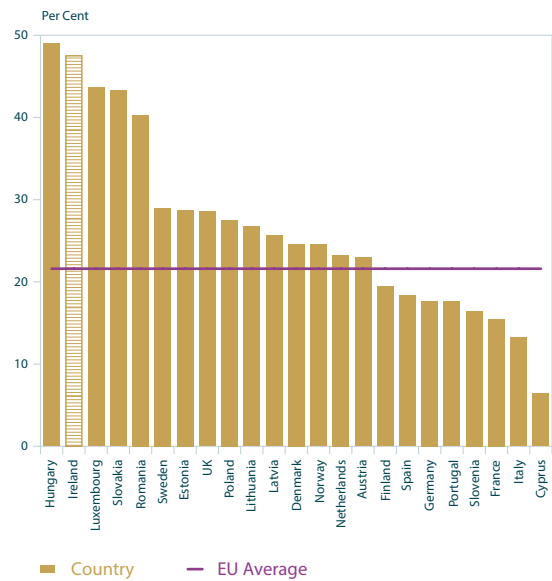
The chart also reveals that financing from non-residents and Irish credit institutions are by far the most dominant forms of funding for NFCs. Sections 4.2 and 4.3 analyse the developments of these sources of funding over time. The other primary sources of funding for NFCs were financing from other financial intermediaries (OFIs) and inter-NFC loans. The increase in NFC debt with OFIs from 2010 onwards largely reflected the transfer of impaired loans from credit institutions to NAMA. Chart 4.1 also reveals that domestic debt with resident NFCs and other (government and the insurance sector), increased during 2008 and 2009, but has since remained largely unchanged.

4.2 NFC Debt with Non-Residents

The dominant role of the foreign-owned MNCs within the Irish NFC sector is illustrated by the importance of non-resident funding. These MNCs tend to source funding on international markets or through corporate treasuries, rather than from the domestic sources. Funding from non-residents has increased by 160 per cent between Q1 2008 and Q2 2012, as shown in Chart 4.1. This includes significant intra-group funding between resident companies and non-resident affiliates.

Although it is currently not possible to decompose NFC debt between indigenous companies and MNCs, the significant increase in non-resident debt funding in recent years would indicate that the MNC sector, which has maintained strong levels of investment in Ireland over the period, is primarily responsible. Everett (2012) outlined that changes in UK and US legislation in recent years have encouraged increasing numbers of companies to locate in Ireland. The role of MNC activity is also explored by Creedon, Fitzpatrick and Gaffney (2012). They find that IFSC entitles and, to a lesser extent, non-IFSC MNCs contribute significantly to the size of Ireland’s External Debt. The CSO (2012) found that even though foreign-controlled enterprises¹⁴ accounted for around 2 per cent of all enterprises in Ireland during 2010, they represented €162 billion or 58 per cent of total turnover of all enterprises and €44 billion or 56 per cent of gross value added.

Chart 4.2: Contribution of Foreign-Controlled Enterprises to Gross Value Added, 2009



Source: Eurostat.

The MNC sector is particularly large in Ireland relative to the size of the economy. Ireland was ranked fifth in the world in terms of success in attracting FDI over a three-year period from 2009 to 2011 (UN World Investment Report, 2012). Belgium and Luxembourg were the only other euro area member states to be included in the top ten FDI recipients and were ranked second and fourth, respectively. Chart 4.2 illustrates that during 2009, the latest period for which a comparison with other European countries is available, the contribution of foreign-controlled enterprises to Gross Value Added was the second highest in Ireland, after Hungary.

4.3 Funding From Domestic Credit Institutions

In contrast to MNCs, the major source of funding for smaller domestic companies (principally SMEs) is domestic credit institutions. As Chart 4.1 shows, funding from this source has been declining since early 2010, highlighting the different patterns in indebtedness between foreign-owned MNCs and indigenous SMEs. In the years preceding the financial crisis, NFC borrowing from credit institutions increased substantially, rising from

14 ‘Control’ means the ability to determine strategy, guide activities and appoint directors.

Table A: Decomposition of the Change in Stock of NFC Loans with Credit Institutions, € millions

Time period	Change in stock	Transactions	Revaluations excluding NAMA (largely due to loan write-downs)	Transfers to NAMA	Other (including reclassifications and loan securitisations)
Dec 2010 – Oct 2012 (gross basis)	-9,014	-5,163	-1,519	-11,720	9,387
Sept 2008 – Nov 2010 (net basis)	-75,858	-4,710	-34,398	-26,216	-10,534
Feb 2003 – Aug 2008 (net basis)	123,344	124,892	-338	0	-1,210

Source: Central Bank of Ireland.

38.8 per cent of GDP at Q4 2003 to 92.4 per cent of GDP at Q3 2008. The substantial rise in NFC debt during this period largely reflected increased property-related investment. By 2006, housing completions in Ireland had risen to 93,019 units from 49,412 units in 2000. In addition, the proportion of the workforce employed in construction had increased from about 7 per cent in the early and mid-1990s to over 13 per cent by 2007 (Honohan, 2009). Consequently, property-related¹⁵ lending to NFCs from financial institutions rose from 21 per cent of GDP at Q4 2003 to 69 per cent of GDP at Q3 2008. From late-2008 onwards – against a background of falling property prices, economic recession and an escalation of the financial crisis – NFC lending from financial institutions has reduced significantly as a percentage of GDP. By Q2 2012, total NFC borrowings from financial institutions¹⁶ had fallen to 79 per cent of GDP, while, property-related borrowing by NFCs had fallen to almost 63 per cent of GDP.

Table A quantifies the impact of the various debt reduction channels on the stock of NFC loans held by credit institutions according to the methodology used in McElligott and O’ Brien (2011). This encompasses repayments, write-downs and transfers to NAMA. The reduction in NFC debt with credit institutions has occurred through a number of channels since the financial crisis began. Table A shows that

since September 2008, Irish NFCS have been redeeming debt with credit institutions. In total, NFCs have repaid €9.9 billion, or 6 per cent of outstanding debt. However, the decrease in NFC debt with domestic credit institutions is much larger than the net debt repayments as a result of loan write-downs or write-offs and transfers of NFC loans to NAMA. Considerable write-downs and write-offs have been applied by credit institutions on loans not transferred to NAMA since the financial crisis began. This is reflected in the table which shows that between September 2008 and November 2010 revaluations (mainly provisions, write-downs and write-offs) accounted for €34.4 billion of the decline in loans to NFCs. A further €1.5 billion took place between December 2010 and October 2012¹⁷. In addition Irish NFC loans with a nominal value of nearly €38 billion were transferred from credit institutions to NAMA¹⁸. It should be noted that while significant haircuts were applied to these loans, NFC debt is recorded within QFA at nominal or gross value. Therefore until these loans are sold, written-down or written-off by NAMA, the full nominal value will be included in NFC debt. The NAMA transfers resulted in a decrease in NFC loans from credit institutions of €38 billion and an equivalent increase in loans from NAMA, which is classified as an other financial intermediary. The overall debt of NFCs to financial institutions within the QFA framework is, therefore, unchanged by the NAMA transfers.

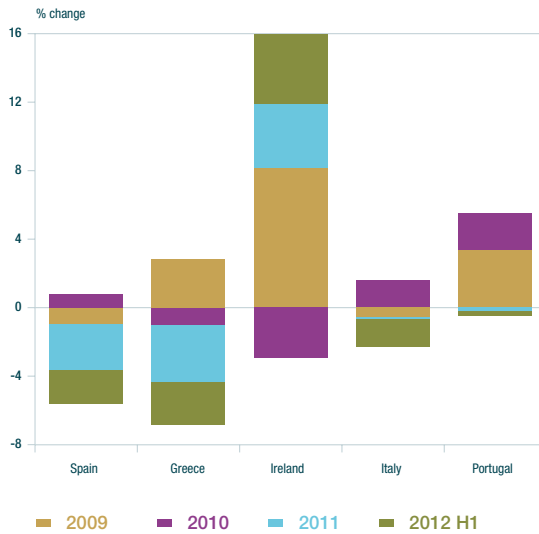
¹⁵ This article defines property-related investment as lending for construction, hotels and restaurants, and real estate land and development activities.

¹⁶ Financial institutions include NAMA.

¹⁷ It should be noted that methodological changes were introduced in December 2010. Prior to this, loans were reported on a net basis with revaluations including provisions as well as write-downs. From December 2010, loans were reported on a gross basis, with provisions excluded.

¹⁸ The remaining loans transferred to NAMA related to households and non-resident NFCs.

Chart 4.3: Percentage Change in NFC Debt Levels



Source: ECB.

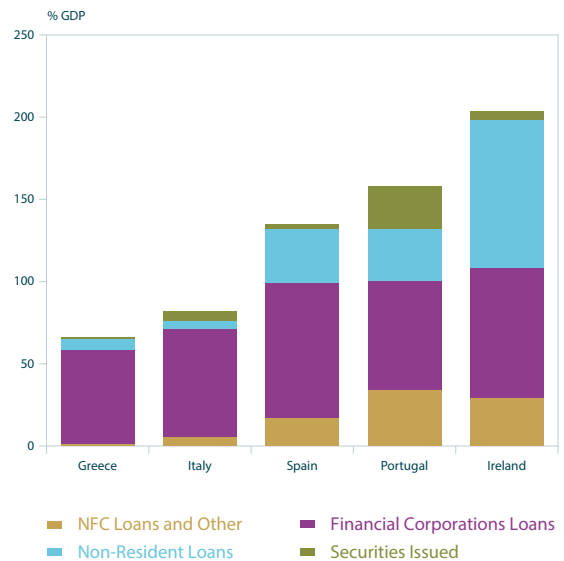
Note: It should be noted that changes in NFC debt may also be the result of reclassifications. In the case of Greece, this article adjusted the data for a large reclassification which occurred during 2011.

4.4 Decomposing NFC Debt across the Euro Area Peripheral Countries

The increases in Irish NFC debt levels since the start of 2009 have by far exceeded those of the other euro area peripheral countries. Chart 4.3 shows that Portugal was the only other country where NFCs increased debt since 2008. This increase occurred in 2009 and 2010, followed by a marginal reduction in 2011 and the first half of 2012. The largest decline in NFC debt over the period occurred in Greece, followed by Spain. This section decomposes the aggregate debt levels of NFCs in the euro area peripheral countries, to analyse further why debt-to-GDP levels in Ireland are so elevated, and why they have continued to increase in contrast to the other countries examined.

The Irish NFC debt-to-GDP ratio by funding source is compared with the rest of the peripheral euro area countries in Chart 4.4. The chart reveals that NFC funding sources are quite heterogeneous across the countries examined. Portuguese NFCs are much more reliant than the other peripheral countries on funding from the securities markets. At

Chart 4.4: Decomposition of NFC Debt by Euro Area Peripheral Countries, Q2 2012



Sources: National Central Banks and internal estimates.

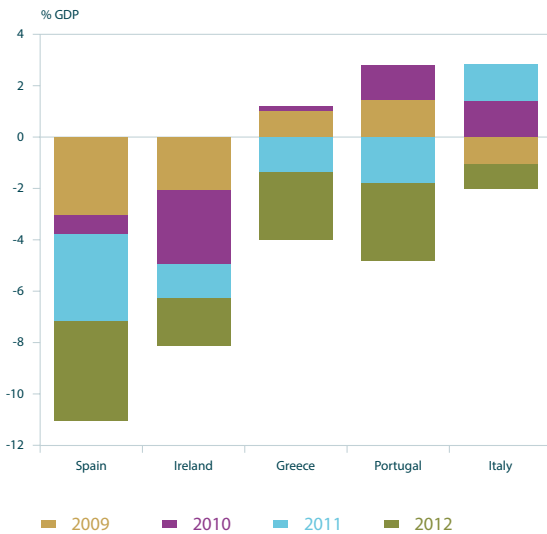
Q2 2012, funding from securities issued by Portuguese NFCs represented 26 per cent of GDP. For the other countries examined, securities issued by NFCs accounted for less than 7 per cent of GDP.

The impact of MNCs' activities on NFC debt in Ireland compared with the other peripheral euro area countries is evidenced in Chart 4.4 by the scale of non-resident funding. Irish NFC financing from non-residents was 90 per cent of GDP, by far the highest of the countries examined. Spanish NFCs had the second largest level of funding from non-residents at 33 per cent of GDP. For Italian and Greek NFCs, funding from non-residents was 5 and 7 per cent of GDP, respectively.

Irish NFC lending from financial corporations was more in line with the other euro area countries, as depicted in Chart 4.4. Irish NFC funding from financial corporations was 79 per cent of GDP, the second largest of the five countries examined.¹⁹ Spanish and Greek NFCs had the highest and lowest levels of financing from financial corporations at 82 and 57 per cent of GDP, respectively, in Q2 2012. Developments in Spanish NFC debt

¹⁹ Financial corporations include credit institutions and OFIs, which in Ireland's case includes NAMA.

Chart 4.5: NFCs' Loan Transactions with Credit Institutions by Country



Sources: ECB and Eurostat.

Note: This time series is adjusted for securitisations.

mirrored those in Ireland in the years preceding the crisis, with property-related sectors in Spain becoming highly leveraged. The Spanish construction and real estate sector borrowings from credit institutions represent a relatively high 10 per cent of GDP and 30 per cent of GDP, respectively (IMF 2012). While high by international standards, this scale of indebtedness remains low when compared with equivalent levels for Ireland.

The growth in loan liabilities for NFCs in Ireland appears to conflict with recent evidence that the Irish SME sector is having difficulties obtaining credit, compared with SMEs in other countries (Holton & McCann, 2012). However, the difficulties faced by small domestically-owned companies in accessing credit would again highlight the predominant role of MNCs in explaining the increased indebtedness of the NFC sector. Access to credit for SMEs across peripheral countries is further elaborated in Box A.

As shown in Table A, debt reduction can take place through a number of different channels. Chart 4.5 depicts the extent to

which countries have reduced debt through net loan repayments with credit institutions since February 2009²⁰. The chart does not include loans, which have been written-down, or in the case of Ireland transferred to NAMA. The chart reveals that Spanish and Irish NFCs made net repayments of loans every year since February 2009. As is the case in Ireland, most of the reduction in debt by Spanish NFCs has occurred in the construction and real estate sectors (Banco de Espana, 2012). Credit for construction has decreased by 32.5 per cent from September 2008 to June 2011 (Ministerio de Economia y Hacienda, 2011). In contrast, NFCs in Portugal and Greece only began to reduce debt in 2011 and 2012. Italian NFCs only reduced debt in 2009 and 2012. In overall terms, NFCs in Spain reduced loans with credit institutions the most, followed by Ireland.

In line with domestically-owned Irish NFCs, the other euro area peripheral NFCs are likely to deleverage through write-downs and write-offs, as well as through net debt repayments. Though it is not possible to compare the extent to which the peripheral euro area credit institutions have written-down debt or made provisions for doubtful debt, the somewhat limited available data suggests that this may be important, in terms of NFC debt reduction in some countries. Central Bank of Portugal reported that the non-performing loans recorded in the construction sector have already risen to over 19 per cent of these total loans as of November 2012, compared with 11 per cent during 2011. In the case of Spain, provisions for bad or doubtful debts for loans related to real estate and construction amounted to 26.5 per cent of these total loans at Q3 2012 (Banco de Espana, 2012). For Italian credit institutions over 9 per cent of the NFC loan book was impaired at October 2012. Construction companies accounted for 12 per cent of these impairments (Banca D'Italia, 2012). In the case of Greek NFCs, write-downs of bad debt have so far been rather limited, amounting to €2.1 billion in total, or 1 per cent of GDP, since September 2008 (Bank of Greece).

²⁰ This data source is only available from February 2009 to September 2012.

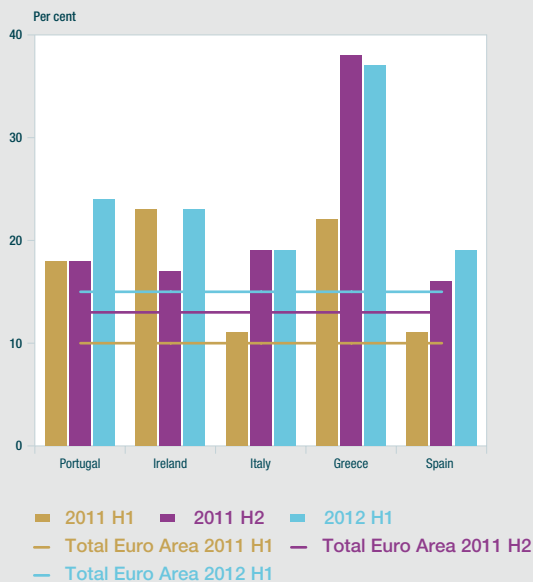
In summary, although Irish NFCs continued to increase debt by far more than the other euro area peripheral countries since 2009, this trend largely reflects the continued increase in MNC activity in Ireland in recent years. Credit institutions have decreased loans issued to

Irish NFCs considerably since September 2008 through net debt repayments, debt write-downs and write-offs, loan transfers and securitisations. This is in line with developments in other peripheral countries.

Box A: Credit Supply and Demand Factors in the Euro Area Peripheral Countries

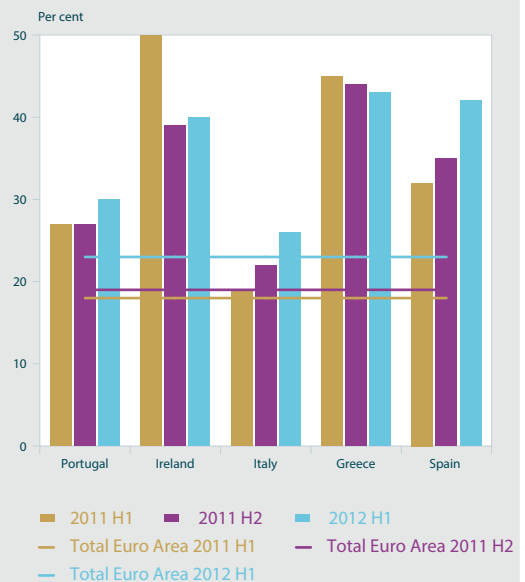
In relation to small- and medium-sized enterprises (SMEs), loans from banks are particularly important, as their “access to market-based funding is limited” (ECB, February 2012). The ECB/ European Commission’s ‘survey of access to finance of small and medium-sized enterprises’ (SAFE) facilitates a comparison of the supply and demand factors across the euro area peripherals for SMEs. Some of the key results of these surveys are summarised in charts A.1 to A.4. Chart A.1 shows that euro area peripheral country SMEs all reported a higher proportion of loan rejections than for the total euro area between 2011 and 2012 H1. This was particularly true for Greece, but also for Portugal and Ireland. Peripheral countries also reported that the loan size or credit line available to them has decreased in the past six months, particularly in Spain, Ireland and Greece, as illustrated in Chart A.2. The proportion of SMEs who did not apply for finance for fear of rejection was considerably higher than the euro area average for Greece and Ireland, as shown in Chart 4.8. The results from charts 4.6 to 4.8 indicate that the net loan repayments in the euro area peripheral countries may be influenced to some extent by credit supply factors. Furthermore, SMEs in Portugal, Ireland and Greece all reported lower proportional levels of loan applications than the euro area as depicted in Chart 4.9, indicating that credit demand by SMEs may also be a factor in these countries.

Chart A.1: Proportion of SME Loan Applications Rejected



Source: SAFE.

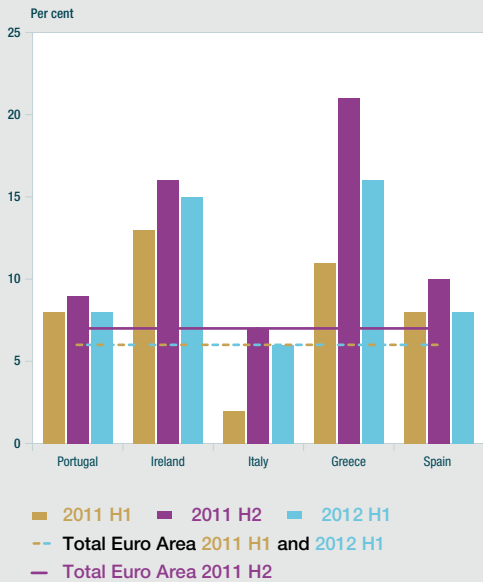
Chart A.2: SME Loan or Credit Line Size Reduced



Source: SAFE.

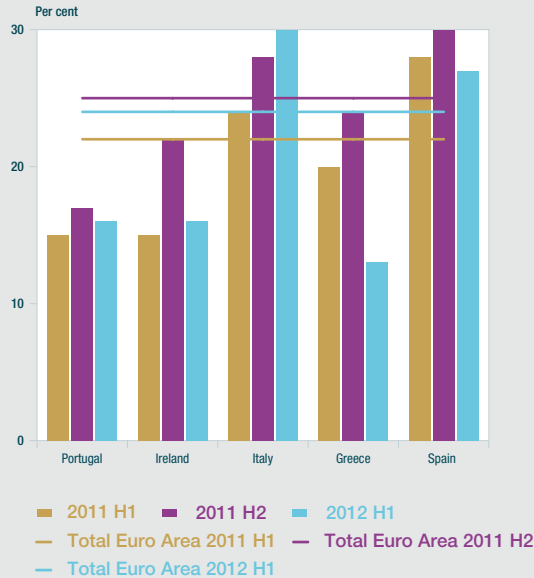
Box A: Credit Supply and Demand Factors in the Euro Area Peripheral Countries

Chart A.3: SMEs That Did Not Apply for Loans Because of Possible Rejection



Source: SAFE.

Chart A.4: SME Loan Applications



Source: SAFE.

Conclusion

In the years preceding the financial crisis Irish NFCs increased their debt levels significantly. Given that after almost every financial crisis countries have reduced debt levels, the continued rise in Irish NFC debt after 2008 seems counter-intuitive. This article shows that the aggregate NFC debt levels can mask the underlying dynamics at sub-sectoral level. In the Irish case, developments in overall NFC indebtedness also conceal the very different trends between foreign-owned MNCs and smaller domestic companies. The former have access to international markets and group funding and have increased indebtedness in line with the continued growth in inward direct investment. The substantial impact of MNC activity on Irish debt developments is underlined by the significant increase in funding from non-residents since 2008. Conversely, indigenous enterprises are dependent on

the domestic banking system and have been deleveraging following rapid increases in indebtedness prior to the financial crisis. Consequently, Irish NFC debt is inflated by the MNC presence and by the gross reporting of intra-company positions. While Irish NFCs had the second highest debt to GDP levels in the EU at Q2 2012, different metrics show Ireland in a relatively less indebted position, particularly when balance sheet size is taken into account. However, even where aggregate indicators appear favourable, they may conceal vulnerabilities at sub-sector level.

To assess the heterogeneity of the NFC sector for Ireland and the peripheral countries, an assessment of the underlying dynamics in the funding sources was undertaken. Results showed that funding from non-residents and Irish credit institutions are by far the most dominant. However a clear dichotomy exists between indigenous companies and MNCs,

with the former largely reliant on domestic credit institutions, whereas MNCs have access to international sources of finance. Results also showed that since September 2008, Irish NFCs have repaid loans of almost €10 billion. Most of the reduction in NFC since 2008 however, has occurred through loan write-downs or write-offs.

To further understand the trends in the aggregate NFC debt levels, an analysis of more granular data is needed. It would be beneficial to disaggregate the NFC balance sheets by functional category and would allow for a more detailed analysis of the debt sustainability of these companies. It would also allow for an examination of the extent to which entities have substituted debt financing for other forms of funding, such as trade credits or reliance on their own funds, since the financial crisis began.

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