

Issues with Debt Funding: Some Empirical Evidence Post-GFC

Segu Zuhair, Riccardo Natoli

Abstract: *The recent debt-crisis, referred to as the Global Financial Crisis (GFC), resulted in significant worldwide impacts. The main reason for the crisis was, ironically, the ease with which debt was made available, especially to those with a poor credit history. The crisis then resulted in a shortage of funds or an unwillingness to make credit available. This type of behaviour reflects a general withdrawal by international banks and other lending bodies from any type of activity, regardless of the type of lending and of risk where a withdrawal by one player tends to trigger similar actions by others. The purpose of the present paper is to examine debt funding in Australia post-GFC by first conducting a review of the extant literature followed by the results of an empirical study. The study was conducted among a sample of 59 Australian firms across more than 12 industries covering credit up to 10 years long. The result showed that nearly a third of the firms were in need of additional fund of which nearly half were in the region of \$50m to \$500m (AU\$), with a maturity of up to three years. The most popular sources of funds are the domestic banks (70 %) and international banks (45 %). These outcomes are affected by the credit rating and the size of the firms, measured by gross annual turnover. The firms with a lower credit rating tend to exclude themselves from seeking high quality credit. The level of credit sought by the firms does not seem to be a factor determining the availability of credit.*

Key Words: Debt Crisis · Debt Funding · Global Financial Crisis

JEL Classification: G32

1 Introduction and literary survey

The recent debt-crisis, although was predicted in various forms, caused significant worldwide impacts. The main reason for the crisis was, ironically, the ease with which debt was made available, especially to those with a poor credit history. The crisis then resulted in shortage of funds or an unwillingness to make credit available. The main catalyst for the global financial crisis (GFC) of 2007 was the collapse of the sub-prime and secondary mortgage markets in the US. This was combined with the explosive rise of consumer debt which was mirrored by a persistent decline in consumer savings over the last decade.

The current crisis has seen, amongst other things: the slowing of demand from OECD buyers of Asian goods; higher losses by trade banks due to deterioration in credit quality; fraud and commercial disputes; rapid fluctuations in commodity prices; foreign exchange rate volatility; increased risk aversion which results in significantly higher risk pricing (conformation commission/discounting, etc.); and a lack of US dollar liquidity which raised the borrowing costs resulting in high liquidity premiums, as well as higher risk premiums. Accordingly, the objectives of this study are to:

- conduct a review of the extant literature;
- and examine the debt funding issues of 59 Australian firms arising since the GFC.

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The significance of this study is that it seeks the views of a number of Australian firms (59) with respect to their debt funding capacity post-GFC. To date, no study has analysed post-GFC debt funding issues directly with Australian businesses, which has been one of the few developed countries that has, thus far, been able to ‘insulate itself’ from the crisis.

The following section of the paper reviews the debt funding literature, as well as providing an overview of the GFC’s impact on debt funding. The subsequent section describes the research design and approach. This is followed by a discussion of the results from the empirical study which was conducted among a sample of 59 Australian based firms across more than 12 industries covering credit up to 10 years long. The paper concludes by identifying limitations of the study and opportunities for further research.

Debt funding

Debt funding refers to money that is borrowed and has to be repaid over a period of time, normally with an interest payment. It is a liability and can carry with it a high risk/return tradeoff for small companies. The length of finance can be either short-term or long-term. In the 1980s, banks provided both long-term finance and trade financing. In modern capital markets, with long-term finance offered primarily by bondholders (who do not provide trade finance) banks’ willingness to preserve trade credit lines in hard times have been appreciably diluted (Allen, 2003). Nevertheless, bank lending, trade finance, leasing and the bond markets comprise the most common source of debt funding. The advantages and disadvantages of debt funding are outlined below (Schwartz, 2008):

The advantages of debt funding include:

- The ownership and future profits of the business are kept.
- The lender has no control over the running of the business.
- Interest is tax-deductible.
- Using borrowed money to get your business assets can help keep business profit in the company which can pay returns to owners of the company.

The disadvantages of debt funding include:

- High levels of debt can impair your credit rating.
- Profit may be used to pay back debt, depending on the size of debt.
- Need to ensure cash flows are sufficient in order to repay loans.
- The greater the risk attached to the loan, the higher the interest rate.
- If debt is not repaid, any collateral put up will be seized.

Sources of debt

Sources of debt capital can comprise of commercial banks, asset-based borrowing; trade credit; equipment suppliers; commercial finance companies; saving and loan associations; stock brokerage houses; insurance companies; credit unions; bonds; small business investment companies; and small business lending companies. From a commercial bank point of view, short-term loans comprise of commercial loans, lines of credit and floor planning, while intermediate and long-term loans could be installment loans and contracts. Asset-based borrowing can involve aspects of discounting accounts receivable as well as inventory financing (Salu, 2005). An overdraft tends to have a high rate of interest although it is quite flexible since the borrower only pay for the money that is used covering the period of use. Term loans are simply a loan for an agreed period of time. They can be interest only or principal and interest; they can also have a fixed interest rate or a variable interest rate. Short-term loans can be suitable to fund small to medium businesses and are a good way to fund property investment and share investments (Salu, 2005).

The aim of trade finance is to promote trade through accessible and affordable credit facilities. It tends to be relatively cheap. Trade-related companies make exhaustive use of trade finance to sustain their operational working capital (ICC, 2008). During the last decade, a two-tier industry has emerged, where smaller and more opportunistic players tend to pull out quickly at signs of distress, while the top players tend to scale back their exposure and adjust their terms of trade (Allen, 2003). Another common source of debt funding, the bond market, has been subject to many studies which have recognised the significance of institutional factors and macroeconomic policies in shaping local currency bond market development, as well as promoting the growth of debt markets in general (La Porta, Lopez-de-Silanes, Shleifer and Vishny, 1997; Burger and Warnock, 2006; Jeanne and Guscina, 2006; Mehl and Reynaud, 2005).

In lease financing, the lessee in effect borrows an amount of money equal to the cost of the asset being leased. Finance leases are normally used for plant and equipment and furniture and fittings purchases, as well as motor vehicles. The advantage of a finance lease is that all payments made under the lease agreement are tax deductible, being in the nature of a lease rental. Commercial hire purchase contracts are functionally similar to lease contracts. They are typically used to buy plant and equipment and furniture and fittings, including cars (Salu, 2005).

Popular types of debt finance

According to New Zealand business finance statistics, the most popular types of debt finance are bank overdrafts (36 %) followed by long-term loans (27 %). Other common sources of debt financing include leasing or hire purchase agreements (24 %), as well as increased credit facilities or limits (24%). Less popular were short term loans (8 %) and credit cards at 8 % and 6 % respectively (Statistics New Zealand, 2005).

The report also states that the most common source for additional debt financing was banks, where it was a source of debt finance requested for 78 % of businesses. Finance companies (including hire purchase or lending companies) were the next most common source used by 27 % of businesses. All other sources of debt finance such as - trade creditors or suppliers; existing owners; friends and family of existing owners; other individuals; other businesses; and any other sources - were much less common. Additionally, there are a range of purposes for which additional debt finance may be used. The most common purpose is for working or operating capital (46 %), while other common uses include the purchase of machinery or equipment (24 %) and 21 % for purchase of vehicles (Statistics New Zealand, 2005).

Financial crisis and the debt market

During the Asian financial crises, trade financing to the crisis countries fell dramatically. The interaction between perceived risks and the leveraged positions of banks was seen as the key factor causing the collapse in trade finance. Banks play two roles in the provision of trade financing: as creditor and as transaction processor. In a crisis, banks tend not to distinguish between the risks associated with trade credit and other credit. Furthermore, pressures from shareholders, etc. tempt banks to ease their trade finance exposure to the crisis country (Allen, 2003).

Another reason for the collapse in trade financing was due to 'herd behaviour'. This type of behaviour reflects a general withdrawal by international banks from any type of activity, regardless of the type of lending and of risk (Auboin and Meier-Ewert, 2003). Here, a withdrawal by one player tends to trigger similar actions by others (Allen, 2003).

Impact of 2007 financial crisis (GFC) on debt

The catalyst for the financial crisis of 2007 was the collapse of the subprime and secondary mortgage markets in the US. This was combined with the explosive rise of consumer debt which was mirrored by a persistent decline in consumer savings that had occurred over the last decade.

The current crisis has seen, amongst other things: the slowing of demand from OECD buyers of Asian goods; higher losses by trade banks due to deterioration in credit quality, fraud and commercial disputes; rapid fluctuations in commodity prices; foreign exchange rate volatility; increased risk aversion which results in significantly higher risk pricing (conformation commission/discounting, etc.); and a lack of US dollar liquidity which also results in significantly higher borrowing costs resulting in high liquidity premiums as well as risk premiums (ICC, 2008).

The current environment is creating a risk-averse culture, both amongst banks and traders. The bank perception of risk is leading to tightening liquidity in some instances and therefore greater difficulty in getting bank confirmations (ICC, 2008). The financial crisis has effectively shut the door on most consumers who are looking to use their equity to pay off debts. According to *The Economist*, the US home mortgage debt relative to the GDP increased from an average of 46 % during the 1990s to 73 % during 2008, reaching \$10.5 trillion. Furthermore, the USA household debt as a percentage of annual disposable personal income was 127 % at the end of 2007, versus 77 % in 1990. In 1981, US private debt was 123 % of GDP; by the third quarter of 2008 it was 290 % (The Economist, 2008).

The current financial crisis impact on debt to homeowners has led to a reduction in equity that was once very abundant. As housing prices decline in affected areas, homeowners may end up owing more than their property is worth, hence their chances of refinancing are remote. For instance, the United Kingdom experienced a big fall in property values that has sent loan-to-value ratios on debt funding soaring. Hence, many have sought to refinance or reduce their debt, either through capital-raising exercises or by selling some of their property assets. The statistics show that at the end of 2008, the debt to asset ratio – which had been around the 40 % mark during the last decade – had increased to 58 % (Muller, 2009).

According to Ivashina and Scharfstein (2008) new loans to large borrowers fell by 37 % during the peak period of the financial crisis (September-November 2008) relative to the prior three-month period and by 68 % relative to the peak of the credit boom (Mar-May 2007). Thus, new lending in 2008 was significantly below new lending in 2007. Additionally, real investment loans (working capital or general corporate purposes) and restructuring loans (stock repurchases) 4 decreased to a similar extent. During the peak period of the financial crisis (September-November 2008), non-investment grade loans fell by 50 % relative to the prior period, while investment grade loans fell by 19 %. Furthermore, banks that have access to deposit financing cut their lending less than banks with less access to deposit financing. In addition, there is a large overhang of revolving credit facilities, which may also have curtailed lending (Ivashina and Scharfstein, 2008). Additionally, during times of financial crisis, security and liquidity are important issues in bond market, with the current crisis impacting the market for covered bonds. Given the timidity of banks to lend, companies quickly turned to trade financing to manage their working capital requirements. However, the effect of the squeeze in credit markets has seen investors withdraw capital from risky markets. The global credit crunch, combined with the sharp decline in asset prices and the increase in the cost of trade credit on a sustained basis, is raising widespread concern about the availability of trade finance (ICC, 2008).

Across the banking market therefore, there is a lot of deleveraging taking place in the primary and secondary markets. The global financial system is getting rid of debt, so those who are holding debt face a situation where very few people want to take on debt. For institutions that need to refinance, the situation is becoming more difficult (ICC, 2008).

Although the volume of lending may be decreasing, Australia's banks seem to have gained somewhat. For every \$100 lent out, the banks now account for \$90. This is an all-time high. Additionally, the figures show that the bank's share of new loans was an unprecedented 89.4 %, up

from 85 %. This was also reflected in the percentage of new mortgages (from 90 % to 92 %) as well as motor vehicle and other lease finance (from 35 % to 45 %). In fact, the last 18 months has reversed a 20-year trend of banks facing increased competition (Martin, 2009). Having examined the literature review above, this study specifically addresses issues of debt funding as they relate to 59 Australian firms.

2 Research design and approach

Data collection and method

The participants in this study comprised 59 Australian firms across more than 12 industries covering credit related issues up to 10 years long. The industries were: Financial Services; Mining, Resources, Exploration, Oil and Gas; Retailing and Wholesaling; Telecommunications and Media (advertising, television, print, publishing, radio, film); Utilities (gas / electricity / water); Property (development, construction, management); Manufacturing (not otherwise listed); Services (non-financial); and other (including Agriculture, Education, Engineering, Chemicals, and Government). The questionnaire was constructed with the assistance of the Financial Treasurer's Association of Australia. The study used a purposive sample in order to improve the quality and the relevance of the data. The data was collected over a period of 3 months (September – November 2009). The empirical results are assessed via a series of frequency tables and cross tabulations.

3 Results and discussion

Respondent characteristics show that most valid responses (33 %) were obtained from the agriculture, education, engineering, chemicals and government industries (other). Other sizable responses were obtained from the services industry (non-financial) which comprised 14.8 % of total valid responses, then manufacturing with 11.1 %, utilities (9.3 %) and three other industries on 7.4 % which were: property; retailing and wholesaling; and mining, resources, exploration, oil and gas.

Company turnover

Table 1 below groups the companies based on annual company turnover. The majority of companies surveyed (40.7 %) had a company turnover of less than \$1 billion (AUD). In addition, just over one-third (35.1 %) of selected companies had an annual turnover of in excess of \$3 billion. Finally, almost one-quarter (24.1 %) of companies had a turnover between \$1 billion and \$3 billion.

Table 1 Annual company turnover (\$ AUD)

	%
Less than \$1 billion	40.7
\$1 billion to less than \$3 billion	24.1
Greater than or equal to \$3 billion	35.2
Total	100

Source: own calculations

Current levels of debt funding

Table 2 below provides an insight into the levels of debt the firms currently have. For instance, the majority of companies (37.3 %) had current debt levels of over \$1 billion, while the next highest response (28.8 %) belonged to those companies with current debt levels of between \$100 million and \$500 million. Just under a quarter (23.7 %) of the companies surveyed indicated that their debt levels were less than \$100 million. The remaining respondent companies (10.2 %) had current debt levels of between \$500 million and \$1 billion.

Table 2 Current levels of debt funding

	No.	%
Less than \$100 million	14	23.7
Between \$100 million and \$499 million	17	28.8
Between \$500 million and \$1 billion	6	10.2
Greater than \$1 billion	22	37.3
Total	59	100

Source: own calculations

Debt as a percentage of total funding

Almost one in five companies (19.3 %) surveyed reported that debt comprised between 50 % and 75 % of their total funding, while another 12.3 % had over three quarters of their funding made up of debt. The majority of companies (35.1 %) had between 25-49 % of debt funding; closely followed by another one-third (33.3 %) whose debt funding levels were less than 25 %. While high debt ratios are unfavourable, no definite statements could be made about the relationship between debt as a percentage of total funding and the performance of the firm.

Table 3 Debt as a percentage of total funding

	No.	%
Less than 25 %	19	33.3
Between 25 % and 49 %	20	35.1
Between 50 % and 75 %	11	19.3
Greater than 75 %	7	12.3
Total	57	100

Source: own calculations

Proportion of funds required by maturity

Table 4 suggests that almost half (47.8 %) of debt funding which matures in 1 year involves debt funding of less than 25 %. Conversely, debt funding with a 3 year maturity is spread more evenly, with 36.4 % occurring with debt funding levels between 25 %-49 % and one quarter with those companies who have over 75 % of their funds as debt. The majority of long-term debt repayment (3-7 years and 10 years) accounted for a lower proportion of overall company debt funds (below 50 %). Thus, the sample companies seem to exercise some care in managing their long term debt by opting for a lower percentage of debt as the maturity increases. This would also enable these companies to effectively manage their interest rate risks.

Table 4 Proportion of funds required by maturity

	1 year	3 years	3-7 years	10 + years
Less than 25%	47.8	15.9	35.3	78.9
Between 25% and 49%	23.9	36.4	50.0	15.8
Between 50% and 75%	8.7	22.7	5.9	5.3
Greater than 75%	19.6	25.0	8.8	0.0
Total	100	100	100	100

Source: own calculations

Current additional debt required

This question was posed to ascertain whether there is a potential for the companies to face a debt crisis in the near future. Of the 59 companies surveyed, nearly a third of the firms were in need of additional fund of which nearly half were in the region of \$50m to \$500m (AUS), with a maturity of up to three years. Table 5 below shows that 50 % of firms requiring additional debt need between \$50 million and \$499 million, while almost another quarter (22 %) require between \$500 million and \$1 billion. Thus, nearly three-quarters of the sampled companies require debt funding of less

than \$1billion and nearly 95 % of the companies require debt of less than 3 billion. This level of debt requirement is not considered to be large for the sampled companies. However, nearly 50 % of the firms reported currently facing, or anticipate facing difficulties with refinancing existing debt arrangements.

Table 5 Current additional debt required

	%
Less than \$50 million	5.6
Between \$50 million and \$499 million	50.0
Between \$500 million and \$1 billion	22.2
Between \$1 billion and \$3 billion	16.7
Greater than \$3 billion	5.6
Total	100

Source: own calculations

Refinancing, credit rating and overseas markets

According to the survey, 47.4 % of firms had faced difficulty securing refinancing post-GFC, with more problems related to medium term debt (27 %) and long-term debt (23 %) than others. Of those firms that were successful in securing refinancing (raising debt), 24 % attempted to raise funds via equity, of which 66 % were successful. Over one-quarter of the firms had obtained a credit rating. There is clear evidence that firms are very conscious of their credit rating and those with lower credit rating tend to be less enthusiastic about seeking debt funding. These lower credit rating firms also tend to attempt to seek equity funds preferring to approach the domestic market, as opposed to the overseas market with domestic banks the most popular source of funds (70 %) and 45 % for international banks. To this effect, a majority of the larger firms have attempted to access the European or the American bond markets to raise debt, while the hybrid markets are not popular – domestic or overseas.

It is also interesting to note that only a relatively small percentage of companies have a credit rating. This implies that the large majority of companies without a credit rating rely on the debt market that does not use credit ratings. The outcomes mentioned above are affected by the credit rating and the size of the firms, measured by gross annual turnover. The firms with a lower credit rating tend to exclude themselves from seeking high quality credit. The level of credit sought by the firms does not seem to be a factor determining the availability of credit. It is difficult to determine the impact of this observation on the cost of credit. While it is true that firms with a good credit rating face lower costs, it is not necessarily true that those without such ratings face higher costs. For instance, a smaller firm without a recognised credit rating may yet have an excellent credit rating with its bank enabling it to borrow at lower costs.

Business cycles

One would expect the business cycles to impact upon the debt requirements of firms, requiring higher funding during expansion. Contrary to expectations, the study found that the business cycle does not have an impact of the debt requirements in a majority of firms. The few that are affected tend to actively seek funds, and it is likely that these firms would face significant problems with respect to their debt requirements.

4 Conclusions

This study was conducted to examine the debt funding issues of a sample of 59 Australian firms arising since the GFC. The study sample covered a reasonable representation of industries and firm sizes. A vast majority of companies had debt funding requirements and the level of debt funding for

a majority of firms is less than 50 % of total funds. Large percentage of companies seem to exercise some care in managing their long term debt by opting for a lower percentage of debt as the maturity increases which assists in improving the management of interest rate risks. The debt requirement for nearly three-quarters of companies is less than \$1billion and nearly 95 % of the companies require debt of less than 3 billion, which is not considered to be large for the study population. Nearly a half of the firms reported currently facing, or anticipate facing, difficulties with refinancing existing debt arrangements.

A relatively small percentage of companies have a recognised credit rating, implying that a large majority of companies rely on the debt market that does not use credit ratings. It is difficult to determine the impact of this observation on the cost of credit, because smaller firms could still face a lower cost by maintaining favourable relationships with their bank. Contrary to expectations, the debt funding requirements were not related to the business cycle.

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