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The Choice of Debt Source for UK Companies

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Abstract

The Choice of Debt Source for UK Companies

This thesis presents an empirical investigation of the choice between different sources of debt finance based on a sample of UK non-financial companies listed on the London Stock Exchange FTSE350 between 2001 and 2008. New evidence is provided on (i) the importance of differentiating between syndicated and bilateral bank loans, and (ii) the impact that bankers sitting on the board of directors have on the borrowing firms' choice of debt source.

The evidence presented in this thesis contributes to the large body of US research concerning a firm's choice of debt source. Initially, the study investigates what type of firm chooses to issue particular sources of debt, and why. The findings show that the primary determinant of a firm's choice of debt source is its ability to provide collateral to secure against its debt. Although there is no evidence of bank affiliation playing a significant role in driving access to the public capital markets or to syndicated loans in the UK, issuers of bilateral loans are found to be more likely to have an affiliation to a bank than issuers of public, syndicated bank or non-bank private debt.

Secondly, the study examines the stock market response to announcements of public, bank (both syndicated and bilateral), and non-bank private debt. The results provide no evidence of any abnormal stock market response following announcements of either public bonds or non-bank private debt. There is strong evidence of a positive market response to announcements of bank loans, driven by the positive market

response to syndicated loans. There is little evidence of any market response to announcements of bilateral loans. The market appears to view announcements of syndicated loans made by companies which have a banker on their board in a positive manner, but no such response is observed for announcements of bilateral loans.

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Finally, this acknowledgement would be incomplete without expressing my thanks to my family. In particular, I would like to thank my dad (Jimbo!), and my Granny McCann, who have provided consistent encouragement, understanding and support throughout the duration of my research.

Dedication

In loving memory of my Granda McCann

Contents

CHAPTER 1: INTRODUCTION AND MOTIVATION FOR STUDY

1.1 Introduction

An abundance of literature has studied debt. This literature primarily considers the impact of interest tax shields on capital structure and cost of capital and investigates whether optimal debt levels and debt maturity policies are pursued by companies. However the specific sources from which companies borrow debt is a less researched area. This is somewhat surprising as the use of debt finance to raise funds is a standard alternative to issuing equity and this has received considerable attention in the literature, and accordingly provides the motivation behind this research. Because of well-developed public debt markets, firms seeking to raise debt finance in both the United States and United Kingdom have the luxury of choosing their lenders. Julio, Kim and Weisbach (2008) contend that the choice between different types of financing – be it from the capital markets (public debt), banks or other non-bank private sources – is perhaps even more important than the debt-equity decision because debt is more widely used than equity. For example, Bolton and Scharfstein (1996) observe that only 7% of US external financing was raised through equity issuances compared to 85% raised through debt issuances between 1946 and 1987. Similarly, Jiang (2008) finds that firms issued less than $130 billion in equity but in excess of $829.5 billion in debt in 2004. Debt from private sources appears to be the most important source of funds for firms. Cantillo and Wright (1995), Houston and James (1996), and Dichev and Skinner (2002) report that between 50% and 80% of total debt outstanding is private debt.

The primary purpose of this thesis is to develop some understanding of the choice of debt source for UK companies. Studies which investigate a company's choice of debt source largely focus on the US market. However, it is important to consider a company's choice of debt source in a UK context. UK companies have historically borrowed debt finance from banks and consequently, despite being well developed, the UK public debt market is significantly smaller than the US public debt market. Marchica (2008) finds that banks are the main lenders in the UK system; providing around 58% of total debt.

Barnes and Cahill (2005) and Antoniou, Guney and Paudyal (2007) have examined the choice of debt source in a UK setting, however these studies employ only balance sheet data. Following Denis and Mihov (2003) and Arena (2011), this study examines the incremental debt issue decision using a hand collected sample of 1091 announcements of issuances of public, bank (both syndicated and bilateral) and non-bank private debt made by UK firms listed on the London Stock Exchange FTSE350 index between 2001 and 2008. This approach associates a firm's choice of debt source with firm characteristics measured prior to when the choice of debt source is made, and allows for an enhanced evaluation of the features that shapes a firm's choice of debt source as it characterises a firms discrete choice of debt source given circumstances at the point of issuance in the framework of capital structure decisions. The balance sheet approach used by previous UK studies captures the cumulative outcome of past financing decisions and not the discrete choice of debt source.

Theoretical studies on the choice between different sources of debt typically place bank debt and non-bank debt under the umbrella of private debt and because of this, empirical studies tend to either examine bank debt individually, and characterise this as private debt – ignoring non-bank private debt, or combine bank and non-bank private debt together. This study examines both bank and non-bank private debt individually which takes into account the differences between the two. It is important that a differentiation is made between banks and non-bank private lenders. In the UK, banks are subject to regulations and supervision by the Financial Services Authority, whereas there are no such provisions for some non-bank private lenders, such as private placement lenders.

This study also furthers the analysis regarding the choice of debt source by examining syndicated loans and bilateral loans individually. So far, studies have overlooked the distinction between syndicated and bilateral loans despite a large amount of literature examining syndicated loans, and the nature of syndicated loans, in depth (see, for example, Dennis and Mullineaux (2000) and Sufi (2007)). Distinguishing between syndicated and bilateral loans is of particular interest because the use of syndicated loans is growing and the structure of syndicated loans is somewhat different from the traditional bank loan which typifies bilateral loans. Syndicated loans can be viewed as a hybrid between the traditional bank loan and the public debt markets.

Finally, whilst research has examined the impact of firm characteristics such as size, credit quality, and growth opportunities on a firm's choice of debt source, there is

little research on whether firms seek to co-opt a banker on to their board in order to drive improved access to a particular type of debt finance. It is important to examine the impact that bankers affiliated to firms have on their choice of debt source as the presence of a banker on a borrowing firms board of directors may be fruitful for the borrowing firm in several ways; ranging from bankers offering debt market expertise (Booth and Deli (1999)), increased availability of credit (Guner, Malmeinder and Tate (2008)) and possibly lower borrowing costs (Erkens, Sumbramanyam and Zhang (2011)).

The remainder of this chapter is structured as follows: Section 1.2 firstly provides an overview of the issues examined in the thesis, and secondly a summary of the main findings. Section 1.3 presents an outline of the importance and implications of the study. Finally, Section 1.4 presents the structure of the thesis.

1.2 Data, Issues Examined and Summary of Main Findings

This study comprises 2 main elements;

(i) Data – Hand Collection of 1091 Announcements of Debt

(ii) Two empirical chapters concerning a firm's choice of debt source. This thesis comprises two main empirical chapters concerning a firm's choice of debt source. These are:

a) The Choice of Debt Source for UK Firms (Chapter 5); and

b) The Stock Market Response to Announcements of Issuances of Public, Bank and Non-Bank Private Debt (Chapter 6).

This section provides a brief synopsis of the above.

1.2.1 Data - How Do Firms Borrow?

Prior studies that have examined a firm's choice of debt source in a UK context have employed a balance sheet approach (Barnes and Cahill (2005) and Antoniou, Guney and Paudyal (2008)). One of the major contributions of this research is to examine a firm's incremental choice of debt source in a UK setting. It is important to examine a firm's incremental decision as it allows for an enhanced evaluation of the features that shape a firm's choice between different sources of debt. The process of collecting data to allow for such an evaluation is labour intensive, but provides an extremely rich sample to base the analysis upon.

The data used in this thesis tracks announcements of issuances of straight corporate debt for all 385 companies listed on the FTSE 350 index of the London Stock Exchange (LSE) between 2001 and 2008, with the exception of financial firms and utility firms for regulatory reasons. A series of secondary sources, comprising hand collected searches of Nexis, Thomson One Banker, the Regulatory News Service, company annual reports and DataStream, are used to source announcements of issuances of public debt, bank debt and non-bank private debt. These searches yield 1091 individual announcements of debt, comprising 333 announcements of public debt, 606 issues of bank debt, and 152 issues of non-bank private debt. The vast majority of bank loans, in this sample 521, are syndicated, and the remaining 85 bilateral.

For each debt issue, information including the source of debt (public, bank (syndicated or bilateral) or non-bank private), the date of announcement, the date of (proposed) issuance, amount of the offer, the maturity of the offer, the coupon, interest rate, price, rating, renewal status and the purpose of the offer are hand collected from the announcement itself. Where such information is not provided the company's annual report is examined, as is the Regulatory News Service if required.

In addition to the announcement data, company annual reports are also used to hand collect data on several debt variables (including the type of outstanding debt, the maturity of outstanding debt and total available lines of credit) for the sample companies in addition to several reputation (governance) variables. Reputation (governance) variables collected include whether the firm has a banker sitting on its board of directors, finance director turnover and percentage of director ownership.

1.2.2 The Choice of Debt Source for UK Firms

Several studies have examined a company's choice between different sources of debt, and why particular companies issue a particular type of debt. These studies have been largely biased towards US firms and examine the choice between public, bank and non-bank private debt, but fail to take into account the significant differences between syndicated bank loans and bilateral bank loans. Little research has been conducted into the choice of debt source for UK firms. This study aims to somewhat rectify this by investigating the choice of debt source in a UK setting, and attempts to further the analysis into the choice of debt source by examining syndicated loans and bilateral loans individually.

Studies investigating a company's choice of debt source have been largely concerned with the information and agency costs inherent in issuing debt. A large body of theoretical and empirical studies have highlighted an inverse relationship between the likelihood that a firm chooses to issue bank debt and its size, credit quality and performance and profitability. Similarly, the theoretical and empirical studies have highlighted a positive relationship between the likelihood that a firm chooses to issue public debt and its size, credit quality, ability to provide collateral to secure against the debt and growth opportunities (Fama (1985), Diamond (1984/1991), Denis and Mihov (2003)).

This study examines a company's choice of debt source in a UK setting, and the key finding of this chapter is that the most important factor that has an impact on a firm's choice of debt source is its ability to provide collateral to secure against their debt. The results suggest a pecking order of debt issuance choice with regards to the

borrower's ability to provide collateral; firms able to provide the most collateral can borrow from the public debt markets, secondly those with moderate amounts of collateral issue bank debt and, lastly those firms unable to provide security for their debt are screened from the public and bank markets for debt and forced to borrow from non-bank private sources.

This study also begins to fill one of the important gaps in the empirical literature by examining the relationship between a company's choice of debt source and the financial expertise of the board. A bank board affiliation proxy is included in the analysis to investigate the impact of a firm's affiliation to a bank to the choice of debt that it chooses to issue. Although no evidence of bank affiliation playing a significant role in driving access to the public capital markets or to syndicated loans in the UK is found, issuers of bilateral loans are found to be more likely to have an affiliation to a bank relative to issuers of public, syndicated bank or non-bank private debt.

1.2.3 The Stock Market Response to Announcements of Issuances of Public, Bank and Non-Bank Private Debt

The second empirical chapter examines the market response to announcements of different types of debt; public, bank and non-bank private. As with the previous chapter, this study also differentiates between syndicated and bilateral bank loans, and comprises an examination into the market response to the different types of bank debt available to firms – syndicated loans and bilateral loans. Following the market efficiency hypothesis, stock prices will increase following the announcement of debt

if the market perceives the information to be good news, but decrease if the information is perceived to be bad news.

The considerable literature on choice of debt source has documented that the market responds differently to different sources of debt. Mikkelson and Partch (1986), James (1987) and Shyam-Sunder (1991) examine the market response to straight public debt issues and report no evidence of a significant response. James (1987), Lummer and McConnell (1989) and Billett, Flannery and Garfinkel (1995) examine the market response to bank loans and report a positive stock market response, and James (1987), Preece and Mullineaux (1994) and Chandra and Nayar (2008) examine the market response to non-bank private debt and report a positive stock market response. The positive stock market response to bank loans is significantly larger than the stock market response to non-bank private debt (James (1987)). The market is expected to respond more positively to announcements of bank debt relative to both public and non-bank private debt because the monitoring and screening services provided by banks help reduce information asymmetries between borrowers and lenders. The reduction in information asymmetries leads to a mitigation of adverse selection and moral hazard problems, and thus signals to the market that repayment is likely. Non-bank private issuers also engage in monitoring, however they do not have the expertise in monitoring that banks possess.

This study examines the stock market response to announcements of different sources of debt in a UK setting and finds no evidence of any abnormal stock market response following announcements of issuances of public bonds. In contrast, event period market responses indicate that the market views announcements of issuances

of bank loans positively. As with announcements of issuances of public bonds, there is no evidence of any abnormal stock market response following announcements of non-bank private debt. The most striking finding is that the positive market response to bank loans appears to be driven by the market response to syndicated loans. There is a strong positive market response to announcements of issuances of syndicated loans, yet no evidence of any abnormal market response to bilateral loans. This result suggests that syndicated loans convey a signal of considerable creditworthiness, as not only has one bank, the lead arranger in the syndicate, undertaken screening and monitoring and considered the firm creditworthy. But also, further banks within the syndicate will have undertaken their own screening and monitoring, and considered it creditworthy. Finding no evidence of any abnormal market response to bilateral loans somewhat challenges the traditional view that the market views close bilateral banking relationships in a positive manner.

1.3 Importance and Implications of Study

Firstly, this study focuses on examining a firm's choice of debt source using announcement data from a UK perspective, which has until now been unchartered territory. Previous studies that have examined the debt source choice using UK data have employed static balance sheet data, and not examined the discrete financing choice between public and private debt. The collation of a hand collected sample of contemporary debt announcements is the primary contribution to the body of literature which has examined the choice of debt source in a UK setting, and allows for further contributions as discussed below.

The second contribution of this study is that it examines syndicated and bilateral loans from banks independently. One of the limitations of previous studies is that they fail to make a distinction between bilateral and syndicated loans and arrive at a general conclusion concerning the choice of bank debt. Studies by Li (2005) and Sufi (2007) have shown that there are distinct differences between the two, and therefore it is important that such a distinction is made to examine (i) what type of firm chooses to issue syndicated loans over bilateral loans, and (ii) how the market responds to announcements of bilateral and syndicated loans on an independent basis. The findings confirm that (i) the differences inherent between syndicated and bilateral loans renders them to being attractive to, and available to, different types of firms, particularly with respect to the reputation of the borrowing firm's board, and (ii) the market appreciates the differences between syndicated and bilateral loans.

The third contribution of this study is that it examines the use of non-bank private debt in a UK setting which has been until now overlooked. Barnes and Cahill (2005) acknowledge that there is a succinct different between bank debt and non-bank private debt, but do not categorise between them. Consistent with US studies, the findings confirm that both firms and the market appreciate the differences between bank and non-bank private debt.

The fourth contribution of this study is that it examines the importance of the reputation of a firm's board of directors with regards to the choice of debt source. Bankers sitting on the boards of non-financial companies are able to provide debt market expertise (Booth and Deli (1999)), improved access to credit (Guner et al (2008)) and debt finance at more attractive rates (Erkens et al (2011)). The findings suggest that (i) the presence of a banker on the board does not drive easier or improved access to the public or syndicated debt markets in the UK, but does propose that the presence of a banker is valuable to firms which are looking to borrow on a bilateral basis, and (ii) the market responds more favourably to announcements of both syndicated and bilateral bank loans where the borrowing firm has a director who is also currently sitting on the board of a bank.

1.4 Structure of Thesis

The remainder of this thesis is organised as follows: Chapter 2 provides a description of the different sources of debt available to firms, and an overview of the UK corporate debt markets over the period of the study (2001-2008). Chapter 3 discusses the theoretical predictions surrounding a firm's choice of debt source. Chapter 4 describes the sample data that is used in the empirical analyses within Chapter 5 and Chapter 6. In addition, it provides definitions of variables employed in both Chapter 5 and Chapter 6. Chapter 5 provides a discussion of literature that has investigated a firm's choice of debt source, prior to examining the choice between public, bank (both syndicated and bilateral) and non-bank private debt for UK firms. Chapter 6 provides a discussion of literature which has investigated the stock market response to announcements of different sources of debt prior to examining the stock market response to announcements of issuances of public, bank (both syndicated and bilateral loans) and non-bank private debt. Finally, chapter 7 provides a summary of the key findings of this thesis. This chapter also presents the limitations of the study and highlights areas of further research.

CHAPTER 2: OVERVIEW OF THE UK DEBT MARKET

2.1 Introduction

This chapter provides an overview of the sources of borrowing for UK companies. Companies seeking debt finance are able to borrow from one of three sources; public debt markets, banks and non-bank private lenders. Prior to examining the sources that companies are able to borrow from, and why (Chapter 5), and the market response to announcements of different sources of debt (Chapter 6), it is useful to discuss both the characteristics of the various sources of debt available to firms, and to then consider the issuance trends within the UK corporate debt market throughout the period of the study.

The rest of this chapter is structured as follows. Section 2.2 provides an overview of the different sources of debt finance available to firms, and the different forms of debt finance that they provide. Section 2.3 provides a brief synopsis of the issuance trends within the UK corporate debt market. Finally, section 2.4 provides some concluding remarks.

2.2 Sources of Debt Finance

2.2.1 Public Bonds

Bonds can be either straight bonds or convertible bonds, and attract many investors ranging from individuals to other corporates, pension funds to investment funds and insurance companies to sovereigns (Choudry (2003)). This study examines only straight bonds and ignores convertible bonds which can be converted into equity throughout the maturity of the bond because of the equity element inherent within convertible bonds. Bonds are typically fixed rate debt instruments, where the borrower pays lenders a fixed coupon payment at regular intervals and repays the principal at maturity. Bonds generally have a fixed term to maturity, and are issued for the medium or long term, however the inclusion of put or call options can alter the initial term to maturity as stated at the initiation of the borrowing agreement.

Primary and Secondary Bond Markets: Bonds are initially issued in the primary bond markets. Issuing companies appoint an investment bank or syndicate of investment banks to place the issue to the market. Once placed with the market, bonds can be sold between counterparties in the secondary bond markets. The principal secondary market for corporate bonds is the over the counter (OTC) market. The over the counter market allows traders to directly trade bonds between themselves outwith an exchange.

Types of Bond: Bonds can take one of two forms; they can be domestic bonds or international bonds. Domestic bonds are bonds which are sold in the country in which the borrower is domiciled, and are denominated in the domestic currency. International bonds are initially sold to investors outside of the country in which the borrower is domiciled, and can be global bonds, Eurobonds or foreign bonds.

Global Bonds: Global bonds are sold simultaneously in both domestic and international markets at the same offer price. Because global bonds are sold in multiple markets, the liquidity of the issued bonds is increased. Tawatnunachai and Yaman (2007) highlight that global bonds have become popular financial instruments in both the US and European markets as highlighted by the significant rise in the amount raised by issuances of global bonds over the period 1995-2001.

Eurobonds: Eurobonds are bonds that are issued in foreign markets but are not issued in the currency of the market that they are issued in. Eurobonds can be denominated in several currencies and issued in several markets simultaneously. Eurobond issues are typically made by firms with the highest credit ratings, and are unavailable to firms which have a rating lower than a single A credit rating (Gallant (1988)). Gallant (1988) states that firms rated BBB or below are unable to issue Eurobonds, which typically are of large amounts of finance, because foreign and domestic investors are only willing to lend to issuers who are viewed as being of high creditworthiness. Levich (2001) argues that Eurobonds are only available to firms with a rating of A or above because issuers of Eurobonds are likely to exploit the scarcity value of their offerings.

Foreign Bonds: A foreign bond is a bond sold by a company in a market different to the one in which it is domiciled, in the currency of the market in which the bond is sold. Foreign bonds have different names in different markets; for example, sterling bonds issued in the UK by non-domiciled

borrowers are known as Bulldog Bonds, and US dollar bonds issued in the US by non-US domiciled borrowers are known as Yankee Bonds. Choudry (2003) states that the US dollar market is the most important domestic market for foreign bond issues.

Rating of Corporate Bonds: Corporate bonds are rated by credit rating agencies such as Standard and Poor's Corporation, Moody's Investors Service and FitchRatings, and are rated in accordance with their default risk. They are classed as either investment grade or non-investment grade. Standard and Poor's categorise bonds from AAA (highest rating, most creditworthy) to D (lowest rating, default likely), with several classifications in between. Broadly speaking, Standard and Poor's define their bond ratings as follows: bonds rated AAA and AA are viewed as high credit-quality, investment grade bonds. Bonds rated A and BB are viewed as medium credit-quality, investment grade bonds. Bonds rated BB, B, CCC, CC and C are viewed as low credit-quality, non-investment grade bonds (junk bonds), and those bonds rated D are bonds which are in default. Credit ratings are important to firms, as firms with higher credit ratings enjoy lower issue yields because they are perceived as being less risky, with issue yields rising as ratings fall.

2.2.2 Bank Debt

Bank debt takes the form of a loan. A loan is an agreement between the borrower and the lender whereby the borrower repays both the capital and interest at frequent intervals over a fixed period of time. Bank loans are normally issued at floating rates; typically following the London Interbank Offer Rate (LIBOR). For example, a typical rate may be LIBOR + 1%.

Types of Bank Loan: Banks offer borrowers two types of loan; term loans and revolving credit facilitates. Term loans provide borrowers with a specified amount of debt finance which has to be repaid over a set period of time (an amortising loan) or in one instalment at maturity (bullet loan). Revolving credit facilities (revolvers) provide borrowers with an amount of capital which is available to them over a specific period of time. The structure of revolvers allows the borrower to continually borrow and repay as necessary during the term of the facility, as long as the borrower does not exceed the maximum amount set in the original loan agreement. Both revolvers and term loans are granted by single banks and syndicates.

Bilateral Loans versus Syndicated Loans: Firms are able to borrow from banks in two ways; they can borrow on a bilateral basis or on a syndicated basis. Bilateral loans are private lending agreements between the borrowing company and a single lending bank. In contrast, syndicated loans are loans between the borrowing company and a group (syndicate) of lending banks or financial institutions. Syndicated loans can be viewed as a hybrid between the traditional bilateral bank loan and public debt (Dennis and Mullineaux (2000)), and the market for syndicated loans could be argued to be more akin to the corporate bond market than what they are to traditional bilateral loans. For example, rating agencies are rating an increasing number of syndicated loans (Altunbas, Kara and Marquez-Ibanez (2009)). Borrowers are able to borrow greater amounts when borrowing from a syndicate of banks than from single lenders. This is because a number of banks or financial institutions working together are able to provide borrowers with a greater amount of debt finance.

There are three main parties within a syndicate; the mandated arranger, the book runner and participating banks. The mandated arranger, appointed by the borrowing firm, establishes the loan, negotiates the terms of the loan, facilitates the administration of the loan and syndicates the loan. The book runner, who is often also the mandated arranger, advertises the loan and invites other banks and financial institutions to participate in the loan. They provide information to interested parties by means of an information memorandum, and keep the borrowing company up to date with the progress of the syndicate. Participant banks make up the syndicate, and provide the funds to the borrowing company.

Types of Syndicated Loans: Broadly speaking, there are three different types of syndicated loans; underwritten deals, best efforts syndicates and club deals. With underwritten deals, the lead arranger of the syndicate guarantees the loan. If the lead arranger is unable to recruit sufficient syndicate members to secure the full amount being issued, the arranger is forced to make up the shortfall. With best efforts syndication, borrowers highlight a desired loan size and arrangers attempt to recruit a sufficient amount of syndicate members to secure the full amount. However, unlike underwritten deals, should the arranger fail to meet the desired loan size, the borrowing firm receives only the amount secured, and the underwriting arranger is not required to make up the shortfall. Club deals are slightly different. With club deals, a group of banks come together to lend to a firm, each lending equal or near equal amounts to the borrowing firm. The Bank of England has reported that UK loans have tended to be club deals over the last decade.

2.2.3 Non-Bank Private Debt

Firms are also able to borrow on a private basis from non-bank financial institutions. Non-bank private debt typically takes the form of bonds, and are often known as private placement bonds (Kwan and Carleton (2004)). Non-bank bank private debt can come from a wide variety of lenders ranging from insurance companies, pension funds, hedge funds and private individuals in the form of business angels and venture capitalists.

The market for non-bank private debt is dominated by life insurance companies (Carey, Prowse, Rea and Udell (1993)). One reason for this is that life insurance companies are able to invest in long term securities. A second reason is because insurance companies, similar to banks, have expertise in lending particularly to middle market firms (Carey et al (1993)). Pension funds are less well suited to monitoring borrowers because they tend not to have credit analysts that would allow them to directly invest in companies, and are thus smaller players in this market.

Non-bank private debt typically has all the features of public debt, in that issuance of non-bank private debt are essentially privately placed bonds. Non-bank private debt is typically issued for a fixed period, issued at a fixed rate of interest, repayment of the capital occurs at maturity, and coupon payments are made at pre-certified intervals.

2.3 The UK Corporate Debt Market: Issuance Trends

UK companies have traditionally borrowed from banks to fill their funding gaps. As a result of this, the UK corporate bond market is smaller than that of the US. A further reason for the UK corporate bond markets being smaller than the US bond markets is that corporate bonds are only available to firms which have high credit ratings, unlike in the US corporate bond markets. However, there is some indication of the UK moving towards a US style bond market as firms diversify away from relying on bank funding (The City UK (2010)). Laopodis (2008) argues that corporate bond markets have expanded in recent times because they have become more interdependent as a result of technological and financial advances, along with political advances, that have resulted in liberalisation of the financial markets. The Bank for International Settlements provides data on the outstanding value of corporate sector bonds. Figure 2.1 displays the outstanding value of corporate bonds over the period of this study (2001 to 2008). Figure 2.2 displays the net funds issued to UK companies by means of the corporate bonds.[1] Since the sharp decline in corporate bonds in the UK following the dot.com crash and the September 2001 terrorist attacks in New York, the outstanding value of UK corporate bonds has remained relatively steady. There are declines in the net funds issued around September 2007 and July 2008, which most likely are a consequence of the worldwide financial crisis that gripped markets during this period.

Figure 2.3 displays the outstanding value of loans forwarded to UK companies between 2006 and 2008.[2] Some companies will opt to borrow from banks outwith the

[1] Data obtained from Trends in Lending, from The Bank of England (April, 2009).

[2] Data obtained from Trends in Lending, from the Bank of England (August, 2009)

UK banking system, and therefore these loans will not be included in the official Bank of England Statistics on corporate lending. As can be seen from Figure 2.3, there was a sharp rise and fall in the amount of bank loans forwarded to UK firms between 2007 and 2008. There was strong issuance of bank loans until late 2007 which reflected the kind macroeconomic environment of the time that led to a heightened availability of capital. However, following the financial crisis the flow of bank lending to UK companies has sharply fallen, consistent with banks severely restricting their lending. Alternatively, companies have had a lower demand for debt as they deleverage post financial crisis, which has lowered the demand for debt finance.

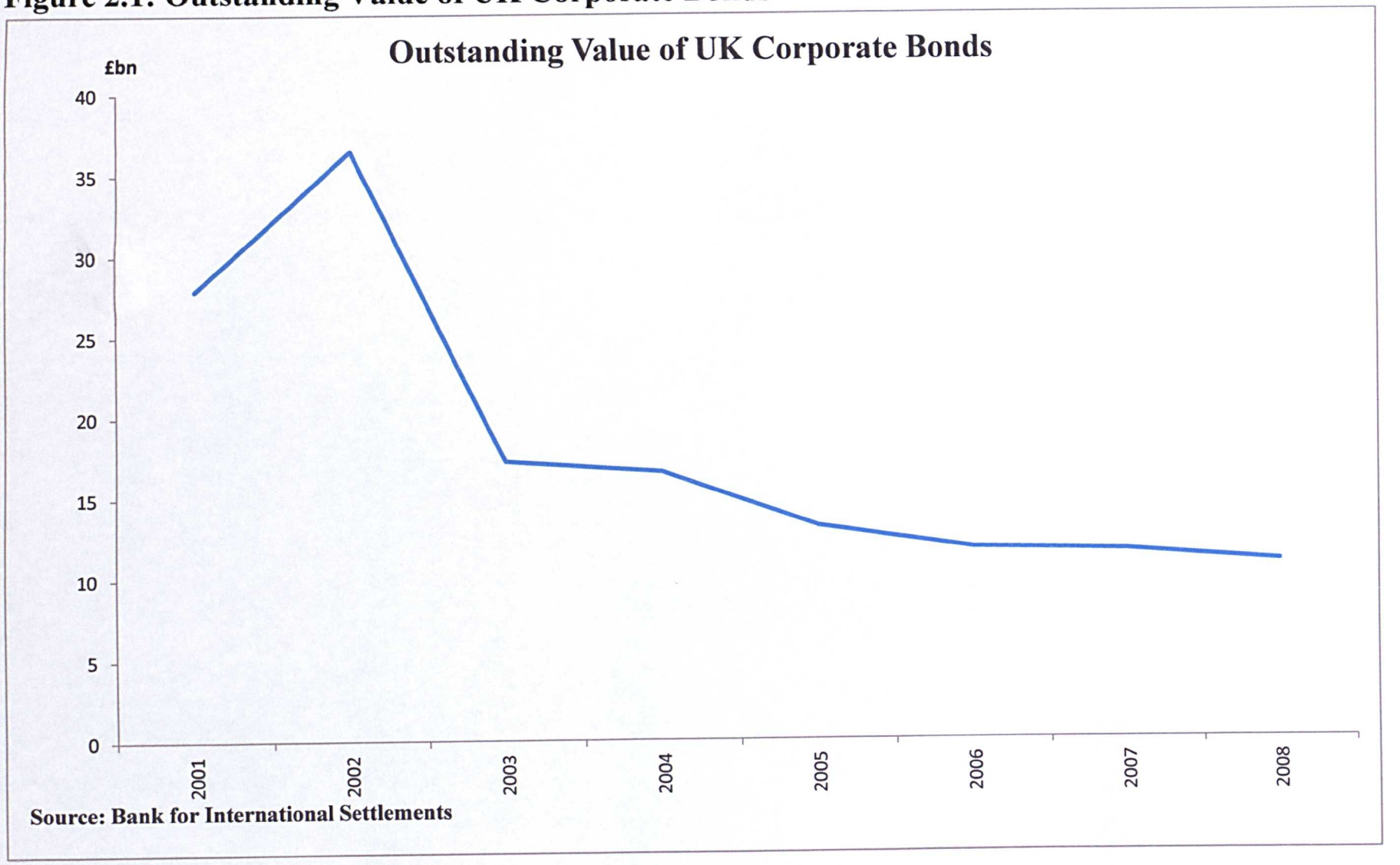
The Bank of England highlights that in recent years syndicated lending has increased, and that it has become an important source of debt finance for UK companies. Altunbas et al (2009) state that the market for syndicated lending has expanded in recent times as a result of the secondary markets becoming much stronger. One of the reasons for the growth in the secondary market for syndicated loans is that they have become more liquid as a result of the regulations and standardisation during the 1990s (Dennis and Mullineaux (2000)). A recent report by the Bank of England (Trends in Lending, August (2009)) examines recent trends in the market for syndicated loans. Bank of England statistics do not make a distinction between syndicated lending and bilateral lending, thus there is no official data on the amounts of syndicated loans issued by UK companies. However, approximations can be obtained from commercial data providers, such as Thomson One Banker, Dealogic and Dealscan. Unlike bilateral loans which appear to be rarely announced to the market, syndicated loans tend to be announced to the market because of their

significant sizes. Figure 2.4 provides estimates of the amounts of syndicated debt issued by UK firms between 2003 and 2008, as provided by Dealogic and Bank of England statistics. Similar to the trend previously discussed for bank loans, there was a significant rise in the value of syndicated loans raised by UK companies in early 2007, but this significantly declined following the financial crisis.

2.4 Conclusion

This chapter has provided an overview of the sources of borrowing for UK companies, and has provided a brief synopsis of the issuance trends during the period of the study. This chapter has described the different sources of debt available to firm, and presented a short discussion of the different types of debt finance that different lenders provide. It is explicitly clear that the use of syndicated loans by UK companies has risen somewhat. This highlighting that it is of particular importance to make a distinction between bilateral bank loans and syndicated bank loans, and to examine what type of firms choose to borrow from banks on a syndicated basis relative to borrowing from a single bank.

Figure 2.1: Outstanding Value of UK Corporate Bonds



Source: Bank for International Settlements

Figure 2.2: Bonds Raised by UK Companies

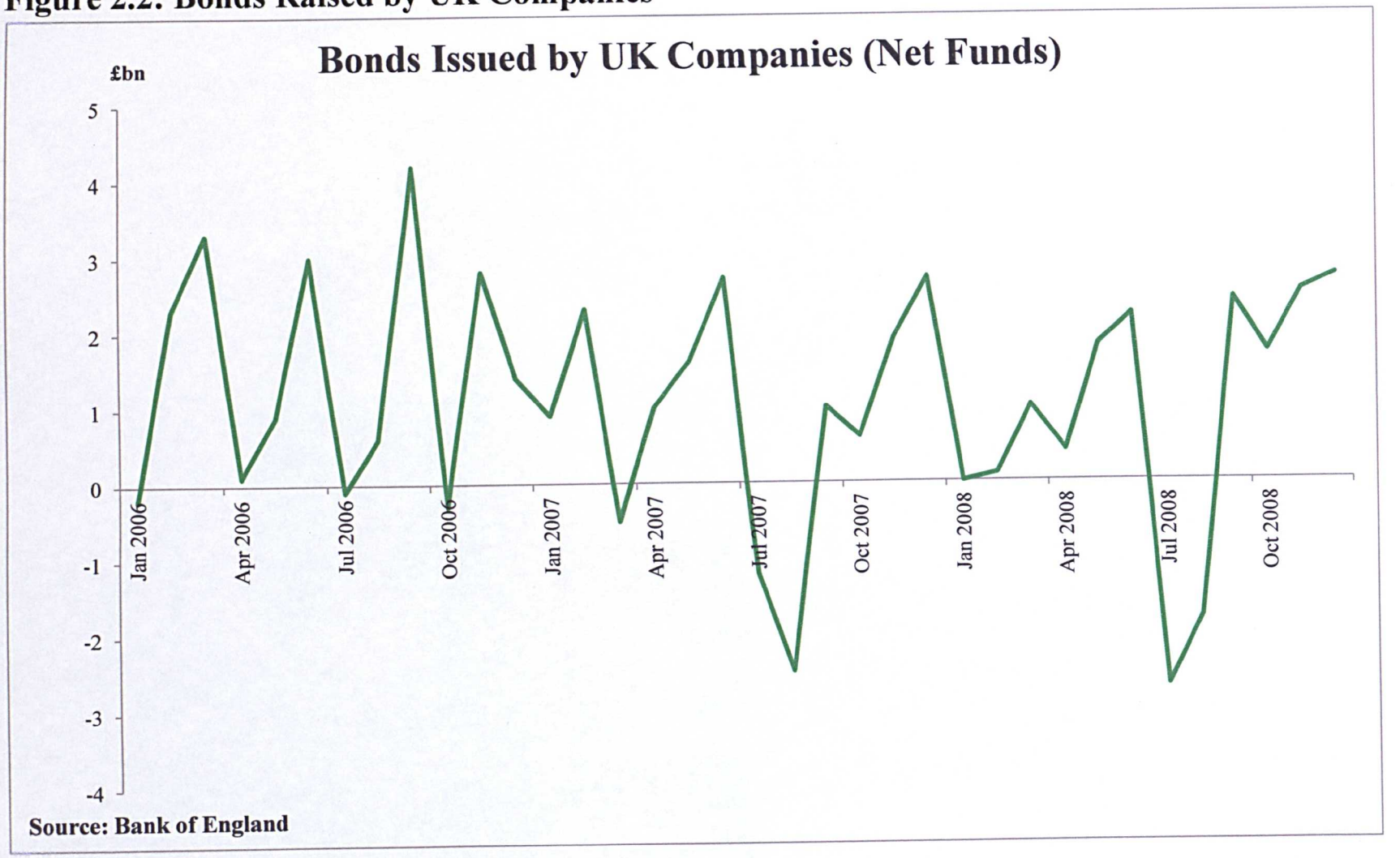


Figure 2.3: Loans Raised by UK Companies

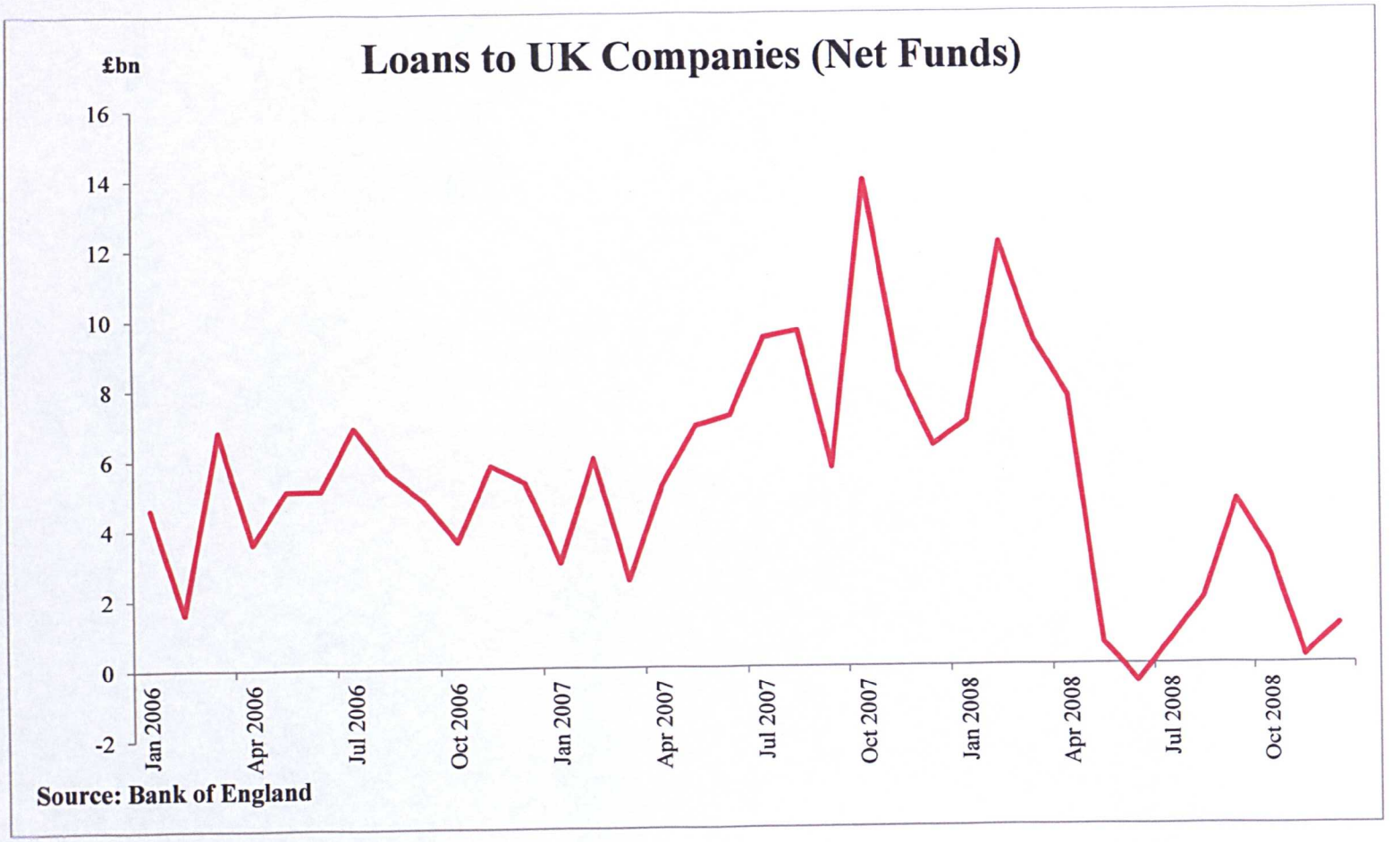
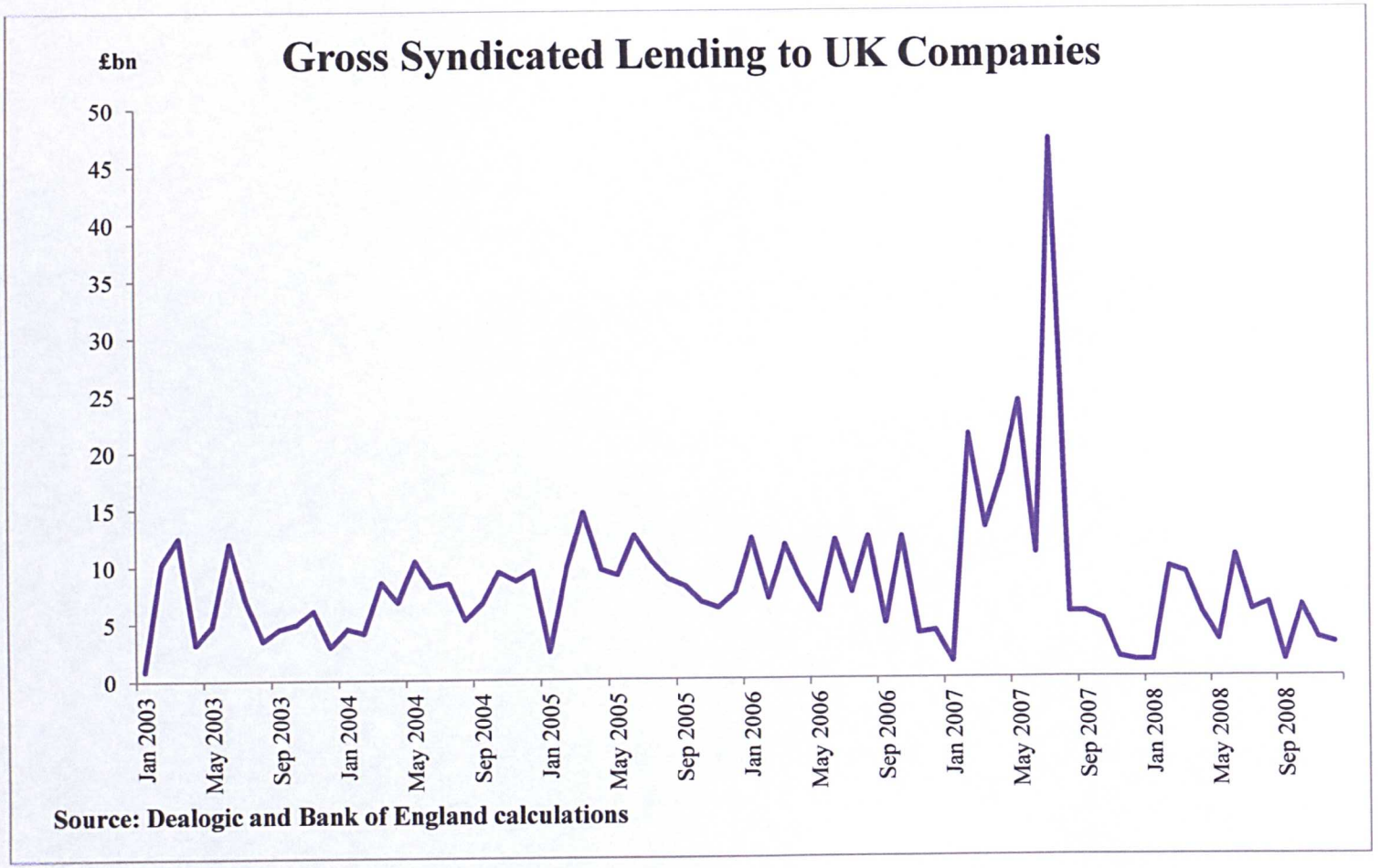


Figure 2.4: Gross Syndicated Lending to UK Companies



CHAPTER 3: THEORETICAL MODELS

3.1 Introduction

The irrelevancy theory of Modigliani and Miller (1958) highlights two propositions concerning capital structure. Firstly they argue that *'the market value of any firm is independent of its capital structure and is given by capitalising its expected return at the rate ρ appropriate to its risk class (group)'* (Proposition I) and secondly that *'the expected yield of a share of stock is equal to the appropriate capitalisation rate ρ_c for a pure equity stream in the class, plus a premium related to financial risk equal to the debt-to-equity ratio times the spread between ρ_c and r'* (Proposition II). In other words, Proposition I argues that the method of financing is irrelevant, and Proposition II argues that the cost of equity in the geared firm increases to offset the cheaper cost of debt.

In devising these propositions Modigliani and Miller (1958) make several assumptions presuming the existence of perfect capital markets; they assume no taxes, no information costs, transactions costs nor bankruptcy costs; they also assume that firms own all physical assets, that only risk free debt and risky equity can be issued, and that all projects and cash flows or debt borrowed thereto are perpetual because there is no growth. Furthermore, they assume that both firms and individuals can borrow or lend at the risk free rate of interest, and that personal borrowing is a perfect substitute for corporate borrowing, that every firm can be arranged into groups so that firms' share returns in each class are both proportional and perfectly correlated with every other firm in that group.

However, the irrelevancy theory does not hold when the stringent assumptions of the Modigliani and Miller (1958) model are not upheld – such as the inclusion of taxes and transactions costs. Modigliani and Miller (1963) extended their earlier model, taking corporate taxes into account, and argue that the optimal capital structure is found where debt is maximised, i.e. that the value of the firm increases as debt is added to the capital structure. [3,4,5] However, despite its flaws, the Modigliani and Miller (1958) model *'remains a surprisingly robust and vibrant description of financial market equilibrium forty years after it was first presented'*, as it illustrates how capital structure would work in perfect capital markets (Megginson (1997)).

Since Modigliani and Miller (1958) does not hold in a real life context, where perfect capital markets are unavailable, it is apparent that the method of financing is actually relevant. Thus, the (economic) value of a firm is not simply established upon the expected value of the firm's operating profits (Megginson (1997)). As a result, prior to evaluating the evidence regarding the choice between public, private and non-bank private sources of debt it is important to discuss the various theories that try to explain firms preferences, namely; information asymmetry, agency theory, transactions costs, market efficiency and taxes. The remainder of this chapter discusses these various theories with respect to the choice of debt source.

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[3] Both Modigliani and Miller (1958) and Modigliani and Miller (1963) ignore the effects of personal tax.

[4] Although Modigliani and Miller consider the effect of corporation taxes on capital structure, they still assume that there are no costs of financial distress to be taken into consideration.

[5] This assumes that all firms benefit from corporation tax, but as pointed out by Brealey and Myers (2003), this may not always be the case as firms may be loss making.

3.2 Information Asymmetry

Information Asymmetry occurs when one party knows more than another party. Leland and Pyle (1977) assert that problems of information asymmetry are prominent in financial markets. In the context of this thesis, the basic information asymmetry problem relates to managers (insiders) having greater information, understanding, and thus knowledge concerning a firm's prospects and financial health in comparison to lenders (outsiders).

The degree of information asymmetry differs between firms, however it is widely accepted that smaller firms tend to suffer more than larger firms because less information is available publicly. However information asymmetries are not unique to smaller firms and larger firms also suffer because they tend to have a more widely dispersed ownership and complex operations than smaller firms that are of a close and firmly integrated disposition.

3.2.1 Monitoring

Benston and Smith (1976) state that the role of financial intermediaries is to collect, examine and revise information on borrowers providing them with excellent source of information regarding the likelihood of repayment. Different financial institutions have different monitoring abilities and endorsement effects.

Black (1975) and Fama (1985) report that banks have a cost and information advantage in lending to borrowers, and argue that bank lending is more valuable than non-bank (public) lending because bank lenders have access to greater information that helps to

minimise adverse selection and moral hazard problems. Fama (1985) suggests that banks are privy to more information than non-bank (public) lenders because, over and above the normal monitoring devices of restrictive covenants and ongoing reporting, they have built up a relationship with the borrower via a history of deposits, and consequently have a relative cost advantage in constructing and supervising loans of a short-term nature. Banks are thus assumed to be better positioned to make informed decisions regarding a borrower's quality than other non-bank private and public lenders because they have acquired proprietary information in the process of lending to the firm that is unavailable to outside lenders.

Diamond (1984) argues that the ex post information asymmetries inherent in lending means that borrowers have to be monitored both ex ante through screening and due diligence (the cost of which is borne prior to the project), and then ex post in order to mitigate adverse selection and moral hazard problems. Diamond (1984) contends that firms with a high degree of information asymmetry will choose to be bank financed rather than publicly financed as they gain from the certification and monitoring services offered by banks.

Public lenders, however, carry out little monitoring. Public lenders include restrictive covenants into the bond indentures, and appoint a bond trustee – which is typically a department of a commercial bank - to ensure that covenant restrictions are adhered to. Bond rating agencies monitor the debtor's ability to repay (Kwan and Carleton (1993)). Dow and Gorton (1997) illustrate that the stock market can undertake both a monitoring and screening role; however, literature is almost unanimous in stating that private

lenders, specifically banks, play a special role in alleviating informational asymmetry problems between firms and their debt holders. Being better equipped or even just better incentivised to produce information regarding borrowers, and to monitor borrowers, helps to manage and reduce agency costs because banks have more control over the borrowing firm's activities than non-bank lenders. Banks are concerned with both hard and soft information when screening and monitoring firms (Petersen and Rajan (2002)), and have both experience and expertise – in addition to scale economies – in monitoring borrowers, and are able to generate information on the borrowers at lower costs.

Firms with greater information asymmetry problems are forced to issue private debt as private lenders are potentially able to mitigate adverse selection problems by means of being better informed, and better equipped to engender information (Gomes and Phillips (2007)). That is, via closer, longer term, and (possibly) more exclusive relationships (Yasuda (2005)), private lenders are able to develop informational advantages, so information asymmetry is reduced when a bank lends. Both adverse selection and moral hazard are borne from informational asymmetries between a firm and its investors, as are costs of debt finance. Adverse selection and moral hazard considerations can lead to credit rationing. Adverse selection exists where lenders are unable to differentiate between good and bad borrowers, which lead to both good and bad borrowers borrowing from the lenders that charge the lowest interest rates. Lenders are conscious of this and, as a result, increase the borrowing rates which they charge to all borrowers. Some banks may actually specifically lend to firms with large information problems (Berger and Udell (1995)).

Easterwood and Kadappakam (1991) report that informational asymmetries are a critical determinant of the choice between private and public debt markets. They report that larger firms are less reliant on private debt than medium sized firms because larger firms have lower information asymmetries. Carey, Prowse, Rea and Udell (1993) provide evidence consistent with non-bank private borrowers having lesser asymmetric information problems compared to bank borrowers. Lui (2006) reports that outstanding bank loans lead to amplified investment because of a reduction in information asymmetry but does not find that this holds for non-bank private debt. The more transparent a firm is, the more likely they are to issue public debt (Faulkender and Petersen (2006)).

3.2.2 Relationship Banking

A successful relationship between a bank and a borrowing firm requires that firms provide their banks with credible information (Tirole (2006)), and is built upon honesty, openness, respect and maintenance of a long-term interaction (Arnold (2005)). Sharpe (1990) describes banking relationships as natural agreements in which firms receive lower borrowing rates in return for exhibiting auspicious asymmetric information as the relationship evolves, and Bhattacharya and Chiesa (1995) and Agrawal and Hauswald (2008) argue that the crucial characteristic of relationship banking is the bank's ability to gather, and use, proprietary information in credit market competition. Hence, private information influences credit decisions for relationship loans.

Boot (2000) argues that relationship lenders have lower information asymmetry problems when lending to borrowing firms because they have accumulated insider information on the firms throughout their lending relationship. The information produced is both tangible and intangible, and can be used time and time again. Thus, specialisation, monitoring, screening and certification are functions associated with relationship banking.[6] It has been widely argued that because of these functions, banking relationships help to minimise the problem of information asymmetry, hence firms and banks develop close relationships. Borrowers that experience greater problems of information asymmetry tend to use their relationship lenders for future loans (Diamond (1984)). Bharath, Sunder and Sunder (2008) find evidence of bank dependent firms being more likely to borrow from a relationship bank, which links in with the earlier findings of Ongena and Smith (2001) who articulate that firms, particularly small ones, prefer long-term bank relationships. However, banks' incentives to monitor borrowers have fallen since the deregulation of financial markets because of increased competition (Nam (2004)).

Firms with a relationship lender enjoy several benefits. Boot (2000) argues that loan contracts become more efficient. Not only are banks prepared to offer more credit to them, and at lower rates of interest (Petersen and Rajan (1994) and Berger and Udell (1995)), but they are also prepared to make unprofitable loans to firms that they have built relationships with when they are in financial distress. This is because banks trust

[6] Boot (2000) and Boot and Smeits (2005) offer near exhaustive surveys of the literature available into relationship banking.

that they will recover any losses over a long relationship (Ongena and Smith (2001)). As a result, the precision of the lenders credit assessment and information about the borrower is enhanced, leading to a mitigation of adverse selection and moral hazard problems, as well as the production of further profits for the bank.

Borrowing from informed lenders helps reduce information asymmetries between borrowers and lenders, as it signals to the market that repayment is likely, as they have built up private information about the borrowing firm's prospects over time (Tirole (2006)). A continuing relationship is a credible signal of firm quality and value (James and Weir (1990)). Fama (1985) argues that because large firms purchase lines of credit from banks, and other financial institutions, bank signals are deemed as credible signals of a firm's creditworthiness, or its project's quality. Thus, banking relationships provide borrowers with greater availability to debt finance. This is because banks are seen as well informed investors, who suffer less from the problems of information asymmetry, because of their expertise in making loans, and because of the screening and monitoring services that they provide. Banks will not make loans if they are unsure that they will be repaid.

By issuing more debt financing, firms are signalling to the market that their firm is of high quality, and that they are confident that they will be able to pay increased interest payments in the future (Ross (1977)). High quality borrowers will signal to the market that they are attractive to lend to by introducing distortions, such as pledging high amounts of collateral, that are costly to them, but that would be exorbitant to low quality borrowers (Tirole (2006)). Leland and Pyle (1977) argue that the willingness to invest

may serve as a signal to the market of the true quality of the project. Further firm characteristics such as lots of growth opportunities, a high credit rating, consistently good performance and profits also help a firm signal to the market that they are good borrowers.

Bhattacharya and Chiesa (1995) and Berger (1999) posit that an extremely attractive facet of relationship banking is that the firm is able to provide their banks with sensitive information concerning, for example, projects that it is requiring funding for, because it trusts that their relationship banker will not divulge this information to the market. They also find that firms are also happy to divulge more information to their bankers as their relationship matures.

Young firms are often perceived as being more risky because there are higher degrees of information asymmetry; however, banks regularly offer and extend loans to these firms in order to build up a relationship with them. Berlin and Mester (1999) document the benefits of long-term relationships particularly strengthening the advantages of intertemporal smoothing and risk sharing between customers and banks within a bank-based system.

However, one problem with bank debt is that there may be excessive monitoring, especially if the firm has a particularly high volume of bank debt (Besanko and Kanatas (1993)). Moreover, as each lender is monitoring the borrower, there will be a duplication of monitoring and there may be problems of free riding amongst lenders. The monitoring of private debt is subject to lower free rider problems than public debt

because there are at most only a few lenders. These problems can be alleviated by having a delegated monitor. However, Parlour and Plantin (2008) have argued that some of the information that banks receive whilst monitoring cannot be convincingly communicated to others.

Moreover, the process of dealing with one banker on a continual basis can be detrimental. Sharpe (1990), Rajan (1992) and Boot (2000) all argue that continued relations with one bank could effectively engender a lock in effect. They argue that banks can extract high rents because they have acquired monopoly power with respect to private information about the borrowing firm, leading to both monopolistic borrowing rates and expensive switching costs; and that firms are funded by banks in their early days only so that banks can reap future rents. This is the so-called hold-up problem, and firms with high agency costs find the hold up costs particularly severe.[7,8]

[7] A Recent study by Degryse and Ongena (2005) also adheres to the notion of the presence of hold-up costs. Butler's (2008) results show that unlike commercial banks, investment banks are unable to hold up and exploit borrowing firms, as they are unable to informationally capture firms.

[8] Ongena and Smith (2001) find no evidence of a lock in effect. They find that firms are more likely to leave a relationship with a bank, suggesting that more information is generated early in relationships. It has also been argued that relationships become less valuable where financial markets become more competitive, as the increased competition thwarts financial institutions being able to reap the long-term benefits of assisting the firm (Rajan (1992)).

3.2.3 Reputation Building

Through the timely repayment of debt payments, and having a high level of leverage, firms build up a reputation of being good borrowers.[9] As new firms tend to have larger moral hazard and adverse selection problems than older and larger firms, they gain more from the screening and monitoring services that banks and other financial intermediaries provide. As a result, banking relationships allow firms to amass a reputation, which is required to offset any adverse-selection and moral hazard problems that are fundamental to the issuing in the public debt markets (Slovin, Johnson and Glascock (1992)).[10]

Diamond (1991) explains the choice between bank loans and bonds using the reputation of the borrowing firm, proposing that firms follow a life cycle when borrowing funds from external sources. He proposes a non-monotonic relationship between a firm's credit quality, and the source from which it chooses to borrow. Diamond (1991) argues that firms with the lowest credit quality will choose to issue public debt because they are screened out of the private markets. This is because the benefits of the monitoring services provided by banks are outweighed by the costs of these services. He then argues that that firms will move towards borrowing from banks when they have medium credit ratings, and then revert back to securing funds from the (less expensive) capital

[9] Firms can also build up a reputation by having a high level of leverage because it commits firms to paying large interest payments to lenders. This is because, following Jensen's (1986) free cash flow, managers have less free cash flow to disgorge.

[10] Diamond (1991) also shows that monitoring is not beneficial to low quality/bad firms as low rated firms do not lose much by taking inefficient actions, reputation is unlikely to resolve the moral hazard problem for these firms.

markets when they have built up a reputation. Indeed, a firm is able to borrow more from both public and private sources as its reputation grows.[11]

Diamond (1991) argues that older firms will borrow predominantly from public sources because they will have built up a reputation that they are unwilling to risk by engaging in inefficient investments, which might be detrimental to lenders. Denis and Mihov (2003) illustrate that banks play a special role in providing debt financing to firms with no credit reputation. Firms with higher credit issue public debt, firms with medium level credit ratings issue bank debt, and firms with low or no credit ratings issue non-bank private debt. Denis and Mihov (2003) reason that banks have a comparative advantage in providing debt finance to firms with no or low credit reputation.

Sufi (2007) shows that the life cycle model holds in the case of syndicated loans. Sufi (2007) empirically illustrates that syndicated loans issued to firms with no or modest credit reputations, who thus necessitate bigger supervision, are analogous to loans from individual banks (sole-lender bank loans), where the lead bank retains a larger fraction of the loan. In contrast he illustrates that the ownership of the syndicated loans obtainable by firms with better credit reputations is dispersed in nature.[12]

[11] Although Diamond (1991) illustrates that the existence of bonds and loans are not mutually exclusive, he does not illustrate why single firms would have both public and private debt outstanding.

[12] Sufi (2007) also reports that the reputation of the lead bank has an effect on information asymmetry. He measures the reputation of the lead bank in terms of how much of the syndicated loan the lead bank retains, and finds that the loan is more syndicated, thus dispersed, for issues where the lead bank and borrowing firm have good reputations, than it is for issues where the lead bank and borrowing firm have lesser reputations.

Fama (1985) and, more specifically, Diamond (1991), suggest that bank-lending activities can be seen to endorse firm quality and signal creditworthiness to outside investors because of the certification and monitoring services that banks provide. Borrowing in the private markets is also less expensive as a good reputation helps borrowers secure a lower rate of interest. Datta, Iskandar-Datta, and Patel (1999) illustrate that the at-issue yield spread for new public debt is lower for firms with banking relationships. Indeed, Ongena and Smith (2000) highlight that a good reputation, built upon repayment of loans, ensures that borrowers receive more favourable conditions in future loan contracts.

However Johnson (1997) illustrates that the presence of bank debt is essential with regards to the firm preserving its credit quality. He argues that favourable reputations are imperfect substitutes for monitoring services that banks provide, reporting that firms who have access to public debt markets in the long run frequently continue to use bank debt in order to stay reputable. Graham and Harvey (2001) find that sustaining a good reputation is extremely important to firms.

Chemmanur and Fulghieri (1994) take a different perspective, and model reputation acquired by banks. They argue that banks acquire a reputation for making correct decisions regarding the renegotiation and liquidation of debt contracts because they are long-term players in the debt market. Thus, a good reputation acts as a credible commitment device as banks can show firms that they will put time and resources into assessing them. This should allow for debt renegotiation and liquidation decisions, which are more favourable firms, if they happen to be in financial difficulties.

3.2.4 Number of Banks

Houston and James (1996) propose that firms with high information asymmetries will opt for single (bilateral) banking relationships because they either cannot, or find it particularly expensive to, borrow from either public sources or from multiple banks (via a syndicate). This is because single banks can carry out monitoring in a more efficient manner (Kanatas and Qi (2001)) and because main banks are privy to enhanced information regarding borrowing firms and consequently borrowing firms are more dependent on their main banks in acquiring private credit (Shin and Kolari (2004))

Houston and James (1996), Ongena and Smith (2000) and Detragiache, Garella and Guiso (2000) find that firms who use only one bank tend to be smaller than those that have multiple banking relationships. This ties in with larger firms needing multiple bank relationships, or loans from syndicated banks, because they have financing needs that their main bank cannot provide, due to regulatory limits. Larger firms are also often more complex and thus require several banks to lend to them. Moreover, lenders may want to diversify firm specific credit risk (Allen and Gottesman (2006)).

In the syndicated loan markets, banks use the information that they have accessed via the initial underwriting process – not from previous lending relationships – to stop them lending to low quality firms in the future, as the information gathered during an underwriting agreement gives banks better information regarding a firm's quality (Krishnan (2007)). If a relationship lender is the lead arranger in a syndicate, other lenders in the syndicate will lower the premium they require for joining the syndicate

because relationship lenders are able to pledge to monitor borrowers because they can spend a reduced amount of time and effort in doing so.

Petersen and Rajan (1994) find that firms that borrow from more than one bank are subject to higher rates of interest. If small firms were to follow the cheaper route of borrowing from a single bank, and that bank was to withdraw its credit through no fault of the small firm, unfavourable information would be signalled to the market. This is because the market is unable to identify whether the withdrawal of credit is due to a liquidity problem of the borrowing firm, or a refusal of the lending bank to continue the lending relationship. Thus, to minimise the problems of this, small firms are willing to pay the higher rates of interest. Interestingly, however, a similar increase in borrowing rate is not observed when the borrowing firm increases the number of non-bank institutions that it borrows from (Petersen and Rajan (1994)).

Detragiache et al (2000) observe that firms are likely to continue borrowing from a single bank as their profitability increases. Likewise, Yu, Pennathur and Hsieh (2007) report that firm profitability is eroded by the use of multiple banking relationships through the costs of both dealing with several banks and information disclosure and leakage.

3.3 Agency Theory

Jensen and Meckling (1976) showed that there are conflicting interests between the different contracting parties within a firm – namely shareholders, debt holders and managers. All parties act in a way that is of greatest benefit to them, and know that others will do the same. These problems, known as agency problems, transpire as the result of information asymmetry, because one party knows more than another does. Although the agency costs of issuing equity are mitigated by the issuance of debt, the issuance of debt can initiate a new set of agency problems (Jensen and Meckling (1976)). Within the scope of this study, the major agency problem apparent is that between the debt holders and the borrowing firms.[13] Since Jensen and Meckling's (1976) seminal paper a plethora of literature has examined the characteristics of these conflicts, and how these can be overcome. Financial intermediaries help reduce the agency costs of debt by reducing the extent of information asymmetries between borrowers and lenders, because the monitoring that public lenders carry out is not as good as that of private lenders. Consequently, firms with high agency costs will issue private debt (Smith and Warner (1979), Diamond (1984/1991a), and Berlin and Loeys (1988)).

The asset substitution problem proposed by Jensen and Meckling (1976) is the largest conflict of interest between debt holders and the borrowing firm. Asset substitution, or risk shifting, transpires where firms issue debt for projects that are riskier than claimed. Highly levered firms are more likely to engage in asset substitution due to limited liability; if the project does well, firm value increases and shareholders effectively

[13] Jensen and Meckling (1976) refer to this agency problem as conflicts between debt holders and owner-managers.

expropriate wealth from debt holders, and can enjoy unlimited benefits. However, if the project fails shareholders are no worse off because they have limited liability, and can only lose their initial investment. In contrast debt holders bear most of the costs, witnessing a drop in the value of their claims.

As private debt is typically better monitored, firms are less likely to be able to engage in risk-shifting strategies if they have more private debt outstanding (Huyghebaert and Van de Gucht (2007)). Consequently, firms with enhanced growth opportunities will prefer to borrow from private sources in order to reduce the agency costs of debt. However, although private lenders are expected to monitor borrowers to a much greater extent than public lenders, as private lenders renegotiate the terms of the loan contract on an as required basis, Garven and Pottier (1995) argue that issuers of private debt are in a position to engage in risk shifting strategies. The issuance of public debt signals that firms can be trusted to not engage in asset substitution or strategic default strategies, because they stand to lose their reputation and the benefits that go with enhanced reputations (Detragiache (1994), Bolton and Scharfstein (1996) and Bolton and Frexias (2000)).

The costs of attempting to ensure that differing parties work to the best interests of each other, agency costs, can be direct and indirect in nature. Agency costs also envelop the costs of failing to get opposing parties to work to the best interests of others. Agency costs are not negligible, and as a firm becomes highly geared, they increase in magnitude, lowering the firm's true value (Arnold (2005)). In fact, Jensen and Meckling

(1976) hypothesise that because it is more difficult, and thus expensive, to monitor larger firms, larger firms are subject to higher total agency costs.

Jensen and Meckling (1976) argue that the agency costs associated with debt consist of an opportunity wealth loss engendered by the bearing of debt on investment decisions, monitoring and bonding expenditures by the bondholders and the firm, and bankruptcy and reorganisation costs.

3.3.1 The Opportunity Wealth Loss Engendered by the Bearing of Debt on Investment Decisions

The primary agency cost of debt is the underinvestment problem (Myers (1977)). The underinvestment problem arises where firms miss out on value enhancing investments, and is especially prevalent when firms are under financial duress. The underinvestment problem may occur because of a debt overhang. Myers and Majluf (1984) reason that the existence of information asymmetry between a firm and its lenders may force them to pass up value enhancing investments if they have to issue equity to finance it. This is especially prevalent where managers are privy to superior information than the market. Managers may also forego positive investments because bondholders accrue the benefits of the investment in addition to shareholders, because undertaking the investment facilitates in a wealth transfer from shareholders to debt holders. The wealth transfer arises because value-enhancing investments augment the value of debtholders' claims, due to the firm's boosted operating cash flow. Value-enhancing investments are

foregone where bondholders gain more from the investment than the shareholders of the firm do.

Clearly, firm value is reduced because of passing up value-enhancing investments. One way to mitigate the underinvestment problem is to finance investments with secured debt. Stulz and Johnson (1985) find that the use of secured debt curbs the wealth transfer from shareholders to bondholders, and eases the motivations that shareholders have to forego value-enhancing investments, thus mitigating underinvestment problems.

3.3.2 The Monitoring and Bonding Expenditures by the Bondholders and the Firm

Lenders know that firms will act in the best interests of existing shareholders. To account for this lenders impose restrictive covenants – as a form of monitoring - in their loan contracts and bond indentures to control managerial behaviour that could perhaps lead to their claims being de-valued.[14]

Ultimately, borrowing firms bear the costs of monitoring by means of higher borrowing rates that cover the lender's costs of monitoring.[15] Borrowing firms know this, and try to create mechanisms that help lower the costs of monitoring as much as possible. The costs of creating and sticking to these mechanisms are termed as bonding costs (Jensen and Meckling (1976)).[16]

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[14] An in depth discussion on restrictive covenants is provided in Chapter 3.3.2

[15] The loss of value caused by the inhibition of managerial freedom to act is a further monitoring cost.

[16] One such bonding mechanism is the formation of a relationship with one particular bank. An in-depth discussion on this is provided under relationship banking.

3.3.3 Bankruptcy and Reorganisation Costs

As firms become more highly geared the agency costs of debt increase. A major factor behind this is the presence of bankruptcy and reorganisation costs. If the costs of bankruptcy were negligible, bankrupt firms could continue to function by means of negotiations regarding which claimants are due what. However because the process of bankruptcy is expensive, potential lenders are anxious with bankruptcy costs. Firms under financial distress usually follow an arbitration route, which destroys some of the remaining firm value. This reduces the payoffs to claimants. Revenues and operating costs are also unfavourably impinged upon in the event of the possibility of bankruptcy.[17]

3.3.4 Free Cash Flow

Following the Pecking Order Theory devised by Myers and Majluf (1984), it is beneficial for firms to retain some financial slack so that they can undertake any profitable investment opportunities that may arise without needing to ask for money from the capital markets, either through an issue of debt or an issue of equity. Graham and Harvey (2001) articulate that managers also like to retain some financial slack, with four chief financial officers (CFOs) in their survey highlighting that they maintain financial slack to help stave off any possible liquidity problems in the event of an economic downturn. It has also been argued that because it enhances the assets that they

[17] An in depth discussion on the ease of renegotiation of restrictive covenants is provided in Chapter 3.4.3

have total influence over, managers like to keep a significant free cash flow. However if managers have access to considerable free cash flow, theory suggests that, instead of disgorging it efficiently, for example through the payment of dividends, they may engage in empire building, waste money on entrenching investments and enjoying large perquisites. Jensen (1993) looks at this theoretically, and reports that firms will frequently waste their free cash flow by investing in negative NPV projects.

To reduce the agency problem that arises through the existence of free cash flow, Jensen (1986) suggests that firms should issue debt. Similarly, Stulz (1990) and Dong, Loncarski, Horst and Veld (2008)) argue that debt acts as a bonding/disciplining mechanism for managers. The issuance of debt – which is set ex ante - reduces the cash that managers have under their control, which fosters organisational efficiency through the reduction of managerial incentives to employ empire-building strategies, to benefit from large perquisites and to employ other negative NPV projects. This is because managers have to ensure that they engage in efficient operations, by investing in good investment opportunities, to meet future interest payments. If the firm fails to meet interest payments, debt holders can enforce liquidation, which would result in managers losing their reputations, control and, hence, employment. Jensen's model relies on the existence of a discipliner, such as a creditor, a potential acquirer or the market itself, who will monitor the manager's operations.

Due to the higher agency conflicts that firms with greater free cash flow are subject to, these firms will benefit most from bank monitoring. Many authors have argued that the issuance of private debt reduces the agency problems of debt because private lenders,

particularly banks, are in a better position to monitor and collect information on borrowers. Not only do the regular interest payments reduce the free cash flow available, but also banks generally require borrowers to use their banks for their deposit accounts. This provides banks with extra ability to monitor firm cash inflows and outflows, as well as imposing excess cash covenants which obligates the firm to pay down its bank debt if it has extreme excess cash flow. These facets help to limit overinvestment (which has been posited as the most serious agency problem for investors) and manage managerial slack (Shepherd, Tung and Yoon (2007)). Moreover, banks may also constrain managerial ability to misuse free cash flow by forming security interests in firm assets (Shepherd et al (2007)). Thus, in the presence of free cash flow, firm value is enhanced by the presence of bank monitoring, for a given quality of corporate governance.

Furthermore, the issuance of short-term debt reduces agency problems (Jensen (1986)). This is because managers have to indicate to the lender the use of the funds regularly, which prohibits them from undertaking inefficient investments. Consequently, lenders attain an element of control (Shliefer and Vishny (1997)). Indeed, Hart and Moore (1995) examine the issuers of long-term debt, and discover that the use of long-term debt decreases the firm's access to further outside finance because they are not under the scrutiny of a regular monitor.

3.3.5 Managerial Entrenchment

Managers are sometimes able to use their firms to further their own interests rather than the interests of the firm's shareholders because they have gained so much power.

Novaes and Zingales (1995) illustrate that the efficient choice of debt that is optimal for shareholders usually differs from that optimal for managers who wish to, for example, maximise tenure. Termed as managerial entrenchment this situation arises where firms are incapable of imposing credible disciplinary forces by means of corporate governance and control mechanisms (Stulz (1988)). The lack of a credible discipliner, for example a monitoring bank, presents managers with the opportunity of making manager-specific investments, such as extorting generous salaries and perquisites, gaining superior scope and influence in shaping firm strategy, and lowering the possibility that the firm will replace them in the future. Older firms are more likely to have entrenched managers (Kose and Litov (2010)).

Zwiebel (1996), unlike Jensen (1986) who examines static theories of capital structure, arguing that discipliners only come into force when it is essential that they do so, examines capital structure within a dynamic framework and cultivates a moral hazard model in which entrenchment is ascertained endogenously. Within this model managers voluntarily issue debt to restrain future empire building, and the possibility of hostile takeover bids, to retain control of their firm. The model predicts that management will have higher levels of leverage as they become more entrenched, that is as their term of management increases to constrain their empire building. Kose and Litov (2010) and Jiraporn and Gleason (2007) provide empirical support of this.[18]

[18] Kose and Litov (2010) report an inverse relationship between a firm's levels of corporate governance and leverage, finding high levels of debt in managerially entrenched firms. Conversely, firms with weak shareholder rights, have lower levels of leverage. Kose and Litov (2010) also posits that since firms are typically safer if they have entrenched management, they will simply trade-off the higher bankruptcy costs consistent with higher levels of leverage, with the benefits of the tax shields.

Entrenched managers are afforded discretion over their firms' choice of capital structure due to their good reputations, and prefer lower levels of gearing (Zwiebel (1996)). Zwiebel (1996) contends that as debt is only issued when managers deem it necessary – perhaps because they wish to signify their dedication to maximise shareholder wealth, in addition to preventing challenges to their control by means of a takeover threat – then it is in essence ineffective in monitoring managerial behaviour. Novaes (2002) also observes that the threat of losing control engenders managers to increase leverage.[19]

As managers become more entrenched firm value falls (Bebchuk, Cohen and Ferrell (2009)). Thus, to circumvent the possibility of being taken over, Jensen (1986/1993) proposes that where managerial entrenchment is most severe, managers may have to issue private, monitored, debt if they require external funding. However, Zwiebel (1996) contends that Jensen's (1986) free cash flow theory only holds where there are credible corporate governance or other disciplinary mechanisms present that compels managers to issue debt. Thus, he argues that if managers are entrenched, thus are unanswerable to a discipliner, they will avoid the use of debt. Other reasons proposed for the evasion of debt are that managers will be imparted with lower future control benefits if they have high levels of gearing, that managers want to look after their undiversified human capital

[19] Novaes (2002) also argues that an increase in leverage signals to the market that managers are of a low quality, thus enhancing the probability that managers will lose their control, and be replaced. Likewise, if firms only increase leverage when the manager chooses to, presumably due to a run of poor performance – it appears that debt is only effective in disciplining management who may perhaps be under some pressure (Denis and Mihov (2003)). However an opposing line of thought is that as firms with high levels of leverage have to disgorge lots of cash through interest payments (Jensen (1986)), entrenched managers may decide to opt for a less than optimal level of leverage to evade the demands of meeting the interest and other debt obligation (Jiraporn and Lui (2008)).

and because large interest payments can impart pressure upon them (Zwiebel (1996) and Berger, Ofek and Yermack (1997)).

Berger et al (1997) find evidence consistent with firms which have entrenched managers having lower levels of leverage, reporting that leverage is reduced where managers are not enforced by a credible discipliner to monitor the firm. They report a positive relationship between leverage and stock ownership, stock options, the presence of a large block holder, and the presence of outside directors on the board, and a negative relationship between gearing and tenure in office, and board size.

Thus, Zweibel (1996) argues that the benefit of private debt lies in its capability of hindering managers from undertaking projects that are detrimental to both shareholders and debtholders, and heighten the risk of bankruptcy, compelling managers to work in an efficient manner. However, Zwiebel (1996) points out three caveats; firstly, as debt increases, it loses its ability to constrain managers, secondly, if managers act inefficiently, they will face the risk of a hostile takeover bid and, lastly, to instigate a takeover, the levels of inefficiency would have to be fairly high in nature.

3.4 Transactions Costs

3.4.1 Issue Costs

The decision to issue public debt or private debt is influenced by the issuance costs. Firms issuing debt finance need to take heed of two separate components; the flotation costs of issuing debt, and the interest rate payable on the debt. Flotation costs include investment banker fees, underwriting fees, regulatory and listing fees, legal fees, advertising and filing fees. Many of these flotation costs are fixed and consequently deter smaller firms from issuing in the public markets, driving them towards borrowing from private sources until they are in a position to issue a large volume of public debt.

Carey et al (1993) argue that firms will decide to issue either public debt or private debt depending upon the market that has the lowest transactions costs in order to reduce the costs of borrowing debt. They find that the flotation costs for private placements are approximately 50% lower than those for public issues of debt.[20] Underwriting fees account for the majority of the fixed issuance costs, and are lower for private debt than public issuances. Blackwell and Kidwell (1988) find that it costs on average 132 basis points more to borrow from the public markets than the private markets for non switch hitters – i.e. firms who tend to always issue private debt.[21]

[20] Carey et al (1993) illustrate that smaller firms are able to borrow from banks at lower rates because the bank debt is a safer security than privately placed debt.

[21] Although the fixed costs inherent within private issuances of debt are smaller than those found in public issuances, these costs can be significant for small issues of private debt (Carey et al. (1993)).

The size of issue is an important factor in a firm's choice between issuing public and private debt (Shapiro and Wolf (1974)). Due to the higher fixed costs associated with public issues the public debt markets are more suitable for larger issues because of economies of scale. It is more cost effective for them to produce the enhanced information that the issuance of public debt requires because they are able to spread the larger information disclosure costs over a larger volume of debt (Fama (1985)). Small firms find it prohibitively expensive to issue public debt because the high costs of information production required for public issuances outweigh the lower public interest rates. Carey et al (1993) find that the cost of debt issuance falls rapidly with firm size. They document that because issues of debt below the $100m mark are cost-ineffective in the public markets, firms issuing small amounts of debt have to borrow from banks and non-bank sources. Bharath et al (2008) and Butler (2008) show that larger issues are subject to lower gross spreads, due to economies of scale in loan origination and monitoring. Antoniou, Guney and Paudyal (2008) argue that smaller firms are likely to borrow from banks to evade the diseconomies of scale that they would be subject to by issuing public debt.

Esho, Lam and Sharpe (2001) observe that large fixed transactions costs can be alleviated by issuing large volumes of public debt, and by issuing this debt long term because lengthening the maturity of a debt issue allows for the fixed costs of issuance to be spread over a longer period. Borrowers may, however, be put off borrowing long

term debt because interest rates on longer term debt are typically greater.[22] The lower fixed costs associated with bank finance may mean that smaller firms borrow more short-term debt (Titman and Wessels (1988)).

Yet, despite smaller firms preferring to issue private debt due to flotation costs, Johnson (1997) argues that smaller firms will issue some public debt if they can where the problems of asset substitution are considerable. Akin to this, Detragiache (1994) argues that although public issues of debt are cheaper for larger firms, larger firms require some bank debt because they require bank monitoring to be able to borrow from both the public debt and commercial paper markets. This is usually in the form of unused lines of credit (Gertler and Gilchrist (1994)). In fact, the proportion of private debt outweighs public debt, despite bond financing being less expensive than bank loans.

The interest rates on private placements and public bonds tend to be fixed, whereas the interest rate on bank debt is typically floating. It is more expensive to borrow from banks than from public sources, as banks actively engage in costly monitoring because their borrowers are usually those with riskier characteristics (and the costs of this monitoring is passed back to borrowers by means of higher borrowing rates (Gopalan, Udell and Yeramilli (2007)).[23] Debt is more expensive for firms with high agency

[22] Longer-term debt is typically subject to greater interest rates because lenders believe that long-term debt is riskier than short-term debt, and consequently they require that borrowers pay an additional risk premium to compensate them for the higher risk.

[23] However, compared to public lenders, banks, due to their advantage in monitoring and information production can offer firms with higher information costs, lower interest rates when borrowing (Rajan (1992)).

conflicts between shareholders and bondholders because debt holders require a larger premium where the agency costs are greater (Krishnaswami, Spindt, Subramaniam (1999)). Conversely, firms enjoy lower interest rates on public debt as they do not require to be monitored. Nevertheless, public debt is more expensive than monitored private debt for risky firms because these firms have greater moral hazard problems as they have a higher propensity either to under invest or to engage in asset substitution (Krishnaswami et al (1999)). Although banks charge higher borrowing rates, firms enjoy lower borrowing rates if they have elongated banking relationships. Datta et al (1999) report that firms with banking relationships enjoy lower at-issue yield spreads on external debt and Santos and Winton (2008) find that banks charge lower interest rate spreads to firms in which they hold a voting stake.

Wolf (1972) argues that since in terms of interest rates it is more expensive to borrow private debt, further increases in interest rates will deter borrowers from borrowing from the private debt markets. However, Diamond (1991) argues that when interest rates are high, or when economy wide profitability is low, firms will borrow more from banks than they do by means of commercial paper because they require greater monitoring which banks are able to provide. It also becomes more expensive to borrow from the public debt markets as interest rate volatility increases. Blackwell and Kidwell (1988) observe that public debt is on average 11 basis points more expensive than private debt when interest rates are somewhat volatile, due to prohibitive search costs.[24]

[24] When interest rates are less volatile, it is plausible that because search costs become lower that it becomes less expensive to borrow publicly.

Smith and Warner (1979) and Houston and James (1996) argue that the greater interest costs of private debt are more than outweighed by the benefits of private borrowing because private debt helps to overcome both adverse selection and moral hazard problems. Consequently, firms are more acquiescent to paying more to borrow from the private markets than the public markets with respect to debt of equal risk because of the benefits that borrowing firms receive from borrowing from private sources.

Fama (1985) proposes that the cross-monitoring taking place between private lenders and public bondholders is complementary in nature. The monitoring services that banks and other non-bank sources perform lowers the cost of issuing public debt because public lenders can be sure that they are lending to creditworthy borrowers, and thus charge them lower interest rates. It appears that banking relationships lower the cost of issuing publicly. Datta et al (1999) report that the yield spreads are about 68 basis points lower for firms borrowing from the public markets for the first time if they have bank debt outstanding, and Steffen (2008b) report that the yield spreads are about 30 basis points lower for firms borrowing from the public markets for the first time if they have bank debt outstanding. Firms with no prior access to public bond markets find it more expensive to borrow in times of recession, with banks placing higher interest rates on their debt (Santos and Winton (2008)). Firms that have previously borrowed publicly are

also subject to higher interest rates during recessions, but they do not seem to rise by as much.

3.4.2. Restrictive Covenants

Despite the various advantages that debt renders in an agency context, lenders understand that an increase in leverage can amplify debt-related agency costs and consequently include covenants within debt contracts to provide them with a certain degree of control over borrowers. Loans taken out by firms who are subject to a greater amount of information asymmetry are subject to more and tighter covenants, with financial covenants being more often present for lower-quality issuers. Typically, the restrictions placed in debt contracts are easily measured and monitored, and include limits on debt levels, investment levels, dividend levels, and financial requirements such as current ratios and acid tests which are symptomatic of the firm's financial well-being. Berlin and Mester (1992) argue that covenants ought to be established upon information that is known to both the borrower and the lender.[25]

Loan contracts from different lenders include different covenant provisions. Public debt contracts tend to be standardised contracts, in which the debt is offered to the public on what is essentially a take it or leave it basis. In contrast, private debt contracts tend to be

[25] There are essentially three different types of covenants, affirmative covenants, negative covenants and financial covenants See Carey et al (1993) for an in-depth discussion of the different types of covenants. The covenants included in bank loan agreements tend only be maintenance covenants. Maintenance covenants require that the borrower meets its obligations on a regular basis. Debt issued to highly rated firms tend not to be constrained by the inclusion of financial covenants, unless they have a long term to maturity (usually exceeding seven years), where they tend to include a debt ratio (Carey et al (1993)).

custom-built to adapt to the borrowers needs because there tends to be a close relationship between private lenders and borrowers (Leftwich (1983) and Carey et al (1993)). For firms with similar risk characteristics a typical private loan contract has a greater number of (and tighter) restrictive covenants built into it, than public debt (Carey et al (1993)). Gilson and Warner (1998) find that nearly all (97%) of bank loans include a covenant which places restrictions on capital structure/expenditures or future investments, and Kwan and Carleton (2004) similarly report that 90% of private placements have call provisions in comparison to only 40% of public issues.[26] Over the last decade or so the use of restrictive covenants within private borrowing agreements has significantly increased, whereas in comparison, the use of covenants within public debt contracts has fallen (Bradley and Roberts (2004)). Assender, Beaty and Weber (2005) examine the structure of syndicated loans and find that syndicated loans typically have a vast amount of restrictive covenants to give lenders a certain degree of power over the borrowers. It is extremely uncommon to see private placements without restrictive covenants because their default risk is much higher than that of public bondholders because issuers of non-bank private debt have been found to be the riskiest borrowers (Denis and Mihov (2003)). Looking at the distinction between bank debt and non-bank private debt contracts, Carey et al (1993) observe that non-bank private loan contracts tend to have less restrictive covenants within the loan contract.

[26] Kwan and Carleton (2004) argue that this result is sensible as the call feature allows firms subject to greater restrictive covenants to obtain some respite from the imposed covenants. This result is consistent with Thatcher (1985) who reports that callable bonds are more likely to be issued by firms with large agency costs of debt. The reason for this is that call provisions help in alleviating agency conflicts between borrowers and lenders.

Restrictive covenants are both advantageous and disadvantageous. One advantage of covenants is that they can increase both the value of the borrowing firm and its operating performance, as the covenants prohibit borrowing firms from engaging in (inefficient) risk-shifting strategies, which reduces agency costs (Jensen and Meckling (1976), Fama (1985), Jensen (1986), Diamond (1991) and Nini, Smith and Sufi (2007)).[27] Moreover, restrictive covenants are also beneficial to the issuer - if the borrower breaches the covenant restrictions lenders are able to call the loans. This is especially the case with so-called positive covenants found in private debt agreements.

However, the inclusion of tight restrictive covenants may lead to possible underinvestment as firms are unable to invest in value-enhancing projects (Smith and Warner (1979), Berlin and Loeys (1988), and Barclay, Smith and Watts (1995)).[28] In fact, Diamond (1991) contends that firms issue public debt because of the inflexibility of bank debt. Finally, the costs of writing and enforcing such contracts are not trivial, for neither borrowers nor lenders. The inclusion of covenants necessitates that managers spend time ensuring that they are not breaching their covenants, and lenders have to monitor the borrowers to ensure that they are not breaching the covenants. In addition, if required, renegotiation of covenants can be time-consuming.

[27] Covenants, however, cannot eliminate moral hazard problems only reduce them.

[28] Smith and Warner also argue that the inclusion of (tight) restrictive covenants can reduce the underinvestment problem ex post the debt issue - because firms have to abide to a specific debt ratio, they should be in a position which allows them to undertake projects with a positive net present value, which should increase firm value.

The inclusion of tight covenants, which are typical of private debt contracts, suggests that only riskier firms will borrow from private sources. Firms that reap the greatest benefits from the inclusion of covenants in their loan contracts are those that are small, highly leveraged have volatile earnings and have only a handful of tangible assets (Bradley and Roberts (2004) and Demiroglu and James (2007)). In other words, firms with high agency costs of debt enjoy greater benefits from the inclusion of covenants. Firms are more likely to include financial covenants if they are more prone to financial distress, in order to restrict additional borrowing (Begley (1994)). Although firms with a higher probability of financial distress agree to the tight restrictions that private borrowers stipulate, these firms are unlikely to agree to restrictions regarding asset sales and investment activities. This implies that firms are wary of including covenants that they believe may be damaging to their long-run existence.[29] Consistent with managers wishing to avoid underinvestment, Graham and Harvey (2001) observe that firms are greatly concerned with financial flexibility when issuing debt, and thus will opt for contracts that are subject to fewer constraints.

The amount and strength of the restrictions imposed by banks and other financial lenders depends on the quality of the issuing firm.[30] Riskier firms are subject to tighter restrictive covenants than those firms that suffer less from information asymmetry, and

[29] Where borrowers foresee that lenders will not insist on the covenant terms being adhered to, they are willing to agree to covenants within their loan contract because the costs of not adhering to the covenants are low. As a result if managers perceive that the firm will benefit from reneging on the covenants, the benefits obtained will overshadow the costs of actually reneging on the covenants in place.

[30] The economic welfare of the market itself also has an impact on the inclusion of covenants, with increased covenant provisions within recessions and at periods with large credit spreads (Bradley and Roberts (2004))

who are less likely to follow risk-shifting strategies because they are expected to perform worse than firms of lower risk (Bradley and Roberts (2004), Booth and Booth (2006), Demiroglu and James (2007)). As public debt tends to be subject to lesser constraints, which provides them with increased discretion, less risky firms will choose to issue this form of debt. Firms prefer public bonds because they have covenants that are more moderate where the project that they are borrowing for has low liquidation values (Berlin and Loeys (1988)). The flip side is that firms prefer to borrow debt from private sources where the liquidation value is high because the acute covenants within private debt contracts is more valuable where projects have a high liquidation value.

Thus the inclusion of covenants appears to act as a signalling device to the market with regards to a firm's quality (Chan and Kanatas (1985) and Besanko and Thakor (1987)). They contend that higher quality borrowers will opt for loan contracts intrinsic with a greater amount of covenants because the addition of covenants credibly convey that firms are of a certain quality and, as a result, leads to lower borrowing costs. However, Demiroglu and James (2007) report that the relationship between announcement returns and the amount of covenants is significantly negative, implying that the market observes the inclusion of a vast amount of covenants as a negative indicator of firm quality.

3.4.3 Ease of Renegotiation

When firms breach the set covenants, instead of calling the loan and effectively liquidating the borrowing firm, lenders more often than not opt to engage in renegotiating the terms of the original contract (Smith (1993)). A firm's choice between

public and private sources of debt may hinge upon the renegotiability of the debt (Wolf (1972)). Many studies have expressed that compared to public sources of debt, debt from private sources is more flexible, and thus more easily renegotiated, because of the way that it is structured (Bolton and Scharfstein (1996), Bradley and Roberts (2004), Allen and Gottesman (2006) and Altunbas, Kara and Marques-Ibanez (2006), the latter of whom examines syndicated loans).

Private debt is more easily renegotiated than public debt to meet the particular needs of individual borrowing firms because it is closely held. Either a single lender or a syndicate of lenders who are better informed about the borrowing firm's continuation value can be easily contacted if renegotiation is required, and thus it is easier to reach a consensus (Gertner and Scharfstein (1991) and Rajan (1992)). In fact, despite the harsher covenants in private debt contracts, borrowing firms are willing to borrow from these sources, as they know that these contracts can be easily and inexpensively renegotiated if required over the length of the contract. Thus, private debt is less likely to engender underinvestment problems as the renegotiation aspect of private loan contracts enables borrowers to undertake projects that they might have had to refuse if undertaking the projects contravened the covenant restrictions (Berlin and Mester (1992)). Bharath, Sunder and Sunder (2008) express that renegotiation of unconfined covenants found in public debt contracts are more expensive as they are more likely to lead to cutbacks in investment expenditure or bankruptcy than renegotiations of tight covenants.

Chemmanur and Fulghieri (1994) and Bolton and Frexias (2000), have shown that it is less expensive to renegotiate debt which is owed to either one, or, at most, a few debt holders. The ease of renegotiation presented through private debt financing can potentially lower the cost of private borrowing, perhaps to such an extent that it is cheaper than borrowing from public lenders. Because of this, Smith and Warner (1979) illustrate that private debt is negotiated on a regular basis, whereas this is not the case for issues of public debt. Carey et al (1993) examine the frequency in which issues of debt are renegotiated. They find that the vast majority of privately placed debt is found to be renegotiated at least once, with bank loans being renegotiated on a more habitual basis. Similarly, Kwan and Carleton (1993) observe that nearly half (47%) of private placements in their sample were renegotiated at least once during the life of the contract. This is because covenants in private debt, especially that from banks, are usually tight in nature, and thus little divergence is needed for banks to need to ask for alterations to the incumbent debt contract.

One of the greatest benefits of borrowing from private sources – particularly banks - is that loan contract renegotiation is efficient, fast, cheap and easy, because the relationship built up between the firm and its bank presents the lender with thorough knowledge of the firm's future prospects. In addition, the renegotiation process is enhanced because banks and other private lenders monitor the borrowing firm continuously and thus can see and help to rectify any problem as they emerge. Consequently, private lenders are in a better position either to help the firm by renegotiating or to liquidate the firm when the firm is in a bad way (Berlin and Mester (1992) and Rajan (1992)). In fact, Kwan and

Carleton (2004) state that a constitutive element of loan monitoring comes from the information transposed between borrowers and lenders throughout the renegotiation of private placement bonds.

On the other hand, the diverse ownership of public debt offerings means that they are typically subject to standardised terms which do not vary depending on individual borrowing firms and are inherently difficult, and expensive, to renegotiate if required because of the full collateralisation aspect of public debt (Hege and Mella-Barral (2005)). Additionally, if renegotiation is required, there are information problems because public debt holders are at arm's length, and thus tend only to have public information regarding the firm's prospects. Moreover, renegotiation is more problematic because it is harder to reach a consensus. Two-thirds of public debt holders have to authorise alternations to the original covenant requirements (Smith and Warner (1979)), and getting such a large proportion of debt holders to do so may be problematic, and it is both time consuming and costly. Moreover, the use of public debt can heighten the problems of underinvestment and asset substitution as firms may be unable to borrow more because public debt is less flexible (Berlin and Loeys (1988)). This is why public debt tends to only have a few covenants, which should be easily adhered to (Blackwell and Kidwell (1988)), and Carey et al (1993)). When restrictive covenants are violated in a syndicate, akin to public debt, two-thirds of syndicate members have to agree to any renegotiations. However, where details such as maturity or interest rates are being renegotiated, unamity is required. Although they are more difficult to renegotiate than

single banking relationships, syndicated loans are easier to renegotiate than public debt because there are only a handful of lenders that need to reach a consensus. They are also more easily liquidated (Altunbas et al (2006)).

Although the multiplicity of public lenders makes public debt less easily renegotiable, the difficulty of renegotiation inherent with public debt may actually be construed as being advantageous (Berlin and Mester (1992)). For instance, managers are spurred towards ensuring that the firm does not intentionally default on the contract terms because default may lead to liquidation. This is because it is more difficult to get multiple lenders to reach a consensus over new contract terms. However, technical default is common within private debt contracts – both bank and non-bank private – and, as a result there is frequent renegotiation of these types of contracts. Furthermore, even though the renegotiation of private debt is less expensive than that of public debt, the renegotiation aspect of private debt is not complimentary as borrowing firms bear the intermediation costs of bank debt. Davydenko and Strebulaev (2007) report that the easier the renegotiability of debt contracts, the higher the yield on the loans. This suggests that the need of renegotiation could lead to loans being more expensive in the future. Rajan (1992) argues that the hold-up costs of relationship banking make renegotiation of private debt more expensive as banks have gained bargaining power over the firm.

3.4.4 Disclosure Requirements

A borrower's choice of financing source is in part determined by the information costs involved in borrowing. To induce the market to purchase public debt, public issues of debt require that a substantial amount of private, and often sensitive, information be disclosed to the market. However, the high costs of information disclosure that public debt warrants may reduce firm value through the loss of comparative advantage relative to rivals. Not only is the information transmitted to potential investors, it is also transmitted to third parties such as competitor firms. As competitor firms will learn valuable proprietary information regarding firm prospects and projects about to be undertaken, borrowing firms may lose their comparative advantage, which makes it particularly expensive to borrow from public sources (Yosha (1995) and Baber and Gore (2008)).[31]

To maintain a competitive advantage, Bhattacharya and Chiesa (1995) argue that firms will prefer to borrow from private sources as this method reduces the dissemination of proprietary information as information need only be disclosed to the lending bank or financial institution. Since firms are only contracting with a single, or at most a few banks or financial intermediaries if it is a syndicated loan, with private lending they are more likely to provide lenders with information that it would not have disclosed to the financial markets in case of information leakage to competitors without worrying that they are going to lose their comparative advantage (Boot (2000)). In fact, Benston and

[31] However, Yosha (1995) predicts that competitors will realise that the choice of private debt insinuates that borrowing firms are trying to keep high quality projects under wraps, and thus they will respond in a competitive manner.

Smith (1976) argue that firms are more willing to provide banks with private information during both contract renegotiations and over the maturity of the debt agreement because they assume a duty of confidentiality. A benefit of this is that by giving banks and other financial intermediaries' enhanced information, the borrowing firms appear to benefit by enjoying lower borrowing rates (Mazumdar and Sengupta (2005)).

3.4.5 Issue Time

Fenn (2000) reasons that the motivating rationale behind the choice of private debt is its swift issuance in comparison to public debt. As private debt is typically either placed with either one or a small number of lenders, it is much quicker to arrange than public issues. In fact, private debt can be arranged within a few hours. Consequently, firms will borrow from banks if they require debt finance promptly. Gilson and Warner (1998) report that banks are able to lend at short notices because they typically have had relationships with borrowers in the past and because of this do not need to engage in rigorous screening and due diligence processes. Banks are also in a position to lend more quickly when credit market spreads appear to be unattractive because they conduct their lending via loan commitments (James and Smith (2000) and Hadlock and James (2002)). Looking at the distinction between public and private debt, Denis and Mihov (2003) observe that firms who require speedier issuance are those who issue non-bank private debt, because issuers of non bank private debt are of a low credit quality and thus suffer most from the likelihood of costly, inefficient default.

3.5 Taxes

Miller and Modigliani (1958) argue that in a world without taxes, firm value is unrelated to the volume of debt issued. However, Miller and Modigliani (1963) realise that the assumption of no taxes is too extreme and provide a corrected model, which takes into account the presence of corporate taxes. They argue that firm value has a positive association to the amount of debt that it has issued. That is, the use of debt financing over equity financing is promoted through interest tax shields as the tax shield reduces the cost of a firm's debt capital, and increases firm value by the present value of the tax shield.[32]

No study has appeared to consider whether the source of the debt has an effect on taxes. However, Hackbarth, Hennessy and Leland (2007) illustrate that firms can only enjoy the level of tax shield savings that they aspire to by employing bank debt (where the bank holds all ex post bargaining power) because bank debt has lower bankruptcy costs. However, they also state that the use of public debt can only further enhance the tax shield benefits offered by private debt because public debt provides tax shield benefits that are not possible with just private (bank) debt.

Brick and Ravid (1985) examine the effect of taxes on debt maturity. They find that firms are more likely to issue debt of a longer maturity where the term structure of interest rates is rising. This is because long-term debt increases the present value of the tax benefits of debt if the term structure of interest rates is increasing. This in turn,

[32] A notable piece of literature which disagrees with the positive hype surrounding interest tax shields is Miller (1977). Miller postulates that the savings that firms enjoy from the interest tax shield are offset by personal taxes on interest that shareholders are subject to.

reduces tax liabilities, increases firm value, and may help facilitate firms to enjoy the maximum possible benefits of debt. Barclay and Smith (1995) state that firms should issue secured debt less frequently if they are subject to higher tax rates.

3.6 Market Efficiency

3.6.1 Market Timing

The market-timing concept proposes that firms do not have specific target debt ratios, but choose to issue securities at particular points in time. Market timing can mean one of two things (Butler, Grullon and Weston (2006)); it refers either to managers attempting to forecast future price adjustments, or to managers attempting to time the market, using current and/or past information. The sole purpose of market timing with regard to debt financing is to take account and advantage of the volatility of interest rates by alternating between long-term and short-term debt, and between different sources of debt, to enjoy the lowest risk-adjusted cost of debt.

Early work by Bosworth (1971), Taggart (1977), and Marsh (1982) highlights that interest rates and other debt market conditions impinge upon the debt maturity that firms choose. Taggart (1977) displays that firms will time their long-term debt issues with regards to interest rates, and also that short-term movements in share prices could have an impact on when firms issue bonds. For example, debt finance from banks is easily accessible, but the interest payable on bank loans is difficult to fix. In contrast, the interest payable on bond issues is fixed, but these issues take longer to organise. Thus, the market timing theory contends that if interest rates are expected to fall, firms will issue floating rate debt from banks, but raise capital via the bond markets if the interest rate is expected to rise in the future to maintain the cheaper rates of interest that they are paying.

Graham and Harvey (2001) provide strong evidence of firms following market-timing strategies when issuing debt. In their survey, chief financial officers (CFOs) openly admit to attempting to time their debt issues by issuing when market interest rates are low, which has been termed as backward looking market timing. In addition, CFOs will also use forward looking market timing strategies if they suspect that market interest rates will decline in the future by issuing short-term debt initially, prior to issuing long-term debt when the market interest rates fall in the future. Furthermore, Graham and Harvey (2001) observe that CFOs will issue short-term debt if they deem that long-rates are high relative to short-term rates. Bancel and Mittoo (2004) provide complementary results in their survey of European financial managers, observing that nearly half of managers attempt to use 'windows of opportunity' when issuing debt.

3.6.2 Managerial Agreement

Dittmar and Thakor (2007) counter the widespread view of firms following market-timing strategies when issuing securities. They contend that since the market timing theory is dependent on both managers being able to perfectly time the market and investors being unaware of this strategy, it is an imperfect theory. Although they do not refute that firms issue debt when their share price is low, Dittmar and Thakor (2007) express that firms do not issue debt (equity) when share prices are low (high), because the share prices are low (high) per se, but because it is at this time that shareholders are in conflict (agreement) with past managerial decisions. Thus, shareholders are less (more) likely to give approval to present and future managerial decisions, not because

they wish to take advantage of mispricing. Consequently, a firm's choice between issuing debt and equity can be explained by the extent of agreement between managers and investors. Asymmetric information and diverse views leads to disagreement between managers and investors.

Debt holders may disagree with managerial investment decisions because they have different objectives from managers (i.e. want projects with low risk, not those that may have greater shareholder value) or because they deem that the manager is wrong in his estimation of project value. Combined, these disagreements make debt financing expensive. To try to reduce the magnitude of such disagreements firms may find it beneficial to issue private debt. Private debt would be preferred as it tends to include restrictive covenants and reduce information asymmetry through a close borrowing relationship. For example, firms may bind themselves to accepting projects that are not detrimental to bondholder wealth, thus accepting those that may cause disagreement. As yet, a firm's choice between issuing different sources of debt finance has not been empirically tested. This, however, falls out with the scope of this thesis.

3.7 Concluding Remarks

The chapter has provided a summary of the key research that underpins the theoretical framework of a company's choice of debt source. To fully summarise these would be a thesis in itself, so what has been provided here is a discussion on the various theories that lie behind firms' preferences, namely information asymmetry, agency costs, transactions costs, taxes and market efficiency in relation to the choice of debt source. The theoretical literature highlights that the level of a firm's information asymmetry has an effect upon the source of debt that it chooses to issue, and similarly that the magnitude of a borrowing firm's agency conflicts have an impact upon the source of debt that it chooses to issue. The theoretical literature also highlights that the transactions costs inherent with each different source of debt also play a significant role when firms are choosing between different sources of debt finance. Tax and market efficiency considerations appear to be less important when firms are deciding where to obtain their debt finance from.

Taken as one, the theoretical models highlight the monitoring services which private lenders, specifically banks, offer, because it lowers information asymmetries and agency conflicts between borrowers and lenders, is extremely beneficial to both the borrowing firms, and lenders. Consequently, the theoretical models predict a negative relationship between the issuance of private debt and firm size, project quality, reputation, monitoring costs, liquidation value and risk shifting. Conversely, they predict a positive relationship between the issuance of private debt and the issuing firm's credit risk, level of leverage and project liquidation value.

CHAPTER 4: DATA

4.1 Introduction

This chapter provides an outline of the data sample used in the forthcoming empirical analysis. The chapter begins with a discussion of the sample construction before moving on to provide definitions of the variables used within the empirical analysis. The final purpose of this chapter is to provide a summary of the sample descriptive statistics.

The remainder of this chapter is structured as follows. Section 4.1 describes the construction of the sample. Section 4.2 provides definitions of the different variables used within the analysis. Section 4.3 provides a description of the sample descriptive statistics. Finally, section 4.4 provides a summary of this chapter.

4.2 Sample Construction

The data used in this thesis tracks announcements of issuances of straight corporate debt for all 385 companies listed on the FTSE 350 index of the London Stock Exchange (LSE) between 2001 and 2008, with the exception of financial firms and utility firms for regulatory reasons. Financials and utilities tend to have a significantly different capital structures than other firms due to the regulations that they are subject to, and the fundamental differences in the business economics of these industries. Moreover, as discussed by Crum (1934), the inclusion of financials would involve considerable duplications because an important part of their assets is composed of securities of other companies.

To avoid for survivorship bias by allowing new firms to enter the sample, and old ones to drop out as they become delisted, once a firm enters the FTSE 350 index, it stays in the sample until the end of the sample period, even if it subsequently drops out of the FTSE 350, and is included for the full sample period. Firms only leave the sample if they delist – due to, for example, bankruptcy or takeover. For example, if a firm enters the FTSE 350 index in 2004, it is included in the sample between 2001 and 2008, inclusive. Similarly, if a firm is in the FTSE 350 in 2001, but falls out in 2003, it is also included for the full sample period 2001 to 2008. This approach also allows for inclusion of new firms whose capital structure decisions may not be the same as those of established firms.

For the sample firms, a series of secondary sources, comprising hand collected searches of Nexis, Thomson One Banker, the Regulatory News Service, company annual reports

and DataStream, are used to source announcements of issuances of public debt, bank debt and non-bank private debt. Following Hadlock and James (2002), the following list of keywords are employed to search for articles on debt issues sourced from Nexis: "line of credit," "loan agreement," "bank loan," "credit agreement," "credit line," "credit facility," "credit extension," "new loan," "loan renewal," "loan revision," "loan extension," "term loan," " debt issue," "debt offer," "public debt issue," and "public debt offer." Additionally, to augment the sample, the following keywords are also employed: "bond," "bond issue," "debt notes," "line of credit," "loan facility," "working capital facility," "private placement," and "overdraft." Announcements of convertible debt, warrants, and other hybrid debt, are not collected. Company annual reports are hand collected from Thomson Research which hosts PDF copies of company annual reports, and where annual reports were not available on Thomson Research they were obtained by contacting the companies in question if they were still in existence.

Table 4.1 presents the distribution of the number of sample firms – both issuing and non-issuing – in each sample year, and highlights that there are 2491 firm year observations, comprising 734 firm year observations of issuing firms and 1757 firm year observations of non issuing firms. Table 4.2 presents the distribution of the sample of announcements of issuances of debt by type of announcement. There are 1091 individual announcements of debt, comprising 333 announcements of public debt (30.52%), 606 issues of bank debt (55.55%) and 152 issues of non-bank private debt (13.93%).[33] Panel

[33] Appendices 4A, 4B and 4C provide an example of the press releases of announcements of issuances of public, bank and non-bank private debt, respectively, collected from Nexis.

B of Table 4.2 presents the distribution of the sample of announcements of issuances of bank debt by type; syndicated and bilateral. A bilateral loan is a loan provided by an individual lender to a single borrower. Broadly, bilateral loans can take one of the following forms; overdraft, term loan or revolving credit facility. A syndicated loan is a loan made to a single borrower by a group (syndicate) of lending banks (and/or financial institutions). Within the syndicate, one lender is appointed as the lead arranger, and this lender structures, arranges and administers the loan. Both term loan facilities and revolving credit facilities are commonly syndicated. The vast majority of loans, in this sample 521, are syndicated (85.97%), and the remaining 85 bilateral (14.03%). Given that bilateral loans are agreements between only the borrowing company and the lending bank these are less reported in the press, leading to a disparity in the sample sizes of bilateral loans and syndicated loans.

One point regarding the sample collation worth discussing concerns the distinction between bank and non-bank private debt. Following the approach of Johnson (1997), announcements of issuances of private debt are classified as being announcements of bank debt only where it is explicitly clear that the issuance is of bank debt; issuances of private debt which are not explicitly identified as being bank debt are classed as announcements of non-bank private debt, as are private placements of debt.[34]

[34] One problem with this approach is that it may understate the use of bank debt, and that it equally may overstate the importance of non-bank private debt. However, it appears that since 80% of sample private debt announcements were classed as bank debt that this categorisation is not likely to have had a sizeable impact.

Table 4.3 presents an analysis of the distribution of announcements of issuances of debt obtained from the sources employed, indicating how many issuances of each source of debt companies made throughout the sample period. Searches indicate that more than two-thirds (69.09%) of sample firms do not issue public debt, and more than three-quarters (76.62%) of sample firms do not issue non-bank private debt. However, only 41% of sample firms do not issue bank debt. With few exceptions for issues of public debt – which are driven by the largest companies in the sample – sample firms tend only to have a few issues of debt over the sample period. The apparent limited use of non-bank private debt suggests that companies prefer to issue the more mainstream public and bank debt, and limit issues of non-bank private debt to specific circumstances.

For each debt issue, information including the source of debt (public, bank or non-bank private), the date of announcement, the date of (proposed) issuance, amount of the offer, the maturity of the offer, the coupon, interest rate, price, rating, renewal status and the purpose of the offer are hand collected from the announcement itself. Where such information is not provided the company's annual report is examined, as is the Regulatory News Service if required.

Company annual reports are also used to hand collect data on several debt variables for the sample companies, in addition to several reputation (governance) variables. Debt variables collected include the type of outstanding debt (public bond, bank, or non-bank private debt), the maturity of the outstanding debt, the mix of fixed and floating rate debt, the currency mix of outstanding debt ad total available lines of credit. Reputation (governance) variables collected comprise board bank affiliation, finance director

change, and family board ownership, which are defined in the next section of this chapter.

One aim of this study, as presented in Chapter 5, is to examine the choice of debt source for UK firms. To consider the choice of debt source more closely, the sample of announcements of issuances of debt is controlled for firms who only issue only one type of debt within a fiscal year. Table 4.4 presents the distribution of the number of sample firms – both issuing and non-issuing – in each sample year, and highlights that there are 2340 firm year observations, comprising of 583 firm year observations of issuing firms and 1757 firm year observations of non issues.

As shown in Table 4.4 and Table 4.5, this restriction yields a sample of 583 firm year observations of debt issues, comprising 151 firm year public debt issues (25.90%), 376 firm year issues of bank debt (64.49%), and 56 firm year issues of non-bank private debt (9.61%). For comparison, Denis and Mihov (2003) employ a sample of 1560 debt issuances, comprising 530 public debt issues (33.97%), 740 bank debt issues (47.44%) and 290 private debt placements (18.59%). In addition, as Table 4.6 shows, the sample of debt issuances includes 151 firm year observations where more than one type of debt is issued within a fiscal year. This in itself is an interesting finding as it highlights that firms rely upon several types of debt financing not only throughout their tenure, but over a short period of time. Approximately half of companies who employ multiple sources of debt issue both public and bank debt, and 10% of companies issue all three sources of debt.

Table 4.7 presents the distribution of the number of sample firms – both issuing and non-issuing – in each sample year where the issuances are controlled for firms who only issue either syndicated or bilateral loans within a fiscal year, and highlights that there are 2331 firm year observations, comprising of 574 firm year observations of issues and 1757 firm year observations of non issues. Panel B of both Table 4.5 and Table 4.6 also present the sample of announcements of issuances of bank debt where the issuances are controlled for firms who only issue either syndicated or bilateral loans within a fiscal year. This further manipulation of the sample restrains the sample by 9 firm year observations.

4.3 Sample Definitions

4.3.1 Definition of Debt Variables

This section provides definitions of the variables included in the forthcoming empirical analyses.

4.3.1.1 Defining the Choice of Debt Source

In order to finance its operations, a company can utilise various sources of debt finance; public sources, bank debt and non-bank private debt. These are discussed in turn. In this thesis, public debt refers to straight bonds. Bonds, debt securities which are sold to investors via a market place, entitle the holder to repayment of both capital (at maturity) and the coupon (at pre-certified intervals). Bonds are typically issued for a fixed period, have the longest tenure, and have fixed rates of interest.

Following the approach of Johnson (1997), in this thesis, bank debt refers to all private debt which is unambiguously identified as being bank debt. Bank debt typically takes the form of a loan; loans are an agreement between the borrower and the lender whereby the borrower repays both the capital and interest at frequent intervals over a fixed period of time. Bank loans are usually issued at floating rates; typically following the London Interbank Offer Rate (LIBOR). For example, a typical rate may be LIBOR + 1%. Bank loans can be bilateral (borrower and one bank), or syndicated (borrower and several lenders) in nature.

In this thesis, non-bank private debt relates to all sources of private debt which are either classed as private placements of debt with non-bank financial institutions – such as insurance companies and venture capitalists, and all other sources of private debt which

are not unambiguously identified as being bank debt. Non-bank private debt typically has all the features of public debt, in that issuance of non-bank private debt are essentially privately placed bonds; they are typically issued for a fixed period, have longer tenures than bank debt, have fixed rates of interest, repayment of the capital occurs at maturity, and coupon payments made at pre-certified intervals.

4.3.1.2 Definition of Other Debt Variables

Total debt is defined as the sum of both short-term and long-term debt. Literature has generally classed short term debt as all debt with maturities of less than 5 years, and long term debt as debt with a maturity greater than 5 years (Guedes and Opler (1996)). The data on debt maturity collected for use within this study allows for a flexible approach, as the maturity of outstanding debt is classed as being either: less than one year, one to two years, two to five years, over more than five years.

An evaluation of net debt allows for an examination of a company's overall debt position by comparing a company's liabilities and debts with its cash and any other liquid assets, and is calculated as: total debt minus cash and cash equivalents.

4.3.2 Definition of Firm Characteristics

Two main variables are used to measure financial leverage as discussed by Rajan and Zingales (1995). Primarily, financial leverage is measured by the ratio of total debt to total assets – that is, total debt to the book value of total assets. The interest coverage ratio – defined as the ratio of Earnings before Interest and Tax (EBIT) to Interest Expense – is also employed. The interest coverage ratio is used to determine a firm's capacity to meet its debt obligations. Denis and Mihov (2003) find evidence of firm's

issuing non-bank private debt being more likely to default in comparison to bank and public borrowers, using Altman's (1977) Z-score as a proxy for financial distress.

Company performance and profitability, defined as a firm's ability to consistently generate net income, is measured by a number of variables. Return on assets, defined as the ratio of earnings before interest, tax, depreciation and amortisation (EBITDA) to total assets measures company performance. Stock return volatility is measured by the standard deviation of daily stock returns over the 12 months prior to the fiscal year end. Market based performance, is measured by the twelve month buy-and-hold annual return (BHAR) of share price returns, prior to the company's financial year end, minus the corresponding twelve month buy-and-hold annual return for the FTSE 350 Index, which controls for market conditions. Hadlock and James (2002) find evidence of issuers of public debt having lower stock return volatility than those with public debt, and with issuers of public debt enjoying larger 12-month cumulative returns, whereas issuers of bank loans tend to have suffered from a negative 12-month cumulative stock return prior to issuance.

Firm size is proxied using the book value of company assets. Firm size has been found to influence the source of debt which is issued, with Lui (2006) finding that as firm size increases it is less likely to borrow from banks.

The age of the firm is collected from DataStream, and where not available sourced from company annual reports, and is determined from the year of incorporation. Diamond (1991) explains the choice between bank loans and bonds using the reputation of the

borrowing firm, proposing that firms follow a life cycle when borrowing funds from external sources. Diamond argues that firms tend to borrow from banks initially when they have no or low credit ratings, and then move onto securing funds from the capital markets once they have built up a reputation – especially where problems of moral hazard are widespread. Therefore, firms borrow from banks if they have low credit ratings and from public sources if they have high credit ratings. Indeed, a firm is able to borrow more from both public and private sources as its reputation grows. It is expected that younger firms will borrow from private sources, predominately banks, to enjoy the screening and monitoring services that banks are able to offer.

Data on institutional ownership of the company is defined as the total percentage ownership of common equity shares of all shareholders whose shareholdings are in excess of 3%, as disclosed in company annual reports.

4.3.3 Definition of Reputation Variables

Diamond (1991) theorises that the reputation of the firm itself has an impact upon the source of debt that it chooses to, or is indeed able to, issue. It may also be that the reputations of the serving board members and certain governance variables have an impact on the debt source which a company chooses to borrow from.

A board-bank affiliation variable is included to proxy whether the company has a relationship with a bank which may grant it with easier access to the capital markets, or to bank financing. This variable takes the value of one if any member of the board of

directors is, or has been, a member of the board of directors of a bank, and zero otherwise. It may be that companies only enjoy greater access to debt financing if a member of the board of directors is currently serving on the board of a bank. To control for this, a separate dummy variable is employed which takes the value of one if a company director is currently serving on the board of a bank, and zero otherwise.

Finance Director Turnover is considered to have taken place where the finance director (or Chief Financial Officer if no finance director is present) changes from one year to the next, as reported in the company's annual report. It is expected that finance director turnover will reflect the removal of previous poorly performing finance directors. Consequently, it could be expected that following a change in finance director, companies will borrow from banks to allow the company to build up a reputation of being a good borrower. It may also be that finance director turnover occurs after a period of poor financial performance, so finance directors may be constrained in their choice of debt source.

Anderson, Mansi and Reeb (2003) find evidence of firms with founding family ownership enjoying a lower cost of debt financing, suggesting that the structure of founding family companies results in reduced agency problems between shareholders and debt holders. It may be that companies who are family run, or who have members on the company board of directors who are descendents of the founding family, are more likely to borrow from a particular source given their reputation. To control for this, following Hillier and McColgan (2008), a family board variable is included which takes the value of one is either a serving member of the board of directors share their name

with that of the company, or if the annual report otherwise highlighted that a specific director is either the founder or descendant of the founder' family.

Data on director ownership of the company is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts.

4.4 Data Descriptions

In addition to presenting the distribution of sample announcements of issuances of debt by type of announcement, Table 4.1 also provides an overview of the time series properties of the sample of debt issuances, and is also shown graphically in Figure 4.1. As can be seen, the number of announcements of issuances of debt generally falls over the sample period. Unsurprisingly there is a decrease in the announcements of all sources of debt in 2008, in line with the poor economic climate in the United Kingdom at this point in time. Intriguingly, however, the number of public bonds issued sharply declined in 2005, prior to almost doubling in 2006. This facet may be down to imperfect data collection but may also reflect repetitive borrowing.

Table 4.8 presents a correlation matrix of selected firm characteristics for the sample of 583 firm year observations of debt issues as described in section 4.1. Total debt outstanding is positively correlated with firm size, total amount issued, profitability, measured by the fixed assets ratio, leverage, and sales, suggesting that larger more profitable firms are likely to not only have greater levels of debt, but issue more debt. Board Bank affiliation is also positively correlated to total debt outstanding, and to total assets. This also implies that larger firms with higher levels of debt are more likely to have a banker on their board.

Tables 4.9I to 4.9VII present descriptive statistics of the sample. Tables 4.9I and 4.9II provide descriptive statistics of the sample issuers and non-issuers examined within this study, respectively. The mean issuer is larger and older than the mean non-issuer, having assets valued at £5.262bn compared to £1.597bn. With a total debt of £1.268bn, the

mean issuer has more debt outstanding than non-issuers (£380.511m), and, non issuers have greater levels of leverage (0.42 compared to 0.31 for issuers). The mean issuer also has greater access to lines of credit – access to a pre determined amount of credit which can be drawn at any time over a specified period - (£560.836m) compared to the mean non-issuer (£146.751m), and consequently a greater amount of net debt – total debt minus cash and cash equivalents - (£990.052m compared to £333.109m).

Tables 4.9III to 4.9V present the descriptive statistics for issuers of public, bank and non-bank private debt respectively. Consistent with the predictions of theories of debt choice based on information asymmetry discussed in Chapter 3, whereby firms with greater levels of asymmetric information will borrow from banks and other private lenders who are perceived to be able to provide more efficient and valuable monitoring and screening services (Diamond (1984) and Fama (1985), public issuers are both older and larger than issuers of both bank and non-bank private debt. The mean public issuer has been incorporated for 48.72 years, and has assets totalling £9.616bn, compared to 41.57 years and £2.331bn for bank issuers, and 42.31 years and £2.192bn for non-bank private issuers. With a total debt of £2.126bn, the mean issuer of public debt has more debt outstanding than issuers of bank debt (£720.373m) and issuers of non-bank private debt (£551.727m). Likewise, the mean issuer of public debt also has higher leverage (0.33) compared to the mean issuer of bank debt (0.28), and the mean issuer of non-bank private debt (0.25). Equally, issuers of public debt have greater net debt than issuers of bank debt and non-bank private debt (£1.792bn versus £579.719m and £425.362m, respectively). The mean public issuer also has greater access to lines of credit

(£810.234m) compared to issuers of bank debt (£310.453m) and issuers of non-bank private debt (£268.828m).

Turning to a firm's credit quality, the median interest coverage of public issuers (4.17 times) is smaller than both issuers of bank debt (4.39 times) and non-bank private debt (6.28 times). This finding is somewhat surprising given that theory suggests that the most profitable firms issue public debt, and is in stark contrast to Denis and Mihov (2003) who report that the median interest coverage for issuers of non-bank private debt is lower than both issuers of public debt and bank debt.

Mean issuers of both bank debt and non-bank private (both 4%) debt have greater levels of insider ownership than issuers of public debt (1%), consistent with Denis and Mihov (2003) who argue that private debt will be preferred by managers with greater equity ownership as those managers have greater control within the firm, and are thus insulated somewhat from debt holder pressure. The mean issuers of public debt (33%) are more likely to have a director who is currently serving on the board of a bank, than issuers of bank debt (25%) and non-bank private debt (24%). This suggests that it is valuable for firms to have a banker on the board who is able to provide assistance and expertise, and perhaps arrange underwriting at lower rates, when issuing public debt.

Tables 4.9VI and 4.9VII present the descriptive statistics of issuers of syndicated loans and bilateral loans. Once again, consistent with the predictions of theories of debt choice based on information asymmetry the mean issuer of syndicated loans is larger and older than the mean issuer of bilateral loans having assets valued at £2.429bn compared to

£1.574bn, and having being incorporated for 42.40 years compared to 35.05 years. With a total debt of £763.472m, and leverage of 0.28, mean issuers of syndicated loans have more debt outstanding and higher leverage, than issuers of bilateral loans (£343.656m and 0.24). The mean issuer of syndicated loans also has greater access to lines of credit (£321.333m) compared to issuers of bilateral loans (£249.049m), and consequently a greater amount of net debt (£604.191m compared to £337.654m). Turning to firm credit quality, the median interest coverage of issuers of syndicated loans (4.53 times) is smaller than issuers of bilateral loans (6.28 times). Once again, this finding is somewhat surprising given that theory would suggest that the most profitable firms issue syndicated loans over bilateral loans. This is to be considered further given the higher indebtedness of larger firms.

Issuers of syndicated loans and bilateral loans have similar levels of insider ownership (4% and 5%, respectively).These results are also consistent with Denis and Mihov (2003) who argue that private debt will be preferred by managers with greater equity ownership. The mean issuer of bilateral loans (36%) is more likely to have a director who is currently serving on the board of a bank, than issuers of syndicated loans (24%). In comparison to the results above, where issuers of public bonds have greater affiliation than both bank and non-bank private issuers, this is surprising as it would be expected that a banker would again be well equipped to provide expertise and perhaps negotiate reduced borrowing rates within the syndicate.

Table 4.10 reports the stated reason or use of proceeds for the announced issuances of debt, as specified by the company at the announcement of the issuance of the debt.[35] The most frequent reasons for use of proceeds for issuances of debt is to refinance/pay down debt (29.58%), or for purposes of acquisition (26.91%). Other, which accounts for 36.47% of the sample, encompasses general corporate purposes, growth, working capital and "other reasons". When looking at the different sources of debt, a similar pattern is observed, with the most frequent reasons for use of proceeds for issuances of debt being to refinance/pay down debt, or for purposes of acquisition. It follows that the reason for debt issuance appears to have little impact upon a company's choice of debt source.

The primary reasons for issuances of public debt are to refinance/pay down debt (25.95%), and for purposes of acquisitions (5.34%). For issuances of bank debt, 33.25% are to refinance/pay down debt, and 19.02% for acquisitions. Looking at syndicated loans versus bilateral loans the pattern is once again consistent, the primary reasons for issuances of syndicated debt are to refinance/pay down debt (35.29%) and for acquisitions (19.37%). For bilateral loans; 22.66% of issuances are used to refinance/pay down debt and 17.19% are used for acquisition purposes.[36] The most frequently cited reason for issuances of non-bank private debt is refinancing or paying down debt (20.37%). In total, the reason for issuance is not classified for 20.98% of issuances, mainly comprising issuances of public debt as the majority of announcements of public

[35] Given that companies often cite several reasons for the purpose of offer, there are more than 1091 observations.

[36] The percentage values discussed relate to the percentage of syndicated loans and bilateral loans, and not to the percentage of bank loans as presented in Table 7.

debt are taken from regulatory news announcements where reporting tends to be more matter of fact. Announcements of private debt, particularly bank debt, tend to contain a reason for the issue of debt.

Table 4.11 provides an analysis of the distribution of the maturity of the announcements of issuances of debt. Similar to Tables to 4.7 and 4.9, there is no controlling for size effects. Almost all issues of both bank and non-bank private debt have a maturity of less than 10 years, whereas more than half (55.86%) of issuances of public debt have a maturity of 10 years or greater. The maturities of syndicated loans are generally greater than bilateral loans. These findings are consistent with prior studies. For example, both James (1987) and Johnson (1997) report evidence of public debt issues having greater maturities than private non-bank loans and bank loans respectively, and more recently Pottier (2007) reports that only 23.56% of private debt has a maturity in excess of 10 years, compared to over 32.7% of public debt. Marchica (2008) observes that regardless of size, UK firms are more reliant on short-term debt, finding that UK firms borrow more short-term debt than US firms, which is consistent with the finding here that 24% of debt issues have a maturity of less than 5 years, which is generally accepted as being short term for issues of debt (Guedes and Opler (1996)).

Table 4.12 examines the loan status, be it new loan or revision/renewal, of the sample announcements of issuances of debt. Many studies have expressed, both theoretically and empirically, that compared to public sources of debt, debt from private sources is more flexible, and thus more easily renegotiated, because of the way that it is structured. Following Lummer and McConnell (1989), announcements of debt are classed as new

loans where the announcement of debt states that the loan is either new, or does not state that the loan is a renewal, revision, renegotiation or extension of an existing credit agreement, and as a renewal otherwise. In excess of 90% of the sample announcements of debt are new loans, with only 9.53% of sample announcements being revisions; looking at each debt source individually almost 100% of public debt issues are new loans, and 100% of non-bank private debt issues are new loans. Consistent with bank debt being more easily renegotiated, 15% of announcements of bank debt are revisions.[37] Approximately 25% of bilateral loans are revisions which is consistent with the concept of firms building a borrowing relationship with their banks.

[37] Public debt may be rolled over/re-issued by definition to new holders given co-ordination costs of going to the same investor.

4.5 Conclusion

In this chapter, the main data source used for the forthcoming empirical chapters which examines the choice of debt source for UK firms is presented. There is an evident mix between the number of announcements of issuances of public, bank and non-bank private debt across the sample. This would suggest that firms within the FTSE 350 have the potential to issue from any of these sources; however the descriptive statistics across different issuers indicate that individual firm characteristics may have an impact upon the choice of debt source that it chooses to issue.

It is also apparent that the majority of bank loans reported in the various press sources are of a larger, syndicated, nature, in comparison to the more conventional bilateral bank loans. This facet evokes that it is also worth examining the differences between the choice of syndicated and bilateral loans.

These findings suggest a number of preliminary relationships that are worthy of further consideration. These will be investigated in the following empirical chapters. Chapter 5 uses the data described here to examine the choice between public debt, bank debt (both syndicated and bilateral), and non-bank private debt. Chapter 6 uses the data described here to examine the stock market response to 1051 announcements of issuances of debt.

Appendix 4A

AFX European Focus

May 30, 2002 Thursday

Tate & Lyle to issue stg bond to refinance debt

SECTION: COMPANY NEWS

LENGTH: 111 words

DATELINE: LONDON

Tate & Lyle PLC said it is planning a sterling bond issue to refinance its debt, but said it could not give further details at this time.

The food group, which has been selling off business in the last year, including Western Sugar for 85 mln usd, is in a closed period ahead of full year results, due June 7.

Its net debt at the interim stage was 848 mln stg and analysts are expecting this to have dropped to around 750 mln stg, following the disposal programme.

Schroder Salomon Smith Barney and HSBC will be organising the issue.

dlh/slm/

For more information and to contact AFX: www.afxnews.com and www.afxpress.com

LOAD-DATE: May 31, 2002

LANGUAGE: ENGLISH

Appendix 4B

EuroWeek

July 5, 2002

Scottish & Newcastle

SECTION: LOANS

LENGTH: 104 words

EuroWeek understands that Scottish & Newcastle (S&N) is in discussions with relationship banks about refinancing outstanding debt after the summer.

S&N released financial results this week for the year to April 28, 2002. Its operating profit was £442.3m.

S&N frequently uses the loan market to raise funds. It has two outstanding loans - a £1.125bn five year term loan from 2000 via arrangers Barclays, Royal Bank of Scotland and US Warburg, and a £1.55bn multi-tranche deal from 1999.

Proceeds from both loans were used to fund expansion.

Among other favourites, S&N owns Kronenbourg 1664, which it plans to relaunch in the US.

LOAD-DATE: October 5, 2007

LANGUAGE: ENGLISH

PUBLICATION-TYPE: Newspaper

JOURNAL-CODE: EUROW

Appendix 4C

AFX European Focus

October 11, 2002 Friday

Cobham places 225 mln usd senior notes with UK, US insurance cos

SECTION: COMPANY NEWS

LENGTH: 164 words

DATELINE: LONDON

Cobham PLC said it completed a private placement of 225 mln usd of 7 and 10-year senior notes with a group of UK and US insurance company investors.

The issue was oversubscribed and, as a result, the placement was increased from 150 mln usd to 225 mln.

Cobham said it will use the proceeds of the financing to refinance existing short-term bank borrowings and for general corporate purposes.

Finance director Giles Irwin said the debt placement will lengthen Cobham's debt maturity profile and widen its existing group of investors.

"This new financing is with a total of 11 institutions and produces a weighted average maturity of 9.2 years, significantly extending the average committed life of the group's overall debt portfolio," Irwin said.

Royal Bank of Scotland Group PLC was sole agent on the transaction.

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Table 4.1: Distribution of All Firm Year Observations by Sample Year

Distribution of the number of firm year observations by calendar year of issuance for a hand collected sample of 1091 issues of public bonds, bank loans and non-bank private issues of debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist.

Year	Issuers	Non Issuers	Total
2001	86	235	321
2002	72	256	328
2003	93	238	331
2004	105	220	325
2005	102	209	311
2006	93	212	305
2007	99	192	291
2008	84	195	279
Total	**734**	**1757**	**2491**

Table 4.2: Analysis of Yearly Distribution of Announcements of Debt

Distribution of type of debt issue for a hand collected sample of 1091 issues of public bonds, bank loans and non-bank private issues of debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist.

Panel A: Yearly Distribution of Announcements of Public, Bank and Non-bank Private Debt

	Full Sample		Public Bond Issues		Bank Debt		Non-Bank Private Debt	
Year	N	%	N	%	N	%	N	%
2001	135	12.37	57	17.12	55	9.08	23	15.13
2002	115	10.54	44	13.21	53	8.75	18	11.84
2003	155	14.21	51	15.32	75	12.38	29	19.08
2004	154	14.12	47	14.11	95	15.68	12	7.89
2005	142	13.02	23	6.91	108	17.82	11	7.24
2006	137	12.56	41	12.31	74	12.21	22	14.47
2007	135	12.37	37	11.11	77	12.71	21	13.82
2008	118	10.82	33	9.91	69	11.39	16	10.53
Total	**1091**	**100.00**	**333**	**100.00**	**606**	**100.00**	**152**	**100.00**

Panel B: Yearly Distribution of Bank Loans - Syndicated loans and Bilateral loans

	Bank Debt		Syndicated Loans		Bilateral Loans	
Year	N	%	N	%	N	%
2001	55	9.08	48	7.92	7	1.16
2002	53	8.75	46	7.59	7	1.16
2003	75	12.38	71	11.72	4	0.66
2004	95	15.68	85	14.03	10	1.65
2005	108	17.82	88	14.52	20	3.30
2006	74	12.21	67	11.06	7	1.16
2007	77	12.71	64	10.56	13	2.15
2008	69	11.39	52	8.58	17	2.81
Total	**606**	**100.00**	**521**	**85.97**	**85**	**14.03**

Table 4.3: Analysis of Company Distribution of Announcements of Debt

Distribution of type of debt issue for a hand collected sample of 1091 issues of public bonds, bank loans and non-bank private issues of debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist.

	Public Bond Issues		Bank Debt		Syndicated Loans		Bilateral Loans		Non-Bank Private Debt	
Number of Announcements	N	%	N	%	N	%	N	%	N	%
0	266	69.09	159	41.30	187	48.57	325	84.42	295	76.62
1	58	15.06	73	18.96	63	16.36	40	10.39	55	14.29
2	21	5.45	66	17.14	54	14.03	16	4.16	18	4.68
3	11	2.86	36	9.35	40	10.39	3	0.78	10	2.60
4	9	2.34	24	6.23	18	4.68	1	0.26	5	1.30
5	3	0.78	11	2.86	13	3.38	0	0.00	1	0.26
6	3	0.78	7	1.82	6	1.56	0	0.00	1	0.26
7	4	1.04	4	1.04	1	0.26	0	0.00	0	0.00
8	3	0.78	3	0.78	1	0.26	0	0.00	0	0.00
9	4	1.04	0	0.00	1	0.26	0	0.00	0	0.00
10	2	0.52	0	0.00	1	0.26	0	0.00	0	0.00
11	0	0.00	1	0.26	0	0.00	0	0.00	0	0.00
12	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
13	1	0.26	1	0.26	0	0.00	0	0.00	0	0.00
14	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
15	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Total	**385**	**100.00**	**385**	**100.00**	**385**	**100.00**	**385**	**100.00**	**385**	**100.00**

Table 4.4: Distribution of Firm Year Observations of Debt by Sample Year Controlling for Single Issues

Distribution of the number of firm year observations by calendar year of issuance for a hand collected sample of 1091 issues of public bonds, bank loans and non-bank private issues of debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist.

Year	Issuers	Non Issuers	Total
2001	66	235	301
2002	56	256	312
2003	65	238	303
2004	79	220	299
2005	90	209	299
2006	76	212	288
2007	82	192	274
2008	69	195	264
Total	**583**	**1757**	**2340**

Table 4.5: Analysis of Single Debt Issues

An analysis of the issuing choices of a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008, including only those observations where a company has only issued one type of debt in any one year. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist.

Panel A: Debt Source	Number of Observations	%
Public Debt	151	25.90
Bank Debt	376	64.49
Non-bank Private Debt	56	9.61
Full Sample	**583**	**100.00**

Panel B: Debt Source	Number of Observations	%
Syndicated Loans	326	88.83
Bilateral Loans	41	11.17
Full Sample	**367**	**100.00**

Table 4.6: Analysis of Multiple Debt Issues

An analysis of the issuing choices of a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008, including only those observations where a company issues more than one type of debt in any one year. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist.

Panel A: Multiple Debt Sources Issued	Number of Observations	%
Bank Debt and Public Bonds	74	49.01
Bank Debt and Non-bank Private Debt	27	17.88
Public Debt and Non-bank Private Loans	36	23.84
All 3 Sources	14	9.27
Full Sample	**151**	**100.00**

Panel B: Multiple Debt Sources Issued	Number of Observations	%
Syndicated Loans and Public Bonds	56	35.00
Bilateral Loans and Public Bonds	9	5.63
Syndicated Loans and Non-bank Private Debt	21	13.13
Bilateral Loans and Non-bank Private Debt	5	3.13
Syndicated Loans and Bilateral Loans	9	5.63
Public Debt and Non-bank Private Loans	36	22.50
Syndicated Loans, Public Bonds and Non-bank Private	13	8.13
Bilateral Loans, Public Bonds and Non-bank Private	0	0.00
Syndicated Loans, Bilateral Loans and Public Debt	9	5.63
Syndicated Loans, Bilateral Loans and Non-bank Private Debt	1	0.63
Syndicated Loans, Bilateral Loans, Public Bonds and Non-bank Private Debt	1	0.63
Full Sample	**160**	**100.00**

Table 4.7: Distribution of Firm Year Observations of Debt by Sample Year Controlling for Single Issues; Syndicated V Bilateral

Distribution of the number of firm year observations by calendar year of issuance for a hand collected sample of 1091 issues of public bonds, bank loans and non-bank private issues of debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist.

Year	Issuers	Non Issuers	Total
2001	66	235	301
2002	56	256	312
2003	65	238	303
2004	77	220	297
2005	88	209	297
2006	73	212	285
2007	81	192	273
2008	68	195	263
Total	**574**	**1757**	**2331**

Table 4.8: Correlation Matrix of Selected Variables

Data is based on a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist. Financial data is collected from DataStream. Data on director ownership is collected from company annual reports. Total debt is calculated as the sum of both short-term and long-term debt. Net debt is calculated as total debt minus cash and cash equivalents. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Return on assets is the ratio of earnings before interest and tax, depreciation and amortisation (EBITDA) to total assets. Interest Coverage Ratio is calculated as the ratio of earnings before interest and tax to interest expense. Fixed assets ratio is the ratio of fixed assets to total assets. Book Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Director Ownership is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts. Change in finance director is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. 12 month Buy and Hold Abnormal return is the 12 month buy and hold abnormal return on the firm's stock over the 12 months prior to the fiscal year end. Stock Return Volatility is measured by the standard deviation of daily stock returns over the 12 months prior to the fiscal year end. P-values are reported in parenthesis.

	Total Debt	Total Assets	Amount Issued	Market to Book	Return on Assets	Interest Coverage Ratio	Fixed Assets Ratio	Book Leverage	Director Ownership	Finance Director Turnover	Board Bank Affiliation	Net Sales	12 month BHAR
Total Assets	**0.6719**												
	(0.00)												
Amount Issued	**0.1712**	**0.1047**											
	(0.00)	**(0.01)**											
Market to Book	-0.0129	-0.0067	0.0536										
	(0.77)	(0.88)	(0.22)										
Return on Assets	-0.0125	**-0.0855**	0.0172	**0.1002**									
	(0.77)	**(0.05)**	(0.70)	**(0.02)**									
Interest Coverage Ratio	-0.0470	-0.0398	-0.0248	0.0104	**0.1036**								
	(0.27)	(0.35)	(0.57)	(0.81)	**(0.02)**								
Fixed Assets Ratio	**0.0712**	0.0019	0.0082	-0.0652	-0.0168	-0.0124							
	(0.09)	(0.96)	(0.85)	(0.13)	(0.70)	(0.77)							
Book Leverage	**0.1316**	-0.0305	0.0388	-0.0016	**0.0930**	0.0641	0.0388						
	(0.00)	(0.47)	(0.67)	(0.97)	**(0.03)**	(0.13)	(0.36)						
Director Ownership	**-0.1233**	**-0.1126**	-0.0653	0.0380	**-0.1237**	0.0043	**-0.0754**	-0.0602					
	(0.00)	**(0.01)**	(0.13)	(0.37)	**(0.00)**	(0.92)	**(0.08)**	(0.16)					
Finance Director Turnover	0.0181	0.0502	-0.0327	-0.0259	-0.0613	0.0060	0.0449	**-0.0714**	-0.0022				
	(0.67)	(0.24)	(0.45)	(0.55)	(0.16)	(0.89)	(0.30)	**(0.09)**	(0.96)				
Board Bank Affiliation	**0.1709**	**0.1914**	0.0383	-0.0094	**-0.1189**	-0.0183	0.0094	-0.0382	**-0.1678**	-0.0323			
	(0.00)	**(0.00)**	(0.37)	(0.82)	**(0.01)**	(0.67)	(0.83)	(0.37)	**(0.00)**	(0.44)			
Net Sales	**0.7002**	**0.7447**	0.1277	0.0151	-0.0369	-0.0453	0.0543	-0.0442	**-0.1346**	0.0245	**0.2466**		
	(0.00)	**(0.00)**	(0.00)	(0.72)	(0.39)	(0.29)	(0.20)	(0.29)	**(0.00)**	(0.56)	**(0.00)**		
12 month BHAR	-0.0567	-0.0377	0.0295	-0.0069	**0.1802**	0.0486	0.0110	**-0.0891**	-0.0029	-0.0408	0.0158	-0.0337	
	(0.19)	(0.38)	(0.50)	(0.87)	**(0.00)**	(0.27)	(0.80)	**(0.04)**	(0.95)	(0.35)	(0.72)	(0.43)	
Stock Return Volatility	**-0.0864**	**-0.0685**	-0.0632	-0.0544	**-0.2835**	-0.0193	-0.0452	-0.0161	-0.0022	-0.0117	0.0131	-0.0871	**-0.0879**
	(0.04)	**(0.10)**	(0.14)	(0.20)	**(0.00)**	(0.65)	(0.29)	(0.70)	(0.96)	(0.73)	(0.76)	(0.40)	**(0.04)**

Table 4.9I: Descriptive Statistics for All Issuers

Data is based on a hand collected sample of 1091 issues of public, bank and non-bank private debt from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist. Total debt is calculated as the sum of both short-term and long-term debt. Net debt is calculated as total debt minus cash and cash equivalents. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Lines of credit is defined as the total amount of undrawn lines of credit available to the company. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Interest Coverage Ratio is calculated as the ratio of earnings before interest and tax to interest expense. Firm age is taken as the age of the company from date of incorporation. Director Ownership is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts. Family Founder is a dummy binary variable defined as '1' where the company has an original founder or family founder member on the Board of Directors, and zero otherwise. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. Change in finance director is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Board Size is the number of directors serving on the company's board at the financial year end. Board Age is the average age of the directors serving on the company's board at the financial year end.

Variable	Mean	Median	Maximum	Minimum	Standard Deviation
Panel A: Debt Characteristics					
Total Debt (£000's)	1,268,071	420,800	30,911,000	0	2,535,856
Net Debt (£000's)	-990,052	-307,880	8,074,900	-27,942,000	2,180,486
Debt Maturity < 1 year (£000's)	313,459	51,250	12,246,954	0	907,069
Debt Maturity 1-2 years (£000's)	160,517	16,700	4,361,000	-200	400,990
Debt Maturity 2-5 years (£000's)	402,365	128,000	7,544,000	0	767,667
Debt Maturity 5 years + (£000's)	411,785	44,000	9,298,000	0	921,815
Debt maturing in more than 5 years/Total Debt	0.23	0.16	1.00	0.00	0.45
Leverage, Book	0.31	0.26	8.49	0.00	0.39
Lines of Credit (£000's)	560,836	204,300	17,712,000	0	1,378,591
Public Debt Outstanding (£000's)	571,652	0	19,750,829	0	1,521,846
Bank Debt Outstanding (£000's)	342,141	161,850	4,179,000	0	519,292
Non-bank Private Debt Outstanding (£000's)	233,947	81	10,962,000	0	924,654
Fixed Debt Outstanding (£000's)	486,919	102,500	11,693,178	0	1,039,543
Floating Debt Outstanding (£000's)	537,944	178,150	11,312,000	-11,000	1,156,477
Panel B: Firm Characteristics					
Total Assets (£000's)	5,261,938	1,592,000	171,699,000	11,877	15,001,747
Fixed Assets/Total Assets	0.31	0.24	0.95	0.00	2.60
Market to Book	3.57	2.13	194.68	-318.53	0.21
Interest Coverage Ratio	17.73	4.50	2726.67	-86.22	2.60
R&D/Sales	0.02	0.00	0.30	0.00	2.60
EBITDA/Total Assets	0.13	0.12	1.38	-0.65	2.60
Firm Age	44.68	28.50	160.00	0.00	38.36
Director Ownership	0.03	0.00	0.57	0.00	0.07
Family Founder	0.10	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation	0.48	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation - Present	0.29	N.A.	N.A.	N.A.	N.A.
Change in Finance Director	0.17	N.A.	N.A.	N.A.	N.A.
Board Size	9.67	9.00	21.00	3.00	2.60
Board Age	54.61	54.84	69.30	44.00	6.76

Table 4.9II: Descriptive Statistics for Non-Issuers

Data is based on a hand collected sample of 1091 issues of public, bank and non-bank private debt from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist. Total debt is calculated as the sum of both short-term and long-term debt. Net debt is calculated as total debt minus cash and cash equivalents. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Lines of credit is defined as the total amount of undrawn lines of credit available to the company. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Interest Coverage Ratio is calculated as the ratio of earnings before interest and tax to interest expense. Firm age is taken as the age of the company from date of incorporation. Director Ownership is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts. Family Founder is a dummy binary variable defined as '1' where the company has an original founder or family founder member on the Board of Directors, and zero otherwise. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. Change in finance director is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Board Size is the number of directors serving on the company's board at the financial year end. Board Age is the average age of the directors serving on the company's board at the financial year end.

Variable	Mean	Median	Maximum	Minimum	Standard Deviation
Panel A: Debt Characteristics					
Total Debt (£000's)	302,669	61,985	16,004,000	0	946,938
Net Debt (£000's)	-270,154	-30,306	3,143,964	-110,858,439	2,789,264
Debt Maturity < 1 year (£000's)	68,058	8,039	6,985,354	0	353,485
Debt Maturity 1-2 years (£000's)	31,689	108	2,122,000	0	113,981
Debt Maturity 2-5 years (£000's)	106,852	10,000	5,138,000	0	300,775
Debt Maturity 5 years + (£000's)	102,161	0	7,472,000	0	414,710
Debt maturing in more than 5 years/Total Debt	0.18	0.00	1.00	0.00	0.45
Leverage, Book	0.43	0.16	135.00	0.00	4.78
Lines of Credit (£000's)	158,876	52,600	9,621,000	0	441,245
Public Debt Outstanding (£000's)	106,852	0	13,660,770	0	555,379
Bank Debt Outstanding (£000's)	125,990	30,612	318,251	0	318,251
Non-bank Private Debt Outstanding (£000's)	54,203	0	11,191,000	0	360,461
Fixed Debt Outstanding (£000's)	117,359	300	4,535,000	-2,300	356,886
Floating Debt Outstanding (£000's)	144,694	29,993	13,513,660	-39,100	596,509
Panel B: Firm Characteristics					
Total Assets (£000's)	1,328,563	453,404	162,226,000	1,728	4,665,476
Fixed Assets/Total Assets	0.27	0.19	0.98	0.00	2.60
Market to Book	6.96	2.39	4560.53	-2068.80	0.21
Interest Coverage Ratio	44.52	5.74	12690.33	-14921.00	2.60
R&D/Sales	0.09	0.00	7.87	0.00	2.60
EBITDA/Total Assets	0.10	0.13	1.05	-3.98	2.60
Firm Age	32.85	20.00	164.00	1.00	38.36
Director Ownership	0.08	0.01	0.99	0.00	0.07
Family Founder	0.24	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation	0.37	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation - Present	0.24	N.A.	N.A.	N.A.	N.A.
Change in Finance Director	0.16	N.A.	N.A.	N.A.	N.A.
Board Size	8.51	8.00	20.00	4.00	2.60
Board Age	53.49	53.83	66.63	36.70	6.76

Table 4.9III: Descriptive Statistics for Public Issuers

Data is based on a hand collected sample of 1091 issues of public, bank and non-bank private debt from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist. Total debt is calculated as the sum of both short-term and long-term debt. Net debt is calculated as total debt minus cash and cash equivalents. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Lines of credit is defined as the total amount of undrawn lines of credit available to the company. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Interest Coverage Ratio is calculated as the ratio of earnings before interest and tax to interest expense. Firm age is taken as the age of the company from date of incorporation. Director Ownership is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts. Family Founder is a dummy binary variable defined as '1' where the company has an original founder or family founder member on the Board of Directors, and zero otherwise. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. Change in finance director is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Board Size is the number of directors serving on the company's board at the financial year end. Board Age is the average age of the directors serving on the company's board at the financial year end.

Variable	Mean	Median	Maximum	Minimum	Standard Deviation
Panel A: Debt Characteristics					
Total Debt (£000's)	2,125,797	1,166,000	18,728,475	0	2,831,910
Net Debt (£000's)	-1,792,241	-900,450	1,952,909	-17,318,000	2,739,876
Debt Maturity < 1 year (£000's)	507,559	138,000	8,283,862	0	981,738
Debt Maturity 1-2 years (£000's)	288,098	82,600	4,055,900	-200	555,572
Debt Maturity 2-5 years (£000's)	662,752	351,100	4,506,000	0	839,987
Debt Maturity 5 years + (£000's)	727,346	251,750	7,186,000	0	1,131,838
Debt maturing in more than 5 years/Total Debt	0.29	0.23	0.99	0.00	0.27
Leverage, Book	0.33	0.29	2.89	0.00	0.30
Lines of Credit (£000's)	810,234	470,600	7,251,375	0	1,189,418
Public Debt Outstanding (£000's)	1,249,237	300,000	16,603,711	0	2,185,231
Bank Debt Outstanding (£000's)	483,734	300,900	3,546,000	0	609,765
Non-bank Private Debt Outstanding (£000's)	297,032	2,900	10,596,000	0	1,033,410
Fixed Debt Outstanding (£000's)	827,475	333,000	9,868,070	0	1,285,058
Floating Debt Outstanding (£000's)	962,399	443,800	11,312,000	0	1,668,982
Panel B: Firm Characteristics					
Total Assets (£000's)	9,615,878	3,934,900	146,164,000	62,606	18,869,785.18
Fixed Assets/Total Assets	0.37	0.30	0.94	0.01	0.28
Market to Book	3.73	2.23	45.61	-12.72	6.36
Interest Coverage Ratio	8.30	4.17	220.74	-27.58	23.88
R&D/Sales	0.02	0.00	0.19	0.00	0.04
EBITDA/Total Assets	0.14	0.12	1.38	-0.09	0.14
Firm Age	48.72	33.50	160.00	1.00	41.55
Director Ownership	0.01	0.00	0.43	0.00	0.05
Family Founder	0.01	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation	0.56	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation - Present	0.33	N.A.	N.A.	N.A.	N.A.
Change in Finance Director	0.19	N.A.	N.A.	N.A.	N.A.
Board Size	11.05	11.00	20.00	5.00	2.57
Board Age	55.15	55.10	62.13	45.70	3.25

Table 4.9IV: Descriptive Statistics for Bank issuers

Data is based on a hand collected sample of 1091 issues of public, bank and non-bank private debt from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist. Total debt is calculated as the sum of both short-term and long-term debt. Net debt is calculated as total debt minus cash and cash equivalents. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Lines of credit is defined as the total amount of undrawn lines of credit available to the company. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Interest Coverage Ratio is calculated as the ratio of earnings before interest and tax to interest expense. Firm age is taken as the age of the company from date of incorporation. Director Ownership is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts. Family Founder is a dummy binary variable defined as '1' where the company has an original founder or family founder member on the Board of Directors, and zero otherwise. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. Change in finance director is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Board Size is the number of directors serving on the company's board at the financial year end. Board Age is the average age of the directors serving on the company's board at the financial year end.

Variable	Mean	Median	Maximum	Minimum	Standard Deviation
Panel A: Debt Characteristics					
Total Debt (£000's)	720,373	219,172	30,911,000	0	2,155,867
Net Debt (£000's)	-579,719	-144,800	887,000	-27,942,000	1,838,464
Debt Maturity < 1 year (£000's)	174,645	24,134	12,136,000	0	726,030
Debt Maturity 1-2 years (£000's)	94,324	4,403	4,361,000	0	315,421
Debt Maturity 2-5 years (£000's)	226,932	50,300	7,544,000	0	600,042
Debt Maturity 5 years + (£000's)	234,588	591	9,298,000	0	793,860
Debt maturing in more than 5 years/Total Debt	0.19	0.01	0.98	0.00	0.26
Leverage, Book	0.28	0.24	8.49	0.00	0.47
Lines of Credit (£000's)	310,453	135,000	16,750,000	0	1,000,620
Public Debt Outstanding (£000's)	235,020	0	7,946,015	0	716,490
Bank Debt Outstanding (£000's)	236,166	97,500	3,723,900	0	411,594
Non-bank Private Debt Outstanding (£000's)	85,952	0	3,384,000	0	305,708
Fixed Debt Outstanding (£000's)	243,663	32,800	4,403,762	0	527,682
Floating Debt Outstanding (£000's)	274,821	93,045	5,279,000	0	552,624
Panel B: Firm Characteristics					
Total Assets (£000's)	2,330,926	995,750	54,638,000	11,877	4,492,309
Fixed Assets/Total Assets	0.30	0.23	0.95	0.00	0.26
Market to Book	3.33	2.11	172.76	-88.49	14.22
Interest Coverage Ratio	26.32	4.39	2,726.67	-86.22	172.26
R&D/Sales	0.02	0.00	0.30	0.00	0.04
EBITDA/Total Assets	0.12	0.12	0.51	-0.62	0.11
Firm Age	41.57	25.00	138.00	0.00	37.42
Director Ownership	0.04	0.00	0.57	0.00	0.08
Family Founder	0.15	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation	0.43	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation - Present	0.25	N.A.	N.A.	N.A.	N.A.
Change in Finance Director	0.16	N.A.	N.A.	N.A.	N.A.
Board Size	8.90	9.00	16.00	4.00	2.26
Board Age	54.12	54.33	61.75	44.20	3.36

Table 4.9V: Descriptive Statistics for Issuers of Syndicated Loans

Data is based on a hand collected sample of 1091 issues of public, bank and non-bank private debt from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist. Total debt is calculated as the sum of both short-term and long-term debt. Net debt is calculated as total debt minus cash and cash equivalents. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Lines of credit is defined as the total amount of undrawn lines of credit available to the company. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Interest Coverage Ratio is calculated as the ratio of earnings before interest and tax to interest expense. Firm age is taken as the age of the company from date of incorporation. Director Ownership is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts. Family Founder is a dummy binary variable defined as '1' where the company has an original founder or family founder member on the Board of Directors, and zero otherwise. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. Change in finance director is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Board Size is the number of directors serving on the company's board at the financial year end. Board Age is the average age of the directors serving on the company's board at the financial year end.

Variable	Mean	Median	Maximum	Minimum	Standard Deviation
Panel A: Debt Characteristics					
Total Debt (£000's)	763,472	227,700	30,911,000	0	2,289,912
Net Debt (£000's)	-604,191	-150,745	570,472	-27,942,000	1,939,799
Debt Maturity < 1 year (£000's)	186,286	24,450	12,136,000	0	775,033
Debt Maturity 1-2 years (£000's)	101,466	4,928	4,361,000	0	335,690
Debt Maturity 2-5 years (£000's)	230,646	62,916	7,544,000	0	603,901
Debt Maturity 5 years + (£000's)	253,820	1,347	9,298,000	0	840,301
Debt maturing in more than 5 years/Tota Debt	0.20	0.03	0.98	0.00	0.26
Leverage, Book	0.28	0.23	8.49	0.00	0.50
Lines of Credit (£000's)	321,333	135,000	16,750,000	0	1,062,710
Public Debt Outstanding (£000's)	255,700	0	7,946,015	0	758,297
Bank Debt Outstanding (£000's)	224,756	99,400	3,584,000	0	351,290
Non-bank Private Debt Outstanding (£000's)	94,913	0	3,384,000	0	324,639
Fixed Debt Outstanding (£000's)	257,837	43,610	4,403,762	0	534,614
Floating Debt Outstanding (£000's)	285,552	102,900	5,279,000	0	571,426
Panel B: Firm Characteristics					
Total Assets (£000's)	2,428,638	1,042,650	54,638,000	11,887	4,706,529
Fixed Assets/Total Assets	0.29	0.22	0.95	0.00	0.26
Market to Book	3.30	2.06	172.76	-88.49	14.76
Interest Coverage Ratio	19.43	4.53	1389.00	-86.22	100.45
R&D/Sales	0.02	0.00	0.30	0.00	0.04
EBITDA/Total Assets	0.12	0.12	0.51	-0.62	0.11
Firm Age	42.40	26.50	138.00	0.00	37.54
Director Ownership	0.03	0.00	0.41	0.00	0.07
Family Founder	0.15	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation	0.41	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation - Present	0.24	N.A.	N.A.	N.A.	N.A.
Change in Finance Director	0.16	N.A.	N.A.	N.A.	N.A.
Board Size	8.93	9.00	16.00	4.00	2.26
Board Age	54.24	54.52	61.75	45.50	3.28

Table 4.9VI: Descriptive Statistics for Issuers of Bilateral Loans

Data is based on a hand collected sample of 1091 issues of public, bank and non-bank private debt from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist. Total debt is calculated as the sum of both short-term and long-term debt. Net debt is calculated as total debt minus cash and cash equivalents. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Lines of credit is defined as the total amount of undrawn lines of credit available to the company. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Interest Coverage Ratio is calculated as the ratio of earnings before interest and tax to interest expense. Firm age is taken as the age of the company from date of incorporation. Director Ownership is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts. Family Founder is a dummy binary variable defined as '1' where the company has an original founder or family founder member on the Board of Directors, and zero otherwise. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. Change in finance director is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Board Size is the number of directors serving on the company's board at the financial year end. Board Age is the average age of the directors serving on the company's board at the financial year end.

Variable	Mean	Median	Maximum	Minimum	Standard Deviation
Panel A: Debt Characteristics					
Total Debt (£000's)	343,656	150,400	3,723,900	0	637,380
Net Debt (£000's)	-337,654	-80,624	887,000	-3,814,239	847,211
Debt Maturity < 1 year (£000's)	80,546	13,399	720,000	0	153,489
Debt Maturity 1-2 years (£000's)	47,029	612	479,400	0	96,952
Debt Maturity 2-5 years (£000's)	165,480	32,998	3,305,300	0	533,861
Debt Maturity 5 years + (£000's)	64,094	0	658,400	0	165,173
Debt maturing in more than 5 years/Total Debt	0.14	0.00	0.84	0.00	0.25
Leverage, Book	0.24	0.26	0.63	0.00	0.18
Lines of Credit (£000's)	249,049	109,500	2,249,000	0	414,984
Public Debt Outstanding (£000's)	65,181	0	760,600	0	180,084
Bank Debt Outstanding (£000's)	244,850	90,348	3,723,900	0	608,115
Non-bank Private Debt Outstanding (£000's)	33,625	0	748,200	0	125,470
Fixed Debt Outstanding (£000's)	164,309	0	3,128,700	0	519,829
Floating Debt Outstanding (£000's)	168,570	53,300	1,293,200	0	264,290
Panel B: Firm Characteristics					
Total Assets (£000's)	1,573,927	639,000	14,453,628	78,937	2,510,714
Fixed Assets/Total Assets	0.32	0.25	0.92	0.00	0.26
Market to Book	4.09	2.29	45.04	-18.24	8.19
Interest Coverage Ratio	86.07	4.53	2726.67	-14.09	433.82
R&D/Sales	0.01	0.00	0.13	0.00	0.02
EBITDA/Total Assets	0.10	0.12	0.26	-0.36	0.12
Firm Age	35.05	21.00	106.00	0.00	33.98
Director Ownership	0.05	0.00	0.57	0.00	0.12
Family Founder	0.18	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation	0.51	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation - Present	0.36	N.A.	N.A.	N.A.	N.A.
Change in Finance Director	0.13	N.A.	N.A.	N.A.	N.A.
Board Size	8.72	8.00	15.00	5.00	2.28
Board Age	53.55	53.92	61.27	44.20	3.91

Table 4.9VII: Descriptive Statistics for Non-bank Private Issuers

Data is based on a hand collected sample of 1091 issues of public, bank and non-bank private debt from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist. Total debt is calculated as the sum of both short-term and long-term debt. Net debt is calculated as total debt minus cash and cash equivalents. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Lines of credit is defined as the total amount of undrawn lines of credit available to the company. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Interest Coverage Ratio is calculated as the ratio of earnings before interest and tax to interest expense. Firm age is taken as the age of the company from date of incorporation. Director Ownership is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts. Family Founder is a dummy binary variable defined as '1' where the company has an original founder or family founder member on the Board of Directors, and zero otherwise. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. Change in finance director is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Board Size is the number of directors serving on the company's board at the financial year end. Board Age is the average age of the directors serving on the company's board at the financial year end.

Variable	Mean	Median	Maximum	Minimum	Standard Deviation
Panel A: Debt Characteristics					
Total Debt (£000's)	551,727	274,600	5,242,219	0	830,597
Net Debt (£000's)	-425,362	-260.400	104,158	-3,631,301	579,933
Debt Maturity < 1 year (£000's)	100,471	44,250	1,346,548	0	192,389
Debt Maturity 1-2 years (£000's)	65,282	11,850	561,600	0	111,419
Debt Maturity 2-5 years (£000's)	264,595	115,700	2,124,580	0	424,585
Debt Maturity 5 years + (£000's)	138,093	8,350	1,736,046	0	285,651
Debt maturing in more than 5 years/Total Debt	0.19	0.06	0.90	0.00	0.24
Leverage	0.25	0.24	0.76	0.00	0.15
Lines of Credit (£000's)	268,828	160,800	2,059,117	0	358,053
Public Debt Outstanding (£000's)	159,247	0	1,361,155	0	358,678
Bank Debt Outstanding (£000's)	230,763	106,400	1,786,820	0	324,756
Non-bank Private Debt Outstanding (£000's)	161,717	0	2,094,244	0	383,673
Fixed Debt Outstanding (£000's)	159,036	60,000	1,069,000	0	246,746
Floating Debt Outstanding (£000's)	188,558	110,800	727,600	0	205,387
Panel B: Firm Characteristics					
Total Assets (£000's)	2,192,428	1,429,600	15,236,350	167,126	2,742,906
Fixed Assets/Total Assets	0.22	0.14	0.76	0.00	0.15
Market to Book	4.43	2.26	151.39	-42.03	21.88
Interest Coverage Ratio	8.69	6.28	69.50	-3.22	9.98
R&D/Sales	0.01	0.00	0.06	0.00	0.02
EBITDA/Total Assets	0.13	0.13	0.35	-0.16	0.08
Firm Age	42.31	26.00	115.00	1.00	33.81
Director Ownership	0.04	0.00	0.39	0.00	0.09
Family Founder	0.11	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation	0.43	N.A.	N.A.	N.A.	N.A.
Board-Bank Affiliation - Present	0.24	N.A.	N.A.	N.A.	N.A.
Change in Finance Director	0.20	N.A.	N.A.	N.A.	N.A.
Board Size	9.33	9.00	14.00	6.00	2.03
Board Age	55.00	55.75	60.50	44.13	3.42

Table 4.10: Analysis of Reason Stated for Issue

Descriptive statistics for the reason stated for a hand collected sample of 1091 issues of public bonds, bank loans, and issues of non-bank private debt from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. Given that companies often cite several reasons for the purpose of offer, there are more than 1091 observations.

Panel A: Reason Stated for Issue of Public, Bank and Non-Bank Private Debt

	Full Sample		Public Bond Issues		Bank Debt		Non-Bank Private Debt	
Reason	N	%	N	%	N	%	N	%
Acquisition	175	12.97	21	5.34	151	19.02	3	1.85
Refinance/Pay down Debt	399	29.58	102	25.95	264	33.25	33	20.37
Other	492	36.47	75	19.08	349	43.95	68	41.98
Not Classified	283	20.98	195	49.62	30	3.78	58	35.80
Total	**1349**	**100.00**	**393**	**100.00**	**794**	**100.00**	**162**	**100.00**

Panel B: Reason Stated for Issues of Bank Debt: Syndicated Loans and Bilateral Loans

	Bank Debt		Syndicated Loans		Bilateral Loans	
Reason	N	%	N	%	N	%
Acquisition	151	19.02	129	16.25	22	2.77
Refinance/Pay down Debt	264	33.25	235	29.60	29	3.65
Other	349	43.95	302	38.04	47	5.92
Not Classified	30	3.78	0	0.00	30	3.78
Total	**794**	**100.00**	**666**	**83.88**	**128**	**16.12**

Table 4.11: Analysis of Distribution of Maturity of Announcements of Debt

Distribution of type of debt issue for a hand collected sample of 1091 issues of public bonds, bank loans, and non-bank private issues of debt from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2000 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drop out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist.

Panel A: Maturity of Public, Bank and Non-Bank Private Debt

Maturity of Announcements (Years)	Full Sample		Public Bond Issues		Bank Debt		Non-Bank Private Debt	
	N	%	N	%	N	%	N	%
0-0.99	7	0.01	0	0.00	6	0.01	0	0.00
1-1.99	107	0.10	0	0.00	103	0.17	1	0.01
2-4.99	143	0.13	20	0.06	97	0.16	13	0.09
5-9.99	480	0.44	94	0.28	280	0.46	85	0.86
10-19.99	110	0.10	99	0.30	5	0.01	44	0.29
20-29.99	33	0.03	30	0.09	1	0.00	1	0.01
30-39.99	32	0.03	31	0.09	0	0.00	1	0.01
40-49.99	23	0.02	23	0.07	0	0.00	1	0.01
50-59.99	3	0.00	3	0.01	0	0.00	0	0.00
Not Classified	153	0.14	33	0.10	114	0.19	6	0.04
Total	**1091**	**100.00**	**333**	**100.00**	**606**	**100.00**	**152**	**100.00**

Panel B: Maturity of Bank Debt - Syndicated Loans and Bilateral Loans

Maturity of Announcements (Years)	Bank Debt		Syndicated Loans		Bilateral Loans	
	N	%	N	%	N	%
0-0.99	6	0.01	0	0.00	6	0.01
1-1.99	103	0.17	93	0.15	10	0.02
2-4.99	97	0.16	91	0.15	6	0.01
5-9.99	280	0.46	258	0.43	22	0.04
10-19.99	5	0.01	5	0.01	0	0.00
20-29.99	1	0.00	1	0.00	0	0.00
30-39.99	0	0.00	0	0.00	0	0.00
40-49.99	0	0.00	0	0.00	0	0.00
50-59.99	0	0.00	0	0.00	0	0.00
Not Classified	114	0.19	73	0.12	41	0.07
Total	**606**	**100.00**	**521**	**85.97**	**85**	**14.03**

Table 4.12: Issues Ranked by Loan Status

Distribution of type of debt issue for a hand collected sample of 1091 issues of public bonds, bank loans, and non-bank private issues of debt by issues status from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2000 and 2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drops out of the FTSE350, and is included for the full sample period; firms only leave the sample if they delist.

Panel A: Loan Status for Announcements of Public, Bank and Non-Bank Private Debt

	Full Sample		Public Bond Issues		Bank Debt		Non-Bank Private Debt	
Reason	N	%	N	%	N	%	N	%
New Loan	987	90.47	320	96.10	515	84.98	152	100.00
Renewal	104	9.53	13	3.90	91	15.02	0	0.00
Total	**1091**	**100.00**	**333**	**100.00**	**606**	**100.00**	**152**	**100.00**

Panel B: Loan Status for Announcements of Bank Loans - Syndicated Loans and Bilateral Loans

	Bank Debt		Syndicated Loans		Bilateral Loans	
Reason	N	%	N	%	N	%
New Loan	515	84.98	451	74.42	64	10.56
Renewal	91	15.02	70	11.55	21	3.47
Total	**606**	**100.00**	**521**	**85.97**	**85**	**14.03**

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CHAPTER 5: THE CHOICE OF DEBT SOURCE FOR UK COMPANIES

5.1 Introduction

A vast amount of literature has studied debt by examining interest tax shields, optimal debt levels and debt maturity; however less research has been undertaken on the sources from which firms borrow. This is somewhat surprising as the use of debt finance to raise funds is a standard alternative to issuing equity and this has received considerable attention in the literature. Over the last 20 years authors have sought to remedy this, and there has been a considerable amount of literature dedicated to examining a company's choice between public, bank and non-bank private debt, and why particular companies issue a particular type of debt. The purpose of this chapter is to provide a comprehensive review of the central empirical evidence available which examines a company's choice of debt source, and to contribute to this literature by examining and presenting the results of a multinomial logistic regression to determine a company's choice between different sources of debt. The sources of debt examined in this thesis comprise public debt, bank debt (both syndicated and bilateral), and non bank private debt.

This study contributes to the existing literature in a number of ways. Firstly, this study expands on prior US literature by examining a company's choice of debt source in a UK setting. Barnes and Cahill (2005) and Antoniou, Guney and Paudyal (2007) have examined the choice of debt source in a UK setting, however these studies employ only balance sheet data. Following Denis and Mihov (2003) and Arena (2011), this study examines the incremental debt issue decision using a hand

collected sample of 1051 announcements of issuances of public, bank (both syndicated and bilateral) and non-bank private debt made by UK firms listed on the London Stock Exchange FTSE350 index between 2001 and 2008. This approach associates a firm's choice of debt source with firm characteristics measured prior to when the choice of debt source is made, and allows for an enhanced evaluation of the features that shapes a firm's choice of debt source as it characterises a firms discrete choice of debt source given circumstances at the point of issuance in the framework of capital structure decisions. The balance sheet approach used by previous UK studies captures the cumulative outcome of past financing decisions and not the discrete choice of debt source.

Secondly, this study then furthers the analysis into the choice of debt source by examining syndicated loans and bilateral loans individually. So far, this has been overlooked despite a large amount of literature examining syndicated loans, and the nature of syndicated loans, in depth (see, for example, Dennis and Mullineaux (2000) and Sufi (2007)). Bilateral loans differ from syndicated loans in several ways which may engender a borrower to choose one over the other. The first difference concerns the parties involved in the loans. A bilateral loan is a loan between an individual borrower and an individual lender, whereas a syndicated loan is a loan between an individual borrower and several lenders who have joined together to form a lending syndicate. In other words, bilateral bank loans refer to the more traditional relationship banking, whereas syndicated loans are essentially a hybrid between bilateral bank loans and the public bond markets (Li (2005)). Consequently, firms looking to build a relationship with a bank may seek to borrow on bilateral terms.

Firms may also want to borrow from one lender to maintain a comparative advantage when they are concerned about competitors acquiring proprietary information (Bhattacharya and Chiesa (1995)). Similarly, a second difference concerns the value of the loan. Given that there is only one lender in a bilateral lending agreement, bilateral loans tend to be for smaller amounts. In contrast, as there are several lenders in a syndicated lending agreement, syndicated loans are typically loans for considerably large amounts of money as several banks are able to contribute to the loan. Typically syndicated loans are for amounts which are in excess of that which a lender is willing to risk on a bilateral basis. The average syndicated loan value in this sample was £433.11 million compared to the average bilateral loan value of £169.88 million.

Thirdly, this study incorporates the inclusion of non-issuing firm year observations, which prior literature has so far disregarded. The inclusion of non-issuing firm year observations allows for a useful comparison between, and examination of, the issuing choices of firms entering the debt markets and those currently with debt outstanding. Finally, this study examines the importance of having a banker on the board for access to debt finance from both private issuers and the public capital markets. Specifically, this study investigates whether the presence of a bank affiliated board member on an issuing company's board of directors drives easier or improved access to funds as a consequence of bank affiliated board members playing an important function as monitoring devices over and above the normal screening and monitoring performed by banks.

The results of this study reconfirm the conventional view of firms issuing public debt when they are subject to lower information problems, and thus face lower information and monitoring costs, as discussed by prior literature.

There is consistently strong evidence of the ability to provide collateral being positively related to issuing both public and bank debt relative to issuing non-bank private debt. This suggests a pecking order of debt issuance choice; public debt, bank debt and, as a last resort, non-bank private debt.

The results suggest that bank affiliation plays a significant role for firms wishing to borrow from a bank on a bilateral basis. However, there is no evidence that bank affiliation plays a significant role in driving access to the public capital markets or to syndicated loans in the UK.

The remainder of this chapter is structured as follows: Section 5.2 firstly provides a comprehensive review of the central empirical evidence available the determinants of the source of new debt. Section 5.3 provides a description of the sample. Section 5.4 presents the empirical results of the determinants of the source of new debt finance. Section 5.5 provides concluding remarks.

5.2 Review of Literature

Definitions of public debt, bank debt and non-bank private debt are outlined in Chapter 2 and Chapter 4. Literature examining a company's choice of debt source has largely, but not exclusively, concerned itself with the information and agency costs involved in issuing debt, as discussed in Chapter 3. Within this section, literature will be reviewed under the following theoretical headings; information asymmetry, credit quality, growth opportunities and board governance.

This section does not aim to provide a comprehensive summary of all research conducted within this field; what it aims to do is review the most prominent research which links in with the forthcoming empirical analysis within this chapter.

5.2.1 Information Asymmetry

Firm Size: Smaller firms are typically subject to a high degree of information problems because they have little or no reputation, and are thus consequently forced into issuing private debt because of the screening and monitoring services that banks and other financial intermediaries provide to try and minimise these information problems (Fama (1985), Diamond (1984/1991) and Rajan (1992)). Once firms have established a strong reputation, they are able to switch towards using public debt finance. This is because it is in firms' interests to preserve the reputation that they have acquired by avoiding risky strategies (Diamond (1991) and Berger and Udell (1995).

Hadlock and James (2002) argue that a firm's dependence on bank debt is linked to security mispricing. They argue that larger firms will only borrow from banks if they suffer from a great deal of security mispricing – specifically undervaluation. This is because larger firms find that the monitoring and transactions costs of borrowing

privately are high, whereas the benefits that bank monitoring imparts are low. Consequently, large firms will only borrow privately if they receive a great deal of benefits from the monitoring services provided by banks.

However, large firms do not borrow exclusively from public markets. The growth of the market for syndicated loans has allowed larger firms to borrow the larger amounts which they seek to borrow, relative to smaller firms, from a group of banks or financial institutions. Larger firms also enjoy the benefits that private monitoring offers, especially when undertaking investments that are highly information asymmetric or require non-standardised contracts that can be easily renegotiated if required (Houston and James (1996), and Hadlock and James (2002)). In fact, the majority of corporate debt is provided by private sources (Berger and Udell (1999)).

The empirical literature is almost unanimous in finding that firms who borrow from public sources are larger than those who borrow from private sources.[38,39] Blackwell and Kidwell (1988) find that firms issuing public debt have total assets worth $3.4bn on average, compared to the $2.3bn of total assets, on average, held by firms who issue privately. Hadlock and James (2002) find that smaller firms account for roughly 40% of bank loan announcements and Petersen and Rajan (1994) observe that the smallest 10% of firms in their sample borrow 95% of their loans from single banks. Whereas of the largest 10% of firms in their sample, only 76% of firms

[38] A notable exception is Agarwal and Hauswald (2007) who observe that the choice of loan type is not dependent upon the borrowing firm's size.

[39] There is little literature on the relationship between the choice of debt and medium sized firms, but a notable exception is Gomes and Phillips (2007). Gomes and Phillips argue that the choice of debt source for medium firms is dependent upon their level of information asymmetry, with medium sized firms with greater levels of information asymmetry being more likely to issue private debt because they enjoy the monitoring benefits that banks provide.

borrow from a single bank. Petersen and Rajan (1994) also observe that larger firms are more likely to borrow from several banks. Smaller firms have just over one lender, whereas the larger firms have more lenders (approximately 3).

Gonzalez and James (2007) report that banking relationships are particularly beneficial to small firms as these firms lack a reputation for borrowing and will enjoy the benefits that the monitoring and screening services offered. Fields, Fraser, Berry and Byers (2006) report that bank debt is most valuable to small firms. They find that the market responds more positively to loan announcements from large firms than it does to announcements of small firms. This finding illustrates that bank financing is more beneficial to small firms, attributable to the monitoring and certification services that banks provide.

Kwan and Carleton (2004) report that issuers of private placements are smaller than public borrowers, to the magnitude of one-fifth and that non-switchers, i.e. firms that borrow solely from banks, are inclined to be significantly smaller than those that borrow from both the public and private debt markets – switchers. Denis and Mihov (2003) provide strong evidence consistent with private borrowers – both private and non-bank private – being smaller than public borrowers, with total assets proxying firm size. They find that firms who borrow from banks have assets worth $145 million on average, those that borrow from non-bank private sources have assets worth $220 million on average, and those that borrow publicly have total assets worth $2,176 million on average.[40] Carey et al (1993) report similar findings, which suggest that for smaller firms, bank loans are a safer source of debt than privately

[40] Denis and Mihov (2003) report that this result holds where different measures of firm size – such as net sales and the market value of capital – are employed.

placed debt. Johnson (1997) finds no relationship between firm size and the use of non-bank private debt.

Issue Size: Firms borrowing large amounts of debt finance were traditionally forced to issue public debt as individual lenders are unlikely to be willing, or indeed able, to provide finance for large issues of debt. Firms issuing public debt tend to be larger firms who suffer less from information asymmetry, and as a result require less monitoring. In contrast, issues of private debt, particularly, bank debt, are most attractive for firms issuing smaller volumes of debt finance (Smith (1977)), Bhagat and Frost (1986) and Blackwell and Kidwell (1988)). These firms tend to be smaller, and thus benefit greatly from borrowing from sources which are more able to effectively monitor them. For example, Blackwell and Kidwell (1988) report that on average private issues are half the size of public issues - $39.7 million versus $80.2 million, respectively.[41]

Similarly, Krishnaswami, Spindt and Subramaniam (1999) find that firms with smaller issues are found to have high amounts of private debt in their capital structure. Carey et al (1993) report that bank loans appear to cater for the smallest issues, with public bonds catering for the largest issues, and private placements falling in between the two. However, more recently, Denis and Mihov (2003) report that issuers of non bank private debt issue less on average than issuers of public and bank debt ($306.1m versus $204.4m and $125.5m, respectively).

[41] Shepherd, Tung and Yoon (2007) argue that the size of the loan may have an effect on the amount of monitoring carried out. Lenders of larger amounts are more likely to carry out sterner pre-loan diligence than lenders of smaller loans.

However, the growth of the market for syndicated loans has somewhat altered this traditional concept; firms wishing to borrow large amounts of debt finance are now able to borrow from a group of banks (or other financial institutions) instead of issuing public debt. Consistent with this, Maskara (2006b) finds that syndicated loans are approximately five fold the size of bilateral bank loans.

Assets: Collateral can be beneficial for firms as lenders perceive borrowers with copious tangible assets as safer borrowers. Not only are lenders able to recoup their capital if their debt is secured, and the borrower defaults, but also firms risk their net worth when investing and thus those with high levels of net worth are incentivised to invest efficiently so that they do not lose their net worth (Harris and Raviv (1990)). Consequently, firms able to pledge more collateral are viewed as higher quality borrowers, and are able to issue public debt. Thus, the presence of collateral can help alleviate the consequences of low credit quality firms.

In contrast, firms with have a great deal of volatile or intangible assets on their balance sheet that can be used as collateral are forced to borrow predominately from banks or other private sources (Easterwood and Kadapakkam (1991) and Houston and James (1996)). This is because they are more difficult to value, and thus viewed as lower quality, riskier, borrowers who require more intensive monitoring.

Several studies have reported a positive relationship between collateral, proxied by the fixed asset ratio, and the issuance of public debt. Denis and Mihov (2003) report that firms are more likely to issue public debt if they have a higher proportion of fixed assets, and issue private debt if they have a smaller proportion of fixed assets. They report that public issuers of debt (53%) have significantly larger fixed asset

ratios than issuers of bank debt (38%) or non-bank private debt (33%). Johnson (1997) also reports that firms with greater non-bank private debt are less likely to have greater fixed asset ratios relative to issuers of alternative sources of debt. Similarly, Bradley and Roberts (2004), Faulkender and Petersen (2006) and Bharath, Sunder and Sunder (2008) all report that the public markets are more accessible to firms which have few volatile assets, and have lots of fixed and tangible assets. Barnes and Cahill (2005) report comparable results using a sample of UK firms. Using static balance sheet data, they observe that issuers of public debt (0.40) have greater fixed average ratios than private debt issuers (0.31), with the difference being statistically significant at the 5% level.

Although private lenders do not require that borrowers pledge large amounts of collateral, banks often insist upon their debt being senior to other debt. Therefore, to fund their investment projects, firms which have greater information asymmetries and who are thus more expensive to monitor, are forced to make bank debt senior to lower the risk to the lending bank (Longhofer and Santos (2000)). Firms with liquid assets will also issue senior bank debt because this allows development of continuing relationships (Longhofer and Santos (2000)). Diamond (1993) articulates that when bank debt is senior, banks are in the position to make better liquidation decisions because other bondholders do not benefit from the banks liquidation decision. Longhofer and Santos (2000) expresses that banks will only monitor and build up relationships with firms if their debt is senior because they have no motivation to invest in monitoring if their debt is junior to other lenders

Stock Return Volatility and Cash Flow Volatility: As firms who are subject to enhanced levels of stock return volatility tend to be those firms with greater disparities of information between firms and lenders, it is unsurprising that the literature has reported a direct relationship between the use of monitored bank debt, and stock return volatility. Houston and James (1996) find that the greater the volatility of a firm's share price, the more likely that they will borrow from private sources rather than public sources. Likewise, Hadlock and James (2002) find a direct relationship between the use of bank debt and stock return volatility, and that issuers of public debt typically have lower stock return volatility. Consequently, overvalued firms tend to issue public debt, whereas for firms who are likely to fall victim to undervaluation, bank debt is especially appealing. This result is consistent with the view of banks having information benefits that undervalued firms perceive as being favourable. Hadlock and James (2002) also observe that firms who announce new bank loans tend to be those with low share price run-ups, which is in line with the argument that the choice of bank financing may be driven by adverse selection problems occurring due to undervaluation of shares.

A similar relationship is found between the choice of debt source and the borrower's earnings volatility. Bradley and Roberts (2004) report that the cash flow volatility of private borrowers is double that of public issuers, arguing that this arises because a firm may find it difficult to meet its debt obligations if it has volatile cash flows. Similarly, both Johnson (1997) and Barnes and Cahill (2005) observe a positive relationship between earnings growth volatility and the issuance of bank debt and non-bank private debt, and negative relationship between the use of public debt and a firms earnings growth volatility, with public issuers tending to have lower earnings

growth volatility. Lui (2006) states that firms borrowing from non-bank financial private sources will invest less than, but have higher cash balances and equity risk, than firms borrowing from banks. This suggests that firms with the lowest cash flows will borrow from banks as they require and also benefit from the monitoring services that they provide. Firms with more volatile cash flows will also keep greater amounts of unemployed credit lines as underlying reserves of cash (Lui (2006)).

In contrast, Antoniou, Guney and Paudyal (2008) using static balance sheet data, find that UK firms with high earnings volatility issue public debt, and that firms with less earnings volatility borrow more from banks, and vice versa. These results are consistent with firms that have high earnings growth volatility seeking to avoid the monitoring and control effects of private debt issuance and preferring to suffer the indirect costs of raising debt publicly in exchange for the freedom to pursue relatively unrestricted investment.

Debt Outstanding: Previous debt financing decisions are found to have an effect on current and future debt financing decisions. Denis and Mihov (2003) find that firms with public debt outstanding are more likely to issue public debt in the future, and that firms with no public debt or any debt outstanding, that is firms with no reputation, will borrow from banks. However, they find that the presence of non-bank private debt does not mean that it is likely to do so again, and a firm's existing blend of debt sources is independent of the probability that non-bank private debt will be issued. Likewise, Bharath, Sunder and Sunder (2008) report that firms that have previously borrowed publicly favour borrowing from public sources rather than private sources. Similarly, Hadlock and James (2002) report that firms that have

public debt outstanding tend to have less bank debt on their capital structures than those firms with only bank debt outstanding. They articulate that firms with public debt outstanding will only issue bank debt if the market has considerably undervalued the firms' true value, as these firms typically find that the monitoring and transactions costs are outweighed by the benefits that monitoring gives these firms. However, where the contracting costs of bank debt are low, only a small amount of undervaluation – if any – is required to make bank debt attractive.

5.2.2 Credit Quality

Credit Quality: Information and risk are factors inherent in the choice between public and private debt (Carey and Rosen (2000)). The theoretical argument provided by Diamond (1991) illustrates that firms' issuance decisions will be influenced by its quality of credit. Diamond argues that high credit ratings make public issuances of debt a viable option. High quality/low risk firms will borrow from public sources because the agency costs involved with public debt are offset by the lower transactions costs of issuing in this market (Blackwell and Kidwell (1988)). Although borrowers do not receive a credit rating when borrowing privately, they benefit from the screening, monitoring and flexibility that banks provide, because they help to both signal and endorse firm quality and creditworthiness to potential investors and to the product markets (Diamond (1991)).

Firms with high credit ratings are able to borrow from the public debt markets as the lower interest rates that they receive from this market incentivises them to perform in

an efficient manner because they will lose the lower interest rates if they default.[42] Firms with low and medium credit ratings are unable to borrow from the public debt markets because they do not have a reputation, which is good enough to allow them to borrow without monitoring (Esho, Lam and Sharpe (2001)). To mitigate operating and financial risk, low credit quality, high risk, firms must build up a reputation of being a good borrower by means of bank borrowing. Consistent with this, Johnson (1997), and Krishnaswami et al (1999) and Bharath, Sunder and Sunder (2008) exhibit a positive relationship between a firm's credit risk and the amount of bank debt in its capital structure. The positive relationship between firm quality and use of public debt holds across different markets. Both Antoniou, Guney and Paudyal (2007) and Steffen (2008) find that it holds for their sample of UK firms, and Shirasun and Xu (2007) find that it holds for their sample of Japanese firms. Kwan and Carleton (2004) find that among investment grade borrowers, firms with lower credit quality are less likely to issue bonds privately, perhaps to avoid the tight covenants in private placements once they gain access to the public bond market.

Denis and Mihov (2003) illustrate that the credit history and current credit quality of the borrowing firms is the mitigating factor in the choice of debt source. They observe that that high credit quality firms borrow from public sources, that firms with moderate credit quality borrow from banks, and that for firms of a low credit quality, non-bank private debt facilitates in conforming to their debt financing

[42] Alternatively, Rajan (1992) argues that high quality firms will prefer to borrow from public sources due to banks having no incentive to lower the rates when favourable news arises concerning the borrowing firms. This is because the information they receive is private, and unknown to other lenders who are either unwilling or unable to lower the interest rates because they are not privy to this new, favourable information. Low risk firms will prefer to issue the cheaper public debt because they do not require to be monitored. Moreover, firms of high credit quality do not receive as many benefits from these services, which make bank debt expensive for these firms.

requirements. They report that the median issuer of bank or non-bank private debt are unrated, whereas the median public issuer has a debt rating greater than that of BBB, and that only a handful of non-bank private borrowers have an investment grade rating, compared to 5% of bank borrowers and 54% of public borrowers, each of which are significantly different at the 1% level of significance. Similarly, Carey, Post and Sharpe (1998) report that lenders of riskier investments tend to be made by non bank private issuers.

It appears that the presence of a credit rating is a good indicator of whether firms have public debt outstanding. Cantillo and Wright (2000) find that few firms have no public debt outstanding if they have a debt rating, and that few firms have public debt outstanding if they do not have a credit rating. Very few firms without a debt rating have public debt, and very few firms have a debt rating but no public debt. However, Faulkender and Petersen (2006) make the point that firms might not have a debt rating not because they do not have access to the public markets, but because they may not want to issue public debt or because they do not want a debt rating. For example, firms who do not want their quality disclosed to the market may choose to borrow private debt, irrespective of the interest rates being higher in this market (Hadlock and James (2002)). Likewise, Yosha (1995) and Stephan, Talavera and Tsapin (2008) argue that because issues of public debt require that firms disclose more information to the market which may lead to a loss of comparative advantage, firms with high quality projects will prefer to borrow from private sources because information need only be divulged to one, or at most a few, banks or financial institutions, and not competitors by default.

Billett, Flannery and Garfinkel (1995) argue that borrowing firms also take into account the quality of the lender when deciding where to borrow. They argue that firms will endeavour to borrow from high quality lenders because these lenders provide superior information regarding the borrower's value or risk and, as a result, provide a credible signal of the firm to the market. Billet, Flannery and Garfinkel (1995) report that the market response to loan announcements is greater when lenders have high credit ratings. Carey and Nini (2007) also state that the identity of the lender is important; however, they take a different stance from Billett, Flannery and Garfinkel (1995). Carey and Nini (2007) state that a borrower may choose to borrow from one particular lender because that lender knows more about or has more favourable information regarding the borrower's credit quality, which would lower the yield spreads that the borrower has to pay.

Leverage: Several studies have documented a negative relationship between a firm's level of debt and its use of debt. For example, Gibbard and Stevens (2006) observe that the presence of debt engenders a negative co-efficient in the investment decision, which indicates that firms find it more difficult to borrow when they have high levels of leverage. As a firm's ability to issue debt alters as its level of leverage changes, it is therefore, unsurprising that firms with different levels of leverage will have different debt source preferences.

The literature on the relationship between leverage and the source of debt issued provides varied results. Fama (1985) and Gorton and Haubrich (1987) argue that as the monitoring services that banks offer lowers the cost of public debt, there may be a positive relationship between the use of bank debt and leverage. Easterwood and

Kadapakkam (1991) argue that firms will employ more private debt if they have greater levels of leverage as the probability of bankruptcy increases with greater levels of leverage, as the leverage related costs of debt are decreased through the use employment of private debt. Consistent with this several studies have documented a positive relationship between leverage and the use of bank debt (Easterwood and Kadapakkam (1991), and Johnson (1997)). Johnson (1998) examines the effect of bank debt on optimal capital structure more closely. He observes a positive relationship between the use of bank debt and leverage with firms who borrow from banks having a level of leverage which is approximately 41% greater than firms who do not borrow from bank. Johnson argues that this arises because the use of bank debt can potentially mitigate both the extent of information asymmetry and the problem of asset substitution rendering that banks are more willing to lend to firms which they have more information on. Gonzalez and James (2007) find also firms with higher levels of leverage tend to raise their debt finance by means of bank borrowing,

However, some authors have argued that firms with high leverage only borrow from banks or private sources because they have to. Diamond (1993) takes this stance. He states that the heightened chance of liquidation (and frequent renegotiation) by means of private borrowing may encourage the use of public debt by firms that are more highly levered. This is because these firms are likely to find it difficult and more costly to renegotiate debt if required to do so. Houston and James (1996), Denis and Mihov (2003), Bradley and Roberts (2004), and Faulkender and Petersen (2006) find evidence of this, reporting a negative relationship between the use of bank debt and leverage. This is consistent with the notions of either bank monitoring providing a

public good (Fama (1985)), or firms issuing public debt to enjoy economies of scale (Blackwell and Kidwell (1988)).[43] Denis and Mihov (2003) attribute the negative relationship to highly leveraged firms exhausting their private sources of debt. Faulkender and Petersen (2006) show that firms should have less debt on their capital structure if they can only raise debt from private sources or if they are limited in the amount of debt they may issue from public markets. This is because it is more expensive to borrow from banks due to the monitoring costs that are included in bank debt.

In contrast to his findings of a positive relationship between the use of bank debt and leverage, Johnson (1997) finds that non-bank private debt use is negatively related to leverage, which is particularly surprising as theoretically the use of non-bank private debt is not expected to have a unique relationship. Similarly, Yu (2003) finds that firms that predominantly issue non-bank private debt have the lowest bank debt ratios, followed by those issuing both public debt and bank debt. However, both Carey, Post and Sharpe (1998) and Gonzalez and James (2007), find that the leverage position of non-bank private borrowers fall in between those of public and bank borrowers.

Performance and Profitability: Firms with poor performance, thus profitability, and those who anticipate poor performance and low future profitability are forced to

[43] The difference between the relationships reported may be attributable to how the authors have constructed their samples. Studies have used balance sheets to determine the source of debt employed by firms, but determining what is private and what is non-bank private is inherently difficult as most firms do not make a distinction. Consequently, the results may lead to considerable measurement errors. For example, Johnson (1997) who finds a positive relationship classes debt as bank debt only if it is explicitly classed as bank debt, whereas Houston and James (1996), who find a negative relationship, class bank debt as both debt that is explicitly classed as bank debt, and debt from private sources where the lender is not explicitly defined.

borrow from private sources as they require the monitoring services that banks provide. In contrast, those with decent performance are able to issue public debt as they are perceived as being low risk, and do so despite banks being willing to lend to them (Diamond (1991), Berlin and Mester (1992), and Bolton and Frexias (2000)).[44,45] Diamond (1991) and Hoshi et al (1993) contend that this negative relationship between profitability and bank debt is attributable to profitable firms being less likely to ruin their credible reputations by employing risk shifting strategies, when borrowing from public sources, whereas less profitable firms tend to have lower reputations and are thus more likely to gamble on more risky projects.

The empirical evidence is consistent with firm dependence on bank finance wavering as a firm becomes more profitable. Denis and Mihov (2003) report that both bank and non bank private borrowers are less profitable than firms that have public debt outstanding, with non-bank private borrowers suffering from the lowest profitability, thus being the poorest performers. Looking at the UK syndicated loan market; Steffen (2008) also finds that non-bank dependent firms appear to be less profitable than bank dependent firms. Moreover, they tend to be those firms who are more likely to fall into financial distress and those with the lowest credit ratings.

A firm's return on assets illustrates how effective its management is at in employing its assets to create revenue. Denis and Mihov (2003) find that public issuers have an average return on assets of 13.5%, compared to 11.2% for bank borrowers and 11%

[44] Diamond (1991) argues that even highly rated firms will borrow from banks if they expect future profitability to be low. This result also holds when interest rates are high.

[45] Bank monitoring should enhance corporate performance if the positive market response to bank loan announcements is attributable to bank monitoring. Consequently, firm value may increase in the presence of bank monitoring (Shepherd, Tung and Yoon (2007)).

for borrowers of non bank private debt. This trend is further supported by Carey et al (1993) and Johnson (1998) who report that firms with bank debt have lower net sales and profitability. Yu (2003) reports that firms who rely on non-bank private finance have lower sales growth rates (17.05%), than those who rely on bank debt (27.48%), and those who rely on public debt (30.08%). Similarly, Hadlock and James (2002) find that bank sources of debt are preferred to public sources following a bout of significant share price reductions leading to the announcement. This ties in with firms gaining from the monitoring services that banks provide.

Shepherd, Tung and Yoon (2007) document that where agency costs are high, there is evidence of firm value being enhanced by bank monitoring because it lowers managerial ability to follow inefficient investment strategies, due to the increased monitoring that firms are subject to. However, it appears that a public issue of debt lowers a firm's performance. Patel (2000) finds that growth opportunities fall following an IPO of debt, and that in the 12 months following a debt IPO, firms with a prior banking relationship see their profitability decrease by approximately 3%. However, the presence of a bank relationship is beneficial to firms who issue publicly as Patel (2000) finds that firms with no prior banking relationship find that their asset efficiency declines by more than those with prior banking relationships.

Krishnaswami et al (1999) find only weak evidence of a relationship between a firm's future abnormal earnings and its current use of bank debt. Agrawal and Hauswald (2007) find that the choice of debt source is independent of a firm's profitability.

Financial Distress: The choice between public and private debt has different consequences on the firm's capacity to reorganise in times of financial distress. Chemmanur and Fulghieri (1994) argue that public and private borrowers treat lenders differently in time of financial distress. They argue that because public lenders tend to be short term players in debt markets (whereas banks are longer-term players) banks are able to be more flexible if financial distress occurs. This because they are encouraged to monitor their debtors to a greater extent, which leads to them being knowledgeable about firm's prospective performance and, as they have accurate information to base their liquidation decisions upon, inefficient liquidation is minimised. The rationale behind this is that by issuing more debt, the firm becomes more highly levered which increases the probability of default. If firms with higher levels of leverage opt for public debt and struggle to meet the covenant requirements or pay back interest, they will find it difficult and more costly to renegotiate. They will however find it to easier renegotiate the private debt part as and when required. Firms with lots of growth opportunities will only borrow negotiable debt so that they are in the position to take up a profitable investment if it arises.

For instance, Ofek (1993) finds that the likelihood of corporate restructuring decisions increases as the amount of private debt increases. Gilson et al (1990) and Kahl (2002) find that firms are more likely to cease to continue as a going concern if they have less privately issued debt, but that no such relationship is exhibited for public debt. A public bond issue is precarious for firms who may suffer financial distress because public bond issues are difficult to renegotiate and, thus, firms who are unable to honour the covenant restrictions are more likely to be liquidated.

As a result it is unsurprising that borrowers who believe that they may have a high risk of financial default (for example, firms with high credit risk and volatile cash flows who value renegotiability) will consciously choose a private lender who has a reputation for making efficient liquidation decisions rather than lenders who have a reputation for winding up firms who are unable to meet their debt obligations. This is despite bank borrowing being more expensive ((James (1996), Preece and Mullineaux (1996), Cantillo and Wright (2000), Esho, Lam and Sharpe (2001) and Bradley and Roberts (2004)).[46,47] Nevertheless, lenders who have a reputation for renegotiating debt contracts will only lend to firms who they feel will not make requests that are over exuberant, because this will have a negative impact on their renegotiability of lending reputation (Carey and Nini (2007)). Denis and Mihov (2003) find that borrowers of non-bank private debt are typically the poorest performers, and consequently tend to be those firms who are more likely to fall into financial distress.

The flip side is that as public debt is cheaper, firms who appear to have a low probability of financial distress will opt to issue public debt rather than private debt. The interest coverage ratio determines how easily a firm can pay the interest on its outstanding debt. Firms with high coverage ratios have more than sufficient earnings available to meet interest payments, whereas firms with lower interest coverage ratios have less earnings available to meet interest payments. Firms who principally issue publiç debt are empirically found to have a greater interest coverage ratio than those which issue private debt (Hadlock and James (2002), and Shirasu and Xu (2007). Yu

[46] Unlike banks, non-bank private sources such as capital mutual funds are unwilling to spend time and resources on acquiring information on firms in financial distress (Fiore and Uhlig (2005)).

[47] Nam (2004) reports that in times of economic financial distress, borrowers with close banking relationships with their lenders tend to perform better

(2003) looks at the differentiation between bank and non-bank private debt, and finds that issuers of bank debt typically have greater interest coverage ratios than those that principally issue non-bank private debt. This suggests that relative to other issuers, issuers of non bank private debt are perceived as riskier borrowers.

5.2.3 Growth Opportunities

Growth Opportunities: To avoid the underinvestment problem, whereby firms may have to forego positive investment opportunities, firms with an abundance of growth opportunities will find it beneficial to borrow from private sources, specifically banks, to enjoy the continuing nature, and flexibility, of a banking relationship (Myers (1977)). Similarly, firms with a variety of growth opportunities will want to shield these from competitors in order to sustain a comparative advantage, and therefore prefer to borrow privately (Yosha (1995)), as sensitive information regarding the firms' growth opportunities is only disclosed to one or at most a few lenders. Indeed, banks may actively seek to establish banking and lending relationships with firms which have an abundance of growth opportunities, in order to develop relationships which could be profitable to banks in the future (Huyghebaert and Van de Gucht (2007)).

The impact of growth opportunities on the choice of debt source is found to be somewhat mixed; employing the market to book ratio as a proxy for a firm's growth opportunities, Krishnaswami, Spindt and Subramaniam (1999) and Bradley and Roberts (2004) report a positive relationship between a firm's future growth opportunities and the use of private debt. Carey et al (1993) and Ongena and Smith (2000) report comparable results using alternative measures of growth opportunities -

expenditures on research and development and Tobin's Q, respectively. However, Houston and James (1996) find that the positive relationship between the use of private debt and growth opportunities only holds for firms with multiple bank relationships, observing a negative relationship between growth opportunities and the use of private debt for firms in a single bank relationship.

Johnson (1997) observes a positive relationship between a firm's growth opportunities and its use of private debt, but finds that this result is driven by the positive relationship between growth opportunities and the use of non-bank private debt, as firms with less growth options appear to issue more bank debt. Johnson (2003) attributes the insignificant relationship between debt use and growth opportunities to either firms switching between public and private sources of debt to avoid the underinvestment problem, or to firms altering their debt maturity.

However, consistent with Hoshi et al (1993) who argue that to avoid potential underinvestment problems firms with a variety of growth opportunities will opt to issue public debt, Hadlock and James (2002) and Barnes and Cahill (2005) who examine the debt source choice using static balance sheet data, report modest evidence of a positive relationship between issues of public debt and growth opportunities. Yu (2003) uses a firm's sales growth rate as a proxy for growth opportunities, and reports that public firms have higher sales growth rates than firms which borrow from bank and non-bank sources, which is consistent with public debt being more attractive for firms with lots of investment opportunities due to the lower level of monitoring carried out by public issuers of debt. More recently, Bharath, Sunder and Sunder (2008) observe that firms are more likely to issue public debt if

they have an abundance of growth opportunities combined with poor accounting quality

Denis and Mihov (2003) find no evidence of a relationship between growth opportunities and the choice of debt source in a multivariate setting, though do find that private borrowers enjoy higher growth in sales, expenditure and the number of employees than public borrowers do, consistent with private borrowers having greater growth opportunities relative to those which have not have not previously issued public or non-bank private debt.[48]

5.2.4 Board Governance

Bank Board Affiliation: Studies of corporate governance have sought to examine the role of financial experts on non-financial firms. As discussed by Stearns and Mizruchi (1993), a natural progression from a close relationship between a (bank) lender and a borrower may be the addition of a banker to a board of a non-financial company. Several studies have shown that non-financial firms often seek to co-opt a banker onto their board.

Stearns and Mizruchi (1993) argue that firms may actively seek to co-opt a banker onto their board to drive improved access to funds because the presence of a banker on the board improves the flow of information between borrowers and lenders. Booth and Deli (1999) report evidence consistent with bankers offering debt market expertise to affiliated borrowers. They report a positive relationship between a firm

[48] These results hold under univariate analysis. However, when Denis and Mihov (2003) carry out multinomial logit regressions they report no evidence of a relationship between a firm's historical growth rates of capital expenditures, sales and number of employees and the probability of issuing debt.

having a commercial banker sitting on their board and their aggregate level of bank debt. The presence of a banker on a board reduces the agency costs of debt as the affiliated banker endorses the firm's quality by signalling the borrowing firm's creditworthiness (Erkens, Subramanyam and Zhang (2011)).

In turn, Erkens et al (2011) state that this signal of creditworthiness can lead to borrowers being able to borrow on more attractive terms. For example, affiliated banks ought to be more willing to lend to firms which they have an affiliation to, ensuing increased availability of credit. Booth and Deli (1999) and Guner, Malmeinder and Tate (2008) find evidence consistent with this. The former reports that the presence of a financial executive on a company's board increases the amount of bank debt relative to firms with no financial executive sitting on their board. This difference is statistically significant at the 1% level. Similarly, Guner et al (2008) report a positive relationship between the presence of a commercial banker and the size of bank loans.

A further benefit of having an affiliated banker on the board discussed by Erkens et al (2011) is that affiliated borrowers can possibly enjoy lower borrowing costs, Guner et al (2008) similarly report that the presence of a banker leads to lower underwriting fees, but interestingly find that the lower underwriting fees are applicable only when the loan does not involve the affiliated banker's bank.

Houston and James (1995) argue that as firms grow and become dependent upon greater amounts of external finance, they benefit less from having a banker sitting on their board. This suggests that smaller, riskier, firms find the presence of a banker most beneficial. However, larger firms seeking to borrow on a bilateral basis are also

likely to find the presence of a banker beneficial because the banker adopts a certification role, and is able to exert some control on the borrowing firm and is able to continually monitor the borrowing firm.

The benefits of having a banker on a board are not unique to potential borrowers. Banks may themselves seek to obtain a seat on the board of a non-financial company. Erkens et al (2011) reports that borrowers have to conform to fewer debt covenants if they have a banker sitting on their board. This suggests that one of the fundamental purposes of having a banker on the board is to monitor the borrowing firm as the presence of a banker on the board replaces the need for further lending constraints and to increase the affiliated bank's control over the borrowing firm. Thus the presence of a banker on the board helps to lower the problem of information asymmetry as a result of the affiliated board member having access to proprietary information.[49] Moreover, not only are banks able to seek prospective business (Stearns and Mizruchi (1993)), banks may also obtain a comparative advantage in lending to other firms in the same industry using expertise acquired through sitting on boards of directors (Krozsner and Strahan (2001)).

Managerial Ownership: Several studies have found that the level of managerial ownership has an impact on firm value (Morck, Shleifer and Vishny (1988) and McConnell and Servaes (1990)). Given this, it is likely that the level of managerial ownership impacts on a firm's capital structure decisions, and thus choice of debt source.

[49] However, Booth and Deli (1999) find no evidence consistent with bankers sitting on the boards of non-financial firms where the primary motivation is to monitor the borrowing firm.

Hoshi et al (1993) argue that with respect to managerial ownership, a firm's choice between public and private debt is dependent upon its investment opportunities measured by Tobin's Q. Under the entrenching view of managerial ownership, they argue that owner managers will issue bank debt because they require bank monitoring to undertake the most efficient projects available them, but issue public debt if they have low growth opportunities because they want to be able to undertake inefficient projects. However, Rajan (1992) illustrates that because firms with low managerial equity ownership are wary of inspection from the public debt market they will opt to issue private debt.

Consistent with Rajan's illustration, Denis and Mihov (2003) report a negative relationship between managerial equity ownership and the likelihood of public debt issues. They observe that the median managerial equity ownership of bank borrowers (19.3%) and non-bank private borrowers (18.1%) is larger than that of public borrowers (3.2%). This suggests that public debt is less likely to be issued by owner-managed firms, which have low growth opportunities because they wish to avoid the rigorous monitoring of bank debt. Alternatively, the negative relationship may be a result of public lenders being wary of lending to firms with high equity ownership because the greater control that these managers possess somewhat insulates the firm from any constraints imposed by debt holders, or, just a firm size effect. Denis and Mihov (2003) report that the negative relationship between managerial ownership and the issuance of public debt continues to hold in a multivariate setting.

5.2.5 Summary of the Choice between Debt Source Literatures

This section has reviewed the previous literature on the Choice of Debt Source for borrowing companies. This section did not aim to provide a comprehensive summary of all research conducted within this field; but review the most prominent research which links in with the forthcoming empirical analysis within this chapter.

The study of the choice of debt source has largely concerned itself with the information and agency costs of issuing debt. Firms with lower information costs, for example, larger, less risky firms who are able to provide collateral to secure against their debt are more able to borrow from the public markets. In contrast, smaller, riskier firms with an abundance of growth opportunities are forced to borrow from private sources. These firms benefit greatly from the monitoring, screening and debt renegotiation services that banks provide, allowing them to build up a reputation as a credible borrower and thus facilitating their progression to being able to borrow from the public capital markets (Diamond (1984)).

The evidence presented has been largely biased towards US firms, and fails to recognise the difference between syndicated loans and bilateral loans, despite them being inherently different borrowing mechanisms. It is expected that firms issuing syndicated loans will have characteristics comparable to those of issuers of public debt, and that the characteristics of issuers of bilateral loans will be consistent with issuers of bank loans as discussed by the previous literature. Little research has been conducted on the choice of debt source for UK companies. An example of recent work on the choice of debt source includes Barnes and Cahill (2003). Barnes and Cahill (2003) however they use a balance sheet approach to examine the characteristics of issuers of different sourced of debt. Thus they fail to examine the

incremental debt issuance decision which allows for a more in depth evaluation of the choice of debt source by associating a firm's choice of debt source with characteristics measured prior to when the choice of debt source is made.

The following empirical analysis seeks explore in detail the determinants of the choice between public debt, syndicated bank debt, bilateral bank debt and non-bank private debt for UK firms to somewhat remedy this.

5.3 Sample Description

The sample of debt announcements within this chapter comes from the 1091 announcements of issuances of debt drawn from hand searches of Nexis, the Regulatory News Service and company annual reports, Thomson One Banker and DataStream as documented in Chapter 4.

The aim of this study is to examine what source of debt UK companies choose to borrow from, and why. To consider the choice of debt source more closely, the sample of announcements of issuances of debt is controlled for firms who issue only one type of debt, public, bank or non-bank private, within a fiscal year.[50] As shown in Table 4.3, this restriction yields a sample of 583 firm year observations of debt issues, comprising 151 firm year public debt issues (25.90%), 376 firm year issues of bank debt (64.49%), and 56 firm year issues of non-bank private debt (9.61%). Panel B of Table 4.3 presents the sample of announcements of issuances of bank debt where the issuances are controlled for firms who only issue either syndicated or bilateral loans within a fiscal year. This further manipulation of the sample restricts the sample by 9 firm year observations, providing 326 firm year issues of syndicated bank debt, and 41 firm year issues of bilateral bank debt. For comparison, Denis and Mihov (2003) employ a sample of 1560 debt issuances between 1995 and 1996, comprising 530 public debt issues (33.97%), 740 bank debt issues (47.44%) and 290 private debt placements (18.59%).

As discussed by Denis and Mihov, a company's choice of debt source is likely to be related to their existing use of debt sources. Table 5.1 presents an analysis of

[50] Gomes and Phillips (2007) and Arena and Howe (2009) control the debt issues in their samples monthly and quarterly, respectively.

outstanding debt issues classed by public, bank and non-bank private. Table 5.2 presents an analysis of the distribution of the sample announcements of issuances of bank debt by type; syndicated and bilateral. Following Denis and Mihov, each issue of debt is categorised into one of those following five categories based upon the debt outstanding at the time of issue: (1) those with prior public and non-bank private debt outstanding, (2) those with prior public debt outstanding, but no non-bank private debt outstanding, (3) those with prior non-bank private debt outstanding, but not public debt outstanding, (4) those with no public or non-bank private debt outstanding or (5) those with no debt outstanding.[51]

Linking in with Diamond (1991) who argues that companies will borrow from banks in the first instance to build up a reputation for being a good borrower, firms with either no debt outstanding or with no public debt outstanding choose to issue bank debt. Sixty-eight per cent of firms with no debt outstanding choose to borrow from banks, as do 83% of firms with no public or non-bank private debt outstanding, and 65% of firms with prior non-bank private debt outstanding, but no public debt outstanding. Given the sample construction, the majority of firms that choose to issue bank debt, issue syndicated loans. As presented in Table 5.2, 77% of companies with no debt outstanding who issue bank debt issue syndicated loans, and 84% of companies with no public nor non-bank private debt outstanding who issue bank debt use syndicated loans.

Interestingly, over 50% of companies which have public debt outstanding continue to borrow from banks. There are many reasons for this; firstly, companies find the

[51] This method of categorisation is, however, perhaps limited in that firms may have issued debt in general, or of a particular type, in the past but it allows for a useful examination of whether firms base their use of debt source upon their existing use of debt sources.

monitoring services which banks provide entices management to manage the firm in an efficient manner. Secondly, the amount issued is important - it is inefficient to issue a small amount of bonds, thus firms seeking low amounts of debt finance will opt to borrow from the private (bank) markets. Thirdly, firms requiring funds quickly will choose to issue private debt as the issuance of public debt can take several weeks, whereas private arrangements can be finalised in a matter of hours. Lastly, because there is generally a greater reliance on bank debt in the UK in comparison to the US given that the UK bond market is not as large and liquid (The City UK (2010)).

It appears that the use of non-bank private debt in the past doesn't necessarily indicate that it is more likely to do so in the future. Only 7% of firms with both prior public and non-bank private debt outstanding choose to issue non-bank private debt, and only 12% of firms with prior non-bank private debt outstanding, but no public debt outstanding, choose to issue non-bank private debt, compared to 65% of firms who choose to issue bank debt.

5.4 Determinants of the Source of New Debt

This section presents univariate and multivariate analyses of the determinants of the source of issuances of new debt issues. Section 4.1 presents the univariate analysis and section 4.2 the multivariate analysis.

5.4.1 Univariate Analysis

Prior to undertaking the multivariate analysis, it is useful to consider individual variables to establish any underlying patterns in the sample data. Table 5.3 presents the univariate comparisons for a selection of key firm characteristics that proxy for information asymmetry, credit quality, board governance and growth opportunities.

Information Asymmetry: Consistent with theoretical predictions of firms with lower information asymmetry finding it easier to borrow from public sources, both the mean and median total assets of firms that issue public debt are significantly larger than firms that issue bank debt (both syndicated and bilateral) or non-bank private debt, and non-issuers. The average issuer of public debt has total assets of £9.615m, compared to £2.429m for issuers of syndicated loans, £1.574m for issuers of bilateral loans, £2.192m for issuers of non-bank private debt, and £1.329m for non-issuers. Similarly, issuers of syndicated loans are significantly larger than issuers of non-bank private debt and non issuers, but there is an insignificant difference between the size of issuers of syndicated loans and bilateral loans.

Relative to issuers of different types of debt and non issuers, issuers of non-bank private debt have significantly lower fixed assets ratios which proxies for collateral. Public issuers (with a mean fixed assets ratio of 0.37) also have significantly larger fixed assets ratios than syndicated issuers (0.29) and non-issuers (0.27), but not issuers of bilateral loans (0.32). There is no significant difference between the fixed assets ratio of the other sources of debt.

Credit Quality: Issuers of public debt (with a mean of 0.33) have greater levels of leverage than issuers of syndicated loans (0.28), bilateral loans (0.24) and non-bank private debt (0.25); however the difference is only significant using the median values of non-issuers and issuers of syndicated loans. In any given year, non-issuers have greater levels of leverage than issuers of public debt, syndicated bank loans and non-bank private debt, significantly only using median values. Issuers of bilateral loans have lower levels of leverage than non-issuers. There is no difference between the levels of leverage between issuers of syndicated and bilateral loans, and issuers of non-bank private debt and issuers of the two different types of bank debt.

The 12 month buy and hold abnormal returns are not significantly different between issuers of public debt, syndicated loans, non-bank private debt or issuers of public debt, but there is some evidence of bilateral issuers having greater 12 month buy and hold abnormal returns than both issuers of other types of debt and non-issuers. This result is inconsistent with Hadlock and James (2002) who report that announcements of bank loans were, on average, preceded by 12 month excess returns to the magnitude of -12.34%. Hadlock and James (2002), building on the work of Lucas

and MacDonald (1990), state that the public markets are likely to undervalue firms which suffer a fall in their share price or who have only small excess returns prior to the announcement of the issue. As a result, they argue that firms will borrow from banks to mitigate the adverse selection problems coupled with public issuances of debt.

Non-issuers have greater stock return volatility relative to issuers of syndicated bank loans and non-bank private debt, but lower stock return volatility than issuers of public debt. With the exception of syndicated borrowers having greater stock return volatility than issuers of non-bank private debt, there is no evidence of the level of stock return volatility being significantly different between the different sources of debt.

Board Governance: Issuers of public debt (56%) are more likely to have an affiliation to a bank than issuers of both syndicated bank debt (41%) and non issuers (37%) at the 1% level of significance, and issuers of non-bank private debt (43%) at the 10% level of significance. However, there is no evidence of a difference in board bank affiliation between issuers of public (56%) and bilateral loans (51%). Issuers of bank (bilateral) loans are more likely to have an affiliation with a bank than non issuers at the 5% (10%) level of significance. There is no evidence of issuers of bilateral loans having greater affiliation than issuers of public bonds, non-bank private debt, nor syndicated loans.

Issuers of bilateral loans (36%) are more likely to have a present affiliation with a bank than non issuers (19%) at the 1% level of significance. This result is stronger than having either a past or present affiliation, which is indicative of firms wishing to borrow on a bilateral basis finding it important to have a board member who is also currently sitting on the board of a bank. Issuers of both public bonds and syndicated loans are more likely to have a present affiliation with a bank than non-issuers. Issuers of public bonds are also more likely to have a present affiliation with a bank than both syndicated issuers. There is no difference in the occurrence of having an affiliation with a bank between the alternative sources of debt finance.

Consistent with the hypothesis of public issuers having lower levels of director ownership to avoid the rigorous monitoring of bank debt, issuers of public debt (1%) have lower director ownership relative to issuers of syndicated loans (3%), bilateral loans (5%), non-bank private debt (4%) and non-issuers (8%). Non-issuers have greater director ownership in comparison to issuers of syndicated loans, bilateral loans and non-bank private debt. However, there is no evidence of a significant difference in level of director ownership between issuers of syndicated loans and bilateral or non-bank private debt, and bilateral loans and non-bank private debt.

Growth Opportunities: There is no evidence of a significant difference between the market to book ratios of different issuers on either a mean nor median basis. However, the median issuer of syndicated loans has lower fixed assets ratios than non-issuers, which is significant at the 5% level.

These results suggest two important findings. Firstly, issuers of non-bank private debt have lower fixed assets ratios relative to both other issuers and non issuers. This indicates that firms with low levels of collateral to secure their debt against are screened out of borrowing from the public and bank debt markets, and essentially forced to borrow from non-bank private sources. Secondly issuers of both public bonds and bilateral loans are more likely to have an affiliation to a bank relative to other issuers. This implies that having an affiliation to a bank may help firms access the capital markets (public debt) and bank loans on a bilateral basis.

The following section examines a firm's choice of debt source in a multivariate setting. Examining a firm's choice of debt source in a multivariate setting allows for an enhanced assessment as it controls for multiple factors influencing a firm's issuance decision, such as firm size.

5.4.2 Multivariate Analysis

5.4.2.1 Methodology

The univariate analysis provides useful insights on the relation between the choice of debt source and various firm characteristics. However, it could be misinformative as it doesn't consider the possible correlation between independent variables. To address this, this study employs a multinomial logistic framework to consider a firm's choice of debt source. The rationale for using this approach is twofold; firstly, it is consistent with prior literature which has examined the choice of debt source (Denis and Mihov (2003)). Secondly, in comparison to binomial logistic models which only allows for a comparison between two alternative variables, a multinomial

logistic framework allows for a consideration of the relationship between a number of variables simultaneously instead of simply one against another. The incremental debt issue decision is examined. This follows the approach of both Denis and Mihov (2003), and Arena (2011). Examining the incremental debt issue decision is valuable. Firstly, this approach allows for an enhanced evaluation of the features that shapes a firm's choice of debt source as it characterises the choice of debt source given the firm's capital structure position at the point of issuance. Secondly, it associates a firm's choice of debt source with firm characteristics measured prior to when the choice of debt source is made. This facet acknowledges the effect of firm characteristics varying over time. Finally, this approach provides meaningful results even when the debt source chosen results in a divergence from the optimal mix of debt claims.

To consider the choice of debt source, this chapter uses three models which have been largely derived from previous literature.[52] Model 1, the base model, is a combination of the most important or significant variables included in the studies of Hadlock and James (2002) and, primarily, Denis and Mihov (2003).

Firm size, amount issued and the fixed assets ratio proxy for information asymmetry, and the borrower's level of leverage and interest coverage ratio proxy for the borrowing firm's credit quality. To proxy for a borrower's future growth opportunities, the market to book ratio is employed, and to proxy for board

[52] Both board-bank affiliation variables are defined in Chapter 4.2.3.

governance/managerial discretion affecting a firm's choice of debt source, the level of director ownership is used.

Hadlock and James (2002) find that a firm's stock return volatility and buy-and-hold abnormal return, further indicators of information asymmetry, are important for determining the choice of debt source. They provide evidence of firms being more likely to issue bank debt relative to issuing public debt if they have lower buy-and-hold abnormal returns over the 12 months prior to the issuance and have high levels of stock return volatility in the 12 months prior to the announcement of debt. Consequently, these two variables are included with those variables employed by Denis and Mihov (2003) to form the base model for this research.[53] Model 2 extends Model 1 by incorporating the board-bank affiliation variable to examine whether the presence of a bank affiliated board member on an issuing company's board of directors drives easier or improved access to funds. It may be that companies only enjoy greater access to debt financing if a member of the board of directors is currently serving on the board of a bank. To control for this, Model 3 extends Model 1 by including the present board-bank affiliation variable.[54,55]

[53] The addition of the stock return volatility and 12 month buy-and-hold abnormal return variables included in Hadlock and James' (2002) study bear no consequence to the results of the Denis and Mihov (2003) model, which has been adopted as the base model of this study.

[54] Denis and Mihov (2003) include two further variables to proxy for a firm's credit quality; investment grade rating and in relation a binary variable of not rated. These variables have not been included in this study as a consequence of being unable to locate the data.

[55] This study employs the use of the interest coverage ratio as a replacement for Altman's Z Score, which Denis and Mihov employed in their study.

5.4.2.2 Multivariate Results

Public Debt V Bank Loans V Non-Bank Private Debt: Table 5.4 reports the multinomial logistic regression results for issuers of public debt, bank debt and non-bank private debt – a replication of the Denis and Mihov (2003) study. The first column presents the probability of issuing public bonds over bank debt and the second column presents the probability of issuing non-bank private debt over bank debt. The third column presents the probability of issuing public debt to non-bank private debt – this is a comparison between the alternative issuers.

Across all three models, the probability of issuing public debt relative to bank and non-bank private debt is positively related to firm size, measured by the natural logarithm of total assets. These results endorse the information asymmetry hypothesis discussed by Fama (1985), Diamond (1984 and 1991); firms with greater levels of information asymmetry are driven to seek debt finance from both bank and non-bank sources to benefit from the screening and monitoring services that banks and other financial intermediaries provide and thus minimise these information problems, and in contrast public debt is issued by firms with lower levels of information asymmetry. Issuers of bank loans are larger than issuers of non-bank private debt. This is consistent with bank borrowers borrowing more than issuers of non-bank private debt, and thus requiring the more enhanced monitoring that banks are able to provide.

Issuers of public debt raise greater amounts relative to issuers of bank debt and non-bank private debt. This is consistent with larger firms being able to borrow greater

amounts because they suffer less from information asymmetry and as a result require less monitoring. Thus it appears that public issues are most attractive for firms who issue large volumes of debt, and that private issues are most attractive for firms issuing smaller volumes of debt (Smith (1977)), Bhagat and Frost (1986) and Blackwell and Kidwell (1988)). As noted, the results also suggest that issuers of bank debt issue greater amounts than issuers of non-bank private debt. Carey et al (1993) report that bank loans appear to cater for the smallest issues, with public bonds catering for the largest issues, and private placements falling in between the two. The difference in results is largely attributable to the large number of syndicated loans entwined within the bank sample used in this study.

Turning to a firm's ability to provide collateral, measured by the fixed assets ratio, there is a significant negative relationship between issuing non-bank bank private debt and having collateral to secure against the debt. Issuers of both public debt and bank debt have significantly greater fixed asset ratios than issuers of non-bank private debt. This finding is consistent Bester (1985) and Besanko and Thakor (1987) who show that the ability and willingness to offer collateral signals enhanced borrower creditworthiness to lenders as collateral helps to provide lenders with some type of security if the borrower defaults. Similarly, it accords with Houston and James' (1996) theoretical assumptions based upon information asymmetry, whereby firms with lower information problems borrow from public sources, as firms are concerned with the possibility of inefficient renegotiation (Yu (2003)). The provision of collateral lends to the quality of the lender's monitoring becoming less important. Consequently, it appears that borrowers with lower fixed asset ratios are essentially screened out of the public and bank markets for debt, and forced to borrow from non-

bank private sources as firms with little collateral are perceived as riskier firms. Moreover, this result is consistent with the empirical studies of Hoshi et al (1993), Faulkender and Petersen (2006) and Bharath, Sunder and Sunder (2008) who all report that the public markets are more accessible to firms which have few volatile assets, and have lots of fixed and tangible assets. Barnes and Cahill (2005) report comparable results using a small sample of UK firms.

There is no evidence of direct relationship between the use of bank debt and stock return volatility as reported by Houston and James (1996) and Hadlock and James (2002). It may be that the difference in the results is a corollary of the employment of a UK sample. Antoniou et al (2008) also employ a sample of UK companies, and report that greater stock return volatility actually decreases the employment of bank debt, which is in line with MacKie-Mason's (1990) contention of a rising share price being symptomatic of investors believing that a firm's future prospects are on the rise. Issuers of public debt appear to have greater stock return volatility than non-bank private issuers, but this is only marginally significant at the 10% level.

Across all three models, there is no evidence of a relationship between leverage and the probability of issuing one type of debt over another. This result is somewhat unexpected, and is inconsistent with Diamond's (1993) proposition of the heightened chance of liquidation (and frequent renegotiation) by means of private borrowing encouraging the use of public debt for firms that are more highly levered, and the empirical findings of Johnson (1997), Bradley and Roberts (2004), Barnes and Cahill (2005) and Antoniou et al (2008) for the UK who have also reported a negative relationship between the use of bank debt and leverage in the cross-section. Carey,

Post and Sharpe (1998) and Gonzalez and James (2007), find that the leverage position of non-bank private borrowers fall in between those of public and bank borrowers, observing that the leverage positions of firms which borrow from non-bank private sources are slightly higher than those who borrow from banks. There is no evidence of such a relationship in this study.

The results suggest that there is no relationship between a firm's ability to honour debt repayments measured by the interest coverage ratio and the source of debt that it chooses to issue. This is somewhat surprising as previous literature has reported that firms who principally issue public debt have a greater interest coverage ratio than those which issue private debt (Hadlock and James (2002), and Shirasu and Xu (2007)), and that issuers of bank debt typically have greater interest coverage ratios than those that principally issue non-bank private debt (Yu (2003)).

Confirming the various theoretical studies that posit that firms with greater growth opportunities will seek to borrow from banks or other private institutions to avoid the underinvestment problem (see for example, Myers (1977) and Rajan (1992)), a number of empirical studies have reported a positive relationship between a firm's growth opportunities and the use of private debt, specifically bank debt (Krishnaswami et al (1999), Ongena and Smith (2000) and Bradley and Roberts (2004)). However, this result is not widespread and consistent with Johnson (1997) and Denis and Mihov (2003), no relationship between a firm's future growth opportunities and the source of debt choice is found with the co-efficients for market to book across the different models being insignificantly different from zero at the

10% level. One potential justification for this result is provided by Johnson (2003). Johnson finds a similar result, and attributes the insignificant relationship between debt use and growth opportunities to either firms switching between debt and equity to avoid the underinvestment problem or to firms altering their debt maturity

There is no evidence of a company's choice of debt source being related to the character of the board of directors. No relationship is found between a firm's choice between public, bank and non-bank private debt and director ownership, and there is no evidence of an affiliation to a bank providing enhanced or easier access to debt finance from either source of debt. This result is somewhat contrary to the perception of the presence of an affiliated banker providing firms with easier or increased access to both bank debt finance and to the capital markets. However, this finding is important as it potentially suggests that once firms have built up a reputation they no longer benefit from the extra monitoring that an affiliated banker would provide.[56]

Public Debt V Syndicated Loans V Bilateral Loans V Non-Bank Private Debt: Table 5.5 differentiates between syndicated bank loans and bilateral loans and reports the multinomial logistic regression results for issuers of public debt, syndicated bank loans, bilateral bank loans and non-bank private debt. The first column presents the probability of issuing public bonds over syndicated loans, the second column presents the probability of issuing bilateral loans over syndicated loans and the third column presents the probability of issuing non-bank private debt over syndicated loans. Columns 4-6 provide a comparison between the alternative

[56] Alternatively, one possible explanation for the apparent lack of importance of having an affiliation to a bank may be attributable to the large(r) size of firms (FTSE350) which this sample comprises.

issuers. Column 4 presents the probability of issuing public debt over bilateral loans, column 5 presents the probability of issuing public debt over non-bank private dent and column 6 presents the probability of issuing bilateral loans over non-bank private debt.

Across all three models, the probability of issuing public debt relative to both syndicated and bilateral bank loans and non-bank private debt is positively related to firm size, measured by the natural logarithm of total assets. Issuers of bilateral loans are smaller than those who issue syndicated loans. This is again supportive of the information asymmetry hypothesis discussed by Fama (1985), and Diamond (1984/1991) whereby those firms with greater information problems are compelled to borrow from issuers of debt who are more able to reduce such information problems through a close lending relationship with enhanced screening and monitoring. The results suggest that issuers of non-bank private debt are larger than issuers of bilateral loans, but smaller than issuers of syndicated loans.

Companies wishing to raise larger amounts of finance choose to issue public debt, relative to syndicated bank loans, bilateral bank loans and non-bank private debt. Similarly, issuers of both syndicated and bilateral loans issue greater amounts relative to issuers of non-bank private debt. This suggests that banks are more willing to lend greater amounts of debt finance perhaps because they are in a better position to continually monitor the borrowing firm than non-bank private issuers are. However, there is no apparent difference between the amounts borrowed via either syndicated or bilateral loans. The one lender characteristic of bilateral bank loans

would suggest that bilateral loans would be for smaller amounts than the multi-lender characteristic syndicated loans as very few private lenders are likely to be able, or willing, to provide finance for very large offerings. The result of no difference revealed here is driven by two large bilateral loan from a small sample of bilateral loans.

Turning to a firm's ability to provide collateral, measured by the fixed assets ratio, there is a significant negative relationship between issuing non-bank bank private debt and having collateral to secure their debt against. Issuers of public debt and both syndicated and bilateral bank debt have significantly greater fixed asset ratios than issuers of non-bank private debt. The aforementioned reconfirms the proposition of issuers of non-bank private debt being effectively forced to borrow from the least attractive source of debt, assuming that non-bank private debt is the lowest on the pecking order of debt issuance source. There appears to be little evidence of a relationship between the choice between syndicated and bilateral loans, and the firm's ability to provide collateral.

There is some evidence of issuers of bilateral loans having greater stock return volatility than issuers of non-bank private debt, and issuers of bilateral loans having larger 12 month buy-and-hold abnormal returns than issuers of syndicated loans. This result is inconsistent with Hadlock and James (2002) who report that announcements of bank loans were, on average, preceded by 12 month excess returns to the magnitude of -12.34%. and argue that firms will borrow from banks to mitigate the adverse selection problems coupled with public issuances of debt

because the public markets are likely to undervalue firms which suffer a fall in their share price or who have only small excess returns prior to the announcement of the issue. Issuers of public debt continue to appear to have greater stock return volatility relative to issuers of non-bank private, again only marginally significant at the 10% level.

Across all three models, again there is no evidence of a positive relationship between leverage and the probability of issuing one type of debt over another. Similar to Diamond's (1993) proposition of the heightened chance of liquidation (and frequent renegotiation) by means of private borrowing encouraging the use of public debt for firms that are more highly levered, a positive relationship between leverage and the probability of issuing syndicated debt relative to bilateral bank loans would have expected. However, this is not observed.

The results once again suggest that there is no relationship between a firm's ability to honour debt repayments measured by the interest coverage ratio and the source of debt that it chooses to issue. Again it transpires that there is no relationship between a firm's future growth opportunities and the source of debt choice is found, with the co-efficients for market to book across the different models being insignificantly different from zero at the 10% level. Following on from the earlier finding of smaller firms issuing bilateral loans, it would have been expected that a positive relationship between the use of bilateral loans and growth opportunities would have been observed as smaller firms typically have greater growth opportunities.

The results highlight that issuers of bilateral loans are more likely to have an affiliation to a bank than issuers of any other source of debt, whether the affiliation is past or present, or whether the affiliated board member is currently sitting on the board of directors. The results are slightly stronger when the affiliated board member is currently sitting on the board of a bank. As the sample firms are large FTSE 350 firms this result may signal that banks are willing to take on loans as an independent lender if the borrowing company has a banker in the board room as the banker is able to provide a signal of the borrowing firm being creditworthy. Whereas, firms without an affiliation to a bank are required to either spread the risk of their loan in either the public capital markets, or syndicated loan markets. Bhattacharya and Chiesa (1995) and Berger (1999) posit that an extremely attractive facet of relationship banking is that the firm is able to provide their banks with sensitive information with regards to, for example, projects that it is requiring funding for, because it trusts that their relationship banker will not divulge this information to the market. This reiterates the prospect of independent banks being willing to lend larger amounts of debt finance to individual companies.

Alternatively the results may suggest that large companies do not require an affiliation with a bank to obtain funds: these firms are able to borrow from the public markets or the syndicated markets as a by product of their historical relationships with banks. This argument is to some extent consistent with Houston and James (1995) who state that as firms grow and become dependent upon larger amounts of finance, they benefit less from having a banker sitting on their board. Yet again, there is little evidence of an affiliation to a bank providing enhanced or easier access to

debt finance from either source of debt. Again, there is no evidence of director ownership having an impact upon the choice of debt source.

Public Debt V Syndicated Loans V Bilateral Loans V Non-Bank Private Debt V Non-Issuers: Table 5.6 includes non-issuing firm year observations and reports the multinomial logistic regression results for issuers of public debt, syndicated bank loans, bilateral bank loans, non-bank private debt, and non-issuers.[57] The first column presents the probability of issuing public bonds over syndicated loans, the second column presents the probability of issuing bilateral loans over syndicated loans, the third column presents the probability of issuing non-bank private debt over syndicated loans and the fourth column presents the probability of not issuing over issuing syndicated loans. Columns 5-10 provide a comparison between the alternative issuers. Column 6 presents the probability of issuing public debt over bilateral loans, column 7 presents the probability of issuing public debt over not issuing, column 8 presents the probability of issuing bilateral loans over non-bank private debt, column 9 presents the probability of issuing bilateral loans over not issuing and column 10 presents the probability of issuing non-bank private debt over not issuing.

Firm size is significantly positively related to the probability of issuing debt relative to not issuing debt. This result is somewhat consistent with Titman and Wessells

[57] Although some firms may be non-issuers because they have been screened out by the market, it is worth noting that given the sample construction, non-issuing firms may have previously issued debt and that it is not that they cannot issue debt - it is that they don't need to issue debt in any financial year.

(1988) who propose a negative relationship between firm size and levels of debt, and reiterates that larger firms issue public debt, and that smaller firms issue private debt.

Once again, turning to a firm's ability to provide collateral, there is a significant negative relationship between issuing non-bank bank private debt and having collateral to secure their debt against. Issuers of both public debt and bank debt have significantly greater fixed asset ratios than issuers of non-bank private debt. Moreover, issuers of non bank private debt have lower fixed asset ratios, hence collateral, than non issuing firms. This again endorses the result that borrowers with lower fixed asset ratios are essentially screened out of the public and bank markets for debt, and forced to borrow from non-bank private sources should they require to borrow.

The anomalous result of issuers of bilateral loans having larger 12 month buy-and-hold abnormal returns relative to issuers of syndicated loans persists. Issuers of bilateral loans also have greater buy-and-hold abnormal returns than non issuers. This may indicate some degree of timing issues of bilateral loans, but the result is somewhat uncharacteristic. Non-issuers have greater stock return volatility than both issuers of syndicated bank loans and non-bank private debt. Both syndicated and bilateral issuers also have greater stock return volatility relative to issuers of non-bank private debt, but this result is only marginally significant at the 10% level.

Following on from Tables 5.4 and 5.5, once again, no relationship between a firm's future growth opportunities, or interest coverage ratio, and non-issuers of issuers of different sources of debt choice is found. These results may be a consequence of the

larger firms included in the sample as Myers (1977) hypothesises that there should be an inverse relationship between a firm's growth opportunities and it's leverage, hence levels of debt.

Issuers do not appear to have larger levels of leverage than non issuers. This result appears to be a corollary of firms not issuing debt because they are unable to, but because they don't need to as they may have previously issued debt finance.

Non issuers have greater levels of director ownership relative to issuers of syndicated loans. This result is consistent with managers with greater levels of director ownership. Once again, there is no evidence of a relationship between the choice of debt source and director ownership.

After adding non issuers to the analysis, the results continue to highlight that issuers of bilateral loans are more likely to have an affiliation to a bank than issuers of any other source of debt, whether the affiliation is past or present, or just present. The results are slightly stronger when the affiliated board member is currently sitting on the board of a bank, and particularly so in the case of bilateral issuers relative to non issuers. This reiterates the assumption of bankers on the boards being able to provide a signal of creditworthiness to lending banks. As the sample firms are large FTSE 350 firms this result may signal that banks who are considering lending on an independent basis. The results highlight that non issuing firms are more likely to have an affiliation to a bank than issuers of public debt and syndicated bank loans. This suggests that firms who may be considering raising debt finance in the future

believe it optimal to have an affiliation to a bank by means of an affiliated board member to gain access to debt finance.

Changes in Implied Probabilities: To examine whether the economic significance, the implied changes in probability for issuing bonds, syndicated loans, bilateral loans and non-bank private debt is calculated. Using model 3 from Table 5.5, to put the results in an economic perspective, the marginal effects rather than the coefficient estimates of the multinomial logistic model are presented in Table 5.7. Whilst holding all other independent variables at their mean, the implied changes assume that every individual independent variable changes by its marginal effect. These results are reported in Table 5.7.

These results support that a firm's ability to provide collateral, measured by the fixed assets ratio, is associated to a firm's choice of debt source. This finding is consistent with the ability of providing collateral being beneficial in alleviating the consequences of low credit quality. Similarly, the consequences of low credit quality can be alleviated by the presence of leverage which proxies for a positive reputation in the credit markets. For example, a change in the marginal effect of the fixed assets ratio leads to an increase of the probability of a public debt issue from 0.40 to 0.50, and a decrease in the probability of a non-bank private debt issue from 0.40 to 0.30.

In addition, the likelihood of issuing a bilateral loan is somewhat increased if the issuing firm has a present affiliation to a bank. This is consistent with the enhanced monitoring and closeness between firms and banks making it easier for larger firms to borrow on a bilateral basis. The likelihood of issuing public debt is somewhat

increased if the issuance is for a large amount of finance. Also consistent with the multivariate analysis, the likelihood of issuing public debt is somewhat decreased if there is high director ownership.

Changes in the interest coverage ratio, market to book ratio and 12 month buy and hold abnormal return have little impact on the implied probabilities of choosing between the different sources of debt.

5.4.2.3 Assessing the Use of the Multinomial Logistic Model

The choice of the multinomial model over the use of a binomial logistic model allows for a consideration of the relationship between the choice between different sources of debt simultaneously, instead of simply one against another one against another as outlined in Section 5.4.2.1. However, there are stronger assumptions inherent in the use of a multinomial logistic model. As discussed by Gujarati (2003), the main assumption of the multinomial logistic model is that it relies upon the assumption of independence of irrelevant alternatives. This assumption states (in the choice of debt source framework) that the relative probability of choosing public debt over bank debt is unchanged if the opportunity of choosing to issue non-bank private debt is added as an additional possibility. That is, there is an assumption that the relative odds between any two outcomes are independent of the number and nature of the other outcomes being simultaneously considered.

Since the choice between the different sources of debt examined in this thesis is not ordered, and that the choice between the different sources of debt are independent of each other and do not impact the choice of one source of debt over another, it is unlikely that the assumption of independence of irrelevant alternatives is violated.

Despite the assumption which it requires, the multinomial logistic model is often considered as an attractive methodology. For example, Cramer (1991) highlights that multinomial logistic regression does not assume normality, linearity or homoscedasticity.

5.5 Conclusions

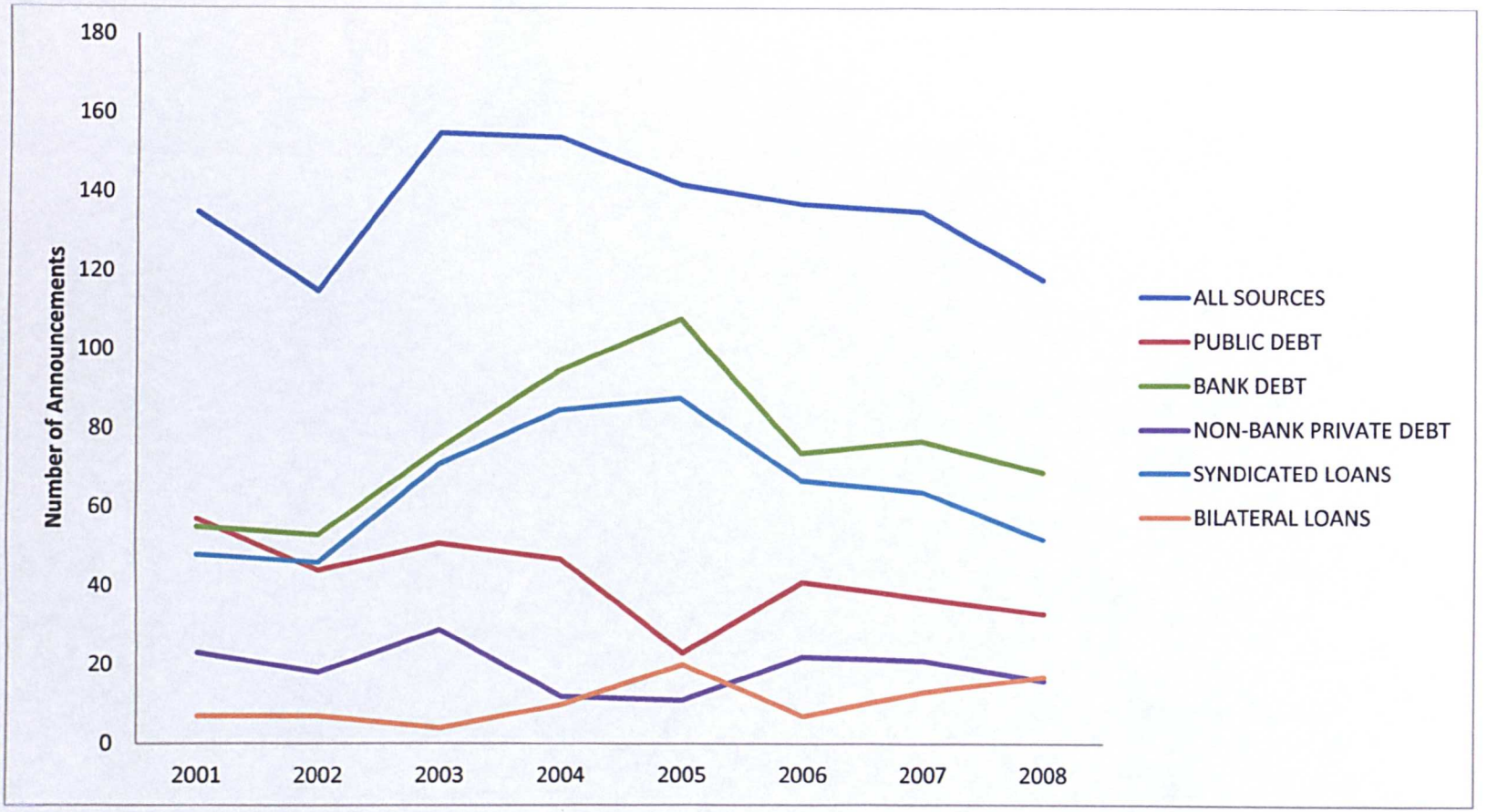
This chapter has contributed to research that examines a firm's choice of debt source, and presents evidence on the characteristics which affect a firm's choice for a sample of up to 583 debt issues made by a sample of UK companies listed on the FTSE350 between 2001 and 2008. This study has expanded upon the US literature which has examined a firm's choice of debt source in various ways. Firstly, this study examines the borrowing choices of UK companies. Secondly, this study distinguishes between the different types of bank loans: syndicated loans and bilateral loans. Thirdly, this study examines the characteristics of non-issuing firms relative to issuers of different types of debt other than focusing exclusively on the characteristics of issuing firms only. Finally, this study examines the importance of having a banker on the board for access to debt finance from both private issuers and the public capital markets. The results of this study reconfirm the conventional view of firms issuing public debt when they are subject to lower information problems, and thus face lower information and monitoring costs. Neither borrower credit quality nor future growth opportunities appear to impact the choice of debt source.

The importance of borrowing firms being able to provide collateral to secure their debt against is the main finding of this chapter. The ability to provide collateral, as proxied by a firm's fixed assets ratio, is positively related to issuing public and bank debt (both syndicated and bilateral) relative to issuing non-bank private debt. Moreover, non-issuing firms are found to have greater ability to provide collateral than issuers of non-bank private debt. This finding is consistent with the arguments of Bester (1985) and Besanko and Thakor (1987) who show the ability and

willingness to offer collateral signals enhanced borrower credit worthiness. Consequently, it appears that borrowers with lower fixed assets ratios are essentially screened out of the public and bank markets for debt, and are forced to borrow from non-bank private sources as firms with little collateral are perceived as riskier firms. Accordingly, with respect to the ability to provide collateral, the results suggest a pecking order of debt issuance choice; public debt, bank debt and, as a last resort, non-bank private debt.

Furthermore, this study begins to fill one of the important gaps in the empirical literature by examining the relationship between a company's choice of debt source and the financial expertise of the board, by investigating the impact of a firm's affiliation to a bank to the choice of debt which it chooses to issue. Although no evidence of bank affiliation playing a significant role in driving access to the public capital markets or to syndicated loans in the UK is found, issuers of bilateral loans are found to be more likely to have an affiliation to a bank relative to issuers of any other source of debt. Moreover, the results are slightly stronger when the affiliated board member is currently sitting on the board of a bank. This result somewhat enhances the understanding of the monitoring role of banks. It is consistent with banks being willing to take on loans as an independent lender if they have a banker in the board room as the banker is able to provide a signal of the borrowing firm being creditworthy, thus somewhat reducing the risk of lending. In fact, locating no evidence of an affiliation to a bank providing easier or improved access to either public debt finance or to syndicated loans is interesting in itself. This finding

Figure 4.1: Announcements of Issuances of Debt over Time



suggests that once firms have built up a reputation they no longer benefit from the extra monitoring that an affiliated banker would provide.

Interestingly, as expected, the summary statistics illustrate that the average issuer of bilateral debt is smaller and issues less than issuers of syndicated loans, yet on a multivariate basis there is little evidence of the choice between syndicated loans and bilateral loans being impacted by anything other than the aforementioned affiliation to a bank. This result appears to be driven somewhat by the small sample of bilateral loans as previously mentioned.

Future analysis may seek to examine various avenues. Firstly, it would be useful to examine the choice between bilateral and syndicated loans in a more enhanced basis, using a larger sample of bilateral loans. Secondly, it would be interesting to investigate the role of the existing mix of public, bank and non-bank private debt in the choice of debt source to be issued. This links into an investigation into the timing of debt issues. For example, do companies choose to issue a particular type of debt dependent upon their current mix of debt sources, and do firms aim to time their debt issues taking into account whether they issue fixed rate and floating rate debt?

Thirdly, it would be useful to investigate a board's affiliation to a bank in more depth by examining whether firms borrowing from banks have a direct affiliation with their lending bank. Similarly, it would be interesting to examine whether the composition of the issuing firm's board of directors has an impact upon the type of debt source which it chooses to issue. For example, are larger boards more likely to issue one

type of debt relative to another? Does the age of the board have an impact on the type of debt that it issues?

Table 5.1: Analysis of Outstanding Debt Issues

Number (proportion) of firm year observations of public debt, bank loans and non-bank private issues of debt by outstanding debt financing from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008, excluding financials and utilities. Following Denis and Mihov (2003), sample issuers are split into five groups; issuers with both public and non-bank private debt outstanding, issuers with public debt outstanding, but no non-bank private debt outstanding, issuers with non-bank private debt outstanding, but no public debt outstanding, issuers with neither public or non-bank private debt outstanding, and issuers with no outstanding debt.

	Prior public and non-bank private debt outstanding	Prior public debt outstanding, but no non-bank private debt outstanding	Prior non-bank private debt outstanding, but no public debt outstanding	No public or non-bank private debt outstanding	No debt outstanding	Total
Public Debt	41 (0.42)	54 (0.38)	36 (0.23)	15 (0.09)	5 (0.26)	151 (0.26)
Bank Debt	50 (0.51)	72 (0.51)	104 (0.65)	137 (0.83)	13 (0.68)	376 (0.64)
Non-bank Private Debt	7 (0.07)	15 (0.11)	19 (0.12)	14 (0.08)	1 (0.06)	56 (0.10)
Total	**98 (1.00)**	**141 (1.00)**	**159 (1.00)**	**166 (1.00)**	**19 (1.00)**	**583 (1.00)**

Table 5.2: Analysis of Outstanding Debt Issues

Number (proportion) of firm year observations of public debt, syndicated bank loans, bilateral bank loans and non-bank private issues of debt by outstanding debt financing from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 between 2001 and 2008, excluding financials and utilities. Following Denis and Mihov (2003), sample issuers are split into five groups; issuers with both public and non-bank private debt outstanding, issuers with public debt outstanding, but no non-bank private debt outstanding, issuers with non-bank private debt outstanding, but no public debt outstanding, issuers with neither public or non-bank private debt outstanding, and issuers with no outstanding debt.

	Prior public and non-bank private debt outstanding	Prior public debt outstanding, but no non-bank private debt outstanding	Prior non-bank private debt outstanding, but no public debt outstanding	No public or non-bank private debt outstanding	No debt outstanding	Total
Public Debt	41 (0.42)	54 (0.38)	36 (0.23)	15 (0.10)	5 (0.26)	151 (0.26)
Syndicated Loans	48 (0.49)	67 (0.48)	93 (0.59)	108 (0.68)	10 (0.53)	326 (0.57)
Bilateral Loans	2 (0.02)	5 (0.04)	10 (0.06)	21 (0.13)	3 (0.16)	41 (0.07)
Non-bank Private Debt	7 (0.07)	15 (0.11)	19 (0.12)	14 (0.09)	1 (0.05)	56 (0.10)
Total	**98 (1.00)**	**141 (1.00)**	**158 (1.00)**	**158 (1.00)**	**19 (1.00)**	**574 (1.00)**

Table 5.3: Univariate Comparisons

Mean (Median) values, (or proportions where appropriate) of a selection of key firm characteristics for a sample of 151 firm year observations of public debt, 376 firm year observations of bank debt comprising 326 firm year observations of syndicated bank loans and 41 firm year observations of bilateral loans, 56 firm year observations of non-bank private debt and 1718 firm year observations of non-issuing firms. The significance of the differences in means {medians} is determined using the Student Test Statistic {Kruskal-Wallis Test}. The significance of the median difference in proportions is determined using the Wilcoxon Rank Sum Test. Fixed assets ratio is the ratio of fixed assets to total assets. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Interest Coverage Ratio is measured as the ratio of earnings before interest and tax (EBIT) to interest expense on debt. Stock Return Volatility is measured by the standard deviation of daily stock returns over the 12 months prior to the fiscal year end. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Director Ownership is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. Present board bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is presently a member on the board of directors of a bank, and '0' otherwise.

	Total Assets ('000s)	Amount Issued ('000s)	Fixed Assets Ratio	Leverage	Interest Coverage Ratio	12 month BHAR	Stock Return Volatility	Market to Book	Director Ownership	Board Bank Affiliation	Present Board Bank Affiliation
Panel A: Type of Debt Issued											
Public Issuers	9,615,878	527,375	0.37	0.33	8.30	0.15	0.02	3.73	0.01	0.56	0.33
	(3,934,900)	*(297,131)*	*(0.30)*	*(0.29)*	*(4.17)*	*(0.10)*	*(0.02)*	*(2.23)*	*(0.00)*	*(1.00)*	*(0.00)*
Bank Issuers	2,330,926	407,394	0.30	0.28	26.32	0.20	0.02	3.33	0.04	0.43	0.25
	(995,750)	*(250,000)*	*(0.23)*	*(0.24)*	*(4.39)*	*(0.13)*	*(0.02)*	*(2.11)*	*(0.00)*	*(0.00)*	*(0.00)*
Non-Bank Private Issuers	2,192,428	118,232	0.22	0.25	8.69	0.18	0.02	4.43	0.04	0.43	0.24
	(1,429,600)	*(73,657)*	*(0.14)*	*(0.24)*	*(6.28)*	*(0.13)*	*(0.02)*	*(2.26)*	*(0.00)*	*(0.00)*	*(0.00)*
Syndicated Issuers	2,428,638	433,112	0.29	0.28	19.43	0.17	0.02	3.30	0.03	0.41	0.24
	(1,042,650)	*(275,000)*	*(0.22)*	*(0.23)*	*(4.53)*	*(0.12)*	*(0.02)*	*(2.06)*	*(0.00)*	*(0.00)*	*(0.00)*
Bilateral Issuers	1,573,927	169,880	0.32	0.24	86.07	0.40	0.02	4.09	0.05	0.51	0.36
	(639,000)	(143,762)	*(0.25)*	*(0.26)*	*(4.53)*	*(0.25)*	*(0.02)*	*(2.29)*	*(0.00)*	*(1.00)*	*(0.00)*
Non-Issuers	1,328,563	n/a	0.27	0.43	44.52	0.18	0.03	6.96	0.08	0.37	0.19
	(453,404)	*(n/a)*	*(0.19)*	*(0.16)*	*(5.74)*	*(0.12)*	*(0.02)*	*(2.39)*	*(0.01)*	*(0.00)*	*(0.00)*

Panel B: p-Values for Tests of Differences

Public V Bank	0.00	0.02	0.01	0.14	0.05	0.33	0.20	0.67	0.00	0.01	0.11
	{0.00}	*{0.26}*	*{0.01}*	*{0.00}*	*{0.42}*	*{0.34}*	*{0.48}*	*{0.63}*	*{0.00}*	*{0.01}*	*{0.10}*
Public V Non-Bank Private	0.00	0.00	0.00	0.01	0.87	0.67	0.29	0.82	0.06	0.10	0.23
	{0.00}	*{0.00}*	*{0.00}*	*{0.07}*	*{0.00}*	*{0.38}*	*{0.82}*	*{0.52}*	*{0.00}*	*{0.10}*	*{0.24}*
Bank V Non-Bank Private	0.75	0.00	0.01	0.33	0.06	0.73	0.01	0.72	0.86	0.98	0.82
	{0.04}	*{0.00}*	*{0.03}*	*{0.89}*	*{0.01}*	*{0.9}*	*{0.48}*	*{0.77}*	*{0.32}*	*{0.98}*	*{0.83}*
Syndicated V Bilateral	0.07	0.00	0.51	0.27	0.34	0.05	0.71	0.61	0.32	0.26	0.15
	{0.13}	*{0.00}*	*{0.41}*	*{0.78}*	*{0.45}*	*{0.02}*	*{0.68}*	*{0.30}*	*{0.81}*	*{0.24}*	*{0.11}*
Public V Syndicated	0.00	0.06	0.00	0.19	0.07	0.67	0.21	0.67	0.00	0.00	0.06
	{0.00}	*{0.76}*	*{0.00}*	*{0.00}*	*{0.25}*	*{0.64}*	*{0.47}*	*{0.51}*	*{0.00}*	*{0.00}*	*{0.05}*
Syndicated V Non-Bank Private	0.60	0.00	0.02	0.33	0.07	0.93	0.01	0.72	0.73	0.87	0.99
	{0.07}	*{0.00}*	*{0.05}*	*{0.85}*	*{0.02}*	*{0.64}*	*{0.45}*	*{0.88}*	*{0.35}*	*{0.87}*	*{0.99}*
Public V Bilateral	0.00	0.00	0.27	0.02	0.26	0.04	0.37	0.80	0.04	0.62	0.71
	{0.00}	*{0.00}*	*{0.33}*	*{0.09}*	*{0.93}*	*{0.02}*	*{0.39}*	*{0.56}*	*{0.00}*	*{0.62}*	*{0.70}*
Bilateral V Non-Bank Private	0.25	0.02	0.03	0.76	0.27	0.07	0.18	0.92	0.51	0.41	0.23
	{0.01}	*{0.01}*	*{0.04}*	*{0.81}*	*{0.06}*	*{0.09}*	*{0.41}*	*{0.31}*	*{0.46}*	*{0.41}*	*{0.22}*
Public V Non Issuers	0.00	n/a	0.00	0.39	0.05	0.54	0.00	0.43	0.00	0.00	0.00
	{0.00}	*{n/a}*	*{0.00}*	*{0.00}*	*{0.00}*	*{0.99}*	*{0.00}*	*{0.60}*	*{0.00}*	*{0.00}*	*{0.00}*
Bank V Non Issuers	0.00	n/a	0.03	0.19	0.37	0.56	0.00	0.38	0.00	0.04	0.01
	{0.00}	*{n/a}*	*{0.09}*	*{0.00}*	*{0.01}*	*{0.16}*	*{0.00}*	*{0.08}*	*{0.00}*	*{0.04}*	*{0.00}*
Non-Bank Private V Non Issuers	0.03	n/a	0.08	0.12	0.05	0.99	0.00	0.61	0.00	0.42	0.39
	{0.00}	*{n/a}*	*{0.09}*	*{0.00}*	*{0.51}*	*{0.46}*	*{0.01}*	*{0.27}*	*{0.00}*	*{0.40}*	*{0.35}*
Syndicate V Non-Issuers	0.00	n/a	0.10	0.21	0.18	0.90	0.01	0.38	0.00	0.14	0.05
	{0.00}	*{n/a}*	*{0.30}*	*{0.00}*	*{0.03}*	*{0.56}*	*{0.00}*	*{0.05}*	*{0.00}*	*{0.13}*	*{0.04}*
Bilateral V Non-Issuers	0.55	n/a	0.19	0.10	0.56	0.05	0.61	0.50	0.13	0.09	0.04
	{0.04}	*{n/a}*	*{0.19}*	*{0.03}*	*{0.19}*	*{0.01}*	*{0.22}*	*{0.69}*	*{0.02}*	*{0.07}*	*{0.01}*

Table 5.4: Multinomial Logistic Regression of the Choice between Public, Bank and Non-Bank Private Debt

This table reports the determinants of a multinomial logistic regression for 484 firm year observations of public, bank and non-bank private debt issues for a sample of 385 companies listed on the FTSE350 between 2001 and 2008. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Fixed assets ratio is the ratio of fixed assets to total assets. Interest Coverage Ratio is measured as the ratio of earnings before interest and tax (EBIT) to interest expense on debt. Director Ownership is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Stock Return Volatility is measured by the standard deviation of daily stock returns over the 12 months prior to the fiscal year end. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. Present board bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is presently a member on the board of directors of a bank, and '0' otherwise. P-vales are reported in parenthesis.

	Model 1			Model 2			Model 3		
	Public V Bank	Non-Bank Private V Bank	Public V Non-Bank Private	Public V Bank	Non-Bank Private V Bank	Public V Non-Bank Private	Public V Bank	Non-Bank Private V Bank	Public V Non-Bank Private
Constant	**-20.2239** **(0.00)**	1.4623 (0.43)	**-21.6861** **(0.00)**	**-20.6426** **(0.00)**	0.9905 (0.78)	**-21.6332** **(0.00)**	**-20.4795** **(0.00)**	0.7880 (0.83)	**-21.2675** **(0.00)**
Total Assets	**0.8780** **(0.00)**	-0.0490 (0.75)	**0.9270** **(0.00)**	**0.9039** **(0.00)**	-0.0222 (0.89)	**0.9261** **(0.00)**	**0.8918** **(0.00)**	-0.0138 (0.93)	**0.9056** **(0.00)**
Total Amount Issued	**0.3704** **(0.09)**	**-4.7535** **(0.00)**	**5.1239** **(0.00)**	**-0.3703** **(0.09)**	**-4.6979** **(0.00)**	**5.0682** **(0.00)**	**0.3739** **(0.09)***	**-4.6700** **(0.00)**	**5.0439** **(0.00)**
Market to Book	0.0038 (0.66)	0.0019 (0.984)	0.0019 (0.86)	0.0034 (0.69)	0.0019 (0.84)	0.0015 (0.89)	0.0036 (0.68)	0.0014 (0.88)	0.0021 (0.85)
Fixed Assets Ratio	0.4973 (0.26)	**-1.6901** **(0.03)**	**2.18795** **(0.01)**	0.4785 (0.28)	**-1.7091** **(0.03)**	**2.1876** **(0.01)**	0.4879 (0.27)	**-1.7140** **(0.03)**	**2.2019** **(0.01)**
Interest Coverage Ratio	-0.0023 (0.56)	-0.0089 (0.37)	0.0062 (0.53)	-0.0022 (0.57)	-0.0093 (0.36)	0.00670 (0.51)	-0.0022 (0.57)	-0.0092 (0.37)	0.0069 (0.52)

Director Ownership	-0.6758 (0.77)	0.9870 (0.61)	-01.6628 (0.54)	-0.8304 (0.72)	0.8927 (0.865)	-1.7230 (0.53)	-0.7222 (0.75)	0.9048 (0.64)	-1.6270 (0.55)
Leverage	0.4477 (0.17)	-0.8640 (0.45)	1.3117 (0.26)	0.4402 (0.18)	-0.8697 (0.45)	1.3100 (0.26)	0.4436 (0.18)	-0.8781 (0.44)	1.3217 (0.26)
Stock Return Volatility	2.5214 (0.76)	-35.5068 (0.11)	**38.0282** **(0.10)**	2.5761 (0.75)	-35.2732 (0.12)	**37.8493** **(0.10)**	2.7279 (0.74)	-35.1989 (0.12)	**37.9267** **(0.10)**
12 month BHAR	0.0292 (0.91)	-0.0720 (0.85)	0.1012 (0.82)	0.0491 (0.86)	-0.0678 (0.86)	0.1169 (0.79)	0.0367 (0.89)	0-0670 (0.86)	0.1037 (0.82)
Bank Board Affiliation				-0.2590 (0.31)	-0.2133 (0.55)	-0.0456 (0.91)			
Present Bank Board Affiliation							-0.1266 (0.63)	-0.2824 (0.50)	0.1558 (0.73)
Observations	484			484			484		
R-square	0.1648			0.1663			0.1655		
chi2	134.5324			135.7701			135.1111		
Log Likelihood	-340.9338			-340.3149			-340.6444		
p	0.0000			0.0000			0.0000		

Table 5.5: Multinomial Logistic Regression of the Choice between Public, Syndicated Bank Debt, Bilateral Bank Debt and Non-Bank Private Debt

This table reports the determinants of a multinomial logistic regression for 478 firm year observations of public, syndicated bank debt, bilateral bank debt and non-bank private debt issues for a sample of 385 companies listed on the FTSE350 between 2001 and 2008. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Fixed assets ratio is the ratio of fixed assets to total assets. Interest Coverage Ratio is measured as the ratio of earnings before interest and tax (EBIT) to interest expense on debt. Director Ownership is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Stock Return Volatility is measured by the standard deviation of daily stock returns over the 12 months prior to the fiscal year end. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. Present board bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is presently a member on the board of directors of a bank, and '0' otherwise.

	Public V Syndicate	Bilateral V Syndicate	Non-Bank Private V Syndicate	Public V Bilateral	Public V Non-Bank Private	Bilateral V Non-Bank Private
Model 1						
Constant	**-21.1473 (0.00)**	-1.7138 (0.65)	1.4818 (0.67)	**-19.4334 (0.00)**	**-22.6291 (0.00)**	-3.1956 (0.51)
Total Assets	**0.9184 (0.00)**	-0.0603 (0.74)	-0.0483 (0.75)	**0.9788 (0.00)**	**0.9667 (0.00)**	-0.0120 (0.96)
Amount Issued	**0.7279 (0.02)**	0.5258 (0.11)	**-4.6415 (0.00)**	-0.2020 (0.41)	**5.3693 (0.00)**	**5.1673 (0.00)**
Market to Book	0.0044 (0.62)	-0.0038 (0.85)	0.0019 (0.84)	0.0082 (0.69)	0.0025 (0.91)	-0.0058 (0.79)
Fixed Assets Ratio	0.5665 (0.21)	0.7336 (0.32)	**-1.5712 (0.05)**	-0.1670 (0.84)	**2.1378 (0.01)**	**2.3048 (0.03)**
Interest Coverage Ratio	-0.0026 (0.54)	0.0011 (0.14)	-0.0092 (0.36)	-0.00436 (0.40)	0.0066 (0.54)	0.0102 (0.31)
Director Ownership	-0.7338 (0.75)	-0.2654 (0.92)	0.9788 (0.61)	-0.4684 (0.89)	-1.7125 (0.54)	-1.2441 (0.69)
Leverage	0.4244 (0.21)	-0.8492 (0.47)	-0.9515 (0.41)	1.2736 (0.29)	1.3759 (0.24)	0.1024 (0.95)
Stock Return Volatility	4.3943 (0.63)	14.1199 (0.11)	-34.7679 (0.12)	-9.7256 (0.36)	**39.1622 (0.10)**	**48.8878 (0.04)**
12 month BHAR	0.1306 (0.65)	**0.6378 (0.03)**	0.0049 (0.99)	-0.5072 (0.17)	0.1257 (0.78)	0.6329 (0.16)
Observations	478					
R-square	0.1494					
chi2	151.4633					
Log Likelihood	-431.0377					
p	0.0000					

Model 2						
Constant	**-21.3647 (0.00)**	0.0700 (0.99)	1.1690 (0.74)	**-21.4347 (0.00)**	**-22.5337 (0.00)**	-1.0991 (0.83)
Total Assets	**0.9329 (0.00)**	-0.1716 (0.37)	-0.0307 (0.85)	**1.1045 (0.00)**	**0.9636 (0.00)**	-0.1408 (0.56)
Amount Issued	**0.7142 (0.02)**	0.5218 (0.11)	**-4.5918 (0.00)**	-0.1925 (0.44)	**5.3060 (0.00)**	**5.1135 (0.00)**
Market to Book	0.0041 (0.64)	-0.0051 (0.80)	0.0019 (0.84)	0.0093 (0.67)	0.0022 (0.84)	-0.0070 (0.75)
Fixed Assets Ratio	0.5489 (0.23)	0.7467 (0.31)	**-1.5889 (0.05)**	-0.1978 (0.81)	**2.1378 (0.01)**	**2.3356 (0.03)**
Interest Coverage Ratio	-0.0025 (0.56)	0.0010 (0.14)	-0.0095 (0.35)	-0.0035 (0.41)	0.0070 (0.52)	0.0106 (0.30)
Director Ownership	-0.8362 (0.72)	0.3226 (0.91)	0.9305 (0.63)	-1.1588 (0.73)	-1.7667 (0.75)	-0.6079 (0.85)
Leverage	0.4211 (0.21)	-0.7750 (0.50)	-0.9561 (0.41)	1.1961 (0.31)	1.3773 (0.24)	0.1812 (0.91)
Stock Return Volatility	4.4230 (0.63)	13.6180 (0.13)	-34.6756 (0.13)	-9.1950 (0.40)	**39.0986 (0.10)**	**48.2936 (0.04)**
12 month BHAR	0.1389 (0.63)	**0.5803 (0.06)**	-0.0025 (1.00)	-0.4415 (0.24)	0.1413 (0.75)	0.5828 (0.21)
Bank Board Affiliation	-0.1692 (0.51)	**0.9031 (0.03)**	-0.1299 (0.72)	**-0.1223 (0.02)**	-0.0393 (0.92)	**1.0830 (0.04)**
Observations	478					
R-square	0.1556					
chi2	157.7115					
Log Likelihood	-427.9136					
p	0.0000					

Model 3						
Constant	**-21.1300 (0.00)**	0.3480 (0.93)	0.9942 (0.78)	**-21.4781 (0.00)**	**-22.1242 (0.00)**	-0.6461 (0.90)
Total Assets	**0.9182 (0.00)**	-0.1767 (0.36)	-0.0230 (0.89)	**1.0950 (0.00)**	**0.9412 (0.00)**	-0.1538 (0.52)
Amount Issued	**0.7005 (0.02)**	0.4798 (0.13)	**-4.5638 (0.00)**	0.2207 (0.38)	**5.2643 (0.00)**	**5.0436 (0.00)**
Market to Book	0.0043 (0.62)	-0.0036 (0.87)	0.0016 (0.87)	0.0079 (0.20)	0.0027 (0.81)	-0.0051 (0.82)
Fixed Assets Ratio	0.5631 (0.21)	0.7477 (0.31)	**-1.5941 (0.05)**	-0.1846 (0.82)	**2.1572 (0.01)**	**2.3418 (0.03)**
Interest Coverage Ratio	-0.0026 (0.515)	0.00010 (0.16)	-0.0095 (0.36)	-0.0035 (0.41)	0.0069 (0.53)	0.01064 (0.31)
Director Ownership	-0.7429 (0.75)	0.2909 (0.91)	0.9351 (0.63)	-1.0338 (0.76)	-1.6780 (0.54)	-0.6442 (0.84)

Leverage	0.4264 (0.21)	-0.7127 (0.54)	-0.9590 (0.41)	1.1391 (0.34)	1.3854 (0.24)	0.2463 (0.88)
Stock Return Volatility	4.5589 (0.62)	12.5283 (0.17)	-34.7883 (0.13)	-7.9696 (0.46)	**39.3472 (0.10)**	**47.3169 (0.05)**
12 month BHAR	0.1333 (0.64)	**0.5723 (0.06)**	-0.0031 (0.99)	-0.4391 (0.24)	0.1363 (0.76)	0.5754 (0.22)
Present Bank Board Affiliation	-0.0256 (0.93)	**1.0251 (0.02)**	-0.1852 (0.66)	**-1.0507 (0.03)**	0.1596 (0.75)	**1.2103 (0.04)**
Observations	478					
R-square	0.1554					
chi2	157.5538					
Log Likelihood	-428.0003					
p	0.0000					

Table 5.6: Multinomial Logistic Regression of the Choice between Public, Syndicated Bank Debt, Bilateral Bank Debt, Non-Bank Private Debt and Non-Issuers of Debt

This table reports the determinants of a multinomial logistic regression for 1928 firm year observations of public, syndicated bank debt, bilateral bank debt, non-bank private debt issues and non-issuers of debt for a sample of 385 companies listed on the FTSE350 between 2001 and 2008. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Fixed assets ratio is the ratio of fixed assets to total assets. Interest Coverage Ratio is measured as the ratio of earnings before interest and tax (EBIT) to interest expense on debt. Director Ownership is defined as the percentage ownership of common equity shares, including all beneficial shareholdings, and, where appropriate, non-beneficial shareholdings held through family trusts. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Stock Return Volatility is measured by the standard deviation of daily stock returns over the 12 months prior to the fiscal year end. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. Present board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is presently a member on the board of directors of a bank, and '0' otherwise.

	Public V Syndicate	Bilateral V Syndicate	Non-Bank Private V Syndicate	Non Issuers V Syndicate	Public V Bilateral	Public V Non-Bank Private	Public V Non Issuers	Bilateral v Non-Bank Private	Bilateral V Non Issuers	Non-Bank Private V Non Issuers
Model 1										
Constant	**-15.8708**	1.7094	**-4.7743**	**8.6317**	**-17.5803**	**-11.0966**	**-24.5026**	**6.4837**	**-6.9221**	**13.4060**
	(0.00)	(0.56)	**(0.07)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.08)**	**(0.01)**	**(0.08)**
Total Assets	**0.6883**	-0.2177	0.1898	**-0.3639**	**0.9059**	**0.4984**	**1.0521**	**0.4075**	0.1462	**0.5537**
	(0.00)	(0.12)	(0.11)	**(0.00)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.02)**	(0.28)	**(0.00)**
Market to Book	0.0003	-0.0001	0.0003	-0.0001	0.0004	-0.0001	0.0004	-0.0004	0.0000	0.0004
	(0.82)	(0.96)	(0.81)	(0.89)	(0.85)	(0.99)	(0.75)	(0.85)	(1.00)	(0.74)
Fixed Assets Ratio	**0.8498**	0.6911	**-1.8955**	0.0960	0.1588	**2.7454**	**0.7538**	**2.5866**	0.595	**-1.9915**
	(0.05)	(0.34)	**(0.02)**	(0.73)	(0.84)	**(0.00)**	**(0.06)**	**(0.00)**	(0.39)	**(0.01)**
Interest Coverage	-0.0001	0.0002	-0.0001	0.0001	-0.0003	0.0000	-0.0001	0.0003	0.0002	-0.0002
Ratio	(0.90)	(0.36)	(0.77)	(0.67)	(0.59)	(0.94)	(0.80)	(0.43)	(0.42)	(0.64)
Director Ownership	-1.2208	-0.1021	1.7165	**2.2644**	-1.1187	-2.9372	-3.4852	-1.8186	-2.3665	-0.5479
	(0.59)	(0.96)	(0.35)	**(0.01)**	(0.70)	(0.28)	(0.11)	(0.48)	(0.24)	(0.75)
Leverage	0.0416	-0.0826	-0.0198	0.0007	0.1242	0.0614	0.0410	-0.0628	-0.0833	-0.0205
	(0.48)	(0.82)	(0.94)	(0.99)	(0.73)	(0.82)	(0.36)	(0.89)	(0.81)	(0.94)
Stock Return	-1.6062	14.9074	-30.0476	**9.7957**	-16.5136	28.4414	-11.4019	**44.9550**	5.1117	**-39.8433**
Volatility	(0.78)	(0.14)	(0.14)	**(0.08)**	(0.21)	(0.19)	(0.26)	**(0.04)**	(0.55)	**(0.05)**
12 month BHAR	0.0888	**0.4037**	-0.0218	0.0111	-0.3149	0.1105	0.0777	0.4255	**0.3926**	-0.0329
	(0.73)	**(0.05)**	(0.95)	(0.93)	(0.27)	(0.79)	(0.75)	(0.28)	**(0.02)**	(0.93)
Observations	*1928*									

R-square	*0.1085*									
chi2	*353.8355*									
Log Likelihood	*-1454.1989*									
p	*0*									
Model 2										
Constant	**-16.1472**	3.4156	**-5.0412**	**9.1333**	**-19.5628**	**-11.1060**	**-25.2805**	**8.4568**	**-5.7177**	**14.1745**
	(0.00)	(0.26)	**(0.06)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.03)**	**(0.05)**	**(0.00)**
Total Assets	**0.7052**	**-0.3205**	**0.2063**	**-0.3934**	**1.0256**	**0.4989**	**1.0986**	**-0.5267**	**0.0730**	**0.5997**
	(0.00)	**(0.03)**	**(0.10)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.01)**	**(0.00)**
Market to Book	0.0003	0.0000	0.0003	-0.0001	0.0003	-0.0000	0.0004	-0.0003	0.0001	0.0004
	(0.82)	(0.99)	(0.82)	(0.92)	(0.87)	(0.99)	(0.77)	(0.88)	(0.96)	(0.77)
Fixed Assets Ratio	**0.8359**	0.7601	**-1.9018**	0.1180	0.0758	**2.7377**	**0.7180**	**2.6619**	0.6422	**-2.0198**
	(0.05)	(0.30)	**(0.02)**	(0.67)	(0.92)	**(0.00)**	**(0.07)**	**(0.01)**	(0.36)	**(0.08)**
Interest Coverage Ratio	-0.0001	0.0002	-0.0001	0.0001	-0.0003	0.0000	-0.0002	0.0003	0.0001	-0.0002
Ratio	(0.92)	(0.37)	(0.78)	(0.69)	(0.61)	(0.93)	(0.83)	(0.43)	(0.43)	(0.65)
Director Ownership	-1.2821	-0.0462	1.6661	**2.2638**	-1.2358	-2.9482	-2.9482	-1.7124	-2.3100	-0.5976
	(0.57)	(0.81)	(0.36)	**(0.01)**	(0.68)	(0.27)	(0.27)	(0.51)	(0.26)	(0.72)
Leverage	0.0418	-0.0697	-0.0202	0.0012	0.1114	0.0619	0.0406	-0.0495	-0.0709	-0.0214
	(0.48)	(0.84)	(0.94)	(0.98)	(0.74)	(0.82)	(0.38)	(0.91)	(0.83)	(0.94)
Stock Return Volatility	-1.6540	13.8313	**-30.4019**	**9.6178**	-15.4852	28.7480	-11.2718	**44.2332**	4.2134	**-40.0198**
Volatility	(0.88)	(0.17)	**(0.08)**	**(0.09)**	(0.24)	(0.19)	(0.27)	**(0.04)**	(0.62)	**(0.05)**
12 month BHAR	0.0851	**0.4050**	-0.0225	0.0107	-0.3199	0.1076	0.0743	0.4275	**0.3942**	-0.0332
	(0.74)	**(0.05)**	(0.95)	(0.93)	(0.27)	(0.80)	(0.76)	(0.28)	**(0.02)**	(0.93)
Bank Board	-0.1662	**0.8255**	-0.1573	**0.2430**	**-0.9917**	-0.0089	**-0.4093**	**0.9828**	0.5825	0.4004
Affiliation	(0.49)	**(0.03)**	(0.64)	**(0.09)**	**(0.02)**	(0.98)	**(0.06)**	**(0.04)**	(0.12)	(0.21)
Observations	*1928*									
R-square	*0.1114*									
chi2	*363.3878*									

Log Likelihood	*-1449.3878*									
p	*0*									
Model 3										
Constant	**-16.1666**	3.8098	**5.2371**	**8.9418**	**-19.9764**	**-10.9290**	**-25.1084**	**9.0469**	**-5.1320**	**14.1789**
	(0.00)	(0.21)	**(0.05)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.02)**	**(0.08)**	**(0.00)**
Total Assets	**0.7034**	**-0.3339**	**0.2144**	**0.3805**	**1.0373**	**0.4890**	**1.0839**	**-0.5482**	0.0466	**0.5948**
	(0.00)	**(0.03)**	**(0.09)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.00)**	**(0.00)**	(0.74)	**(0.00)**
Market to Book	0.0003	0.0000	0.0003	-0.0001	0.0003	-0.0001	0.0004	-0.0003	0.0001	0.0004
	(0.82)	(0.98)	(0.82)	(0.91)	(0.89)	(1.00)	(0.77)	(0.88)	(0.95)	(0.76)
Fixed Assets Ratio	**0.8454**	0.7096	**-1.8958**	0.1005	0.1358	**2.7412**	**0.7449**	**2.6054**	0.6091	**-1.9963**
	(0.05)	(0.33)	**(0.02)**	(0.71)	(0.86)	**(0.00)**	**(0.06)**	**(0.01)**	(0.38)	**(0.02)**
Interest Coverage	-0.0001	0.0002	-0.0001	0.0001	-0.0003	0.0001	-0.0001	0.0003	0.0001	-0.0002
Ratio	(0.92)	(0.40)	(0.78)	(0.69)	(0.63)	(0.93)	(0.83)	(0.45)	(0.47)	(0.66)
Director Ownership	-1.2395	0.61201	1.6526	**2.2754**	-1.3596	-2.8921	-3.5149	-1.5325	-2.1553	-0.6228
	(0.59)	(0.96)	(0.37)	**(0.01)**	(0.64)	(0.28)	(0.11)	(0.56)	(0.28)	(0.71)
Leverage	0.0419	-0.0696	-0.0192	0.0007	0.1115	0.0611	0.0412	-0.0504	-0.0704	-0.0199
	(0.48)	(0.83)	(0.94)	(0.99)	(0.74)	0.824)	(0.37)	(0.90)	(0.83)	(0.94)
Stock Return	-1.2441	12.1342	-29.4931	**9.3888**	-13.3783	28.249	-10.6329	**41.6273**	2.7454	**-38.8819**
Volatility	(0.91)	(0.23)	(0.15)	**(0.09)**	(0.31)	(0.20)	(0.30)	**(0.06)**	(0.75)	**(0.05)**
12 month BHAR	0.0862	**0.3904**	-0.0223	0.0107	-0.3042	0.1085	0.0755	0.4127	**0.3797**	-0.0330
	(0.74)	**(0.06)**	(0.95)	(0.94)	(0.29)	(0.80)	(0.76)	(0.30)	**(0.02)**	(0.93)
Present Bank Board	-0.1074	**1.0339**	-0.2411	0.1592	**-1.1412**	0.1337	-0.2665	**1.2749**	**0.8747**	-0.4002
Affiliation	(0.68)	**(0.01)**	(0.54)	(0.33)	**(0.01)**	(0.75)	(0.25)	**(0.02)**	**(0.02)**	(0.29)
Observations	*1928*									
R-square	*0.111*									
chi2	*362.2623*									
Log Likelihood	*-1449.9855*									
p	*0*									

Table 5.7: Implied Changes in Probability

This table presents estimate values of changes in implied probabilities for a sample of 583 firm year observations of issuances of public debt, syndicated bank loans, bilateral bank loans and non-bank private debt. Implied changes are estimated using model 3 from Table 5.5. Whilst holding all other independent variables at their mean, the change in implied probability for each individual variable is estimated assuming that the variable being estimated modifies by its marginal effect. Binary variables are assumed to change from 0 to 1.

	Implied Changes in Probability			
	Public Debt	Syndicated Bank Loan	Bilateral Bank Loan	Non-Bank Private Debt
Total Assets	0.1528	-0.1223	-0.0190	-0.0115
Amount Issued	0.1607	0.0549	0.0327	-0.2483
Market to Book	0.0007	-0.0005	-0.0003	0.0001
Fixed Assets Ratio	0.0981	-0.0442	0.0371	-0.0910
Interest Coverage Ratio	-0.0003	0.0007	0.0001	-0.0005
Director Ownership	-0.1489	0.0691	0.0230	0.0567
Leverage	0.0871	0.0066	-0.0417	-0.0521
Stock Return Volatility	0.9500	0.1873	0.7561	-1.8934
12 month Buy and Hold Return	0.0160	-0.0410	0.0285	-0.0034
Board Bank Affiliation	-0.0367	-0.0099	0.0544	-0.0079
Unconditional Probability	0.2023	0.6882	0.0544	0.0550

CHAPTER 6: THE STOCK MARKET RESPONSE TO ANNOUNCEMENTS OF ISSUANCES OF PUBLIC, BANK AND NON-BANK PRIVATE DEBT

6.1 Introduction

Over the last 20 years, there has been a considerable amount of literature dedicated to examining the choice between public, bank and non-bank private debt, and the market's response to the announcement of such debt offerings. The purpose of this chapter is to provide a comprehensive review of the central empirical evidence available on the market response to announcements of issuances of debt, and to contribute to this literature by examining and presenting the results of an event study on the market response to 1051 announcements of public bonds, bank loans, and non-bank private debt to determine the direction and magnitude of the market reaction for my sample of UK firms.

This study contributes to the existing literature in a number of ways. Firstly, this study expands on prior US literature by measuring the market response to announcements of issuances of debt in a UK setting, using a unique hand collected sample of 1051 announcements of issuances of public, bank and non-bank private debt made by companies listed on the London Stock Exchange FTSE350 market index between January 2001 and December 2008.

Secondly, this study not only examines the market response to both bank loans per se, but measures the market response to both syndicated and bilateral loans, individually. It is of interest to examine bilateral and syndicated loans individually as they differ from each other in two crucial ways which may engender a different

response from the market. The first difference concerns the parties involved in the loans. A bilateral loan is a loan between an individual borrower and an individual lender, whereas a syndicated loan can be viewed as a hybrid between a traditional bank loan and borrowing from the public markets (Dennis and Mullineaux (2000)). A syndicated loan is a loan between an individual borrower and several lenders who have joined together to form a lending syndicate. The second difference concerns the value of the loan. Given that there is only one lender in a bilateral lending agreement, bilateral loans tend to be for smaller amounts, whereas given that there are several lenders in a syndicated lending agreement, syndicated loans are typically loans for considerably large amounts of money as several banks are able to contribute to the loan. The average syndicated loan value in this sample was £433.11 million compared to the average bilateral loan value of £169.88 million.

This study also considers the stock market response to the announcements of issuances of debt across several loan and company categories. It is of particular interest to examine the stock market response across different categories because the abnormal responses revealed by the market may surface as a result of characteristics of the debt issued, or borrower specific characteristics. Firstly, this study examines the effect of debt characteristics on the stock market response to announcements of issuances of public, bank and non-bank private debt; it considers the value of the amount borrowed, the maturity of the debt issued, the use of debt proceeds, the status of the debt issue – new loan or renewal, and the sequence of the issue. Secondly, this study examines the effect of reputation variables on the stock market response to announcements of issuances of public, bank and non-bank private debt; it considers the effect of having an affiliation with a bank and turnover of finance director.

Thirdly, this study examines the effect of firm characteristics on the stock market response to announcements of issuances of public, bank and non-bank private debt; it considers firm size and likelihood of financial distress. Lastly, this study examines the year of the announcements of issuances of public, bank and non-bank private debt.

The findings of this chapter provide evidence supportive of banks being viewed as special lenders. Consistent with prior literature, the empirical results provide no evidence of any abnormal market response to announcements of issuances of public debt, and a positive market response to announcements of issuances of bank debt. There is no evidence of any abnormal market response following announcements of non-bank private debt, which is inconsistent with the view of Preece and Mullineaux (1994), and Rhee and Shin (2003) who posit that the market should respond similarly to announcements of private debt from sources other than commercial banks.

Further analysis reveals that the positive market response to issuances of bank debt is driven by the sample of announcements of syndicated loans. This is the most striking finding, and is somewhat surprising given that the specialness of banks as lenders has been attributed to the close relationships formed between the borrower and the lender through bank lending agreements.

There is also some evidence of firm reputation having an impact upon the stock market response to debt issues. Following Finance Director Turnover, announcements of bonds are met with a positive market response, and where a firm is affiliated with a bank through board membership, there is evidence of a stronger market response to syndicated loans.

The remainder of this chapter is structured as follows. Sections 6.2 provides a comprehensive review of the central empirical evidence available on the market response to announcements of issuances of debt. Section 6.3 and section 6.4 outline the sample data and methodology employed within this chapter, respectively. Section 6.5 presents the empirical results of the event study and multivariate analysis. Section 6.6 provides concluding remarks.

6.2 Review of Literature

Definitions of public debt, bank debt and non-bank private debt are outlined in Chapters 2 and 4. Literature examining the market response to announcements of issuances of debt has largely concerned itself with the information costs involved in issuing debt. Theoretical models contend that the presence of debt, through the reduction of free cash flow, should help to ease both the problems of information asymmetry and agency problems, and thus predict that announcements of issuances of debt would coincide with an increase in firm value. However, as a consequence of signalling expected cash flows which are lower than expected, Miller and Rock (1985) argue that the issuance of external finance would initiate a negative market response.

Given the differences between public, bank and non-bank private debt, the theoretical rationale behind the choice to issue each type of debt differs, as have the empirical results presented so far. Consequently, the following review assesses individually prior literature on the stock market response to issuances of public, bank and non-bank private debt.

6.2.1 Stock Market Response to the Announcement of Issuances of Straight, Non Convertible, Public Debt

Several papers have studied the market's response to announcements of issuances of straight, non convertible, public debt, and have generally found little or no systematic market response. Table 6.1 summarises the literature. Dann and Mikkelson (1984) report a small and statistically significant share price decline in response to the announcement of public debt. Using a sample of 150 straight debt issues between

1970 and 1979, they show that over the two-day announcement period the market responds negatively, to the magnitude of -0.37% which is marginally significant at the 10% level.[58]

Similarly, Eckbo (1986) measures the market response to the announcement of straight public debt offerings made in 1982. To investigate whether the results are driven by the nature of the public debt issues, Eckbo examines whether rating class and mortgage bonds have an effect on the market response. The sample of 459 announcements of public debt reveals a two-day announcement abnormal return of -0.10%, which is insignificant, however the results for the sample of 189 mortgage bonds reveals a statistically significant two-day announcement period return of -0.20%. This result is broadly similar to the -0.37% reported by Dann and Mikkelson (1984), implying that the abnormal performance presented by their study could be driven by mortgage bonds (Eckbo (1986)). However, rating class is found to have no association with market responses, as higher rated, less risky, bonds are not found to be coupled with smaller negative abnormal returns.

James (1987) documents a two-day average prediction error of -0.11% for the 10-year period between 1974 and 1983, which is insignificant, but broadly comparable to the -0.06% reported by Eckbo (1986) for non-mortgage straight bonds. No significant market response is found where the proceeds are used to refinance debt, for capital expenditure purposes or general corporate purposes, however a significantly negative market response is found for issuances of straight debt where the proceeds are used to repay bank loans. This suggests that issuers of public debt

[58] All papers discussed within this review of literature, unless otherwise stated, define the two-day announcement period as the date prior to the announcement, and the date of the announcement (-1,0).

are perhaps conscious of the original lending banks' withdrawal of debt finance due to being privy to unfavourable privately held information.

Mikkelson and Partch (1986) study the market response to announcements of public debt offerings between 1972 and 1982, and using a randomly selected sample of 360 industrial firms, document an insignificant market response of -0.23%. Looking specifically at offerings that came to fruition, they report no evidence of a market response to the offering on the actual date of issuance (0.19%), or up until at least 20 days after the issuance (0.38%).[59] No relationship between bond ratings and the market response to the issue is highlighted. Mikkelson and Partch (1986) examine whether or not the quality of the issuing firm has an effect on the market's response to debt offerings. Somewhat consistent with the implication of the pecking order theory, whereby debt offerings by lower quality firms would be associated with larger decreases in share prices, Mikkleson and Partch (1986) report that the average two day stock return for issues by AAA rated firms is 0.00%, compared to -0.51% for the issues of public debt rated BBB or lower. However, this market response of -0.51% is not statistically significant. Further analysis shows that the market responds negatively to both issues of public debt where the proceeds are used to refinance debt, or for capital expenditure purposes, and significantly so in the case of the latter.

Shyam-Sunder (1991) examines the share price response to straight public debt issues of differing risk, using a sample of 297 debt issues, and reports an insignificant two day average abnormal return of -0.11%. Analogous results are exhibited when the sample is stratified dependent upon different factors; looking at

[59] This implies that the market is semi-strong form efficient in that share prices fully reflect all the relevant publicly available information around the announcement date.

risk, which Shyam-Sunders (1991) determines by bond ratings, no significant difference between the market response to issues of safe and risky debt is reported. The results also suggest that firm size is not significantly related to the abnormal returns reported at the announcement of straight debt issues, that the market response to debt offerings is the same, regardless of the offering being traditional or shelf registered in nature, and that there is no difference in the market response to firms that are involved in a restructuring activity and those which are not.

In the 140 days before the announcements of offerings of straight public debt, Chaplinksy and Hansen (1993) report negative stock returns. As a result, they argue that the market may anticipate debt announcements, or that event studies which measure the information contained in debt announcements do not capture all the information included in the announcement. Thus, they argue that the previous market anticipation of the debt issuance may be why no, or very small, abnormal returns are revealed by previous literature. However, Shyam-Sunders (1991) illustrates that the insignificant market reaction to public debt issues is not a result of the market having anticipated the debt issue, reporting no significant leakage for up to 60 days prior to the announcement date. He proposes that the lack of significant stock market response may be attributable to the bond ratings themselves eliminating any information asymmetries.

Johnson (1995) also finds no support of a significant market response to the announcement of straight public debt between 1977 and 1983 (0.32%), but finds that firms which payout low dividends enjoy positive share price effects at the announcement of a debt offering (0.78%). This response could be construed as being

surprising as it is plausible that shareholders could envisage that large issues of debt will be used to increase the dividend that they will receive, leading to a positive market response. Titman and Wessels (1988) argue that the agency costs resulting from asset substitution should be more pronounced for firms in growth industries. Consistent with this, Johnson (1995) reports that low growth-low dividend payout firms enjoy a significantly positive stock market response, whereas the market does not respond to issues made by high growth-low dividend firms, and high dividend payout firms, whether low growth or high growth.

Consistent with the agency theories on debt maturity highlighted by Myers (1977) and the signalling theories of debt maturity choice (Flannery (1986) and Kales and Noe (1990)), several studies have examined the stock market response to announcements of Initial Public Offerings (IPOs) of straight public debt, and observed a negative reaction. For example, Patel (2000) reports that the market responds negatively (-0.94%) to the announcement of public debt IPOs, over the 2 day abnormal return period, and Datta, Iskandar-Datta and Patel (2000) report a negative market response of -0.86% which is significant at the 1% level.

However, these results are inconsistent with the models of Ross (1977) and Heinkel (1982)), which suggest that debt IPOs should be viewed as positive signals of firm quality. No significant market response (-0.50%) to debt IPOs is exhibited by firms with no prior banking relationship (Patel (2000)).

Howton, Howton, and Perfect (1998) measure the market response to 937 issues between 1983 and 1993, and report a larger, significantly negative, return of -0.50% around the announcement of straight public debt issues. They attribute the difference

between the abnormal returns reported here to other papers and the differing sample period, and sample sizes employed. Further examination into the relationship between the market's response to the announcement of an offering of public debt and proxies for the firm's level of free cash flow and investment opportunities yields some interesting points. Consistent with Jensen's (1986) free cash flow argument, Howton, Howton and Perfect (1998) report that firms with less free cash flow suffer greater negative reactions to an announcement of public debt issue but that the market responds better to firms with low investment opportunities issuing straight debt than it does firms with high investment opportunities. This suggests that the market views the issuance of debt to constrain wasteful investments in a positive manner. Issue size is not found to be significantly related to announcement period abnormal returns, but low yielding debt issues are found to have slightly higher abnormal returns than high yielding debt issues.

It appears that the market response to issues of straight public debt is not time specific. Hadlock and James (2002) report negative market responses to announcements of clean public debt, to the magnitude of -0.23%, following a pre-issue run-up of 4.91%, both of which are significant at the 5% level. Jiao (2007) predicts that the average market response to announcements of risky debt issues will be zero. The rationale behind Jiao's paper was to integrate the role of noisy information (soft, hard to confirm, information) becoming available to outside investors around the time of a debt issue, by means of, for example, analyst's forecasts. Although firm insiders cannot be certain about the soft information investors have amassed, Jiao argues that this will be imperfectly correlated with insiders' private information. Consequently, he predicts that firms who are subject to

less information asymmetry - with regards to soft information - will enjoy either less negative market responses, or more positive market responses to debt issues, than those for which information asymmetry is a greater problem.

6.2.2 Stock Market Response to the Announcement of Issuances of Bank Debt

In addition to offering loans, unlike other lenders, banks provide additional banking services to borrowers including deposit services and payroll services, presenting them with information about potential borrowers that other lenders do not have access to. As repeat lenders, banks also have superior monitoring, screening, insurance and certification functions, alongside specialisation in making loans (Nakamura (1993)), and observing repayment history.

Signalling models such as those discussed by Fama (1985), Kane and Malkiel (1965) and Bernanke (1983) emphasise that if banks are privy to inside information through bank lending activities, they would not offer or renew a loan to a firm if it had gathered unfavourable information about it. Consequently, announcements of bank debt should correspond with a positive impact on the borrowing firm's market valuation. The empirical results are consistent with this. Table 6.2 summarises the literature.

Mikkelson and Partch (1986) briefly examine the market response to announcements of bank credit agreements, and observe that the market responds positively to these announcements to the magnitude of 0.89%, which is statistically significant at the 1% level. James (1987) examines the market response to announcements of bank

loans more rigorously, reporting an average abnormal return of 1.93%, which is statistically significant at the 1% level, for 80 bank loan agreements.

The presence of banks helps to alleviate problems of information asymmetry, through monitoring and screening both ex ante and during the lending relationship. This constrains managerial incentives to squander cash and thus can help to increase the availability of capital (Jensen (1986)). Preece and Mullineaux (1996) explain that that the positive response to bank loans may be attributable to the contractual flexibility of bank loan lending that complements the monitoring function performed by the lending bank. The informational benefits associated with relationship banking have also been proposed as a rationale behind the positive market response (Boot (2000)).

To determine whether the market responds differently to the announcement of a private debt issue given the use of proceeds, James (1987) stratifies his sample and reports that the market responds to the magnitude of 1.14%, 1.20% and 3.10%, when the proceeds are borrowed to refinance debt, for capital expenditure purposes, and for the repayment of bank loans, respectively. Results are significant in the case of repaying bank loans for both bank loan and private placements, but otherwise insignificantly different from zero. Similarly, Shepherd, Tung and Yoon (2007) state that loans which are used to refinance existing debt provide the market with no strong positive information regarding the borrowing firms' future projects.

In addition to this, James (1987) examines whether the rating of the debt has an impact on the market's response. James uses the rating of the borrowing firm's most recently issued debt prior to each sample announcement and documents that higher

debt ratings provide greater abnormal returns, with A+ ratings having an abnormal return of 3.89%, and those with a rating of BAA-, an abnormal return of 1.77%, however both are statistically insignificant. James argues that these results are consistent with the pecking order theory suggested by Myers and Majluf (1984) whereby the issuance of less risky debt is preferred to riskier debt.

Lummer and McConnell (1989) also observe a positive two-day abnormal return of 0.61% (which is statistically significant at the 1% level) for their sample of 728 bank credit agreements between 1976 and 1986, which supports the notion of bank credit signalling favourable information to the market. Lummer and McConnell (1989) further the research of the market response to announcements of bank loans, by considering the market response to both initial loan agreements (371 agreements) and loan renewals (357 agreements), and report that the positive market response is driven by loan renewals. The results highlight that the two-day announcement period returns for new loans is insignificantly different from zero (-0.01%), compared to the significant 1.24% for existing loans. Consequently, they interpret these findings as evidence that banks only gain access to inside information by means of a lending relationship, and that they are not privy to private information at the outset of a credit agreement. This somewhat contradicts the monitoring hypothesis, as the market does not respond positively to future bank monitoring.

Loan renewals incorporate revisions that can be both positive and negative in nature, so Lummer and McConnell (1989) investigate as to whether the market responds differently to favourable and unfavourable revisions to gain a more complete understanding. They define favourable revisions as those agreements whereby the

maturity increases, interest rate falls, amount of the loan increases or restrictive covenants become less restrictive. Agreements where the loan amount is decreased, maturity is shortened, interest rates rise and restrictive covenants become more restrictive are classed as unfavourable revisions. Perhaps unsurprisingly, Lummer and McConnell (1989) report that the market responds positively to favourable revisions (to the magnitude of 0.87%, which is significant at the 1% level), and negatively to unfavourable revisions (to the magnitude of -3.86%, which is significant at the 1% level), highlighting that the loan revision and renewal process is an influential means for conveying information. Surprisingly, however, firms which had mixed revisions are found to have greater excess returns than those with favourably revised agreements (3.98%), a finding which the authors argue may be attributable to banks showing future optimism to firms that are currently in distress. Moreover, Lummer and McConnell (1989) posit that firms announcing larger loans enjoy a greater market response, presumably because banks would not lend large amounts if they were unsure of firm quality and thus repayment. In contrast, more recent studies have found that the market responds positively to both loan initiation agreements and renewals (Wansley, Elayan and Collins (1993) and Billet, Flannery and Garfinkel (1995)), or no evidence of the market responding differently to initial loan agreements and loan renewals (Preece and Mullineaux (1994)).

Slovin, Johnson and Glascock (1992) report a two day cumulative abnormal return (CAR) of 0.69%, for their sample of 676 bank loan announcements, which is significant at the 1% level. They further their analysis by testing whether there are disparities between large and small capitalisation firms. For large capitalisation firms they report no evidence of an abnormal return. However, in contrast, and suggestive

of loan announcements for smaller companies conveying more information than larger firms because the market knows less about the former, they report evidence of smaller capitalisation firms enjoying significantly positive average abnormal returns (1.92%) over the two day period. This links in with Fama's (1985) notion of larger firms already working under the scrutiny of numerous external monitors or alternatively the notion of bank's being able to secure more information from smaller borrowers. Furthermore, both loan initiations and renewals for small capitalisation firms enjoy significantly positive returns (1.5% and 2.55%, respectively). These results are also consistent with smaller firms finding it more economical to provide information to only a few lenders. For large capitalisation firms, there is no significant market response for either new loans (0.97%) or renewals (1.26%).

Consistent with Lummer and McConnell (1989), Best and Zhang (1993) control for borrower characteristics and report insignificant abnormal returns following new loan agreements, but positive abnormal returns for loan revisions. They report evidence of the market responding positively to favourably revised loans (0.75%), and negatively to unfavourably revised loans (-1.82%). Consistent with this concept Best and Zhang (1993) observe that the market appreciates the assistance of a bank's monitoring or information gathering services. Best and Zhang report that firms with poorer publicly available information – such as negative recent earnings trends or greater market dispersion in expected earnings – enjoy positive abnormal returns where analysts' forecast errors are high when making bank loan agreement announcements (0.60%), but zero abnormal returns when forecast errors are low (0.04%).

Billett, Flannery and Garfinkel (1995) examine 626 bank loan announcements, and report an abnormal return of 0.63%, which is significantly different from zero at the 1% level. They observe that the quality of the lender is important, finding that firms that borrow from banks with higher bond ratings obtain a greater favourable, stock market response, implying that lender identity has an effect on the market's response to loan announcements. Borrowing from lenders who are AAA rated engenders a significant positive market response of 0.63%, but there is no significant market response to those borrowing from lenders rated BAA or below. Byers, Fraser and Shockley (1988) also find evidence supportive of the quality of the lender being important.

Some studies have questioned the widespread belief of banks playing a unique role in transmitting information within the capital markets. Byers, Fields and Fraser (2008) argue that the uniqueness of bank loans exists only for firms with weaker (external) corporate governance, particularly the market for corporate control. They characterise firms with weak corporate governance as having low insider ownership and having little or no incentive pay schemes for their CEOs, report lower announcement returns for firms with more independent directors, which suggests that the importance of bank borrowing is reduced for firms with boards governed by a vast amount of independent directors. Furthermore, suggestive of bank monitoring being particularly important for firms whose CEOs have little or no incentive based pay, Byers, Fields and Fraser (2008) report a negative relationship between CEO incentive based pay and bank loans.

Changes in the financial system, growth in the public debt markets, and competition from the market for non-bank private debt, coupled with greater availability and cheaper production of information, may have led to the disappearance of many of the special features connected with bank lending agreements described by Fama (1985). Indeed, several studies have raised some uncertainty over whether banks continue to be special lenders, suggesting that the monitoring and screening which banks offer do not add as much value as had been the case previously. Hadlock and James (2002) report that the market response to bank loan announcements is insignificantly different from zero (1.45%), and consistent with the hypothesis that undervalued firms tend to use bank debt, report that the likelihood of bank borrowing is negatively related to the pre-announcement run-up in a firm's share price. Bank loan announcements are on average preceded by a cumulative excess stock return of -12.34%, in comparison to 4.91% for public debt.

Fields, Fraser, Berry and Byers (2006) examine the market response to bank loan announcements between 1980 and 2003 to determine whether the market response is similar over differing time periods where the special features of banking agreements may be less apparent. For their full sample period, 1980-2003, they report a significant 2-day CAR of 0.46%, and consistent with Lummer and McConnell (1989), find that the positive return is driven by loan renewals. However, when they split their sample into three different periods of time, Fields, Fraser, Berry and Byers (2006) observe that the significance of bank loan financing has weakened. The market response to bank loan announcements between 1980 and 1989 was 0.60%, falling to 0.51% between 1990 and 1999, and 0.13% between 2000 and 2003. They report a similar pattern for loan renewals. Thus, the results illustrate that the market

responded positively to bank loan announcements made in the 1980s, but due to changes in the banking environment, the market does not seem to respond – either positively or negatively - to bank loan agreements announced between 2000 and 2003. Fields, Fraser, Berry and Byers (2006) do not control for the size of the borrowing firm, poorly performing firms, or announcements made during periods of high credit risk spreads where there is greater economic uncertainty.

However, the market perception of bank loans and the services offered by banks appears to have gone full circle. More recently Demiroglu and James (2007) reported a statistically significant positive market response of 1.20% to announcements of bank loans, and find that the market responds more positively to loans with stringent restrictive covenants, suggesting that the inclusion of tight covenants signals positive information to the market. Bharath, Sunder and Sunder (2008) and Lee and Sharpe (2009) provide similar results, with Lee and Sharpe (2009) reporting that the market responds more positively to bank loans provided by banks which have excellent monitoring and screening resources, proxied by the ratio of sales expenditure total non-interest expense which measures the amount which banks invest in the employees responsible for loan screening and monitoring. These results are consistent with the view of banks being particularly important for monitoring and screening purposes.

Not only does the stock market view announcements of bank debt favourably, Ongena, Roscovan and Werker (2007) find evidence of bondholders reacting positively to announcements of bank loans by charging lower yields, suggestive of bondholders viewing bank loans as a credible signal of the borrower continuing to be

of an adequate credit quality. However, the reduction in yield spreads decreases with longer debt maturities, and where the firm is perceived to be riskier, Ongena et al (2007) find that higher yields are still paid.

Armitage (1995) examines the impact of syndicated loans in the UK, and reports no evidence of banks possessing inside information which increases company valuation for companies. This result is contrary to the evidence presented by US studies which look at the market response to bank loans generally with no distinction between syndicated and bilateral loans, over the two day event window, Armitage (1995) observes some weak evidence of the UK market responding negatively to new syndicated loans, whether for general purposes or for refinancing debt, reporting CARs of -0.75% and -0.99%, respectively. However, consistent with Lummer and McConnell (1989), Armitage (1995) reports that banks only gaining access to inside information by means of a lending relationship, and that they are not privy to private information at the outset of a credit agreement. In contrast to the insignificant market response of -0.75% for new loans, Armitage (1995) reports a stock market response of 0.73% for favourable revisions, which is statistically significant at the 5% level. Moreover, consistent with Slovin et al (1992), Armitage (1995) also reports evidence of smaller companies enjoying a significant market response to announcements of increased facilities (3.47%) over the two day window. This is suggestive of loan announcements for smaller companies conveying more information than larger firms because the market knows less about the former.

6.2.3 Stock Market Response to the Announcement of Issuances of Non-bank Private Debt

Studies examining the market response to announcements of non-bank private debt are few and far between. Preece and Mullineaux (1994) and Rhee and Shin (2003) posit that the market should respond similarly to announcements of private debt from sources other than commercial banks, if these non-bank private lenders have traits comparable to commercial banks, such as similar contracts, information collection and analysing procedures and lending processes.

The empirical results are consistent with this. Table 6.3 provides a summary of the literature. James (1987) also examines the market response to private placements of debt more rigidly, and, by means of a sample of 37 private placements with insurance firms, reports an average abnormal return of 0.91%, which is significant at the 10% level. Although this abnormal return of 0.91% is statistically different from zero, it is significantly different from the abnormal return of 1.93% reported for announcements of bank loans at the 1% level, implying that the intermediation and monitoring services provided by banks are regarded by the market as being superior to those of financial intermediaries, such as insurance firms. The smaller market response may also be attributable to the facet of riskier firms using private placements, which are known to be bestowed with comprehensive restrictive covenants (Smith and Warner (1977)). Controlling for use of loan proceeds, James (1987) reports a market response of 0.51%, -0.23% and -2.07%, when the proceeds are borrowed to refinance debt, for capital expenditure purposes, and for the repayment of bank loans, respectively. It seems irrational however, as James (1987) himself mentions, that firms would borrow privately placed debt to repay bank loans, considering the resulting negative market response. In addition, using the rating of

the borrowing firm's most recently issued debt prior to each sample announcement, James (1987) documents that higher debt ratings provide greater abnormal returns, with A+ ratings having an abnormal return of 1.18%, and those with a rating of BAA-, an abnormal return of 0.30%.

More recently, Chandra and Nayar (2008) report that in the short run, the market responds positively to announcements of private placements (0.24%, significant at the 1% level). They also report that the market reacts more positively to issuances of non-bank private debt made by smaller firms, implying that firms with greater information asymmetry benefit most from the services provided by private debt.

However, Billett, Flannery and Garfinkel (1995) provide no empirical evidence of the market responding differently to bank loans and non-bank loans. They find that the market responds positively to loans from non-bank sources, such as commercial finance companies, observing a positive abnormal return of 1.08% on the announcement date which is significant at the 10% level. The abnormal return of 1.08% is indistinguishable from the positive returns that they report for bank loans (0.63%). Therefore, not only does the market respond similarly to loans from financial firms and non-bank subsidiaries of banks, the market appears to respond as it would to loans from banks. Thus, they argue that issuers of non-bank private debt have access to some of the favourable attributes of bank financing, and that the market views non-bank private issuers as homogeneous to bank lenders.

Preece and Mullineaux (1994) examine the market response to borrowing firms dependent upon different non-bank lenders; namely – independent financial firms (non-banking firms) and non-bank subsidiaries of banks. The two-day average

abnormal return for announcements of loans from non-banking firms is 1.84%, and 2.77% for loans from non-bank subsidiaries of banks, both of which are significant at the 1% level.[60] It appears that similar to banks, insurance companies are perceived as good information producers, as both Bailey and Mullineaux (1989) and Szewczyk and Varma (1991), report that the market responds positively to the announcements of private placements. Stratifying their sample, Szewczyk and Varma (1991) find that the market responds more positively to larger issues. This implies that the firm is a good credit risk, as informed lenders would not lend, in large volumes, to risky firms.

6.2.4 Summary of the Stock Market Response to Announcements of Issuances of Public, Bank and Non-Bank Private Debt

Contrasting with the evidence that debt can provide free cash flow benefits; studies examining the market response to announcements of issuances of straight public debt have revealed little or no systematic market response. These findings are somewhat consistent with Miller and Rock's (1985) proposition of the issuance of debt initiating a negative market response as a consequence of signalling expected cash flows which are lower than expected. However, the small market response may simply be attributable to the size of the borrowing firm. Larger firms, who by their nature find it more economical to produce information and as a result produce more information, tend to issue public debt. Therefore, it may be expected that the announcement provides little new information to the market, resulting in such a

[60] These results contrast slightly with those of James (1987), as James finds that bank loans are met with a greater positive market response than loans from insurance firms.

trivial reaction. Such a market response could also be argued to be attributed to the lack of expertise and amount of monitoring which public lenders perform both ex ante and during the duration of the loan. Issuers of public debt do not have the screening or monitoring benefits possessed by banks. Moreover, individual bondholders are subject to the free riding problem if they do carry out monitoring activities.

The positive market response to bank debt and non-bank private debt arguably links into Myers and Majluf's (1984) pecking order theory, in comparison to the zero or negative market response to straight public debt. As Fama (1985), amongst others, argues, bank loans are regarded as a source of inside debt because they are privy to information regarding deposit history, and growth prospects, leading to lower levels of information asymmetry. In addition, lower levels of asymmetric information go hand in hand with lower borrowing rates on debt for those able to borrow, and the market may respond to the use of the cheapest form as debt positively. Consequently, a bank's decision to lend is generally viewed as a positive signal of firm value, creditworthiness and future opportunities (Shepherd, Tung and Yoon (2007)). Moreover, pronounced monitoring helps to reduce agency costs (Szewczyk and Varma (1991)). As bank loans offer insurance that counters unfavourable variations in the accessibility and cost of credit from the capital markets, they are particularly advantageous when credit market spreads are unattractive (James and Smith (2000)), which could be another reason behind the positive market response.

A small, but more recent, strand of literature argues that the unique benefits of private debt financing advocated by Fama (1985) are not provided solely from bank

loans, but also from non-banks (Preece and Mullineaux (1994)). For example, Fields, Fraser, Berry and Byers (2006) argue that more recently the market appears to view banking relationships less importantly than previously. Indeed, the principal conclusion of Preece and Mullineaux (1994) is that the signals engendered by loan announcements by non-bank firms are analogous to those by banks. However, as the empirical evidence suggests that the market responds more positively to bank loans than those from non-bank sources, it appears that James' (1987) contention of banks being special still holds. Indeed, James observes that the positive market response to announcements of bank credit agreements are not owing to the disparities in the traits (e.g. default risk, maturity, size or purpose of borrowing) of private loans compared to public debt issues. Thus, it appears that banks are indeed special, assisting borrowers in a way that other lenders cannot.

It has to be considered, however, that it is likely that those bank loans publicly reported are large loans by larger firms (perhaps syndicated loan, although there is no significant literature on syndicated loans), and that copious smaller, bilateral loans, are not publicly announced. Consequently, Hadlock and James (2002) argue that the positive market responses enjoyed by issuers of bank debt are attributable to large loans.

6.3 Sample Data

The sample of debt announcements within this chapter comes from the 1091 announcements of debt drawn from hand searches of Nexis, the Regulatory News Service and company annual reports, Thomson One Banker and DataStream as documented in Chapter 4.

Sample announcements are excluded where the exact date of the first announcement cannot be established from the press (12 announcements), or where the announcements contain information which could influence the market response over the event period (28 announcements). Table 6.4 provides a summary of the reasons leading to exclusion from the sample.

Table 6.5 presents the distribution of the filtered sample of announcements of debt by type of announcement for which I am able to define the exact date of the first announcement. There are 1051 announcements of debt, comprising 323 announcements of public debt (30.73%), 582 issues of bank debt (55.38%) consisting of 497 issues of syndicated loans (47.29%) and 85 issues of bilateral loans (8.09%), and 146 issues of non-bank private debt (13.89%).

6.4 Methodology

6.4.1 Market Model

The empirical study follows the standard event study methodology suggested by Brown and Warner (1985).[61] Using an estimation period of 150 days (-200 to -51) days relative to the announcement of debt), following previous studies that analyse effects of corporate decisions on shareholders' wealth, the standard market model, estimated by ordinary least squares, is used to obtain estimations of abnormal stock returns around the announcements of issuances of debt. The announcement date is defined as the date of the first public announcement of the borrowing agreement or debt offering in the press.

The market model is defined as:

$$E(R_{it}) = \alpha_i + \beta_i E(R_{mt})$$

where, α_i and β_i are Ordinary Least Squares (OLS) estimates of firm i's market model parameters, and R_{mt} is the return on the FTSE 350 market index in period t.

A company's abnormal return is computed as:

$$AR_{it} = R_{it} - \alpha_i - \beta_i R_{mt}$$

where, R_{it} is the return on security i over period t, α_i and β_i are Ordinary Least Squares (OLS) estimates of firm i's market model parameters, and R_{mt} is the return on the FTSE 350 market index in period t.

[61] Brown and Warner (1985) conclude that a simple methodology based on the market model is both well and specified and relatively powerful under a wide variety of conditions.

When used for short horizon studies, cumulating the average abnormal returns is crucial to capture the full effect of the event on share prices and to accommodate the uncertainty over the exact date of the announcement, or rather the time when the market really learned about the event.

For a portfolio of N securities, the average abnormal return in period t, AAR, is computed as the equally weighted arithmetic average of the abnormal returns:

$$AAR_T = \frac{1}{N}\sum_{i=1}^{N} AR_{it}$$

Where, N is the number of observations.

To control for the uncertainty over the exact date of the announcement, and to capture any sustained pre or post announcement market reaction, and thus the overall reaction to the event, it is important to cumulate the average abnormal returns. The cumulative abnormal return can be defined as the sum of the differences between the expected return on a stock and the actual return that comes from the release of news to the market:

$$CAR_{iT} = \sum_{t=1}^{T} AAR_{it}$$

Abnormal returns for Day -1, the announcement date (Day 0), and Day +1 are reported, as are cumulative abnormal returns for two estimation periods; the three day event window (-1,+1) and the seven day window (-3,+3).

Student's test-statistics are calculated to assess the significance of the abnormal returns of the issuances of debt. The student's test statistics for daily abnormal returns are calculated as:

$$t_{AAR} = \frac{AAR_t}{\sigma_{AAR}}$$

Where, σ_{AAR} is the standard deviation of the abnormal returns in period t, and the student's test-statistics for cumulative abnormal returns are calculated as:

$$t_{CAR_{\tau,T}} = \frac{CAR_{\tau,T}}{\sigma_t/\sqrt{N}}$$

Where, N is the number of observations over the period which the CAR is calculated, and σ_t is the standard deviation of abnormal returns over the estimation period.

To determine whether there is a significant difference between two samples, I follow the approach of Lasfer, Sudarsanam and Taffler (1996), using the t-statistic for the differences in cumulative abnormal returns:

$$t = \frac{CAR_1 - CAR_2}{\sqrt{T}\sqrt{\sigma^2 AR_1 + \sigma^2 AR_2}}$$

Where, T is the length of the estimation period, and σ^2 is the standard deviation of the daily average abnormal return over the event period.

6.4.2 Robustness

Following prior literature which has examined the short run market response to announcements of issuances of debt, this study has utilised the market model to measure any abnormal response to share prices following announcements of debt

issues. Other models, including Market Adjusted Returns, Mean Adjusted Returns, the Fama-French (1993) three factor model and the Carhart (1997) four factor model, could also have been used to measure abnormal performance. However number of studies – most notably the studies by Brown and Warner (1980 and 1985) - have compared different methodologies used to measure abnormal performance and have reported that the market model performs just as well, if not better, than both market adjusted returns and the mean adjusted returns alternatives.

The mean adjusted model would perhaps be beneficial for taking into account any bias prior to the event. However, the 12 month buy and hold abnormal return variable which is employed as an independent variable in the regressions which examine the choice of debt source within chapter 6 provides no evidence of a relationship between the choice of debt source and the borrowing firm's 12 month buy and hold abnormal return. Consequently, it appears that there is no bias in either the alphas or betas within the market model which employed. Moreover, in support of it being unlikely that a bias exists for either the alphas or betas within the market model, Billett, Flannery and Garfinkel (2006) examine the long run market response following announcements of bank debt and find that the market reassesses its initial view, and that firms announcing bank loans suffer negative abnormal returns over the subsequent three years.

6.5 Empirical Results

6.5.1 Event Study Results

6.5.1.1 The Stock Market Response to the Full Sample of Debt Announcements

Table 6.6 presents the results for the market reaction to announcements of debt by type of debt; public bonds, bank loans and non-bank private debt, and Table 6.7 presents mean differences between the market reactions to the different types of debt. For announcements of public debt, there is no evidence of either a statistically or economically significant response over any event window examined, which is consistent with Mikkelson and Partch (1986), Shyam-Sunder (1991) and Johnson (1995). Similarly, the results also indicate no significant market response to announcements of issuances of non-bank private debt over any event window examined. However, the latter finding is inconsistent with the small number of prior studies which have reported positive stock market responses to announcements of non-bank private debt (James (1987), Billett et al (1995), Bailley and Mullineaux (1989) and Szewczyk and Varma (1991)).

CARs following announcements of issuances of bank loans are significantly positive across all but one event window examined. These results are consistent with the vast majority of US studies which have also reported significantly positive event period abnormal returns (James (1987)), Lummer and McConnell (1989) and Billett et al (1995)). However, these studies do not control for the differences between syndicated and bilateral loans. Given the distinct differences between syndicated loans and bilateral loans, the market response to each is examined individually. Table 6.8 presents the market reaction to announcements of bank loans and the mean difference between the market reaction to syndicated loans and bilateral loans. The

results suggest that the sample of syndicated loans drive the event period returns for the full sample of bank announcements, thus henceforth the market response to syndicated loans and bilateral loans are assessed individually.

Following announcements of syndicated loans CARs are significantly positive, yet there is no evidence of any market response following announcements of bilateral loans. The finding of a positive response to syndicated loans is somewhat surprising, particularly when compared to the lack of market response found for bilateral loans, and are in contrast to Armitage (1995) who examines the market response to syndicated loans for UK firms and reports no evidence of any significant market response. The positive market response may be somewhat indicative of syndicated loans conveying a signal of considerable creditworthiness, as not only has one bank, the lead arranger in a syndicate, undertaken screening and monitoring and considered the firm creditworthy. But also, further banks within the syndicate will have undertaken their own screening and monitoring, and considered it creditworthy.

The presence of a positive stock market response for syndicated loans, and a lack of market response for both public debt and non-bank private debt can be interpreted as support for the information hypothesis. Hence these results support Fama's (1985) view of banks being to obtain inside information and, thus, being regarded as "special" lenders. However, the lack of a stock market reaction to bilateral loans is rather surprising and may simply be attributable to either the small sample employed, or firm or issue characteristics such as firm size and loan value.

6.5.1.2 Interpretation of the Stock Market Response to the Announcement of Debt Issues

The differing abnormal performance following announcements of public debt, bank loans and non-bank private debt may surface because either the type of debt or the borrowers themselves are completely different with regards to a variety of significant characteristics, such as loan value, debt maturity, the governance of the borrowing company or the use of proceeds, all of which are disparate to the identity of the lender.

To control for this, this section examines the market response associated with the different types of debt announcements grouped by board bank affiliation, change in Finance Director, the year of issue, the status of the loan, the use of loan proceeds, the loan maturity, the value of the loan, the size of the borrowing firm, borrower default risk and the sequence of issue. Finally, as a further robustness check, the sample of debt announcements by excluding those announcements with overlapping debt issues.

6.5.1.3 The Stock Market Response to the Announcement of Debt Issues by Status of Board Bank Affiliation

Recent studies have examined the presence of bankers on the board of directors of non-financial firms, concluding that the presence of a banker of the board enhances corporate governance. For example, Lehmann and Weigand (2000) report evidence supportive of a positive relationship between firm profits and bank board affiliation, and Kaplan and Minton (1994) report that board bank affiliation leads to an increase in executive turnover, and an inverse relationship between poor performance, earning losses, and the appointment of banker directors. Moreover, Byrd and Mizruchi

(2005) report that in times of financial distress, newly appointed bankers to the board can provide both certification and expertise, leading to an increase in firm debt ratios. Also, Franks and Mayer (2001) find that firm performance is enhanced by banks holding large equity stakes.

Given the positive certification aspect highlighted by having a banker on the board, it is rational to hypothesise that the market would respond favourably to announcements of debt where the issuing firms are affiliated to a banker through board membership due to the certification and expertise which they are able to offer. Table 6.9 presents the results for the market reaction to announcements of debt by status of board bank affiliation, and the mean differences between whether the affiliated banker is currently sitting on the board of a banker, or whether they have previously sat on the board of a bank.

The results for announcements of public bonds are similar across classifications. CARs are insignificantly different from zero for all event windows examined across each category with the exception of some weak evidence of both the market responding positively on the post announcement date where issuing firms presently have a director who is also on the board of a bank, and where there is no bank affiliation on both the announcement date itself and the two day announcement period. It could be argued that the presence of present board bank affiliation should result in a positive market response to announcements of public debt as the presence of a banker on the board would act as a continuous monitoring device. Moreover, such a response may be expected as a banker on the board could offer advice on issuing public debt and their bank could act as the underwriter, perhaps helping to

negotiate the underwriting services at favourable prices. However, the insignificant price reaction may simply be attributable to the size of the borrowing firm. Larger firms, who by their nature find it more economical to produce information and as a result produce more information, tend to issue public debt. Therefore, it may be expected that the announcement provides little information to the market.

The results for announcements of bank loans vary across both category, syndicated versus bilateral, and classification. There is evidence of the market responding positively to announcements of syndicated loans when the issuing companies have a director who is also currently serving on the board of a bank, but when no director is currently serving on the board of a bank there is little evidence of a market response. Similarly, the results are suggestive of it being worthwhile to have a present affiliation when raising capital for issues of bilateral loans. This suggests that it is worth having a present board-bank affiliation when raising capital for issues of syndicated loans, as the benefits are lost if the director affiliated with a bank is not currently sitting on the board of a bank. Bankers on company boards are thus perceived as playing an important function as monitoring devices over and above the normal screening and monitoring performed by banks. In addition, the market may perceive the presence of a banker on the board as an indicator of some degree of relationship banking, which may allow for the negotiation of lower borrowing rates through relationship banking (Rajan (1992)).

There is some weak evidence of the market responding negatively to issuers of non-bank private debt when they are affiliated with a bank, particularly where the issuing companies have a director who is also currently serving on the board. This is

suggestive of the market viewing firms with a tangible relationship with a bank borrowing private debt from a source other than a bank, as a signal of banks declining to offer debt finance to these firms due to the unfavourable information that the banks possess.

6.5.1.4 The Stock Market Response to the Announcement of Debt Issues by Finance Director Turnover

The abnormal stock returns for sample firms by status of Finance Director Turnover and the mean differences between statuses of Finance Director Turnover are presented in Table 6.10. Following Finance Director Turnover, CARs for announcements of public debt are significantly positive over most event periods examined but there is no evidence of a response when there has been no Finance Director turnover.

6.5.1.5 The Stock Market Response to the Announcement of Debt Issues by Year of Issue

Table 6.11 presents the results for the market reaction to announcements of debt by year of issue, and the mean differences between the different periods. Up until the beginning of the credit crisis (2001-2007a), defined as issues between 2001 and 8 August 2007, announcements of syndicated loans appear to act as a signal of creditworthiness, conveying positive information to the market. This result is consistent with the positive market response reported by Demiroglu and James (2007), Bharath, Sunder and Sunder (2008) and Lee and Sharpe (2009), but inconsistent with the strand of literature which has argued that the benefits of

borrowing bank debt has declined more recently (Hadlock and James (2002) and Fields, Fraser, Berry and Byers (2006)). However, post credit crisis there is some evidence of a negative market response to syndicated loans. This finding could be construed as being consistent with the benefits of bank borrowing declining over time, however given the poor economic environment it is possible that the negative response is a consequence of the market realising that borrowing firms are paying highly inflated premiums when borrowing. On the other hand, no such response is exhibited for announcements of bilateral loans post credit crisis. This may be indicative of a pecking order of borrowing within the credit crisis, with the very close relationships enjoyed between banks and borrowers on a bilateral basis being preferred to the less close syndicated loans in times of economic distress for the reason that bilateral loans are typically less riskier with regards to both loan value (smaller) and maturity (shorter). Moreover, bilateral loans are more easily renegotiated and perhaps more easily monitored by one lending bank.

Similar to the results for syndicated loans, CARs are found to be significantly negative for issues of non-bank private debt post credit crisis (2007b-2008), defined as the issues on or after 9 August 2007, yet pre credit crisis there is little evidence of any response. This negative response is also suggestive of the market recognising that the rates levied by non-bank issuers can be highly inflated, particularly within this period.

6.5.1.6 The Stock Market Response to the Announcement of Debt Issues by Loan Status

Table 6.12 presents the results for the market reaction to announcements of debt by loan status, new loans or loan renewals, and the mean differences between the different loans statuses. Following Lummer and McConnell (1989), announcements of debt are classed as new loans where the announcement of debt states that the loan is either new, or does not state that the loan is a renewal, revision, renegotiation or extension of an existing credit agreement, and as a renewal otherwise. For announcements of public bonds and bilateral loans there is little evidence of a market response to either new issues or renewals. These results support the market response in general, and are certainly driven by the sample; only 3 announcements of bonds (1%) are classed as renewals, only 65 announcements of syndicated loans are classed as renewals (13%) and only 21 announcements of bilateral loans (25%) are classed as renewals. All announcements of non-bank private debt are classed as new loans.

The market responds positively to new syndicated loans, which is indicative of the market responding positively to future bank monitoring, but there is little evidence of a response to renewals. The lack of response to renewals is surprising given Lummer and McConnell's (1989) interpretation of the market only gaining access to inside information by means of a lending relationship, as they are not privy to private information at the outset of a credit agreement. However, the lack of response is consistent with Armitage (1995) who also examines the market response to announcements of UK syndicated loans, suggesting that there is a difference between the UK and US market and their interpretations of bank loans. These results are consistent with the premise of the efficient market hypothesis.

The most striking, yet curious, finding is that the market is seen to respond negatively to renewals which have favourable terms, yet there is some positive market response to renewals which have adverse terms. This is in stark contrast to the findings reported by Lummer and McConnell (1989). There is, however, no difference between CARs classified by favourable and unfavourable renewals.

6.5.1.7 The Stock Market Response to the Announcement of Debt Issues by Stated Use of Proceeds

The signalling model proposed by Miller and Rock (1985), based on asymmetric information, relate to the financing choices of new securities. They provide no suggestion of the market response varying with the proceeds being raised to refinance debt, nor any other purpose. Table 6.13 presents the results for the market reaction to announcements of debt by the stated use of proceeds. Following Mikkelson and Partch (1986) and James (1987), there is some evidence of the market responding negatively to announcements of issuances of public debt where the proceeds are being used to refinance debt. There is also some modest evidence of the market responding positively to announcements of public debt, where the funds borrowed are to be used for acquisition purposes. The market response to syndicated loans is significantly positive across all categories, which is generally consistent with both James (1987), and Slovin, Sushka and Glascock (1992). As discussed by James (1987), these results suggest that the positive market response to syndicated loans is not due to the avoidance of information asymmetry associated with the new loans. There is little evidence of any market response to bilateral loans or non-bank private debt for any use of proceeds examined.

6.5.1.8 The Stock Market Response to the Announcement of Debt Issues by Debt Maturity

Theoretical studies have suggested that the maturity of the debt may play a part in the market response to the announcement of issuances of debt. For example, Ho and Singer (1982) suggest that long-term debt may be riskier than short-term debt, Easterbrook (1984) argues that if a firm is repeatedly issuing new debt, or renewing existing debt, the monitoring costs will be reduced and Flannery (1986) argues that the maturity of the debt issued provides an indication of managerial opinion on firm value and earnings prospects.

Table 6.14 presents the results for the market reaction to announcements of issuances of debt by debt maturity, and the mean differences between different debt maturities. Given that bank loans are easier renegotiated than public and non-bank private debt, bank loans are frequently issued for shorter maturities. Table 6.15 presents the results for the market reaction to announcements of issuances of bank loans where the maturity is less than 5 years in more depth.

Across the sample of public, bank loans – syndicated and bilateral, and non-bank private debt there is little evidence of the market responding differently dependent upon the maturity of the debt; this finding is consistent with James (1987).

6.5.1.9 The Stock Market Response to the Announcement of Debt Issues by Loan Value

Tables 6.16 and 6.17 present the results for the market reaction to announcements of debt by loan value, and the mean differences between different loan values, on an

absolute and relative basis respectively. There is no evidence of the market responding differently dependent upon the loan value, indicative of differences between bond, bank and non-bank private debt not being due to differences in loan value. This result is consistent with Lummer and McConnell (1989) who find no evidence of the market responding differently to new loans or renewals dependent on the relative value of the bank loan. This result is somewhat surprising. If the announcement of issuances of loans by banks is seen as a signal of creditworthiness, firms announcing larger loans would be expected to enjoy a larger stock market response as banks would not lend large amounts if they were unsure of firm quality, and thus repayment of funds.

6.5.1.10The Stock Market Response to the Announcement of Debt Issues by Firm Size

Table 6.18 presents the results for the market reaction to announcements of debt by firm size, and the mean differences between the different firm sizes, measured by total assets. Consistent with James (1987) and Shyam Sunder (1991), there is no evidence of firm size being significantly related to the abnormal returns reported at the announcement of public bond issues. Interestingly, the market reacts positively to smaller firms issuing syndicated loans when they are able to access them. Consistent with Diamond (1984) and Fama (1985) who argue that the screening and monitoring benefits associated with banks are particularly beneficial to smaller firms, this result is indicative of the market perceiving such an issue as a signal of considerable creditworthiness, perhaps because they have excellent future growth opportunities or projects to undertake. Moreover, loan announcements for smaller firms convey more

information than larger ones because the market knows less about the former, and/or because banks can extract more information from smaller borrowers.

The market appears to respond favourably to larger companies issuing bilateral loans. These results differ from those of Slovin, Johnson and Glascock (1992) who report little evidence of bank loan announcements conveying information to the capital market. The results suggest that large firms also benefit from the monitoring which banks offer, or could be a signal of firms borrowing from a bilateral source to avoid the dissemination of favourable private information to competitors (Yosha (1995)). In contrast, the market views announcements of issuances of non-bank private debt by smaller sample firms negatively.[62] It may be that the former is judged by the market to signal adverse selection as such firms have been unable to secure monitored bank financing because they are perceived to be riskier, or have lower performance.

6.5.1.11The Stock Market Response to the Announcement of Debt Issues by Risk of Financial Distress

Table 6.19 presents the results for the market reaction to announcements of debt, and the mean differences between firms classified by the difference risks of borrower default, measured by the interest coverage ratio, which measures a firm's ability to honour its debt payments to examine as to whether liquidity/credit quality affects the market response.

[62] Although these firms have been classed as small within this sample, they are not small firms in absolute terms.

There is no evidence of the market responding differently dependent upon the firm's credit quality and ability to honour its debt payments across any type of debt. Consistent with James (1987) there is no evidence of the positive market response to bank loans owing to the default risk for either syndicated loans or bilateral loans. This result also generally holds when using Altman's Z score as an alternative proxy for financial distress.[63]

6.5.1.12The Stock Market Response to the Announcement of Debt Issues by Sequence of Issue

Iqbal (2008) examines the market response to UK rights issues taking into account the positioning of the sequence of multiple rights issues, and reports evidence of the market responding less negatively to rights issues which have been preceded by previous rights issues. Iqbal (2008) attributes the less negative market response to later rights issues to the reduction of information asymmetry over time.

If the reduction of information asymmetry around rights issues leads to a less negative market response to rights issues, it could be argued that a sequence of multiple debt issues, which could also be argued to reduce information asymmetry, would lead to more favourable market responses to announcements of issuances of debt. Sequential issues could be expected by the market, and these issues could be

[63] To examine whether a different proxy for firm credit quality would have an impact upon the market response to the debt announcements, Altman's Z-Score, defined as 1.2*(Working Capital/Total Assets) + 1.4*(Retained Earnings/Total Assets) + 3.3*(Earnings before Interest and Tax/Total Assets) + 0.6*(Market Value of Equity/Book Value of Liabilities) + 0.999*(Net Sales/Total Assets). is employed as a proxy for a firm's likelihood of entering financial distress. For bonds there is some evidence of a positive market response for financially distressed firms, but no evidence of such a market response to safe firms. However, there is no significant difference between the two. Likewise, surprisingly, the market is seen to respond positively to announcements of non-bank private debt by financially distressed firms, but there is no response to announcements made by safe firms.

imparted with little market response. Table 6.20 presents the results for the market reaction to announcements of debt by investigating the importance of the sequence in UK debt issues during the sample period. Overall, there is little discernable pattern particularly for announcements of public bonds, bilateral loans and non-bank private debt, confirming the full sample results.

6.5.1.13The Stock Market Response to Announcement of Issuances of Debt Controlling for Overlapping Multiple Debt Issues

To control for multiple announcements of issuances of debt overlapping, announcements are excluded where the issuing company has announced the issuance of other debt within 40, 90, 180, 270 and 365 days following the issuance of the debt. Table 6.21 presents the results for the market reaction to announcements of debt controlling for overlapping multiple debt issues. There is no evidence of the market responding differently which confirms the full sample results.

6.5.2 Multivariate Results

The fundamental assumption of the event study analysis presented in Tables 6.6 – 6.21 is that the market's response to announcements of issuances of debt is influenced by only the type of lender, or by selected loan and borrower characteristics including loan size and maturity, and firm size and corporate governance, respectively.

However, it is likely that the market's response to announcements of issuances of debt is also affected by borrower characteristics which have not been examined in the previous univariate analysis. Consequently, to determine the influence of the type of

lender on the market's response to announcements of issuances of debt, the following cross sectional multivariate analysis includes an arrangement of additional borrower characteristics which are used as both control and explanatory variables, which have been shown by previous studies to affect the market's response to announcements of issuances of debt. These are discussed in turn.[64]

Market to book: defined as the ratio of a firm's market value of equity divided to its book value of assets. Firms with higher market to book values are likely to have greater future growth opportunities which could possibly make it more difficult for the market to evaluate. These firms can also be regarded as riskier, thus shareholders might value a lenders ability to monitor in a more positive manner.

Return on Assets: defined as the ratio of earnings before interest, tax, depreciation and amortisation to total assets. Firms with greater levels of profitability tend to have lower levels of information asymmetry, and it may be that firms with lower levels of information asymmetry are more likely to borrow from a particular lender. Similarly, firms with greater levels of information asymmetry are perceived as riskier and a riskier firm's shareholder might value a lender's ability to monitor in a more positive manner.

Leverage: defined as the ratio of the total of both short term and long term debt to total assets. It might be that firms with greater levels of leverage are more likely to choose to borrow from a particular type of lender.

[64] Chapter 4 provides definitions of Board Bank Affiliation, Family Board, CFO Turnover and New Loan.

Fixed Assets Ratio: defined as the ratio of fixed assets to total assets. Again, firms with greater levels of profitability tend to have lower levels of information asymmetry, and it may be that firms with lower levels of information asymmetry are more likely to borrow from a particular type of lender.

Stock Return Volatility: defined as the standard deviation of daily stock returns for the 12 months prior to the fiscal year end. Following Best and Zhang (1993) and Billett, Flannery and Garfinkel (1995), the market might value a lender's ability to monitor in a more positive manner.

Dividend Yield: defined as the ratio of dividend per share to the firm's share price. Firms with low dividend yields might have greater future growth opportunities. Consequently, the market finds these firms more difficult to evaluate and value a lender's ability to monitor in a more positive manner. Alternatively, firms with high dividend yields may be comfortable with their ability to repay debt payments and may not require the monitoring services provided by banks.

Capital Expenditure: Firms with higher levels of capital expenditure are also likely to have greater future growth opportunities which could possibly make it more difficult for the market to evaluate. These firms can also be regarded as riskier, thus shareholders might value a lenders ability to monitor in a more positive manner.

Interest Coverage Ratio: defined as the ratio of earnings before interest and tax to interest expense on debt. It may be that firms which lower coverage ratios are more likely to borrow from a particular lender, particularly a lender who is able to monitor the firm's ability to repay debt over time, more positively.

The multivariate regressions that evaluate the impact of loan and firm characteristics on the CARs for the full sample of bond, bank, syndicated, bilateral and non-bank private debt are presented in Tables 6.22 to 6.26, respectively.

Table 6.22 presents the cross sectional analysis for public bonds over the 3 day event window.[65] Reconfirming the univariate results, a change in CFO is positively related to loan announcement returns, indicating that firms which have recently replaced their Finance Director enjoy a greater market revaluation upon announcing the issuance of the bond. This may reflect the removal of past poorly performing CFOs. There is also some evidence of an inverse relationship between both loan maturity and firm risk measured by stock return volatility. These results, consistent with Ho and Singer (1982) who suggest that long-term debt may be riskier than short-term debt, indicating that the market prefers shorter loans as shorter loans force borrowers to seek finance more regularly allowing for frequent re-evaluation, and that loan announcement returns are higher for firms which are perceived as being less risky. However, no such relationship is found when assessing firm risk by leverage.[66]

There is very little evidence of either loan or borrower characteristics impacting the announcement period abnormal returns over the 3 day event window for bank loans, both syndicated and bilateral, as presented in Tables 6.23-6.25. Both Best and Zhang (1993) and Billett, Flannery and Garfinkel (1995) report a positive relationship between borrower risk, measured by stock return volatility, and loan announcement

[65] As there minimal differences between the multivariate results over the 3 and 7 day event window, for reasons of brevity the multivariate regressions for the 7 day event period are not presented. Footnotes are used to highlight any differences.

[66] Over the 7 day event window there is some evidence of a positive relationship between capital expenditure and the issuance of public bonds.

returns, for bank loans, but no such relationship is established here. There is, however, slight evidence of an inverse relationship between the dividend yield and loan announcement returns which indicates that borrowers with lower dividend yields enjoy greater announcement returns, consistent with the concept of the market viewing a lender's ability to monitor borrowers as a positive signal of firm creditworthiness. There is no significant correlation between the abnormal returns and the other borrower and loan characteristics.

Table 6.26 presents the cross-sectional analysis for non-bank private debt over the 3 day event window. There is some evidence that announcement period returns are inversely related to both stock return volatility and to loan maturity.[67] There is also limited evidence that loan announcement returns are higher for firms following CFO turnover which may also reflect the removal of previous poorly performing CFOs. Over the 3 day event window, there is also modest evidence of an inverse relationship between loan announcement returns and profitability, measured by return on assets.

The multivariate regressions produce very low R^2 and there is no significance for F-tests, thus the models have poor explanatory power. However, the lack of significance for F-tests and very low R^2 values is not dissimilar to Jung, Kim and Stulz (1996) and other papers that have performed similar tests. The results of the multivariate analysis presented in Tables 6.22 to 6.26 suggest that there is little evidence of either loan or borrower characteristics impacting the announcement period abnormal returns for either source of debt examined. The strongest result is

[67] There is evidence of a positive relationship over the 7 day event window.

that a change in finance director is positively related to loan announcement returns which indicate that firms that have recently replaced their finance director enjoy greater market revaluation upon announcing the issuance of the bond. The modest amount of significant correlation between abnormal returns and borrower and loan characteristics for all sources of debt somewhat suggests that over the periods examined what is missing is what the market anticipates that the borrowing company is doing with the money.

6.6 Conclusions

Using a sample of 1051 announcements of issuances of debt for 385 companies listed on the FTSE350 between 2001 and 2008, this chapter has contributed to research which examines the stock market response to announcements of issuances of various sources of debt in several ways. This study has expanded upon the US literature and the analysis reconfirms the results of this literature. Consistent with the US literature, this study finds no evidence of any abnormal stock market response following announcements of issuances of public bonds. Likewise, event period market responses indicate that the market views announcements of issuances of bank loans positively. Similar to announcements of issuances of public bonds, there is no evidence of any abnormal stock market response following announcements of non-bank private debt. These results are consistent with the notion that banks are special lenders.

The most striking finding is that the positive market response to bank loans appears to be driven by the market response to syndicated loans. There is a strong positive market response to announcements of issuances of syndicated loans, yet no evidence of any abnormal market response to bilateral loans. This suggests that syndicated loans convey a signal of considerable creditworthiness, as not only has one bank, the lead arranger in a syndicate, undertaken screening and monitoring and considered the firm creditworthy. But also, further banks within the syndicate will have undertaken their own screening and monitoring, and considered it creditworthy. These results somewhat challenge the view that the market views close bilateral banking relationships in a positive manner, however the small sample of bilateral loans may be a factor of the lack of market response reported. This finding may also be

indicative of a pecking order of debt choice within the choice of bank financing; syndicated loans then bilateral loans, public bonds, then, as a last resort, non-bank private debt.

Lastly, it is possible that the differing market response to different types of debt surfaces because either the type of debt or the borrowers themselves vary with regards to a variety of significant characteristics, such as loan value, debt maturity, the governance of borrowing company or the use of proceeds, all of which are disparate to the identity of the lender. To control for this, this study has considered the stock market response to the announcements of issuances of debt across several categories. This further analysis indicates that the difference in the market's response is not exclusively a result of differences in either loan characteristics or borrower characteristics.

The results do suggest, however, that firm reputation, through the governance of the borrowing firm with regards to affiliation with a bank, and change in Finance Director can impact how the market responds to the announcement of issuance of different types of debt. There is strong evidence of the market responding positively to announcements of syndicated loans when the issuing companies have a director who is also currently serving on the board of a bank, but when no director is concurrently serving on the board of a bank there is little evidence of a market response. This suggests that it is worth having a present board-bank affiliation when raising capital for issues of syndicated loans, as the benefits are lost if the director affiliated with a bank is not currently sitting on the board of a bank. Bankers on

company boards are thus perceived as playing an important function as monitoring devices over and above the normal screening and monitoring performed by banks.

Overall, the findings of this chapter provide support for the argument of banks being viewed as special lenders in comparison to public bonds and non-bank private debt, on account of the reputation, screening and monitoring services which they are able to provide. The positive stock market response to syndicated loans suggests that the market views several banks monitoring as a positive indicator of firm creditworthiness. There is some evidence of this specialness of bank loans, particularly driven by the sample of syndicated loans, fading more recently, however it is possible that this is a consequence of the current economic environment and the facet of borrowing firms bearing highly inflated premiums.

Table 6.1: Summary of Market Responses to Announcements of Issuances of Straight Public Debt

Authors	Sample Size	Period	Country	Methodology	Event Window	Summary of Results
Dann and Mikkelson (1984)	150	1970-1979	US	Market Model	Two day	-0.37%***
Eckbo (1986)	648; 459 straight issues, 189 mortgage issues	1982	US	Market Model	Two day	Straight Debt: -0.10% Mortgage Bonds -0.20%* AAA-Aa rated: 0.02% A rated: -0.36% Baa-Caa rated: 0.47% Refinance Debt: -0.10% Capital Expenditure: -0.20% General Corporate Purposes: -0.03%
Mikkelson and Partch (1986)	360	1972-1982	US	Market Model	Two day	Full sample: -0.23% AAA or AA rated: 0.00% A rated: 0.26% BBB or less: -0.51% Refinance new debt: -0.53% Capital expenditure purposes: -0.67% Other: 1.11%
James (1987)	90	1974-1983	US	Market Model	Two day	Full sample: -0.11% Repay debt: -0.35% Capital expenditure: 0.55% General corporate purposes: 0.07% Repay bank loans: -1.03%**
Shyam-Sunder (1991)	297	1980-1986	US	Market Model	Two day	-0.11%.
Chaplinksy and Hansen (1993)	245	1974-1984	US	Market Model	Two day	0.05%
Johnson (1995)	129	1977-1983	US	Market Model	Two day	Full sample: -0.32% Low dividends: 0.78%* High dividends: -0.18%
Howton, Howton and Perfect (1998)	937	1983-1993	US	Market Model	Two day	-0.50%***
Datta. Iskandar-Datta and Patel (2000)	233	1971-1994	US	Market Model	Two day (0,+1)	-0.86%**
Hadlock and James (2002)	161	1980-1990	US	Market Model	Two day	-0.23%**

key
* denotes significance at the 10% level
** denotes significance at the 5% level
*** denotes significance at the 1% level

Table 6.2: Summary of Market Responses to Announcements of Issuances of Bank Debt

Authors	Sample Size	Period	Country	Methodology	Event Window	Summary of Results
Mikkelson and Partch (1986)	216	1970-1979	US	Market Model	Two day	0.89%***
James (1987)	80	1974-1983	US	Market Model	Two day	Full sample: 1.93%*** Refinance debt: 1.14% Capital expenditure:1.20% General corporate purposes:4.67%*** Repay bank loans: 3.16%***
Lummer and McConnell (1989)	728	1976-1986	US	Market Model	Two day	Full sample: 0.61%*** New Loans: -0.01% Renewals: 1.24%*** Positive Renewals:0.87%*** Mixed Renewals: 3.98%*** Negative Renewals: -3.86%***
Slovin, Johnson and Glascock (1992)	676	1980-1986	US	Market Model	Two day (0,+1)	Full sample: 0.69%*** Large Firms: 0.48% Small Firms: 1.92% *** New Loans: 1.09%*** Renewals: 1.57%*** Capital expenditure: 1.26% Acquisitions: 2.81% General corporate purposes: 1.31%*** Unknown: 1.05%**
Best and Zhang (1993)	491	1977-1989	US	Market Model	Two day	Full sample: 0.32%** New Loans: 0.26% Renewals: 0.49%** Positive Renewals:0.75%*** Mixed Renewals: 1.12%* Negative Renewals: -1.82%*** High Financial Analyst Forecast Errors: 0.60%*** Low Financial Analyst Forecast Errors: 0.04%
Preece and Mullineaux (1994)	387	1980-1987	US	Market Model	Two day	0.786%***
Billett, Flannery and Garfinkel (1995)	540	1980-1989	US	Market Model	Two day	Full sample: 0.63%*** Lender AAA rated: 0.64%*** Lender BAA rated or

						lower: -0.57%
Armitage (1995)	574	1988-1991	UK	Market Model	Two day	-0.34%
Byers, Fraser and Shockley (1998)	87	1989-1990	US	Market Model	Announcement Day	Full sample: 0.63%* New Loan: 0.72% Renewal: 0.47% Domestic Lender: 0.59% Foreign Lender: 0.70%* Lender AA or AAA rated: 0.04% Lender A or below: 0.23%
Hadlock and James (2002)	144	1980-1990	US	Market Model	Two day	1.45%
Fields, Fraser, Berry and Byers (2006)	1111	1980-2003	US	Market Model	Two day (0,+1)	Full sample: 0.46%*** 1980-1989: 0.60%*** 1990-1999: 0.51%** 2000-2003: 0.13%
Demiroglu and James (2007)	415	1995-2001	US	Adjusted Market Model	Three Day (-1,+1)	1.20%
Lee and Sharpe (2009)	201	1995-1999	US	Market Model	Two day	Full sample: 0.83%** High Monitoring: 1.76%*** Low Monitoring: 0.14%

key
* denotes significance at the 10% level
** denotes significance at the 5% level
*** denotes significance at the 1% level

Table 6.3: Summary of Market Responses to Announcements of Issuances of Non-Bank Private Debt

Authors	Sample Size	Period	Country	Methodology	Event Window	Summary of Results
James (1987)	37	1974-1983	US	Market Model	Two day	Full sample: -0.91% Refinance debt: 0.51% Capital expenditure:-0.23% General corporate purposes: 0.26% Repay bank loans: -2.07%
Preece and Mullineaux (1994)	439	1980-1987	US	Market Model	Two day	Non Banking Firms: 1.84%*** Non-Bank subsidiaries of banks: 2.77%***
Billett, Flannery and Garfinkel (1995)	41	1980-1989	US	Market Model	Two day	1.08%*
Chandra and Nayar (2008)	539	1981-1999	US	Market Model	Two day (0,+1)	0.24%***

key

* denotes significance at the 10% level

** denotes significance at the 5% level

*** denotes significance at the 1% level

Table 6.4: Reasons for Exclusion from Sample

Reason	Number
Equity Issues	14
Fall in Revenue	2
Breach of Licence Agreement	2
Pension Fund Contributions	2
Employee Layoffs	1
Fall in Revenue	1
Dividend Suspensions	1
Demerger	1
Profits Warning	1
Credit Rating Announcement	1
New director	1
Profit News	1
Undefined Announcement Date	12
Total	40

Table 6.5: Analysis of Yearly Distribution of Announcements of Debt

Distribution of type of debt issue for a hand collected sample of 1051 issues of public bonds, bank loans and non-bank private issues of debt from a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE350 during the period 2001-2008. The sample of 385 companies is constructed by including all companies listed on the London Stock Exchange FTSE350 during the period 2001-2008, excluding financials and utilities. All companies who enter the FTSE350 stay within the sample until the end of the sample period, even if they subsequently drops out of the FTSE350, and are included for the full sample period; firms only leave the sample if they delist.

	Full Sample		Public Bond Issues		Bank Debt		Syndicated Loans		Bilateral Loans		Non-Bank Private Debt	
Year	N	%	N	%	N	%	N	%	N	%	N	%
2001	130	12.37	55	17.03	52	8.93	45	9.05	7	8.24	23	15.75
2002	108	10.28	42	13.00	50	8.59	43	8.65	7	8.24	16	10.96
2003	146	13.89	48	14.86	69	11.86	65	13.08	4	4.71	29	19.86
2004	154	14.65	47	14.55	95	16.32	85	17.10	10	11.76	12	8.22
2005	133	12.65	21	6.50	103	17.70	83	16.70	20	23.53	9	6.16
2006	132	12.56	40	12.38	71	12.20	64	12.88	7	8.24	21	14.38
2007	134	12.75	37	11.46	77	13.23	64	12.88	13	15.29	20	13.70
2008	114	10.85	33	10.22	65	11.17	48	9.66	17	20.00	16	10.96
Total	**1051**	**100.00**	**323**	**100.00**	**582**	**100.00**	**497**	**100.00**	**85**	**100.00**	**146**	**100.00**

Table 6.6: Market Model Event Study Results for Announcements of Public, Bank and Non-Bank Private Debt

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

	Public Bonds	Bank Loans	Non-Bank Private Debt
Sample	*323*	*582*	*146*
AR Day -1	0.0321% (0.30)	**0.4477% (4.45)*** **	-0.0418% (-0.28)
AR Day 0	0.1088% (1.03)	**0.5320% (5.28)*** **	0.1380% (0.82)
AR Day +1	0.0307% (0.29)	0.0591% (0.59)	-0.1064% (0.00)
CAR -1 to +1	0.1716% (0.94)	**1.0388% (5.96)*** **	-0.0102% (-0.04)
CAR -3 to +3	0.3234% (1.16)	**1.2294% (4.61)*** **	-0.4321% (-0.97)

Table 6.7: Mean Differences Between the Cumulative Abnormal Returns of Announcements of Public, Bank and Non-Bank Private Debt

Comparison of the mean differences between CAR values for a hand collected sample of 1051 issues of public debt, bank loans and non-bank private debt from a sample of 385 companies listed on the London Stock Exchange (LSE) between 2001 and 2008. Superscripts ***,** and * denote significance at the 1%, 5% and 10% levels respectively.

	CAAR (%)		Difference in CAAR		CAAR (%)		Difference in CAAR		CAAR (%)		Difference in CAAR	
	Public	Bank	%	t-stat	Public	Non-Bank Private	%	t-stat	Bank	Non-Bank Private	%	t-stat
Sample	*323*	*582*			*323*	*146*			*582*	*146*		
AR Day -1	0.0321	0.4477	**-0.4156**	**-2.05****	0.0321	-0.0418	0.0739	0.34	0.4477	-0.0418	**0.4895**	**1.96****
AR Day 0	0.1088	0.5320	-0.4232	-1.63	0.1088	0.1380	-0.0292	-0.10	0.5320	0.1380	0.3940	1.23
AR Day +1	0.0307	0.0591	-0.0284	-0.16	0.0307	-0.1064	0.1371	0.64	0.0591	-0.1064	0.1655	0.75
CAR -1 to +1	0.1716	1.0388	**-0.8672**	**-1.95***	0.1716	-0.0102	0.1818	0.78	1.0388	-0.0102	**1.0490**	**2.15****
CAR -3 to +3	0.3234	1.2294	-0.9060	-1.35	0.3234	-0.4321	**0.7555**	**2.80*****	1.2294	-0.4321	**1.6615**	**2.30****

Table 6.8: Market Model Event Study Results for Announcements of Bilateral Loans and Syndicated Loans

This table reports the market model, event study, abnormal returns for announcements of bank loans, syndicated loans and bilateral loans for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Student's t-statistics are reported in parenthesis. The final two columns present a comparison of the mean differences between CAR values for a hand collected sample of 1051 issues of public debt, bank loans and non-bank private debt from a sample of 385 companies listed on the London Stock Exchange (LSE) between 2001 and 2008. Superscripts ***,** and * denote significance at the 1%, 5% and 10% levels respectively. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

	CAAR (%)		Difference in CAAR	
	Syndicated Loans	Bilateral Loans	%	t-stat
Sample	*497*	*85*		
AR Day -1	**0.5160% (4.90)*** **	0.0488% (0.14)	**0.4672**	**1.86***
AR Day 0	**0.6126% (5.82)*** **	0.0604% (0.18)	**0.5522**	**2.51****
AR Day +1	0.1057% (1.00)	-0.2132% (-0.62)	**0.3189**	**2.43****
CAR -1 to +1	**1.2342% (6.77)*** **	0.1040% (-0.18)	**1.1302**	**2.49****
CAR -3 to +3	**1.5454% (5.55)*** **	-0.6188% (-0.68)	**2.1642**	**2.20****

Table 6.9: Market Model Event Study Results for Announcements of Public, Bank and Non-Bank Private Debt by Board Bank Affiliation

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Panel A highlights the announcement returns for issuers where there is no affiliation with a bank. Student t-statistics are presented in parenthesis. Panel B highlights the announcement returns for issuers where a member of a company's board of directors is or has been a member on the board of directors of a bank. Figures in brackets represent difference between event study returns for firms with a bank affiliation minus returns for firms with no bank affiliation. Student's t-statistics are reported in parenthesis. Panel C highlights the announcement returns for issuers where a member of a company's board of directors is currently a member on the board of directors of a bank. Figures in brackets represent difference between event study returns for firms with a present bank affiliation minus returns for firms with no bank affiliation. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

	Public Bonds	Bank Loans	Syndicated Loans	Bilateral Loans	Non-Bank Private Debt
Panel A: No bank Affiliation					
Sample	*141*	*297*	*257*	*40*	*61*
AR Day -1	0.1273% (0.77)	**0.6014% (4.11)*** **	**0.6282% (3.87)*** **	0.4295% (1.04)	-0.3475% (-1.50)
AR Day 0	**0.2824% (1.70)***	**0.7387% (5.05)*** **	**0.8309% (5.13)*** **	0.1460% (0.35)	**0.5092% (2.19)** **
AR Day +1	-0.1628% (-0.98)	**0.3402% (2.33)** **	**0.2874% (1.77)***	0.6791% (1.64)	0.0083% (0.04)
CAR -1 to +1	0.2469% (0.86)	**1.6803% (6.63)*** **	**1.7465% (6.22)*** **	**1.2546% (1.75)***	0.1700% (0.42)
CAR -3 to +3	0.0568% (0.13)	**2.4909% (6.44)*** **	**2.4580% (5.73)*** **	**2.7022% (2.47)** **	-0.2554% (-0.42)
Panel B: Affiliated with a Bank					
Sample	*182*	*285*	*240*	*45*	*85*
AR Day -1	-0.0181% (-0.13) [-0.1454% (-0.64)]	0.2019% (1.29) [-0.5994% (-1.26)]	**0.3089% (1.95)*** **[-0.3193% (-0.92)]**	-0.3685% (-0.68) [-0.7980% (-1.01)]	0.1958% (0.85) [0.5433% (1.52)]
AR Day 0	0.0245% (0.18) [-0.2579% (-0.78)]	**0.3012% (1.93)*** **[-0.4375% (-1.07)]**	**0.3240% (2.05)** * **[-0.5069% (-1.23)]**	0.1798% (0.33) [0.0338% (0.02)]	-0.0190% (-0.08) [-0.5282% (-1.09)]

AR Day +1	0.1219% (0.88)	**-0.1780% (-1.14)**	-0.0421% (-0.27)	**-0.9023% (-1.66)***	-0.3540% (-1.53)
	[0.2847% (1.11)]	**[-0.5182% (-1.94)*]**	[-0.3295% (-1.27)]	**[-1.5814% (-1.60)]**	[-0.3623% (-1.03)]
CAR -1 to +1	0.1284% (0.54)	**0.3252% (1.20)**	**0.5908% (2.16)****	**-1.0910% (-1.16)**	-0.1772% (-0.44)
	[-0.1185% (-0.29)]	**[-1.3551% (-2.41)***]**	**[-1.1557% (-1.94)*]**	**[-2.3456% (-2.25)**]**	[-0.3473% (-0.39)]
CAR -3 to +3	0.4383% (1.20)	**-0.2469% (-0.60)**	**0.4022% (0.96)**	**-3.7087% (-2.58)*****	-0.8590% (-1.40)
	[0.3815% (0.80)]	**[-2.7378% (-3.19)***]**	**[-2.0558% (-2.10)**]**	**[-6.4109% (-2.88)***]**	[-0.6036% (-0.41)]

Panel C: Present Bank Affiliation

Sample	*108*	*166*	*138*	*28*	*48*
AR Day -1	0.0404% (0.21)	0.3061% (1.60)	**0.5097% (2.69)*****	-0.6973% (-0.97)	0.4209% (1.35)
	[-0.0869% (-0.35)]	[-0.2953% (-0.68)]	**[-0.1185% (-0.24)]**	[-1.1268% (-1.28)]	[0.7684% (1.73)]
AR Day 0	-0.0623% (-0.32)	**0.8288% (4.33)*****	**0.7526% (3.97)*****	**1.2043% (1.67)***	-0.1903% (0.61)
	[-0.3447% (-0.80)]	**[0.0901% (0.19)]**	**[-0.0783% (-0.18)]**	**[1.0583% (0.58)]**	[-0.6995% (-1.03)]
AR Day +1	**0.3331% (1.70)***	-0.0757% (-0.40)	0.0801% (0.42)	**-0.8436% (-1.17)**	**-0.5818% (-1.87)***
	[0.4959% (1.62)]	[-0.4159% (-1.43)]	[-0.2073% (-0.65)]	**[-1.5227% (-2.00)**]**	**[-0.5901% (-1.40)]**
CAR -1 to +1	0.3112% (0.92)	**1.0592% (3.19)*****	**1.3423% (4.08)*****	-0.3366% (-0.27)	-0.3512% (-0.65)
	[0.0643% (0.12)]	**[-0.6211% (-0.72)]**	**[-0.4042% (-0.53)]**	[-1.5912% (-0.78)]	[-0.5212% (-0.45)]
CAR -3 to +3	0.6566% (1.27)	**0.4379% (0.86)**	0.7317% (1.46)	-1.0103% (-0.53)	**-1.1477% (-1.80)***
	[0.5998% (1.07)]	**[-2.0530% (-1.65)*]**	[-1.7263% (-1.25)]	[-3.7125% (-1.50)]	**[-0.8923% (-0.64)]**

Table 6.10: Market Response to Announcements of Public, Bank and Non-Bank Private Debt by Finance Director Turnover

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Finance Director Turnover is defined where there has been a change in the Finance Director between the accounting year preceding the issue, and the year of the issue. The final two columns present a comparison of the mean differences between CAR values of Finance Director turnover and No Finance Director turnover. Panel A highlights the announcement returns for announcements of public debt. Panel B highlights the announcement returns for announcements of bank debt. Panel C highlights the announcement returns for announcements of syndicated bank debt. Panel D highlights the announcement returns for announcements of bilateral bank debt. Panel E highlights the announcement returns for announcements of non-bank private debt. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

			Difference in CAAR	
	Finance Director Turnover	No Finance Director Turnover	%	t-stat
Panel A: Public Bonds				
Sample	*47*	*276*		
AR Day -1	0.4286% (1.56)	-0.0566% (-0.48)	0.4852	1.22
AR Day 0	**1.3038% (4.74)*** **	-0.1568% (-1.33)	**1.4606**	**2.51** **
AR Day +1	0.4388% (1.59)	-0.0678% (-0.57)	0.5066	1.22
CAR -1 to +1	**2.1712% (4.56)*** **	-0.2812% (-1.37)	**2.4524**	**2.80** **
CAR -3 to +3	**2.1177% (2.91)*** **	-0.0972% (-0.31)	2.2149	1.59
Panel B: Bank Loans				
Sample	*72*	*510*		
AR Day -1	0.0088% (0.03)	**0.4537% (4.15)*** **	-0.4449	-1.32
AR Day 0	**0.8473% (2.73)*** **	**0.4350% (4.17)*** **	0.4123	0.76
AR Day +1	-0.0516% (-0.17)	0.0642% (0.61)	-0.1158	-0.35
CAR -1 to +1	1.0805% (1.50)	**0.9329% (5.16)*** **	0.1476	-0.14
CAR -3 to +3	**2.2425% (2.74)*** **	**0.8886% (3.22)*** **	1.3539	0.97
Panel C: Syndicated Loans				
Sample	*63*	*434*		
AR Day -1	-0.0404% (-0.12)	**0.5169% (4.90)*** **	**-0.5573**	**-1.82***
AR Day 0	**1.2406% (3.63)*** **	**0.4462% (4.26)*** **	0.7944	1.44
AR Day +1	0.1164% (0.34)	0.0820% (0.78)	0.0344	0.10
CAR -1 to +1	**1.3166% (2.22)** **	**1.0410% (5.74)*** **	0.2756	0.22
CAR -3 to +3	**2.5831% (2.85)*** **	**1.1873% (4.29)*** **	1.3958	0.91
Panel D: Bilateral Loans				
Sample	*9*	*76*		
AR Day -1	0.3533% (0.49)	-0.0186% (-0.05)	0.3719	0.24
AR Day 0	**-1.9061% (-2.62)*** **	0.3712% (0.98)	-2.2773	-1.33
AR Day +1	**-1.2272% (-1.69)***	-0.0373% (-0.10)	-1.1899	-1.13
CAR -1 to +1	**-2.7799% (-2.21)** **	0.3153% (0.48)	-3.0952	-1.51
CAR -3 to +3	-0.1416% (-0.07)	-0.8173% (-0.82)	0.6757	0.18

Panel E: Non-Bank Private Debt				
Sample	*17*	*129*		
AR Day -1	-0.7454% (-1.60)	0.0293% (0.16)	**-0.7747**	**-2.25****
AR Day 0	**0.7866% (1.69)***	0.1782% (0.95)	0.6084	1.11
AR Day +1	-0.5374% (-1.16)	-0.0976% (-0.52)	-0.4398	-1.31
CAR -1 to +1	-0.4962% (-0.62)	0.1099% (0.78)	-0.6061	-0.42
CAR -3 to +3	**-0.4871% (-1.94)***	-0.0393% (-0.08)	-0.4478	-1.28

Table 6.11: Market Model Event Study Results for Announcements of Public, Bank and Non-Bank Private Debt by Year

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. 2001-2007a represents the market model abnormal returns for announcements of debt made between 1 January 2001 and the beginning of the credit crisis, defined as 9 August 2007, when BNP Paribas announced a lack of funds. 2007b-2008 represents the abnormal returns for announcements of debt made between 9 August 2007 and 31 December 2008. Panel A highlights the announcement returns for announcements of public debt. Panel B highlights the announcement returns for announcements of bank debt. Panel C highlights the announcement returns for announcements of syndicated bank debt. Panel D highlights the announcement returns for announcements of bilateral bank debt. Panel E highlights the announcement returns for announcements of non-bank private debt. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

	2001-2007a	2007b-2008	Difference in CAAR	
			%	t-stat
Panel A: Public Bonds				
Sample	*282*	*41*		
AR Day -1	0.0698% (0.64)	-0.2403% (-0.88)	0.3101	0.65
AR Day 0	0.1981% (0.90)	-0.1688% (-0.62)	0.3669	0.38
AR Day +1	-0.0532% (-0.49)	0.3107% (1.14)	-0.3639	-0.57
CAR -1 to +1	0.1747% (0.61)	-0.0984% (-0.21)	0.2731	0.40
CAR -3 to +3	0.0767% (0.27)	0.8466% (1.17)	-0.7699	-0.57
Panel B: Bank Loans				
Sample	*496*	*86*		
AR Day -1	**0.4939% (4.71)*** **	-0.2671% (-1.07)	**0.7610**	**1.74***
AR Day 0	**0.6001% (5.73)*** **	-0.1855% (-0.74)	0.7856	0.88
AR Day +1	0.1501% (1.43)	**-0.4344% (-1.74)***	0.5845	1.03
CAR -1 to +1	**1.2441% (6.85)*** **	**-0.8870% (-2.06)** **	**2.1311**	**4.60*** **
CAR -3 to +3	**1.6528% (5.96)*** **	**-1.9136% (-2.90)*** **	**3.5664**	**4.53*** **
Panel C: Syndicated Loans				
Sample	*435*	*62*		
AR Day -1	**0.5291% (4.80)*** **	-0.1812% (-0.72)	**0.7103**	**1.82***
AR Day 0	**0.6940% (6.29)*** **	**-0.4863% (-1.92)***	1.1803	1.14
AR Day +1	0.1394% (1.26)	-0.2456% (-0.97)	0.3850	0.74
CAR -1 to +1	**1.3625% (7.13)*** **	**-0.9132% (-2.08)** **	**2.2757**	**4.02*** **
CAR -3 to +3	**1.6403% (5.62)*** **	-0.6170% (-0.92)	**2.2573**	**2.41** **
Panel D: Bilateral Loans				
Sample	*61*	*24*		
AR Day -1	0.2430% (0.58)	-0.4890% (-0.87)	0.7320	0.20
AR Day 0	-0.0695% (-0.17)	0.5917% (1.05)	-0.6612	-0.49
AR Day +1	0.2261% (0.54)	-0.9218% (-1.64)	1.1479	1.44
CAR -1 to +1	0.3996% (0.56)	-0.8191% (-0.84)	1.2187	0.88
CAR -3 to +3	1.7420% (1.59)	**-5.2630% (-3.54)*** **	**7.0050**	**2.65*** **

Panel E: Non-Bank Private Debt

Sample	*126*	*20*		
AR Day -1	-0.0671% (-0.40)	0.0787% (0.22)	-0.1458	-0.29
AR Day 0	**0.4189% (2.49)****	**-1.4701% (-4.06)*****	1.8890	1.42
AR Day +1	-0.1022% (-0.61)	**-0.6034% (-1.67)***	0.5012	1.16
CAR -1 to +1	0.2496% (0.86)	**-1.9948% (-3.18)*****	2.2444	1.56
CAR -3 to +3	0.5885% (1.32)	**-6.9041% (-7.20)*****	**7.4926**	**1.70***

Table 6.12: Market Model Event Study Results for Announcements of Bank Loans, Syndicated Loans and Bilateral Loans by Loan Status

This table reports the market model, event study, abnormal returns for announcements of bank loans, syndicated loans and bilateral loans for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Loans are classed as new loans where the announcement does not highlights that the loan is new or does not state that it is a renewal, revision, extension or renegotiation, and as a renewal otherwise. Renewals are defined as positive renewals where the announcement does not highlight that the renewal has less favourable terms, such as increased borrowing rates and more restrictive covenants, and as a negative renewal otherwise. The final four columns present a comparison of the mean differences between CAR values of New Loans and Renewals, and Positive Renewals and Negative Renewals. Panel A highlights the announcement returns for the full sample of bank loans. Panel B highlights the announcement returns for announcements of syndicated loans. Panel C highlights the announcement returns for announcements of bilateral loans. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

	New Loan	Renewal	Positive Renewal	Negative Renewal	Difference in CAAR New Loan V Renewal		Difference in CAAR Positive V Negative Renewal	
					%	t-stat	%	t-stat
Panel A: Bank Loans								
Sample	*496*	*86*	*57*	*29*				
AR Day -1	**0.3038% (3.06)*** **	**0.9385% (2.69)*** **	**0.8275% (1.86)***	**1.1631% (2.12)** **	-0.6347	-1.07	-0.3356	-0.61
AR Day 0	**0.5626% (5.05)*** **	0.3364% (0.96)	**-0.9838% (-2.21)*** **	0.8834% (1.61)	0.2662	0.25	-1.8672	-1.16
AR Day +1	0.1014% (1.02)	-0.1604% (-0.46)	-0.1779% (-0.29)	-0.0034% (-0.01)	0.2618	0.48	-0.1745	-0.13
CAR -1 to +1	**0.9078% (5.27)*** **	**1.1145% (1.84)***	-0.2842% (-0.37)	**2.0431% (2.15)** **	-0.2067	-0.20	-2.3255	-1.23
CAR -3 to +3	**1.3152% (5.00)*** **	-0.0950% (-0.10)	-1.3124% (-1.12)	1.5455% (1.06)	1.4102	0.55	-2.8579	-1.10
Panel B: Syndicated Loans								
Sample	*432*	*65*	*37*	*28*				
AR Day -1	**0.3399% (3.18)*** **	**1.0354% (3.41)*** **	**0.9388% (2.39)** **	**1.1631% (2.12)** **	-0.6955	-1.23	-0.2243	-0.17
AR Day 0	**0.5569% (5.21)*** **	-0.4256% (-1.40)	**-1.4161% (-3.61)*** **	0.8834% (1.61)	0.9825	0.09	-2.2995	-1.17
AR Day +1	0.1390% (1.30)	-0.4586% (-1.51)	**-0.8031% (-2.05)** **	-0.0034% (-0.01)	0.5976	0.60	0.8065	-0.86
CAR -1 to +1	**1.0357% (5.59)*** **	0.1513% (0.29)	**-1.2804% (-1.88)***	**2.0431% (2.15)** **	0.8844	0.58	-3.3235	-1.41
CAR -3 to +3	**1.6198% (5.02)*** **	-0.3212% (-0.40)	**-1.7338% (-1.67)***	1.8455% (1.06)	1.9410	1.06	-3.5793	-1.18
Panel C: Bilateral Loans								
Sample	*64*	*21*	*21*	*N/A*				
AR Day -1	0.0603% (0.21)	0.0122% (0.01)	0.0122% (0.01)	N/A	0.0481	0.05	N/A	N/A
AR Day 0	0.1361% (0.48)	-0.1941% (-0.19)	-0.1941% (-0.19)	N/A	0.3302	0.15	N/A	N/A

AR Day +1	-0.1524% (-0.54)	-0.4238% (-0.42)	-0.4238% (-0.42)	N/A	0.2714	0.14	N/A	N/A
CAR -1 to +1	0.441% (0.09)	-0.6057% (-0.35)	-0.6057% (-0.35)	N/A	1.0467	1.42	N/A	N/A
CAR -3 to +3	0.6092% (0.82)	-4.3224% (-1.62)	-4.3224% (-1.62)	N/A	4.9316	0.91	N/A	N/A

Table 6.13: Market Model Event Study Results for Announcements of Public, Bank and Non-Bank Private Debt by Purpose of Issue

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Panel A highlights the announcement returns for announcements of public debt. Panel B highlights the announcement returns for announcements of bank debt. Panel C highlights the announcement returns for announcements of syndicated bank debt. Panel D highlights the announcement returns for announcements of bilateral bank debt. Panel E highlights the announcement returns for announcements of non-bank private debt. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

	Acquisitions	Refinance Debt	Other	No Stated Reason
Panel A: Public Bonds				
Sample	*21*	*89*	*68*	*191*
AR Day -1	0.4482% (0.95)	**-0.3713% (-1.98)****	-0.2151% (-0.92)	0.1756% (1.16)
AR Day 0	0.5176% (1.09)	-0.1100% (-0.59)	0.1193% (0.51)	0.1087% (0.72)
AR Day +1	0.4535% (0.96)	-0.1441% (-0.77)	-0.1219% (-0.52)	-0.0215% (-0.14)
CAR -1 to +1	**1.4193% (1.73)***	**-0.6253% (-1.93)***	-0.2177% (-0.54)	0.2629% (1.00)
CAR -3 to +3	2.0008% (1.60)	**-0.9212% (-1.86)***	0.0545% (0.09)	0.3765% (0.94)
Panel B: Bank Loans				
Sample	*148*	*260*	*342*	*13*
AR Day -1	-0.0983% (-0.64)	**0.3132% (2.30)****	**0.4303% (3.39)*****	-0.7104% (-0.90)
AR Day 0	**1.2734% (8.32)*****	0.2242% (1.64)	**0.4722% (3.72)*****	**1.9336% (2.44)****
AR Day +1	0.0124% (0.08)	0.0100% (0.07)	0.0417% (0.33)	0.0437% (0.06)
CAR -1 to +1	**1.1874% (4.48)*****	**0.5474% (2.32)****	**0.9441% (4.30)*****	1.2669% (0.92)
CAR -3 to +3	**1.7335% (4.28)*****	0.4238% (1.17)	**1.1034% (3.29)*****	**3.7988% (1.81)***
Panel C: Syndicated Loans				
Sample	*129*	*235*	*302*	*N/A*
AR Day -1	-0.2039% (-1.27)	**0.3222% (2.50)****	**0.5394% (4.24)*****	N/A
AR Day 0	**1.4330% (8.93)*****	**0.3338% (2.59)*****	**0.5441% (4.28)*****	N/A
AR Day +1	0.0651% (0.41)	-0.0361% (-0.28)	0.1113% (0.88)	N/A
CAR -1 to +1	**1.2943% (4.65)*****	**0.6198% (2.77)*****	**1.1948% (1.73)***	N/A
CAR -3 to +3	**1.9484% (4.59)*****	0.4517% (1.32)	**1.5914% (4.73)*****	N/A
Panel D: Bilateral Loans				
Sample	*19*	*25*	*40*	*13*
AR Day -1	**0.8046% (1.76)***	0.2285% (0.31)	-0.3937% (-0.90)	-0.7104% (-0.90)
AR Day 0	0.1332% (0.29)	-0.8058% (-1.09)	-0.0704% (-0.16)	**1.9336% (2.44)****
AR Day +1	-0.3786% (-0.83)	0.4438% (0.60)	-0.4845% (-1.11)	0.0437% (0.06)
CAR -1 to +1	0.5593% (0.71)	-0.1336% (-0.10)	-0.9485% (-1.25)	1.2669% (0.92)
CAR -3 to +3	0.4386% (0.36)	0.1615% (0.08)	**-2.5812% (-2.23)****	**3.7988% (1.81)***

Panel E: Non-Bank Private Debt

Sample	*3*	*32*	*67*	*58*
AR Day -1	0.9412% (1.09)	**-0.8306% (-2.56)****	-0.1297% (-0.62)	0.3341% (1.05)
AR Day 0	-0.5456% (-0.63)	**0.7942% (2.45)****	0.2886% (1.38)	0.0194% (0.06)
AR Day +1	0.1760% (0.20)	-0.3086% (-0.95)	-0.0432% (-0.21)	-0.0351% (-0.11)
CAR -1 to +1	0.5716% (0.38)	-0.3450% (-0.61)	0.1157% (0.32)	0.3184% (0.58)
CAR -3 to +3	-1.9033% (-0.84)	-1.0111% (-1.18)	-0.2311% (-0.42)	-0.1591% (-0.19)

Table 6.14: Market Model Event Study Results for Announcements of Public, Bank and Non-Bank Private Debt by Loan Maturity

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. The final four columns present a comparison of the mean differences between CAR values of different loan maturities. Panel A highlights the announcement returns for announcements of public debt. Panel B highlights the announcement returns for announcements of bank debt. Panel C highlights the announcement returns for announcements of syndicated bank debt. Panel D highlights the announcement returns for announcements of bilateral bank debt. Panel E highlights the announcement returns for announcements of non-bank private debt. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

Debt Maturity (years)	< 5	> 5	< 10	> 10	unknown	Difference in CAAR <5 V >5		Difference in CAAR <10 V >10	
						%	t-stat	%	t-stat
Panel A: Bond Issues									
Sample	*20*	*280*	*114*	*186*	*23*				
AR Day -1	0.3842% (0.99)	-0.0409% (-0.37)	0.0249% (0.13)	-0.0278% (-0.21)	-0.1584% (-0.40)	0.4251	0.70	0.0527	0.24
AR Day 0	0.3814% (0.99)	0.0478% (0.43)	0.1140% (0.61)	0.0521% (0.40)	0.2601% (0.65)	0.3336	0.32	0.0619	0.19
AR Day +1	0.4350% (1.13)	-0.0417% (-0.38)	0.0148% (0.08)	0.0054% (0.04)	0.3184% (0.79)	0.4767	0.99	0.0094	0.03
CAR -1 to +1	**1.2005% (1.79)***	-0.0349% (-0.18)	0.1536% (0.48)	0.0297% (0.13)	0.4201% (0.60)	**1.2354**	**11.96*****	0.1239	1.06
CAR -3 to +3	1.5732% (1.54)	-0.0432% (-0.15)	0.6487% (1.31)	-0.1883% (-0.55)	0.5465% (0.51)	1.6164	1.54	0.8370	1.25
Panel B: Bank Loans									
Sample	*195*	*277*	*472*	*N/A*	*110*				
AR Day -1	**0.4957% (2.91)*****	**0.3186% (2.38)****	**0.4172% (3.80)*****	N/A	0.0703% (0.25)	0.1771	0.44	N/A	N/A
AR Day 0	-0.0710% (-0.42)	**0.4452% (3.33)*****	**0.2058% (1.88)***	N/A	**1.1291% (4.09)*****	-0.5162	-1.10	N/A	N/A
AR Day +1	**0.2914% (1.71)***	-0.1042% (-0.78)	0.0346% (0.32)	N/A	0.2350% (0.85)	0.3956	1.34	N/A	N/A
CAR -1 to +1	**0.7161% (2.42)****	**0.6596% (2.85)*****	**0.6577% (3.46)*****	N/A	1.4343% (3.00)***	0.0565	0.08	N/A	N/A
CAR -3 to +3	**0.9586% (2.12)****	**0.8510% (2.41)****	**0.9640% (3.32)*****	N/A	1.0076% (1.38)	0.1076	0.15	N/A	N/A
Panel C: Syndicated Loans									
Sample	*173*	*255*	428	*N/A*	*69*				
AR Day -1	**0.5974% (2.89)*****	**0.3513% (2.52)****	**0.4508% (3.96)*****	N/A	0.3334% (1.12)	0.2461	0.54	N/A	N/A
AR Day 0	-0.0548% (-0.26)	**0.4666% (3.35)*****	**0.2559% (2.25)****	N/A	**2.1284% (7.17)*****	-0.5214	-1.10	N/A	N/A
AR Day +1	0.1061% (0.51)	-0.0816% (-0.59)	-0.0057% (-0.05)	N/A	**0.6150% (2.07)****	0.1877	0.60	N/A	N/A

CAR -1 to +1	**0.6487% (1.81)***	**0.7363% (3.05)*****	**0.7009% (3.55)*****	N/A	**3.0767% (5.98)*****	-0.0876	-0.11	N/A	N/A
CAR -3 to +3	**1.2612% (2.30)****	**0.8599% (2.33)****	**1.0225% (3.39)*****	N/A	**3.5530% (4.52)*****	0.4013	0.54	N/A	N/A
Panel D: Bilateral Loans									
Sample	*22*	*22*	44	*N/A*	*41*				
AR Day -1	0.2420% (0.31)	-0.0602% (-0.14)	0.0909% (0.21)	N/A	-0.3724% (-0.68)	0.3022	0.71	N/A	N/A
AR Day 0	-0.7582% (-0.96)	0.1968% (0.46)	-0.2807% (-0.65)	N/A	-0.5527% (-1.01)	-0.9550	-0.49	N/A	N/A
AR Day +1	1.2200% (1.55)	-0.3660% (-0.85)	0.4270% (0.99)	N/A	-0.4046% (-0.74)	**1.5860**	**1.81***	N/A	N/A
CAR -1 to +1	0.7038% (0.51)	-0.2294% (-0.31)	0.2372% (0.32)	N/A	-1.3296% (-1.40)	0.9332	0.52	N/A	N/A
CAR -3 to +3	0.0417% (0.02)	0.7471% (0.66)	0.3944% (0.35)	N/A	**-3.2762% (-2.26)****	-0.7054	-0.64	N/A	N/A
Panel E: Non-Bank Private Debt									
Sample	*27*	*113*	*132*	*8*	*6*				
AR Day -1	-0.1451% (-0.30)	-0.1083% (-0.56)	-0.0561% (-0.31)	-0.2233% (-0.41)	0.9805% (0.77)	-0.0368	-0.30	0.1672	0.15
AR Day 0	0.1290% (0.27)	**0.5450% (2.83)*****	**0.4922% (2.68)*****	-0.3019% (-0.55)	**-4.9487% (-3.90)*****	-0.4160	-1.10	0.7941	1.52
AR Day +1	0.0406% (0.08)	0.1876% (0.98)	0.1465% (0.80)	0.1288% (0.24)	0.2366% (0.19)	-0.1470	-1.29	0.0177	0.03
CAR -1 to +1	0.0245% (0.03)	**0.6243% (1.87)***	**0.5826% (1.83)***	-0.3964% (-0.42)	**-3.7316% (-1.70)***	-0.5998	-0.97	0.9790	1.57
CAR -3 to +3	0.0375% (0.03)	0.0398% (0.08)	0.2198% (0.45)	**-2.5983% (-1.79)***	**-10.7100% (-3.19)*****	-0.0023	0.00	**2.8181**	**1.66***

Table 6.15: Market Model Event Study Returns for Announcements of Bank Loans, Syndicated Loans and Bilateral Loans by Loan Maturity

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Panel A highlights the announcement returns for the full sample of bank loans. Panel B highlights the announcement returns for announcements of syndicated loans. Panel C highlights the announcement returns for announcements of bilateral loans. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

	< 1	1 - 2	1 - 5	2 - 5
Panel A: Bank Loans				
Sample	*6*	*99*	*189*	*90*
AR Day -1	0.4543% (0.22)	**0.8638% (3.99)*** **	**0.5539% (2.93)*** **	0.0936% (0.33)
AR Day 0	**-6.7934% (-3.32)*** **	**0.4832% (2.23)** **	0.0794% (0.42)	-0.2324% (-0.81)
AR Day +1	1.4018% (0.68)	**0.3758% (1.73)***	0.1919% (1.02)	0.1245% (0.43)
CAR -1 to +1	-4.9374% (-1.39)	**1.7228% (4.60)*** **	**0.8252% (2.52)** **	-0.0144% (-0.03)
CAR -3 to +3	-2.1652% (-0.40)	**2.3016% (4.02)*** **	**1.0701% (2.14)** **	-0.3105% (-0.41)
Panel B: Syndicated Loans				
Sample	*N/A*	*89*	*173*	*84*
AR Day -1	N/A	**1.0273% (4.29)*** **	**0.5974% (2.89)*** **	0.0526% (0.18)
AR Day 0	N/A	0.3811% (1.59)	-0.0548% (-0.26)	-0.4193% (-1.42)
AR Day +1	N/A	0.2830% (1.18)	0.1061% (0.51)	-0.0169% (-0.06)
CAR -1 to +1	N/A	**1.6915% (4.08)*** **	**0.6487% (1.81)***	-0.3837% (-0.75)
CAR -3 to +3	N/A	**2.2467% (3.55)*** **	**1.2612% (2.30)** **	0.0185% (0.02)
Panel C: Bilateral Loans				
Sample	*6*	*10*	*16*	*6*
AR Day -1	0.4543% (0.22)	-0.5914% (-0.69)	0.0825% (0.13)	0.6677% (0.68)
AR Day 0	**-6.7934% (-3.32)*** **	1.3916% (1.62)	**1.5307% (2.41)** **	**2.3836% (2.41)** **
AR Day +1	1.4018% (0.68)	1.2012% (1.40)	**1.1199% (1.76)***	**2.1047% (2.13)** **
CAR -1 to +1	-4.9374% (-1.39)	2.0015% (1.35)	**2.7332% (2.48)** **	**5.1561% (3.01)*** **
CAR -3 to +3	-2.1652% (-0.40)	2.7901% (1.23)	-1.0064% (-0.60)	**-4.9172% (-1.88)***

Table 6.16: Market Model Event Study Returns for Announcements of Public, Bank and Non-Bank Private Debt by Amount Issued (Absolute)

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Panel A highlights the announcement returns for the smallest quartile of announcements by total issue value, measured on an absolute basis. Panel B highlights the announcement returns for the second quartile of announcements by total issue value, measured on an absolute basis. Panel C highlights the announcement returns for the third quartile of announcements by total issue value, measured on an absolute basis. Panel D highlights the announcement returns for the largest quartile of announcements by total issue value, measured on an absolute basis. Panel E highlights the announcement returns for those issues where the amount issued is unknown. Panel F presents a comparison of the mean differences between CAR values of Quartiles 1&2 versus Quartiles 3&4. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

	Public Bonds	Bank Loans	Syndicated Loans	Bilateral Loans	Non-Bank Private Debt
Panel A: Quartile 1 (0-0.25)					
Sample	*77*	*137*	*118*	*19*	*38*
AR Day -1	0.0937% (0.44)	**0.4389% (2.00)****	**0.6980% (2.98)*****	-1.2688% (-1.42)	0.2112% (0.59)
AR Day 0	0.1421% (0.67)	**1.0447% (4.76)*****	**1.5212% (6.50)*****	-0.8120% (-0.91)	-0.3858% (-1.07)
AR Day +1	0.1294% (0.61)	0.1104% (0.50)	0.1864% (0.80)	-0.6765% (-0.76)	-0.5685% (-1.58)
CAR -1 to +1	0.3652% (1.00)	**1.5939% (4.20)*****	**2.4055% (5.94)*****	**-2.7573% (-1.78)***	-0.7432% (-1.19)
CAR -3 to +3	0.2173% (0.39)	**2.2920% (3.95)*****	**3.2848% (5.31)*****	**-4.1960% (-1.77)***	-1.2260% (-1.29)
Panel B: Quartile 2 (0.2501-0.50)					
Sample	*76*	*136*	*118*	*18*	*35*
AR Day -1	0.1250% (0.50)	0.1676% (0.78)	-0.0113% (-0.05)	**1.4981% (1.84)***	-0.3119% (-0.88)
AR Day 0	-0.2809% (-1.13)	**0.4358% (2.51)****	**0.5012% (2.35)****	-0.2891% (-0.35)	0.3225% (0.91)
AR Day +1	-0.1255% (-0.51)	-0.1064 (-0.50)	0.0052% (0.02)	-0.6675% (-0.82)	-0.2494% (-0.70)
CAR -1 to +1	-0.2814% (-0.66)	0.4970% (1.61)	0.4952% (1.34)	0.5414% (0.38)	-0.2388% (-0.39)
CAR -3 to +3	-0.5539% (-0.84)	**1.1135% (1.97)****	0.6562% (1.16)	**6.1687% (2.86)*****	0.3567% (0.38)
Panel C: Quartile 3 (0.5001-0.75)					
Sample	*76*	*136*	*117*	*19*	*36*
AR Day -1	-0.0328% (-0.17)	**0.5668% (2.76)*****	**0.7445% (2.91)*****	-0.0642% (-0.11)	0.3863% (1.23)
AR Day 0	0.2794% (1.47)	0.3175% (1.55)	0.0646% (0.25)	**1.9039% (3.17)*****	0.2885% (0.92)
AR Day +1	0.0674% (0.36)	0.0676% (0.33)	-0.2011% (-0.79)	0.4088% (0.68)	-0.1517% (-0.48)
CAR -1 to +1	0.3140% (0.96)	**0.9519% (2.68)*****	0.6080% (1.37)	**2.2484% (2.16)****	0.5231% (0.97)
CAR -3 to +3	0.7363% (1.47)	**0.9686% (1.78)***	0.9832% (1.45)	0.4625% (0.29)	-0.9340% (-1.13)

Panel D: Quartile 4 (0.7501-1)

Sample	*77*	*137*	*118*	*19*	*37*
AR Day -1	-0.1748% (-0.91)	**0.3754% (2.19)****	**0.4226% (2.45)****	0.1429% (0.31)	-0.3795% (-1.29)
AR Day 0	**0.4824% (2.50)****	**0.2843% (1.65)***	0.2209% (1.28)	**0.7735% (1.66)***	0.2030% (0.69)
AR Day +1	-0.2730% (-1.41)	0.0925% (0.54)	**0.3730% (2.16)****	-0.4487% (-0.96)	0.3605% (1.22)
CAR -1 to +1	0.0345% (0.10)	**0.7522% (2.53)****	**1.0165% (3.40)*****	0.4677% (0.58)	0.1840% (0.36)
CAR -3 to +3	0.0245% (0.05)	0.6498% (1.43)	**1.0854% (2.38)****	0.1302% (0.11)	-0.3570% (-0.46)

Panel E: Amount Issued Unknown

Sample	*17*	*36*	*26*	*10*	*N/A*
AR Day -1	**-0.9590% (-2.05)****	0.1237% (0.26)	0.7105% (1.17)	-0.2234% (-0.27)	N/A
AR Day 0	**-1.0766% (-2.31)****	0.0077% (0.02)	**1.4628% (2.41)****	**-2.2358% (-2.65)*****	N/A
AR Day +1	**1.4194% (3.04)*****	0.2466% (0.51)	-0.1939% (-0.32)	1.1821% (1.40)	N/A
CAR -1 to +1	-0.6162% (-0.76)	0.3780% (0.45)	**1.9794% (1.88)***	-1.2777% (-0.88)	N/A
CAR -3 to +3	1.5552% (1.26)	-1.9857% (-1.55)	1.5685% (0.98)	**-7.0912% (-3.18)*****	N/A

Panel F: Difference in Means (Q1+Q2 V Q3+Q4)

Sample	*306*	*546*	*471*	*75*	*146*
AR Day -1	0.2136% (1.08)	-0.1670% (-0.48)	-0.2393% (-0.63)	0.0380% (0.04)	-0.0378% (0.00)
AR Day 0	-0.4495% (-1.57)	0.4904% (1.18)	**0.8710 (2.03)****	-1.8963% (-1.30)	-0.2914% (-0.24)
AR Day +1	0.1067% (0.45)	-0.0777% (-0.28)	0.0115% (0.04)	-0.6521% (-0.61)	-0.5234% (-0.94)
CAR -1 to +1	-0.1293% (-0.25)	0.2455% (0.32)	0.6430% (0.68)	**-2.5106% (-1.67)***	**-0.8526% (-1.98)****
CAR -3 to +3	-0.5443% (-0.76)	0.8963% (0.87)	0.9420% (0.81)	0.5486% (0.29)	0.1746% (0.22)

Table 6.17: Market Model Event Study Results for Announcements of Public, Bank and Non-Bank Private Debt by Amount Issued (Relative)

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Panel A highlights the announcement returns for the smallest quartile of announcements by total issue value, measured on a relative basis. Panel B highlights the announcement returns for the second quartile of announcements by total issue value, measured on a relative basis. Panel C highlights the announcement returns for the third quartile of announcements by total issue value, measured on a relative basis. Panel D highlights the announcement returns for the largest quartile of announcements by total issue value, measured on a relative basis. Panel E highlights the announcement returns for those issues where the amount issued is unknown. Panel F presents a comparison of the mean differences between CAR values of Quartiles 1&2 versus Quartiles 3&4. Student's t-statistics are reported in parenthesis. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

	Public Bonds	Bank Loans	Syndicated Loans	Bilateral Loans	Non-Bank Private Debt
Panel A: Quartile 1 (0-0.25)					
Sample	*77*	*137*	*118*	*19*	*36*
AR Day -1	0.2472% (1.06)	-0.0475% (-0.23)	-0.1376% (-0.72)	0.5122% (0.64)	-0.1683% (-0.46)
AR Day 0	0.0515% (0.22)	**1.0320% (4.91)*** **	**1.4113% (7.39)*** **	**-1.3234% (-1.66)***	-0.3871% (-1.07)
AR Day +1	-0.0831% (-0.36)	0.2714% (1.29)	0.1572% (0.82)	0.9804% (1.23)	0.0287% (0.08)
CAR -1 to +1	0.2156% (1.06)	**1.2559% (3.45)*** **	**1.4308% (4.33)*** **	0.1692% (0.12)	-0.5267% (-0.84)
CAR -3 to +3	0.7380% (1.19)	**1.5519% (2.79)*** **	**2.2773% (4.51)*** **	-2.9534% (-1.40)	-1.3809% (-1.44)
Panel B: Quartile 2 (0.2501-0.50)					
Sample	*76*	*136*	*118*	*18*	*37*
AR Day -1	0.2188% (1.12)	**0.7538% (3.60)*** **	**0.9570% (4.92)*** **	-0.5780% (-0.70)	**0.5660% (1.75)***
AR Day 0	0.0476% (0.24)	**0.3638% (1.74)***	0.1876% (0.96)	**1.5184% (1.84)***	**0.9474% (2.92)*** **
AR Day +1	0.1151% (0.59)	-0.2932% (-1.40)	0.0349% (0.18)	**-2.4438% (-2.96)*** **	-0.0572% (-0.18)
CAR -1 to +1	0.3815% (1.13)	**0.8244% (2.78)*** **	**1.1795% (3.50)*** **	-1.5035% (-1.05)	**1.4562% (2.59)*** **
CAR -3 to +3	0.4987% (0.97)	**1.1349% (2.05)** **	**1.3489% (2.62)*** **	-0.2684% (-0.12)	**1.5546% (1.81)***
Panel C: Quartile 3 (0.5001-0.75)					
Sample	*76*	*136*	*117*	*19*	*36*
AR Day -1	-0.2418% (-1.13)	-0.1030% (-0.56)	0.0150% (0.07)	-0.8295% (-1.32)	-0.3066% (-0.94)
AR Day 0	**0.4539% (2.12)** **	**0.3721% (2.01)** **	0.2508% (1.25)	**1.1188% (1.78)***	**0.7466% (2.30)** **
AR Day +1	-0.3485% (-1.63)	-0.0991% (-0.53)	-0.0032% (-0.02)	-0.6897% (-1.10)	-0.0944% (-0.29)

CAR -1 to +1	-0.1365% (-0.37)	0.1700% (0.53)	0.2626% (0.76)	-0.4004% (-0.37)	0.3457% (0.61)
CAR -3 to +3	-0.3808% (-0.67)	0.3974% (0.81)	0.4361% (0.82)	0.1591% (0.10)	0.5792% (0.67)

Panel D: Quartile 4 (0.7501-1)

Sample	*77*	*137*	*118*	*19*	*37*
AR Day -1	-0.1459% (-0.70)	**0.6948% (3.63)*** **	**0.6573% (3.04)*** **	**0.9277% (1.89)***	-0.3895% (-1.09)
AR Day 0	0.1226% (0.59)	**0.6060% (3.17)*** **	**0.6585% (3.05)*** **	0.2801% (0.57)	**-0.7220% (-2.01)** **
AR Day +1	0.1463% (0.70)	0.2433% (1.27)	0.1944% (0.90)	0.5470% (1.12)	-0.0797% (-0.22)
CAR -1 to +1	0.1230% (0.34)	**1.5441% (4.66)*** **	**1.5102% (4.04)*** **	**1.7548% (2.07)** **	**-1.1912% (-1.92)***
CAR -3 to +3	-0.2669% (-0.48)	**1.8067% (3.57)*** **	**1.5901% (2.78)*** **	**3.1519% (2.43)** **	**-3.0340% (-3.20)*** **

Panel E: Amount Issued Unknown

Sample	*17*	*36*	*26*	*10*	*N/A*
AR Day -1	**-0.9590% (-2.05)** **	0.1237% (0.26)	0.7105% (1.17)	-0.2234% (-0.27)	N/A
AR Day 0	**-1.0766% (-2.31)** **	0.0077% (0.02)	**1.4628% (2.41)** **	**-2.2358% (-2.65)*** **	N/A
AR Day +1	**1.4194% (3.04)*** **	0.2466% (0.51)	-0.1939% (-0.32)	1.1821% (1.40)	N/A
CAR -1 to +1	-0.6162% (-0.76)	0.3780% (0.45)	**1.9794% (1.88)***	-1.2777% (-0.88)	N/A
CAR -3 to +3	1.5552% (1.26)	-1.9857% (-1.55)	1.5685% (0.98)	**-7.0912% (-3.18)*** **	N/A

Panel F: Difference in Means (Q1+Q2 V Q3+Q4)

Sample	*306*	*546*	*471*	*75*	*146*
AR Day -1	**0.4266% (2.17)** **	-0.1378% (-0.16)	0.0722% (0.20)	-0.0673% (-0.08)	0.5525% (1.60)
AR Day 0	-0.2375% (-0.83)	0.6263% (0.49)	0.3440% (0.78)	-0.6404% (-0.45)	0.2870% (0.59)
AR Day +1	0.1149% (0.48)	0.0806% (0.31)	-0.0001% (0.00)	-0.6141% (-0.57)	0.0722% (0.20)
CAR -1 to +1	0.3039% (0.63)	0.5691% (0.71)	0.4161% (1.02)	-1.3217% (-1.31)	**0.9116% (2.19)** **
CAR -3 to +3	**0.9426% (2.11)** **	0.3258% (0.39)	0.7976% (1.08)	-3.3027% (-1.22)	1.3593% (0.93)

Table 6.18: Market Model Event Study Results for Announcements of Public, Bank and Non-Bank Private Debt by Firm Size

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Panel A highlights the announcement returns for the smallest quartile of announcements by issuer total asset value. Panel B highlights the announcement returns for the second quartile of announcements by issuer total asset value. Panel C highlights the announcement returns for the third quartile of announcements by issuer total asset value. Panel D exhibits the announcement returns for the largest quartile of announcements by issuer total asset value. Panel F presents a comparison of the mean differences between CAR values of Quartiles 1&2 versus Quartiles 3&4. Student's t-statistics are reported in parenthesis. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

	Public Bonds	Bank Loans	Syndicated Loans	Bilateral Loans	Non-Bank Private Debt
Panel A: Quartile 1 (0-0.25)					
Sample	*81*	*146*	*124*	*22*	*36*
AR Day -1	0.0590% (0.24)	**0.5134% (2.38)****	**0.6848% (2.47)****	-0.1067% (-0.17)	0.1233% (0.35)
AR Day 0	0.0366% (0.15)	**0.7226% (3.35)*****	**1.1542% (4.16)*****	0.3177% (0.52)	**-0.8828% (-2.51)****
AR Day +1	-0.0507% (-0.21)	0.1752% (0.81)	0.1419% (0.51)	**1.1228% (1.82)***	-0.1505% (-0.43)
CAR -1 to +1	0.0449% (0.11)	**1.4113% (3.78)*****	**1.9808% (4.12)*****	1.3338% (1.25)	-0.9100% (-1.49)
CAR -3 to +3	-0.5943% (-0.93)	**1.3485% (2.36)****	**2.0857% (2.84)*****	0.4243% (0.26)	**-2.5002% (-2.68)*****
Panel B: Quartile 2 (0.2501-0.50)					
Sample	*82*	*145*	*124*	*21*	*37*
AR Day -1	-0.0175% (-0.08)	0.4893% (1.63)	**0.4380% (2.24)****	0.5332% (0.54)	**-0.7914% (-2.86)*****
AR Day 0	0.2625% (1.21)	**0.6829% (3.60)*****	**0.7755% (3.97)*****	-1.5992% (-1.61)	**0.7945% (2.87)*****
AR Day +1	-0.1500% (-0.69)	0.0292% (0.54)	0.0823% (0.42)	-1.2799% (-1.29)	-0.2329% (-0.84)
CAR -1 to +1	0.0950% (0.25)	**1.2014% (3.33)*****	**1.2958% (3.83)*****	-2.3458% (-1.37)	-0.2297% (-0.48)
CAR -3 to +3	0.5307% (0.92)	**2.2256% (4.14)*****	**2.2451% (4.34)*****	-1.1800% (-0.45)	0.4960% (0.68)
Panel C: Quartile 3 (0.5001-0.75)					
Sample	*79*	*145*	*124*	*21*	*36*
AR Day -1	-0.0238% (-0.11)	0.1422% (0.76)	0.2036% (1.02)	-0.4506% (-0.85)	0.2498% (0.70)
AR Day 0	0.0777% (0.37)	0.0561% (0.30)	-0.0922% (-0.46)	0.4479% (0.84)	0.3100% (0.87)
AR Day +1	0.2712% (1.30)	-0.1140% (-0.61)	0.0079% (0.04)	-0.5395% (-1.01)	-0.3141% (-0.89)
CAR -1 to +1	0.3251% (0.90)	0.0843% (0.26)	0.1193% (0.35)	-0.5422% (-0.59)	0.2457% (0.40)
CAR -3 to +3	0.2353% (0.43)	0.1361% (0.27)	0.1556% (0.30)	-0.2691% (-0.19)	0.5326% (0.57)

Panel D: Quartile 4 (0.7501-1)

Sample	*81*	*146*	*125*	*21*	*37*
AR Day -1	-0.0333% (-0.21)	**0.3430% (1.99)****	**0.3634% (1.90)***	0.0906% (0.21)	0.0538% (0.19)
AR Day 0	-0.1285% (-0.80)	**0.5273% (3.06)*****	**0.5098% (2.66)*****	**1.2679% (2.90)*****	0.3304% (1.16)
AR Day +1	**-0.2839% (-1.76)***	0.1974% (1.15)	0.2085% (1.09)	-0.0405% (-0.09)	-0.0952% (-0.33)
CAR -1 to +1	-0.4457% (-1.60)	**1.0677% (3.58)*****	**1.0816% (3.26)*****	**1.3180% (1.74)***	0.2890% (0.59)
CAR -3 to +3	-0.0802% (-0.19)	0.6807% (1.50)	**1.2584% (2.48)****	-1.7992% (-1.56)	-0.5568% (-0.74)

Panel F: Difference in Means (Q1+Q2 V Q3+Q4)

Sample	*323*	*582*	*497*	*85*	*146*
AR Day -1	0.0491% (0.22)	0.2581% (0.64)	0.2776% (0.77)	0.3858% (0.43)	-0.4420% (-0.79)
AR Day 0	0.1769% (0.59)	0.4095% (1.22)	**0.7549% (1.85)***	-1.4764% (-1.04)	-0.3621% (-0.67)
AR Day +1	-0.0908% (-0.33)	0.1094% (0.41)	0.0035% (0.01)	0.2394% (0.23)	-0.0669% (-0.13)
CAR -1 to +1	0.1352% (0.34)	0.8169% (1.36)	1.0359% (1.37)	-0.8511% (-0.65)	-0.8211% (-1.64)
CAR -3 to +3	-0.1040% (-0.39)	**1.5768% (1.91)***	1.4562% (1.51)	0.6750% (0.43)	-0.9502% (-1.39)

Table 6.19: Market Model Event Study Results for Announcements of Public, Bank and Non-Bank Private Debt by Interest Coverage Ratio

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Firms are classified as having high interest coverage, defined as Earnings Before Interest and Tax divided by Interest Expense, where it has interest coverage above the interest coverage ratio of the median issuing firm, and having low interest coverage where it has interest coverage below the interest coverage ratio of the median issuing firm. The final two columns present a comparison of the mean differences between CAR values of firms with high interest coverage versus firms with low interest coverage. Student's t-statistics are reported in parenthesis. Panel A highlights the announcement returns for announcements of public debt. Panel B highlights the announcement returns for announcements of bank debt. Panel C highlights the announcement returns for announcements of syndicated bank debt. Panel D highlights the announcement returns for announcements of bilateral bank debt. Panel E highlights the announcement returns for announcements of non-bank private debt. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

			Difference in CAAR	
	High Interest Coverage	Low Interest Coverage	%	t-stat
Panel A: Public Bonds				
Sample	*141*	*163*		
AR Day -1	-0.0855% (-0.64)	0.0218% (0.14)	-0.1073	(-0.50)
AR Day 0	-0.0357% (-0.27)	**0.3066% (1.93)***	-0.3423	(-1.17)
AR Day +1	0.0748% (0.56)	0.0559% (0.35)	0.0189	(0.08)
CAR -1 to +1	-0.0464% (-0.20)	0.3843% (1.40)	-0.4307	(-1.14)
CAR -3 to +3	-0.0183% (-0.05)	0.3698% (0.88)	-0.3881	(-1.26)
Panel B: Bank Loans				
Sample	*278*	*277*		
AR Day -1	**0.1997% (1.83)***	**0.4563% (2.65)*****	-0.2566	(-0.75)
AR Day 0	**0.8556% (7.83)*****	0.1603% (0.93)	**0.6953**	**(1.72)***
AR Day +1	0.0885% (0.81)	0.0280% (0.16)	0.0605	(0.22)
CAR -1 to +1	**1.1438% (6.05)*****	**0.6445% (2.16)****	0.4993	(0.61)
CAR -3 to +3	**0.8397% (2.91)*****	**1.4398% (3.16)*****	-0.6001	(0.54)
Panel C: Syndicated Loans				
Sample	*241*	*232*		
AR Day -1	**0.2785% (2.42)****	**0.4844% (2.69)*****	-0.2059	(-0.55)
AR Day 0	**0.8410% (7.32)*****	0.1350% (0.75)	**0.7060**	**(1.71)***
AR Day +1	**0.1906% (1.66)***	0.0034% (0.02)	0.1872	(0.69)
CAR -1 to +1	**1.3101% (6.58)*****	**0.6227% (1.99)****	0.6874	(0.92)
CAR -3 to +3	**1.4263% (4.69)*****	**1.1894% (2.49)****	0.2369	(0.23)
Panel D: Bilateral Loans				
Sample	*37*	*45*		
AR Day -1	0.3138% (-0.85)	0.3116% (0.58)	0.0022	(-0.78)
AR Day 0	**0.9508% (2.58)****	0.2906% (0.54)	0.6602	(0.54)
AR Day +1	-0.5762% (-1.57)	0.1547% (0.29)	-0.7309	(-0.65)
CAR -1 to +1	0.0608% (0.10)	0.7569% (0.81)	-0.6961	(-0.49)
CAR -3 to +3	**-2.9813% (-3.06)*****	2.7308% (1.92)	**-5.7121**	**(-2.53)*****

Panel E: Non-Bank Private Debt

Sample	*83*	*58*		
AR Day -1	0.0861% (0.46)	0.1136% (0.38)	-0.0275	(-0.07)
AR Day 0	-0.0943% (-0.50)	0.5741% (1.94)	-0.6684	(-1.62)
AR Day +1	0.0175% (0.09)	-0.0783% (-0.26)	0.0958	(0.25)
CAR -1 to +1	0.0094% (0.03)	0.6094% (1.19)	-0.6000	(-1.00)
CAR -3 to +3	0.4750% (0.95)	0.4980% (0.64)	-0.0230	(-0.04)

Table 6.20: Market Model Event Study Results for Announcements of Public, Bank and Non-Bank Private Debt by Sequence of Issue

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Panel A highlights the announcement returns for announcements of public debt. Panel B highlights the announcement returns for announcements of bank debt. Panel C highlights the announcement returns for announcements of syndicated bank debt. Panel D highlights the announcement returns for announcements of bilateral bank debt. Panel E highlights the announcement returns for announcements of non-bank private debt. Panel F presents a comparison of the mean differences between CAR values of all first issues versus all multiple issues. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

		Multiple Issuers					
	Only One Issue	1st Issue	2nd Issue	3rd Issue	4th Issue	5th+ Issue	All Multiple Issues
Panel A: Public Bonds							
Sample	*58*	*61*	*61*	*40*	*29*	*74*	*204*
AR Day -1	0.0214% (0.07)	-0.0918% (-0.27)	0.1243% (0.47)	-0.0470% (-0.17)	-0.2410% (-0.75)	0.0787% (0.52)	0.0222% (0.19)
AR Day 0	**-0.7032% (-2.41)****	**0.9781% (2.90)*****	-0.3881% (-1.46)	**0.4859% (1.76)***	0.3451% (1.07)	-0.0456% (-0.30)	0.0118% (0.10)
AR Day +1	**0.5994% (2.05)****	-0.3256% (-0.97)	**-0.5122% (-1.92)***	0.2616% (0.95)	0.3031% (0.94)	-0.0792% (-0.52)	-0.0875% (-0.74)
CAR -1 to +1	-0.0823% (-0.16)	0.5607% (0.96)	**-0.7760% (-1.68)***	0.7005% (1.47)	0.4072% (0.73)	-0.0461% (-0.18)	-0.0535% (-0.26)
CAR -3 to +3	-0.0218% (-0.03)	0.5593% (0.63)	-0.9957% (-1.41)	**1.2791% (1.76)***	0.1638% (0.19)	0.1372% (0.34)	0.0261% (0.08)
Panel B: Bank Loans							
Sample	*69*	*150*	*152*	*87*	*55*	*69*	*363*
AR Day -1	**0.6080% (1.77)***	0.1524% (0.71)	**0.7100% (3.80)*****	0.4454% (1.47)	**-0.6041% (-2.38)****	0.2846% (1.49)	**0.3662% (2.84)*****
AR Day 0	**0.8795% (2.56)****	**0.4823% (2.25)****	**1.0848% (5.80)*****	0.0300% (0.10)	-0.3898% (-1.53)	-0.2968% (-1.56)	**0.3724% (2.89)*****
AR Day +1	0.0110% (0.03)	0.1246% (0.58)	**0.4484% (2.40)****	0.0202% (0.07)	**-0.5459% (-2.15)****	**-0.3407% (-1.79)***	0.0718% (0.56)
CAR -1 to +1	**1.4984% (2.52)****	**0.7592% (2.05)****	**2.2432% (6.93)*****	0.4956% (0.94)	**-1.5398% (-3.50)*****	-0.3529% (-1.07)	**0.8105% (3.63)*****
CAR -3 to +3	0.5966% (0.66)	**0.9999% (1.76)***	**2.3788% (4.81)*****	0.0732% (0.09)	-0.5343% (-0.79)	**0.8348% (1.66)****	**1.0481% (3.07)*****
Panel C: Syndicated Loans							
Sample	*67*	*136*	*136*	*77*	*39*	*42*	*294*
AR Day -1	**0.9068% (2.89)*****	0.0218% (0.10)	**1.0132% (4.31)*****	0.2002% (0.74)	**-0.5527% (-2.36)*****	0.1731% (0.68)	**0.4725% (3.42)*****
AR Day 0	**0.9788% (3.11)*****	**0.4784% (2.12)*****	**0.6287% (2.67)*****	**0.6077% (2.23)****	**-0.6219% (-2.65)*****	-0.0376% (-0.15)	**0.3621% (2.62)*****
AR Day +1	0.4564% (1.45)	0.2433% (1.08)	0.1218% (0.52)	0.0863% (0.32)	**-0.5623% (-2.40)****	-0.3926% (-1.54)	-0.0517% (-0.37)
CAR -1 to +1	**2.3421% (4.30)*****	**0.7434% (1.90)***	**1.7637% (4.33)*****	**0.8942% (1.90)***	**-1.7369% (-4.27)*****	-0.2572% (-0.58)	**0.7829% (3.28)*****

CAR -3 to +3	**3.0808% (3.71)*** **	0.7482% (1.25)	**2.6131% (4.20)*** **	0.0645% (0.09)	**-1.7441% (-2.81)*** **	**1.3906% (2.06)** **	**1.1930% (3.27)*** **
Panel D: Bilateral Loans							
Sample	*40*	*20*	*20*	*4*	*1*	*N/A*	*25*
AR Day -1	-0.1237% (-0.25)	1.1150% (1.53)	-0.6171% (-0.98)	0.5248% (0.17)	-0.7817% (-0.59)	N/A	-0.4410% (-0.63)
AR Day 0	0.1633% (0.34)	-0.2633% (-0.35)	**2.5057% (3.98)*** **	**-9.7515% (-3.20)*** **	0.1415% (0.11)	N/A	0.4500% (0.64)
AR Day +1	-0.3300% (-0.68)	0.1643% (0.22)	0.2494% (0.40)	1.3405% (0.44)	0.6158% (0.47)	N/A	0.4386% (0.62)
CAR -1 to +1	-0.2904% (-0.34)	1.0560% (0.81)	**2.1380% (1.96)** **	-7.8862% (-1.49)	-0.0245% (-0.01)	N/A	0.4477% (0.37)
CAR -3 to +3	-1.0251% (-0.80)	**4.4267% (2.21)** **	-0.3066% (-0.18)	-11.2808% (-1.40)	3.3163% (0.95)	N/A	-1.9175% (-1.03)
Panel E: Non-Bank Private Debt							
Sample	*59*	*33*	*33*	*13*	*6*	*2*	*54*
AR Day -1	-0.2047% (-0.75)	-0.2739% (-0.74)	0.2142% (0.70)	-0.0577% (-0.11)	**2.8016% (3.85)*** **	**-1.4001% (-2.10)** **	0.3656% (1.47)
AR Day 0	-0.1111% (-0.41)	0.5845% (1.58)	0.4615% (1.51)	-0.2693% (-0.44)	1.0339% (1.42)	**1.4061% (2.15)** **	0.2712% (1.09)
AR Day +1	-0.3038% (-1.11)	0.4327% (1.17)	-0.2155% (-0.71)	**-1.0401% (-1.98)** **	0.4612% (0.63)	-0.4053% (-0.61)	-0.2968% (-1.20)
CAR -1 to +1	-0.6196% (-1.30)	0.7434% (1.16)	0.4601% (0.87)	-1.3671% (-1.51)	**4.2967% (3.41)*** **	-0.3694% (-0.32)	0.3400% (0.79)
CAR -3 to +3	-1.1622% (-1.60)	1.2911% (1.32)	**-1.3459% (-1.67)***	1.4673% (1.06)	2.9739% (1.55)	-1.3068% (-0.74)	-0.1886% (-0.29)

Table 6.21: Market Model Event Study Results for Announcements of Public, Bank and Non-Bank Private Debt Controlling for Overlapping Debt Issues

This table reports the market model, event study, abnormal returns for announcements of public bonds, bank loans and non-bank private debt for a sample of 385 companies listed on the London Stock Exchange (LSE) FTSE 350 between 2001 and 2008, using an estimation period of -200 days to -51 days relative to the announcement of the issuance of debt. Panel A highlights the announcement returns for announcements of issuances of debt where there is no other announcement of debt within 40 days following the event. Panel B highlights the announcement returns for announcements of issuances of debt where there is no other announcement of debt within 90 days following the event. Panel C highlights the announcement returns for announcements of issuances of debt where there is no other announcement of debt within 180 days following the event. Panel D highlights the announcement returns for announcements of issuances of debt where there is no other announcement of debt within 270 days following the event. Panel E highlights the announcement returns for announcements of issuances of debt where there is no other announcement of debt within 365 days following the event. Student's t-statistics are reported in parenthesis. Superscripts ***, ** and * denote significance at the 1%, 5% and 10% levels respectively.

	Public Bonds	Bank Loans	Syndicated Loans	Bilateral Loans	Non-Bank Private Debt
Panel A: Announcements with no other announcement of debt within 40 days following the event					
Sample	*317*	*557*	*480*	*84*	*138*
AR Day -1	0.0278% (0.26)	**0.4073% (4.00)*** **	**0.4685% (4.67)*** **	0.0378% (0.11)	-0.1725% (-1.06)
AR Day 0	0.1072% (0.99)	**0.4715% (4.64)*** **	**0.5474% (5.46)*** **	0.0931% (0.27)	0.1705% (1.05)
AR Day +1	0.0232% (0.21)	0.0657% (0.65)	0.0861% (0.86)	-0.1012% (-0.30)	-0.1592% (-0.98)
CAR -1 to +1	0.1582% (0.84)	**0.9445% (5.36)*** **	**1.1020% (6.35)*** **	0.0297% (0.05)	-0.1612% (-0.57)
CAR -3 to +3	0.3249% (1.13)	**1.0219% (3.80)*** **	**1.3469% (5.08)*** **	-0.4992% (-0.55)	-0.5260% (-1.22)
Panel B: Announcements with no other announcement of debt within 90 days following the event					
Sample	*308*	*534*	*462*	*84*	*138*
AR Day -1	0.0163% (0.15)	**0.4363% (4.11)*** **	**0.4288% (4.03)*** **	0.0447% (0.13)	-0.1725% (-1.06)
AR Day 0	0.1285% (1.15)	**0.4961% (4.67)*** **	**0.5542% (5.21)*** **	0.0727% (0.21)	0.1705% (1.05)
AR Day +1	0.0140% (0.12)	0.0806% (0.76)	0.0908% (0.85)	-0.1528% (-0.45)	-0.1592% (-0.98)
CAR -1 to +1	0.1588% (0.82)	**1.0130% (5.50)*** **	**1.0737% (5.83)*** **	-0.0354% (-0.06)	-0.1612% (-0.57)
CAR -3 to +3	0.2695% (0.91)	**1.0890% (3.87)*** **	**1.2990% (4.62)*** **	-0.7333% (-0.81)	-0.5260% (-1.22)
Panel C: Announcements with no other announcement of debt within 180 days following the event					
Sample	*274*	*500*	*435*	*80*	*132*
AR Day -1	-0.0325% (-0.28)	**0.3382% (3.20)*** **	**0.3206% (2.86)*** **	-0.0456% (-0.14)	-0.1436% (-0.86)
AR Day 0	0.0872% (0.74)	**0.6438% (6.10)*** **	**0.4488% (4.01)*** **	-0.0639% (-0.19)	0.2171% (1.30)
AR Day +1	0.1405% (1.19)	0.0810% (0.77)	0.0394% (0.35)	-0.0032% (-0.01)	-0.1510% (-0.90)

CAR -1 to +1	0.1952% (0.95)	**1.0630% (5.81)*** **	**0.8088% (4.17)*** **	-0.1126% (-0.19)	-0.0775% (-0.27)
CAR -3 to +3	0.2489% (0.80)	**1.2270% (4.39)*** **	**1.0819% (3.65)*** **	-0.8999% (-1.02)	-0.4510% (-1.02)

Panel D: Announcements with no other announcement of debt within 270 days following the event

Sample	*248*	*470*	*413*	*74*	*128*
AR Day -1	0.0018% (0.01)	**0.4054% (3.72)*** **	**0.2233% (1.93)***	-0.2259% (-0.66)	-0.0969% (-0.57)
AR Day 0	0.0736% (0.58)	**0.6201% (5.69)*** **	**0.3806% (3.28)*** **	0.0424% (0.12)	0.2326% (1.36)
AR Day +1	0.1660% (1.30)	0.1200% (1.10)	0.0240% (0.21)	0.0269% (0.08)	-0.1540% (-0.90)
CAR -1 to +1	0.2414% (1.09)	**1.1456% (6.07)*** **	**0.6278% (3.13)*** **	-0.1566% (-0.26)	-0.0183% (-0.06)
CAR -3 to +3	0.4942% (1.46)	**1.2638% (4.38)*** **	**0.8698% (2.84)*** **	-1.2565% (-1.39)	-0.3400% (-0.76)

Panel E: Announcements with no other announcement of debt within 365 days following the event

Sample	*208*	*436*	*385*	*72*	*124*
AR Day -1	0.0285% (0.20)	**0.3519% (3.13)*** **	**0.2659% (2.20)***	-0.2508% (-0.70)	-0.1171% (-0.68)
AR Day 0	0.0415% (0.30)	**0.6093% (5.42)*** **	**0.4820% (3.98)*** **	0.0096% (0.03)	0.1877% (1.07)
AR Day +1	0.2211% (1.59)	0.1017% (0.90)	-0.0182% (-0.15)	0.0445% (0.12)	-0.1196% (-0.68)
CAR -1 to +1	0.2911% (1.21)	**1.0628% (5.46)*** **	**0.7297% (3.48)*** **	-0.1966% (-0.32)	-0.0490% (-0.16)
CAR -3 to +3	0.6282% (1.70)*	**1.1649% (3.92)*** **	**0.9853% (3.08)*** **	-1.2267% (-1.30)	-0.4997% (-1.08)

Table 6.22: Determinants of Event Period Abnormal Returns for Announcements of Issuances of Public Bonds

This table reports the determinants of event study results for up to 323 announcements of issuances of public bonds for a sample of 385 companies listed on the FTSE350 between 2001 and 2008. Day 0 is the date of the first announcement of the issuance of the debt. Abnormal returns are measured using the market model and an estimation period of -200 days to -50 days relative to the announcement of the issuance of the debt. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Return on assets is the ratio of earnings before interest and tax, depreciation and amortisation (EBITDA) to total assets. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Fixed assets ratio is the ratio of fixed assets to total assets. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. CFO Turnover is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Family Board is a dummy binary variable defined as '1' where the company has an original founder or family founder member on the Board of Directors, and '0' otherwise. Maturity is the length of the debt agreement in years. New Loan is a binary variable defined as '1' where the announcement states that the bond is a new loan and '0' otherwise. Stock Return Volatility is measured by the standard deviation of daily stock returns over the 12 months prior to the fiscal year end. Dividend Yield is measured by the ratio of dividend per share to the share price. Interest Coverage Ratio is measured as the ratio of earnings before interest and tax (EBIT) to interest expense on debt. Panel A presents the determinants of event study results over the 3 day window. Panel B presents the determinants of event study results over the 7 day window. P-values for two tailed t-tests of significance are reported in parenthesis.

Panel A	CAR (-1,+1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	-0.00466	0.00491	-0.00634	0.00985	-0.00719	0.00025	-0.00046	0.00483
	(0.48)	(0.50)	(0.81)	(0.22)	(0.32)	(0.97)	(0.94)	(0.63)
Total Assets	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	(0.30)	(0.41)	(0.37)	(0.25)	(0.58)	(0.19)	(0.41)	(0.18)
Market to Book	-0.00005	-0.00006	-0.00008	-0.00010	-0.00006	-0.00009	-0.00008	-0.00005
	(0.69)	(0.60)	(0.50)	(0.41)	(0.59)	(0.47)	(0.50)	(0.67)
Return on Assets	-0.03642	**-0.04862**	**-0.04697**	**-0.06654**	-0.03952	**-0.05012**	**-0.05450**	**-0.06934**
	(0.18)	**(0.09)**	**(0.09)**	**(0.03)**	(0.16)	**(0.08)**	**(0.06)**	**(0.03)**
Leverage	0.00889	0.00904	0.01078	0.00976	0.01033	0.01361	0.01288	0.01182
	(0.45)	(0.47)	(0.37)	(0.41)	(0.39)	(0.27)	(0.29)	(0.36)
Fixed Asset Ratio	0.00370	0.00407	0.00257	0.00027	0.00062	-0.00154	0.00256	-0.00306
	(0.66)	(0.65)	(0.76)	(0.97)	(0.94)	(0.87)	(0.76)	(0.76)
Board Bank Affiliation	0.00473							0.00340
	(0.31)							(0.49)
Family Board	-0.01823							-0.01318
	(0.11)							(0.25)
CFO Turnover	**0.02090**							**0.02121**

	(0.00)							**(0.00)**
Maturity		**-0.00032**						**-0.00035**
		(0.10)						**(0.07)**
New Loan			0.00667					
			(0.79)					
Stock Return Volatility				**-0.32250**				**-0.38382**
				(0.07)				**(0.03)**
Dividend Yield					**0.21732**			0.16358
					(0.05)			(0.17)
Capital Expenditure						0.00000		0.00000
						(0.34)		(0.31)
Interest Coverage Ratio							0.00006	0.00009
							(0.29)	(0.16)
Number of Observations	*239*	*224*	*241*	*241*	*241*	*241*	*239*	*220*
F-statistic	*2.73*	*1.31*	*0.85*	*1.40*	*1.50*	*1.00*	*1.04*	*2.49*
R^2 Adjusted	*0.05*	*0.01*	*0.00*	*0.01*	*0.01*	*0.00*	*0.00*	*0.08*

Table 6.23: Determinants of Event Period Abnormal Returns for Announcements of Issuances of Bank Loans

This table reports the determinants of event study results for up to 582 announcements of issuances of bank loans for a sample of 385 companies listed on the FTSE350 between 2001 and 2008. Day 0 is the date of the first announcement of the issuance of the debt. Abnormal returns are measured using the market model and an estimation period of -200 days to -50 days relative to the announcement of the issuance of the debt. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Return on assets is the ratio of earnings before interest and tax, depreciation and amortisation (EBITDA) to total assets. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Fixed assets ratio is the ratio of fixed assets to total assets. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. CFO Turnover is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Family Board is a dummy binary variable defined as '1' where the company has an original founder or family founder member on the Board of Directors, and '0' otherwise. Maturity is the length of the debt agreement in years. New Loan is a binary variable defined as '1' where the announcement states that the bond is a new loan and '0' otherwise. Stock Return Volatility is measured by the standard deviation of daily stock returns over the 12 months prior to the fiscal year end. Dividend Yield is measured by the ratio of dividend per share to the share price. Interest Coverage Ratio is measured as the ratio of earnings before interest and tax (EBIT) to interest expense on debt. Panel A presents the determinants of event study results over the 3 day window. Panel B presents the determinants of event study results over the 7 day window. P-values for two tailed t-tests of significance are reported in parenthesis.

Panel A	CAR (-1,+1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	0.01016	**0.02232**	0.01092	0.00461	**0.02428**	**0.01088**	**0.01080**	0.02377
	(0.15)	**(0.03)**	(0.31)	(0.59)	**(0.00)**	**(0.08)**	**(0.08)**	(0.15)
Total Assets	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	(0.58)	(0.47)	(0.53)	(0.53)	(0.40)	(0.95)	(0.56)	(0.85)
Market to Book	0.00005	0.00005	0.00008	0.00008	0.00008	0.00007	0.00008	0.00002
	(0.72)	(0.75)	(0.55)	(0.52)	(0.54)	(0.57)	(0.56)	(0.92)
Return on Assets	0.02875	0.03930	0.03326	0.04400	0.03380	0.03307	0.03218	0.04376
	(0.32)	(0.19)	(0.24)	(0.14)	(0.23)	(0.24)	(0.26)	(0.16)
Leverage	0.00034	0.00129	-0.00040	-0.00071	-0.00020	-0.00031	0.00007	0.00080
	(0.97)	(0.87)	(0.96)	(0.93)	(0.98)	(0.97)	(0.99)	(0.92)
Fixed Asset Ratio	-0.00343	-0.00876	-0.00448	-0.00277	0.00263	-0.00111	-0.00249	0.00271
	(0.80)	(0.55)	(0.74)	(0.84)	(0.85)	(0.94)	(0.85)	(0.86)
Board Bank Affiliation	0.00286							0.00682
	(0.72)							(0.42)
Family Board	**0.01821**							0.00904
	(0.10)							(0.48)
CFO Turnover	-0.00925							-0.01618

	(0.37)							(0.15)
Maturity		-0.00256						-0.00234
		(0.19)						(0.24)
New Loan			0.00151					-0.00142
			(0.88)					(0.89)
Stock Return Volatility				0.30672				0.24141
				(0.20)				(0.46)
Dividend Yield					**-0.45320**			-0.33148
					(0.01)			(0.07)
Capital Expenditure						0.00000		0.00000
						(0.69)		(0.50)
Interest Coverage Ratio							0.00001	0.00001
							(0.67)	(0.76)
Number of Observations	*451*	*369*	*453*	*453*	*453*	*452*	*451*	*365*
F-statistic	*0.75*	*0.72*	*0.39*	*0.66*	*1.69*	*0.39*	*0.40*	*0.84*
R^2 Adjusted	*0.00*	*0.00*	*-0.01*	*0.00*	*0.01*	*-0.01*	*-0.01*	*-0.01*

Table 6.24: Determinants of Event Period Abnormal Returns for Announcements of Issuances of Syndicated Loans

This table reports the determinants of event study results for up to 497 announcements of issuances of syndicated bank loans for a sample of 385 companies listed on the FTSE350 between 2001 and 2008. Day 0 is the date of the first announcement of the issuance of the debt. Abnormal returns are measured using the market model and an estimation period of -200 days to -50 days relative to the announcement of the issuance of the debt. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Return on assets is the ratio of earnings before interest and tax, depreciation and amortisation (EBITDA) to total assets. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Fixed assets ratio is the ratio of fixed assets to total assets. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. CFO Turnover is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Family Board is a dummy binary variable defined as '1' where the company has an original founder or family founder member on the Board of Directors, and '0' otherwise. Maturity is the length of the debt agreement in years. New Loan is a binary variable defined as '1' where the announcement states that the bond is a new loan and '0' otherwise. Stock Return Volatility is measured by the standard deviation of daily stock returns over the 12 months prior to the fiscal year end. Dividend Yield is measured by the ratio of dividend per share to the share price. Interest Coverage Ratio is measured as the ratio of earnings before interest and tax (EBIT) to interest expense on debt. Panel A presents the determinants of event study results over the 3 day window. Panel B presents the determinants of event study results over the 7 day window. P-values for two tailed t-tests of significance are reported in parenthesis.

Panel A	CAR (-1,+1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	0.01035	**0.02090**	**0.02090**	0.00628	**0.02922**	**0.01236**	**0.01269**	0.02407
	(0.16)	**(0.06)**	**(0.08)**	(0.52)	**(0.00)**	**(0.08)**	**(0.06)**	(0.19)
Total Assets	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	(0.75)	(0.57)	(0.49)	(0.50)	(0.48)	(0.94)	(0.54)	(0.69)
Market to Book	0.00002	-0.00001	0.00005	0.00006	0.00008	0.00003	0.00005	0.00000
	(0.92)	(0.97)	(0.83)	(0.78)	(0.72)	(0.88)	(0.83)	(0.99)
Return on Assets	0.01837	0.04077	0.02609	0.03593	0.02672	0.02588	0.02487	0.04303
	(0.54)	(0.19)	(0.37)	(0.24)	(0.36)	(0.37)	(0.40)	(0.19)
Leverage	0.00030	0.00075	-0.00104	-0.00121	-0.00123	-0.00079	-0.00083	0.00012
	(0.97)	(0.93)	(0.90)	(0.88)	(0.88)	(0.92)	(0.92)	(0.99)
Fixed Asset Ratio	-0.00277	-0.00880	-0.00359	-0.00122	0.00495	0.00001	-0.00115	0.00482
	(0.85)	(0.58)	(0.80)	(0.93)	(0.73)	(1.00)	(0.94)	(0.78)
Board Bank Affiliation	0.00356							0.00839
	(0.68)							(0.37)
Family Board	**0.02763**							0.01187
	(0.02)							(0.38)
CFO Turnover	-0.00849							-0.01226

	(0.45)							(0.31)
Maturity		-0.00197						-0.00163
		(0.36)						(0.45)
New Loan			-0.00743					-0.00439
			(0.51)					(0.71)
Stock Return Volatility				0.32582				0.22594
				(0.25)				(0.53)
Dividend Yield					**-0.54530**			**-0.42060**
					(0.00)			**(0.04)**
Capital Expenditure						0.00000		0.00000
						(0.72)		(0.39)
Interest Coverage Ratio							0.00002	0.00001
							(0.68)	(0.78)
Number of Observations	*388*	*336*	*390*	*390*	*390*	*389*	*388*	*332*
F-statistic	*0.95*	*0.53*	*0.31*	*0.46*	*1.82*	*0.23*	*0.24*	*0.82*
R^2 Adjusted	*0.00*	*-0.01*	*-0.01*	*-0.01*	*0.01*	*-0.01*	*-0.01*	*-0.01*

Table 6.25: Determinants of Event Period Abnormal Returns for Announcements of Issuances of Bilateral Loans

This table reports the determinants of event study results for up to 85 announcements of issuances of bilateral loans for a sample of 385 companies listed on the FTSE350 between 2001 and 2008. Day 0 is the date of the first announcement of the issuance of the debt. Abnormal returns are measured using the market model and an estimation period of -200 days to -50 days relative to the announcement of the issuance of the debt. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Return on assets is the ratio of earnings before interest and tax, depreciation and amortisation (EBITDA) to total assets. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Fixed assets ratio is the ratio of fixed assets to total assets. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. CFO Turnover is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Family Board is a dummy binary variable defined as '1' where the company has an original founder or family founder member on the Board of Directors, and '0' otherwise. Maturity is the length of the debt agreement in years. New Loan is a binary variable defined as '1' where the announcement states that the bond is a new loan and '0' otherwise. Stock Return Volatility is measured by the standard deviation of daily stock returns over the 12 months prior to the fiscal year end. Dividend Yield is measured by the ratio of dividend per share to the share price. Interest Coverage Ratio is measured as the ratio of earnings before interest and tax (EBIT) to interest expense on debt. Panel A presents the determinants of event study results over the 3 day window. Panel B presents the determinants of event study results over the 7 day window. P-values for two tailed t-tests of significance are reported in parenthesis.

Panel A	CAR (-1,+1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	0.01227	0.02750	-0.03618	-0.01752	-0.00462	-0.00611	-0.00707	0.06102
	(0.69)	(0.42)	(0.26)	(0.55)	(0.86)	(0.81)	(0.79)	(0.27)
Total Assets	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	(0.90)	(0.67)	(0.90)	(0.90)	(0.94)	(0.91)	(0.92)	(0.74)
Market to Book	0.00008	0.00015	0.00013	0.00011	0.00010	0.00010	0.00010	0.00015
	(0.70)	(0.46)	(0.49)	(0.57)	(0.61)	(0.58)	(0.59)	(0.53)
Return on Assets	0.16709	0.11496	0.17695	0.19662	0.14954	0.15008	0.14569	-0.07636
	(0.20)	(0.58)	(0.17)	(0.16)	(0.25)	(0.25)	(0.26)	(0.76)
Leverage	0.01877	0.04979	0.02735	0.03486	0.03990	0.03633	0.03832	0.04129
	(0.76)	(0.53)	(0.64)	(0.56)	(0.52)	(0.55)	(0.53)	(0.70)
Fixed Asset Ratio	-0.01482	-0.01527	-0.00012	-0.01115	-0.00597	-0.01024	-0.00921	-0.01544
	(0.73)	(0.74)	(1.00)	(0.79)	(0.89)	(0.81)	(0.83)	(0.80)
Board Bank Affiliation	-0.00586							-0.02444
	(0.80)							(0.39)
Family Board	-0.04870							-0.10267
	(0.17)							(0.26)
CFO Turnover	-0.02243							-0.04177

	(0.50)							(0.25)
Maturity		-0.00707						**-0.00896**
		(0.15)						**(0.10)**
New Loan			0.03798					0.02570
			(0.13)					(0.43)
Stock Return Volatility				0.44682				-1.75827
				(0.40)				(0.30)
Dividend Yield					-0.13583			0.84114
					(0.77)			(0.38)
Capital Expenditure						0.00000		0.00000
						(0.86)		(0.74)
Interest Coverage Ratio							0.00001	0.00005
							(0.77)	(0.25)
Number of Observations	*63*	*33*	*63*	*63*	*63*	*63*	*63*	*33*
F-statistic	*0.48*	*0.49*	*0.69*	*0.41*	*0.30*	*0.29*	*0.30*	*0.63*
R^2 Adjusted	*-0.07*	*-0.11*	*-0.03*	*-0.06*	*-0.07*	*-0.07*	*-0.07*	*-0.19*

Table 6.26 : Determinants of Event Period Abnormal Returns for Announcements of Issuances of Non-Bank Private Debt

This table reports the determinants of event study results for up to 146 announcements of issuances of non-bank private debt for a sample of 385 companies listed on the FTSE350 between 2001 and 2008. Day 0 is the date of the first announcement of the issuance of the debt. Abnormal returns are measured using the market model and an estimation period of -200 days to -50 days relative to the announcement of the issuance of the debt. Market-to-Book is calculated as the market value of equity divided by the book value of the firm's assets. Return on assets is the ratio of earnings before interest and tax, depreciation and amortisation (EBITDA) to total assets. Leverage is calculated as the total of both short-term and long-term debt divided by total assets. Fixed assets ratio is the ratio of fixed assets to total assets. Board-bank affiliation is a dummy binary variable defined as '1' where a member of a company's board of directors is or has been a member on the board of directors of a bank, and '0' otherwise. CFO Turnover is defined where there has been a change in the finance director between the accounting year preceding the issue, and the year of the issue. Family Board is a dummy binary variable defined as '1' where the company has an original founder or family founder member on the Board of Directors, and '0' otherwise. Maturity is the length of the debt agreement in years. New Loan is a binary variable defined as '1' where the announcement states that the bond is a new loan and '0' otherwise. Stock Return Volatility is measured by the standard deviation of daily stock returns over the 12 months prior to the fiscal year end. Dividend Yield is measured by the ratio of dividend per share to the share price. Interest Coverage Ratio is measured as the ratio of earnings before interest and tax (EBIT) to interest expense on debt. Panel A presents the determinants of event study results over the 3 day window. Panel B presents the determinants of event study results over the 7 day window. P-values for two tailed t-tests of significance are reported in parenthesis.

Panel A	CAR (-1,+1)							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	0.00142	0.01080	0.00325	0.00331	0.00033	0.00295	0.00176	0.00657
	(0.86)	(0.26)	(0.67)	(0.76)	(0.97)	(0.71)	(0.82)	(0.64)
Total Assets	0.00000	**0.00000**	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
	(0.12)	**(0.07)**	(0.13)	(0.13)	(0.15)	(0.29)	(0.13)	(0.16)
Market to Book	**0.00018**	**0.00015**	0.00013	0.00013	0.00013	0.00013	0.00013	**0.00020**
	(0.04)	**(0.07)**	(0.12)	(0.13)	(0.12)	(0.12)	(0.13)	**(0.03)**
Return on Assets	-0.02648	-0.02232	-0.02304	-0.02326	-0.01619	-0.02271	-0.01541	-0.02396
	(0.59)	(0.64)	(0.63)	(0.69)	(0.75)	(0.64)	(0.77)	(0.72)
Leverage	-0.02039	-0.00822	-0.01500	-0.01500	-0.01357	-0.01505	-0.01470	-0.01306
	(0.30)	(0.68)	(0.44)	(0.45)	(0.49)	(0.44)	(0.47)	(0.55)
Fixed Asset Ratio	0.02033	0.02063	0.01616	0.01615	0.01293	0.01778	0.01921	0.01576
	(0.18)	(0.16)	(0.27)	(0.27)	(0.41)	(0.31)	(0.19)	(0.41)
Board Bank Affiliation	-0.00407							-0.00646
	(0.59)							(0.45)
Family Board	0.00040							0.00330
	(0.98)							(0.80)
CFO Turnover	**0.02144**							**0.01884**
	(0.02)							**(0.06)**

Maturity		**-0.00134**						**-0.00132**
		(0.05)						**(0.07)**
New Loan								
Stock Return Volatility				-0.00176				-0.07598
				(0.99)				(0.77)
Dividend Yield					0.08365			0.19103
					(0.60)			(0.28)
Capital Expenditure						0.00000		0.00000
						(0.87)		(0.78)
Interest Coverage Ratio							-0.00004	0.00000
							(0.48)	(0.98)
Number of Observations	*118*	*113*	*118*	*118*	*118*	*118*	*117*	*113*
F-statistic	*1.59*	*1.76*	*1.22*	*1.01*	*1.06*	*1.01*	*1.14*	*1.20*
R^2 Adjusted	*0.04*	*0.04*	*0.01*	*0.00*	*0.00*	*0.00*	*0.01*	*0.02*

CHAPTER 7: CONCLUSIONS, LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

7.1 Introduction

Over the last 20 years a considerable amount of literature has examined the sources from which companies borrow. Because of well-developed public debt markets, firms in both the United States and United Kingdom have the luxury of choosing their lenders; however literature has almost exclusively examined the sources from which firms borrow from a US perspective. In doing so, the US literature has investigated two main areas. These are:

(i) The Determinants that Drive the Choice between Public, Bank and Non-Bank Private debt, and

(ii) The Stock Market Response to Announcements of Public, Bank and Non-Bank Private Debt.

Little research has been undertaken on the choice of debt source for UK firms. The primary purpose of this thesis was to contribute to the volume of research which has examined the choice of debt source in a US setting, and to develop some understanding of the choice between different sources of debt for UK companies. It is important to consider a company's choice of debt source in a UK context because despite being well developed, the UK public debt market is significantly smaller than the US public debt markets.

The remainder of this chapter is structured as follows: Section 7.2 provides a summary of the data and the two empirical chapters of this study; 'The Choice of Debt Source for UK Firms' (Chapter 5) and 'The Stock Market Response to

Announcements of Public, Bank and Non-Bank Private Debt' (Chapter 6). Section 7.3 presents a short discussion of the findings. Section 7.4 presents a review of the limitations of the study. Section 7.5 presents an outline of some potential areas for future research. Finally, Section 7.6 provides a short summary of the study.

7.2 Summary of Data and Issues Examined

This section provides a brief summary of the three main elements that form this study.

7.2.1 Data

Prior studies that have examined a firm's choice of debt source in a UK context have employed a balance sheet approach (Barnes and Cahill (2005) and Antoniou, Guney and Paudyal (2008)). One of the major contributions of this research was to examine a firm's incremental choice of debt source. The process of collecting data to allow for such an evaluation is labour intensive as the announcements had to be manually collected from press announcements, but provides an extremely rich sample on which to base the analysis.

The searches generated a sample of 1091 announcements of debt consisting of 333 announcements of public debt, 606 issues of bank debt, and 152 issues of non-bank private debt. The vast majority of bank loans, in the sample 521, were syndicated, and the remaining 85 bilateral. In addition to the date of announcement, further data pertaining to the issuance of debt were hand collected and utilised in further analysis. These include the amount of the offer, the maturity of the offer, the coupon, interest rate, price, rating, renewal status and the purpose of the offer. In addition to the announcement data, a series of debt variables and reputation variables were also hand collected from company annual reports to allow for further analyses as documented below. Debt variables collected include the type of outstanding debt, the maturity of outstanding debt and total available lines of credit; reputation variables collected include whether the firm has a banker sitting on its board of directors, finance director turnover and percentage of director ownership.

7.2.2 The Choice of Debt Source

The purpose of this chapter was to examine the choice of debt source for UK firms, and to determine why particular firms choose to borrow from different sources. In examining the discrete financing choice, the findings of this chapter indicate that the most important factor that has an impact on a firm's choice of debt source is its ability to provide collateral to secure against its debt. The results suggest a pecking order of debt issuance choice with regards to the borrower's ability to provide collateral; firstly those firms able to provide the most collateral can borrow from the public debt markets. Secondly those with moderate amounts of collateral issue bank debt and, lastly those firms with the lowest amount of collateral to secure against their debt are screened out from the public and bank markets for debt, and forced to borrow from non-bank private sources. Non-issuing firms are able to provide greater amounts of collateral than issuers of non-bank private debt. This endorses the view of borrowers with the lowest amount of security are essentially being screened out of the public and bank markets for debt, and being forced to borrow from non-bank private sources should they require to borrow.

New evidence is also provided on the relationship between a company's choice of debt source and the financial expertise of the board. A bank board affiliation proxy is included in the analysis to investigate the impact of a firm's affiliation to a bank to the source of debt that it is able to issue. Although no evidence of bank affiliation playing a significant role in driving access to the public capital markets or to syndicated loans in the UK is found, issuers of bilateral loans are found to be more likely to have an affiliation to a bank than issuers of public, syndicated bank or non-bank private debt.

7.2.3 The Stock Market Response to Announcements of Public, Bank and Non-Bank Private Debt

This chapter examines the market response to announcements of different types of debt; public, bank and non-bank private. As with the previous chapter, this study also differentiates between syndicated and bilateral bank loans. The results propose that announcements of bank debt are greeted positively by the stock market, but that announcements of both public and non-bank private debt elicit a trivial and insignificant market response. These results are generally consistent with those reported by US studies, the only difference being that in the UK the market fails to respond in a positive manner to announcements of non-bank private debt in the same way as it does in the US. This finding sheds new light on how the UK market responds to the announcement of non-bank private debt. While there is no evidence of the market reacting negatively to announcements of non-bank private debt, the lack of a positive market response, as is elicited with bank loans, suggests that the market perceives bank loans to be special relative to other sources of loan financing.

New evidence is also provided on how the market perceives announcements of syndicated and bilateral loans. There is a strong positive market response to announcements of issuances of syndicated loans, yet no evidence of any abnormal market response to bilateral loans. This result suggests that syndicated loans convey a signal of considerable creditworthiness, as not only has one bank, the lead arranger in the syndicate, undertaken screening and monitoring and considered the firm creditworthy. But also, further banks within the syndicate will have undertaken their own screening and monitoring, and considered it creditworthy. Finding no evidence

of any abnormal market response to bilateral loans somewhat challenges the traditional view that the market views close bilateral banking relationships in a positive manner.

7.3 Discussion of Findings

The results of the empirical analyses conducted in Chapter 5 and Chapter 6 present new information on the choice of debt source. The main implications that can be derived from this research are discussed in turn.

7.3.1 Differentiation between Syndicated and Bilateral Loans

The finding that the market responds significantly differently to announcements to syndicated and bilateral loans as discussed in Chapter 6 highlights the importance of differentiating between the different types of bank loans. This result is important to both academics and practitioners alike. Theoretical studies have been fundamentally concerned with the information benefits that close banking relationships can provide, however the results suggest that the positive market response to bank loans is driven by the strong positive market response to syndicated loans, and not the more traditional bilateral loans. Finding a difference between syndicated and bilateral loans contributes to existing theory. The results imply that the evolution of bank loans which has meant that firms now more able to make the choice between borrowing on a bilateral basis and borrowing on a syndicated basis is important and should receive further acknowledgement by researchers. From a practitioner's viewpoint, firms may opt to issue syndicated loans as the issuance of syndicated loans appears to present the market with more favourable information regarding the borrowing firm's quality.

7.3.2 The Role of Bank Affiliation on the Choice of Debt Source

The finding that firms are more able to borrow from banks on a bilateral basis if they have an affiliation with a bank implies that the presence of a banker provides banks

with enhanced information regarding the firm. This ties in with previous studies which have highlighted that the presence of a banker on the board may be fruitful for the borrowing firm in several ways; ranging from bankers offering debt market expertise (Booth and Deli (1999)), increased availability of credit (Guner, Malmeinder and Tate (2008)) and possibly lower borrowing costs (Erkens, Sumbramanyam and Zhang (2011)). This has important implications for the likelihood of firms aiming to co-opt a banker onto their board. Firms seeking to borrow debt on a bilateral basis perhaps because they wish to maintain a comparative advantage (Yosha (1995)) should seek to co-opt a banker onto their board. It appears that banks are more willing to take on loans as an independent lender if the issuing firm has a banker in the board room as the banker is able to provide a signal of the borrowing firm being creditworthy. In contrast, firms without an affiliation to a bank are required to either spread the risk of their loan in either the public capital markets or syndicated loan markets. Alternatively, issuers of public and syndicated loans have already built up a sufficient reputation and do not need a banker on the board to access these markets.

7.4 Limitations of Research

As with all research, this study is subject to a number of limitations. The limitations encountered by the research relate primarily to the collation of data. A pilot assessment of company debt announcements included within downloadable financial packages (Thomson One Banker, Dealscan and DataStream) illustrated that not only were several announcements of debt finance omitted, but also that announcements often contained incorrect announcement date information. For the event study performed in Chapter 6, it was imperative that the correct announcement dates were employed for the robustness of the analysis. Consequently a decision to hand collect announcements of debt issuances was taken.

Manual collection of data is itself unfortunately not limitation free. The predominant drawback of manual data collection is that it is enormously time-consuming, but manual data collection may also lead to the omission of some announcements of debt. The debt announcements used within this study were largely obtained from company announcements which were hand collected from press announcements. Not all issuances of debt are announced to the market. This is particularly the case with bilateral bank loans and non-bank private debt agreements because they are agreements between only a few parties, especially when they are for small amounts. In contrast, announcements of public debt are normally publicised to the market for advertising reasons and because they are for larger amounts. Similarly, announcements of syndicated loans are released to the market because they are for significant amounts and are thus of interest to the market. Similarly, the availability of credit lines is also important, yet appears to be rarely revealed to the market. This leads to a bias of only those observations announced in the press being included in

the analysis. Unfortunately this results in a relatively small sample of bilateral bank loans and non-bank private debt agreements.

In several cases, it was difficult to differentiate between bank loans and non-bank private debt. Following the approach of Johnson (1997), announcements of issuances of private debt were classified as being announcements of bank debt only where it was explicitly clear that the issuance was of bank debt, and issuances of private debt which are not explicitly identified as being bank debt were classed as announcements of non-bank private debt, as are private placements of debt. One problem with this approach is that it may underestimate the use of bank debt; however, it appears that since 80% of private debt announcements were classed as bank debt that this categorisation is unlikely to have had a sizeable impact. That said, however, the vast majority of bank announcements included in the sample (86%) are syndicated so it is likely that the sample underestimates the use of bilateral loans. A further limitation was the inability to differentiate between different types of non-bank private debt given the small sample size.

The time consuming aspect of manual data collection also lead to two further restrictions; firstly, the study was limited to examining a company's choice of debt source between 2001 and 2008. It would have been interesting to examine whether the choice of debt source has changed over time with the growth of non-bank private lenders, and the development of the UK corporate bond markets, and access to foreign bond markets. Moreover, it would have been interesting to examine the differences between the choices of debt source post banking crisis in 2007. This is because the banking crisis of 2007 led to a reduction in the availability of securing

debt finance from banks, and firms were then forced to borrow from alternative sources. Secondly, this study is confined to UK companies only. It would have been of interest to additionally look at a cross section of European firms to observe in comparison what affects the choice of debt source in these countries which are traditionally bank rather market orientated.

Despite the limitations inherent in the data collection, it is not expected that they have a negative impact or abate the research that has been presented.

7.5 Recommendation for Further Research

The results of the empirical analyses discussed in Chapter 5 and Chapter 6 of this thesis have contributed to the literature which has examined companies' choice of debt source, and in particular the literature examining the choice of debt source within the UK. The results of this research have brought attention to some further avenues authors may wish to examine in the future.

There is little evidence that firm characteristics, other than a firm's affiliation to a bank, have an impact on the choice between syndicated and bilateral loans in a UK context. The results highlight that the market recognises differences between syndicated and bilateral loans, and responds significantly differently to them. It would be of interest of investigate the differences between syndicated and bilateral loans using a larger sample of bilateral loans to examine whether other firm characteristics have an impact upon the choice between syndicated and bilateral loans. Similarly, it would be useful to examine the impact of firm characteristics on the choice between syndicated and bilateral loans in a different market, and whether the differing market perception between syndicated and bilateral loans holds in markets other than the UK.

As the results highlight a difference between syndicated and bilateral loans, further studies may also wish to examine the different type of bank loans available to firms – term loans and revolving credit facilities. It would furthermore be of great interest to examine the differences between the different types of non-bank private debt available to firms and the market response to them.

Chapter 6 presents an evaluation of the stock market response to debt announcements surrounding the issuance of debt, and revealed that the market responds positively to announcements of bank loans, specifically syndicated loans. Billett, Flannery and Garfinkel (1995) reported similar results, but when they examined how the market responded to announcements in the long run Billett, Flannery and Garfinkel (2006) find evidence consistent with firms announcing bank loans suffering negative abnormal stock returns in the three years following the announcement. This begs the question of whether the UK market reassesses its view of bank loan announcements over a longer horizon.

This thesis, alongside prior empirical and theoretical literature, has discussed the monitoring abilities of banks and the benefits that the monitoring services provided by banks impart to borrowing firms. However, the well recorded financial meltdown and disastrous experience of many banks in the last few years does little to instil confidence in their ability to effectively monitor loans. Thus challenging the assumption of the effectiveness of banks as monitors is an area worthwhile of further research. It may simply be that banks are not very good at monitoring, or that their monitoring abilities have somewhat diminished over time. The securitisation of loans may have also had an effect upon the amount of monitoring that banks undertake as with securitisation banks no longer own the loans and have no real incentive to monitor borrowers in depth.

The board bank affiliation variable employed in this study, which is included to proxy for a company's relationship with a bank which may grant it with easier access

to the capital markets, or to bank financing, takes the value of one if any member of the board of directors is, or has been, a member of the board of directors of a bank, and zero otherwise. It would of particular interest to examine whether having an affiliation to a local bank would provide a more enhanced and thus credible signal of borrowing firm creditworthiness. Thus a further area for interest would be to examine the importance of having an affiliation to a local bank. It would be difficult to examine this in a UK context as there are no regional banks and only a few regional building societies, however, it would be interesting to examine this in a US context where there are several regional or local banks.

Secondly, the variable employed in this study assumes that all members of a bank's board of directors are bankers. However, some UK banks actively recruit Chief Executive Officers or Chairmen of large companies to sit on their local boards, and it is perhaps difficult to argue that these people are bankers. Thus, a further area for future research would be to examine whether the affiliation, and thus presence, of only executive directors of banks on a company's board of directors has an effect on the source of debt which a company chooses to employ.

One of the contributions of this study was to examine the impact of the reputation of the borrowing firm on its choice of debt source. It would be worth examining empirically the structure of a firm's board and the source of debt finance that they choose to issue. For example, are powerful or entrenched managers more likely to issue a particular source of debt? Are younger boards more likely to issue a particular source of debt than older boards? Are larger boards more likely to issue one type of

debt than another? Are firms more likely to issue one type of debt than another following the turnover of either a chief financial officer or chief executive officer?

This study and most prior studies which have examined the choice of debt source have implicitly assumed that this reflects a firm's choice of debt source (that is, they have focused on a company's demand for debt finance), and have failed to consider that banks or other financial institutions may try to sell or force debt onto companies (that is, they have failed to examine the supply of debt finance). Johnson (1997) argues that this literature has not looked at the demand side exclusively, but argues that literature has essentially looked at optimal contracting and the intersection of supply and demand for lending services.

It is likely that banks or other financial institutions will try to sell debt to companies in order to gain business from them. Anecdotal evidence suggests that banks are continually trying to sell products and services to individual personal account holders, so it is highly probable that banks and other financial institutions actively seek business from large companies which have sufficient collateral to secure their debt. Consequently, a final proposed avenue for future research would be to examine the supply of debt to companies in conjunction with the demand for debt.

A final proposed avenue for future research would be to examine the impact of market factors in addition to firm specific factors upon the source of debt issued. For example, do firms time their choice of public or private debt issues taking into account whether the rates are floating (as per bank debt) or fixed (as per public and most non-bank private debt)? Do firms issue a specific type of debt, knowing

whether the rates are fixed or not, given the Bank of England Base Rate? This ties into whether firms issue a specific type of debt dependent upon the economic climate at the time of issue.

7.6 Summary

Very little research has investigated firstly the factors that influence a firm's choice of debt source and secondly how the market responds to announcements of debt in a UK context. This research has helped to somewhat bridge this gap and has highlighted similarities between the choice of debt source for UK and US firms. In addition this study has examined the distinction between syndicated and bilateral loans, and has indicated that the market views them in a different way. Moreover, this study has investigated the impact that a being affiliated to a bank has on the choice of debt source.

One of the major contributions of this research that has allowed for such a thorough examination is the hand collection of debt announcements. In addition to the debt and governance variables included in the analyses within this thesis, several other debt and governance variables have been hand collected from company annual reports and will go some way towards further researching what factors impact upon a firm's choice of debt source.

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