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Bank loan announcements and borrower stock returns before and during the recent financial crisis

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ABSTRACT

The impact of U.S. bank loan announcements on the stock prices of the corporate borrowers has been decreasing during the two last decades with estimated two-day cumulative abnormal returns slipping from almost 200 basis points in the beginning of the 1980s to close to zero by the turn of the Century. We estimate excess returns before and after the onset of the most recent financial crisis. We find that while prior to August 2007 returns were indeed close to zero, afterwards returns jump back up to around 200 basis points. We surmise that in a booming credit market the certification of corporate borrowers by banks started to play a lesser role, while during the crisis the banks' role was revitalized. Consistent with this interpretation we find that after August 2007 excess returns increase especially for loans with a longer maturity, and for smaller, levered, less profitable or lowly rated firms.

1. Introduction

Modern theory of financial intermediation is based on the argumentation that a bank's ability to reduce information asymmetries between borrowers and savers that makes a bank unique relative to other financial institutions (Diamond, 1984; Boyd and Prescott, 1986)[1]. A bank may collect information when it initially screens the borrower for the loan, but also later on as the bank has the ability to closely monitor repayment and other behavior of firm management over the course of the loan, the bank may gain proprietary knowledge of the borrowing firm through deposit and other services, or the bank can even influence decisions made by firm management. Fama (1985), for example, labels the bank an "inside debt holder".

Motivated by Fama (1985)'s conjectures regarding the uniqueness of bank loans, and following earlier work by Mikkelson and Partch (1986), a seminal paper by James (1987) published in the *Journal of Financial Economics* studies the average stock price reaction of firms that publicly announce a bank loan agreement or renewal. James finds that bank loan announcements are associated with *positive* and statistically significant firm stock price reactions that equal 193*** basis points (bps) in a two-day window[2], while announcements of privately placed and public issues of debt experience zero or negative firm stock price reactions. This result holds independently of the type of loan, the default risk, and size of the borrower. The positive stock-price reaction supports the Fama (1985) argument that a bank loan provides accreditation for a firm's ability to generate a certain level of cash flows in the future.

Results in James (1987) spawned numerous other loan announcement studies that confirmed and further explained the positive firm stock price reactions found by James. However, a recent paper by Fields et al. (2006) fundamentally qualifies these findings. Their paper shows that loan initiations or renewals during the 1990s in the United States over time resulted in ever-smaller

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[1] For reviews see Freixas and Rochet (2008), Degryse and Ongena (2008), and Degryse et al. (2009).

[2] As in the tables, we star the coefficients to indicate their significance levels: *** significant at 1%, ** significant at 5%, and * significant at 10%.

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(and maybe even all-together disappearing) positive excessive returns, a point made clear by but also present in samples studied by Andre et al. (2001) and Ongena et al. (2014) for example.

However, the sample periods of all loan announcement studies so far end well before the start of the financial crisis. Because banks may have played a crucial role in alleviating informational asymmetries once the crisis commenced, we assess firm stock price reactions (right) before and during the recent financial crisis. Given their importance for listed-firm financing and good data availability we study the announcements of syndicated loans.

We define the pre-crisis period to run from January 2005 to August 2007[3], and the crisis period from September 2007 to December 2009. Our sample consists of 351 syndicated loans are that were announced in the U.S market during one of these periods, i.e., 197 before the crisis and 154 during the crisis. Using standard event study methodology we compute and test the significance of the firm stock price reactions to the different sets of syndicated loan announcements. We find that cumulative abnormal returns (CARs) before the crisis equal 47*** and 88*** bps in the [0,1] and [−2,2] event windows, respectively. However, during the crisis these 2-day and 5-day CARs increase to 191*** and 345*** bps, respectively. Even when controlling for salient loan and firm characteristics and lead bank arranger identity in linear regressions or when studying matched firm-bank pairs, the difference in CARs before and during the crisis remains of similar magnitudes.

Our findings therefore suggest that the original findings by James (1987) who documented an almost 193 basis point firm stock price reaction to bank loan announcements are again relevant today, and that the findings by Fields et al. (2006) of an almost disappearing loan announcement stock price effect may have been the result of a booming credit market in the U.S. where bank certification started to play a lesser and lesser role. Our paper therefore contributes to the literature that firm stock price reactions to loan announcements may depend on the market environment in which the granting of credit occurs.

The rest of the paper is organized as follows. Section 2 presents the relevant literature. The information about the data is defined and described clearly in Section 3. Section 4 introduces the employed methodology. Then the result analysis can be found in Section 5. Finally, in Section 6, a brief conclusion is given.

2. Related literature

In this section we review the relevant literature dealing with the impact of bank loan announcements on firm stock returns as well as the impact of the boom and bust cycle on bank behavior.

Following work by Mikkelson and Partch (1986), James (1987) studies the average price reactions of firm stocks following the public announcement of bank loan agreements or renewals employing an event study methodology. James finds that bank loan announcements are associated with *positive* and statistically significant firm stock price reactions that equal 193*** bps in a two-day window, while announcements of privately placed and public issues of debt experience zero or negative firm stock price reactions. This result holds independently of the type of loan, the default risk, and size of the borrower. The positive stock-price reaction supports the Fama (1985) argument that a bank loan provides accreditation for a firm's ability to generate a certain level of cash flows in the future.

Results in James (1987) spawned numerous other event studies (Appendix A exhibits the findings of many of these studies). As one early and seminal example, Lummer and McConnell (1989), divide bank loan announcements into first-time loan initiations and follow-up loan renewals. Because loan initiations are loans to new borrowers while renewals are loans to established borrowers, the difference in stock price reactions between the two categories should act as a measure of the value of an established lending relationship. Consistent with this argument, Lummer and McConnell (1989) find that stock price reactions to bank loan announcements are driven by renewals. The abnormal returns in the event period associated with announcements of loan initiations are not statistically different from zero, while loan renewals are positive and statistically significant.

Yet, with the exception of Aintablian and Roberts (2000), who use Canadian bank loan announcements and whose reported statistics imply that mean excess returns on new loans and renewals differ at a 10 percent level of significance, no study has duplicated the results in Lummer and McConnell (1989). Slovin et al. (1992), Best and Zhang (1993), and Billett et al. (1995), for example, document positive and significant price reactions to both initiation and renewal announcements, but find *no* significant difference in price reactions between the two categories.

Despite these early conflicting findings that may find their root in the data and methodological challenges researchers recurrently face, loan announcement studies continue to inspire and to inform the academic literature. For example there are potentially interesting differences across countries in loan announcement returns (Boscaljon and Ho, 2005) – these are even found to be negative in China (Bailey et al., 2011; Huang and Zhao, 2009) – though it still remains unclear why this variation in loan announcement returns across countries exists. Other examples include: Harvey et al. (2003) and Byers et al. (2008) who study how loan issues and announcements are more likely to have positive wealth effects for firms with weak internal corporate governance; Waheed and Mathur (1993) and DeGennaro et al. (1999) who study the impact of bank loan announcements on *bank* stocks; Marsh (2006) who consider the impact of credit risk management through securitization by banks; Ongena and Roscovan (2013) who study the importance of the geographical origin and organization of the banks for the investors' assessments of firms' credit quality and economic worth following loan announcements; and Ongena et al. (2014) who analyze the impact of the loan announcements on firm bond (and equity) returns.

Recently however two major qualifications have been made about this entire literature on bank loan announcements, both of which we tackle in this paper. First, the literature may be suffused with an insidious reporting issue (James and Smith, 2000; Maskara and Mullineaux, 2011) as both firms and newspaper editors may push only "positive news" stories (see also Australian evidence by Fery et al., 2003 for example). Using "loan issue" rather than "newspaper announcement" dates – which is what we do in this paper following Preece and Mullineaux (1996) and Focarelli et al. (2008) for example – correspondingly addresses this particular reporting issue[4]. But if the newspaper announcement date precedes the actual issue date, the estimated stock price reaction may be an underestimate of the full impact, though in practice the difference may be small (Harvey et al., 2003)[5].

Second, it is not clear that initiations or renewals in the United States (and elsewhere) result in excessive returns in all phases of the credit cycle, in particular during the late 1990s in the United

[3] The so-called "active phase" of the financial crisis often is said to have started on August 9th, 2007, when BNP Paribas terminated withdrawals from three hedge funds citing "a complete evaporation of liquidity".

[4] They focus on the importance of the number of syndicate loan participants and the share of the lead arranger, respectively.

[5] Even more fundamental selection issues may arise in the firm choice of financier (Cantillo and Wright, 2000), the firm loan application, the bank offer, and the firm acceptance (Hadlock and James, 2002). Most or all of these choices are typically not observed and modelled.