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# Syndicated loan spreads and the composition of the syndicate<sup>☆</sup>



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## ABSTRACT

During the past decade, non-bank institutional investors are increasingly taking larger roles in the corporate lending than they historically have played. These non-bank institutional lenders typically have higher required rates of return than banks, but invest in the same loan facilities. In a sample of 20,031 leveraged loan facilities originated between 1997 and 2007, facilities including a non-bank institution in their syndicates have higher spreads than otherwise identical bank-only facilities. Contrary to risk-based explanations of this finding, non-bank facilities are priced with premiums relative to bank-only facilities in the same loan package. These non-bank premiums are substantially larger when a hedge or private equity fund is one of the syndicate members. Consistent with the notion that firms are willing to pay a premium when loan facilities are particularly important to them, the non-bank premiums are larger when borrowing firms face financial constraints and when capital is less available from banks.

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## 1. Introduction

Various types of institutional investors participate in syndicated loans. These investors have substantially different costs of providing debt capital: Commercial and

investment banks expect to earn the risk-free rate plus a premium to compensate them for the default risk. In contrast, investors in hedge funds expect relatively high returns, on top of the considerable fees charged by hedge fund managers. Consequently, to justify it making an investment, a hedge fund's pre-fee expected return must be substantially higher than that for a bank. Given their different required ex ante returns, it is somewhat puzzling that both hedge funds and banks, as well as other institutions, all invest in the same syndicated loan facilities.

Why do some facilities have participation of non-bank investors while others do not? Presumably, there must be differences between facilities that are related to the identity of investors who provide the financing. One possibility is that some loan facilities are made when the supply of capital is high, so that banks are anxious to invest in them and the facility can be filled by banks at a relatively low spread. Others are made at times when it

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is difficult to acquire the necessary capital from banks, so that the loan arrangers have to raise the spreads to attract other non-bank institutional investors such as hedge funds.<sup>1</sup> Alternatively, if the loan facility is not crucial to the firm's health and it cannot be filled at low cost by banks, the firm could choose not to borrow at all. This argument implies that when non-bank financial institutions take positions in loan facilities, there should be a higher spread than in loan facilities in which they do not take positions.

To evaluate the way in which different kinds of non-bank institutional investors are involved in the syndicated lending process, we consider a sample of 20,031 facilities of "leveraged" loans from the DealScan database, each of which was originated between 1997 and 2007.<sup>2</sup> We focus on the leveraged loan segment of the market because non-bank institutional investors' participation in the corporate lending market has been concentrated in this lower quality, non-investment grade segment of the market, and also because restricting the sample to leveraged loans allows the sample to be relatively homogeneous.<sup>3</sup> Of the 20,031 leveraged loan facilities, 13,752 are associated with a syndicate containing only commercial or investment banks (bank-only facilities), while the remaining 6,279 have syndicates containing at least one non-bank institutional investor (non-bank facilities). These institutional investors are most often finance companies (contributing to the syndicates of 4,603 loan facilities), private equity or hedge funds (2,754 loan facilities), and mutual funds (1,010 loan facilities).

We estimate the difference in spreads between loan facilities as a function of the type of the investors in a particular facility. In doing so, we control for other factors that affect the loan facility's spread, such as the firm's risk measured by either firm-level accounting variables, or the firm's credit rating, as well as the loan facility's type (term loan A, term loan B, or revolver) and other facility-specific

characteristics. Our estimates suggest that the presence of a non-bank institutional syndicate member is associated with a significantly higher spread than an otherwise similar bank-only loan facility. When we control for risk using firm-level accounting variables, our estimates imply a spread premium of approximately 54 basis points. If we instead group loans by credit rating category, the estimated spread premiums are smaller, around 22 basis points, but are still statistically significant and large enough to be economically important.

One interpretation of the non-bank premium is that the non-bank institutions are providing capital when banks have difficulty filling the syndicate, which is likely to occur when borrowing firms are facing financial constraints or when banks are restricted in providing capital. Consistent with this notion, our estimates indicate that the non-bank premiums are larger when the borrowing firm appears to be facing financial constraints and when the supply of bank capital is expected to be lower.

In computing these estimates of the non-bank premiums, we control for publicly observable variables that could affect spreads. However, it is possible that non-bank premiums could reflect unobservable differences between firms that are correlated with both the likelihood of there being a non-bank institutional syndicate member and the spreads on the loan facilities in which they invest. For example, suppose that at times when the firm is having financial problems that prevent it from receiving a loan facility from other lenders, it is more likely to have a non-bank institution in the loan facility's syndicate. In this case, it would be possible that the borrower's true risk would not be reflected in observable variables, so that the positive estimated spread premiums could reflect compensation for risk that is unobservable to an outsider.

To evaluate the possibility that the premiums to non-bank institutional investors reflect incremental risk differences between non-bank loan facilities and bank-only loan facilities, we estimate the effect of non-bank syndicate members on the pricing of different facilities *within* the same loan. Different facilities within the same loan package typically have the same seniority and hence have the same default risk. Yet, facilities usually have different maturities, sizes, and syndicate structures, so we control econometrically for differences in facility-specific attributes when estimating within-loan differences. Using this approach, the non-bank syndicate member's effect on the relative spreads on different facilities of the same loan cannot reflect a correlation between non-bank institutions' existence and a factor related to unobservable firm-level risk.

The within-loan estimates indicate that when a non-bank institution participates in a term loan B portion of the syndicate, the facility has a larger spread premium relative to term loan A facilities or revolvers of the same loan than the bank-only term loan B facilities' relative premium to term loan A or revolvers, although only the premium difference for revolvers is statistically significantly different from zero. We also consider the cases in which the non-bank institution invests in a particular type of facility and there also is another bank-only facility of the same type in the same loan. In each of these cases, the

<sup>1</sup> For example, in 2003, when banks were reluctant to increase their exposure to power companies who were having financial difficulties, hedge funds provided a substantial fraction of the capital for short-term facilities for Aquila, CMS Energy, and El Paso Corp. (*Wall Street Journal*, April 30, 2003).

<sup>2</sup> The technical definition of leveraged loans varies by organization. For example, DealScan defines as leveraged any loan with a credit rating of BB+ or lower and any unrated loan. Bloomberg defines leveraged loans as those with spreads over London Interbank Offer Rate (LIBOR) of 250 basis points (bp) or more. Standard & Poor's (S&P) deems loans with spreads over LIBOR of 125 bp or more as leveraged loans. Thomson Financial denotes as leveraged loans, all those with an initial spread of 150 bp or more before June 30, 2002, or 175 bp or more after July 2, 2002. We follow DealScan's classification of leveraged loans in this paper. By "non-bank" we mean an institutional investor that is neither a commercial bank nor an investment bank.

<sup>3</sup> The proportion of leveraged loans among loans classified as "institutional" loans by DealScan is about 90% during the sample period. Similarly, Nandy and Shao (2010) find that 86.1% of "institutional" loans are leveraged loans with the proportion increasing over the years during the period from 1995 to 2006. The definition of "institutional" facilities in this paper is different from the one used by DealScan or Nandy and Shao (2010). We focus on the actual participation as opposed to the label put on the facility and consider a loan facility to be 'institutional' if at least one non-bank (neither commercial bank nor investment bank) institutional investor is involved in the lending syndicate.

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