Liquidity risk and syndicate structure

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Abstract

We decompose syndicated loan risk into credit, market, and liquidity risk and test how these shape syndicate structure. Commercial banks dominate relative to non-banks in loan syndicates that expose lenders to liquidity risk. This dominance is most pronounced when borrowers have high levels of credit or market risk. We then tie commercial banks’ advantage in liquidity risk to access to transactions deposits by comparing investments across banks. The results suggest that risk-management considerations matter most for participants relative to lead arrangers. Links from transactions deposits to liquidity exposure, for instance, are more than 50% larger at participants than at lead arrangers.

1. Introduction

Over the past 20 years the syndicated lending market has grown rapidly, with originations in 2006 surpassing $1.6 trillion (Loan Pricing Corporation). This market offers large firms access to long-term debt finance as well as liquidity support in the form of lines of credit and loan commitments. Many large firms use these lines both to reduce their need for cash and to support their commercial paper programs (Sufi, 2007; Gatev and Strahan, 2006). While financial institutions such as investment banks, insurance companies, and hedge funds play an important role in funding syndicated loans, commercial banks maintain an advantage over competitors in products that expose lenders to systematic liquidity risk. We show that this advantage shapes the structure of loan syndicates. Commercial banks dominate in lending on lines of credit to all types of firms, but their dominance is especially pronounced in issuing large lines to risky borrowers. In contrast, bank dominance is much less pronounced in term lending that is fully funded at origination and thus brings no liquidity risk at all. We produce a comprehensive decomposition of syndicated loan risk into credit, market, and liquidity risk, and test how these factors shape loan syndicate structure. Existing studies have shown that structure varies with borrower attributes related to credit risk and transparency, but ours is the first to demonstrate how liquidity-risk management shapes syndicate structure.
Why do commercial banks dominate in the market for credit lines? Kashyap, Rajan, and Stein (2002) explain the combination of transactions deposits and credit lines with a risk-management motive. In their model, as long as liquidity demands from depositors and borrowers are not too correlated, the bank reduces its costly buffer stock of cash by serving both customers. Thus, their model yields a synergy because combining transactions deposits with unused loan commitments allows commercial banks to diversify away liquidity shocks. Gatev and Strahan (2006) extend this idea, showing that commercial banks are endowed with a unique hedge for the systematic risk that occurs when many large borrowers simultaneously increase their demand for bank credit during episodes of reduced market liquidity: offsetting inflows into government-protected transactions deposits. Pennacchi (2006) shows that this mechanism failed to operate prior to the creation of the Federal Deposit Insurance Corporation (FDIC), suggesting that government protection helps explain why liquidity flows to the banking system when markets dry up. Commercial banks' structure allows them to sell excess liquidity to firms at precisely those times when they need cash because markets are tight. Thus, deposits afford banks a comparative advantage in offering liquidity insurance relative to other financial intermediaries.

Based on these models, we argue that commercial banks' advantage in syndicated lending ought to show up most strongly in their role as passive participants investing in lines of credit. Risk-management considerations—such as the advantage of transactions deposits—matter more for passive participants compared to lead arrangers. In general, participants provide funds but otherwise rely on the lead lenders for negotiation and pricing of loans and, to a certain degree, in cases of covenant violations or default. Lead lenders therefore must account not only for risk-management concerns associated with loan funding, but also with their ability to understand the borrower and to monitor over the life of the loan. Thus, for a lead lender liquidity risk management is likely to be of second-order importance.

Table 1 illustrates our main finding in a simple way. Using the Dealscan data on syndicated loans, we present the average share of lenders that are commercial banks for term loans and lines of credit, and then break out these differences based on borrower type (investment grade v. speculative grade rated v. unrated) and based on the role of the lender (lead v. participant). Across all cells, commercial banks dominate in lines of credit relative to term loans. Their relative dominance is most pronounced, however, for high-risk borrowers; and, their dominance is also most pronounced as participants. For example, among speculative-grade rated firms, the bank share for lines of credit is 18% greater than for term loans. This difference becomes even more pronounced—22%—when we focus only on passive participants, where the liquidity-risk management considerations are paramount. Non-bank lenders, lacking the systematic liquidity risk-hedging externality of transactions deposits, avoid credit lines.

Another way of making our main point is as follows: non-bank investors have successfully competed with banks in term lending to high-risk borrowers, where they have gained nearly half of the market. In contrast, they have much less impact on lending to those same borrowers in the market for lines of credit because of the liquidity risk. To see the evolution of the market, Fig. 1 plots the share of commercial banks in syndicated lending over time. During the early 1990s, commercial banks dominated lending across both borrower types (investment grade v. speculative grade) and loan types (term loans v. lines of credit). Over the subsequent 15 years, however, non-bank investors' share grew sharply, but that growth was concentrated among high-risk borrowers, consistent with the idea that these investors look to take on credit risk. Despite this dramatic market entry, we see much less penetration in lending on lines of credit, where bank dominance remains throughout the sample. In fact,

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