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Liquidity in the pricing of syndicated loans ☆

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Abstract

We examine whether banks price expected liquidity in US syndicated term loans. Using extensive data we show that loans with higher expected liquidity have significantly lower spreads at origination, controlling for other determinants of loan spreads such as borrower, loan, syndicate and macroeconomic variables. A matched sample analysis confirms our results. We estimate that the pricing of expected liquidity results in annual savings of over $1.6 billion to the borrowers, in our sample alone. For the first time in the literature, we identify what influences the decision of financial intermediaries to make *secondary* markets for an asset, and the consequent pricing impact of this decision in the *primary* market.

JEL classification: G12; G21; G32

Keywords: Syndicated loans; Loan secondary market; Loan pricing; Liquidity; Loan trading

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> *…many credit approvals at banks today take into consideration the estimated level of liquidity of the facilities being considered. Liquidity, in this sense, is the relative ease (or lack thereof) of transferability. Factors considered in the liquidity assessment include legal restrictions, availability of potential buyers and, of course, potential discounts.* (PNC Capital Markets Report, PNC Bank, November 2003)

1. Introduction

Syndicated loans represent credit granted by a group of banks or other financial institutions to a borrower. The originating institutions traditionally sell portions of some of their loans to other banks and financial institutions via individually negotiated deals, for a variety of reasons that are outlined in Pennacchi (1988), Gorton and Pennacchi (1995), Haubrich and Thomson (1996), Dahiya, Puri, and Saunders (2003), and others. However, over the last fifteen years, an active dealer-driven secondary market has emerged, which has led to these loans being traded, much like debt or equity securities, on an over-the-counter market. The growth of this market has provided loan originators with several new advantages. For example, since it is easier for them to sell off loans, they can now free up capital and increase their grant of new credit, leveraging their comparative advantage in loan origination activity, thereby increasing their return on assets and equity (Gorton and Haubrich, 1990; Carlstrom and Samolyk, 1995; Demsetz, 2000). Furthermore, originating loans that can be sold off easily improves the liquidity of the balance sheets of the originating banks, reduces their financing frictions, and lowers their cost of capital.[3] The loan secondary market also provides originators with a very effective mechanism for risk diversification (Cebenoyan and Strahan, 2002).

Since increased liquidity provides the loan originators with clear benefits, the natural question is whether they pass on some of these benefits to the borrowing firms. If the loan origination market is competitive, then the originating banks must pass on some of the liquidity-related cost advantage to the borrowers, by charging lower loan spreads at the time of origination. In this paper, our objective is to examine whether the *secondary* market loan liquidity has any impact on the pricing of syndicated term loans in the *primary* market. In particular, we examine whether banks price the expected liquidity of a loan into the loan spread at origination, thus passing on some of the liquidity-related benefits to the borrowers. By examining this question, we also address the related issue regarding the ability of the originating institutions to ascertain the expected liquidity of a loan at the time of origination. Financial institutions can only be expected to systematically price expected liquidity into the loan spread if they can discern with sufficient accuracy, at the time of origination, the probability that the loan will be liquid in the secondary market.

The concept that liquidity is priced into financial assets plays an important role in the pricing of all financial assets. Starting with Amihud and Mendelson (1986), several studies have documented that more liquid assets trade at higher prices (and lower yields).[4] However, these studies focus on the determinants of *secondary* market liquidity and its

[3]See Stein (1998), Kashyap and Stein (2000), Holmstrom and Tirole (2000) and Diamond and Rajan (2006) for more on this literature.

[4]These studies include Chordia, Roll, and Subrahmanyam (2000), Pastor and Stambaugh (2003), Acharya and Pedersen (2005), and many others in the US equity markets, as well as Krishnamurthy (2002), Chordia, Sarkar, and Subrahmanyam (2005), Longstaff (2004, 2005) and others in the Treasury and corporate bond markets.