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Emerging Threats to Stability: Considering the Systemic Risk of Leveraged Lending

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Biography

Dr. Greg Nini an assistant professor of finance at the LeBow College of Business of Drexel University.

At Drexel, Dr. Nini teaches classes on financial institutions and markets and conducts research in a variety of areas related to corporate finance and capital markets. His research has been supported by various grants and published in top finance journals. Dr. Nini is also a fellow of the Wharton Financial Institutions Center and a visiting scholar at the Federal Reserve Bank of Philadelphia. Before joining Drexel, Dr. Nini was on the faculty at the Wharton School of the University of Pennsylvania and an economist at the Federal Reserve Board in Washington D.C.

Dr. Nini has served on the editorial boards of the Journal of Financial Services Research and the Journal of Risk an Insurance.

Dr. Nini holds a Ph.D. in applied economics from the Wharton School at the University of Pennsylvania and a B.A. in mathematics and economics from Swarthmore College.

Chair Meeks, Ranking Member Luetkemeyer, and Members of the Subcommittee, thank you for the opportunity to submit this testimony.

I am a university professor and researcher hoping to provide educational background on the leveraged loan market. The leveraged loan market has grown quickly in recent years and has been accompanied by noteworthy changes in the way credit is provided to many of the largest firms in the United States. These changes have certainly reduced the cost of capital for firms, but they also warrant policymakers and regulators to assess whether they might lead to a less stable financial system. I hope to increase your understanding of the market and offer my thoughts on whether the market creates any unique risks to financial stability.

What is a Leveraged Loan?

The "leveraged loan" market refers to the segment of corporate loans comprised of borrowers with relatively high amounts of debt. The additional debt increases the likelihood of default and raises the interest rate that a borrower pays. Nevertheless, borrowers in the leveraged loan market are some of the largest firms in the United States, and actual default rates have historically been quite low.

- If the borrower has a credit rating, leveraged loans are for borrowers with a rating below investment-grade (BBB- for S&P and Fitch; Baa3 for Moody's).
- More than $1.2 trillion of leveraged loans were issued in 2018 (Refinitiv, 2019).
- Leveraged loan borrowers tend to be larger firms, and they are from a wide range of industries and locations.
- The default rate on leveraged loans has averaged less than 3% per year.[1]

Growth in Leveraged Loans

The leveraged loan market has grown quite rapidly in recent years, roughly doubling in the decade since the financial crisis.[2] The institutional segment of the market now stands at roughly $1.2 trillion, putting it on par with the high-yield bond market, which is the segment of the corporate bond market comprised of riskier borrowers.

Despite the growth in recent years, the leveraged loan market has existed in its current form for more than two decades. This relatively long history is useful, because it provides borrowers and lenders with experience that has been used to improve the functioning of the market. Indeed, some of the growth in the market reflects borrowers substituting away from other forms of debt and into leveraged loans, which has been facilitated by investors shifting their investments into leveraged loans (Nini, 2017).

[1] Based on firms in the S&P/LSTA loan index.
[2] The S&P/LSTA Leveraged Loan Index covered $600 billion of loans in 2008 and $1.2 trillion now.

- The following table reports outstanding non-financial business credit from U.S. financial accounts, leveraged loans based on the S&P/LSTA leveraged loan index, and high-yield bonds based on the Barclays high-yield bond index. The leveraged loans include only the institutional segment of the market.

Year-end	High-yield Bonds	Leveraged Loans	Other Business Credit	Total Business Credit
2009	747	529	8,845	10,121
2010	930	497	8,607	10,035
2011	928	517	8,901	10,345
2012	1,145	550	9,159	10,855
2013	1,270	682	9,472	11,424
2014	1,326	831	10,043	12,200
2015	1,322	872	10,851	13,045
2016	1,316	881	11,519	13,715
2017	1,307	955	12,129	14,391
2018	1,243	1,147	12,001	14,391

Note: All figures in billions of dollars.

- From 2016 through 2018, a period when issuance of institutional leveraged loans has been quite strong, net issuance of high-yield bonds has been negative.

Developments in Corporate Credit Risk

Coincident with the rise in leveraged lending has been strong growth in total credit to the nonfinancial business sector, resulting in some measures of corporate credit risk appearing elevated, including the ratio of corporate debt to GDP. These developments certainly deserve monitoring, but the focus on corporate credit should extend beyond the leveraged loan market.

- Over the last decade, for example, net new corporate credit has risen by more than $4 trillion, but leveraged loans have contributed, at most, one-fifth of that increase.

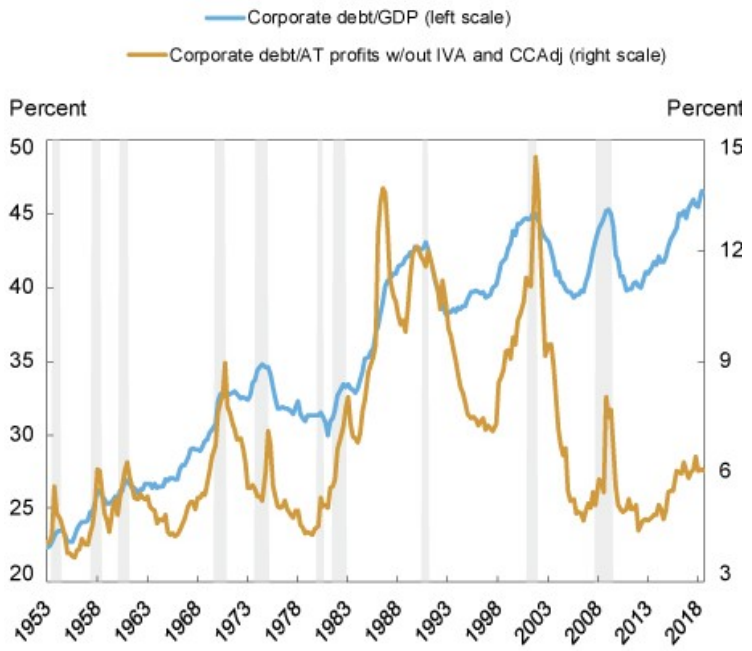
- The rise in the number of firms at the lower end of the investment-grade credit rating spectrum is unrelated to the leveraged loan market, as these firms are not issuing leveraged loans.[3]

It is quite natural that corporate borrowing has been strong in recent years. A healthy economy creates demand for borrowing, and low interest rates have supported the supply of credit. Strong corporate profits have made it quite easy for firms to service their debt payments, and many

[3] See Kaplan, "Corporate Debt as a Potential Amplifier in a Slowdown," Federal Reserve Bank of Dallas (March 5, 2019) for evidence on the growing number of firms rated BBB.

firms currently have large holdings of liquid assets that provide flexibility in the event that profits recede. Realized incidents of corporate distress have been quite rare, and by most accounts, are expected to remain low in the near future.[4]

- The following chart, taken from Kovner and Zborowski (2019), shows the ratio of nonfinancial corporate debt to GDP and to aggregate corporate profits. The ratio of corporate debt to profits is well within the historical range.



Source: Kovner and Zborowski (2019)

- Kovner and Zborowski (2019) also report that about one-in-eight firms have debt loads that exceed six times the firm's earnings, which is similar to the fraction of highly leveraged firms that existed in 1988 and 1998.

The Risks of Leveraged Loans

Risk is inherent to all financial markets, and participants in the leveraged loan market are exposed default risk, which arises when borrowers are unable to repay their debts. Undoubtedly, if a slowdown in the economy were to happen, the amount of corporate defaults would increase from the recent lows. These defaults would be concentrated in borrowers with leveraged loans, and investors in leveraged loans would experience financial losses.

- During the last two recessions, the default rate on leveraged loans reached 8%, more than 2.5 times the long-run average.[5]

[4] See S&P Global Market Intelligence, "US leveraged loan default rate ends April at thin 1.01%," May 1, 2019.
[5] Statistics based on firms in the S&P/LSTA loan index.

Systemic Risks in Leveraged Lending

One lesson from the financial crisis is that some risks create a threat to the broader financial system, often termed "systemic" or "financial stability" risks. These risks are pernicious because individual market participants may not fully internalize their costs, and because negative shocks can inhibit financial markets from performing their function of allocating credit to businesses and households.[6]

In recent years, economists have made progress in understanding the sources of such risks and developing means to identify emerging threats. Financial regulators, in particular, have been at the forefront in developing tools to monitor and mitigate risks to financial stability.

- The Federal Reserve, Financial Stability Oversight Council, and Office of Financial Research have all produced reports related to financial stability.

- With respect to leveraged lending, changes in the price and terms of credit and changes in the nature of lenders deserve consideration as sources of systemic risk.[7]

Price and Terms of Credit

Overly generous credit can encourage borrowers to undertake marginal investments that carry more risk, which has the potential to magnify an economic downturn.[8] At this point, there is no evidence that leveraged loans are fostering excessively speculative investment.

- Interest rate spreads on leveraged loans are not particularly low. In 2007, for example, the average interest rate spread on a B-rated institutional leveraged loan was roughly 3%. During 2018, the average spread was about 3.75% and has further increased in 2019. For bank-provided leveraged loans, the increase from 2007 has been similar; the average spread was about 2.50% in 2007 and about 3.40% during 2018.[9]

- The most common stated purpose for leveraged loans is to refinance existing debt.[10]

- Outside of refinancing, Kovner and Zborowski (2019) show that the predominate use of debt since 2010 has been to fund corporate acquisitions and change the borrower's capital

[6] Adrian, Covitz, and Liang (2015) provide a review of the academic research related to financial stability.
[7] The Financial Stability Report produced by the Federal Reserve identifies four categories of potential vulnerabilities to financial stability: (1) high asset prices, (2) excessive leverage by businesses or households, (3) excessive financial sector leverage, and (4) funding risk that creates the possibility of a run on financial intermediaries. I group (1) and (2) into changes in the price and terms of credit and (3) and (4) into changes in the nature of lenders.
[8] See Schularick and Taylor (2012) for a discussion and evidence related to the relationship between credit growth and the macroeconomy.
[9] Statistics based on my calculations based on data from LCD (2019).
[10] LCD (2019) reports that, in 2018, 34% of leveraged loans were for refinancing, 31% were for mergers or acquisitions, and 28% were to repay equity (leveraged buyouts and dividend recapitalizations).

structure, rather than invest in tangible or intangible assets. Although such loans may contribute less to economic growth, they are less likely to create financial instability.

The terms of leveraged loans have also changed in recent years. Most notable has been the rapid growth of covenant-lite loans, which some have pointed to as a sign of a significant deterioration in underwriting standards.

- Many institutional leveraged loans are now deemed "covenant-lite," meaning the loan imposes fewer restrictions on the borrower after the loan is made.

- Borrowers with a covenant-lite institutional loan nearly always have a line of credit with standard financial covenants. This means that only the term loan is covenant-lite, and the borrower is bound by covenants in the line of credit (Berlin, Nini, and Yu, 2019).

Financial Structure of Lenders

A growing body of academic literature has emphasized that the funding structure of financial intermediaries can pose a threat to financial stability. Highly leveraged intermediaries and intermediaries with short-term liabilities can experience shocks that can force fire sales of assets and hinder their ability to continue funding their customers.

- Lines of credit, which serve as a credit card for firms, are typically funded by commercial banks, and term loans, which are installment loans with a fixed repayment schedule, are often funded by nonbank institutional investors, such as mutual funds and collateralized loan obligations (CLOs).[11]

- Among institutional investors, Refinitiv (2019) estimates that CLOs provide roughly 50% of leveraged loans, and mutual funds provide about 12%. The remainder is provided by bank, insurance companies, and other investors.

CLOs are largely immune to the risk of a fire sale. CLOs do use leverage to invest in loans, but the amount of leverage is small relative to the risk of leveraged loans, and many CLOs have structural features that facilitate deleveraging in the event of a rise in credit risk. CLOs also borrow with long-term debt, so there is no risk of a run on a CLO.

- It is difficult to envision a scenario in which many CLOs would be forced to liquidate a large portion of their portfolios in a short period of time.

It is possible, however, that the CLO market could experience a rapid slowdown in new issuance, which could limit firms' ability to issue new leveraged loans to institutional investors. This can create a problem if a firm has outstanding debt that matures in the near-term. Firms typically manage this risk by refinancing their debt well prior to maturity.

[11] The LSTA estimates that the institutional segment of the market is about two times the size of the bank-funded segment.

- Currently, less than 10% of outstanding leveraged loans in the S&P/LSTA leveraged loan index mature before 2022 (LSTA, 2019).

- Leveraged loan borrowers are large firms with broad access to capital markets (Nini, 2017).

- Issuance of new CLOs nearly halted for much of 2009 and 2010, and very few firms issued new institutional leveraged loans. Leveraged loan borrowers, however, substituted to alternative types of credit and suffered no additional negative consequences during this period (Nini, 2017).

Unlike CLOs, mutual fund shares can be redeemed by investors on any given day, meaning large outflows from mutual funds could force many funds to sell loans at the same time. The concern over a fire sale is, of course, broader than leveraged loans, since it arises whenever a mutual funds invests in relatively illiquid assets.

- Loan mutual funds are governed by the Security and Exchange Commissions's (SEC) Liquidity Risk Management rule that measures the liquidity of a portfolio, places restrictions on the amount of illiquid investments in a portfolio, requires investment in very liquid investments, and requires board oversight of liquidity risk.

- Most leveraged loans are considered "less liquid investments," which reflects a reasonable expectation that the investment can be converted to cash within seven calendar days.

Leveraged Loans Resemble Corporate Bonds

The developments in the leveraged loan market are best understood as convergence between the institutional segment of the leveraged loan market and the corporate bond market. The underlying borrowers, investors, and credit products are very similar.

- For example, a typical corporate bond would be considered covenant-lite. This has always been the case, so investors fully understand this and are able to incorporate this information into their investment decisions.

Leveraged loans are typically syndicated, meaning that many investors jointly provide the funding for a single loan. This creates valuable benefits from diversification, since most leveraged loans are too large for a single lender to fund individually.

- Like institutional leveraged loans, corporate bonds are underwritten and sold to a broad set of institutional investors.

- A single or small set of lenders will arrange a leveraged loan and often will retain a portion of the loan. This makes the financing of leveraged loans different from the

financing of mortgages, in which the originating lender may sell the entire mortgage to an unrelated third party.

Existing Regulation of Leveraged Loans

Existing federal regulators have responsibility for various parts of the leveraged loan market.

- Since leveraged loans are arranged primarily by regulated banks, the Federal Reserve, Office of Comptroller of the Currency, and Federal Deposit Insurance Corporation have monitoring and regulatory authority over much of the leveraged loan market. The Shared National Credits (SNC) program permits the banking regulators to review many individual leveraged loans, and the SNC report has a specific focus on leveraged lending.

- The SEC has oversight responsibility over many of the mutual funds and CLOs that invest in leveraged loans.

- The regulatory bodies charged with monitoring risks to financial stability seem to be closely watching the leveraged loan market. The Federal Reserve's May 2019 Financial Stability Report and the FSOCs 2018 Annual Report each contained significant discussion of leveraged lending.

Conclusion

The growth in corporate debt deserves monitoring but does not currently seem out of line with the pace of economic growth and corporate profits. The leveraged loan market has contributed only a small portion of the growth.

Leveraged loans have experienced changes in the investor base and contract features that make them more like corporate bonds than traditional bank loans. These changes reflect a secular convergence of the markets rather than a cyclical loosening of underwriting standards. Interest rate spreads do not suggest excessive risk taking in the leveraged loan market.

The leveraged loan market does not seem to generate unique sources of systemic risk. CLOs have stable sources of funding, and leveraged loan borrowers have widespread access to capital markets.

The existing regulatory regime seems well suited to monitor and mitigate risks arising from the leveraged loan market.

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