

When a Pandemic Collides with a Leveraged Global Economy

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Over the decade since the end of the Global Financial Crisis, a low interest rate environment has attracted both borrowers and investors to aggressively participate in buoyant leveraged credit markets. This resulted in these markets reaching an unprecedented level of size and risk that had largely avoided disruption for many years. COVID-19 and the associated global response has delivered a severe economic shock, which is novel in its nature including the depth, breadth, and speed of its impact. Its collision with a highly leveraged corporate sector has created unique financial problems that remain largely unaddressed by the current proposals for federal assistance.

Financial frictions were at the heart of the 2008 crisis. Then, a relatively small initial shock triggered a devastating chain reaction that a year later brought to a halt a weak, interdependent and obscure banking system. The shock we experience today is fundamentally more economic, directly impacting virtually all firms, consumers, and investors at their very core and with unprecedented speed. While the role of financial fragility is not the centerpiece of today's challenges, there are important financial frictions that are affecting a significant part of the corporate sector and, if not addressed, could amplify the initial economic shock and slow down economic recovery.

The problem is that the global corporate sector has been caught in the COVID-19 shock with unprecedented levels of financial leverage. This has emerged over more than a decade long environment of low interest rates and elevated risk-taking. Global debt on non-financial corporations was \$71 trillion at the end of 2018, according to S&P, up 15% from 2008 and representing 93% of global GDP. Of this, we estimate that almost \$6 trillion sits on the balance sheets of companies that would be characterized as highly leveraged.² This segment represents the most troubling financial battleground of the pandemic crisis, as high leverage threatens to amplify distress and impede access to new capital.

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² Includes leveraged loans, high yield debt, and private debt and is based on estimates provided by UBS research.

Notably, the risk profile of debt in the leveraged credit segment has increased since the last downturn, as reflected in higher leverage ratios and lower credit ratings. (Figure 1 summarizes some of the key metrics in the U.S. leveraged loan market.) During prior cycles, such a deterioration forced the weakest companies to restructure, mostly due to actual or impending breaches in credit agreement covenants.³ But the last decade of robust debt markets came hand-in-hand with looser creditor governance terms and weaker covenants. Among other signs of contractual weakness, the share of so-called “covenant-lite” leveraged loans roughly quadrupled to about 80%, essentially stripping the early warning system away from most credit agreements. Borrowers have also been able to artificially inflate their earnings for loan tests and debt incurrence through more liberal “EBITDA addbacks”. Thus, in this up-cycle, even as credit quality has deteriorated, defaults have remained below long-term averages and many weaker firms were able to avoid restructuring their debt when they underperformed.⁴ These so-called “zombie firms”, which are overleveraged and in some cases insolvent, are significantly more vulnerable to a shock like the one we face today.

This is the background against which the firms are facing the main financial challenge of an unforgivingly severe and rapid pandemic: how to source enough liquidity, and how to source it quickly.

Step one for many firms has been to draw as much as they can from their revolving lines of credit to fund a portion of these needs. According to JP Morgan, as of the end of March, over \$207 billion (77% of the funds available in the facilities) had been borrowed by large companies through revolver drawdowns, of which borrowings by below investment grade firms accounted for about half.^{5, 6} For structural reasons, revolving lines are mostly funded by banks. Thanks to better governance, and stricter regulatory and supervisory pressures from the last decade, banks are confronted this shock from a much more stable position. In 2008, given the fragility of the banking sector, a key motive for drawdowns on revolving lines was the lack of confidence in the continuity of the banking system.⁷ This time around, the large drawdowns are more of a reflection of the depth of the economic problem. But will the revolver draws be enough to bridge these

³ “European Restructuring Report: Default, Restructuring and Recoveries in 2008-2010,” by A. Takacs, Debtwire.

⁴ In the recent years, all of these factors have raised red flags for economists, global leaders and regulatory bodies. In December 2019, before the virus emerged as a serious economic threat, the Financial Stability Board issued a warning regarding the increased vulnerabilities of the leveraged loan markets to macroeconomic shocks. See “Vulnerabilities associated with leveraged loans and collateralized loan obligations (CLOs)”, Financial Stability Board, December 18, 2019.

⁵ <https://www.zerohedge.com/markets/revolver-run-banks-suffer-record-200bn-outflows-frenzied-companies-draw-down-revolvers>.

⁶ Note however that effective drawdown capacity is also capped below the line limit by several constraints. For example, for a large fraction of firms, significant draws could activate maintenance covenants.

⁷ Ivashina, V. and Scharfstein D., 2010, “Bank Lending during the Financial Crisis of 2008,” *Journal of Financial Economics*, p. 319-338.

leveraged borrowers through the crisis? If these drawdowns are insufficient, the structure of the leveraged credit markets presents several challenges for those firms facing large and prolonged liquidity needs.

One factor to consider is that a decade of weakening lending standards will allow some leveraged companies to take advantage of the flexibility afforded to them by their liberal credit agreements. This may enable the transfer of assets into new entities outside of their collateral pool to secure new financing arrangements, like the 2017 restructuring of J.Crew, and several others that followed. However, this technology has practical relevance only in those bespoke situations where valuable collateral can be separated from the business.

Overall, many firms require considerable cash investments within a short period of time to bridge them through supply chain disruptions, demand shocks, and wholesale operational shut-downs that are occurring in conjunction with the pandemic response. Some of this investment may come from equity owners, but significant capital will likely be required from lenders. One barrier to raising this capital is the challenge of producing financial forecasts, given the extreme economic uncertainty. Additionally, as we will illustrate, the sheer levels of debt, as well as certain technical and structural issues associated with it, might challenge firms' ability to resolve impending liquidity needs in a timely and cost-effective manner. If highly leveraged companies are unable to source sufficient capital out-of-court, it may force many of them into more expensive and economically damaging "free-fall" bankruptcy processes as a means to raise the required capital.

CLO Constraints

The rise of speculative-grade corporate leverage in the past ten years to a large degree has been fueled by the leveraged loan market, which is a corporate debt segment funded primarily by non-bank financial institutions. The largest institutional group in this segment is collateralized loan obligations (CLOs), which are structured credit vehicles that use funds received from the issuance of multiple tranches of debt and equity to acquire a diverse portfolio of leveraged loans. According to S&P, between 2015 and 2019, 58.4% of the primary origination was funded by CLOs and 18.7% by mutual funds specializing in investing in high-yield loans. As CLOs currently comprise close to 60% of the leveraged loan market outstanding, any assessment of the impact of the pandemic on this market requires an understanding of the contractual incentives that drive CLO managers.

CLO structures have evolved over the years, but at their core, they are designed to protect their investors, with preference to those at the senior end of their capital hierarchy. To accomplish this, CLO agreements contain a series of protective covenants that place guardrails on portfolio construction, and control risk-taking by the manager whose incentives are otherwise aligned with equity performance. The net effect of all of these provisions is to establish strong disincentives for CLO managers to hold or invest in non-conforming assets, such as CCC+ or lower rated loans, defaulted loans, bridge loans, subordinated debt, or equity.

For example, eligibility requirements and collateral quality tests control the investments that CLOs can make. If a CLO runs afoul of these, the covenants guide any future investments until the collateral pool is in compliance. Of particular relevance in the current context is the maximum CCC loan rating bucket which is typically set at 7.5% of the portfolio. Coverage tests measure the amount of collateral and cash flow coverage they have, relative to their obligations. Here, there are generally stiffer penalties for violations. Cash flows will typically get redirected from the equity tranche (typically about 8.5% of the structure⁸) to the most senior tranches until the structure is back in compliance. Importantly, the excess amount of CCC collateral is marked-to-market for purposes of the overcollateralization test. Once the overcollateralization tests become binding, any drop in market price would be effectively taken out of equity value.

As we have entered the pandemic crisis, CLO managers have found themselves overweight in the lower quality end of the market. Where single-B rated loans comprised 56% of the U.S. leveraged loan market in 2019, they comprised 70% of syndicated CLO portfolios. Single B- loans comprised approximately 29% of these loans.⁹ As the pandemic has unfolded, the rating agencies have been downgrading at an unprecedented pace, and S&P has already issued 547 negative rating actions related to the coronavirus in the speculative grade market across the globe.¹⁰ This has pushed many of these B- loans into the CCC category, and now CCC assets have increased to 9% across CLO structures on average, putting many CLOs in violation of the 7.5% threshold.¹¹

When companies seek liquidity, as we expect they will on an increasing basis during the current crisis, they typically look to their existing lenders to provide it. This is because current lenders already have access to the company's information, and they own the rights to the company's collateral. However, with the largest category of leveraged lenders, CLOs, pressured against covenant constraints, many of their managers may be reluctant, if not prohibited, to extend any additional capital which does not conform to their eligibility requirements. Deluxe Entertainment and Acosta are two recent debt restructuring transactions requiring capital where CLOs declined to participate proportionately.

In addition, CLOs can be both the cause and the victim of lower loan prices. In the instances where they dominate the ownership of a lower-rated credit, and may be net sellers due to concerns with their covenants, this can put downward pressure on the loan prices of that credit. The lower loan prices can, in turn, further impair their coverage test, making it more difficult for them to recover equity value and potentially leading to a debt overhang problem.

⁸ "Understanding Collateralized Loan Obligations", Guggenheim Investments, May 2019.

⁹ Morgan Stanley research.

¹⁰ Through April 2, 2020.

¹¹ "S&P puts 48 triple C-heavy CLOs on negative watch," *Creditflux*, April 6, 2020.

Overall, downgrades of a subset of borrowers have implications for the broader universe of the leveraged loan borrowers, as the effect of these downgrades is amplified through the balance sheet of the CLO structures.

Effects of Uncertainty and Price Pressure in the Loan Market

As of April 15, prices in the U.S. leveraged loan market are down an average of 9% year-to-date, with the CCC portion of the market down an average 21%.¹² To a large degree, this is expected, as markets factor in future uncertainty and economic disruption. Our concern is that certain structural and contractual aspects of these loans and their holders may amplify the supply-demand imbalance, pushing loan prices down in a way that may impede efficient restructuring and capital raising efforts. (In this context, “supply” refers to the supply of investment opportunities in both the secondary market and new capital, and “demand” refers to demand for investments in these opportunities.)

Part of the supply pressure may come from selling off CLOs exiting positions to avoid triggering the internal covenants described previously. Patient CLO managers may elect to wait the cycle out, but others may not. One helpful factor is that, compared with 2008, fewer CLOs have “mark-to-market” warehouse lines of credit that could trigger forced loan sales. That said, the unprecedented volume of CLO holdings of lower rated assets causes concern that their selling activity could continue to put considerable downward pressure on the prices of leveraged loans.

Another culprit on the supply side is leveraged loan funds, who have experienced approximately \$14 billion of outflows since the beginning of the year.¹³ Although these funds are not leveraged, and represent a smaller percentage of the market than they did in 2008, the largely illiquid nature of their assets makes them fundamentally fragile. This is a problem we have been well aware of, but had diminished in importance as multiple instances of funds’ outflows and subsequent forced sales in the past decade were easily absorbed by the thriving CLO market. Until now.

On the demand side, we note that there is over \$1.5 trillion of dry powder within funds that could access this opportunity, including private debt, debt-oriented hedge strategies, distressed debt, and private equity. We also expect that new flexible vehicles will be raised to respond to the crisis. While some of these players can be disruptive in restructuring situations, they typically have more flexibility than CLOs, banks, or mutual funds to provide creative debt and equity capital to restructuring companies in need of liquidity. These funds have grown considerably over the last decade, but the question remains whether their dry powder will be sufficient to meet the size of the emerging opportunity.

For investors in both secondary market loans and new liquidity, there is also the issue of timing. As we have seen in past recoveries, capital will eventually flow to where there is economic opportunity and the potential for financial returns. The question is whether it will happen rapidly

¹² S&P Global Market Intelligence, LCD News, April 15, 2020.

¹³ S&P Global Market Intelligence, LCD News via Twitter, April 9, 2020.

enough to meet the urgent needs of borrowers in this crisis. As loans and their issuers are very complex and diverse, investments in this area will require substantial due diligence and review. This process may be facilitated in some instances where private equity funds, CLOs, and flexible capital funds are managed under common control. Yet, even in an unlikely scenario where capital managers have perfect visibility into loan quality, the additional capital they might be willing to deploy in the loan market might not be sufficient to offset the supply pressure in the short term.

Loan prices have implications for companies that are restructuring or raising capital. In a nutshell, if loan prices for an issuer are near par, lenders are more likely to lend to that company at a reasonable cost. If loans are volatile and trade at a steep discount, lenders are less likely to lend money to the company unless the capital can be structured senior to the discounted loans, which is difficult to accomplish without going into an expensive bankruptcy process. Several factors contribute to this. First, as already mentioned, discounted loans erode CLO incentives to participate in restructuring related capital. Second, many leveraged loans are comprised of large disparate groups. According to S&P, in the primary loan market, an average leveraged loan has about fifty different non-bank creditors. While some creditors might see low loan valuations as temporary dislocation, reaching broad agreement among the creditors of a widely-syndicated loan might be difficult. Finally, lenders are reluctant to commit capital worth 100 cents to a new loan when they have an opportunity to buy loans with equal priority at discounted levels.

The Middle Market

Small and mid-cap enterprises (SMEs) have also participated in the global leverage binge, but they are less visible due to the private nature of the bulk of this market. CLOs are not a major player in this segment, however over the past decade, a desire for yield has attracted other providers of risky debt capital to the balance sheet of SMEs. By the end of 2019, business development companies (BDCs)—publicly quoted investment funds specializing in loans to SMEs—were holding about \$110 billion in SME debt.¹⁴ An even larger amount—\$600 billion by some informal estimates—is held by a wide variety of private investment funds.

Although it is difficult to obtain data on SME balance sheets, we would expect a proportion of these companies to be reasonably highly leveraged, given the environment and the availability of credit. It is also unclear whether existing creditors have the funds and flexibility to inject additional capital; given the inevitable downturn in the value of their existing loans to SMEs following the pandemic, at least some of these investment funds will be facing pressures that would stand in the way of them acting as liquidity providers to their stranded borrowers. In any event, many SMEs will have little available collateral to offer lenders and face more

¹⁴ S&P Global Market Intelligence, U.S. Middle Market Coverage.

uncertain commercial futures than their larger competitors, who benefit from relatively large and stable market shares and can access more efficient capital markets.

The U.S. Government Response

On March 27, President Trump signed the CARES Act, a bill which includes, among other central provisions, up to \$849 billion – \$349 billion Small Business Administration’s Paycheck Protection Program (PPP), and up to \$500 billion of assistance to large and mid-sized companies – to back emergency loans and assistance to businesses impacted by the pandemic. In connection with the CARES Act, on April 9, the Federal Reserve and the Treasury Department announced the Main Street Lending Program (MSLP) to ensure credit flows to mid-sized businesses during the crisis.¹⁵

The CARES Act and associated programs represent a swift and bold response which should bring liquidity to many important parts of the economy. However, as the details of this legislation are being finalized, we raise several concerns and propose potential solutions to ensure that the Act and its associated programs function as they are intended.

Shortcomings of the CARES programs

There are three broad areas where we believe the CARES programs should be improved: (1) they should provide more liquidity assistance to the companies facing fewer financing choices, (2) they should use less taxpayer money, where private capital is available, and (3) they should better address the “moral hazard” problem that comes from a government bailout of shareholders in leveraged companies. We elaborate on these in detail below.

First, the limitations of the CARES programs as they pertain to reaching the most leveraged companies are as follows:

- The MSLP program excludes borrowers with revenues over \$2.5 billion, and a mechanism under Title IV of the CARES Act to reach larger companies has yet to be defined.
- The Act contains affiliate restrictions in the PPP portion of the package, which effectively exclude most small companies that are backed by private equity firms from the \$349 billion of unsecured aid.
- Loans under the MSLP are constrained to 6x EBITDA total leverage, which excludes the most leveraged companies that are already exceeding this level.
- The MSLP effectively limits the amount of assistance to the amount of “baskets”, that is, remaining secured leverage capacity under the current credit agreements.
- Companies must not be undergoing solvency proceedings to access most of these programs.

¹⁵ See <https://www.federalreserve.gov/monetarypolicy/mainstreetlending.htm>.

- The only lenders eligible to participate in the MSLP are financial institutions supervised by the Federal Reserve System.

Second, we are concerned about the significant direct government financing associated with these programs. The U.S. Treasury Department and the Federal Reserve are committing an unprecedented \$4.5 trillion to support the CARES Act and related lending and loan-buying programs. Additional fiscal stimulus and Fed involvement will almost certainly be necessary over the coming months, with the magnitude being heavily reliant upon the length of the government pandemic response. While it is hard to know where the “limits” of government intervention lie, we do know that there are limits, or – at the very least – significant consequences of unmeasured government spending. With that as a backdrop, we are concerned that, in areas where the programs do apply, they may unnecessarily direct scarce government capital into areas where private capital can help solve the problem. For example, under the MSLP, eligible lenders are only putting 5% of the capital, requiring Treasury and the Fed to fund the balance. In addition, the criteria for the MSLP favors healthier companies, which may already have access to solutions where they could source 100% of their capital needs in the private market.

Finally, the current design of the CARES programs does little to mitigate the “moral hazard” problem. As highlighted earlier, the widespread leverage spree is one of the hallmark problems of the past decade which now amplifies the current pandemic effect. The equity holders of many companies chose to overleverage their balance sheet during the up cycle in order to buy back shares or pursue acquisitions. They did so with the purpose of increasing equity profits in an upside scenario, while increasing the probability of peril for the overall businesses in the event of a downturn. Current proposals under CARES sort companies in two categories. The first of these are qualifying firms which face no direct costs for equity holders who might have taken on aggressive leverage in the past and who elect to utilize these programs. In fact, for these qualifying companies, the MSLP provides an equity bailout by enabling the borrower to receive credit terms that would not be available from private solutions. It also allows shareholders to avoid putting up their own capital to solve the problem. The second category are non-qualifying firms, in which case *all* of their stakeholders are forced to endure the consequences of facing the pandemic shock with high leverage.

Proposed solutions

In light of these considerations, we believe that several amendments should be considered:

- **Expand the use of bank and private capital.** The program should leverage the abundance of capital and expertise available in bank and private markets by: (1) opening the programs to non-banks and (2) allowing banks and private capital providers to take the lead on negotiating and providing capital solutions. This way, the government would be a true emergency liquidity provider, filling capital gaps or providing credit enhancement in financing processes that fall short of target. This would significantly reduce the level of direct government funding into these CARES programs, while facilitating the flow of

capital into situations where the market otherwise might not sufficiently meet a borrower's needs due to the timing, complexity, and uncertainty.

- **Relax certain requirements of the programs.** For certain large businesses (over \$2.5 billion in revenue), and businesses with over 6x EBITDA in leverage, inclusion in the MSLP should be considered on a case-by-case basis. As Figure 2 illustrates, over 40% of the borrowers that issued leveraged loan debt in 2019 would not qualify under this constraint, thus a significant share of the firms in need would be left without liquidity assistance.¹⁶

The program should also be expanded to include loans on a junior lien basis in certain circumstances, in order to navigate the legal barriers associated with secured creditor's rights. This will enable the flow of capital to those highly leveraged companies that do not have unpledged collateral, and have limited capacity to raise additional secured debt under their current credit agreements.

For small companies backed by private equity, the affiliate exclusion from the Small Business Assistance provisions of the Act should be removed, subject to certain conditions described below. These companies are as much part of the fabric of the US economy, employing people and generating economic growth, as any other small companies. Singling out firms backed by private equity is an arbitrary rule that makes businesses and their employees casualties in a campaign to punish the private equity industry for the past negative actions of some of its players.

- **Recognize and address the moral hazard problem.** To ensure that this assistance does not amount to a bail out of those equity holders which elected to leverage the companies in the first place, access to loans in these programs should have a real direct cost for them. Under the PPP, the program could require that—when applied to private equity backed companies—such loans be matched with an equal amount of new equity capital provided by the owners. To further limit abuse of the assistance, repayment of the loans could be required, rather than forgiven as with other SBA provisioned loans. Defaults on payment could result in a forced conversion into a majority of the equity of the company.

Under the MSLP, by allowing the private sector to negotiate terms, which may include higher interest rates and equity warrants, it will impose costs upon the equity holders of companies that elect to use these programs.

- **Extend the program to companies in bankruptcy.** Government does not tend to lend to companies in bankruptcy proceedings. That said, companies often enter Chapter 11 bankruptcy proceedings as part of a standard, pre-planned capital restructuring, from which they can exit in as little as a few days. Some loans made to the company while it is in Chapter 11 can be structured as super senior debt, taking precedence over all other

¹⁶ This estimate was constructed using S&P LCD and Compustat data.

company obligations. As an alternative to subordinated lending, therefore, we suggest that the Fed be permitted to participate alongside the private capital in loans to companies that are entering bankruptcy as part of an orderly capital restructuring. For this to be a feasible source of liquidity financing, the Act would need to enable streamlining of the bankruptcy process so as to permit more “pre-packaged” bankruptcy proceedings that could be filed and confirmed quickly.

One downside of the approach that we recommend is that it will require significantly more active management by the U.S. Treasury Department than contemplated by the current programs. As our proposal does not apply a strict formulaic approach, active management would be important in determining which financing processes should be eligible for the government participation provided by the programs. While this is not ideal, we want to also highlight that by engaging private capital on a competitive basis, and by structurally mitigating the risk of the resulting government portfolio through correctly aligned incentives, the costs of internal management should be substantially mitigated.

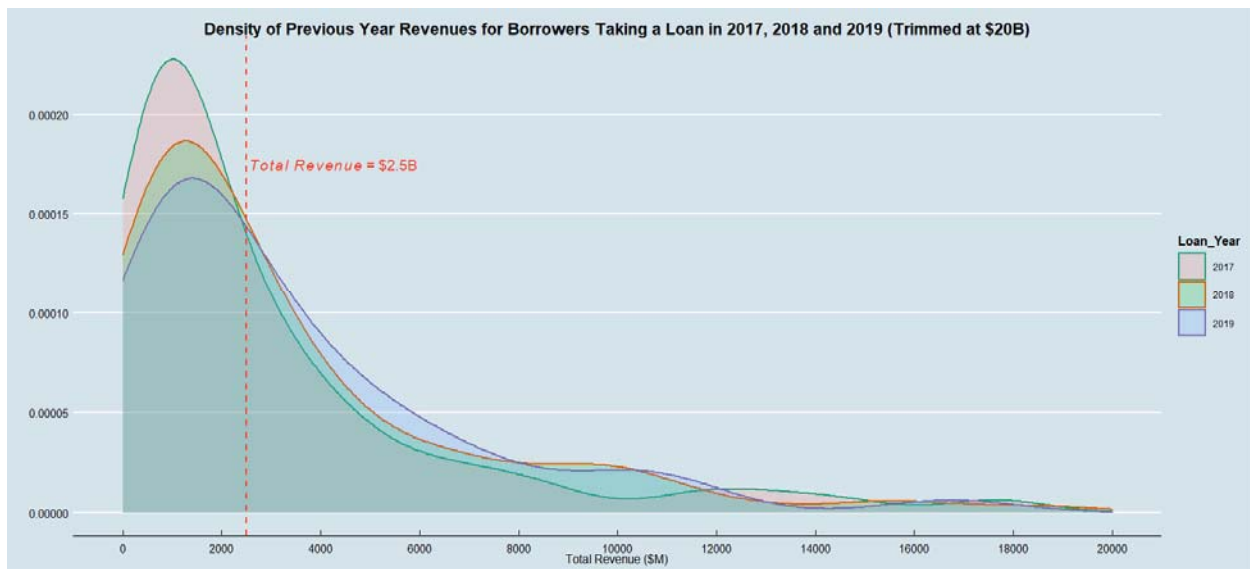
The pandemic is a rapid and severe external shock that affects nearly every company. But the economic shock is not the only factor that is creating stress among U.S. businesses. The structures that channeled yield-searching capital to the companies over the past decade, are not the structures that can necessarily assist them with the urgent and deep liquidity needs. At the same time, debt markets are complex and heavily segmented. Relying on private markets alone in the short-term will only put more companies out of business and more people out of jobs. However, the government should also stop short of trying to replace private markets. The interventions we advocate here are intended to leverage the resources and skills available in the financial markets, while facilitating their ability to reach the most severe problems more quickly. This will enable the economy to emerge less damaged as the shock subsides and markets return to normal.

Figure 1 – U.S. Leverage Loan Market, Core Statistics

| US Leveraged Loans | YE 2008 | March 2020 |
|---------------------|---------------|-----------------|
| Outstanding | \$594 billion | \$1,173 billion |
| LTM CLO Allocations | 52% | 71% |
| Covenant Lite | 15% | 82% |
| Rated B and Below | 36% | 64% |
| Leverage | 5.0x | 5.4x |

Note: Data is compiled from S&P Global Market Intelligence.

Figure 2 – Revenue Distribution of Borrowers in the Leveraged Loan Market, 2017-2019



Note: Data for the graph is compiled from S&P, LCD Loan Pipeline and Compustat.