



Health of the Leveraged Loan Issuer white paper series

Part I: Why Credit Ratings for Leveraged Loan Issuers Have an Overly Conservative Bias

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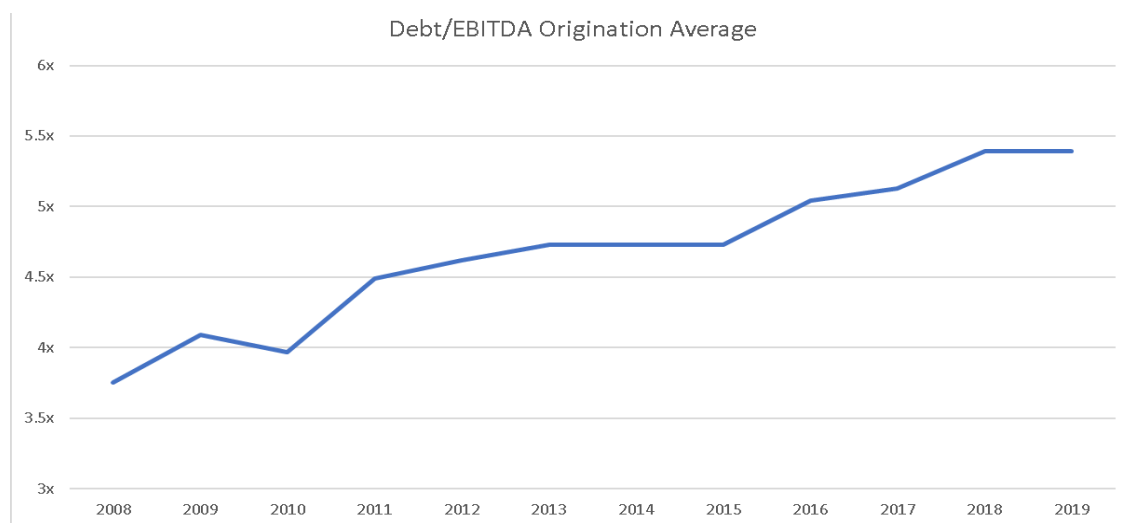
Introduction:

The idea for this white paper came from our routine default forecasting effort as progressively worse credit ratings of leveraged loan issuers in recent years was resulting in increasingly pessimistic default forecasts. We decided to take a step back to try to figure out why this was the case and whether it was warranted. We concluded that higher average leverage (Debt/EBITDA) is the main driver of ratings deterioration. We also concluded that the rating deterioration is unwarranted. There are 3 reasons for this:

- Historically Low Interest Rates: Low LIBOR rates reduce interest expenses, thereby improving free cash flow of leveraged loan borrowers.
- Historically High Valuations: The average amount of equity contribution (to leveraged buy-outs), which provides a buffer to debt holders, is at historic highs.
- Leveraged Loan Industry Composition: The composition of leveraged loan borrowers has migrated from capital-intensive industries that require higher capital expenditures to less capital-intensive industries that require fewer capital expenditures. Similar to point #1, this also improves free cash flow of leveraged loan borrowers.

Increased Leverage...:

We see in the graph below that the average leverage of newly originated leveraged loans has increased from 3.8x in 2008 to 5.3x in 2019, prior to the global pandemic¹.

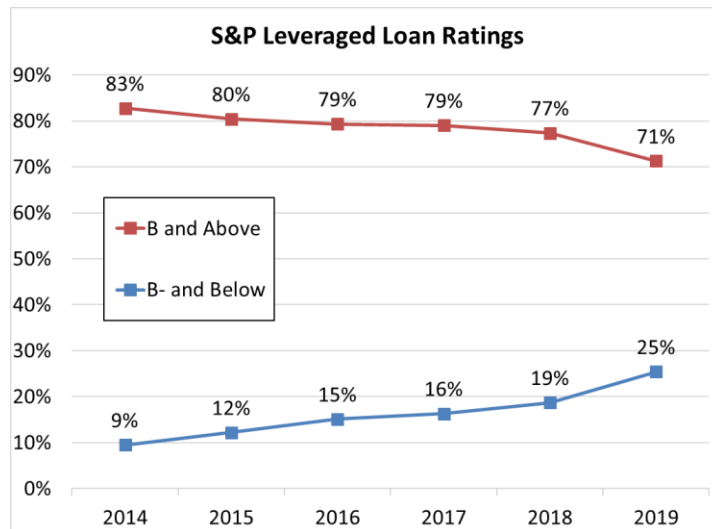


¹ Average leverage is from LCD's Quarterly Leveraged Lending Review: Q2 2021.



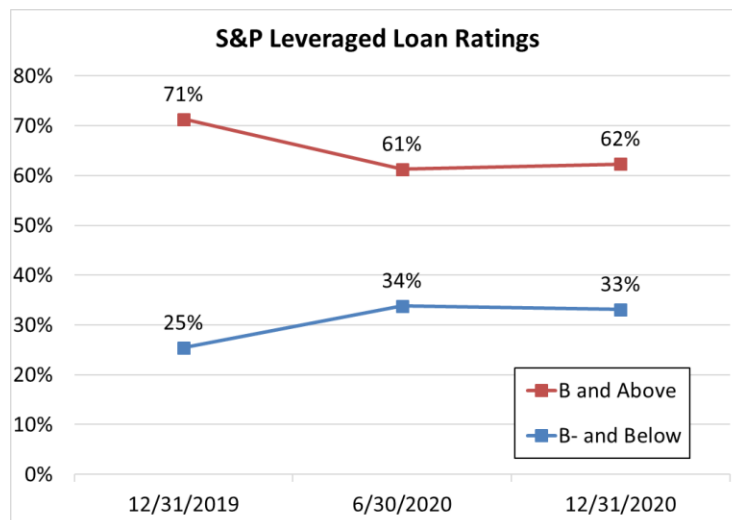
...Leads to Rating Downgrades:

Credit ratings told a similar story, as the percentage of leveraged loan issuers rated B- and below (excluding defaulted and non-rated) by S&P grew from 9% in 2014 to 25% in 2019. At the same time, the percentage of issuers rated B and above decreased from 83% to 71%².



Global Pandemic Causes Ratings to Deteriorate Even More:

The initial months of the pandemic painted a grim picture as the rating agencies, perhaps sensitive to criticism after the 2008 crisis, took swift action. As a result, by June 2020, the ratings deterioration that occurred from 2014-2019 got even worse, as B and above decreased further to 61% and B- and below increased to 34%³.



² S+P LLI Breakdown by Rating from 7/31/2021.

³ S+P LLI Breakdown by Rating from 7/31/2021.



At the same time, during the initial months of the pandemic, 1-year default expectations jumped in line with the rating downgrades, as 1-year default forecasts from S&P and Moody's ranged from 10% to 17%.

As we now know, after an initial spike in defaults from April-July, things stabilized. The default rate for the 12 months ending April 2021 was only 2.61%, a level actually below the long-term historical average⁴. Government aid, coordinated with accommodative policies from the Federal Reserve, helped decrease the magnitude and duration of the economic recession. It also enabled impacted issuers to access much needed liquidity via government support, additional debt issuance and/or revolver drawdowns.

Looking Forward:

It is easy to conclude that fiscal and monetary support coupled with supportive capital markets helped leveraged loan issuers avert a much worse outcome. And it is also logical to assume, having made it through the worst, that leveraged loan issuers will ride the economic recovery to robust earnings, improved credit fundamentals and low post-crisis default rates. But to do so ignores one fundamental issue: the rating and leverage profile of the current portfolio is by far the worst it has been in the history of the leveraged loan market. **How concerned should we be?**

Rating Agencies:

We're cautious in generalizing credit rating agency ratings as too conservative or too aggressive. Yet, it is impossible to ignore the deteriorating rating composition of the leveraged loan market over the years. Meanwhile, default rates have been well below historical averages, even during 2020 (one of the worst recessions in decades).

We believe that leveraged loan issuers are healthier than their ratings would imply. Let's look at the most important factors that help explain the disconnect between ratings composition and default rates.

Company ABC:

To help illustrate the next two points, we will use a hypothetical company (Company ABC in Table 1), with \$100M EBITDA, at 3 different points in time. We apply LCD's average leverage (Debt/EBITDA) for each point in time, which shows Company ABC with different amounts of total debt, depending on the average leverage at the time. Keep in mind, increased average leverage over time has been the most cited reason for ratings deterioration.

⁴ LCD. "LCD Default Survey: Defaults seen topping historical average in 2021".



Table 1: COMPANY ABC at Different Levels of Leverage	YE 2000	YE 2007	Q2 2021
EBITDA (\$M)	100	100	100
Historical Average Debt/EBITDA ⁵	4	4.9	5.5
Total Debt (EBITDA x Historical Debt multiple) (\$M)	400	490	553

Historically Low Interest Rates:

In Table 2, we added the historical 6-month LIBOR rate in order to calculate the annual interest expense of Company ABC. This shows the impact of higher debt amounts offset by the impact of lower interest rates. When using the commonly used credit metric of EBITDA/Int Expense, the 2021 version of Company ABC is the most healthy (highest EBITDA/Int Exp of 4.35x) even though it has the most debt (\$550M). However, interest coverage is a narrower measure. A more indicative measure is the Company's free cash flow after interest expense, as a percentage of total debt. Using this metric, we see that the YE 2000 version of Company ABC is the healthiest (15%), but not by much. The 2021 version of Company ABC, even with much higher total debt, generates similar free cash flow (14%) to the 2000 version, and superior cash flow to the 2007 version (12%). Certainly, interest rates could increase again to 2007 or 2000 levels. However, the benefit of higher free cash flow will stay in place as long as the current rates environment persists.

Table 2: IMPACT OF LOW 6-MONTH LIBOR RATE	YE 2000	YE 2007	Q2 2021
6-Month LIBOR ⁶	6.2%	4.6%	0.16%
Interest Expense (@400 bp spread) (\$M)	41	42	23
EBITDA/Interest Expense	2.45	2.37	4.35
Free Cash Flow (EBITDA - Interest Exp)/Total Debt	15%	12%	14%

Despite the increase in Debt/EBITDA from 4.0 to 5.5, the Free Cash Flow/Total Debt of the 2021 version (14%) of Company ABC is almost the same as the 2000 version (15%).

Historically High Valuations:

In leverage finance, companies are generally valued using a multiple of EBITDA. In other words:

Enterprise Value = EBITDA * multiple

In fact, LCD tracks average Enterprise Value multiples for executed LBOs, which we've applied to our hypothetical Company ABC in Table 3. The higher the multiple, the higher the Enterprise Value. A higher Enterprise Value means that more debt and equity are required to purchase the company at the time of the LBO.

⁵ Average leverage is from LCD's Quarterly Leveraged Lending Review: Q2 2021.

⁶ 6-Month London Interbank Offered Rate, based on US Dollar, Percent, Daily, Not Seasonally Adjusted. Federal Reserve Bank of St. Louis economic data.



While concern regarding the increased leverage of leveraged loan issuers has been discussed ad nauseum in the financial press, very little of those discussions have included the context of the higher Enterprise Values. Using our hypothetical Company ABC, we see that average valuation multiples have increased from 6.7x in 2000 to 11.1x today. During that time, the Enterprise Value of Company ABC has increased from \$668M to \$1,113M (see Table 3), a \$445M increase. Of that \$445M increase, we can also see in Table 3 that only \$153M (34%) was funded by increased Total Debt, while \$292M (66%) was funded by increased Equity from LBO private equity investors. Larger equity checks equate to more skin in the game and more likelihood of financial support from the shareholder should it be required at some point.

Table 3: IMPACT OF HIGHER AVERAGE LBO PURCHASE MULTIPLE	YE 2000	YE 2007	Q2 2021
Historical Average LBO Enterprise Value (EBITDA Multiple) ⁷	6.7x	9.9x	11.1x
Enterprise Value (EBITDA x multiple) (\$M)	668	987	1113
Total Debt (\$M) (from Table 1)	400	490	553
Equity (Enterprise Value - Total Debt) (\$M)	268	497	560

Leveraged Loan Industry Composition:

Below in Table 4, we see there has been a huge shift from capital-intensive industries such as energy and auto to less capital-intensive industries such as tech and business services.

Table 4: MARKET SHARE OF US LEVERAGED LOANS⁸	2008	2012	2021
Capital-Intensive Industries (per LCD)			
Automotive	6%	4%	3%
Utilities	7%	5%	2%
Forest Products	2%	0%	0%
Publishing	6%	5%	1%
Oil & Gas	4%	2%	2%
Total:	25%	16%	8%
Less Capital-Intensive Industries (per LCD)			
Electronics (Tech)	3%	6%	16%
Bus Services	6%	8%	10%
Total:	9%	14%	26%

⁷ YE 2000 LBO Purchase Multiple is from S+P Q1 2007 Leveraged Buyout Review slide 56 "Average Leveraged Buyout Purchase Price as a Multiple of Non-Adjusted Pro Forma Trailing EBITDA by Total Sources 1994/5 – 1Q 07". YE 2007 and 2021 LBO Purchase Multiples are from S+P Leveraged Buyout Review 2Q 2021 slide 18 "Purchase Price Multiples: LBO by Transaction Size".

⁸ S+P "LLI Industry Weights and Total Returns" from 7/31/2021. 2008, 2012, and 2021 are from 1/1/2008, 1/1/2012, and 6/30/2021 respectively.



Because capital intensive companies often need to use more of their EBITDA to fund capital expenditures, the shift to less capital-intensive industries has helped to improve free cash flow, despite higher average leverage. Free cash flow (“FCF”) is EBITDA minus interest expense, capital expenditures, and other items such as working capital changes, taxes and dividends. For lenders, free cash flow is even more important than EBITDA because it represents the actual cash available to the company to repay its principle.

Capra’s proprietary data base of 200+ public companies (all of which are U.S. leveraged loan issuers) shows that average free cash flow to total debt ratios of companies in the tech and business services sectors are significantly higher (at 26% weighted average Free Cash Flow/Net Debt in Q1 2021) than those in the more capital-intensive industries (with a weighted average of -9%) for the 12 months ending Q1 2021. Even though many of these companies have similar leverage, the issuers with less capital-intensive business models have vastly superior free cash flow (and debt-servicing capabilities).

Table 5: Free Cash Flow and Total Debt⁹	Q3 2020	Q4 2020	Q1 2021
More Capital-Intensive			
LTM FCF/Total Debt	-12%	-9%	-8%
LTM FCF/Net Debt	-14%	-11%	-9%
Less Capital-Intensive			
LTM FCF/Total Debt	14%	17%	19%
LTM FCF/Net Debt	18%	23%	26%

LTM=Last 12 months

Conclusion:

While there is no one reason for the rating agency conservatism, we believe that the current rating composition of the leveraged loan portfolio projects an overly pessimistic estimation of future leveraged loan defaults. This is due to the very low interest rate environment, the historically high enterprise value multiples, and a structural shift away from capital-intensive industries to less capital-intensive industries. These changes, coupled with the positive economic outlook and manageable inflation environment, are the reasons we believe defaults in the leveraged loan sector will continue to run well below historical averages.

⁹ Capra Credit Management.



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