ARES

JULY 2022

Private Credit: Differentiated Performance in the Midst of Rising Interest Rates

July 2022

Potential Benefits of Investing in Floating Rate, Private Credit During Periods of Rising Interest Rates

On March 16, 2022, the Federal Reserve elected to increase the Fed Funds Rate for the first time since 2016 - 2018 and is now accelerating an aggressive rate hiking cycle in an effort to combat rising inflationary pressures. Accordingly, investors are keenly focused on the potential impact that rising interest rates will have on various asset classes and whether or not a recession can be avoided. Which assets should investors consider that will provide durable income streams with downside protection[1] during periods of rising interest rates and economic volatility? Floating rate private credit assets have historically performed well during rate hiking cycles and subsequent recessionary periods compared with other asset classes. This paper will explore the potential benefits and possible challenges of investing in floating rate private credit assets, specifically U.S. direct loans to middle market companies, during past periods of rising interest rates. We will also discuss some of the factors that have contributed to the historical resilience of the direct lending market and whether we believe the asset class is poised to be resilient during potential market dislocation. While not addressed directly in the underlying data presented herein, we believe European direct loans have similar characteristics and performance attributes to U.S. direct loans.

Floating Rate, Direct Loans

Floating rate, direct loans are typically appealing to investors due to the premium, risk adjusted returns that they have generated compared to other asset classes throughout market cycles. Direct corporate loans are made to middle market companies based on a company's cash flow and are typically senior secured in the capital structure and often with structural protections in the form of financial covenants (see **Figure 1**). One appealing feature of direct loans is that their cash coupons reset higher every 30 to 90 days as base interest rates increase. In addition, direct loans often have shorter contractual maturities of 5-7 years with a weighted average life of approximately 3-4 years compared to long-dated corporate bonds. This short duration, floating rate feature, combined with capital structure seniority and covenant protections,[1] enable direct lending assets to be strong performing assets during periods of rising interest rates and the subsequent economic dislocation that often follows a Fed tightening cycle. The combination of these factors significantly reduces the impact that rising interest rates and market volatility can have on the price of the asset as **Figure 2** demonstrates. This means that these credit assets are capable of delivering incrementally higher investment returns and current income as base rates increase without necessarily a corresponding reduction in the value of the loan (note these loans are typically sourced and held for investment and not traded frequently like broadly syndicated loans). As a result, direct loan values have been comparatively more stable than syndicated bank loans, high yield bonds and investment grade bonds due to their floating rate feature as cash returns can increase during rising rate cycles.

Figure 1: Key Attributes of Direct Lending Assets

Senior Secured	Floating Rate Assets	Interest Rate Floors	High Cash Flow Coverage
Loans are typically 1st lien or have a high attachment point and often have covenants that provide greater structural protection[1] compared to unsecured or high yield bonds	Floating rate resets based on a contractual period (typically 1 or 3 months)	Assets typically have interest rate floors of 50-100bps, which mitigates an increased cost to borrowers with an initial rise in interest rates	Underwriting based on cash flows. Current industry interest coverage and LTVs provide significant cushion from rising expenses

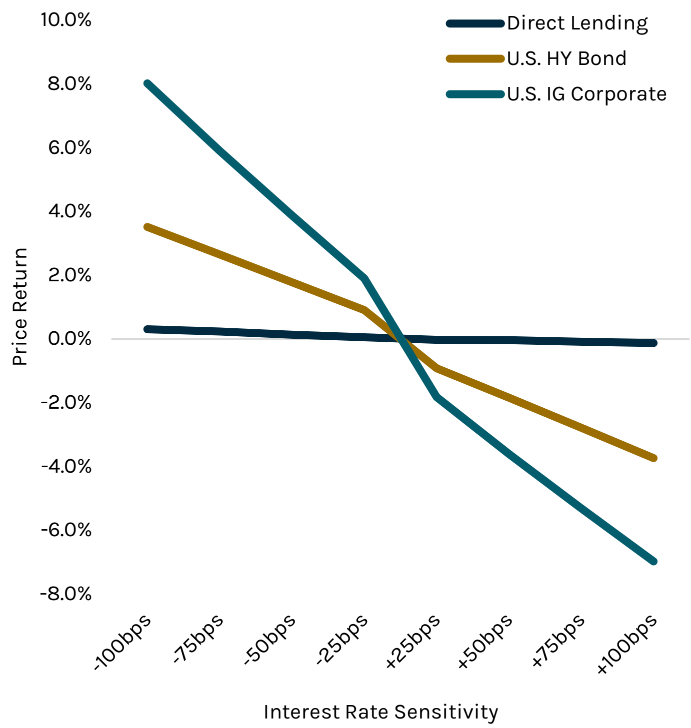
Enhanced credit protection, improving cash flows and less price sensitivity can occur in rising rate environments

As of June 30, 2022, unless otherwise stated. **Please refer to Index Definitions for additional important information.**

1. References to "downside protection" or similar language are not guarantees against loss of investment capital or value.

Figure 2: Price Sensitivity Direct Loans vs. High Yield and Investment Grade Corporates

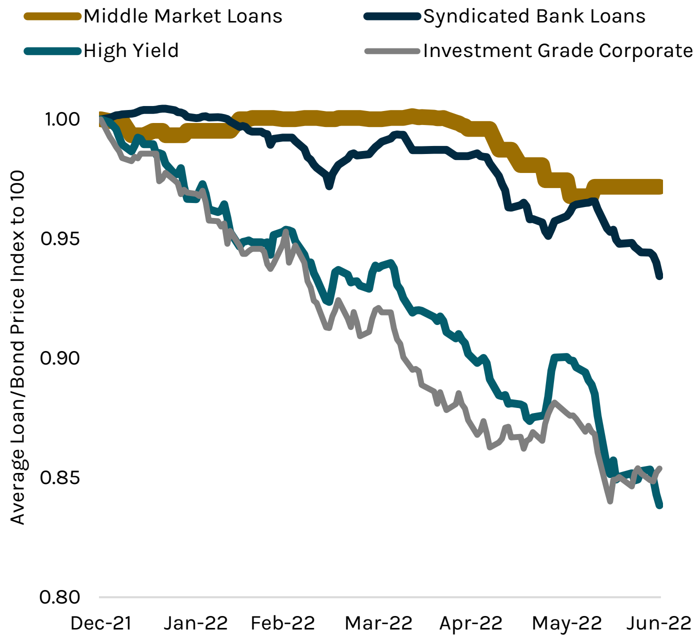
Holding other variables constant,[1] a 100bps increase in rates has a much greater impact on HY and IG bond prices compared to Direct Loans[2]



1. Other variables may impact loan and bond pricing including changes in credit spreads to base interest rates.
2. U.S. High Yield Bond per the HUC0 index. U.S. IG Corporate per the C0A0 index. Direct Lending assumes an asset with a 90bps LIBOR floor, L+450 with a 5-year contractual maturity. Please refer to the end of the document for index definitions.

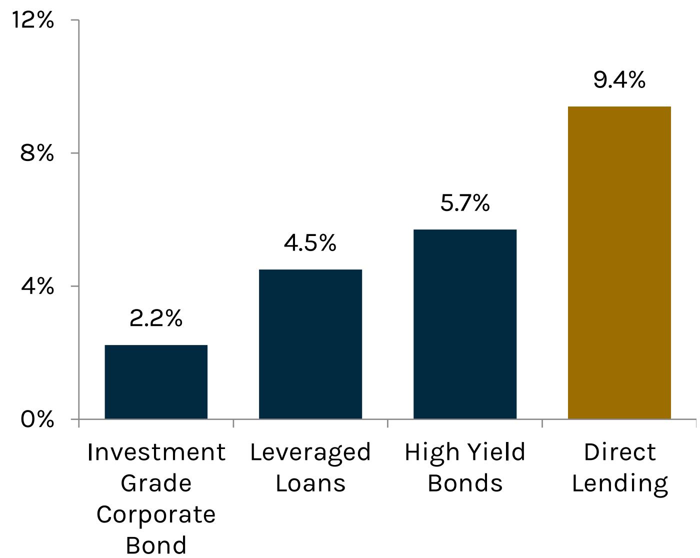
Thus far in 2022, direct loans have exhibited greater price stability within the credit landscape (see **Figure 3**). Middle market loan pricing has remained comparatively more stable year-to-date largely due to the floating rate feature of the assets and the buy and hold nature of the owners (typically institutional investors) in the private markets. Syndicated bank loan prices have also benefited from their floating rate characteristics; however, these loans have experienced greater price volatility due to their frequently traded nature. Due to the sharp rise in treasury rates, fixed rate, long term assets such as high yield bonds and investment grade corporate bonds have experienced greater price volatility and price declines with year-to-date returns of -14.0% and -14.4%, respectively.[2] An increase in interest rates can also adversely impact the value of public and private equity holdings as changes in the discount rate reduces the present value of their cash flows, all else equal.

Figure 3: Middle Market Loans Exhibited Greater Stability vs Public Market Credits During Recent Market Volatility



Source: Bloomberg, ICE BofA HY Master II Index, LCD. Data December 31, 2021 through June 30, 2022. Middle Market Loans as represented by Middle Market Index Data provided by S&P Leveraged Commentary and Data (LCD), Syndicated Bank Loans as represented by S&P/LSTA Leveraged Loan Price Index, High Yield as represented by ICE BofA HY Index, and Investment Grade Corporate as represented by the S&P U.S. Investment Grade Corporate Bond Index. Please refer to the end of the document for index definitions.

Figure 4: Ten Year Total Annualized Returns on Select Credit Assets



As of March 31, 2022. Source: Bloomberg US Investment Grade Aggregate Bond Index. Credit Suisse Leveraged Loan Index, ICE BofA HY Index, Cliffwater Direct Lending Index, Bloomberg, Please refer to the end of the document for index definitions.

2. As of June 30, 2022.

In addition to greater price stability, direct loans have consistently provided higher coupon yields compared to high yield bonds, bank syndicated loans and investment grade corporate bonds largely as compensation for the illiquid nature and proprietary sourcing and structuring of the assets. Combining higher coupons, larger structuring and prepayment fees, low credit loss rates and comparatively more stable asset prices, direct loans have generated superior total returns over the past decade, as shown in **Figure 4**. Due to the Federal Reserve's interest rate hikes, investors have incrementally allocated into floating rate assets on a year-to-date basis. Given the strong historical performance, we expect both retail and institutional investors to continue to allocate capital to direct loans and other floating rate private credit assets.

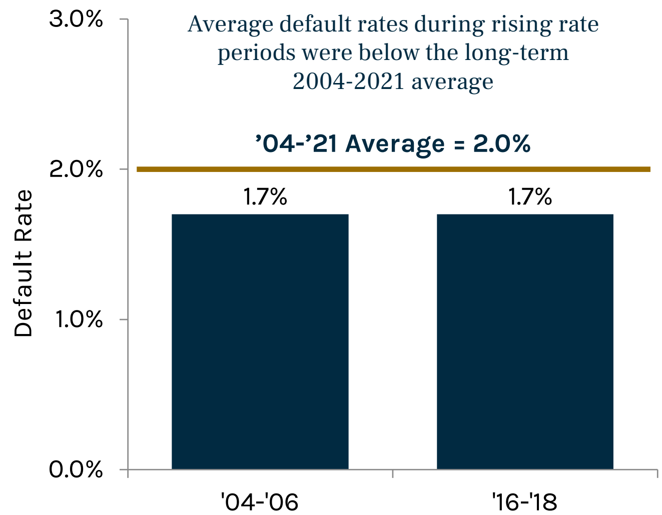
Credit Quality Has Historically Remained Strong During Rate Cycles

If floating rate, direct loans require borrowers to pay higher interest rates as interest rates increase, it is important to explore the resilience of these loans during these periods. In our analysis of the past two interest rate hiking cycles - June 2004 to June 2006 (+425bps to 5.25%) and December 2016 to December 2018 (+230 bps to 2.40%)[3] – there was very limited impact to direct loan default rates during these periods. **Figure 5** shows the average default rate from year-end 2004-2006 and year-end 2016-2018 for large middle market issuers. During both periods of rising interest rates, the annual default rate averaged 1.7% which is below the long-term average annual default rate of 2.0% from 2004-2021. These low default rate trends are due largely to relatively strong underlying economic and corporate fundamentals. The Fed typically tightens monetary policy when the economy has largely recovered from a previous dislocation and is exhibiting strong fundamental trends. During these past periods of rising interest rates, default rates remained at historically low levels as cash flow to interest coverage ratios were not significantly impacted given that cash flow increased and base rate increases were fairly gradual.

In 2022, Fitch reports a current interest coverage ratio of 2.6x for the 184 loans in its middle market database. Using Fitch's interest coverage ratio of 2.6x, a hypothetical 250 basis points increase in the base rate with no corresponding increase in EBITDA would cause the interest coverage ratio to decline to only 2.0x, which remains a healthy level implying strong credit quality (see **Figure 6**). In addition, direct lenders often require borrowers to implement interest rate hedges to protect against rising interest rates as part of the loan covenant packages. As a result, increasing interest expense solely due to rising interest rates over a 2+ year time frame has not historically led to increasing default rates for middle market borrowers.

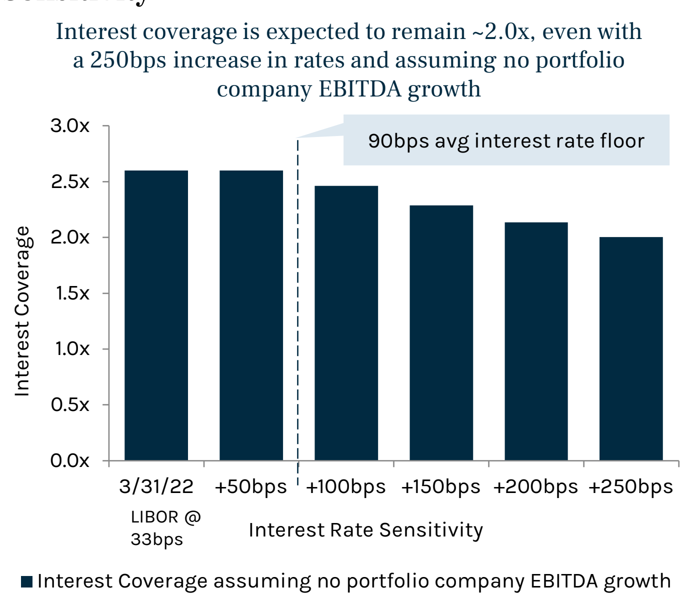
In the past, it has been difficult for the Federal Reserve to engineer a soft landing (i.e., no recession) after a rate tightening cycle. While a recession is a possible scenario during the current tightening cycle, we believe middle market direct lending assets remain well positioned relative to other public market assets (stocks, bonds, etc.) due to their seniority in the capital structure, covenant protections, potential equity sponsorship and smaller lending groups that are often equipped to be a more patient liquidity provider during periods of credit deterioration.[4]

Figure 5: Middle Market Default Rates During Rising Interest Rate Periods



Source: Fitch U.S. Leveraged Loan Default Index. Refinitiv LPC. Bloomberg. Middle Market default rates prior to 2008 include Business Development Company year-end non-accruing loan rates for three of the largest BDCs, American Capital, Ltd, Apollo Investment Corp and Ares Capital Corp.

Figure 6: U.S. Direct Lending Interest Coverage Sensitivity[1]



1. Source Fitch and Ares analysis. Fitch median 2022 EBITDA/interest coverage forecast for 184 middle market loan issuers is 2.6x.

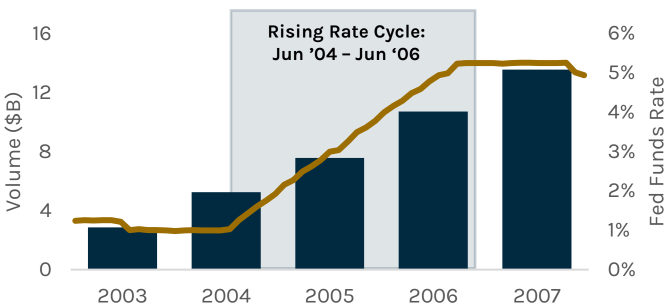
3. Federal Funds Effective Rate (FEDFUNDS) | FRED | St. Louis Fed (stlouisfed.org).
4. Direct lending assets vary, and not all assets will exhibit some of all of these attributes.

Rising Interest Rates Have Not Historically Reduced Transaction Volumes

Another investor concern is the impact of rising interest rates on new issuance levels for direct loans. The velocity of transaction volumes is an important component of return for direct lending as new activity drives capital transaction fees and higher repayment activity accelerates Original Issue Discount and prepayment fees. However, a review of historical transaction volume data for direct loans and syndicated bank loans demonstrates that a rising interest rate environment has had little effect on transaction volumes in both the private and liquid markets. However, in the current rate hike cycle, there has been a slowdown in the liquid market due to a reduction in refinancing/repricing activity. **Figures 7-10** illustrate the annual issuance for direct lending focused Business Development Companies ("BDCs") and leveraged loans during the past two rising interest rate cycles. Importantly, BDC origination volumes and syndicated bank loan transaction volumes both accelerated during these periods due to the combination of strong economic tailwinds and investment capital flowing to floating rate opportunities.

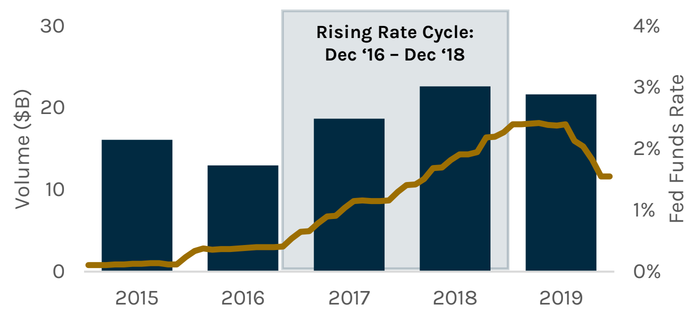
Overall, direct lending volumes (and liquid credit market volumes) have been largely unaffected by rising interest rates throughout the two most recent interest rate tightening cycles. There have been brief points in time where rate expectations shift quickly, resulting in a slowdown in transaction activity as buyers and sellers seek price discovery around new rate expectations. This is the current market scenario we are experiencing. However, absent a recession, these periods of slower volume have typically been temporary as investors recalibrate and transactions begin to clear at a new adjusted level.

Figure 7: Select BDC Annual Volume 2003-2007



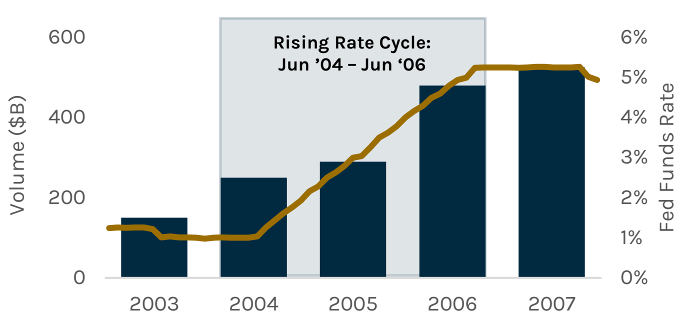
Source: Company Reports. Business Development Companies included: ACAS, ALD, ARCC, AINV, MCGC. AINV and ARCC IPO'ed in 2004. Data in 2003 is estimated using the average growth rate in originations from 2003-2004 for ACAS, ALD and MCGC to adjust for the addition of AINV and ARCC to the dataset in 2004.

Figure 8: Select BDC Annual Volume 2015-2019



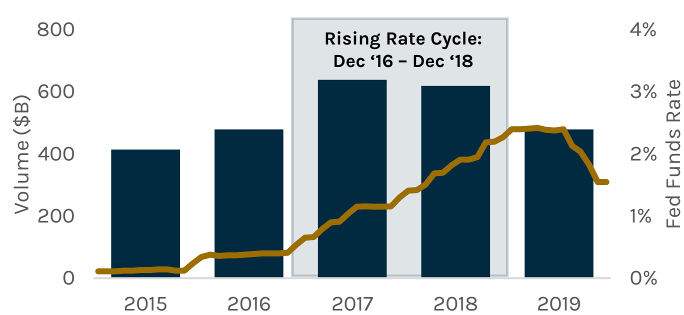
Source: Company Reports. BDCs included: ARCC, AINV, BBDC, BKCC, FSK, GBDC, GSBD, HTGC, MAIN, NMFC, OCSL, PNNT, PSEC, SLRC, TCPC, TSLX.

Figure 9: Leveraged Loan Annual Volume 2003-2007



Source: S&P LCD

Figure 10: Leveraged Loan Annual Volume 2015-2019



Source: S&P LCD

Direct Lending Returns During Periods of Rising Interest Rates and Subsequent Recessions and Recoveries

In **Figure 11**, we analyzed the last two Federal Reserve tightening cycles (2005-2006 and 2017-2018) which were followed by recessions and recoveries (2008-2009 and 2020-2021). Throughout these two periods, the total returns of middle market direct loans from Cliffwater's Direct Lending Index significantly outperformed other selected credit investments such as syndicated bank loans, high yield bonds and investment grade corporate bonds. The outperformance not only occurred during the periods of Fed tightening, but also through the entire period, including the recession and subsequent recovery.

Figure 11: Total Returns of Selected Credit Investments During Interest Rate Hiking Cycles and Subsequent Recessions and Recoveries

Period	Year	Direct Loans	Syndicated Bank Loans	High Yield	Investment Grade Corporates
Rising Rates	2005	10.1%	5.1%	2.7%	1.7%
Rising Rates	2006	13.7%	6.7%	11.9%	4.3%
Stability	2007	10.2%	2.1%	1.9%	4.6%
Recession	**2008**	**-6.5%**	**-29.1%**	**-26.2%**	**-5.0%**
Recovery	2009	13.2%	51.6%	58.2%	18.7%
Rising Rates Through Market Bottom	**2005-2008**	**29.0%**	**-18.8%**	**-13.5%**	**5.4%**
Rising Rates Through Market Recovery	**2005-2009**	**46.0%**	**23.1%**	**36.8%**	**25.1%**
Rising Rates	2017	8.6%	4.1%	7.5%	6.4%
Rising Rates	2018	8.1%	0.5%	-2.1%	-2.5%
Stability	2019	9.0%	3.1%	7.1%	14.5%
Recession	**2020**	**5.5%**	**3.1%**	**7.1%**	**9.9%**
Recovery	2021	12.8%	5.2%	5.3%	-1.0%
Rising Rates Through Market Bottom	**2017-2020**	**34.9%**	**11.3%**	**20.8%**	**30.6%**
Rising Rates Through Market Recovery	**2017-2021**	**52.2%**	**17.0%**	**27.1%**	**29.2%**

Source: Cliffwater Direct Lending Index, Credit Suisse Leveraged Loan Index & ICE BofA High Yield Index, Bloomberg US Corporate Bond Index.
Please refer to the end of the document for index definitions.

Conclusion

An analysis of historical data surrounding the two most recent interest rate hiking cycles and subsequent recessions illustrates that floating rate, direct loans outperformed with higher total returns, lower than average default rates and minimal disruptions in origination volumes. Based on their attractive characteristics – floating rate coupons and strong structural protections - we believe direct loans are set up to outperform in the current interest rate hiking cycle and related market volatility. We believe skilled private credit managers with experience and large-scale teams are particularly well suited to navigate the volatility and are capable of outperforming in the current market environment.

Index Definitions

1. **The ICE BofA US High Yield Master II Index ("H0A0")** tracks the performance of US dollar denominated below investment grade corporate debt publicly issued in the US domestic market. Qualifying securities must have a below investment grade rating (based on an average of Moody's, S&P and Fitch), at least 18 months to final maturity at the time of issuance, at least one year remaining term to final maturity as of the rebalancing date, a fixed coupon schedule and a minimum amount outstanding of $100 million. Index constituents are capitalization-weighted based on their current amount outstanding times the market price plus accrued interest. Accrued interest is calculated assuming next-day settlement. Cash flows from bond payments that are received during the month are retained in the index until the end of the month and then are removed as part of the rebalancing. Cash does not earn any reinvestment income while it is held in the index. The index is rebalanced on the last calendar day of the month, based on information available up to and including the third business day before the last business day of the month. No changes are made to constituent holdings other than on month end rebalancing dates. Inception date: August 31, 1986.
2. **The Credit Suisse Leveraged Loan Index ("CSLLI")** is designed to mirror the investable universe of the $US-denominated leveraged loan market. The index inception is January 1992. The index frequency is daily, weekly and monthly. New loans are added to the index on their effective date if they qualify according to the following criteria: 1) Loan facilities must be rated "5B" or lower. That is, the highest Moody's/S&P ratings are Baa1/BB+ or Ba1/BBB+. If unrated, the initial spread level must be Libor plus 125 basis points or higher. 2) Only fully-funded term loan facilities are included. 3) The tenor must be at least one year. 4) Issuers must be domiciled in developed countries; issuers from developing countries are excluded.
3. **The S&P/LSTA Leveraged Loan Index ("S&P LSTA LLI")** reflect the market-weighted performance of institutional leveraged loans in the U.S. loan market based upon real-time market weightings, spreads and interest payments. Facilities are eligible for inclusion in the index if they are senior secured institutional term loans with a minimum initial spread of 125 and term of one year. They are retired from the index when there is no bid posted on the facility for at least 12 successive weeks or when the loan is repaid.
4. **S&P U.S. Investment Grade Corporate Bond Index** – The S&P 500 Investment Grade Corporate Bond Index, a subindex of the S&P 500 Bond Index, seeks to measure the performance of U.S. corporate debt issued by constituents in the S&P 500 with and investment -grade rating. The S&P 500 Bond Index is designed to be a corporate-bond counterpart to the S&P 500, which is widely regarded as the best single gauge of large-cap US equities.
5. **The S&P Leveraged Commentary & Data ("S&P LCD")** Middle Market Index reflects data and analysis on U.S. loans for issuers typically generated $50 million of EBITDA or less collected by S&P Global Market Intelligence.
6. **Fitch U.S. Leveraged Loan Default Index** – The Fitch U.S. Leveraged Loan Default index tracks the annual default rate among broadly syndicated loans in the U.S.

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REF: AM-01643