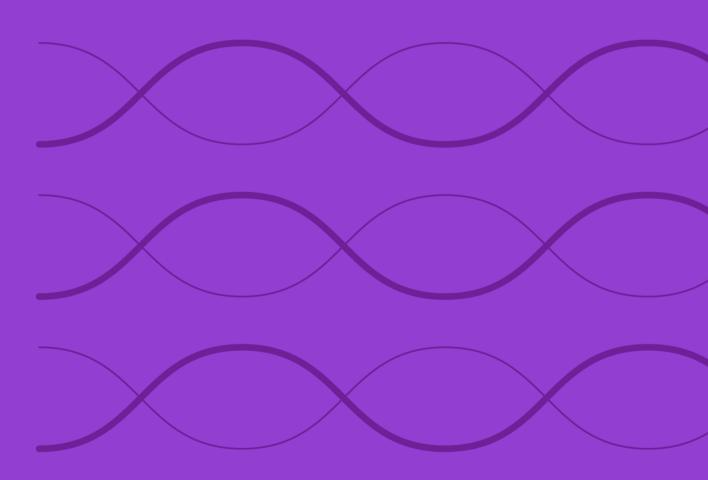


Morningstar LSTA US Leveraged Loan B/BB 50/50 Weighted Index Methodology



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Introduction

Index objective and highlights

The Morningstar LSTA US Leveraged Loan B/BB 50/50 Weighted Index is a fixed weight index designed to measure the performance of the US leveraged loan market for loans with B- to BB+ loan ratings. Loans must have an initial issue amount of \$500M or greater. The index is rebalanced to 50% weight in B rated loans and 50% weight in BB rated loans at the weekly rebalance. This index does not incorporate Environmental, Social, or Governance (ESG) criteria.

This methodology document sets out the rules by which the Morningstar LSTA US Leveraged Loan B/BB 50/50 Weighted Index is governed, including index calculation and management procedures, and the various formulas used to calculate index returns and other statistics.

Supporting documents

This methodology is meant to be read in conjunction with supporting documents providing greater detail with respect to the policies, procedures, and calculations described herein. References throughout the methodology direct the reader to the relevant supporting document for further information on a specific topic. The list of the main supplemental documents for this methodology and the hyperlinks to those documents is as follows:

Supporting Document	URL
Morningstar Leveraged Loan Indexes Methodology	Morningstar Leveraged Loan Index Series Rulebook Morningstar Indexes

Morningstar LSTA US Leveraged Loan B/BB 50/50 Weighted Index

Technical description

The Morningstar LSTA US Leveraged Loan B/BB 50/50 Weighted Index is a fixed weight index designed to measure the performance of the US leveraged loan market for loans with B- to BB+ loan ratings. Loans must have an initial issue amount of \$500M or greater. The index is rebalanced to 50% weight in B rated loans and 50% weight in BB rated loans at the weekly rebalance. This index does not incorporate Environmental, Social, or Governance (ESG) criteria.

Index history

Live inception date: March 05, 2024

Starting universe

The Morningstar LSTA US Leveraged Loan B/BB 50/50 Weighted Index derives constituents from its parent index, the Morningstar LSTA US Leveraged Loan Index. Refer to the Morningstar Leveraged Loan Index Series Rulebook for the methodology and eligibility requirements of the parent index.

Index eligibility

All facilities that are included in the parent index are eligible for inclusion with the following additional constraints:



- Minimum initial issue amount: must be USD \$500 million or greater.
- Credit quality: facility must be rated B -, B, B+, BB-, BB, or BB+ as rated by S&P Global Ratings

Base currency

The base currency of calculation for the Morningstar LSTA US Leveraged Loan B/BB 50/50 Weighted Index is US dollars.

Base rate

Each loan uses a base rate in the calculation of interest. The base rate for US loans is the average of the:

- 30-day rolling average of 1-month CME Term SOFR; and
- 90-day rolling average of 3-month CME Term SOFR

The base rate is applied each Friday¹.

Loan interest rate

For each loan in the index, the loan interest rate is the base rate plus the spread for each loan. At the index level, it is the market value weighted average of all loan interest rates in the index.

Ratings

The index uses ratings from S&P Global Ratings.

A facility rating of B or BB (notches inclusive) is required for eligibility in the index.

Index weighting

At each rebalance, the index constituents are weighted according to the following constraints to achieve the 50/50 fixed weight of B and BB rated loans:

- B-, B, and B+ rated facilities: scaled to 50% of index weight by market value
- BB -, BB, and BB+ rated facilities: scaled to 50% of index weight by market value

Index pricing

Average bid price from LSTA/Refinitiv Mark-to-Market Pricing is used to determine the market value of each loan in the index.

The index is priced daily.

Rebalancing

The index is rebalanced on a weekly basis every Friday (or the last trading day of the week in the case of a holiday).

The Morningstar LSTA US Leveraged Loan B/BB 50/50 Weighted Index is rebalanced to ensure the index maintains the target 50% weight in B loans and 50% weight in BB rated loans by market value.

Par amounts of index loans are adjusted on the weekly rebalancing date due to partial pre-payments, pay-downs, and other activities impacting par amount for each facility.

Additions: Index additions are reviewed on a weekly basis.

¹ Prior to December 27, 2024, the base rate was calculated as the average of the 1-month synthetic USD LIBOR, 3-month synthetic USD LIBOR, 1-month Term SOFR, and 3-month Term SOFR contracted rates on institutional loans according to the Markit WSO Database. See Appendix II for additional details on the base rate methodology change.



 Deletions: Loans are removed from the index when they are repaid, are no longer priced, or no longer meet the stated index eligibility criteria.

Index Policies

Base rate floor

For US loans with a LIBOR or SOFR floor as part of the loan's terms and conditions, the spread for the loan will be reduced by the difference between the floor and the base rate in the event that the index base rate falls below the loan's stated base rate floor.

Defaults

Defaulted loans remain in the index unless they no longer meet any of the other criteria for inclusion. A defaulted loan will not accrue interest and is not included in the aggregation of index characteristics, such as yield, during the default period. A default may occur when:

- 1) A borrower has missed a principal or interest payment and is not in a forbearance period
- 2) A borrower files for bankruptcy under Chapter 11 or Chapter 7
- 3) A borrower has hired a restructuring advisor or has entered the restructuring process (applies only to European syndicated loans)
- 4) A loan has been downgraded to D by S&P Global Ratings (does not apply in cases of distressed exchanges)

There may be a lag between the time that default activities occur and S&P Global Ratings downgrades a loan to D. During this period the loans will not accrue interest and will not be included in the aggregation of index characteristics. For indexes which use credit quality as a constraint, defaulted loans will only be removed from the index once the loan has been downgraded to D by S&P Global ratings and the removal will take place at the next scheduled rebalance.

Currency of calculation and additional index return series

WM/Refinitiv foreign exchange rates are taken daily at 4:00 P.M. London time and used in the calculation of the index and to convert index or constituent values to the stated currency, where applicable. These mid-market fixings are calculated by the WM Company based on Refinitiv data and appear on Refinitiv pages WMRA.WM/Refinitiv foreign exchange rates are used to convert index constituents to U.S. dollars. WM/Refinitiv one month forward rates are used for hedging purposes.

Cash flows

WM/Interest payments are considered paid on a rolling 90-day basis from the date each loan enters the index and are reinvested in the index, on a relative weight basis, after 90 days. Pre-payments, pay-downs, and most other forms of cash flow (other than scheduled interest payments) are reconciled at each rebalance.

Ratings changes

Ratings changes on a loan in between rebalancing may carry for up to week until the next rebalancing. Defaults are reflected same day.

End-of-day calculation

Index levels are calculated at the end of each business day.

Holiday schedule

Price return is calculated on all business days of the year following the Securities Industry and Financial Markets Association (SIFMA®) holiday schedule for US market schedules for the US loan index, respectively. On holidays,



prices are rolled from the prior business day. Interest return and total return is calculated daily, regardless of holidays.

Methodology Review and Index Cessation Policy

The index methodology is reviewed on an annual basis to ensure it achieves all stated objectives. These reviews consider corporate action treatment, eligibility requirements, and maintenance procedures. Subscribers to the index will be notified before any methodology changes are made. For more details, refer to the Morningstar Index Methodology Change Policy.

Morningstar Indexes notifies all users of the index that circumstances might arise that require a material change to or a possible cessation of the index. Circumstances that could lead to an index cessation include, but are not limited to market structure change, product definition change, inadequate supply of data, insufficient revenue associated with the index, insufficient number of clients using the index, and/or other external factors beyond the control of the Morningstar Index Committee.

Because the cessation of the index or benchmark index could disrupt subscriber products that reference this index, all subscribers are encouraged to have robust fallback procedures if an index is terminated. For more details, refer to the <u>Morningstar Index Cessation Process.</u>

Data Correction and Precision

Intraday Index Data Corrections

If a real-time value or end-of-day values are restated for index that publish intraday values, Morningstar Indexes will not recalculate real-time values. Only the end-of-day values will be restated.

Index-Related Data and Divisor Corrections

In general, index calculation data input defects—such as price, dividends, or foreign-exchange rates, that do not affect the index weighting factor—if discovered within two trading days, are corrected, and the index is recalculated regardless of the performance impact. Such errors discovered after two trading days typically only result in an index restatement if the impact on performance is material; otherwise, they are corrected prospectively. Errors involving mandatory corporate actions will generally be corrected with a restatement, regardless of the performance impact.

For more details, refer to the Recalculation Guidelines.

Computational and Reporting Precision

For reporting purposes, index values are rounded to two decimal places and divisors are rounded to appropriate decimal places.



Exceptions

While Morningstar will seek to apply the methodology as described within this document, the market environment, supervisory, legal, financial, or tax reasons may require an alternative approach to be adopted. A decision to take an alternative approach will be made by the Morningstar Indexes Methodology Committee, and in all instances, the exception will be reported to the Morningstar Indexes Oversight Committee.

Contact Information

For questions regarding an index, please contact: <u>indexes@morningstar.com</u>.

Appendix I

Defined Terms

Announcement Date

The date on which changes to the index are published, as further described in the section on index maintenance.

Repricing

Change in spread via an amendment.

Close

The end of a calendar or business day for the purpose of calculating index values and other statistics.

Facility

A syndicated loan (or credit) is comprised of facilities (or tranches). Each facility can have different maturities, sizes, spreads, and terms to fulfil a variety of borrowing needs.

First lien

A loan where the holder has first claim on collateral.

Index loan

A facility that is included in the index.

Investable weight factor (IWF)

The adjustment factor used to reduce the weight of a particular security in the index if it exceeds the designated percentage cap. Unstated, an IWF's default is 1.0.

PE-sponsored

An issuer that is majority owned by a private equity firm. In the case of the European index, this is referred to as an LBO Loan.

Par amount

The total par or "face value" amount outstanding of an index loan or an eligible loan, net of partial calls and tenders.



Rebalancing date

Every Friday (or the last trading day of the week in the case of a holiday) when the changes to the index become effective.

Second lien

A loan where the holder has a second priority claim on collateral.

Term A loan

Amortizing term loan. These tranches generally have a gradual amortization until maturity.

Term B loan

Institutional term loan. These tranches traditionally have a bullet repayment with little (1% per annum) or no amortization.

Term C loan

Institutional term loan. These tranches traditionally have a bullet repayment with little (1% per annum) or no amortization.

Appendix II

Methodology changes

Change	Effective Date	Previous Methodology	Updated Methodology
US base rate methodology	December 27, 2024	Each loan uses a base rate in the calculation of interest. The base rate is the average of the 1-month synthetic USD LIBOR, 3-month synthetic USD LIBOR, 1-month Term SOFR, and 3-month Term SOFR contracted rates on institutional loans according to the Markit WSO Database. The base rate is determined on the Wednesday prior to the upcoming rebalance and is applied on Friday.	Each loan uses a base rate in the calculation of interest. The base rate is the average of: • 30-day rolling average of 1-month CME Term SOFR; and • 90-day rolling average of 3-month CME Term SOFR The base rate is determined and applied on Friday.

Appendix III

Index calculations

Please refer to the Morningstar Leveraged Loan Indexes Methodology for information on standard calculations.



Calculation of index par and market values

The par and market values for each index loan are calculated as of the close on each calendar day using the same approach as in the underlying index.

The market value of an index loan on day t is calculated as follows:

$$MV_t = PAR_t * \frac{(P_t + AI_t)}{100}$$

where:

 MV_t = The market value of Index Loan on day t

 PAR_t = The par amount of Index Loan as of the last weekly rebalancing, adjusted for principal

pre-payments, etc., up to and including day t

 P_t = The price of Index Loan on day t

 AI_t = The accrued interest² on Index Loan up to and including day t

If the valuation date is not a business day, the market values are based on the price as of the immediate prior business day, plus interest accrued to the valuation date.

The relative weight of an Index Loan is defined as the market value of that loan expressed as a percentage of the aggregate market value of all Index Loans in the Index portfolio, as follows:

$$weight_k = \frac{{}_{MV_k}}{\sum_k {}_{MV_k}}$$

About Morningstar Indexes

Morningstar Indexes were built to keep up with the evolving needs of investors—and to be a leading-edge advocate for them. Our rich heritage as a transparent, investor-focused leader in data and research uniquely equips us to support individuals, institutions, wealth managers and advisors in navigating investment opportunities across major asset classes, styles and strategies. From traditional benchmarks and unique IP-driven indexes, to index design, calculation and distribution services, our solutions span an investment landscape as diverse as investors themselves.

Morningstar Indexes Methodology Committee

The Morningstar Indexes Methodology Committee oversees all new index development, index methodology changes, and cessation of indexes for any indexes where Morningstar owns the intellectual property. This committee is also charged with ensuring that indexes align with Morningstar Research principles and values. The group comprises members of the index team with index research, product development, product management, client service, index implementation, and operation expertise who provide the first layer of governance over index design and methodology.

 $^{^{2}}AI_{t}$ is calculated on a 360-day basis. Accrued interest is reduce to zero every 90 days after loan enters the index.



Morningstar Indexes Operations Committee

The Morningstar Indexes Operations Committee governs the processes, systems, and exception handling of the day-to-day management of all live indexes, including index rebalancing and reconstitution, restatements, market classification, and contingency management. The committee oversees the annual review of index methodology (as required by U.K. and EU benchmark regulations, or BMR), ensuring that methodologies remain fit for purpose and continue to achieve their stated investment objectives. The group comprises members of the index team with data, operations, corporate actions, product development, index launch, client service, and index management experience who provide the first layer of governance over index operations.

Morningstar Indexes Oversight Committee

The Morningstar Indexes Oversight Committee is responsible for the index oversight function as per the requirements of the U.K. and European BMR, providing independent oversight of all aspects of the governance of benchmark administration as required by the relevant BMR. Its remit extends to all calculation and administration-related business activities of Morningstar Indexes, including administration of Morningstar-owned benchmarks as well as client-owned benchmarks and index calculation. The oversight function is part of the organizational structure of Morningstar but is separate and independent from the index business, index management, and the other index committees.

www.indexes.morningstar.com

Contact Us

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