NORTHERN TRUST HIGH YIELD VALUE-SCORED US CORPORATE BOND INDEX

INDEX METHODOLOGY

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INTRODUCTION

This document sets forth the methodology for the Northern Trust High Yield Value-Scored US Corporate Bond Index (the "Index").

The Index is calculated and disseminated by Intercontinental Exchange Data Services (ICE)[i], and had an inception date of April 30, 2018 at a base index value of 1000.

OVERVIEW

Northern Trust High Yield Value-Scored US Corporate Bond Index
The Northern Trust High Yield Value-Scored US Corporate Bond Index is designed to measure the performance of a diversified universe of high yield, US-dollar denominated bonds of companies exhibiting favorable fundamental qualities, market valuations and liquidity, as defined by Northern Trust Investments, Inc.'s ("NTI") proprietary scoring models.

INDEX ELIGIBLITY

In order to be eligible for inclusion in the Northern Trust High Yield Value-Scored US Corporate Bond Index, each bond issue must be:

- A constituent of the Northern Trust High Yield US Corporate Bond Index (the "eligible universe")

DETAILED METHODOLOGY

The construction of the Index begins with a securities screen to determine eligible securities (as described in the "Index Eligibility" section). Once all eligible securities have been identified, the securities are then optimized based on their exposure to quantitative factors such as:

- Value-Score[ii], Credit-Score[iii], and Liquidity Score[iv], as determined by NTI's Quantitative Research team's proprietary scoring models

The primary objective of the optimization is to maximize exposure to the value-score factor relative to the eligible universe. In addition to that objective, systematic risk is managed during the optimization through the use of several constraints. These constraints are listed below (bounds show as relative weightings unless otherwise noted):

- Issuer level constraint: to limit each issuer's absolute weight to 5% or less
- Sector constraint: to limit the Index's maximum or minimum sector weight exposure to +/-8% versus the eligible universe at each reconstitution
- Effective Duration[v]: to constrain the Index's effective duration to +/- 0.10 versus the eligible universe at each reconstitution
- Proprietary Credit-Score constraint: to remove bonds ranking in the lowest decile of the proprietary score
- Proprietary Liquidity Score constraint: to restrict new issuances that fall in the bottom 5% of liquidity within each sector, per the proprietary score, at each reconstitution
- Duration band constraint: to limit the index's maximum or minimum weight to +/-3% versus the eligible universe, within several duration-buckets
- Turnover constraint: to limit the Index's turnover at each reconstitution to 15%

All the systematic risk constraints are placed in the constraint hierarchy so when a solution is not feasible due to hard constraints, a relaxed solution is found.

Any changes to this methodology will be announced to clients at least sixty (60) days in advance prior to becoming effective.

RECONSTITUTION & REBALANCING

The Northern Trust High Yield Value-Scored US Corporate Bond Index is reconstituted monthly[vi] on the last business day of the month in which U.S. bond markets are open for trading[vii], and becomes effective immediately after the market close. Intra-period adjustments may be made at the discretion of NTI in connection with errors, changes in eligibility, and corporate actions.

The Northern Trust High Yield Value-Scored US Corporate Bond Index reserves the right to postpone each reconstitution date for up to one week with prior client notification of such a postponement.

All changes to constituents and weightings will be announced to clients at least two (2) days prior to the reconstitution or rebalancing date, and again with definitive weights after the close of the reconstitution or rebalancing date, before the following business day's market open.

[i] Effective as of June 2024, total return calculations will begin to incorporate a beginning of month transaction cost, which equates to an estimated cost of the turnover incurred (measured in basis points) during the most recent index reconstitution. ICE calculates index return on a month to date basis, with the transaction cost applied on the first day of the month's performance. Transaction costs only apply to new additions and existing securities that have a weight increase in the index. Specific security costs are calculated as a basis point ratio of a security's bid-ask spread to dirty price. Refer to ICE Bond Index Methodologies for more information.

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[ii] The core components of the proprietary value scoring model are based on quantitative ranking of various metrics obtained from company filings with the SEC, as well as recent price activity. The scores have multiple components, and include but are not limited to the following: Valuation (e.g. to assess the relative value of the security versus other similar securities), Spread Analysis (e.g. to assess the risk/return trade-off associated with each security versus other similar securities) and Solvency (e.g. to assess the corporation's short term and long term solvency and also its risk of default).

[iii] The core components of the proprietary credit scoring model are based on quantitative ranking of various metrics obtained from company filings with the SEC and recent price activity. These scores have three components: Management Expertise (e.g. corporate finance activities), Profitability (e.g. assess the reliability and sustainability of financial performance) and Solvency (short and long term).

[iv] The core components of the proprietary liquidity score are based on a quantitative ranking of security characteristics obtained from company filings with the SEC. Examples of data sets utilized to determine liquidity include but are not limited to: time to maturity (e.g. time until the security reaches its maturity date as measured in in years), total issuer debt outstanding (e.g. the sum of all debt outstanding for a single corporate issuer), and time since original issuance (e.g. the time that has elapsed since the security was originally issued as measured in years).

[v] A measure of the sensitivity of the price of a bond to a change in interest rates, adjusted for embedded options, and commonly utilized to evaluate a bond's theoretical change in value given a shift in the yield curve.

[vi] Data used to strike the forward index is locked down for construction purposes eight business days prior to month end.

[vii] Per the US holiday schedule posted at www.sifma.org/services/holiday-schedule/

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