

INDEX METHODOLOGY

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INTRODUCTION

This document sets forth the methodology for the following Indexes (the “Indexes”):

- Northern Trust Quality Dividend Index
- Northern Trust Quality Dividend Dynamic Index
- Northern Trust Quality Dividend Defensive Index
- Northern Trust International Quality Dividend Index
- Northern Trust International Quality Dividend Dynamic Index
- Northern Trust International Quality Dividend Defensive Index

The indexes are currently calculated and disseminated by Thomson Reuters.

OVERVIEW

Northern Trust Quality Dividend Index

The Northern Trust Quality Dividend Index is designed to provide exposure to a high-quality income-oriented universe of long-only U.S. equity securities, with an emphasis on long-term capital growth and a targeted overall beta¹ that is similar to that of the Northern Trust 1250 Index (the parent index). Companies included in the index are selected based on expected dividend payment and fundamental factors such as profitability, management expertise, and cash flow.

Northern Trust Quality Dividend Dynamic Index

The Northern Trust Quality Dividend Dynamic Index is designed to provide exposure to a high-quality income-oriented universe of long-only U.S. equity securities, with an emphasis on long-term capital growth and a targeted overall beta that is generally between 1.0 to 1.5 times that of the Northern Trust 1250 Index (the parent index). Companies included in the index are selected based on expected dividend payment and fundamental factors such as profitability, management expertise, and cash flow.

Northern Trust Quality Dividend Defensive

The Northern Trust Quality Dividend Defensive Index is designed to provide exposure to a high-quality income-oriented universe of long-only U.S. equity securities, with an emphasis on long-term capital growth and a targeted overall beta that is generally between 0.5 to 1.0 times that of the Northern Trust 1250 Index (the parent index). Companies included in the index are selected based on expected dividend payment and fundamental factors such as profitability, management expertise, and cash flow.



NORTHERN TRUST QUALITY DIVIDEND INDEXES

Northern Trust International Quality Dividend Index

The Northern Trust International Quality Dividend Index is designed to provide exposure to a high-quality income-oriented universe of long-only international securities issued by non-U.S.-based companies, with an emphasis on long-term capital growth and a targeted overall beta that is similar to that of the Northern Trust International Large Cap Index (the parent index). Companies that are included in the index are selected based on expected dividend payment and fundamental factors such as profitability, management expertise, and cash flow.

Northern Trust International Quality Dividend Dynamic Index

The Northern Trust International Quality Dividend Dynamic Index is designed to provide exposure to a high-quality income-oriented universe of long-only international securities issued by non-U.S.-based companies, with an emphasis on long-term capital growth and a targeted overall beta that is generally between 1.0 to 1.5 times that of the Northern Trust International Large Cap Index (the parent index). Companies that are included in the index are selected based on expected dividend payment and fundamental factors such as profitability, management expertise, and cash flow.

Northern Trust International Quality Dividend Defensive Index

The Northern Trust International Quality Dividend Defensive Index is designed to provide exposure to a high-quality income-oriented universe of long-only international securities issued by non-U.S.-based companies, with an emphasis on long-term capital growth and a targeted overall beta that is generally between 0.5 to 1.0 times that of the Northern Trust International Large Cap Index (the parent index). Companies that are included in the index are selected based on expected dividend payment and fundamental factors such as profitability, management expertise, and cash flow.

ELIGIBLE SECURITIES

In order to be eligible for inclusion in the Northern Trust Quality Dividend Indices, a security must be a constituent of the Northern Trust 1250 Index.

In order to be eligible for inclusion in the Northern Trust International Quality Dividend Indices, a security must be a constituent of the Northern Trust International Large Cap Index and have an average daily traded value² of at least 125,000 USD in the ninety days prior to a rebalance.

DETAILED METHODOLOGY

The construction of the Indexes begins with a universe of eligible securities (defined in “Eligible Securities” section). Securities ranking in the lowest quintile of quality³ based on our proprietary scoring model⁴, as well as those which do not pay a dividend are removed prior to optimization⁵. All remaining eligible securities are then optimized based on their exposure to quantitative factors such as:

NORTHERN TRUST QUALITY DIVIDEND INDEXES

- Quality, as defined by our proprietary scoring model
- Dividend yield
- Beta

The main objective of the optimization is to maximize our exposure to the quality factor, realize a dividend yield above the benchmark index (previously defined in “Definitions” section), and achieve our desired beta target (previously defined in “Definitions” section) all while minimizing the overall risk of the index versus its benchmark as measured by standard risk models⁶. In addition to that main objective, systematic risk is managed during the optimization utilizing several constraints. These constraints are listed below (bounds shown as relative weightings to benchmark unless otherwise noted):

- Dividend yield constraint: the optimized index targets a dividend yield above that of the benchmark
- Security level constraint (to limit an index constituent’s maximum or minimum weight versus the benchmark (+/- 5%))
- Industry (+/- 10%), sector (+/- 6%), country (+/- 6%), region (+/- 4%), style factor (each of which is minimized as defined by our risk model), and region/sector (+/- 5%) constraints
- Turnover constraint (to limit the maximum turnover to approximately 25% on any rebalance date)

All of the systematic risk constraints are placed in the constraint hierarchy so a relaxed solution is found when one is infeasible, due to the hard constraints.

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

REBALANCING AND RECONSTITUTION

The indexes are reconstituted in February, May, August and November on the last business day of the month in which the U.S. equity markets are open for trading, and becomes effective immediately after the close. Intra-quarter adjustments are made only in connection with errors, securities’ eligibility, exchange connectivity, float changes, and corporate actions, including, but not limited to, initial public offerings and spin-offs.

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

INDEX MAINTENANCE / CORPORATE ACTION-DRIVEN CHANGES

The Indexes will adopt all corporate action related policies and procedures used by Thomson Reuters. A complete list of Thomson Reuters' methodology is available [online](#), and also on request at NT_Index_Services@ntrs.com

Disclaimer: Returns of the indexes do not typically reflect the deduction of investment management fees, trading costs or other expenses. It is not possible to invest directly in an index. Indexes are the property of their respective owners, all rights reserved.

¹ Beta is the coefficient term of the regression of a security versus the market, and is also a measure of the systematic, non-diversifiable risk of a security or a basket of securities. Beta represents the market sensitivity, relative to a given market index and time period. For example, a security exhibiting a beta of 1.0 indicates that the security has the same sensitivity as the market index it is being compared to, while a security with a beta of 1.5 would indicate that the security has 1.5 times the sensitivity of the market index.

² Average daily traded value is calculated by multiplying the ninety day average daily volume by the last close price in USD.

³ This factor seeks to identify companies that exhibit stable returns relative to the market, a characteristic which we define as quality.

⁴ The core components of the proprietary quality scoring model are based on quantitative ranking of various metrics obtained from company filings. These scores have three components: Management Efficiency (e.g. corporate finance activities), Profitability (e.g. assess the reliability and the sustainability of financial performance), and Cash Flow.

⁵ An optimization is an algorithmic approach to minimize or maximize an objective function. An algorithm is able to achieve its objective by changing input variables sets until an optimal set has been found. For example, we may want to find index weights that minimize a quantitative measure of total risk but meet certain requirements or constraints. The optimization being performed during our index construction utilizes a multi-dimensional mean variance approach, which seeks to find the best available outcome given the constraint hierarchy set provided.

⁶ Risk models are a statistical application which helps provide predictive risk estimates, by quantitatively de-constructing individual equity price movements and attributing those movements to common factors (e.g. Sector, industry, style, etc). The use of standard risk models in our process provides an additional layer of constraints on our optimization outcome, and assists in reducing the index's overall active risk exposure to any one single factor.