January 2015

Index Research Team

Introduction

MidLincoln Research Indexes (ML Index Atlas) are created to reflect dynamics of different market sectors and segments.   ML Index Altas indexes are spanning all geographies and sectors. They are useful when identifying particular investment universe. They are used in identifying market trends, for spotting market inefficiencies or for benchmarking. They are also followed by some ETF providers.

Index Family

MidLincoln Index Atlas consists of several index families which are constantly growing. The families summarize which additional information is collected to construct index weights within the family. The most widely published are the ML Standard Symmetrical Family of indexes for equities and bonds. These are equal weight or equal risk indexes. There are also available ML Index Atlas Market Cap Indexes for equities and fixed income which are based on the total size of the particular issue of a security. There are MLIA Free Float Indexes which are based on the size of the security which is circulated within the market segment. There are MLIA Revenue Indexes that weighted by the equivalent market share of the parent company. They are essentially mapping total product within a country or a sector. MLIA Growth Indexes map the growth contribution within the total.

Eligibility

There are 2 basic eligibility methods for MidLincoln Index Atlas.

First method is a query based eligibility. This method is implying monitoring and gathering of specific information needed to compose the index and then querying the information to select eligible securities based on the specific query. In general with very few exceptions this methodology updates the information used in the query 2 times a year, so the index can be re-queried twice a year on the last trading day in November and last trading day in May (last trading day is usually well flagged and corresponds to the schedule of the LSE market). As a result of the information update, financial instruments that are eligible for index construction or index addition or actually an index deletion are added to the

weighting list for addition or a deletion. The weighting list is cleaned and finalized within a month following the information update. The resulting changes implemented on a specific well flagged date.

Second method is more straightforward assumes a rigid index composition, when specific instruments are specifically selected one by one to be combined in the index calculation. Both methods implement the results of corporate actions immediately (e.g. splits) if needed or within a 2 weeks if the corporate action requires an investment decision making (i.e. stock dividends, restructuring, buy backs etc..).

Index Construction

Each index family maintains its own index formula or index construction rules. Basically the index formula for a family sets rules how financial instruments are combined. E.g. standard symmetrical index family sets equal dollar weight for each financial instrument at the time of the rebalancing. This family requires calculation of the number of shares of financial instrument needed to construct the index with equal dollar weight of each element. The price information needed to make weights equal can be used from a predefined trading session or can be taken as a n-months average price. For revenue weighted indexes weight is determined by the company revenues in the previous year. So the number of shares is calculated as to make representation of each financial instrument in accordance with its revenue share given particular share price.

Rebalancing

In each rebalancing exercise the prime goal is to determine adjusted number of shares in accordance with index construction rules. E.g. for the standard symmetrical indexes the number of shares is adjusted to set each weight as even. For the revenue based indexes the number of shares used in the index calculation is recalculated to set the the weight of an instrument in accordance with its revenue market share. Etc..

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Rebalancing for the ML Index Atlas occurs twice a year. New number of shares are calculated based on prices on the last trade of December and Last trade in June, given the changes for the index composition from the weighting list.

Index calculation

Index calculation is made entirely easy. And on each given day index calculation summarises the index value by multiplying number of shares determined in the last rebalancing by last available price. The day index value is calculated using last trade price.

Dividends and Coupons

In general ML Index atlas are calculated net of dividends, However for the total return indexes the number of shares NS is recalculated to reflect received dividends or coupons following the dividend distribution date, replicating the reinvestment process by the investment manager.

Corporate Actions

In the ML Index Atlas corporate actions which change instruments notional parameters require immediate response and a recalculation of the number of shares in the index. The index team carefully considers the impact of the corporate action on the security or the universe and adjust the number of share on the day the corporate action goes into effect as to ensure the index continuity and reproducibility.

Index Data

Daily index values are made available to clients via email or . Via ftp transfers. The primary index data distribution channel is www.midlincoln.com website. Some indexes are published with financial information providers such as Bloomberg or Reuters. Some real time indexes are published in Bloomberg or Reuters with an aide of the special publishing intermediaries.

Index Governance

ML Index Atlas is maintained by the ML Index Research Team, consisting of the experienced full time professionals with necessary scientific background all fully aware of the indexing business model within MidLincoln Research and in general within the broader financial mathematics applications . The primary goal of the index team is to construct and maintain indexes with best integrity, continuity and reproducibility of indexes, replicating the needs and best practices of the investment management community.

Exchange Closures and Force Majeure

In the event of the exchange closures or system breakdowns or other force majeure ML Index Atlas uses the last available price. Otherwise ML Index Atlas approach to calculating indexes in such cases in the manner as to limit the damages for the investment managers using the indexes.