

The MSCI logo consists of the letters "MSCI" in a white, serif font, set against a dark blue rectangular background.The text "Index Methodology" is written in a dark blue, sans-serif font. It is positioned to the right of a decorative graphic consisting of two thin, curved lines that cross each other in the center of the page.

# MSCI High Dividend Yield Indices Methodology

February 2013

# 1. Introduction

MSCI has created the MSCI High Dividend Yield Indices to serve as a performance benchmark for investors focusing on dividend yield and to help investors obtain and manage exposure to the high dividend yielding segments of MSCI equity indices. The MSCI High Dividend Yield Indices objectively and passively depict the high dividend yield opportunity set within MSCI equity indices and are intended to reflect dividend yield focused investment processes.

The MSCI High Dividend Yield Indices:

- Are derived from country, regional, or composite level MSCI Equity indices (herein, “Parent Indices”).
- Include only securities that offer a higher than average dividend yield relative to their respective Parent Index and pass dividend sustainability screens
  - Securities entering the index must have a dividend yield which is at least 30% higher than the respective Parent Index yield
  - Only securities with reasonable payout and a non-negative 5Y Dividends per share (DPS) growth rate<sup>1</sup> are eligible for inclusion in the High Dividend Yield Index.
- Offer reasonably broad market coverage
- Have moderate turnover due to the use of a market cap weighted scheme and appropriate buffer rules and
- Are free float market capitalization weighted to ensure that their performance can be replicated in institutional and retail portfolios of reasonable size.

This Methodology book describes a generic methodology that can be applied to create MSCI High Dividend Yield Indices from any of the existing MSCI global or domestic equity indices. The dividend persistence screening (section 2.2.2) is currently not applied in Emerging Markets, nor is it applied in the small cap segment of the Developed Markets with the exception of USA and Australia.

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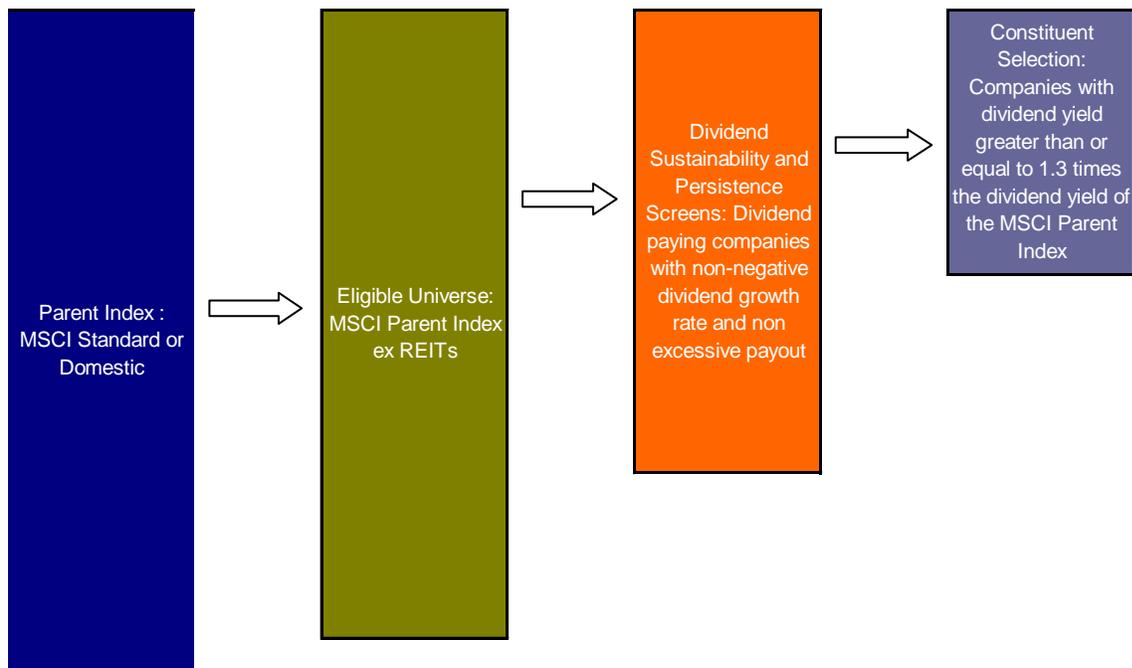
<sup>1</sup> See appendix for definition of 5Y DPS growth rate and its calculation.

## 2. MSCI High Dividend Yield Index Construction

The MSCI High Dividend Yield Index construction is based on a four -step process:

- Defining the eligible universe
- Applying dividend sustainability and persistence screening
- Selecting high yielding securities
- Weighting the securities in an index

### MSCI High Dividend Yield Index Construction



### 2.1 Defining the Eligible Universe

All securities belonging to the underlying Parent Index are eligible for inclusion in the MSCI High Dividend Yield Index, with the exception of Real Estate Investment Trusts (REITs). REITs have structurally very high dividend yield and, if included, would represent a very significant proportion of the MSCI High Dividend Yield Index. Also, typically, regulatory constraints restrict the inclusion of REITs in meaningful proportions in many institutional portfolios.

## 2.2 Dividend Sustainability and Persistence Screening

Dividend yield strategies typically target not only high dividend yield but also companies where that dividend is sustainable and/or persistent. Therefore, MSCI High Dividend Yield Indices consider the following dividend sustainability and persistence screens in order to achieve a better representation of the opportunity set available to managers following high dividend yield investment processes:

- Dividend sustainability screening: Securities whose dividend payout is extremely high or negative, and therefore, where future dividend payments might be in jeopardy are not considered for inclusion
- Dividend persistence screening: Securities without a good historical track record of consistent dividend payment are also not considered for inclusion

### 2.2.1 Applying the Dividend Sustainability Screening

Securities with zero or negative payout ratios are not considered for inclusion in the MSCI High Dividend Yield Indices as they either do not pay dividends or have negative earnings which may put their future dividend payments at risk.

Additionally, securities with an extremely high payout ratio, which occurs when earnings are low relative to dividends and may also indicate that the dividend payment might not be sustainable in the future, are also not considered for inclusion in the MSCI High Dividend Yield Indices. Under this screen, securities with extremely high payout ratios, defined to be the top 5% of securities by number within the universe of securities with positive payout, are not considered eligible for inclusion in the index. The use of a relative payout ratio screen ensures that the companies at most relative risk of dividend cuts are excluded irrespective of the absolute level of the payout.

### 2.2.2 Applying the Dividend Persistence Screening

Securities with a negative 5Y DPS growth are also excluded from the index as their dividend growth is shrinking which could be a precursor to lower dividends.

## 2.3 High Dividend Yield Security Selection

Securities that have passed the above two screens are then considered for inclusion in the High Dividend Yield index. Only securities with a dividend yield greater than or equal to 1.3 times the dividend yield of the Parent Index are included in the High Dividend Yield Index. For example, MSCI compares the yield of a European security to the yield of the MSCI Europe Index to determine if it is eligible for inclusion in the MSCI Europe High Dividend Yield Index. By contrast, MSCI compares the yield of the same security to the yield of the MSCI World Index to determine if it is eligible for inclusion in the MSCI World High Dividend Yield Index.

## 2.4 Free Float-Adjusting Constituent Weights

The MSCI High Dividend Yield Index is a free float adjusted market capitalization weighted index.

## 3. Maintenance of the MSCI High Dividend Yield Indices

### 3.1 Semi-Annual Index Review

The MSCI High Dividend Yield Indices are rebalanced semi-annually. Changes are implemented as of the close of the last business day of May and November, to coincide with the Semi-Annual Index Reviews of their Parent Indices. The pro forma Indices are announced nine business days before the effective date.

The fundamental data used to determine the High Dividend Yield Indices is maintained monthly. For the May and November Semi-Annual Index Reviews, the fundamental data as of the end of April and the end of October is used respectively.

The Semi-Annual Index Review involves a comprehensive review of the MSCI High Dividend Yield Indices. During each Semi-Annual Index Review, the constituents of the underlying Parent Index are screened for potential inclusion in the High Dividend Yield Index according to the screening process described in Section 2.

Existing constituents of the current High Dividend Yield Index will also be evaluated for continued inclusion using the following screening process:

- If a security is already an Index constituent, it will remain in the index until it reaches the top 2% by increasing order of dividend payout. If it is within the top 2% limit, it will be excluded from the Index.
- If a security is already an Index constituent but its 5Y DPS growth rate turns negative, it will still be allowed to remain in the Index, provided that the 1Y DPS growth rate<sup>2</sup> of that security is non-negative. This allows current Index constituents that suffer only a temporary decline in the 5Y DPS growth rate to remain in the index and thus avoid excessive index turnover.
- If a security is already an Index constituent, it will remain in the index as long as its dividend yield is higher than or equal to the Parent Index yield.

### 3.2 Quarterly Index Reviews

The Quarterly Index Review of the Parent Indices will not result in any change in the MSCI High Dividend Yield Indices except for deletions from the Parent Indices.

### 3.3 Ongoing event related changes

Between Semi-Annual Index Reviews, the MSCI High Dividend Yield Indices follow the event maintenance of the Parent Index.

#### 3.3.1 IPOs and other Early Inclusions

IPOs and other newly listed securities will only be considered for inclusion at the next Semi-Annual Index Review, even if they qualify for early inclusion in the Parent Indices.

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<sup>2</sup> See appendix for definition of 1Y DPS growth and its calculation.

### 3.3.2 Additions and Deletions due to Corporate Events

There will be no early inclusion of new securities to the High Dividend Yield Index, except when the new security results from an event affecting an existing constituent (e.g., spin off, merger).

A constituent deleted from the Parent Index following a corporate event will be simultaneously deleted from the MSCI High Dividend Yield Index.

# Appendix I: Variable Definitions and Computations

This appendix provides details on the definitions and computations of the variables used to screen the securities for index construction and maintenance.

## 1. Dividend yield (D / P)

$$D / P = \text{Current Annualized Dividend per Share} / \text{Price of Security}$$

The current annualized dividend per share is the trailing 12-month dividend per share derived from the current fiscal year end dividend per share plus the difference between the interim dividend per share of the current fiscal year and the previous fiscal year. For the USA and Canada, the current annualized dividend per share is calculated by annualizing the latest published quarterly dividend. Yields are gross, before withholding tax, and take into account special tax credits when applicable.

## 2. Payout Ratio (PO)

The payout ratio is calculated as follows:

$$PO = \text{Dividends per share} / \text{Earnings per share}$$

The most recently reported earnings value is used to for earnings per share while the current annualized dividend per share is used for dividends.

## 3. 5Y DPS Growth

For the calculation of the 5Y DPS Growth, first a regression (ordinary least squares method) is applied to the last 5 yearly DPS.

$$DPSt = axt + b$$

Where:

- $a$ , the slope coefficient,
- $b$ , the intercept,
- $t$ , the year expressed in number of months.

Then, an average DPS is estimated:

$$\tilde{D} \tilde{P} \tilde{S} = \frac{\sum_{i=1}^n DPS_i}{n}$$

The growth trend is finally obtained as follows:

$$5Y \text{ DPS G} = \frac{ADPS}{\tilde{D} \tilde{P} \tilde{S}}$$

In order to compute a meaningful long-term historical growth trend for the DPS, 5 years of comparable data are generally required. In the event that comparable restated pro forma data are unavailable, MSCI may restate the data using adjustments. A minimum of the last four DPS values are required for calculating the growth and growth trends for securities without sufficient DPS values are considered to be missing (except in the case of IPOs where it will be on a case-by-case basis.).

#### 4. 1Y DPS Growth

The 1Y DPS growth rate is the difference between the current and previous annual DPS.

$$1Y \text{ DPS G} = \frac{DPS_t - DPS_{t-12}}{DPS_{t-12}}$$

Where:

- $t$  is the year expressed in number of months.

The 1Y DPS growth is used for assessing the continued eligibility of existing constituents whose 5Y DPS growth has turned negative.

## Appendix II: Calculation of Market Mean

This appendix explains the calculation of the market mean used in the determination of the market average dividend yield.

The market mean is the market capitalization weighted average of the variable and is computed as follows:

$$\frac{\sum_{i=1}^n (\text{Current security price} \times \text{Total current security shares outstanding} \times \frac{1}{\text{Exchange Rate}} \times \text{Inclusion Factor})}{\sum_{i=1}^n (\text{Security level per share figure} \times \text{Total current security shares outstanding} \times \frac{1}{\text{Exchange Rate}} \times \text{Inclusion Factor})}$$

Where,

n=number of securities included in the calculation.

If any per share figure is not available for a particular security, the security is not included in the calculation for that particular ratio.

Only securities with non-missing variables are included in the market mean and standard deviation.

# Appendix III: Enhancements to the Methodology for MSCI High Dividend Yield Indices (Effective from June 03, 2013)

Starting from the May 2013 Semi-Annual Index Review the MSCI High Dividend Yield Indices will transition to an enhanced methodology that will include the changes described below. All other index construction and maintenance rules described in sections 2 and 3 will continue to be applied.

## 1. Additional Screenings

In addition to the Dividend Sustainability and Dividend Persistence screenings described in section 2.2, the following two new screenings will be applied to determine the eligible universe of MSCI High Dividend Yield Indices.

### 1. Quality Screening

Securities with negative Quality Z-score are not considered for inclusion in the MSCI High Dividend Yield Indices. Existing constituents of MSCI High Dividend Yield Indices are excluded from the eligible universe if their Quality Z-score is less than -0.5.

The Quality Z-scores are calculated using fundamental variables such as Return on Equity, Earnings Variability and Debt to Equity.

For the details on computation of the Quality Z-score, please refer to the section 2.2.3 of MSCI Quality Indices Methodology ([http://www.msci.com/eqb/methodology/meth\\_docs/MSCI\\_Quality\\_Indices\\_Methodology.pdf](http://www.msci.com/eqb/methodology/meth_docs/MSCI_Quality_Indices_Methodology.pdf))

The Quality Screening will not be applied to MSCI High Dividend Yield Indices derived from Parent Indices including the Small Cap size segment.

### 2. Price Performance Screening

Securities ranked in the bottom 5% of securities with negative 1-year Price Performance are excluded from the index.

## 2. Weighting Scheme

As described in section 2.4., the MSCI High Dividend Yield Index is a free float adjusted market capitalization weighted index. Additionally, capping of issuer weights will be introduced to mitigate concentration risk:

- Issuers in the MSCI High Dividend Yield Indices based on broad parent MSCI Indices (e.g. MSCI World Index, MSCI Emerging Markets Index etc.) will be capped at 5%
- Issuers of MSCI High Dividend Yield Indices based on narrow parent MSCI Indices will be capped at the maximum weight in the Parent Index.

Narrow parent MSCI Indices are defined as those indices for which maximum market capitalization weight in the Parent Index is more than 10%.

In addition, starting from the May 2013 Semi-Annual Index Review, MSCI will apply the dividend persistence screening to MSCI High Dividend Yield Indices derived from MSCI Emerging Markets Parent Indices.

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The company's flagship product offerings are: the MSCI indices with close to USD 7 trillion estimated to be benchmarked to them on a worldwide basis<sup>1</sup>; Barra multi-asset class factor models, portfolio risk and performance analytics; RiskMetrics multi-asset class market and credit risk analytics; IPD real estate information, indices and analytics; MSCI ESG (environmental, social and governance) Research screening, analysis and ratings; ISS governance research and outsourced proxy voting and reporting services; FEA valuation models and risk management software for the energy and commodities markets; and CFRA forensic accounting risk research, legal/regulatory risk assessment, and due-diligence. MSCI is headquartered in New York, with research and commercial offices around the world.

<sup>1</sup>As of March 31, 2012, as published by eVestment, Lipper and Bloomberg in September 2012