MSCI INDEX CALCULATION METHODOLOGY

Index Calculation Methodology for the MSCI Equity Indexes

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CONTENTS

INTRODUCTION

This methodology book provides an exhaustive description of the rules and guidelines followed by MSCI for construction and maintenance of the MSCI Global Investable Market Indexes. Any exceptions to these rules are reviewed and approved by the MSCI Equity Index Committee and are publically announced in advance of the implementation.

This methodology book describes MSCI's general Index calculation methodology for the MSCI Equity Indexes.

MSCI provides two ways of calculating MSCI Equity Indexes, either by using the Price Adjustment Factor (PAF) or the Index Divisors (Index Divisors methodology available as an appendix).

These policies and guidelines affect all securities across the MSCI Equity Indexes and products. Unless otherwise stated the policies and guidelines apply therefore to all securities in the MSCI Equity universe.

Please note that the index construction methodology and other guiding principles for the MSCI Standard Indexes can be found in MSCI Global Investable Market Indexes Methodology Indexes document, available at www.msci.com.

MSCI EQUITY INDEXES

The MSCI Equity Indexes measure the performance of a set of equity securities over time. The MSCI Equity Indexes are calculated using the Laspeyres' concept of a weighted arithmetic average together with the concept of chain-linking.

MSCI country and regional equity Indexes are calculated in "local currency" as well as in USD, with price, gross and net returns.

Index levels are also available in several other currencies such as AUD, BRL, CAD, CHF, CNY, EUR, GBP, HKD, INR, JPY, KRW, RUB and SGD.

While the local currency series of regional indexes cannot be replicated in the real world, it represents the theoretical performance of an index without any impact from foreign exchange fluctuations — a continuously hedged portfolio.

Indexes are calculated 5 days a week, from Monday to Friday with the exception of a selection of indexes that have Sunday calculations available.

In certain cases, where there are no qualifying securities, it is possible for MSCI Indexes to be empty following a security deletion or GICS change. If an index becomes empty it would be dynamically discontinued or 'ruptured'. It is then possible for the index to be re-started once a new security qualifies for the index, and this index level would be rebased to an appropriate level at that time.

1 MSCI PRICE INDEX METHODOLOGY

Price indexes measure the market prices performance for a selection of securities. They are calculated daily and, for some of them, on a real time basis. Each index captures the market capitalization weighted return of all constituents included in the index.

1.1 PRICE INDEX LEVEL

As a general principle, today's index level is obtained by applying the change in the market performance to the previous period index level.

$$PriceIndexLevelUSD_t = PriceIndexLevelUSD_{t-1} * \frac{IndexAdjustedMarketCapUSD_t}{IndexInitialMarketCapUSD_t}$$

$$PriceIndexLevelLocal_t = PriceIndexLevelLocal_{t-1} * \frac{IndexAdjustedMarketCapForLocal_t}{IndexInitialMarketCapUSD_t}$$

Where:

- $PriceIndexLevelUSD_{t-1}$ is the Price Index level in USD at time t-1
- $IndexAdjustedMarketCapUSD_t$ is the Adjusted Market Capitalization of the index in USD at time t
- $IndexInitialMarketCapUSD_t$ is the Initial Market Capitalization of the index in USD at time t
- $PriceIndexLevelLocal_{t-1}$ is the Price Index level in local currency at time t-1
- $IndexAdjustedMarketCapForLocal_t$ is the Adjusted Market Capitalization of the index in USD converted using FX rate as of t-1 and used for local currency index at time t

Note: $IndexInitialMarketCapUSD$ was previously called $IndexUnadjustedMarketCapPreviousUSD$

1.1.1 INDEX MARKET CAPITALIZATION

$$IndexAdjustedMarketCapUSD_t = \sum_{s \in I,t} \frac{EndOfDayNumberOfShares_{t-1} * PricePerShare_t * InclusionFactor_t * PAF_t}{FXrate_t}$$

$$IndexAdjustedMarketCapForLocal_t = \sum_{s\in I,t}\left(\frac{EndOfDayNumberOfShares_{t-1} * PricePerShare_t * InclusionFactor_t * PAF_t}{FXrate_{t-1}} * \frac{ICI_t}{ICI_{t-1}}\right)$$

$$IndexInitialMarketCapUSD_t = \sum_{s\in I,t}\frac{EndOfDayNumberOfShares_{t-1} * PricePerShare_{t-1} * InclusionFactor_t}{FXrate_{t-1}}$$

Where:

- $EndOfDayNumberOfShares_{t-1}$ is the number of shares of security s at the end of day t-1.
- $PricePerShare_t$ is the price per share of the security s at time t.
- $PricePerShare_{t-1}$ is the price per share of security s at time t-1.
- $InclusionFactor_t$ is the inclusion factor of the security s at time t. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor, Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor (*).
- PAF_t is the Price Adjustment Factor of the security s at time t.
- $FXrate_t$ is the FX rate of the price currency of security s vs USD at time t. It is the value of 1 USD in foreign currency.
- $FXrate_{t-1}$ is the FX rate of the price currency of security s vs USD at time t-1. It is the value of 1 USD in foreign currency.
- ICI_t is the Internal Currency Index of price currency at time t. The ICI is different than 1 when a country changes the internal value of its currency (e.g. from Turkish Lira to New Turkish Lira – ICI = 1,000,000).
- ICI_{t-1} is the Internal Currency Index of price currency at time t-1.

(*) From June 1 2007 to May 31 2008, to calculate the standard or small cap index market capitalization (except for FM countries and China A), the security market cap should be multiplied by the Standard or Small Cap Index Inclusion Factor.

From September 1 2009 to November 30 2009, to calculate the China A and related indexes markets capitalization, the China A securities market cap should be multiplied by the Standard Index Inclusion Factor.

The 'Standard Index Inclusion Factor' is solely used for the computation of the MSCI Standard Indexes, and not for the Large Cap, Mid Cap and Provisional Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

The 'Small Cap Index Inclusion Factor' is not used for the computation of the MSCI Emerging Markets and AC Small Cap Indexes, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

Note:

The only difference in the formulas between USD and local currency indexes calculation is that the same exchange rate is used in the numerator and denominator for local currency, which means that there is no impact of currency change in the performance. Time variant exchange rates are used for the USD calculation.

1.1.2 EXAMPLE OF CALCULATION

Example of index calculation.

Day 1

	Number Of Shares t-1	Price Per Share t	Price Per Share t-1	Inclusion Factor t	PAF t	FX rate t	FX rate t-1	Index Adjusted Market Cap USD t (see 1.1.1)	Index Initial Market Cap USD t (see 1.1.1)	Index Adjusted Market Cap For Local t (see 1.1.1)
Security A	150000	152.60	154.00	0.75	1	1.50	1.49	11,445,000	11,627,517	11,521,812
Security B	26000	98.40	105.00	1.00	1	1.15	1.14	2,224,696	2,394,737	2,244,211
Security C	290000	1592.60	1603.50	0.60	1	125.00	125.50	2,216,899	2,223,179	2,208,067
Security D	360000	268.00	265.30	0.85	1	1.50	1.50	54,672,000	54,121,200	54,672,000
Total Index								70,558,595	70,366,633	70,646,090

	t	t-1	daily perf
Price Index Level USD (see 1.1)	100.273	100.000	0.27%
Price Index Level Local (see 1.1)	100.397	100.000	0.40%

Day 2

Security C is ex Right issue 1 : 1 @ 1300

	Number Of Shares t-1	Price Per Share t	Price Per Share t-1	Inclusion Factor t	PAF t	FX rate t	FX rate t-1	Index Adjusted Market Cap USD t (see 1.1.1)	Index Initial Market Cap USD t (see 1.1.1)	Index Adjusted Market Cap For Local t (see 1.1.1)
Security A	150000	160.00	152.60	0.75	1	1.51	1.50	11,920,530	11,445,000	12,000,000
Security B	26000	95.00	98.40	1.00	1	1.16	1.15	2,129,310	2,224,696	2,147,826
Security C	290000	1450.00	1592.60	0.60	1.1034	124.50	125.00	2,236,145	2,216,899	2,227,200
Security D	360000	265.00	268.00	0.85	1	1.51	1.50	53,701,987	54,672,000	54,060,000
Total Index								69,987,971	70,558,595	70,435,026

	t	t-1	daily perf
Price Index Level USD (see 1.1)	99.462	100.273	-0.81%
Price Index Level Local (see 1.1)	100.221	100.397	-0.18%

Day 3

Security C has an increase of number of shares following the right issue ex on Day 2

	Number Of Shares t-1	Price Per Share t	Price Per Share t-1	Inclusion Factor t	PAF t	FX rate t	FX rate t-1	Index Adjusted Market Cap USD t (see 1.1.1)	Index Initial Market Cap USD t (see 1.1.1)	Index Adjusted Market Cap For Local t (see 1.1.1)
Security A	150000	165.00	160.00	0.75	1	1.50	1.51	12,375,000	11,920,530	12,293,046
Security B	26000	102.00	95.00	1.00	1	1.17	1.16	2,266,667	2,129,310	2,286,207
Security C	580000	1545.00	1450.00	0.60	1	124.45	124.50	4,320,289	4,053,012	4,318,554
Security D	360000	266.00	265.00	0.85	1	1.50	1.51	54,264,000	53,701,987	53,904,636
Total Index								73,225,956	71,804,839	72,802,443

	t	t-1	daily perf
Price Index Level USD (see 1.1)	101.430	99.462	1.98%
Price Index Level Local (see 1.1)	101.614	100.221	1.39%

1.2 PRICE INDEX LEVEL (ALTERNATIVE CALCULATION FORMULA – CONTRIBUTION METHOD)

Another way to calculate the index level would be to use the initial weight and price return of the individual securities included in the index:

$$PriceIndexLevelUSD_t = PriceIndexLevelUSD_{t-1} * (1 + \sum_{s \in I,t} SecurityPriceContributionToIndexUSD_t)$$

$$PriceIndexLevelLocal_t = PriceIndexLevelLocal_{t-1} * (1 + \sum_{s \in I,t} SecurityPriceContributionToIndexLocal_t)$$

1.2.1 SECURITY CONTRIBUTION TO THE INDEX

$$SecurityPriceContributionToIndexUSD_t = InitialSecurityWeight_t * SecurityDailyPriceReturnUSD_t$$

$$SecurityPriceContributionToIndexLocal_t = InitialSecurityWeight_t * SecurityDailyPriceReturnLocal_t$$

Where:

- $SecurityDailyPriceReturnUSD_t$ is the price return in USD of security s at time t.
- $SecurityDailyPriceReturnLocal_t$ is the price return of security s at time t converted using FX rate as of t-1 and used for local currency calculation at time t.

1.2.2 TODAY'S INITIAL SECURITY WEIGHT

$$InitialSecurityWeight_t =$$

$$\frac{\frac{EndOfDayNumberOfShares_{t-1} * PricePerShare_{t-1}}{FXrate_{t-1}} * InclusionFactor_t}{\sum_{s \in I,t}(\frac{EndOfDayNumberOfShares_{t-1} * PricePerShare_{t-1}}{FXrate_{t-1}} * InclusionFactor_t)} * 100 =$$

$$\frac{SecurityInitialFullMarketCapUSD_t * InclusionFactor_t}{\sum_{s \in I,t}(SecurityInitialFullMarketCapUSD_t * InclusionFactor_t)} * 100 =$$

$$\frac{SecurityInitialMarketCapUSD_t}{IndexInitialMarketCapUSD_t} * 100$$

Where:

- $EndOfDayNumberOfShares_{t-1}$ is the number of shares of security s at the end of day t-1.
- $PricePerShare_{t-1}$ is the price per share of security s at time t-1.
- $InclusionFactor_t$ is the inclusion factor of security s at time t. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor, Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor (*).
- $FXrate_{t-1}$ is the FX rate of the price currency of security s vs USD at time t-1. It is the value of 1 USD in foreign currency.

(*) From June 1 2007 to May 31 2008, to calculate the standard or small cap index market capitalization (except for FM Countries and China A), the security market cap should be multiplied by the Standard or Small Cap Index Inclusion Factor.

From September 1 2009 to November 30 2009, to calculate the China A and related indexes markets capitalization, the China A securities market cap should be multiplied by the Standard Index Inclusion Factor.

The 'Standard Index Inclusion Factor' is solely used for the computation of the MSCI Standard Indexes, and not for the Large Cap, Mid Cap and Provisional Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

The 'Small Cap Index Inclusion Factor' is not used for the computation of the MSCI Emerging Markets and AC Small Cap Indexes, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

Note: The $SecurityInitialFullMarketCapInSecurityPriceCurrency_t$ is also available in the security files and corresponds to the $SecurityInitialFullMarketCapUSD_t$ multiplied by the $FXrate_{t-1}$

The $EndOfDayNumberOfShares_{t-1}$ used to calculate today's initial weight, available in the MSCI products dated day$t$, is shown as "Number of Shares (Today Index)".

1.2.3 SECURITY DAILY PRICE RETURN

$$SecurityDailyPriceReturnUSD_t = \left[\frac{SecurityAdjustedMarketCapUSD_t}{SecurityInitialMarketCapUSD_t} - 1\right] * 100$$

$$SecurityDailyPriceReturnLocal_t = \left[\frac{SecurityAdjustedMarketCapForLocal_t}{SecurityInitialMarketCapUSD_t} - 1\right] * 100$$

$$SecurityAdjustedMarketCapForLocal_t = \frac{EndOfDayNumberOfShares_{t-1} * PricePerShare_t * InclusionFactor_t * PAF_t}{FXrate_{t-1}} * \frac{ICI_t}{ICI_{t-1}}$$

$$SecurityAdjustedMarketCapUSD_t = \frac{EndOfDayNumberOfShares_{t-1} * PricePerShare_t * InclusionFactor_t * PAF_t}{FXrate_t}$$

$$SecurityInitialMarketCapUSD_t = \frac{EndOfDayNumberOfShares_{t-1} * PricePerShare_{t-1} * InclusionFactor_t}{FXrate_{t-1}}$$

Where:

- $SecurityAdjustedMarketCapForLocal_t$ is the Adjusted Market Capitalization of security s in USD converted using FX rate as of t-1
- $SecurityAdjustedMarketCapUSD_t$ is the Adjusted Market Capitalization of security s in USD converted using FX rate as of t
- $SecurityInitialMarketCapUSD_t$ is the Initial Market Capitalization of security s in USD at time t
- $EndOfDayNumberOfShares_{t-1}$ is the number of shares of security s at the end of day t-1.
- $PricePerShare_t$ is the price per share of security s at time t.
- $PricePerShare_{t-1}$ is the price per share of security s at time t-1.
- $InclusionFactor_t$ is the inclusion factor of security s at time t. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor, Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor (*).

- PAF_t is the Price Adjustment Factor of security s at time t.
- $FXrate_t$ is the FX rate of the price currency of security s vs USD at time t. It is the value of 1 USD in foreign currency.
- $FXrate_{t-1}$is the FX rate of the price currency of security s vs USD at time t-1. It is the value of 1 USD in foreign currency.
- ICI_t is the Internal Currency Index of price currency at time t. The ICI is different than 1 when a country changes the internal value of its currency (e.g. from Turkish Lira to New Turkish Lira – ICI = 1,000,000).
- ICI_{t-1} is the Internal Currency Index of price currency at time t-1.

(*) From June 1 2007 to May 31 2008, to calculate the standard or small cap index market capitalization (except for FM Countries and China A), the security market cap should be multiplied by the Standard or Small Cap Index Inclusion Factor.

From September 1 2009 to November 30 2009, to calculate the China A and related indexes markets capitalization, the China A securities market cap should be multiplied by the Standard Index Inclusion Factor.

The 'Standard Index Inclusion Factor' is solely used for the computation of the MSCI Standard Indexes, and not for the Large Cap, Mid Cap and Provisional Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

The 'Small Cap Index Inclusion Factor' is not used for the computation of the MSCI Emerging Markets and AC Small Cap Indexes, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

1.2.4 EXAMPLE OF CALCULATION USING CONTRIBUTION

Day 1

	Number Of Shares t-1	Price Per Share t	Price Per Share t-1	Inclusion Factor t	PAF t	FX rate t	FX rate t-1	Initial Security Weight t (see 1.2.2)	Security Daily Price_Return USD t (see 1.2.3)	Security Price contribution To Index USD (see 1.2.1)	Security Daily Price_Return Local t (see 1.2.3)	Security Price contribution To Index Local (see 1.2.1)
Security A	150000	152.60	154.00	0.75	1	1.50	1.49	16.52%	-1.57%	-0.26%	-0.91%	-0.15%
Security B	26000	98.40	105.00	1.00	1	1.15	1.14	3.40%	-7.10%	-0.24%	-6.29%	-0.21%
Security C	290000	1592.60	1603.50	0.60	1	125.00	125.50	3.16%	-0.28%	-0.01%	-0.68%	-0.02%
Security D	360000	268.00	265.30	0.85	1	1.50	1.50	76.91%	1.02%	0.78%	1.02%	0.78%
Total Index								100.00%		0.27%		0.40%
		t	t-1	daily perf								
Price Index Level USD (see 1.2)		100.273	100.000	0.27%								
Price Index Level Local (see 1.2)		100.397	100.000	0.40%								

Day 2

Security C is ex Right issue 1 : 1 @ 1300

	Number Of Shares t-1	Price Per Share t	Price Per Share t-1	Inclusion Factor t	PAF t	FX rate t	FX rate t-1	Initial Security Weight t (see 1.2.2)	Security Daily Price_Return USD t (see 1.2.3)	Security Price contribution To Index USD (see 1.2.1)	Security Daily Price_Return Local t (see 1.2.3)	Security Price contribution To Index Local (see 1.2.1)
Security A	150000	160.00	152.60	0.75	1	1.51	1.50	16.22%	4.15%	0.67%	4.85%	0.79%
Security B	26000	95.00	98.40	1.00	1	1.16	1.15	3.15%	-4.29%	-0.14%	-3.46%	-0.11%
Security C	290000	1450.00	1592.60	0.60	1.1034	124.50	125.00	3.14%	0.87%	0.03%	0.46%	0.01%
Security D	360000	265.00	268.00	0.85	1	1.51	1.50	77.48%	-1.77%	-1.37%	-1.12%	-0.87%
Total Index								100.00%		-0.81%		-0.18%
		t	t-1	daily perf								
Price Index Level USD (see 1.2)		99.462	100.273	-0.81%								
Price Index Level Local (see 1.2)		100.221	100.397	-0.18%								

Day 3

Security C has an increase of number of shares following the right issue ex on Day 2

	Number Of Shares t-1	Price Per Share t	Price Per Share t-1	Inclusion Factor t	PAF t	FX rate t	FX rate t-1	Initial Security Weight t (see 1.2.2)	Security Daily Price_Return USD t (see 1.2.3)	Security Price contribution To Index USD (see 1.2.1)	Security Daily Price_Return Local t (see 1.2.3)	Security Price contribution To Index Local (see 1.2.1)
Security A	150000	165.00	160.00	0.75	1	1.50	1.51	16.60%	3.81%	0.63%	3.13%	0.52%
Security B	26000	102.00	95.00	1.00	1	1.17	1.16	2.97%	6.45%	0.19%	7.37%	0.22%
Security C	580000	1545.00	1450.00	0.60	1	124.45	124.50	5.64%	6.59%	0.37%	6.55%	0.37%
Security D	360000	266.00	265.00	0.85	1	1.50	1.51	74.79%	1.05%	0.78%	0.38%	0.28%
Total Index								100.00%		1.98%		1.39%
		t	t-1	daily perf								
Price Index Level USD (see 1.2)		101.430	99.462	1.98%								
Price Index Level Local (see 1.2)		101.614	100.221	1.39%								

1.3 NEXT DAY INITIAL SECURITY WEIGHT

$$InitialSecurityWeight_{t+1} =$$

$$\frac{\frac{EndOfDayNumberOfShares_t * PricePerShare_t}{FXrate_t} * InclusionFactor_{t+1}}{\sum_{s\in I,t+1}(\frac{EndOfDayNumberOfShares_t * PricePerShare_t}{FXrate_t} * InclusionFactor_{t+1})} * 100 =$$

$$\frac{SecurityInitialFullMarketCapUSD_{t+1} * InclusionFactor_{t+1}}{\sum_{s\in I,t+1}(SecurityInitialFullMarketCapUSD_{t+1} * InclusionFactor_{t+1})} * 100 =$$

$$\frac{SecurityInitialMarketCapUSD_{t+1}}{IndexInitialMarketCapUSD_{t+1}} * 100$$

Where:

- $EndOfDayNumberOfShares_t$ is the number of shares of security s at the end of day t.
- $PricePerShare_t$ is the price per share of the security s at time t.
- $InclusionFactor_{t+1}$ is the inclusion factor of the security s at time t+1. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor, Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor (*).
- $FXrate_t$ is the FX rate of the price currency of security s vs USD at time t. It is the value of 1 USD in foreign currency.

(*) From June 1 2007 to May 31 2008, to calculate the standard or small cap index market capitalization (except for FM Countries and China A), the security market cap should be multiplied by the Standard or Small Cap Index Inclusion Factor.

From September 1 2009 to November 30 2009, to calculate the China A and related indexes markets capitalization, the China A securities market cap should be multiplied by the Standard Index Inclusion Factor.

The 'Standard Index Inclusion Factor' is solely used for the computation of the MSCI Standard Indexes, and not for the Large Cap, Mid Cap and Provisional Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

The 'Small Cap Index Inclusion Factor' is not used for the computation of the MSCI Emerging Markets and AC Small Cap Indexes, MSCI Small Cap Value and Growth, MSCI Provisional

Small Cap and MSCI Small Cap Sectors Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

The list of index constituents as of time t+1 is considered in the calculation.

Notes:

The $SecurityInitialFullMarketCapInSecurityPriceCurrency_{t+1}$ is also available in the security files and corresponds to the $SecurityInitialFullMarketCapUSD_{t+1}$ multiplied by the $FXrate_t$

The $EndOfDayNumberOfShares_t$ used to calculate next day's initial weight, available in the MSCI products dated day$t$, is shown as "Number of Shares (Next Day Index)".

1.4 CLOSING INDEX MARKET CAPITALIZATION TODAY USD (UNADJUSTED MARKET CAP TODAY USD)

The value of the index market capitalization as of the close of a day is calculated as follows:

$$IndexClosingMarketCapUSD_t = \sum_{s \in I,t} \frac{ClosingNumberOfShares_t * PricePerShare_t * InclusionFactor_t}{FXrate_t}$$

Where

- $ClosingNumberOfShares_t$ is the number of shares of security s at the close of t.
- $PricePerShare_t$is the security price per share of security s at time t.
- $InclusionFactor_t$ is the inclusion factor of the security s at time t. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor, Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor (*).
- $FXrate_t$ is the FX rate of the price currency of security s vs USD at time t. It is the value of 1 USD in foreign currency.

(*) From June 1 2007 to May 31 2008, to calculate the standard or small cap index market capitalization (except for FM Countries and China A), the security market cap should be multiplied by the Standard or Small Cap Index Inclusion Factor.

From September 1 2009 to November 30 2009, to calculate the China A and related indexes markets capitalization, the China A securities market cap should be multiplied by the Standard Index Inclusion Factor.

The 'Standard Index Inclusion Factor' is solely used for the computation of the MSCI Standard Indexes, and not for the Large Cap, Mid Cap and Provisional Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

The 'Small Cap Index Inclusion Factor' is not used for the computation of the MSCI Emerging Markets and AC Small Cap Indexes, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

The list of index constituents as of time t should be considered in the calculation.

Effectively this figure represents the shares at the close on **t**, and does not include any of the effects of corporate actions due at the open of the market the next day.

The closing market capitalization uses today's price, **t**, as it represents the market capitalization at the close of the calculation day **t**.

1.5 SECURITY INDEX OF PRICE IN LOCAL

The security Index of Price is distributed in MSCI daily and monthly security products [It represents the price return from period to period by utilizing the concept of an index of performance with an arbitrary base value. The index of price is fully adjusted for capital changes and is expressed in local currency.

$$SecurityPriceIndexLevel_t = SecurityPriceIndexLevel_{t-1} * \frac{SecurityAdjustedMarketCapForLocal_t}{SecurityInitialMarketCapUSD_t}$$

$$SecurityAdjustedMarketCapForLocal_t = \frac{EndOfDayNumberOfShares_{t-1} * PricePerShare_t * InclusionFactor_t * PAF_t}{FXrate_{t-1}} * \frac{ICI_t}{ICI_{t-1}}$$

$$SecurityInitialMarketCapUSD_t = \frac{EndOfDayNumberOfShares_{t-1} * PricePerShare_{t-1} * InclusionFactor_t}{FXrate_{t-1}}$$

Where:

- $SecurityPriceIndexLevel_{t-1}$ is Security Price Index level at time t-1
- $SecurityAdjustedMarketCapForLocal_t$ is the Adjusted Market Capitalization of security s in USD converted using FX rate as of t-1
- $SecurityInitialMarketCapUSD_t$ is the Initial Market Capitalization of security s in USD at time t
- $EndOfDayNumberOfShares_{t-1}$ is the number of shares of security s at the end of day t-1.
- $PricePerShare_t$ is the price per share of security s at time t.
- $PricePerShare_{t-1}$ is the price per share of security s at time t-1.
- $InclusionFactor_t$ is the inclusion factor of security s at time t. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor (*).
- PAF_t is the Price Adjustment Factor of security s at time t.
- $FXrate_{t-1}$ is the FX rate of the price currency of security s vs USD at time t-1. It is the value of 1 USD in foreign currency.
- ICI_t is the Internal Currency Index of price currency at time t. The ICI is different than 1 when a country changes the internal value of its currency (e.g. from Turkish Lira to New Turkish Lira – ICI = 1,000,000).
- ICI_{t-1} is the Internal Currency Index of price currency at time t-1.

(*) From June 1 2007 to May 31 2008, to calculate the standard or small cap index market capitalization (except for FM Countries and China A), the security market cap should be multiplied by the Standard or Small Cap Index Inclusion Factor.

From September 1 2009 to November 30 2009, to calculate the China A and related indexes markets capitalization, the China A securities market cap should be multiplied by the Standard Index Inclusion Factor.

The 'Standard Index Inclusion Factor' is solely used for the computation of the MSCI Standard Indexes, and not for the Large Cap, Mid Cap and Provisional Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

The 'Small Cap Index Inclusion Factor' is not used for the computation of the MSCI Emerging Markets and AC Small Cap Indexes, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

1.6 NOTE ON INDEX CALCULATION IN LOCAL CURRENCY

The MSCI Country and Regional Indexes are calculated in local currency as well as in USD. The concept of a "local currency" calculation excludes the impact of currency fluctuations.

Note that for a country index, the local currency index will not be the same as an index calculated with the official currency of that country, if there is more than one currency of listing.

All currencies of listing are considered in the index calculation in local currency where current $prices_t$ and previous day $prices_{t-1}$ are converted into USD using the same exchange rate (exchange $rate_{t-1}$) in the numerator and denominator. As a consequence, the FX factor drops out of the equation.

The USD calculation includes exchange rates at t and t-1. Therefore, the local currency calculation only represents the price appreciation or depreciation of the securities, whereas the USD calculation also accounts for the performance of the currency (or currencies) relative to the USD.

1.7 CONVERSION OF INDEXES INTO ANOTHER CURRENCY

An index can be calculated into any currency by converting the index in USD into the selected currency using the formula below.

If the base date of the index is prior to the start date of the currency, the indexes should be rebased and converted using the following formula:

$$IndexLevelinCurrency_t = 100 * \frac{IndexLevelinUSD_t}{IndexLevelinUSD_{currency\_base\_date}} * \frac{FXrate_t}{FXrate_{currency\_base\_date}}$$

Note that 100 in the formula is the base value. This base value can be different than 100 (e.g. 1000 depending on the indexes).

- If the base date of the index is equal or posterior to the start date of the currency, the indexes should be converted only, using the following formula:

$$IndexLevelinCurrency_t = IndexLevelinUSD_t * \frac{FXrate_t}{FXrate_{index\_base\_date}}$$

Example:

Calculation of the The World Index in EUR as of October 20, 1999:
Note that the start date of EUR is 31-Dec-1998

The World Index in USD as of 31-Dec-98 = 1,149.951577

The World Index as of 20- Oct- 99 = 1,224.048387

FxRate EUR vs USD as of 31-Dec- 98 = 0.8516074

FxRate EUR vs USD as of 20-Oct-99 = 0.9279451

$$WorldIndexinEUR_{10/20/99} = 100 * \frac{WorldIndexinUSD_{10/20/99}}{WorldIndexinUSD_{31/12/98}} * \frac{EURvsUSDRate_{10/20/99}}{EURvsUSDRate_{12/31/98}} =$$

$$100 * \frac{1224.048387}{1149.951577} * \frac{0.9279451}{0.8516074} = 115.985$$

2 MSCI DAILY TOTAL RETURN (DTR) INDEX METHODOLOGY

Total return indexes measure the market performance, including price performance and income from regular cash distributions (cash dividend payments or capital repayments). Regular cash distributions paid out of share capital or capital contribution reserves are treated in the same manner as regular cash dividends paid out of retained earnings. This income is reinvested in the index and thus makes up part of the total index performance.

MSCI's Daily Total Return (DTR) methodology reinvests regular cash distributions in indexes on the ex-date of such distributions. . It applies to all index families. Regular cash distributions are not considered in price indexes, except for special dividends and capital repayments deemed extraordinary in certain circumstances described below.

The standard Daily Total Return (DTR) Indexes are calculated and distributed on a daily basis. The indexes are available in USD and local currency (no currency impact), with gross and net total return.

2.1 CALCULATION METHODOLOGY

$$DTRIndexLevelUSD_t = DTRIndexLevelUSD_{t-1} * \frac{(IndexAdjustedMarketCapUSD_t + IndexDividendImpactUSD_t)}{IndexInitialMarketCapUSD_t}$$

$$DTRIndexLevelLocal_t = DTRIndexLevelLocal_{t-1} * \frac{(IndexAdjustedMarketCapForLocal_t + IndexDividendImpactForLocal_t)}{IndexInitialMarketCapUSD_t}$$

Where:

- $DTRIndexLevelUSD_{t-1}$ is the Daily Total Return index level in USD at time t-1
- $IndexDividendImpactUSD_t$ is the gross or net amount of dividends in USD to be reinvested in the index in USD at time t
- $IndexDividendImpactForLocal_t$ is the gross or net amount of dividend in USD converted using FX rate as of t-1 to be reinvested in the local currency index at time t
- $DTRIndexLevelLocal_{t-1}$ the Daily Total Return index level in local currency at time t-1

2.1.1 DIVIDEND IMPACT

$$IndexDividendImpactUSD_t = \sum_{s\in I,t} \frac{EndOfDayNumberOfShares_{ex-date-1} * DividendPerShare_t * InclusionFactor_t}{FXrate_t}$$

$$IndexDividendImpactForLocal_t = \sum_{s\in I,t} \left(\frac{EndOfDayNumberOfShares_{ex-date-1} * DividendPerShare_t * InclusionFactor_t}{Fxrate_{t-1}} * \frac{ICI_t}{ICI_{t-1}}\right)$$

Where:

- $EndOfDayNumberOfShares_{ex-date-1}$ is the number of shares of the security s at the end of the dividend ex-date-1.
- $DividendPerShare_t$ is the gross or net dividend per share expressed in the same currency unit as the price per share of the security s to be reinvested at time t.

2.1.2 DTR INDEX LEVEL FROM SECURITY INFORMATION (SECURITY DTR)

Another way to calculate a DTR index would be to use the security initial weight and security total return:

$$DTRIndexLevelUSD_t = DTRIndexLevelUSD_{t-1} * (1 + \sum_{s\in I,t} SecurityTotalReturnContributionToIndexUSD_t)$$

$$DTRIndexLevelLocal_t = DTRIndexLevelLocal_{t-1} * (1 + \sum_{s\in I,t} SecurityTotalReturnContributionToIndexLocal_t)$$

2.1.3 SECURITY CONTRIBUTION TO THE INDEX

Calculation Formulas:

$$SecurityTotalReturnContributionToIndexUSD_t = InitialSecurityWeight_t * SecurityDailyTotalReturnUSD_t$$

$$SecurityTotalReturnContributionToIndexLocal_t = InitialSecurityWeight_t * SecurityDailyTotalReturnLocal_t$$

Where:

- $SecurityDailyTotalReturnUSD_t$ is the gross or net return in USD of security s at time t.
- $SecurityDailyTotalReturnLocal_t$ is the gross or net return of security s at time t converted using the FX rate as of t-1 and used for local currency calculation at time t.

2.1.4 SECURITY DAILY TOTAL RETURN

2.1.4.1 SECURITY DAILY GROSS RETURN

$$SecurityDailyGrossReturnUSD_t = \left[\frac{(SecurityAdjustedMarketCapUSD_t + SecurityGrossDividendImpactUSD_t)}{SecurityInitialMarketCapUSD_t} - 1\right] * 100$$

$$SecurityDailyGrossReturnLocal_t = \left[\frac{(SecurityAdjustedMarketCapForLocal_t + SecurityGrossDividendImpactForLocal_t)}{SecurityInitialMarketCapUSD_t} - 1\right] * 100$$

Where

$$SecurityGrossDividendImpactUSD_t = \frac{EndOfDayNumberOfShares_{ex-date-1} * GrossDividendPerShare_t * InclusionFactor_t}{FXrate_t}$$

$$SecurityGrossDividendImpactForLocal_t = \frac{EndOfDayNumberOfShares_{ex-date-1} * GrossDividendPerShare_t * InclusionFactor_t}{FXrate_{t-1}} * \frac{ICI_t}{ICI_{t-1}}$$

Where

- $SecurityAdjustedMarketCapForLocal_t$ is the Adjusted Market Capitalization of security s in USD converted using FX rate as of t-1
- $SecurityAdjustedMarketCapUSD_t$ is the Adjusted Market Capitalization of security s in USD converted using FX rate as of t
- $SecurityInitialMarketCapUSD_t$ is the Initial Market Capitalization of security s in USD at time t
- $InclusionFactor_t$ is the inclusion factor of the security s at time t. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor, Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor (*).
- $FXrate_t$ is the FX rate of the price currency of security s vs USD at time t. It is the value of 1 USD in foreign currency.
- $FXrate_{t-1}$ is the FX rate of the price currency of security s vs USD at time t-1. It is the value of 1 USD in foreign currency.
- $EndOfDayNumberOfShares_{ex-date-1}$ is the number of shares of security s at the end of the dividend ex-date-1.
- $GrossDividendPerShare_t$ is the gross dividend per share expressed in the same currency unit as the price per share of the security s to be reinvested at time t.
- ICI_t is the Internal Currency Index of price currency at time t. The ICI is different than 1 when a country changes the internal value of its currency (e.g. from Turkish Lira to New Turkish Lira – ICI = 1,000,000).
- ICI_{t-1} is the Internal Currency Index of price currency at time t-1.

(*) From June 1 2007 to May 31 2008, to calculate the standard or small cap index market capitalization (except for FM Countries and China A), the security market cap should be multiplied by the Standard or Small Cap Index Inclusion Factor.

From September 1 2009 to November 30 2009, to calculate the China A and related indexes markets capitalization, the China A securities market cap should be multiplied by the Standard Index Inclusion Factor.

The 'Standard Index Inclusion Factor' is solely used for the computation of the MSCI Standard Indexes, and not for the Large Cap, Mid Cap and Provisional Indexes, as these are

all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

The 'Small Cap Index Inclusion Factor' is not used for the computation of the MSCI Emerging Markets and AC Small Cap Indexes, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

2.1.4.2 SECURITY DAILY NET RETURN

$$SecurityDailyNetReturnUSD_t = \left[\frac{(SecurityAdjustedMarketCapUSD_t + SecurityNetDividendImpactUSD_t)}{SecurityInitialMarketCapUSD_t} - 1\right] * 100$$

$$SecurityDailyNetReturnLocal_t = \left[\frac{(SecurityAdjustedMarketCapForLocal_t + SecurityNetDividendImpactForLocal_t)}{SecurityInitialMarketCapUSD_t} - 1\right] * 100$$

Where

$$SecurityNetDividendImpactUSD_t = \frac{EndOfDayNumberOfShares_{ex-date-1} * NetDividendPerShare_t * InclusionFactor_t}{FXrate_t}$$

$$SecurityNetDividendImpactForLocal_t = \frac{EndOfDayNumberOfShares_{ex-date-1} * NetDividendPerShare_t * InclusionFactor_t}{FXrate_{t-1}} * \frac{ICI_t}{ICI_{t-1}}$$

Where

- $SecurityAdjustedMarketCapForLocal_t$ is the Adjusted Market Capitalization of security s in USD converted using FX rate as of t-1
- $SecurityAdjustedMarketCapUSD_t$ is the Adjusted Market Capitalization of security s in USD converted using FX rate as of t
- $SecurityInitialMarketCapUSD_t$ is the Initial Market Capitalization of security s in USD at time t

- $InclusionFactor_t$ is the inclusion factor of the security s at time t. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor, Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor (*).
- $FXrate_t$ is the FX rate of the price currency of security s vs USD at time t. It is the value of 1 USD in foreign currency.
- $FXrate_{t-1}$ is the FX rate of the price currency of security s vs USD at time t-1. It is the value of 1 USD in foreign currency.
- $EndOfDayNumberOfShares_{ex-date-1}$ is the number of shares of the security s at the end of dividend ex-date-1.
- $NetDividendPerShare_t$ is the net dividend per share expressed in the same currency unit as the price per share of the security s to be reinvested at time t.
- ICI_t is the Internal Currency Index of price currency at time t. The ICI is different than 1 when a country changes the internal value of its currency (e.g. from Turkish Lira to New Turkish Lira – ICI = 1,000,000).
- ICI_{t-1} is the Internal Currency Index of price currency at time t-1.

(*) From June 1 2007 to May 31 2008, to calculate the standard or small cap index market capitalization (except for FM Countries and China A), the security market cap should be multiplied by the Standard or Small Cap Index Inclusion Factor.

From September 1 2009 to November 30 2009, to calculate the China A and related indexes markets capitalization, the China A securities market cap should be multiplied by the Standard Index Inclusion Factor.

The 'Standard Index Inclusion Factor' is solely used for the computation of the MSCI Standard Indexes, and not for the Large Cap, Mid Cap and Provisional Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

The 'Small Cap Index Inclusion Factor' is not used for the computation of the MSCI Emerging Markets and AC Small Cap Indexes, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

2.1.5 INITIAL SECURITY WEIGHT

$$InitialSecurityWeight_t =$$

$$\frac{\frac{EndOfDayNumberOfShares_{t-1} * PricePerShare_{t-1}}{FXrate_{t-1}} * InclusionFactor_t}{\sum_{s\in I,t}(\frac{EndOfDayNumberOfShares_{t-1} * PricePerShare_{t-1}}{FXrate_{t-1}} * InclusionFactor_t)} * 100 =$$

$$\frac{SecurityInitialFullMarketCapUSD_t * InclusionFactor_t}{\sum_{s\in I,t}(SecurityInitialFullMarketCapUSD_t * InclusionFactor_t)} * 100 =$$

$$\frac{SecurityInitialMarketCapUSD_t}{IndexInitialMarketCapUSD_t} * 100$$

Where:

- $EndOfDayNumberOfShares_{t-1}$ is the number of shares of security s at the end of day t-1.
- $PricePerShare_{t-1}$ is the price per share of security s at time t-1.
- $InclusionFactor_t$ is the inclusion factor of security s at time t. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor, Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor (*).
- $FXrate_{t-1}$ is the FX rate of the price currency of security s vs USD at time t-1. It is the value of 1 USD in foreign currency.

(*) From June 1 2007 to May 31 2008, to calculate the standard or small cap index market capitalization (except for FM countries and China A), the security market cap should be multiplied by the Standard or Small Cap Index Inclusion Factor.

From September 1 2009 to November 30 2009, to calculate the China A and related indexes markets capitalization, the China A securities market cap should be multiplied by the Standard Index Inclusion Factor.

The 'Standard Index Inclusion Factor' is solely used for the computation of the MSCI Standard Indexes, and not for the Large Cap, Mid Cap and Provisional Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

The 'Small Cap Index Inclusion Factor' is not used for the computation of the MSCI Emerging Markets and AC Small Cap Indexes, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indexes, as these are all constructed using the Global Investable Market Indexes methodology and were not subject to the transition methodology.

2.1.6 CURRENCY

For index calculations, all dividends are converted into USD at the spot rate of the ex date.

2.1.7 NUMBER OF SHARES AND INDEX WEIGHTING FACTOR

A dividend amount is expressed per share entitled to the dividend. Since the day before the ex-date is the last day on which the share is entitled to the dividend, the total dividend per security reinvested into an index is equal to the number of shares at the close of the ex-date-1 multiplied by the dividend per share.

In addition, a weighting factor of a security in the index is applied to the total dividend amount to be reinvested. This can be the Domestic Inclusion Factor (DIF), the Foreign Inclusion Factor (FIF), the Value Inclusion Factor (VIF), the Growth Inclusion Factor (GIF) or any inclusion factor considered in the price index calculation.

2.2 REINVESTMENT METHODOLOGY

Gross Daily Total Return

This series approximates the maximum possible reinvestment of regular cash distributions (cash dividends or capital repayments). The amount reinvested is the cash distributed to individuals resident in the country of the company, but does not include tax credits.

Net Daily Total Return

This series approximates the minimum possible reinvestment of regular cash distributions. Provided that the regular capital repayment is not subject to withholding tax, the reinvestment in the Net Daily Total Return is free of withholding tax. Effective December 1, 2009, the regular cash dividend is reinvested after deduction of withholding tax by applying the maximum rate of the company's country of incorporation applicable to institutional investors. MSCI uses different withholding taxes depending if the indexes are international or domestic:

- International indexes: the maximum rate applicable to non-resident institutional investors who do not benefit from double taxation treaties.
- Domestic indexes: the maximum rate applicable to resident institutional investors

For more information on how taxes are applicable to dividends, please refer to the Appendix for details about the withholding tax rates for the various countries.

2.2.1 TIMING OF REINVESTMENT

The amount of an announced regular cash distribution is reinvested on the ex-date of such distribution on its principal exchange. For securities trading on more than one exchange, MSCI uses the ex-date at the exchange from which MSCI sources the security's price.

If a security does not trade on the ex-date or on the scheduled reinvestment date of the regular cash distribution, the reinvestment is postponed to the day when the security resumes trading. The scheduled reinvestment date of a dividend can be a date later than the dividend ex-date in cases including, but not limited to a late dividend or a dividend correction.

2.2.2 REINVESTMENT RULES

Distribution Type	Size of security's cum price		Recurrence	Price Adjustment Factor	Included in the security's yield	More details in section
Regular Cash Dividend	-		-	No	Yes	2.2.3
Special Cash Dividend	<5%		Less than 3 consecutive years	No	No	2.2.4
	<5%		3 consecutive years or more	No	Yes	
		≥5%	Less than 3 consecutive years	Yes	No	
		≥5%	3 consecutive years or more	Yes	Yes	

Distribution Type	Regular i.e. in lieu of regular dividend	Price Adjustment Factor	Included in the security's yield	More details in section
Capital Repayment	Yes	No	Yes	2.2.3
	No	Yes	No	2.2.5

There are two principal guidelines in regards to cash distributions reinvestments:

- A cash distribution – in the form of regular cash dividend or regular capital repayment - is reinvested among all the constituents in an index. It is not considered in the MSCI Price indexes. Note that these distributions are taken into account in the underlying security's yield calculation.
- A special cash dividend that is unusually large, i.e. greater than or equal to 5% of the security cum price, or a capital repayment deemed to be extraordinary i.e. unlikely to recur on a regular basis, is reinvested by applying a PAF and is hence taken into account in MSCI Price indexes as well as in the MSCI DTR Indexes.

These guidelines are discussed in greater detail below.

2.2.3 DIVIDENDS RESULTING IN A REINVESTMENT ONLY

The following cash distributions are reinvested in the MSCI DTR Index:

Regular Cash Dividend

A regular cash dividend is a distribution of cash made by a company to its shareholders and is paid out of operating profits or retained earnings. Regular cash dividends, regardless of their size, are reinvested on the ex-date in the MSCI DTR Indexes.

Regular Capital Repayment

A capital repayment or return of capital is characterized by a cash distribution from the company's share capital or capital surplus to its shareholders. A capital repayment, regardless of its size, is considered as regular, if the cash distribution is in lieu of a regular cash dividend, or is in line with the dividend policy of the company or with the historical cash distributions. Provided that the capital repayment is not subject to withholding tax, the reinvestment in the MSCI DTR Indexes is free of withholding tax.

In Taiwan, a cash distribution paid out of capital surplus is considered as regular unless specified by the company that the distribution is deemed to be extraordinary. The cash distribution is reinvested in the MSCI DTR Indexes. Regarding the withholding tax treatment, please refer to sub-section 2.3.7.2.1 below.

Optional Dividend

In the case of an optional dividend, the company offers shareholders the choice of receiving the dividend either in cash or in shares. However, shareholders electing the cash option may receive the dividend consideration in cash or shares, or some combination of cash and shares.

MSCI assumes that shareholders receive the default distribution. If no default distribution is available, MSCI assumes that shareholders elect the cash option. MSCI therefore reinvests the dividend amount on the ex-date in the MSCI DTR Indexes. Please refer to the section 4.3 of the MSCI Corporate Events Methodology book for more information regarding optional dividends treatment.

Interest on Capital

The 'interest on capital' dividend is a cash payment to shareholders accounted for as a pre-tax interest expense by the company. The balance sheet and the book value do not change. Interests on capital are common in Brazil.

2.2.4 DIVIDENDS RESULTING IN A REINVESTMENT OR IN A PRICE ADJUSTMENT

The dividends below are reinvested in the MSCI DTR Index if the dividend impact on the cum price is less than 5%.

However, if the impact is greater than or equal to 5%, the dividend will be reflected in the MSCI Index through a price adjustment.

Special/Extraordinary Cash Dividend

The company declares the dividend as special or extraordinary. It is funded by a special event or from extraordinary profits. MSCI may consider irregular and unusually large dividends as special even if they are not declared as such by the company.

Special cash dividends that are smaller than 5% of the cum price of the underlying security are reinvested in the MSCI DTR Indexes, but are not included in the yield calculation, unless they are paid for at least three consecutive years.

Special cash dividends that are greater than or equal to 5% of the cum price of the underlying security are reflected in the MSCI Indexes through an adjustment on their ex-date. A Price Adjustment Factor (PAF) using the gross dividend amount is applied to the MSCI Price Indexes, the MSCI Gross DTR Indexes and the MSCI Net DTR Indexes on the ex-date of the special cash dividend.

For special cash dividends that are greater than or equal to 5% of the cum price of the underlying security and subject to a withholding tax, as defined in Section 2.3.7.2, MSCI reinvests a negative amount corresponding to the withholding tax in the MSCI Net DTR Indexes only. This negative reinvestment is reflected simultaneously with the PAF on the ex-date of the special cash dividend.

Any special cash dividend, distributed for at least three consecutive years, is taken into account in the yield calculation of the underlying security, regardless of its size.

Commemorative Dividend (memorial)

A company declares a dividend as commemorative/memorial. The funds come from extraordinary profit or cash generated by a special event.

Retroactive/Arrears Dividend

Retroactive dividends are paid in Italy when a company has to pay a dividend to revenue-guaranteed (RISP) shares to make up for previous years' non-payments.

Special Dividend to Non-Domestic Shareholders

A company pays its non-domestic shareholders a bonus dividend to compensate for the tax credit distributed to domestic shareholders. This is a common practice in New Zealand.

2.2.5 DIVIDENDS RESULTING IN A PRICE ADJUSTMENT ONLY

A PAF is applied to the security in the MSCI Price Indexes, the MSCI Gross DTR Indexes and the MSCI Net DTR Indexes, in the following cases:

Stock Dividend (stock bonus/gratis issue)

The company issues shares at no direct cost to the shareholders. The funds are taken out from the current year's earnings. In the case of a stock bonus/gratis issue, the company distributes a part of the reserves (retained earnings from previous years) to its shareholders.

For Taiwanese stock dividends subject to withholding taxes as defined in Section 2.3.7.2, MSCI reinvests a negative amount corresponding to the withholding tax in the MSCI Net DTR Indexes only. This negative reinvestment is reflected simultaneously with the PAF on the ex-date of the stock dividend.

Extraordinary Capital Repayment

For the capital repayments that are deemed to be extraordinary compared to the dividend policy of the company or to the historical cash distributions, the price of the security is adjusted on the ex-date of the extraordinary capital repayment, regardless of its size.

Dividend Paid in Shares of another Company

The company distributes stock of another company as a dividend. The number of shares held remains the same, but the price will decrease by the value of the distributed security.

MSCI considers other cash payments related to Corporate Events, such as mergers, acquisitions, liquidations, etc. on a case-by-case basis.

2.3 PROCESSING RULES

2.3.1 DIVIDEND DATA

Raw dividend data is provided by multiple electronic data feeds and is checked for completeness and correctness. MSCI's Daily Total Return process requires that dividends be confirmed by at least two distinct data sources. Most dividends are received and validated through electronic feeds, but some dividends may require confirmation from other sources, such as stock exchanges or the company. In addition, MSCI monitors securities for which a dividend is expected based on previous dividend announcement frequency, but which has not yet been received through the regular data sources.

2.3.2 CORPORATE ACTIONS

A corporate action, which changes the number of shares outstanding for a company, may take place between the dividend's announcement date and its ex-date. As the number of shares on the day preceding the ex-date is used to calculate the dividend amount to be reinvested, MSCI adjusts the dividend to reflect the number of shares on that day.

Following certain corporate events, the number of shares used in MSCI Index calculations on the cum date may include shares that are not issued yet or that are not entitled to the dividend. In those cases, MSCI reinvests the dividend on the ex-date as if all shares included in MSCI Index calculations were entitled to the dividend.

2.3.3 LATE DIVIDENDS

A late dividend is a dividend that is only known after its ex-date. It is processed under the correction policy as described in sub-section 2.3.4 above.

2.3.4 CORRECTIONS

A dividend that has been reinvested may need to be amended, due to an error in its ex-date, in the dividend amount, or in the dividend currency. MSCI will give advance notification for dividend corrections that are received after their ex-date. Consequently, the correction in the index will be postponed to the next business day following the reception and announcement of the information.

The following rules apply:

- Action is taken only if the error is discovered within 12 months of the ex date.
- In the case of a correction, MSCI uses the number of shares at the close of the cum date. The spot rate of the reinvestment date is used for currency conversion.

- A historical correction is applied to all indexes impacted by more than 50 basis points[1] if the impact on a country or World / EM industry group index is over 50 basis points. Starting December 1, 2010, for the MSCI Frontier Markets Indexes (including MSCI GCC Countries Indexes), there will be a historical correction only if the impact on the MSCI Frontier Markets region is over 50 basis points.
- The security that needs a dividend correction may have changed its status for index inclusion between the ex-date and the correction date. For example, this may be due to the security's subsequent exclusion from the index, or a change in its industry or country classification. Applying the correction with the current status may reinvest dividends into the wrong index. If there is a change in the security's index inclusion status between the ex-date and the correction date, no correction amount will be reinvested.

2.3.5 PAYMENT DEFAULT

A correction is applied when a dividend is declared unpaid (payment default). This may result in a negative reinvestment. Past index levels are not corrected.

The following rules apply:

- Action is taken only if the payment default is discovered within 12 months of the ex-date and is in line with the price index correction policy, where MSCI applies a 12 month correction period.
- MSCI uses the number of shares effective at the close of the original cum date. The default amount is reinvested on the next business day following the reception and confirmation of at least two distinct data sources. . The spot rate of the reinvestment date is used for currency conversion.

2.3.6 COUNTRY EXCEPTIONS

Japan:

Many Japanese companies declare their dividends after the ex-date. As estimated dividends are available before the ex-date and are broadly used, an estimation of the dividend is reinvested on the ex-date. When a company does not declare an estimated dividend, MSCI uses the previous year's dividend amount from the same period as the estimation. Should the difference between the estimated and ratified dividend amount warrant correction, it

[1] The 50 basis point limit is linked to the price index correction policy and will be revised accordingly to reflect any changes in this policy.

will be processed as a payment default (reinvestment without correcting past index levels) on the next business day following the reception date from the data sources.

Korea:

Many Korean companies declare their dividends after their ex-date. As no estimated dividends provided by the companies are available before the ex-date, the dividends are reinvested on the next business day following the reception and confirmation of at least two distinct data sources (in accordance with the section 2.3.1).

These reinvestments after the ex-date do not trigger any correction of the index levels.

MSCI uses the number of shares effective on the day prior to the ex-date to reinvest the dividend.

In the rare case of Korean companies declaring their dividends prior to their ex-date, MSCI reinvests dividends into the MSCI DTR Indexes on the day the security is quoted ex-dividend on its principal exchange (in accordance with the section 2.2.1).

Should the dividend amount for Korean companies change following approval by the shareholders at the general meeting, MSCI will reinvest the difference between the amount initially announced by the company and the final amount approved by the shareholders. This does not trigger any correction of past index levels.

Starting December 2014, for dividends with an ex date from December 2014 onwards, MSCI will transition to the enhanced methodology for Korean dividends, as per the following:

Under the enhanced methodology, MSCI will reinvest an estimated dividend amount for Korean securities on the ex-date of the dividend.

The estimate will be calculated as the previous year's dividend amount from the same period, adjusted by any capital changes if necessary. If no dividend was paid from the same period in the previous year or an estimated dividend amount is not available, MSCI will reinvest the dividend amount of zero.

Once a Korean company announces the actual dividend amount, MSCI will reinvest on the next business day following reception of data from MSCI's sources, all differences between the estimated and ratified dividend amount, if any, in the MSCI DTR Indexes without correcting index levels.

These estimates will be used for the calculation of the dividend yield as if the amounts were not estimates.

Russia:

For depositary receipts (DRs) of Russian companies, only an estimated dividend amount per share in USD is available prior to the ex-date. Therefore, on the ex date of the DR security, MSCI reinvests the estimated dividend amount in USD in the MSCI DTR Indexes. Once the actual dividend amount is announced by the depositary bank, MSCI reinvests the difference, if any, between the USD dividend amount per share already reinvested on the ex date and the USD dividend amount per share publicly announced by the depositary bank. When possible, MSCI reinvests this difference on the dividend pay date.

The reinvestment of the difference in the MSCI DTR Indexes does not trigger any correction of past index levels.

In addition, when MSCI reinvests the difference on or around the pay date, fees withheld by the depositary bank, if any, are taken into in the MSCI Net DTR Indexes.

In the case the dividend amount and ex date are known or captured by MSCI only on the security's ex date itself, MSCI uses a threshold based on the dividend size to determine the reinvestment timing:

- If a total dividend amount is below USD 1 billion[2] and is announced or captured on the ex date, then MSCI reinvests the dividend amount intraday in the MSCI DTR Indexes. In addition, MSCI sends an intraday announcement to its clients.
- If a total dividend distribution is above USD 1 billion and is announced or captured on the ex date, then MSCI postpones the dividend reinvestment to the second business day after its ex date. In addition, MSCI sends an intraday announcement to its clients.

Note that MSCI uses the number of shares effective on the day prior to the ex-date to reinvest the dividend.

Should the dividend amount for Russian companies change following approval by the shareholders at the general meeting, MSCI will reinvest the difference between the amount initially announced by the company and the final amount approved by the shareholders. This reinvestment does not trigger any correction of past index levels.

Singapore:

Some companies in Singapore, for example Real Estate Investment Trusts (REITs), pay advanced cash distributions at the time of placement of new shares, in order to ensure fairness to the existing shareholders. This distribution is a part of the regular quarterly cash dividends announced by the companies. If an estimated amount or range of dividend

[2] The size of the total dividend amount is calculated as follows: dividend per share amount in Ruble * FX Rate (USD/RUB) on the ex date * Number of Shares * Foreign Inclusion Factor

amount is declared by the company before the ex-date, MSCI reinvests the estimated amount or lower range of the dividend amount in MSCI DTR Indexes on the day the security is quoted ex-dividend on its principal exchange (in accordance with the section 2.2.1).

Should the dividend amount change after the ex-date following company announcement, MSCI will reinvest the difference between the amount initially announced by the company and the final amount on the next business day following the reception and confirmation of at least two distinct data sources. These reinvestments after the ex-date do not trigger any correction of past index levels.

USA: Redemption Right

When a company redeems shares distributed to shareholders due to a poison pill rights issue (applies mainly in USA), there may be a change in the company's capital structure. In this case MSCI will apply a price adjustment.

2.3.7 TAXES ON DIVIDENDS

Shareholders may be taxed on dividend payments. Tax rates vary depending on the company's and shareholder's country of domicile. Tax data is monitored on a regular basis and is updated when necessary.

2.3.7.1 TAX CREDIT

A tax credit related to a dividend can be considered as a reimbursement of tax already received by the fiscal administration. In countries operating under an imputation tax system, a company's annual earnings are taxed before distribution to the shareholders, and then the shareholders pay taxes on the dividend. Some countries operating under an imputation tax system provide shareholders with a tax credit to offset the amount of the tax they would otherwise owe in respect of the dividend.[3] MSCI does not take into account the amount of a tax credit in calculating either gross or net dividends.

2.3.7.2 WITHHOLDING TAX

A withholding tax related to a dividend is a tax on the income of the shareholder withheld by the company when the dividend is paid to a shareholder. The withholding tax rate depends on the tax status of the shareholder. MSCI uses the maximum withholding tax rate applicable to institutional investors in calculating MSCI net dividends. A non-resident shareholder must also pay taxes on dividends in his/her domestic country as part of his/her

[3] Singapore and Malaysia completely migrated to a one-tier tax system from imputation system effective January 1, 2008 and January 1, 2014 respectively. Under a one-tier or single-tier tax system, a company pays a tax on its taxable income and shareholders are not charged with a tax on dividends paid to them by the company.

income taxes. Countries may eliminate this double taxation by signing 'bi-lateral' double taxation treaties.

MSCI uses companies' country of incorporation to determine the relevant dividend withholding tax rates in calculating the net dividends and the MSCI Net DTR Indexes. In cases where the withholding tax rate in the company's country of incorporation is higher than the MSCI company's country of classification as determined in accordance to Appendix III of the MSCI Global Investable Markets Indexes Methodology, MSCI will make a specific analysis to determine the actual withholding tax rate applied to non-resident institutional investors.

Companies' country of incorporations are reviewed on a semi-annual basis and changes to companies' withholding tax rates, if any, are made with the May and November Semi-Annual Index Reviews.

In the calculation of the MSCI Net DTR International Indexes, MSCI uses the withholding tax rate applicable to non-resident institutional investors that do not benefit from double taxation treaties.

In the calculation of the MSCI Net DTR Domestic Indexes, MSCI uses the withholding tax rate applicable to domestic institutional investors.

Provided that the regular capital repayment is not subject to withholding tax, the reinvestment in the MSCI Net DTR is free of withholding tax.

2.3.7.2.1 COUNTRY EXCEPTIONS

Australian Dividends

Some Australian companies pay their dividends with franking credits attached in order to pass on to investors the value of any tax that the company has already paid on its profits. Dividends can be fully franked, partially franked or unfranked. Foreign non-resident investors are subject to the Australian dividend withholding tax on the unfranked portion of a dividend. However, foreign non-resident investors are not subject to the Australian dividend withholding tax on the unfranked portion of the dividend to the extent that it is declared as conduit foreign income[4] by Australian companies, or on the franked portion of the dividend.

In the calculation of the MSCI Net DTR International Indexes for Australian dividends, MSCI uses the withholding tax rate[5] applicable to foreign non-resident institutional investors on

[4] Conduit foreign income is foreign income received by a foreign resident via an Australian corporate tax entity, and is that income which would ordinarily not be taxed under the relevant Australian tax laws (source: Australian Government, The Treasury).

[5] Please refer to the Appendix for the latest withholding tax rate for Australia.

the unfranked portion of the dividend that is not designated as conduit foreign income. MSCI does not apply withholding tax rate on the franked portion of the dividend or the unfranked portion of the dividend declared to be conduit foreign income.

In the case that the franking percentage and/or the conduit foreign income not publicly available prior to the ex-date, the franking percentage and/or the conduit foreign income will be assumed zero correspondingly.

The effective withholding tax rate being applied to the Australian dividends in the MSCI Net DTR International Indexes is as follows.

Effective withholding tax rate = Australia default withholding tax rate x (100% - franking % - conduit foreign income %)

Examples of Calculation

	Franking Percentage	Conduit Foreign Income Percentage	Default Withholding Tax Rate	Effective Withholding Tax Rate	Gross Amount	Net Amount
Security A	100%	0%	30%	0%	AUD 2.56	AUD 2.56
Security B	75%	25%	30%	0%	AUD 1.47	AUD 1.47
Security C	50%	0%	30%	15%	AUD 1.00	AUD 0.85
Security D	0%	50%	30%	15%	AUD 2.00	AUD 1.70

Taiwanese Stock Dividends

In Taiwan, stock dividends can be paid out from capital surplus or retained earnings. The portion of stock dividends paid out of retained earnings is subject to the default withholding tax rate against the par value of each new share. The portion of stock dividends paid out of capital surplus is not subject to a withholding tax.

To take into account this withholding tax in the MSCI Indexes, MSCI reinvests a negative amount corresponding to the withholding tax in the MSCI Net DTR Indexes only.

This negative amount of the withholding tax is calculated using the following formula.

Withholding tax of Taiwanese stock dividend = Number of shares received which are subject to the withholding tax x par value of each share x Taiwanese default withholding tax rate[6].

[6] Please refer to the Appendix for the latest withholding tax rate for Taiwan

This negative reinvestment is reflected simultaneously with the PAF on the ex-date of the stock dividend.

Taiwanese Capital Repayments

In Taiwan, the cash distributions paid out from the types of capital surplus which are originally contributed by shareholders are not subject to any withholding tax. Otherwise, the cash distributions paid out from the types of capital surplus not originally contributed by shareholders are subject to a withholding tax. The cash distribution paying out of the capital surplus originally contributed by shareholders is therefore reinvested in the MSCI DTR Indexes free of withholding tax. Otherwise, the cash distribution paying out from the equity capital not originally contributed by shareholders is reinvested with the default withholding tax rate. In the case that a Taiwanese company does not clarify the source of capital surplus, the cash distribution is reinvested in the MSCI DTR Indexes free of withholding tax.

Thailand Cash Dividends

In Thailand, the Board of Investment ("BOI") provides tax exemptions to certain companies that generate profit from promoting investment activity in Thailand. These companies can be classified as BOI promoted companies and are referred to as operating "under BOI privilege." When a company under BOI privilege distributes dividends, the dividends derived from business profit generated by BOI related business can be exempted from withholding tax. However, Non-Voting Depositary Receipt (NVDR) holders are not entitled to the withholding tax exemption.

MSCI does not take into account such tax exemption in calculating net dividends. That is, MSCI does not differentiate dividends derived from business profit under BOI privilege and non-BOI privilege. MSCI will therefore reinvest the full cash dividend amount with the default withholding tax rate in the MSCI DTR Indexes.

United Kingdom Cash Dividends

Real Estate Investment Trusts (REITs) incorporated in the UK are required to distribute at least 90% of the profits derived from their property rental business to their shareholders. This component of the overall dividend distribution is called a Property Income Distribution (PID) and is subject to a 20% withholding tax rate. Therefore, MSCI applies a withholding tax rate of 20% to the PID component of dividends to derive the net PID amount to be reinvested in the MSCI Net DTR Indexes.

2.3.8 DEFINITIONS

- **Announcement date** - the date on which the company announces its next dividend payment.
- **Reception date -** the date on which the information about the dividend is received by MSCI from its data sources.
- **Record date -** the date on which an individual must own shares (be the holder of record) in order to receive a declared dividend or capital gains distribution.
- **Ex-date -** the first day on which, if an investor buys the security, the security no longer carries the right to the declared dividend.

APPENDICES

APPENDIX I: SUNDAY INDEX CALCULATION

Calculation Methodology

A selected list of MSCI Indexes is calculated on Sunday to reflect the performance of the markets open on this day[7].

In order to preserve compatibility with the other MSCI International Indexes, which are calculated from Monday to Friday, MSCI uses the concept of a Monday pre-opening (intermediate) calculation for the Sunday calculation. The Sunday index performances capture the price changes and reflect corporate events effective on this day.

In case of corporate events occurring on Sundays and where a Price Adjustment Factor (PAF) is needed, the PAF is applied to the market price of the security on Sunday and Monday. If the security does not trade on Monday, the Sunday closing market price is carried forward to Monday, including the PAF.

Changes in the security's number of shares, FIFs and/or DIFs due to corporate events occurring on Sunday are implemented as of the close of Monday, regardless of whether the corporate event requires the application of a PAF on Sunday or not.

The index constituent list is the same as the one to be used for the Monday calculation.

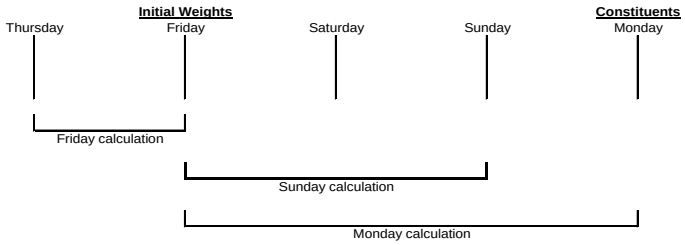
WM/Reuters spot FX rates as of the previous Friday is carried forward to the Sunday in order to perform the index calculation in USD.

No dividends are reinvested on Sundays. Consequently, the Daily Total Return (DTR) index performances for Sunday will be equal to the ones of the price index.

The chain-linking for these indexes can be summarized as follows:

- Sunday's daily index performance is computed by comparing Sunday's adjusted prices and the previous Friday's unadjusted prices
- Monday's daily index performance is computed, as currently, by comparing Monday's adjusted prices and the previous Friday's unadjusted prices

[7] Effective July 13, 2013, MSCI has discontinued the calculations and distribution of the Saturday files.



Index Calculation Formulas

$$IndexLevelLocal_{Sunday} = IndexLevelLocal_{Friday} * \frac{\sum_{s \in I,Monday}\left(SecurityAdjustedFullMarketCapForLocal_{Sunday} * InclusionFactor_{Monday}\right)}{\sum_{s \in I,Monday}\left(SecurityInitialFullMarketCapUSD_{Sunday} * InclusionFactor_{Monday}\right)}$$

$$IndexLevelUSD_{Sunday} = IndexLevelUSD_{Friday} * \frac{\sum_{s \in I,Monday}\left(SecurityAdjustedFullMarketCapUSD_{Sunday} * InclusionFactor_{Monday}\right)}{\sum_{s \in I,Monday}\left(SecurityInitialFullMarketCapUSD_{Sunday} * InclusionFactor_{Monday}\right)}$$

Where:

- $InclusionFactor_{Monday}$ is the inclusion factor of the security as of the following Monday. The inclusion factor can be one or the combination of the following factors: Foreign Inclusion Factor, Domestic Inclusion Factor, Growth Inclusion Factor, Value Inclusion Factor, Index Inclusion Factor (*).

The Security Full Market Caps are calculated as follows:

$$SecurityAdjustedFullMarketCapForLocal_{Sunday} = \frac{EndOfDayNumberOfShares_{Friday} * PricePerShare_{Sunday} * PAF_{Sunday} * \frac{ICI_{Monday}}{ICI_{Friday}}}{FXrate_{Friday}}$$

$$SecurityAdjustedFullMarketCapUSD_{Sunday} = \frac{EndOfDayNumberOfShares_{Friday} * PricePerShare_{Sunday} * PAF_{Sunday}}{FXrate_{Sunday}}$$

$$SecurityInitialFullMarketCapUSD_{Sunday} = \frac{EndOfDayNumberOfShares_{Friday} * PricePerShare_{Friday}}{FXrate_{Friday}}$$

Where:

- $EndOfDayNumberOfShares_{Friday}$ is the number of shares of security s as of the end of the previous Friday.
- $PricePerShare_{Sunday}$ is the price per share of the security s as of Sunday.
- $PricePerShare_{Friday}$ is the price per share of security s as of the previous Friday.
- PAF_{Sunday} is the Price Adjustment Factor of the security s as of Sunday.
- $FXrate_{Sunday}$ is the FX rate of the price currency of security s vs USD as of Sunday. It is the value of 1 USD in foreign currency.
- $FXrate_{Friday}$ is the FX rate of the price currency of security s vs USD as of the previous Friday. It is the value of 1 USD in foreign currency.
- ICI_{Monday} is the Internal Currency Index of price currency as of Monday. The ICI is different than 1 when a country changes the internal value of its currency (e.g. from Turkish Lira to New Turkish Lira – ICI = 1,000,000).
- ICI_{Friday} is the Internal Currency Index of price currency as of previous Friday.

APPENDIX II: ANNUALIZED TRADED VALUE RATIO (ATVR) AND ANNUAL TRADED VALUE

Calculation Methodology

The Annualized Traded Value Ratio (ATVR) is used to measure liquidity. MSCI uses ATVR as an investability criterion to determine the inclusion of securities into the MSCI Indexes.

MSCI distributes ATVR fields on a monthly basis. Below the fields that are distributed are defined. Note that the data used by MSCI during the index reviews may differ from the data distributed.

ATVR Calculation Formulas

1. Monthly Median Traded Value

Taking the median screens out extreme daily trading volumes:

$$MonthlyMedianTradedValue_{MonthN} = MedianTradedValueUSD_{MonthN} * NbOfSecurityTradingDays_{MonthN}$$

Where:

- $MedianTradedValueUSD_{MonthN} = Median[DailySecurityTradedValueUSD_{MonthN}]$
- $DailySecurityTradedValueUSD_t = DailySecurityTradedVolume_t * PricePerShare_t/FXrate_t$
- $NbOfSecurityTradingDays_{MonthN}$ is the number of days in the month where the security has been traded
- $DailySecurityTradedVolume_t$ represents the number of securities traded during the day t
- $PricePerShare_t$ is the price per share of the security s at time t.
- $FXrate_t$ is the FX rate of the price currency of security s vs. USD at time t. It is the value of 1 USD in foreign currency.

2. Monthly Traded Value Ratio (MTVR)

Dividing the monthly median traded value of a security by its free float-adjusted security market capitalization at the end of the month gives the monthly median traded value ratio

$$MTVR\_FIFAdj_{MonthN} = \frac{MonthlyMedianTradedValue_{MonthN}}{SecurityFIFAdjustedMarketCapUSD_{MonthN\_endday}}$$

$$MTVR\_DIFAdj_{MonthN} = \frac{MonthlyMedianTradedValue_{MonthN}}{SecurityDIFAdjustedMarketCapUSD_{MonthN\_endday}}$$

Where:

- $SecurityFIFAdjustedMarketCapUSD_{MonthN\_endday}$ is the security market capitalization at the end of the month, $SecurityAdjustedMarketCapUSD_{MonthN\_endday}$, adjusted with FIF
- $SecurityDIFAdjustedMarketCapUSD_{MonthN\_endday}$ is the security market capitalization at the end of the month, $SecurityAdjustedMarketCapUSD_{MonthN\_endday}$, adjusted with DIF

3. Annualized Traded Value Ratio (ATVR)

$$ATVR\_FIFAdj_{MonthN} = \sum_{i \in N, N-1 \ldots N-11} MTVR\_FIFAdj_{Month\_i}$$

$$ATVR\_DIFAdj_{MonthN} = \sum_{i \in N, N-1 \ldots N-11} MTVR\_DIFAdj_{Month\_i}$$

The ATVR is not calculated when less than 12 months of monthly traded value ratios are available.

4. Annual Traded Value

The annual traded value is the sum of the monthly median traded values.

$$AnnualTradedValue_{MonthN} = \sum_{i \in N, N-1 \ldots N-11} MonthlyMedianTradedValue_{Month\_i}$$

The Annual Traded Value is not calculated when less than 12 months of monthly median traded values are available.

5. Aggregated information

In the calculation of the aggregated information, the trading volumes in depository receipts associated with that security, such as ADRs or GDRs, are also considered. It is obtained by summing up the ATVR of each listing.

Aggregated FIF/DIF adjusted ATVR is the sum of FIF/DIF adjusted ATVR of K securities that are linked by the same issuer, share class and share type:

$$AggregatedATVR\_FIFAdj_{MonthN} = \sum_{i \in 1,2 \ldots K} ATVR\_FIFAdj_{MonthN,linkedSec\_i}$$

$$AggregatedATVR\_DIFAdj_{MonthN} = \sum_{i \in 1,2 \ldots K} ATVR\_DIFAdj_{MonthN,linkedSec\_i}$$

Aggregated ATVR is calculated even if less than 12 months of monthly median traded values are available for one, several or all listings. When less than 12 months are available for a given listing, MSCI will use the ATVR based on the monthly median traded values for the last 6 months, 3 months or 1 month for that listing (depending on data availability).

The Aggregated Annual Traded Value includes trading volumes in depositary receipts or other alternate listings associated with that security. It is obtained by summing up the Annual Traded Values of each listing:

$$AggregatedAnnualTradedValue_{MonthN} = \sum_{i \in 1,2 \ldots K} AnnualTradedValue_{MonthN,linkedSec\_i}$$

APPENDIX III: EXCHANGE RATES

Closing Spot Rates

Until December 30, 1993, MSCI used the exchange rates taken from the Reuters multi contributor pages at 4.00PM CET.

Since December 31st, 1993, MSCI has been using the WM/Reuters Closing Spot Rates, taken at 4PM London time, for all the countries for which it provides indexes, except for the Latin American countries. At the time, MSCI established a special foreign exchange policy for Latin American countries in view of the risks of important movement of currencies in some of these markets between the 4PM London closing and the close of the respective Latin American markets.

Starting July 26, 2000, MSCI began to use the WM/Reuters Closing Spot Rates, taken at 4PM London time, for all the countries it provides indexes including Latin American countries.

In case WM/Reuters does not provide rates for specific markets on given days (for example Christmas Day and New Year Day), the previous business day's rates are used.

MSCI independently monitors the exchange rates on all its indexes. MSCI may under exceptional circumstances elect to use alternative sources of exchange rates if the WM/Reuters rates are not available, or if MSCI determines that the WM/Reuters rates are not reflective of market circumstances for a given currency on a particular day. In such circumstances, an announcement would be sent to clients with the related information. If appropriate, MSCI may conduct a consultation with the investment community to gather feedback on the most relevant exchange rate.

Forward Rates

MSCI uses the spot and 1-month premium/discount as provided by WM/Reuters to compute the 1-month Forward exchange rates. These values are taken at 4PM London time

APPENDIX IV: SINGAPORE & MALAYSIA – A HISTORY OF INCLUSION IN THE EMERGING AND DEVELOPED MARKETS INDEXES

Stock Markets

Stock trading has a long history in Singapore dating back to the 1930's. In 1960 the Malayan Stock Exchange started trading shares publicly. There were trading floors in both Singapore and Kuala Lumpur linked as a single market. When Singapore split from Malaysia the stock exchange continued to operate as one under the name Stock Exchange of Malaysia and Singapore (SEMS). In 1973 the accord that allowed for the convertibility at par between the Singapore Dollar and Malaysian Ringgit was terminated. This led to the separation of SEMS into the Kuala Lumpur Stock Exchange (KLSE) and the Stock Exchange of Singapore (SES). Malaysian companies continued to trade heavily in Singapore.

MSCI Indexes

On December 1st 1972, the MSCI Singapore/Malaysia Index was added to the World Index. The index was developed in cooperation with the Overseas-Chinese Banking Corporation, which published the same index under the name O.C.B.C. Index. As is the case with other MSCI Indexes the purpose was to track those securities representative of Singapore. However as approximately half the market capitalization and liquidity of the SES was due to Malaysian shares the index was designed to incorporate both Singaporean companies as well as those Malaysian shares that traded in Singapore. This aspect was different from other MSCI Indexes, as the norm is to only include domestically listed shares. In light of the long integrated history of the Malay Peninsula and Singapore, and the continued dual listing of shares, it was deemed to be more representative to include these Malaysian companies as representative of the opportunity set of the SES.

MSCI launched its emerging market series on January 1, 1988. Among other country indexes was an index of Malaysia with 59 securities. As MSCI was now covering emerging markets the MSCI Mexico Index was pulled out of MSCI World. The World Index was to be considered a developed market index.

In 1989 the Malaysian government announced that Malaysian companies would be asked to delist their shares from the SES. Previously the government had prohibited newly listed shares of Malaysian companies from listing on the SES. In November 1989, reacting to the Malaysian government announcement, MSCI initially announced its intention to remove Malaysian securities from the Singapore/Malaysia index. The following month MSCI announced that the terms and timing of the Malaysian delisting were too ambiguous. As a

result MSCI would take a wait and see approach prior to removing any Malaysian securities from the Singapore/Malaysia index. As a result the Malaysian shares in the MSCI Singapore/Malaysia Index were effectively frozen or grandfathered. Over time, some of these shares were no longer listed on Singapore but continued to be included in the index using the Ringgit price at which they were traded in Kuala Lumpur.

In January 1992 MSCI announced a change. The Singapore/Malaysia index was now composed of a representative sampling of Singaporean companies coupled with grandfathered Malaysian securities that used to trade in Singapore but were no longer trading there as a result of the delisting requirement. Malaysia was clearly an emerging market, for example its GDP per capita was $2,340 considerably below that of Spain ($10,920), the lowest country that was currently in the MSCI World Index. Nonetheless many developed market investors had historically purchased Malaysian companies as a result of some Malaysian companies being included in the MSCI World and EAFE Indexes. Deleting all Malaysian companies from the developed market indexes could have been very disruptive to the markets. As a result of this dilemma MSCI decided to add Malaysia as a country to the World and related developed market indexes while continuing to include Malaysia in the emerging market series. One could not have a credible emerging market series without the continued inclusion of Malaysia in that series.

Thus Malaysia was to be represented in both the developed and emerging market series. At the time MSCI acknowledged that the existence of Malaysia in both the developed and emerging market series was less than ideal. As of April 30th 1993 Malaysia was fully added to the developed market series, resulting in the addition of approximately 40 securities. This was because the MSCI Malaysia Index was designed to represent the profile of the entire Malaysian market whereas the current Malaysian stocks in the World and EAFE Indexes were selected to reflect the composition of those Malaysian stocks trading in Singapore. ACWI clients would not have to worry about double counting as Malaysia was represented at its appropriate market cap weight. The index of Singapore represented the continuation of the Singapore/Malaysia index and therefore retains its base date of December 31, 1969. Developed and emerging market indexes excluding Malaysia were calculated for those clients who preferred a different classification.

The Asian Crisis

The “Asian Crisis”, starting in 1997 with the devaluation of the Thai Baht eventually spread to Malaysia. On September 1st 1998 Malaysia imposed a series of restrictions on the convertibility of the Ringgit. These controls effectively prohibited the repatriation of funds. On Sept 4th, 1998 MSCI announced that effective Sept 30th Malaysia would be removed from the EAFE and World Indexes and that its status in EMF was under review. In the MSCI

announcement of the change it was stated "…the limitations in repatriating investment proceeds would seriously challenge the objective and integrity of the MSCI Developed Markets Indexes, were the Malaysian securities to remain in these indexes." These restrictions imposed by the government of Malaysia thus ended the legacy issue of Malaysian securities appearing in both the developed and emerging market series.

On Sept 28th, 1998 MSCI announced that Malaysia would be removed from the MSCI EMF and ACWI Free series as of the close of November 30th, 1998. As part of the capital controls imposed, foreign investors became obligated to hold Malaysian securities for a period of one-year commencing Sept 1st, 1998, before any possible capital repatriation. The authorities also imposed a fixed exchange rate of 3.8 Ringgit to the US dollar. The measures taken by the government along with the lack of transparency meant that Malaysia's inclusion in the Free series of indexes was no longer justified. A discount of 30% was applied to the valuation of the MSCI Malaysia Index in US dollars, effective Sept 30th, 1998. The discount was applied because market forces no longer determined the official exchange rate.

On February 5th, 1999 MSCI announced that effective February 26th, 1999 the discount would be reduced to 15%. This followed the Malaysian Government announcement on the previous day that it was alleviating the restrictions on the repatriation of investments.

As a result of the removal of the restrictions on the repatriation of capital, MSCI announced on August 12, 1999, the removal of the 15% discount effective August 30, 1999. On November 23, 1999, MSCI announced that Malaysia would be re-included fully at 100% in the EMF and AC Free indexes as of May 31, 2000.

MSCI Malaysia Indexes will be removed from the MSCI Emerging Markets Free (EMF) series and the MSCI All Country (AC) Free Indexes effective as of the close of 30th November, 1998 Of course Malaysia was not readmitted to the developed market series, as its inclusion there was a result of the previously explained anomaly.

Quick Facts

Malaysia was part of the Developed Market indexes:

- From December 1, 1972 to May 2, 1993, MSCI calculated a combined index, the Singapore/Malaysia index - due to the history of Malaysian securities trading in Singapore.
- From May 3, 1993 up to the close of Sep 30, 1998, Malaysia was part of DM as an individual country (separated from Singapore).

Malaysia has been part of the Emerging Market indexes from 1987 to present:

- With a discount of 30% from Sep 30, 1998 to Feb 25, 1999
- With a discount of 15% from Feb 26, 1999 to Aug 29, 1999
- With no discount since Aug 30, 1999

Malaysia has been part of the EMF index:

- From 1987 to Nov 30, 1998
- And since June 1, 2000

APPENDIX V: SINGAPORE AND SINGAPORE FREE

What is the difference between the MSCI Singapore Index and the MSCI Singapore Free Index; the MSCI EAFE Index and the MSCI EAFE Free Index; the MSCI World Index and the MSCI World Free Index?

In the 1990s, Singapore enacted a system to prevent companies in strategic industries (mainly banks, airlines and the media) from being controlled by foreigners. Certain shares had limits on the percent that could be purchased by foreigners. Once the limit was reached, these shares traded at a premium price. The MSCI Singapore Free Index used the prices at which foreigners could trade.

MSCI also started calculating the regional indexes, MSCI World Free Index, MSCI EAFE Free Index and MSCI Pacific Free Index to include the MSCI Singapore Free Index as well as to reflect investment restrictions in some of the Nordic countries and Switzerland. The MSCI Singapore Index (non-free version) reflected the investment opportunities applicable to domestic investors.

In May of 1999, the foreign ownership restrictions in Singapore were lifted and as of that date, the MSCI Singapore Index and MSCI Singapore Free Index and the corresponding regional developed market Free and non-Free indexes have had the same constituent market caps and performance. Only the absolute index levels continue to differ. MSCI will continue both the Free and Non-Free versions of MSCI Singapore Index, MSCI EAFE Index and MSCI World Index to reflect the differing history.

APPENDIX VI: WITHHOLDING TAX RATES

Country Of Incorporation		Withholding Tax Rates (%)[1]	
Code	Name	Foreign	Domestic
AE	United Arab Emirates	0	0
AN	Netherlands Antilles	0	
AR	Argentina	10	
AT	Austria	27.5	
AU	Australia [2]	30	
BA	Bosnia & Herzegovina	5	
BD	Bangladesh	20	
BE	Belgium	27	
BF	Burkina Faso	12.5	
BG	Bulgaria	5	
BH	Bahrain	0	0
BM	Bermuda	0	
BR	Brazil [3]	0	
BS	Bahamas	0	
BW	Botswana	7.5	
CA	Canada	25	
CH	Switzerland	35	
CI	Ivory Coast	10	
CL	Chile	35	
CN	China [4]	0 or 10	10
CO	Colombia	0	
CW	Curacao	0	
CY	Cyprus	0	
CZ	Czech Republic	35	
DE	Germany	26.375	
DK	Denmark	27	
EE	Estonia	0	
EG	Egypt	10	
ES	Spain	19	
FI	Finland	30	

Country Of Incorporation		Withholding Tax Rates (%)[1]	
Code	Name	Foreign	Domestic
KR	Korea	22	
KW	Kuwait	15	0
KY	Cayman Islands	0	
KZ	Kazakhstan	15	
LB	Lebanon	10	
LI	Liechtenstein	4	
LK	Sri Lanka	10	
LR	Liberia	15	
LT	Lithuania	15	
LU	Luxembourg	15	
MA	Morocco	15	
MH	Marshall Islands	0	
MK	Macedonia	10	
MU	Mauritius	0	
MT	Malta	0	
MX	Mexico [9]	10	
MY	Malaysia [5]	0	
NG	Nigeria	10	
NL	Netherlands	15	
NO	Norway	25	
NZ	New Zealand	15	
OM	Oman	0	0
PA	Panama	10	
PE	Peru	4.1	
PH	Philippines	30	
PK	Pakistan	12.5	
PL	Poland	19	
PR	Puerto Rico	10	
PS	Palestine	0	
PT	Portugal	25	

Country Of Incorporation		Withholding Tax Rates (%)[1]	
Code	Name	Foreign	Domestic
FO	Faroe Islands	35	
FR	France	30	
GB	United Kingdom [6,10]	0	
GG	Guernsey	0	
GH	Ghana	8	
GI	Gibraltar	0	
GR	Greece	10	
HK	Hong Kong	0	
HR	Croatia	12	
HU	Hungary	0	
ID	Indonesia	20	
IE	Ireland	20	
IL	Israel	25	
IM	Isle Of Man	0	
IN	India	0	
IT	Italy	26	
JE	Jersey	0	
JM	Jamaica	33.333	
JO	Jordan	0	
JP	Japan	15.315	
KE	Kenya	10	

Country Of Incorporation		Withholding Tax Rates (%)[1]	
Code	Name	Foreign	Domestic
QA	Qatar	0	0
RO	Romania	5	
RS	Serbia	25	
RU	Russia	15	
SA	Saudi Arabia	5	0
SE	Sweden	30	
SG	Singapore [7]	0	
SI	Slovenia	15	
SN	Senegal	10	
TG	Togo	13	
TH	Thailand	10	
TN	Tunisia	5	
TR	Turkey	15	
TT	Trinidad And Tobago	10	
TW	Taiwan[8]	20	
UA	Ukraine	15	
US	USA	30	30
VG	British Virgin Islands	0	
VN	Vietnam	0	
ZA	South Africa	15	
ZW	Zimbabwe	10	

Notes:

1. *Used in the calculation of the MSCI Net Daily Total Return (DTR) Indexes. Withholding tax rates used are the maximum rates of the company's country of incorporation applicable to institutional investors who do not benefit from double taxation treaties. Foreign rates are used in the MSCI Net DTR International Indexes and Domestic rates are used in the MSCI Net DTR Domestic Indexes.*
2. *For Australian dividends, franking percentage and conduit foreign income are taken into consideration on calculation of the MSCI Net DTR Indexes. The actual withholding tax rate for an Australian dividend ranges from 0% to 30%. For details, please refer to the section 2.3.7.2.1.*

3. *Interest on capital is subject to a 15% withholding tax.*
4. *For the MSCI China Index, the dividend withholding tax rates are determined as follows:*
    1) *Companies incorporated within mainland China, including B-Share and H-Share, are subject to a 10% withholding tax.*
    2) *Companies that are incorporated outside mainland China.*

    2.1) Red-Chip and P-Chip are subject to a 0% withholding tax, unless the company publicly announces that it is a Chinese Tax Resident Enterprise and therefore subject to a withholding tax of 10%.

    2.2) ADRs are subject to a 10% withholding tax, unless a specific withholding tax of 0% is announced by the companies.
5. *Dividends on Real Estate Investment Trusts (REITS) are subject to a 10% withholding tax.*
6. *Cash dividends paid by companies incorporated in the United Kingdom include a 10% tax credit. MSCI does not take into consideration the tax credit for both the gross and net dividend amounts. As there is no withholding tax in the United Kingdom, the gross and net amounts of the cash dividends to be reinvested in the MSCI Net Daily Total Return (DTR) indexes are equal.*
7. *Dividends on Real Estate Investment Trusts (REITS) are subject to a 10% withholding tax.*
8. *Dividends on Real Estate Investment Trusts (REITs) are subject to a 15% withholding tax.*
9. *Dividends on Real Estate Investment Trusts (REITs) are subject to a 30% withholding tax.*
10. *PID components of dividends on Real Estate Investment Trusts (REITs) are subject to a 20% withholding tax*

APPENDIX VII: CLOSING PRICES POLICY

Prices used in MSCI End of Day Index Calculations

Unless otherwise indicated, the prices used to calculate the MSCI Indexes are the official exchange closing prices or those figures accepted as such.

Please note that MSCI reserves the right to use an alternative pricing source on any given day

The sources listed below are the "standard" MSCI pricing sources.

Country	Exchange	Reuters Code	Bloomberg Code	Market Identifier Code (MIC)	Price used	Description (For more detailed information, please contact the relevant exchange)	Closing Prices availability (local time)
Argentina	Bolsa de Comercio de Buenos Aires	.BA	AF	XBUE	Last traded price	Last round lot trade with a 72 hour settlement basis. Round lots in Argentina-Bolsa de Comercio de Buenos Aires vary for each stock and are established on a daily basis.	5:00PM
Argentina (US listed Depository Receipts)	NASDAQ Global Select Market	.OQ	UW	XNGS	See USA (NASDAQ Global Select Market)	See USA (NASDAQ Global Select Market)	see USA (NASDAQ Global Select Market)
Argentina (US listed Depository Receipts)	NYSE	.N	UN	XNYS	See USA (NYSE)	See USA (NYSE)	see USA (NYSE)
Australia	Australian Stock Exchange (ASX)	.AX	AU	XASX	Official close	The official price is determined during the Closing Single Price Auction ("CSPA") which takes place at the end of the normal trading session. If a trade does not occur during CSPA, the final automatically matched trade during the normal trading session will be used.	4:12PM
Austria	Vienna Stock Exchange	.VI	AV	WBAH	Auction close	The chosen price is the price for which the highest number of orders can be executed. The auction begins at 5:30PM.	5:35PM
Bahrain	Bahrain Stock Exchange	.BH	BI	XBAH	Last traded price	Last traded price	12:30PM

Country	Exchange	Reuters Code	Bloomberg Code	Market Identifier Code (MIC)	Price used	Description (For more detailed information, please contact the relevant exchange)	Closing Prices availability (local time)
Bangladesh	Dhaka Stock Exchange	.DH	BD	XDHA	Official close	The closing price for a security shall be determined as per the weighted average price of all the trades in the last 30 (thirty) minutes of trading. If there is no trade during the above specified time, the weighted average price of maximum 20 (twenty) number of trades preceding the above 30 (thirty) minutes shall be taken for determination of closing price. If there has been no trade in the security during the continuous trading session, the opening price of the security shall be treated as the closing price.	3:30PM
Belgium	Brussels Stock Exchange	.BR	BB	XBRU	Auction close	The closing price is an auction price calculated between 5:30PM and 5:35PM. It is still possible to trade at the auction price between 5:30PM and 5:40PM.	5:35PM
Bosnia and Herzegovina	Sarajevo Stock Exchange	.SJ	BT	XSSE	Last traded price	Last traded price	1:30PM
Bosnia and Herzegovina	Banja Luka Stock Exchange	.BJ	BK	XBLB	Last traded price	Last traded price	1:00PM
Botswana	Botswana Stock Exchange	.BT	BG	XBOT	Last traded price	Last traded price	3:00PM
Brazil	Bovespa (Sao Paulo SE)	.SA	BS	XBSP	Auction close	For all listed companies on the electronic trading system, there is a 'closing call' between 5.55PM and 6.00PM (4:55PM and 5:00PM*).	6:00PM (5:00PM*)
Bulgaria	Bulgarian Stock Exchange (Sofia)	.BB	BU	XBUL	Last Traded Price	Last Traded Price	2:00PM
Canada	Toronto Stock Exchange	.TO	CT	XTSE	Market on Close / Last traded price	Market on Close (MOC) auction for MOC eligible stocks. Last traded price for stocks not eligible for the MOC auction.	4:10PM / 4:00PM
Chile	Bolsa de Comercio de Santiago	.SN	CC	XSGO	VWAP	The Official Close is calculated using a volume weighted average price of the trades in the last ten minutes of the trading day. For a trade that occurs within the last ten minutes of trading to be included in the VWAP calculation, the volume of each trade must meet a set volume determined by the exchange at the open of each month	5:00PM (4:00PM*)
China	Hong Kong Stock Exchange	.HK	HK	XHKG	See Hong Kong	See Hong Kong	See Hong Kong
China	Shanghai Stock Exchange	.SS	CG	XSHG	VWAP	Volume Weighted Average Price of all trades conducted in the last minute of trading prior to the close (including the last trade). If there is no concluded transaction on that day, the previous closing price is used as the day's closing price.	3:05PM

Country	Exchange	Reuters Code	Bloomberg Code	Market Identifier Code (MIC)	Price used	Description (For more detailed information, please contact the relevant exchange)	Closing Prices availability (local time)
China	Shenzhen Stock Exchange	.SZ	CS	XSHE	Auction close	The closing price of a security is generated from a call auction. In case no closing price is generated from the closing call auction, the trading volume-weighted average price of all the trades of the security one minute before the last trade (including the last trade) on that day is taken as the closing price. In the absence of trades on a trading day, the previous day's closing price is taken as the closing price of that day.	3:05PM
China	NYSE	.N	UN	XNYS	See USA (NYSE)	See USA (NYSE)	See USA (NYSE)
Colombia	Bolsa de Valores de Colombia	.CN	CX	XBOG	Last traded price	The closing price is the price of the last transaction which meets a number of shares threshold between 9:30AM and 3:00PM The exchange defines the threshold based on price ranges.	3:00PM
Colombia (US listed Depository Receipts)	NYSE	.N	UN	XNYS	See USA (NYSE)	See USA (NYSE)	see USA (NYSE)
Croatia	Zagreb Stock Exchange	.ZA	ZA	XZAG	VWAP	The official closing price is the Volume Weighted Average Price of trades throughout the entire trading day.	4:00PM
Croatia	Zagreb – Vrazdin Segment	.ZA	VA	XZAG	VWAP	The official closing price is the Volume Weighted Average Price of trades throughout the entire trading day.	4:00PM
Czech Republic	Prague Stock Exchange (XPRA)	.PR	CK	XPRA	Official Close	The official closing price is taken from the closing auction held between 4:20pm and 4:25pm local time.	5:30 PM
Denmark	Copenhagen Stock Exchange	.CO	DC	XCSE	Auction close	The closing call auction will begin when the trading session ends at 4:50PM. It will run until 5:00PM. The closing price will be generated in the closing call auction. If no trades are executed during the closing call auction, the closing price will correspond to the last transaction.	5:00PM
Egypt	Egyptian Exchange	.CA	EC	XCAI	VWAP	The closing price of a security traded on the Egyptian Exchange is the Volume Weighted Average Price which is equal to the total value traded of the security divided by the total volume traded of the same security, only if the total executed volume exceeds the 0.5 % of the average volume (calculated based on three month average) and the total value exceeds 10,000 EGP or equivalent in other currencies, otherwise the previous day's closing price is considered to be the official closing price.	2:30PM
Estonia	Tallinn Stock Exchange	.TL	ET	XTAL	Auction Close	In the course of the closing auction, transaction orders are matched in the order book according to the equilibrium price. The equilibrium price is achieved only if the prices of buy	4:00PM

Country	Exchange	Reuters Code	Bloomberg Code	Market Identifier Code (MIC)	Price used	Description (For more detailed information, please contact the relevant exchange)	Closing Prices availability (local time)
						and sell orders entered in the order book are crossing or equal. An auction is not held unless there are transaction orders with crossing prices.	
Finland	Helsinki Stock Exchange	.HE	FH	XHEL	Auction close	As of Sep 27 2004, the official closing price is the result of the closing call which occurs during the last 10 minutes of trading. If no trades are matched in the closing call then the last trade prior to the auction will be defined as the closing price.	6:30PM
France	Paris Stock Exchange	.PA	FP	XPAR	Auction close	The closing price is an auction price calculated between 5:30PM and 5:35PM. It is still possible to trade at the auction price between 5:30PM and 5:40PM.	5:35PM
Germany (XETRA)	XETRA Exchange	.DE	GY	XETR	Auction close	The Auction price is defined during the auction that closes the trading session. The chosen price is the price for which the highest number of orders can be executed.	5:35PM
Ghana	Ghana Stock Exchange	.GH	GN	XGHA	VWAP	The official closing price is the Volume Weighted Average Price of trades throughout the entire trading day.	3:00PM
Greece	Athens Stock Exchange	.AT	GA	XATH	Auction close	The closing price is determined through a call auction at the conclusion of the continuous trading session, whereby the price at which the greatest trading volume is attained is the auction close price. If there is no price set by the call auction, the closing price will be the VWAP of the last 30% of trades.	5:20PM
Hong Kong	Hong Kong Stock Exchange	.HK	HK	XHKG	Auction Close / Median Price	If there is closing auction session for the security, final Indicative Equilibrium Price (IEP) would be taken as auction close price. Otherwise, median price would be applied. The median price is determined by taking the median of five nominal prices in the last minute of the trading hours to avoid the closing price being biased by one single trade. HKSE takes up to 5 snapshots of the nominal prices at interval of every 15 seconds starting from 3:59PM, local time.	4:15PM
Hungary	Budapest Stock Exchange	.BU	HB	XBUD	Last traded price	Last traded price	5:10PM
India	The Bombay Stock Exchange	.BO	IB	XBOM	WAP	The Weighted Average Price is defined as the volume weighted average of all orders executed within the last 15 minutes of the continuous trading session. If there are no trades during the last 15 minutes, then the last traded price in continuous trading is taken as the official close. Bombay Stock Exchange prices are only used for securities not traded on the NSE.	3:30PM
India	National Stock Exchange of India	.NS	IS	XNSE	VWAP	The closing price of a security is the volume weighted average price of the last half hour (3:00PM-3:30PM). If there are no trades during the last 30 minutes, then the last traded price is taken as the official close. However, in cases where such prices are not available due to the	3:30PM

Country	Exchange	Reuters Code	Bloomberg Code	Market Identifier Code (MIC)	Price used	Description (For more detailed information, please contact the relevant exchange)	Closing Prices availability (local time)
						delisting from the National Stock Exchange (NSE), official closing prices from the Bombay Stock Exchange will be used.	
Indonesia	Jakarta Stock Exchange	.JK	IJ	XIDX	Auction close	The pre-closing session auction results are between 04:00 and 04:05 p.m. JKT. If there is an auto-matched trade for a security during the closing auction, The auction price will be the official closing price. If there are trades during the opening auction or during the continuous trading period but none during the closing auction, the last traded price will be the official closing price. The previous day's official closing price will be the official closing price for days where there are no trades.	4:15PM
Ireland	Irish Stock Exchange	.I	ID	XDUB	Auction close	The session ends with a 2 minute auction (between 4:28PM and 4:30PM). If a security is traded during the closing auction, the auction price will be the official closing price. If there are trades during the opening auction or during the continuous trading period, but no trades during the closing auction, the last traded price will be the official closing price. If there are no trades on a particular day, the previous day's official closing price will be the official closing price.	5.05PM
Israel	Tel Aviv Stock Exchange	.TA	IT	XTAE	Auction Close	The closing price will be the one set during the closing call alone, where the volume of the share at the closing call auction will be at least: NIS 400,000 in the TA-25 NIS 200,000 in the TA-75 NIS 100,000 in the "Mid Cap" index If the closing volume is less than mentioned above, the price will be set at the weighted average of the latest transaction prices, including those executed in the closing call.	4:30PM
Italy	Italian Stock Exchange	.MI	IM	MTAA	Auction close	The closing auction, including a pre-auction phase that can end at any time within the last minutes of that actual pre-auction phase. Closing auction, comprising the closing phases and validation, will end at 5.40PM local time. Where no auction price is available, the reference price, defined by the exchange as the Volume Weighted average of the last 10% of the day's trading volume, will be used.	5:40PM
Jamaica	Jamaica Stock Exchange	.JS	JA	XJAM	Average price	The Average Price calculation is the volumes of a stock purchased at different prices, divided by the cumulative volumes of the stock unit that traded throughout the day.	1:30PM
Japan	Nagoya Stock Exchange	.NG	JN	XNGO	Auction close	The closing price is determined during a price auction which takes place at the end of the normal trading day. During this auction, all orders entered in the individual order book are aggregated before the execution, and treated as simultaneous orders. In accordance with the principle of price priority, each buy order is compared with sell orders until its volume and price are matched. By this method, a single price is determined and this price makes up the closing price. In the event of a closing auction not happening for a particular day, the last price (Itayose or special quote method) will be used instead.	3:30PM

Country	Exchange	Reuters Code	Bloomberg Code	Market Identifier Code (MIC)	Price used	Description (For more detailed information, please contact the relevant exchange)	Closing Prices availability (local time)
Japan	Osaka Securitites Exchange	.OS	JO	XOSE	Auction close	The closing price is determined during a price auction which takes place at the end of the normal trading day. During this auction, all orders entered in the individual order book are aggregated before the execution, and treated as simultaneous orders. In accordance with the principle of price priority, each buy order is compared with sell orders until its volume and price are matched. By this method, a single price is determined and this price makes up the closing price. In the event of a closing auction not happening for a particular day, the last price (Itayose or special quote method) will be used instead.	3:10PM
Japan	Tokyo Stock Exchange	.T	JT	XTKS	Auction close	The closing price is determined during a price auction which takes place at the end of the normal trading day. During this auction, all orders entered in the individual order book are aggregated before the execution, and treated as simultaneous orders. In accordance with the principle of price priority, each buy order is compared with sell orders until its volume and price are matched. By this method, a single price is determined and this price makes up the closing price. In the event of a closing auction not happening for a particular day, the last price (Itayose or special quote method) will be used instead.	3:00PM
Japan	JASDAQ	.Q	JQ	XJAS	Auction close	The closing price is determined during a price auction which takes place at the end of the normal trading day. During this auction, all orders entered in the individual order book are aggregated before the execution, and treated as simultaneous orders. In accordance with the principle of price priority, each buy order is compared with sell orders until its volume and price are matched. By this method, a single price is determined and this price makes up the closing price. In the event of a closing auction not happening for a particular day, the last price (Itayose or special quote method) will be used instead.	3:10PM
Jordan	Amman Stock Exchange	.AM	JR	XAMM	Last traded price	Last traded price	12:40PM
Kazakhstan	Kazakhstan Stock Exchange	.KZ	KZ	XKAZ	Last traded price	Last traded price	6:00PM
Kazakhstan (UK listed Depository Receipts)	London Stock Exchange	.L	LI	XLON	see UK (SETS)	see UK (SETS)	see UK (SETS)
Kenya	Nairobi Stock Exchange	.NR	KN	XNAI	VWAP	The closing price of a security shall be the Volume Weighted Average Price (VWAP) or transactions executed during the last hour of trading of the specific security. If the security does not trade within the last hour the closing price will be the average price calculated for the session.	3:00PM

Country	Exchange	Reuters Code	Bloomberg Code	Market Identifier Code (MIC)	Price used	Description (For more detailed information, please contact the relevant exchange)	Closing Prices availability (local time)
Korea	KSE	.KS	KP	XKRX	Auction close	The closing price is the price for which the highest number of orders can be executed during the auction. The auction starts 10 minutes before the official close at 3:00PM.	3:00PM
Korea	KOSDAQ	.KQ	KQ	XKOS	Auction close	The closing price is the price for which the highest number of orders can be executed during the auction. The auction starts 10 minutes before the official close at 3:00PM.	3:00PM
Kuwait	Kuwait Stock Exchange	.KW	KK	XKUW	Auction close	The closing price will be determined by an auction held at the close of trading with a pre-auction period (without matching) of two minutes, where orders cannot be cancelled or modified	12:30PM
Lebanon	Beirut Stock Exchange	.BY	LB	XBEY	Last traded price	Last traded price	12:30PM
Lithuania	Vilnius Stock Exchange	.VL	LH	XLIT	Closing Call Auction	In the course of the closing auction, transaction orders are matched in the order book according to the equilibrium price. The equilibrium price is calculated to be the price where in a particular Order Book the highest buy price is higher than or equal to the lowest sell price.	4:00PM
Malaysia	The Bursa Malaysia Berhad	.KL	MK	XKLS	Last traded price	Last traded price	5:00PM
Mauritius	The Stock Exchange of Mauritius	.MZ	MP	XMAU	Last traded price	Last traded price	1:30PM
Mexico	Bolsa Mexicana de Valores	.MX	MM	XMEX	Weighted average price	Weighted Average Price of the last 20 minutes of trading	3:00PM
Morocco	Bourse De Casablanca	.CS	MC	XCAS	Last traded price	Last traded price	3:30PM
Netherlands	EuroNext Amsterdam	.AS	NA	XAMS	Auction price	The closing price is an auction price calculated between 5:30PM and 5:35PM. It is still possible to trade at the auction price between 5:30PM and 5:40PM.	5:35PM
New Zealand	New Zealand Exchange Limited	.NZ	NZ	XNZE	Last traded price	Last traded price	5:00PM
Nigeria	Nigeria Stock Exchange	.LG	NL	XNSA	Official Close	The official closing price is defined as the last trade with volume greater than 50,000 shares. If there are no trades over 50,000 shares during the current trading day, the previous close is carried over	2:30PM

Country	Exchange	Reuters Code	Bloomberg Code	Market Identifier Code (MIC)	Price used	Description (For more detailed information, please contact the relevant exchange)	Closing Prices availability (local time)
Norway	Oslo Stock Exchange	.OL	NO	XOSL	Auction close	The official closing prices is determined during a closing auction which takes place at the end of the continuous trading between 16:20 and 16:30. When the closing auction for a particular security cannot be completed, the last traded price before the start of the auction will be used.	5:30PM
Oman	Oman Muscat Exchange	.OM	OM	XMUS	VWAP	The closing price is considered to be the volume weighted average price. The closing price will not change unless a minimum number of securities are traded. This minimum is 500 Shares for securities listed in the Regular & Parallel markets and 2000 for securities listed in the Third market. In case traded securities do not exceed the specified threshold for their market, the closing price will equal the previous close.	1:00PM
Pakistan	Karachi Stock Exchange	.KA	PK	XKAR	Official Close	The closing price is determined by the volume weighted average price of the last 30 minutes trades of that security for the day. In case of no trading in a particular security during the last 30 minutes of the day, the closing price is the volume weighted average price for the last traded 30 minutes of that security.	2:15PM (Mon-Thu), 4:00PM (Fri)
Peru	Bolsa De Valores de Lima	.LM	PE	XLIM	Last traded price	Last round lot regular trade	4:00PM
Peru (US listed Depository Receipts)	NYSE	.N	UN	XNYS	see USA (NYSE)	see USA (NYSE)	see USA (NYSE)
Philippines	Philippine Stock Exchange	.PS	PM	XPHS	Closing Price	The Closing Price is determined using an auction process during the Pre-Close period. If there is no computed Closing Price for that trading day, the Closing Price taken is the price of the last transaction during the trading day's Continuous Period.	3:30PM
Poland	Warsaw Stock Exchange	.WA	PW	XWAR	Auction Close	The closing price is determined in an auction procedure in which the closing price will be based on orders submitted during the closing phase. If no orders are placed during the closing phase then the closing price will be that of the last transaction.	5:10PM
Portugal	EuroNext Lisbon	.LS	PL	XLIS	Auction close	The closing price is an auction price calculated between 5:30PM and 5:35PM. It is still possible to trade at the auction price between 5:30PM and 5:40PM.	5:35PM
Qatar	Doha Securities Market	.QA	QD	DSMD	Auction Close	The closing price is an auction price set during the closing auction period. If there is no price set during the closing auction period, the closing price is the last traded price.	12:30PM
Romania	Bucharest Stock Exchange	.BX	RO	XBSE	Last traded price	Last Traded Price	4:30PM

Country	Exchange	Reuters Code	Bloomberg Code	Market Identifier Code (MIC)	Price used	Description (For more detailed information, please contact the relevant exchange)	Closing Prices availability (local time)
Russia	Moscow Interbank Currency Exchange (MICEX)	.MM	RX	MISX	Last traded price	Last traded price	6:45PM
Russia (US listed Depository Receipts)	New York Stock Exchange	.N	UN	XNYS	see USA (NYSE)	see USA (NYSE)	see USA (NYSE)
Russia (UK listed Depository Receipts)	London Stock Exchange	.L	LI	XLON	see UK (SETS)	see UK (SETS)	see UK (SETS)
Saudi Arabia	Saudi SE (Tadawul)	.SE	AB	XSAU	VWAP	The Official Close is calculated using a Volume Weighted Average Price. The VWAP takes the average price of trades that occurred in the last 15 minutes before the market closes, where the total of all traded value of a company is divided by the total traded shares of that company, resulting in the VWAP closing price. In the case where a security does not trade in the last 15 minutes before the market closes, the Official Close will be the "last normal price", defined by the exchange as a trade greater than or equal to 15,000 Saudi Riyals. In the instance that no normal price is available (no trade equal or above 15,000 Saudi Riyals), the previous day's Official Close will be used.	3:32PM
Serbia	Belgrade SE	.BEL	SG	XBEL	VWAP	The closing price is considered to be the volume weighted average price.	2:00PM
Singapore	Singapore Exchange Securities Trading	.SI	SP	XSES	Auction close	At 5:00PM, all unmatched orders are carried forward to Pre-Close Routine, which runs for 6 minutes and consists of a Pre-Close Period and a Non-Cancel Period. Similarly, orders can be entered, amended or cancelled during the Pre-Close Period (5:00PM – 5:05PM). During the Non-Cancel Period (5:05PM – 5:06PM), orders are matched and executed at a Closing price computed for the day, while unmatched orders will become void.	5:06PM
Slovenia	Ljubljana Stock Exchange	.LJ	SV	XLJU	Official Close	The Official Closing Price is defined as the Auction Price formed during the Closing Auction. If there are no trades executed for a given security during the Closing Auction, the Closing Price will be the last trade of the day. If there are no trades executed in a given security on a given day, the closing price for the day will be the closing price of the previous trading day.	1:00PM
South Africa	Johannesburg Stock Exchange	.J	SJ	XJSE	Last traded price / VWAP	The closing prices on securities traded on the South Africa Exchange will be calculated based on the price at which trades occurred in a closing execution. In this closing execution, the last traded price will be the official closing price, unless there is a higher bid price or a lower ask offer, which will then be used as the closing price. In the event that there is no closing	5:05PM

Country	Exchange	Reuters Code	Bloomberg Code	Market Identifier Code (MIC)	Price used	Description (For more detailed information, please contact the relevant exchange)	Closing Prices availability (local time)
						execution, then a Volume Weighted Average Price (VWAP) taken over the last 10 minutes of trading leading up to the "closing auction" is used.	
Spain	Mercado Continuo CATS	.MC	SQ	XMCE	Auction price	The session ends with a 5 minute auction (between 5:30PM and 5:35PM) and a random closing of 30 seconds. The resulting auction price will be the session's Closing price. In case an Auction price does not exist, the closing price will be the price of the last 500 traded units closest to their weighted average. If two prices have the same difference with respect to this weighted price, the price will be the last one executed. If 500 units have not been traded, the closing price will be the price of the previous session.	5:35PM
Sri Lanka	Colombo Stock Exchange	.CM	SL	XCOL	VWAP	Closing price is defined as the Volume Weighted Average Price (VWAP) of trades executed during the last one hour of trading of the specific security. If the security does not trade during such one hour the closing price will be the VWAP calculated for the period of time it has traded.	2:30PM
Sweden	Stockholm Stock Exchange	.ST	SS	XSTO	Auction price	The official closing price is the result of the closing call which occurs during the last 10 minutes of trading. If no trades are matched in the closing call then the last trade prior to the auction will be defined as the closing price.	5:30PM
Switzerland	The Swiss Exchange (SWX) Virt-X	.S .VX	SE VX	XSWX XVTX	Auction price	Closing price is the result of the closing auction (the auction pre-opening starting at 5:20PM, and the auction being run at 5:30PM). If no price update occurs during that auction, the last paid price on the exchange will represent the reference price. If there is no paid price for the given security that day, the reference price will be calculated by either taking the bid-price, if the bid is higher than the reference price, or it will take the ask-price if the ask is lower than the reference price.	5:30PM
Taiwan	Taiwan Stock Exchange	.TW	TT	XTAI	Auction price	The closing price is determined by a closing call auction. The Exchange will accumulate orders for 5 minutes (from 1:25 p.m. to 1:30 p.m.) before the closing call auction. If there is no closing auction for a security, the last traded price will be used.	1:30PM
Thailand	The Stock Exchange Of Thailand	.BK	TB	XBKK	Auction price	The closing price is defined by using the random call auction method. The closing auction can take place anytime between 4:35PM and 4:40PM local time. This method apply to securities trade on both main board and foreign board of stock exchange of Thailand.	4:40PM
Trinidad and Tobago	Trinidad and Tobago Stock Exchange	.JM	TP	XTRN	Official Close	The closing price is the Volume Weighted Average Price, calculated as the total value of shares traded in the day divided by the total volume of shares traded in the same trading day. If a share does not trade in a trading day, the closing price will be the same as the closing price of the previous day.	2:00PM
Tunisia	Tunis Stock	.TN	TU	XTUN	Last Trade	Last traded price	11:30AM

Country	Exchange	Reuters Code	Bloomberg Code	Market Identifier Code (MIC)	Price used	Description (For more detailed information, please contact the relevant exchange)	Closing Prices availability (local time)
	Exchange						
Turkey	Istanbul Stock Exchange	.IS	TI	XIST	Auction price	The closing price is determined by matching all unmatched orders in the regular session and the new orders without matching in a pre-determined period of time with the price leading to the maximum amount of trading volume. If no closing price is provided on a trading day, the closing price of the previous day is used for index calculation.	5:30PM
Ukraine	PFTS	.PFT	UZ	PFTS	Last traded price	Last traded price	5:45PM
Ukraine	Ukrainian Exchange	.UAX	UK	UKEX	Last traded price	Last traded price	5:30PM
United Arab Emirates	Abu Dhabi Securities Market	.AD	DH	XADS	Auction price	The closing price is calculated using an auction during the last ten minutes of the trading session. Buy and sell orders are queued in the order book with the possibility of changing and cancelling them without any execution. At the end of this period, the closing price will be calculated using the same algorithm of calculating the opening price. The orders will be then executed using the calculated closing price.	2:00PM
United Arab Emirates	Dubai Financial Market	.DU	DB	XDFM	Closing price	The Closing price is determined from the Theoretical Auction Price (TAP) at the end of the pre-closing adjustment session. If there is no order matching at the end of the session, the last traded price of the continuous trading session shall be the Closing price. If there are no trades on the same business day, then the previous day's Closing price shall be the Closing price.	2:00PM
United Arab Emirates	NASDAQ Dubai	.DI	DU	DIFX	Closing price	The Closing price is determined from the Theoretical Auction Price (TAP) at the end of the pre-closing adjustment session. If there is no order matching at the end of the session, the last traded price of the continuous trading session shall be the Closing price. If there are no trades on the same business day, then the previous day's Closing price shall be the Closing price.	2:00PM
United Kingdom	London Stock Exchange	.L	LN	XLON	Auction price	For SETS, the closing trade price is the uncrossing trade price at which orders execute during an auction, or a Volume Weighted Average Price (VWAP), or the last automatic trade price. If a closing auction fails to take place, then the VWAP of the last 10 minutes of trading will be used to set the closing price. If however, no trading has occurred during the VWAP period, then the last automatic trade price will be used as the official closing price.	4:35PM
United Kingdom	London Stock Exchange	.L	LN	XLON	Mid price	For SEAQ, SEATS and AIM securities the closing price is the mid price of the best bid and best offer calculated from market maker quotes at the end of the mandatory quote period.	4:35PM
USA	NASDAQ Capital	.OQ	UR	XNCM	NOCP	The NOCP is either determined using the normalized price of the last trade reported to	4:02PM

Country	Exchange	Reuters Code	Bloomberg Code	Market Identifier Code (MIC)	Price used	Description (For more detailed information, please contact the relevant exchange)	Closing Prices availability (local time)
	Market					NASDAQ's proprietary trade reporting system or, for selected securities, using the newly introduced NASDAQ Closing Cross. The normalized NASDAQ Official Closing Price (NOCP) adjusts reported trade price outside the closing bid-ask spread, "moving up" to the bid whenever the last sale is below the bid or "moving down" to the ask whenever the last sale is above the ask.	
USA	NASDAQ Global Market	.OQ	UQ	XNMS	NOCP	The NOCP is either determined using the normalized price of the last trade reported to NASDAQ's proprietary trade reporting system or, for selected securities, using the newly introduced NASDAQ Closing Cross. The normalized NASDAQ Official Closing Price (NOCP) adjusts reported trade price outside the closing bid-ask spread, "moving up" to the bid whenever the last sale is below the bid or "moving down" to the ask whenever the last sale is above the ask.	4:02PM
USA	NASDAQ Global Select Market	.OQ	UW	XNGS	NOCP	The NOCP is either determined using the normalized price of the last trade reported to NASDAQ's proprietary trade reporting system or, for selected securities, using the newly introduced NASDAQ Closing Cross. The normalized NASDAQ Official Closing Price (NOCP) adjusts reported trade price outside the closing bid-ask spread, "moving up" to the bid whenever the last sale is below the bid or "moving down" to the ask whenever the last sale is above the ask.	4:02PM
USA	NYSE	.N	UN	XNYS	Last traded price	Last traded price	4:00PM
USA	AMEX	.A	UA	XASE	Last traded price	Last traded price	4:00PM
Vietnam	Ho Chi Minh Securities Trading Center	.HM	VM	XSTC	Last traded price	Last traded price	11:00AM
Vietnam	Hanoi Securities Trading Center	.HN	VH	HSTC	Last traded price	Last traded price	11:00AM
Zimbabwe	Zimbabwe Stock Exchange	,ZI	ZH	XZIM	Last traded price	Last traded price	12:30PM

* Refers to price availability times during DST period in the US.

Prices availability shown in this table refers to the time prices are normally available. It considers changes due to DST periods but no other factors such as Ramadan period, changes in opening hours on a day prior a holiday, etc.

In case of market closure or if a security does not trade on a specific day or a specific period, MSCI carries forward previous day prices (or latest available closing price) to calculate its indexes.

In case of market outage, MSCI will use the prices provided up to the point of the outage by that market for calculation of MSCI indexes on that day, unless MSCI determines that another price is more appropriate based on the circumstances.

Special note for countries open on Saturday and/or Sunday:

In the event that a security does not trade on a Monday but was traded on the previous Saturday and/or Sunday, the latest price available during the weekend will be used for the Monday index calculation.

In addition, a security that does not trade on Monday but traded ex corporate event during the previous weekend will have the event reflected in the Monday index calculation.

Special note for Japanese securities:

Japanese companies can be listed simultaneously on more than one stock exchange in Japan. A company may apply for delisting from one stock exchange while remaining listed in the other stock exchange(s). For such delisting, most Japanese stock exchanges give one month notice prior to the last trading date of the security. Should such delisting involve a change in primary exchange and/or trigger a change in the price source, MSCI will source the price of the security from the new primary exchange two weeks after an announcement of delisting from the stock exchange.

APPENDIX VIII: COUNTRY COMPOSITION OF MSCI SELECTED REGIONAL INDEXES

MSCI CODE	INDEX NAME	892400 ACWI (former ACWIF)	891800 EM (former EMF)	990100 THE WORLD INDEX (3)	990300 EAFE	990500 EUROPE	106400 EMU	302200 AC EUROPE & MIDDLE EAST	302000 AC ASIA PACIFIC	899902 AC AMERICAS	133709 GCC COUNTRIES	133707 ARABIAN MARKETS	136614 FM (FRONTIER MARKETS)
903200	ARGENTINA	1-Jan-1988 to 29-May-2009	1-Jan-1988 to 29-May-2009	-	-	-	-	-	-	1-Jan-1988 to 29-May-2009	-	-	1-Jun-2009
903600	AUSTRALIA	1-Jan-1988	-	1-Jan-1970	1-Jan-1970	-	-	-	1-Jan-1988	-	-	-	-
904000	AUSTRIA	1-Jan-1988	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	1-Jan-1988	1-Jan-1988	-	-	-	-	-
133712	BAHRAIN	-	-	-	-	-	-	-	-	-	1-Jun-2005	1-Jun-2005	3-Jun-2002
700396	BANGLADESH	-	-	-	-	-	-	-	-	-	-	-	27-May-2010
905600	BELGIUM	1-Jan-1988	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	1-Jan-1988	1-Jan-1988	-	-	-	-	-
700589	BOSNIA AND HERZEGOVINA	-	-	-	-	-	-	-	-	-	-	-	-
700074	BOTSWANA	-	-	-	-	-	-	-	-	-	-	-	-
907600	BRAZIL	1-Jan-1988	1-Jan-1988	-	-	-	-	-	-	1-Jan-1988	-	-	-
106576	BRAZIL FORMER	-	-	-	-	-	-	-	-	-	-	-	-
136634	BULGARIA	-	-	-	-	-	-	-	-	-	-	-	1-Jun-2005
912400	CANADA (3)	1-Jan-1988	-	1-Jan-1970	-	-	-	-	-	1-Jan-1988	-	-	-
915200	CHILE	1-Jan-1988	1-Jan-1988	-	-	-	-	-	-	1-Jan-1988	-	-	-
302400	CHINA	3-Sep-1996	3-Sep-1996	-	-	-	-	-	3-Sep-1996	-	-	-	-
917000	COLOMBIA	2-Feb-1994	2-Feb-1994	-	-	-	-	-	-	2-Feb-1994	-	-	-
136635	CROATIA	-	-	-	-	-	-	-	-	-	-	-	3-Jun-2002
920000	CZECH REPUBLIC	3-Sep-1996	3-Sep-1996	-	-	-	-	3-Sep-1996	-	-	-	-	-
920800	DENMARK	1-Jan-1988	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	-	1-Jan-1988	-	-	-	-	-

MSCI CODE	INDEX NAME	892400 ACWI (former ACWIF)	891800 EM (former EMF)	990100 THE WORLD INDEX (3)	990300 EAFE	990500 EUROPE	106400 EMU	302200 AC EUROPE & MIDDLE EAST	302000 AC ASIA PACIFIC	899902 AC AMERICAS	133709 GCC COUNTRIES	133707 ARABIAN MARKETS	136614 FM (FRONTIER MARKETS)
105766	EGYPT	1-Jun-2001	1-Jun-2001	-	-	-	-	-	-	-	-	1-Jun-2005	-
136636	ESTONIA	-	-	-	-	-	-	-	-	-	-	-	3-Jun-2002
924600	FINLAND	18-Jan-1993	-	1-Jan-1988	1-Jan-1988	1-Jan-1988	1-Jan-1988	1-Jan-1988	-	-	-	-	-
824600	FINLAND FREE	1-Jan-1988 to 17-Jan-1993	-	-	-	-	-	-	-	-	-	-	-
925000	FRANCE	1-Jan-1988	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	1-Jan-1988	1-Jan-1988	-	-	-	-	-
928000	GERMANY	1-Jan-1988	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	1-Jan-1988	1-Jan-1988	-	-	-	-	-
700073	GHANA	-	-	-	-	-	-	-	-	-	-	-	-
930000	GREECE	1-Jan-1988	1-Jan-1988 to 31-May-2001 & 27-Nov-2013	1-Jun-2001 to 26-Nov-2013	1-Jun-2001 to 26-Nov-2013	1-Jun-2001 to 26-Nov-2013	1-Jun-2001 to 26-Nov-2013	1-Jan-1988	-	-	-	-	-
934400	HONG KONG	1-Jan-1988	-	1-Dec-1972	1-Dec-1972	-	-	-	1-Jan-1988	-	-	-	-
934800	HUNGARY	3-Sep-1996	3-Sep-1996	-	-	-	-	3-Sep-1996	-	-	-	-	-
935600	INDIA	2-Feb-1994	2-Feb-1994	-	-	-	-	-	2-Feb-1994	-	-	-	-
936000	INDONESIA FORMER	1-Sep-1989 to 1-Jun-1997	1-Sep-1989 to 1-Jun-1997	-	-	-	-	-	1-Sep-1989 to 1-Jun-1997	-	-	-	-
105767	INDONESIA	2-Jun-1997	2-Jun-1997	-	-	-	-	-	2-Jun-1997	-	-	-	-
937200	IRELAND (2)	1-Jan-1988	-	3-May-1993	3-May-1993	3-May-1993	3-May-1993	1-Jan-1988	-	-	-	-	-
300400	ISRAEL	2-Feb-1994	2-Mar-1995 to 26-May-2010	27-May-2010	27-May-2010	-	-	2-Mar-1995	-	-	-	-	-
938000	ITALY	1-Jan-1988	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	1-Jan-1988	1-Jan-1988	-	-	-	-	-
700071	JAMAICA	-	-	-	-	-	-	-	-	-	-	-	-
939200	JAPAN	1-Jan-1988	-	1-Jan-1970	1-Jan-1970	-	-	-	1-Jan-1988	-	-	-	-

MSCI CODE	INDEX NAME	892400 ACWI (former ACWIF)	891800 EM (former EMF)	990100 THE WORLD INDEX (3)	990300 EAFE	990500 EUROPE	106400 EMU	302200 AC EUROPE & MIDDLE EAST	302000 AC ASIA PACIFIC	899902 AC AMERICAS	133709 GCC COUNTRIES	133707 ARABIAN MARKETS	136614 FM (FRONTIER MARKETS)
940000	JORDAN	1-Jan-1988 to 25-Nov-2008	1-Jan-1988 to 25-Nov-2008	-	-	-	-	1-Jan-1988 to 25-Nov-2008	-	-	-	1-Jun-2005	26-Nov-2008
136637	KAZAKHSTAN	-	-	-	-	-	-	-	-	-	-	-	1-Dec-2005
136643	KENYA	-	-	-	-	-	-	-	-	-	-	-	3-Jun-2002
941000	KOREA	1-Sep-1998	1-Sep-1998	-	-	-	-	-	1-Sep-1998	-	-	-	-
841000	KOREA (FORMER) (7)	7-Jan-1992 to 31-Aug-1998	7-Jan-1992 to 31-Aug-1998	-	-	-	-	-	7-Jan-1992 to 31-Aug-1998	-	-		
133713	KUWAIT	-	-	-	-	-	-	-	-	-	1-Jun-2005	1-Jun-2005	3-Jun-2002
136642	LEBANON	-	-	-	-	-	-	-	-	-	-	2-Jun-2008	3-Jun-2002
136638	LITHUANIA	-	-	-	-	-	-	-	-	-	-	-	26-Nov-2008
944200	LUXEMBOURG (2)	1-Jan-1988 to 30-Sep-1996	-	-	-	-	-	1-Jan-1988 to 30-Sep-1996	-	-	-	-	-
105768	MALAYSIA	2-Jun-1997 to 30-Nov-1998 & 1-Jun-2000	2-Jun-1997 to 30-Nov-1998 & 1-Jun-2000	-	-	-	-	-	2-Jun-1997 to 30-Nov-1998 & 1-Jun-2000	-	-	-	-
945800	MALAYSIA FORMER	1-Jan-1988 to 1-Jun-1997	1-Jan-1988 to 1-Jun-1997	3-May-1993 to 30-Sep-98	3-May-1993 to 30-Sep-98	-	-	-	1-Jan-1988 to 1-Jun-1997	-	-	-	-
136644	MAURITIUS	-	-	-	-	-	-	-	-	-	-	-	3-Jun-2002
848400	MEXICO	1-Jan-1988	1-Jan-1988	-	-	-	-	-	-	1-Jan-1988	-	-	-
948400	MEXICO FORMER	-	-	5-Nov-1981 to 31-Dec-1987	-	-	-	-	-	-	-	-	-

MSCI CODE	INDEX NAME	892400 ACWI (former ACWIF)	891800 EM (former EMF)	990100 THE WORLD INDEX (3)	990300 EAFE	990500 EUROPE	106400 EMU	302200 AC EUROPE & MIDDLE EAST	302000 AC ASIA PACIFIC	899902 AC AMERICAS	133709 GCC COUNTRIES	133707 ARABIAN MARKETS	136614 FM (FRONTIER MARKETS)
105765	MOROCCO	1-Jun-2001 to 26-Nov-2013	1-Jun-2001 to 26-Nov-2013	-	-	-	-	-	-	-	-	1-Jun-2005	27-Nov-2013
952800	NETHERLANDS	1-Jan-1988	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	1-Jan-1988	1-Jan-1988	-	-	-	-	-
955400	NEW ZEALAND	1-Jan-1988	-	1-Jan-1988	1-Jan-1988	-	-	-	1-Jan-1988	-	-	-	-
136645	NIGERIA	-	-	-	-	-	-	-	-	-	-	-	3-Jun-2002
957800	NORWAY	1-Feb-1995	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	-	1-Jan-1988	-	-	-	-	-
857800	NORWAY FREE (5)	1-Jan-1988 to 31-Jan-1995	-	-	-	-	-	-	-	-	-	-	-
133714	OMAN	-	-	-	-	-	-	-	-	-	1-Jun-2005	1-Jun-2005	3-Jun-2002
958600	PAKISTAN	2-Feb-1994 to 31-Dec-2008	2-Feb-1994 to 31-Dec-2008	-	-	-	-	-	2-Feb-1994 to 31-Dec-2008	-	-	-	1-Jun-2009
703301	PALESTINE IMI	-	-	-	-	-	-	-	-	-	-	-	-
960400	PERU	2-Feb-1994	2-Feb-1994	-	-	-	-	-	-	2-Feb-1994	-	-	-
860800	PHILIPPINES	1-Jan-1988	1-Jan-1988	-	-	-	-	-	1-Jan-1988	-	-	-	-
960800	PHILIPPINES FORMER	-	-	-	-	-	-	-	-	-	-	-	-
961600	POLAND	2-Mar-1995	2-Mar-1995	-	-	-	-	2-Mar-1995	-	-	-	-	-
962000	PORTUGAL	1-Jan-1988	1-Jan-1988 to 30-Nov-1997	01-Dec-1997	01-Dec-1997	01-Dec-1997	01-Dec-1997	1-Jan-1988	-	-	-	-	-
133715	QATAR	2-Jun-2014	2-Jun-2014	-	-	-	-	2-Jun-2014	-	-	1-Jun-2005	1-Jun-2005	3-Jun-2002 to 31-May-2014
136639	ROMANIA	-	-	-	-	-	-	-	-	-	-	-	1-Dec-2005

MSCI CODE	INDEX NAME	892400 ACWI (former ACWIF)	891800 EM (former EMF)	990100 THE WORLD INDEX (3)	990300 EAFE	990500 EUROPE	106400 EMU	302200 AC EUROPE & MIDDLE EAST	302000 AC ASIA PACIFIC	899902 AC AMERICAS	133709 GCC COUNTRIES	133707 ARABIAN MARKETS	136614 FM (FRONTIER MARKETS)
105653	RUSSIA	01-Dec-1997	01-Dec-1997	-	-	-	-	01-Dec-1997	-	-	-	-	-
133716	SAUDI ARABIA	-	-	-	-	-	-	-	-	-	1-Jun-2005	1-Jun-2005	-
141415	SERBIA	-	-	-	-	-	-	-	-	-	-	-	26-Nov-2008
998100	SINGAPORE (SINGAPORE/MALAYSIA)	1-Dec-1999	-	01-Dec-1972	01-Dec-1972	-	-	-	1-Dec-1999	-	-	-	-
970200	SINGAPORE (FORMER)	1-Jan-1988 to 30-Apr-1993	-	-	-	-	-	-	1-Jan-1988 to 30-Apr-1993	-	-	-	-
870200	SINGAPORE FREE (4) (6)	3-May-1993 to 30-Nov-1999	-	-	-	-	-	-	3-May-1993 to 30-Nov-1999	-	-	-	-
136640	SLOVENIA	-	-	-	-	-	-	-	-	-	-	-	3-Jun-2002
971000	SOUTH AFRICA	2-Mar-1995	2-Mar-1995	-	-	-	-	-	-	-	-	-	-
998000	SOUTH AFRICAN GOLD MINES (1)	1-Jan-1988 to 1-Mar-1995	-	2-Dec-1974 to 1-Mar-1995	-	-	-	-	-	-	-	-	-
972400	SPAIN	1-Jan-1988	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	1-Jan-1988	1-Jan-1988	-	-	-	-	-
914400	SRI LANKA	2-Feb-1994 to 31-May-2001	2-Feb-1994 to 31-May-2001	-	-	-	-	-	2-Feb-1994 to 31-May-2001	-	-		1-Dec-2003
975200	SWEDEN	18-Jan-1993	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	-	1-Jan-1988	-	-	-	-	-
875200	SWEDEN FREE	1-Jan-1988 to 17-Jan-1993	-		-	-	-	-	-	-	-	-	-
975600	SWITZERLAND	16-Jul-1992	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	-	1-Jan-1988	-	-	-	-	-
875600	SWITZERLAND FREE	1-Jan-1988 to 15-Jul-1992	-	-	-	-	-	-	-	-	-	-	-
915800	TAIWAN	3-Jun-2002	3-Jun-2002	-	-	-	-	-	3-Jun-2002	-	-	-	-

MSCI CODE	INDEX NAME	892400 ACWI (former ACWIF)	891800 EM (former EMF)	990100 THE WORLD INDEX (3)	990300 EAFE	990500 EUROPE	106400 EMU	302200 AC EUROPE & MIDDLE EAST	302000 AC ASIA PACIFIC	899902 AC AMERICAS	133709 GCC COUNTRIES	133707 ARABIAN MARKETS	136614 FM (FRONTIER MARKETS)
815800	TAIWAN@80% (8)	3-Sep-1996 to 2-Jun-2002	3-Sep-1996 to 2-Jun-2002	-	-	-	-	-	3-Sep-1996 to 2-Jun-2002	-	-	-	-
976400	THAILAND FORMER	1-Jan-1988 to 1-Jun-1997	1-Jan-1988 to 1-Jun-1997	-	-	-	-	-	1-Jan-1988 to 1-Jun-1997	-	-	-	-
105769	THAILAND	2-Jun-1997	2-Jun-1997	-	-	-	-	-	2-Jun-1997	-	-	-	-
700072	TRINIDAD AND TOBAGO	-	-	-	-	-	-	-	-	-	-	-	1-Jun-2009 to 31-May-2011
136646	TUNISIA	-	-	-	-	-	-	-	-	-	-	2-Jun-2008	1-Jun-2004
979200	TURKEY	1-Sep-1989	1-Sep-1989	-	-	-	-	1-Oct-1996	-	-	-	-	-
136641	UKRAINE	-	-	-	-	-	-	-	-	-	-	-	1-Jun-2006 to 31-Aug-2015
133717	UNITED ARAB EMIRATES	2-Jun-2014	2-Jun-2014	-	-	-	-	2-Jun-2014	-	-	1-Jun-2005	1-Jun-2005	3-Jun-2002 to 31-May-2014
982600	UNITED KINGDOM	1-Jan-1988	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	-	1-Jan-1988	-	-	-	-	-
984000	USA (3)	1-Jan-1988	-	1-Jan-1970	-	-	-	-	-	1-Jan-1988	-	-	-
886200	VENEZUELA	2-Feb-1994 to 31-May-2006	2-Feb-1994 to 31-May-2006	-	-	-	-	-	-	2-Feb-1994 to 31-May-2006	-	-	-
986200	VENEZUELA (FORMER)	-	-	-	-	-	-	-	-	-	-	-	-
136647	VIETNAM	-	-	-	-	-	-	-	-	-	-	-	1-Dec-2006
700873	ZIMBABWE	-	-	-	-	-	-	-	-	-	-	-	-

(1) Excluded from all dividend reinvested indexes.

(2) Luxembourg has been excluded from dividend reinvested indexes since 01-Jan-1993 and Ireland prior to 03-May-1993.

(3) Until 29-Nov-1974, the World Index was a weighted arithmetic average of the MSCI EAFE, of the NYSE and the TSE indexes.

(4) Included in Far East Free, Pacific Free and Pacific Free ex Japan since 1-Jan-1988

Those indexes were back-calculated until 1-Jan-1988 in 2003 when Singapore Free was launched

(5) Restrictions appeared since 1-Dec-1989.

(6) No more foreign quotation since 1-Dec-1999.

Prices taken from the foreign board between 4-May-1988 and 30-Nov-1999.

(7) Korea was included in the free indexes at 20% of its market cap between 7-Jan-92 and 2-Sep-96 and at 50% between 3-Sep-96 and 31-Aug-98.

(8) Taiwan was included in the free indexes at 50% of its market cap between 3-Sep-96 and 31-May-00, at 65% between 1-Jun-00 and 30-Nov-00 and at 80% between 1-Dec-00 and 2-Dec-01.

APPENDIX IX: MSCI REAL TIME INDEXES

MSCI currently calculates price, net and gross variants for approximately 9,000 equity based indexes in real time as well as the FX Hedge, Currency, Short/Leveraged and Daily Hedged indexes. All MSCI Real Time Indexes are calculated based on the corresponding end-of-day index calculation methodologies.

MSCI disseminates real time indexes every 60 seconds or 15 seconds depending on the index type and its use in the marketplace. On a daily basis for each real time index, MSCI will provide an Index Open value **(IO)** which will occur when the first security belonging to that index trades, an Index Update value **(IU)** which will occur throughout the day after the Index Open has been sent and an Index Close value **(IC)** which will be sent out as the last real time level and indicate the real time closing value.[8]

Real Time Intraday Foreign Exchange Rates vs. Real Time Close Foreign Exchange Rates

MSCI Real Time Indexes use the Reuters Multi Contributor FX Rates for all Index Open and Index Updates and MSCI applies the WM 4PM London time Closing Mid Rates for the Index Close.

Mono-currency indexes which are indexes that have exposure to a single currency will have their Index Close value sent shortly after the underlying stock exchange(s) close and do not require the WM 4PM London closing rate to calculate the Index Close.

Multi-currency indexes (which have exposure to multiple currencies) require the WM 4PM London closing rate to calculate the Index Close. Multi-currency indexes whose underlying stock exchanges close before the WM 4PM London rates are received will have their last Index Update sent shortly after the last underlying stock exchange closes and then will have their Index Close sent when the WM 4PM London Close is received. Multi-currency indexes whose underlying stock exchanges close after the WM 4PM London rates are received will continue to use the Reuters Multi Contributor FX rates for all Index Updates until the last underlying stock exchange closes and the Index Close is sent using the WM 4PM London Close.

[8] The real time Index Close could be different from the index value for the same index delivered in MSCI's end-of-day product files due to manual data updates implemented during the end-of-day calculation process. The official closing level of any MSCI index is the level distributed in MSCI's end-of-day product files.

Real Time Intraday Security Pricing vs. Real Time Close Security Pricing

Index Open and Index Update calculations use the last traded price available and the Index Close uses the official closing price or last trade as described in the MSCI Closing Prices Policy found in Appendix VII of this document.

Price filtering

MSCI has various price filters set in place to ensure that high quality prices are used in MSCI's Real Time index calculations. MSCI's price market filters exclude trades such as block sales and odd lots among others and MSCI's price threshold filters ensure that price fluctuations above or below a certain threshold are checked prior to being included in the calculation of the MSCI Real Time Indexes.

Real Time Cash Dividend Reinvestment

Consistent with the Daily Total Return (DTR) end-of-day index calculation methodology, MSCI's real time DTR calculation will reinvest a dividend only if the security paying the dividend trades on the ex-date. The dividend will be reflected in real time index calculations as soon as the security paying the dividend trades in real time. If the security does not trade on the ex-date or on the scheduled reinvestment date, the dividend reinvestment will be postponed to the day when the security resumes trading. Late dividends or corrections will be treated in real time calculations consistent with the end-of-day DTR index calculation methodology. For more details on MSCI's DTR methodology please refer to the Section 2.

General Announcement Policy for Dividends

Upcoming dividends to be reinvested in the MSCI DTR Indexes are announced prior to their reinvestment in the MSCI Security Advanced Dividend File.

Late dividends and dividend corrections that are received after their ex-date are reinvested or corrected in the MSCI DTR Indexes on the next business day following the reception date from the data sources. Therefore, there is at least one day's notice through the MSCI Security Advanced Dividend File prior to their reinvestment and / or correction.

In exceptional cases, MSCI will announce the treatment of dividends that are not pre-announced in the MSCI Security Advanced Dividend File and are received by MSCI during market hours on their ex-date through an intraday option email announcement.

Intraday Price Adjustment Factor (PAF) Announcements

MSCI sends an Opening and Closing PAF announcement for all Real Time constituents that have a corporate event effective involving the calculation of a theo-cum PAF such as a special cash dividend, capital repayment or when a shareholder receives something other than the underlying asset.

The opening PAF announcement uses the opening price of the security. It is provided for information purpose and is sent shortly after the first trade of the security having the corporate event. However, Real Time indexes are computed using a PAF that is calculated using real time prices throughout the day.

The closing PAF announcement uses the closing price of the security having the corporate event and is used in the Index Close calculation. The closing PAF value is sent shortly after the closing price of the security having the corporate event is received. For more information on corporate events, please see the MSCI Corporate Event Methodology document.

APPENDIX X: INDEX CALCULATION METHODOLOGY USING INDEX DIVISORS

INTRODUCTION

An index level is calculated by multiplying the weighted average performance of the index constituents by the previous index level. This section presents an alternative way of calculating an index level (which is similar to the traditional way of valuing a portfolio), by simply multiplying asset constituent quantities by current prices, and adding up the results. The index divisor concept, introduced below, is central to this alternative index calculation.

When calculating a security's performance on days with certain corporate events, a price adjustment factor (PAF) is needed to ensure historical price comparability. This factor often accounts for assets that contribute to the index performance for a day, such as rights offerings, spun-off companies or cash. In the alternative index calculation methodology described herein, the PAF is replaced by the interim constituents, which explicitly capture the impact of corporate events.

DEFINITIONS

Index Divisor (t)

The index divisor for a day t is defined as the ratio of the initial market capitalization and the previous index level.

$$IndexDivisor_t = \frac{IndexInitialMarketCap_t}{IndexLevel_{t-1}}$$

The index divisor does not change unless the index composition changes, e.g., in cases of corporate events and index additions / deletions where a change in index market capitalization is not due to performance and does not correspond to a change in the index level.

The index divisor for day *t* is known after the close of day *t-1* (the initial index market capitalization is calculated using prices and exchange rates as of day *t-1* but constituents as of *t*).

The index divisor can be calculated in any currency: both the index initial market capitalization and the previous index level need to be expressed in that currency.

Index Unit

The index unit describes the set of index constituents and corresponding quantities of total value equal to the index level. It can be derived by dividing the total index quantities by the index divisor.

Intraday Index Number of Shares (t)

The intraday index number of shares is the number of shares of a security taken into account for the index calculation and valid both intraday and at the close of day t (before any changes due to corporate events or index reviews). Note that it is adjusted by the various index inclusion factors, such as the Foreign Inclusion Factor (FIF)[9], for day t. Also, note that it can be different from the number of shares used for the index calculation described in Section 1.1 (which is an end of day number of shares) in cases of corporate events.

Intraday Index Unit Number of Shares (t)

The intraday index unit number of shares is the intraday index number of shares expressed for one index unit. It is defined as the ratio of the intraday index number of shares and the index divisor.

$$IntradayIndexUnitNumberOfShares_t = \frac{IntradayIndexNumberOfShares_t}{IndexDivisor_t}$$

End of Day Index Number of Shares (t)

The end of day index number of shares is the number of shares of a security taken into account for the index calculation for the next day (t+1) but expressed on a pre t+1 events basis (for example, if a company has a stock split on t+1, the end of day index number of shares for day t will be on a pre-split basis). This number of shares, however, takes into account changes due to corporate events effective as of the close of t and is adjusted by the various index inclusion factors such as the Foreign Inclusion Factor (FIF) for day t+1. Note that it is based on the same number of shares as the one used for the index calculation on t+1 ($EndOfDayIndexNumberOfShares_t$) and described in Section 1.1.

[9] Index inclusion factors encompass any inclusion factors specific to a given index, for example, the Value Inclusion Factor (VIF) for a Value index.

End of Day Index Unit Number of Shares (t)

The end of day index unit number of shares is the end of day index number of shares expressed for one index unit. It is defined as the ratio of the end of day index number of shares and the index divisor for t+1.

$$EndOfDayIndexUnitNumberOfShares_t = \frac{EndOfDayIndexNumberOfShares_t}{IndexDivisor_{t+1}}$$

The index unit composition changes from the intraday index unit number of shares to the end of day index unit number of shares as of the close of day t, i.e., the index unit number of shares change is calculated as

$$IndexUnitNumberOfSharesChange_t = EndOfDayIndexUnitNumberOfShares_t - IntradayIndexUnitNumberOfShares_t$$

Index Dividend Points

Index dividend points express dividends paid in an index unit for a given day. They represent dividends as a fraction of the index level itself. To provide advance notice, MSCI calculates both the preliminary index dividend points on *t-1* for *t* that use exchange rates as of *t-1* and the final index dividend points on *t* using *t* exchange rates and capturing the effect of the intraday dividend changes on *t*, if any.

Both gross and net index dividend points can be calculated for a price index variant: they express the amount of dividends paid by a price index unit.

Net (gross) index dividend points can be calculated for a net (gross) index variant: they express the amount of dividends reinvested in the net (gross) index unit.

$$PrelimDividendPoints_t = \frac{DTRIndexNumberOfShares * DividendPerShare_t / FXrate_{t-1}}{IndexDivisor_t}$$

$$FinalDividendPoints_t = \frac{DTRIndexNumberOfShares * DividendPerShare_t / FXrate_t}{IndexDivisor_t}$$

Dividend points can be aggregated at index level.

$$IndexPrelimDividendPoints_t = \sum PrelimDivdendPoints_t$$

$$IndexFinalDividendPoints_t = \sum FinalDivdendPoints_t$$

Pre-open Price

The pre-open price of a security on day *t* is its closing price of day *t-1* theoretically adjusted for the effects of corporate events affecting the security ex on day *t*.

CALCULATING THE INDEX

Index Calculation Formula

The index unit value serves to calculate the index level. The equation below is valid both intraday and as of the close.

$$IndexLevel_t = \sum_{i \in I} IntradayIndexUnitNumberOfShares_{i,t} * Price_{i,t}/FXrate_{i,t}$$

where $Price_{i,t}$ is replaced by the pre-open price for the constituents that have not yet traded on *t* and *I* is the index unit constituent set. The previous index level can also be recalculated by using pre-open prices and exchange rates of the previous day.

$$IndexLevel_{t-1} = \sum_{i \in I} IntradayIndexUnitNumberOfShares_{i,t} * PreOpenPrice_{i,t}/FXrate_{i,t-1}$$

Index Calculation Example

Consider the MSCI Austria index unit on October 27, 2009 described below. Its composition is fully known after the close of October 26, 2009 and is described by the constituent list and the intraday index unit number of shares (column F) calculated as the ratio of the intraday index number of shares and the index divisor.

To calculate the index level on October 27, 2009 (intraday or close), current prices and exchange rates (columns I and J respectively) are used for each constituent, and the market capitalization of the constituent in the index unit (column K) is obtained by multiplying the intraday index unit NOS by the prices and dividing by the exchange rate. The sum of the column K gives the value of the index unit, which is equal to the index level.

Divisor (As of Date) 21,413,261

A	B	C	D	E	F	I	J	K
Calculation Date	As of Date	Security Name	Idx Incl Flag (as of date)	Intraday Index NOS MM	Intraday Idx Unit NOS	Price (As of Date)	FX (As of Date)	Mcap in Idx Unit D*F*I/J
10/26/2009	10/27/2009	ERSTE GROUP BANK	1	174.36	8.14	28.50	0.67	344
10/26/2009	10/27/2009	OMV AG	1	150.00	7.01	29.03	0.67	301
10/26/2009	10/27/2009	TELEKOM AUSTRIA	1	322.00	15.04	11.88	0.67	265
10/26/2009	10/27/2009	VOESTALPINE	1	117.53	5.49	23.83	0.67	194
10/26/2009	10/27/2009	VERBUND OESTERR ELEK A	1	77.05	3.60	31.80	0.67	170
10/26/2009	10/27/2009	RAIFFEISEN INT'L BANK	1	54.13	2.53	42.50	0.67	159
10/26/2009	10/27/2009	VIENNA INSURANCE GROUP	1	38.40	1.79	41.10	0.67	109

***Columns A-F come from the MSCI Market Open Index File**
The file will be distributed after the close of October 26 for use on October 27

Index (USD) 1,541.96

CALCULATING INDEX UNIT CHANGES DUE TO CORPORATE EVENTS AND INDEX REBALANCINGS

As corporate events and rebalancings occur, the index unit composition can change. All adjustments are based on closing prices. To get the index unit adjustment, the new index divisor needs to be calculated. Dividing the end of day index number of shares by the new index divisor results in the end of day index unit number of shares. Given the equations

$IndexDivisor_{t+1} = \frac{IndexInitialMarketCap_{t+1}}{IndexLevel_t}$ (coming from the divisor definition), and

$IndexDivisor_t = \frac{IndexAdjustedMarketCap_t}{IndexLevel_t}$ (coming from the divisor definition and the fact the index level is proportional to the index market capitalization on any given day), a practical way of calculating the new divisor is

$$IndexDivisor_{t+1} = IndexDivisor_t * \frac{IndexInitialMarketCap_{t+1}}{IndexAdjustedMarketCap_t}$$

As an example, consider the MSCI Brazil index unit on October 21, 2009 described below. Effective October 22, 2009, a new security, BC SANTANDER BRASIL UNIT will be added to the

index. Hence, the index divisor and the index unit composition will change as of the close of October 21, 2009.

A new index divisor (for October 22, 2009) is calculated by multiplying the current divisor (for October 21, 2009) by the sum of the next day constituents' initial market capitalizations (column M) and dividing by the current index market capitalization (sum of column L). The new end of day index unit number of shares (column N) is calculated by dividing the end of day index number of shares (column H) by the new divisor. The index unit composition is adjusted by the difference between the end of day index unit number of shares and intraday index unit number of shares (column O): in this case, 0.16 shares of BC SANTANDER BRASIL UNIT are added to the index unit by decreasing the index unit number of shares of all the other index constituents.

Divisor (As of Date) 142,324,185
Divisor (As of Date + 1) 144,319,620

A	B	C	D	E	F	G	H	I	J	L	M	N	O
Calculation Date	As of Date	Security Name	Idx Incl Flag (as of date)	Intraday Index NOS MM	Intraday Idx Unit NOS	Idx Incl Flag (as of date + 1)	End of Day Index NOS MM	Price (As of Date)	FX (As of Date)	Mcap (As of Date) D*E*I/J	Initial Mcap (As of Date + 1) G*H*I/J	End of Day Idx Unit NOS	Idx Unit NOS Change (N-F)
10/20/2009	10/21/2009	BC SANTANDER BRASIL UNIT	**0**			**1**	525	23.19	1.74	0	7,017	0.16	**0.16**
10/20/2009	10/21/2009	PETROBRAS PN	1	3,146	22.10	1	3,146	36.70	1.74	66,538	66,538	21.80	-0.31
10/20/2009	10/21/2009	PETROBRAS ON	1	2,283	16.04	1	2,283	43.00	1.74	56,582	56,582	15.82	-0.22
10/20/2009	10/21/2009	VALE PNA	1	2,109	14.82	1	2,109	40.77	1.74	49,549	49,549	14.61	-0.20
10/20/2009	10/21/2009	ITAU UNIBANCO PN	1	2,053	14.43	1	2,053	36.00	1.74	42,608	42,608	14.23	-0.20
10/20/2009	10/21/2009	VALE ON	1	1,440	10.12	1	1,440	46.11	1.74	38,272	38,272	9.98	-0.14
10/20/2009	10/21/2009	BANCO BRADESCO PN	1	1,535	10.78	1	1,535	36.00	1.74	31,849	31,849	10.64	-0.15
10/20/2009	10/21/2009	CSN SIDERURGICA NAC'L ON	1	397	2.79	1	397	63.50	1.74	14,519	14,519	2.75	-0.04

*** Subset of the MSCI Brazil Index Unit**

INTERIM CONSTITUENTS[10]

On days with certain corporate events, the index can hold constituents that influence the performance for a day. When calculating the index performance using price adjustment factors (as described in section 1.1), these do not appear explicitly in the calculation formula but are accounted for implicitly by applying a price adjustment factor (PAF) on the capitalization of the security affected by the corporate event. The index, however, is exposed to all the constituents and when valuing an index unit, these need to be explicitly taken into account. For example, the following corporate events result in a creation of interim constituents:

[10] Interim constituents will be added to the product files in the second phase of the MSCI Market Open Index product (expected delivery at the end of 2010)

Capital Repayments: the index calculation assumes that cash is received in the index and held until the close when it is finally reinvested in the index so cash effectively brings performance to the index on the ex-date and is part of the index unit

Spin-off with the spun-off company not eligible for the index: the calculation assumes that the spun-off company is received in the index on the ex-date and is held until the close when it is finally sold and the proceeds reinvested back in the index. In this case, the spun-off company is effectively part of the index on the ex-date

Note that the interim constituents play a similar role in the index calculation as the price adjustment factor (PAF) and the resulting index levels are exactly the same whether using interim constituents or PAFs.

To explain how interim constituents are created, several examples of common corporate events are described below. Some corporate events can result in the creation of more than one interim constituent, but these can also be broken up in several simple consecutive corporate events.

Examples

Capital Repayment

As an example, consider the repayment of EUR 0.4 per share by ELISA A effective October 26, 2009. According to the calculation methodology, this cash is reinvested back in the index as of the close of the ex date, October 26, 2009. Hence, intraday, the MSCI Finland index unit holds both ELISA A and the cash. An interim constituent is therefore added to the index unit, as shown below, with the following characteristics:

Intraday index unit number of shares equal to the stock that repaid capital (given that each share of ELISA A in the index unit is entitled to the cash payment)

Fixed price equals to the repayment amount, EUR 0.40.

Cash will leave the index unit as of the close of October 26 (as indicated by column G) and the proceeds reinvested back in the index. Repeating the calculations described in the previous section gives the index unit number of shares change (column O) that represents the theoretical trade adjustment to the index unit: cash is “sold” (negative change) while the index unit holdings in all the other constituents increase (positive change)

Divisor (As of Date) 249,175,772
Divisor (As of Date + 1) 249,001,078

A	B	C			D	E	F	G	H	I	J	L	M	N	O
Calculation Date	As of Date	Security Name	Interim constituent type	Interim const. trading status	Idx Incl Flag (as of date)	Intraday Index NOS MM	Intraday Idx Unit NOS	Idx Incl Flag (as of date + 1)	End of Day Index NOS MM	Price (As of Date)	FX (As of Date)	Mcap (As of Date) D*E*I/J	Initial Mcap (As of Date + 1) G*H*I/J	End of Day Idx Unit NOS	Idx Unit NOS Change (N-F)
10/25/2009	10/26/2009	ELISA A			1	133	0.53	1	133	13.90	0.67	2,763	2,763	0.53	0.0004
10/25/2009	10/26/2009	ELISA A (INTERIM 1)*	CASH	FIXED	**1**	133	0.53	**0**		0.40	0.67	80	**0**	**0.00**	-0.5339
10/25/2009	10/26/2009	NOKIA CORP			1	3,745	15.03	1	3,745	8.78	0.67	49,129	49,129	15.04	0.0105
10/25/2009	10/26/2009	FORTUM CORP			1	444	1.78	1	444	16.65	0.67	11,050	11,050	1.78	0.0013
10/25/2009	10/26/2009	SAMPO A			1	420	1.69	1	420	16.76	0.67	10,521	10,521	1.69	0.0012
10/25/2009	10/26/2009	UPM-KYMMENE			1	520	2.09	1	520	8.11	0.67	6,301	6,301	2.09	0.0015
10/25/2009	10/26/2009	KONE B			1	154	0.62	1	154	26.30	0.67	6,040	6,040	0.62	0.0004
10/25/2009	10/26/2009	STORA ENSO R			1	582	2.33	1	582	5.29	0.67	4,598	4,598	2.34	0.0016
10/25/2009	10/26/2009	METSO CORP			1	128	0.51	1	128	18.74	0.67	3,572	3,572	0.51	0.0004
10/25/2009	10/26/2009	WARTSILA B			1	84	0.34	1	84	25.83	0.67	3,235	3,235	0.34	0.0002

Subset of the MSCI Finland
*** Interim constituents will be added to the product files in the second phase of the MSCI Market Open Index project (expected d elivery at the end of 2010)**

Spin-off with the Spun-off Company Traded on the Ex date

As an example, consider the spin-off of GAM HOLDING by JULIUS BAER HOLDING with 1:1 terms effective October 1, 2009 for the MSCI Switzerland Large Cap index (displayed below). The spun-off company is not eligible to stay in the index.

On the ex date (October 1, 2009), the spun-off company still brings performance to the index and is hence part of the index unit. It is therefore part of the index with the following characteristics:

Intraday index unit number of shares calculated according to the terms (intraday index unit number of shares of the parent stock * 1/1)

Market price given that the spun-off company is traded on the ex-date.

It is “sold” from the MSCI Switzerland Large Cap index unit at the close of the ex-date and the proceeds are reinvested back in the index. To determine the index unit number of shares (column O), the calculations described in the previous section should be repeated.

Divisor (As of Date) 861,052,729
Divisor (As of Date + 1) 857,954,025

A	B	C				D	E	F	G	H	I	J	L	M	N	O
Calculation Date	As of Date	Security Name	Interim constituent type	Underlying Asset Description	Interim const. trading status	Idx Incl Flag (as of date)	Intraday Index NOS MM	Intraday Idx Unit NOS	Idx Incl Flag (as of date + 1)	End of Day Index NOS MM	Price (As of Date)	FX (As of Date)	Mcap (As of Date) D*E*I/J	Initial Mcap (As of Date + 1) G*H*I/J	End of Day Idx Unit NOS	Idx Unit NOS Change (N-F)
9/30/2009	10/1/2009	JULIUS BAER HOLDING				1	211	0.25	1	211	38.30	1.04	7,765	7,765	0.25	0.0009
9/30/2009	10/1/2009	JULIUS BAER HOLDING (INTERIM 1)*	OTHER ASSET DISTRIBUTED	**GAM HOLDING**	TRADED	**1**	211	0.25	**0**		12.00	1.04	2,433	0	0.00	**-0.2451**
9/30/2009	10/1/2009	NESTLE				1	3,639	4.23	1	3,639	43.96	1.04	153,656	153,656	4.24	0.0153
9/30/2009	10/1/2009	ROCHE HOLDING GENUSS				1	703	0.82	1	703	166.30	1.04	112,240	112,240	0.82	0.0029
9/30/2009	10/1/2009	NOVARTIS				1	2,115	2.46	1	2,115	51.65	1.04	104,937	104,937	2.47	0.0089
9/30/2009	10/1/2009	UBS NAMEN				1	3,558	4.13	1	3,558	18.39	1.04	62,859	62,859	4.15	0.0149
9/30/2009	10/1/2009	CREDIT SUISSE				1	1,125	1.31	1	1,125	57.45	1.04	62,111	62,111	1.31	0.0047
9/30/2009	10/1/2009	ABB LTD				1	2,207	2.56	1	2,207	20.46	1.04	43,372	43,372	2.57	0.0093
9/30/2009	10/1/2009	ZURICH FINL SERVICES				1	147	0.17	1	147	244.80	1.04	34,552	34,552	0.17	0.0006
9/30/2009	10/1/2009	SYNGENTA				1	97	0.11	1	97	229.90	1.04	21,404	21,404	0.11	0.0004
9/30/2009	10/1/2009	HOLCIM				1	245	0.28	1	245	68.50	1.04	16,143	16,143	0.29	0.0010

Subset of the MSCI Switzerland Large Cap Index Unit
*** Interim constituents will be added to the product files in the second phase of the MSCI Market Open Index project (expected delivery at the end of 2010)**

Spin-off with Spun-off Not Traded on the Ex date

As an example, consider the spinoff of SONAE CAPITAL by SONAE SGPS effective January 4, 2008. Given that the spun-off company is not trading on the ex-date but the market capitalization of the parent stock drops nevertheless to account for the value of the spun-off company, MSCI creates a "dummy" security called "detached" to represent it. Its price is calculated as the difference between the cum and ex prices of the parent security on the ex-date from the ex-date + 1 onwards. It will be carried in the index at this calculated fixed price until the day it starts trading where it is either added to the index or deleted at the end of the first trading day. On the ex-date, however, it is represented by an interim constituent with the following characteristics:

Intraday index unit number of shares equal to the parent company (terms are not considered as this is a "dummy" security

Calculated price in real time equal to the difference between the cum price (closing price of the previous day) of the parent company and the ex (current) price

At the close of the ex-date, the interim constituent is replaced by the detached security. Note that there is no divisor change and hence no index unit number of shares change.

Divisor (As of Date) 216,755,858
Divisor (As of Date + 1) 216,755,858

A	B	C					D	E	F	G	H	I	J	L	M	N	O
Calculation Date	As of Date	Security Name	Interim constituent type	Underlying Asset Description	Interim const. trading status	Pricing Formula	Idx Incl Flag (as of date)	Intraday Index NOS MM	Intraday Idx Unit NOS	Idx Incl Flag (as of date + 1)	End of Day Index NOS MM	Price (As of Date)	FX (As of Date)	Mcap (As of Date) D*E*I/J	Initial Mcap (As of Date + 1) G*H*I/J	End of Day Idx Unit NOS	Idx Unit NOS Change (N-F)
1/3/2008	1/4/2008	SONAE SGPS					1	800	3.69	1	800	1.65	0.68	1,950	1,950	3.69	0.0000
1/3/2008	1/4/2008	SONAE SGPS (INTERIM 1)*	OTHER ASSET DISTRIBUTED	SONAE CAPITAL	Calculated	**1.91 - SONAE SGPS P(t)**	**1**	800	3.69	**0**		0.26	0.68	307	0	0.00	**-3.6908**
1/3/2008	1/4/2008	SONAE SGPS (DETACHED)					**0**			**1**	800	0.26	0.68	0	307	3.69	**3.6908**
1/3/2008	1/4/2008	EDP ENERGIAS DE PORTUGAL					1	2,011	9.28	1	2,011	4.54	0.68	13,490	13,490	9.28	0.0000
1/3/2008	1/4/2008	PORTUGAL TELECOM SGPS					1	790	3.65	1	790	8.70	0.68	10,157	10,157	3.65	0.0000
1/3/2008	1/4/2008	BCP BANCO COMERCIAL					1	1,806	8.33	1	1,806	2.72	0.68	7,256	7,256	8.33	0.0000
1/3/2008	1/4/2008	BANCO ESPIRITO SANTO					1	225	1.04	1	225	14.45	0.68	4,804	4,804	1.04	0.0000
1/3/2008	1/4/2008	BRISA					1	300	1.38	1	300	10.00	0.68	4,432	4,432	1.38	0.0000
1/3/2008	1/4/2008	PT MULTIMEDIA SERVIC COM					1	235	1.09	1	235	9.25	0.68	3,216	3,216	1.09	0.0000
1/3/2008	1/4/2008	CIMPOR CIMENTOS DE PORT					1	202	0.93	1	202	6.03	0.68	1,796	1,796	0.93	0.0000
1/3/2008	1/4/2008	BANCO BPI					1	228	1.05	1	228	4.97	0.68	1,674	1,674	1.05	0.0000
1/3/2008	1/4/2008	JERONIMO MARTINS SGPS					1	189	0.87	1	189	5.59	0.68	1,559	1,559	0.87	0.0000
1/3/2008	1/4/2008	SONAE INDUSTRIA SGPS					1	63	0.29	1	63	6.11	0.68	569	569	0.29	0.0000

Subset of the MSCI Portugal Index Unit
*** Interim constituents will be added to the product files in the second phase of the MSCI Market Open Index project (expected delivery at the end of 2010)**

Rights Issue

As an example, consider the rights issue for BALFOUR BEATTY effective October 8, 2009 in the MSCI UK Index[11] and described below. 3 rights were offered for every 7 shares held at 1.8 GBP.

The performance of the index on the ex-date reflects an exposure to the rights and the BALFOUR BEATTY weight increases only as of the close of the ex-date. Note that the adjustment for a rights issue is always theoretical (the intrinsic value of the right is the difference between the underlying stock price and the subscription price), even if the rights will list on an exchange. An interim constituent with the following characteristics is created:

Intraday index unit number of shares calculated according to the terms (intraday index unit number of shares of BALFOUR BEATTY times 3/7)

A calculated price defined as the price of BALFOUR BEATTY minus the subscription price of 1.8

At the end of the day, the interim constituent is deleted from the index (the rights are subscribed to) and the exposure to BALFOUR BEATTY increases (its intraday index number of shares and the divisor increase). The index unit adjustment (column O) is given by the calculations described in the previous sections.

[11] Note that this example is based on the current adjustment methodology for rights issue. The methodology being different before November 2009, the published index level was calculated in a different way in practice

Divisor (As of Date) 2,020,072,842
Divisor (As of Date + 1) 2,020,659,252

A	B	C				D	E	F	G	H	I	J	K	L	M	N	O
Calculation Date	As of Date	Security Name	Interim constituent type	Interim const. trading status	Pricing Formula	Idx Incl Flag (as of date)	Intraday Index NOS MM	Intraday Idx Unit NOS	Idx Incl Flag (as of date + 1)	End of Day Index NOS MM	Price (As of Date)	FX (As of Date)	Mcap in Idx Unit D*F*I/J	Mcap (As of Date) D*E*I/J	Initial Mcap (As of Date + 1) G*H*I/J	End of Day Idx Unit NOS	Idx Unit NOS Change (N-F)
10/7/2009	10/8/2009	BALFOUR BEATTY				1	478	0.24	1	683	2.80	0.62	1	2,152	3,074	0.34	0.1013
10/7/2009	10/8/2009	BALFOUR BEATTY (INTERIM 1)*	THEO RIGHT - NEW UNDERLYING SHRAES	CALCULATED	**BALFOUR BEATTY P(t) - 1.8**	**1**	205	0.10	**0**	0	1.00	0.62	0	329	0	0.00	-0.1014
10/7/2009	10/8/2009	HSBC HOLDINGS (GB)				1	17,315	8.57	1	17,315	7.12	0.62	98	198,497	198,497	8.57	-0.002
10/7/2009	10/8/2009	BP				1	18,738	9.28	1	18,738	5.46	0.62	81	164,556	164,556	9.27	-0.003
10/7/2009	10/8/2009	VODAFONE GROUP				1	52,487	25.98	1	52,487	1.35	0.62	56	113,736	113,736	25.98	-0.008
10/7/2009	10/8/2009	GLAXOSMITHKLINE				1	5,188	2.57	1	5,188	12.35	0.62	51	103,157	103,157	2.57	-0.001
10/7/2009	10/8/2009	ROYAL DUTCH SHELL A				1	3,546	1.76	1	3,546	17.68	0.62	50	100,892	100,892	1.75	-0.001
10/7/2009	10/8/2009	ROYAL DUTCH SHELL B				1	2,696	1.33	1	2,696	17.18	0.62	37	74,561	74,561	1.33	0.000

Subset of the MSCI UK Index Unit
*** Interim constituents will be added to the product files in the second phase of the MSCI Market Open Index project (expected delivery at the end of 2010)**

Interim Constituent Creation Rules

Description of event			Parent Security Intraday NOS*	Parent Security Pre-open Price	Interim Constituent Type	Trading Status	Interim Constituent Intraday NOS	Interim Constituent Pre-open Price	Interim Constituent Intraday/Closing Price
Buyback	Against Cash	-	EndOfDayNOS(t-1) adjusted to take only into account the shares that have not been bought back	Theo-ex price taking into account the terms of the event	CASH	Fixed	EndOfDayNOS(t-1) of parent security adjusted to take into account the shares that have been bought back	Buyback price	Buyback price
Buyback	Exchange of Shares	-	EndOfDayNOS(t-1) adjusted to take only into account the shares that have not been bought back	Theo-ex price taking into account the terms of the event	OTHER ASSET ACQUIRED	Traded	EndOfDayNOS(t-1) of parent security adjusted to take into account the shares that have been bought back and the amount of other asset acquired	Other asset acquired price	Other asset acquired price
Capital Repayment	-	-	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	CASH	Fixed	EndOfDayNOS(t-1) of parent security	Cash amount	Cash amount
Installment Receipt	-	-	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	CASH	Fixed	EndOfDayNOS(t-1) of parent security	- [minus] Cash amount	- [minus] Cash amount
Partial Tender Offer	Exchange of Shares	-	EndOfDayNOS(t-1) adjusted to take only into account the shares that have not been bought back	Theo-ex price taking into account the terms of the event	OTHER ASSET ACQUIRED	Traded	EndOfDayNOS(t-1) of parent security adjusted to take into account the shares that have been bought back and the amount of other asset acquired	Other asset acquired price	Other asset acquired price
Partial Tender Offer	Against Cash	-	EndOfDayNOS(t-1) adjusted to take only into account the shares that have not been bought back	Theo-ex price taking into account the terms of the event	CASH	Fixed	EndOfDayNOS(t-1) of parent security adjusted to take into account the shares that have been bought back	Tender offer price	Tender offer price
Redemption	Against Cash	-	EndOfDayNOS(t-1) adjusted to take only into account the shares that have not been bought back	Theo-ex price taking into account the terms of the event	CASH	Fixed	EndOfDayNOS(t-1) of parent security adjusted to take into account the shares that have been bought back	Redemption price	Redemption price
Rights Issue	Right of New Underlying	-	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the	THEORETICAL RIGHT - NEW	Calculated	EndOfDayNOS(t-1) of parent security adjusted	Theo-ex price of parent	Ex price of parent constituent -

Description of event			Parent Security Intraday NOS*	Parent Security Pre-open Price	Interim Constituent Type	Trading Status	Interim Constituent Intraday NOS	Interim Constituent Pre-open Price	Interim Constituent Intraday/Closing Price
	Shares			event	UNDERLYING SHARES		by the terms of the right	constituent - subscription price	subscription price
Rights Issue	Right of New Underlying Shares Not Entitled to Forthcoming Dividend	-	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	THEORETICAL RIGHT - NEW UNDERLYING SHARES	Calculated	EndOfDayNOS(t-1) of parent security adjusted by the terms of the right	Theo-ex price of parent constituent - subscription price - gross dividend per share	Ex price of parent constituent - subscription price - gross dividend per share
Rights Issue	Right of New Underlying Shares with Another Asset (bond, warrant, preferred, etc.) attached	If market right is traded	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	MARKET RIGHT	Traded	If market right is traded for one "old" share: EndOfDayNOS(t-1) of parent security If market right is traded for one "new" share: EndOfDayNOS(t-1) of parent security adjusted by the terms of the right	If market right is traded for one "old" share: Market right or Theo-ex price of parent constituent - subscription price adjusted for the terms of the right If market right is traded for one "new" share: Market right or Theo-ex price of parent constituent - subscription price	Market right
		If market right is not traded but other asset attached is traded	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	THEORETICAL RIGHT - NEW UNDERLYING SHARES and OTHER ASSET ATTACHED	Calculated and traded	"Theoretical right constituent": EndOfDayNOS(t-1) of parent security adjusted for the terms of the right "OtherAssetAttached constituent": EndOfDayNOS(t-1) of parent security adjusted	"Theo right constituent": Theo-ex price of parent security - subscription price "OtherAssetAttached constituent": Other Asset	"Theo right constituent": Ex price of parent security - subscription price "OtherAssetAttached constituent": Other Asset Attached price

Description of event			Parent Security Intraday NOS*	Parent Security Pre-open Price	Interim Constituent Type	Trading Status	Interim Constituent Intraday NOS	Interim Constituent Pre-open Price	Interim Constituent Intraday/Closing Price
							by the terms of the right	Attached price	
		If market right and other asset attached price are not traded	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	THEORETICAL RIGHT - NEW UNDERLYING SHARES	Calculated	EndOfDayNOS(t-1) of parent security adjusted by the terms of the right	Theo-ex price of parent constituent - subscription price	Ex price of parent constituent - subscription price
Rights Issue	Right of Another Type of Asset (bond, warrant, preferred, etc.)	If Other Asset Acquired is traded	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	THEORETICAL RIGHT - OTHER ASSET ACQUIRED	Calculated	EndOfDayNOS(t-1) of parent security adjusted by the terms of the right	Other asset acquired price - subscription price or NULL	Other asset acquired price - subscription price
		If market right is traded	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	MARKET RIGHT	Traded	If market right is traded for one "old" share: EndOfDayNOS(t-1) of parent security If market right is traded for one "new" share: EndOfDayNOS(t-1) of parent security adjusted for the terms of the right	If market right is traded for one "old" share: Market right or NULL If market right is traded for one "new" share: Market right or NULL	Market right
Rights Issue	Right of Shares in Another Listed Security	-	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	THEORETICAL RIGHT - OTHER ASSET ACQUIRED	Calculated	EndOfDayNOS(t-1) of parent security adjusted by the terms of the right	Other asset acquired price - subscription price	Other asset acquired price - subscription price
Special Dividend	An adjustment is made for special dividends when the impact of dividend on the price of the day prior the ex-date	-	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	CASH	Fixed	EndOfDayNOS(t-1) of parent security	Cash amount	Cash amount

Description of event			Parent Security Intraday NOS*	Parent Security Pre-open Price	Interim Constituent Type	Trading Status	Interim Constituent Intraday NOS	Interim Constituent Pre-open Price	Interim Constituent Intraday/Closing Price
	is greater than or equal to 5%.								
Spin-off	Spun-off traded on the ex-date	-	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	OTHER ASSET DISTRIBUTED	Traded	EndOfDayNOS(t-1) of parent security adjusted by the terms of the spin-off	Other Asset Distributed price	Other Asset Distributed price
Spin-off	Spun-off NOT traded on the ex-date (creation of a 'detached' security)	-	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	OTHER ASSET DISTRIBUTED	Calculated	EndOfDayNOS(t-1) of parent security	Other Asset Distributed price adjusted by the terms of the event	Cum price - Ex price of parent security
Stock	Stock with New Shares Not Entitled to Forthcoming Dividend	-	EndOfDayNOS(t-1) adjusted to take into account the Stock	Theo-ex price taking into account the terms of the event	CASH	Fixed	EndOfDayNOS(t-1) of parent security adjusted by the terms of the stock	- [minus] Forthcoming Gross Dividend	- [minus] Forthcoming Gross Dividend
Stock	Distribution of Another Type of Asset (bond, warrant, preferred, etc.)	-	EndOfDayNOS(t-1)	Theo-ex price taking into account the terms of the event	OTHER ASSET DISTRIBUTED	Traded	EndOfDayNOS(t-1) of parent security adjusted by the terms of the stock	Other Asset Distributed or NULL	Other Asset Distributed
Stock	Distribution of New Underlying Shares with Warrants attached	-	EndOfDayNOS(t-1) adjusted to take into account the Stock	Theo-ex price taking into account the terms of the event	OTHER ASSET ATTACHED	Traded	EndOfDayNOS(t-1) of parent security adjusted by the terms of the stock	Other Asset Attached or NULL	Other Asset Attached

Multiple corporate events happening on the same day use a combination of the above rules and can potentially result in several interim constituents being created

*In case of multiple corporate events, the field "EndOfDayNOS(t-1)" should be replaced by the "IntradayNOS" calculated during the previous event

APPENDIX XI: INDEX CORRECTION POLICY

If the impact of an error is below 50 basis points on the country index OR on the World/EM Industry Group (or 50 basis points on the MSCI Frontier Markets region including the MSCI GCC Countries), no index re statement is made.

If the impact of the error is greater or equal to 50 basis points on the country index OR on the World/EM Industry Group (or 50 basis points on the MSCI Frontier Markets region including the MSCI GCC Countries), all of the indexes affected by 50 basis points or more are re stated.

In certain circumstances, such as errors in the list of constituents (i.e. a security missed), or if MSCI finds that the error is significant enough to justify the revision of indexes impacted by less than 50 basis point (e.g. 1/3 of US prices wrong), MSCI reserves the right to correct information even if the impact is lower than the 50 basis points correction threshold.

MSCI applies a 12 months correction period. Errors on historical values older than 12 months are in general not revised.

APPENDIX XII: MSCI INDEXES WITH FAIR VALUE PRICING

The MSCI Indexes with IDCo Fair Value Pricing and MSCI Indexes with ITG Fair Value Model make it simpler for active mutual fund managers, pension plans and consultants to explain artificial tracking error between a fund's fair value adjusted NAV and an MSCI index calculated using local closing prices. The indexes are expected to serve as reference tools for marketing and reporting, internal reporting and fund evaluation and research.

MSCI Indexes with IDCo Fair Value Pricing and MSCI Indexes with ITG Fair Value Model are calculated by adjusting the closing index level by the fair value return. The fair value return for an index on day *t* is calculated as follows:

$$FairValueReturnUSD_t = \sum_{s \in I, t+1} InitialSecurityWeight_{s,t+1} \times SecurityFairValueReturnUSD_{s,t}$$

where:

- $InitialSecurityWeight_{s,t+1}$ is the initial weight for security *s* in the index *I* on day *t+1* (known as of the close of *t*) or, equivalently, the rebalanced weight of the security *s* for day *t.* The calculation details are provided in section 1.2.2
- $SecurityFairValueReturnUSD_{s,t}$ is the fair value return of security *s* on day *t*. It is calculated as

  $$SecurityFairValueReturnUSD_{s,t} = \frac{FairValuePricePerShare_{s,t} \times FXrate_{4PM\ UK,t}}{PricePerShare_{s,t} \times FXrate_{4PM\ EST,t}} - 1$$

  $FairValuePricePerShare_{s,t}$ is set to $PricePerShare_{s,t}$ when it is not available from the fair value data provider. WM/Reuters spot FX rates are used in the calculation.

The Fair Value Index Level is then derived as following:

$$FairValueIndexLevel_t = IndexLevel_t \times (1 + FairValueReturnUSD_t)$$

The same fair value return adjustment is used for price, net and gross total return index series.

MSCI Fair Value Indexes with IDCo Fair Value Pricing and MSCI Indexes with ITG Fair Value Model are calculated using fair value adjustment factors as of the close of the New York Stock Exchange.

MSCI INDEX CALCULATION METHODOLOGY BOOK TRACKED CHANGES

The following section has been updated since January 2008.

2008

February:

- Daily Hedged Indexes
  - Change in the wording to clarify the hedged indexes calculation methodology (3.2.1 and 3.2.2)
  - Update of the Daily Hedged Index example (3.2.5)
- Appendix VI: Withholding Tax Rates
  - Addition of Frontier Markets
  - Removal of Venezuela
- Appendix VII: Closing Prices Policy
  - Addition of Frontier Markets
  - Removal of Venezuela
- Appendix VIII: Country Composition of MSCI Regional Indexes
  - Addition of Frontier Markets countries
  - Addition of 3 regions (GCC countries, Arabian Markets, Frontier Markets)

March:

- Appendix VII: Closing Prices Policy
  - Change in the closing price description for Croatia
  - Addition of Dubai International Financial Exchange for United Arab Emirates

April:

- Appendix VII: Closing Prices Policy

- Change in the closing price description for Croatia
- Addition of Dubai International Financial Exchange for United Arab Emirates

May:

- Appendix VII: Closing Prices Policy
  - Change in the closing price description for Israel (Domestic).
  - Change in the Closing price available time (local) of Bahrain market
  - Change in the Closing price used, price description and available time for HK.

July:

- Appendix II: Security level information: Annualized Traded Value Ratio (ATVR) and Annual Traded Value
  - New section

September:

- Appendix VII: Closing Prices Policy
  - Closing prices available at 5:30pm local time for Norway (Oslo Stock Exchange).
  - Include Serbia and Belgrade Stock Exchange trading information.

November:

- Appendix VI: Withholding Taxes Rates
  - Addition of Lithuania and Serbia
- Appendix VII: Closing Prices Policy
  - Closing price availability for Greece updated to be 5:20pm local time.
  - Closing price used for Serbia market updated to be VWAP.
  - Closing price used for Chile market updated to be Official Closing Price.
- Appendix VIII: Country Composition of MSCI Regional Indexes
  - Addition of Lithuania and Serbia.

- Updates for Jordan

December:

- Appendix VII: Closing Prices Policy
  - Closing price description of Thailand includes explanation of applying random auction call method to both main board and foreign board of stock exchange of Thailand.
  - Price used for The Bombay Stock Exchange update to be WAP, description is also updated accordingly.
  - Closing price description of The National Stock Exchange of India has been confirmed to be Volume Weighted Average Price.
  - Closing price used and description for Pakistan will take last available ASK price for those securities that do not report one or more trades on the Karachi Stock Exchange for the calculation date.
  - Include coverage of Botswana, Ghana, Jamaica and Trinidad and Tobago.
  - Closing price availability time change of Israel market
- Appendix VIII: Country Composition of MSCI Regional Indexes
  - Updates for Pakistan

2009

February:

- Section 2: MSCI Daily Total Return (DTR) Index Methodology
  - Country Exceptions
    - Update on Russian dividends treatment (2.3.6)
  - Taxes on Dividends
    - Change in the wording to clarify the dividend taxes (2.3.7)
    - Addition of Australian Dividends as an exception (2.3.7.2.1)
- Appendix VI: Withholding Tax Rates
  - Addition of Botswana, Ghana, Jamaica and Trinidad and Tobago

- Updates for China on B shares and H shares, Estonia, Germany, Greece, Korea, and Philippines

March:

- Appendix VI: Withholding Tax Rates
  - Updates for Kazakhstan and Lithuania

April

- Appendix VII: Closing Prices Policy
  - Update close price definition and description of Trinidad and Tobago

May:

- Section 1: MSCI Price Index Methodology
  - Reordering of chapters
  - Addition of example of index calculation using contribution method
  - Addition of chapter 'Note on Index Calculation in Local Currency'
  - Addition of chapter 'Conversion of indexes into Another Currency'
- Section 2: MSCI Daily Total Return (DTR) Index Methodology
  - 2.2.3 dividends resulting in a reinvestment only
    - Change in paragraph related to optional dividend
- Appendix V: Singapore and Singapore Free Indexes
  - Section added. Information was previously part of Frequently Asked Questions Appendix
- Appendix VI: Withholding Tax Rates
  - Updates for China Red Chip and Kuwait
- Appendix VII: Closing Prices Policy
  - Closing price used for Jamaica updated to be Average Price
  - Closing price used for Pakistan updated to be Official Close

  - Additional closing price used for Kazakhstan updated to be closing price of Kazakhstan (UK listed Depository Receipts) and following UK closing price policy.
- Appendix VIII: Country composition of MSCI Regional Indexes
  - Update for Argentina
  - Update for Pakistan
  - Update for Trinidad and Tobago
- Frequently Asked Questions
  - Section removed: Removal of information related to Israel Domestic and Israel Non-Domestic
  - Information related to Singapore and Singapore Free Indexes moved to Appendix V.

July:

- Appendix VII: Closing Prices Policy
  - Closing price used for UAE, International Financial Exchange, updated to be Official Close Price
  - Closing price used for Czech Republic updated to be Official Close Price.
  - Update closing prices availability for the Belgium, Netherlands, France and Portugal.
  - Update close price definition and description of USA (NASDAQ Global Market, NASDAQ Global Select Market)
  - Additional column of market identifier code (MIC) is added.
  - Closing price description update of ADR from Argentina, Colombia, Israel and Peru.
  - Bloomberg country codes for the following countries have been updated. (Argentina, Brazil, Canada, Chile, Columbia, Czech Republic, Egypt, Kazakhstan (UK listed Depository Receipts), Korea, Pakistan, Russia (UK listed Depository Receipts), Spain, UAE, USA, Vietnam)

September:

- Appendix VII: Closing Prices Policy
  - MIC update for Oslo Stock Exchange and Taiwan Stock Exchange.

November:

- MSCI Equity Indexes
  - Addition of CNY as a currency indexes are provided in.
- Section 1 and section 2
  - Addition of note for China A indexes related to the use of the Index Inclusion Factor
- Section 2
  - Net Daily Today Return
  - Updates for Net Daily Total Return (2.2)
  - Withholding Tax
  - Country of incorporation is used to determine the relevant dividend withholding tax rate (2.3.7.2)
- Section 3: Alternative Index Calculation
  - Section renamed Gross Domestic Product (GDP) Weighted Indexes
  - Removal of Daily Hedged Indexes chapter
- Appendix I: MSCI GCC Country Indexes: Saturday/Sunday Index Calculation
  - Removal of the note related to the use of Index Inclusion Factor which is not relevant for GCC Countries.
- Appendix III: Exchange Rates
  - Details added related to treatment in special circumstances and if WM/Reuters does not provide rates.
- Appendix VI: Withholding Tax Rates
  - Updates for withholding tax rates based upon country of incorporation

2010

January:

- Appendix VI: Withholding Tax Rates
  - Updates for Lithuania and Spain

February:

- MSCI Equity Indexes
  - Addition of BRL, HKD, INR, RUB and SGD as currencies indexes are provided in
  - Addition of a note related to the treatment of index ruptures
- Appendix VII: Closing Prices Policy
  - Update for the change of closing price for Saudi Arabia
- Appendix VIII: Country Composition of MSCI Selected Regional Indexes
  - Addition of Bangladesh
  - Changes for Israel to reflect its move from EM to DM coverage

May:

- Section 2: MSCI Daily Total Return (DTR) Index Methodology
  - 2.3.3 Correction
    - Addition of precision in correction implementation timing
  - 2.3.6 Country Exceptions
    - Addition of precision on timing for implementation of late dividends (2.3.6)
    - Addition of precision on Korean and Russian late dividends (2.3.6)
- Appendix I: Saturday/Sunday Index Calculation
  - Addition of precision on corporate Events treatment
- Appendix VII: Closing Prices Policy
  - Removal of pricing information for Israel non Domestic
  - Closing price used for Pakistan updated to be Official Close
- Appendix VIII: Country Composition of MSCI Selected Regional Indexes
  - Changes for Bangladesh to reflect its inclusion into the FM regional index.
- Appendix IX: Real Time Indexes
  - New section

June:

- Appendix VII: Closing Prices Policy
  - Closing price used for Greece updated to be Auction Close
- Appendix X: Index Calculation Methodology Using Index Divisors
  - New section

August:

- Appendix VI: Withholding Tax Rates
  - Addition of Bosnia and Herzegovina
  - Update for Slovenia
- Appendix VII: Closing Prices Policy
  - Addition of Bangladesh
  - Addition of Bosnia and Herzegovina
  - Closing price used for Greece updated
  - Closing price used for Czech Republic updated
- Appendix VIII: Country Composition of MSCI Selected Regional Indexes
  - Addition of Bosnia and Herzegovina

September:

- Section 2: MSCI Daily Total Return (DTR) Index Methodology
  - 2.3.3 Correction
    - Addition of correction policy for MSCI Frontier Markets Indexes
- Appendix VII: Closing Prices Policy
  - Closing price used for Nigeria updated to Official Close
  - Removal of Saudi Arabia
- Appendix VIII: Country Composition of MSCI Selected Regional Indexes

- Replaced index GCC COUNTRIES by index GCC COUNTRIES ex SA
- Replaced index ARABIAN MARKETS by index ARABIAN MARKETS ex SA
- Removal of Saudi Arabia

October:

- Appendix I: Sunday Index Calculation
  - Discontinuation of Saturday products
- Appendix VII: Closing Prices Policy
  - Closing price used for Qatar updated to Last traded price

November:

- MSCI Equity Indexes
  - Addition of KRW as a currency indexes are provided in.
- Appendix VII: Closing Prices Policy
  - Removal of closing price information for Russian Trading System (RTS)

2011

January:

- Appendix VI: Withholding Tax Rates
  - Update for Portugal
- Appendix VII: Closing Prices Policy
  - Closing price used for Slovenia updated to Official Close

February:

- Section 3: Gross Domestic Products (GDP) Weighted Indexes
  - Section removed.
- Appendix VI: Withholding Tax Rates

  - Update for Greece
- Appendix VII: Closing Prices Policy
  - Closing price used for Ghana updated to VWAP
  - Closing price availability time change for Prague and Warsaw Stock Exchanges
  - Addition of Zimbabwe
  - Addition of a note related to market closure

March:

- Section 2.2.4: Dividends Resulting in a Reinvestment or in a Price Adjustment
  - Update for Special/Extra Dividend
- Appendix VI: Withholding Tax Rates
  - Update for Chile

May:

- Section 2 : Capital Repayments Resulting in a Reinvestment or in a Price Adjustment
  - Update for regular and extraordinary capital repayments
- Appendix VI: Withholding Tax Rates
  - Update for Greece
  - Addition of Curacao
  - Addition of Faroe Islands
  - Addition of Zimbabwe
  - Change in the note related to China withholding tax
- Appendix VII: Closing Prices Policy
  - Change of Reuters Code for Jamaica
- Appendix VIII: Country Composition of MSCI Selected Regional Indexes
  - Addition of Zimbabwe
  - Update for Trinidad and Tobago

July:

- Appendix VII: Closing Prices Policy
  - Change in closing price definition for Trinidad and Tobago
- Appendix VI: Withholding Tax Rates
  - Update for Botswana

August:

- Section 2.2.5: Dividends Resulting in a Price Adjustment Only
  - Update of Stock Dividend (stock bonus/gratis issue)
- Section 2.3.7.2.1: Country Exception
  - Addition of Taiwanese Stock Dividends

October:

- Appendix VI: Withholding Tax Rates
  - Addition of a note related to Malaysia withholding tax
  - Addition of a note related to United Kingdom withholding tax

November:

- Appendix VII: Closing Prices Policy
  - Addition of special note for Japanese securities
  - Closing price availability time change for Chile, Colombia, Estonia, India, Japan, Jordan, Lithuania, Mauritius, Nigeria, Philippines, Portugal and Ukraine.
  - Addition of Ukrainian Exchange (Ukraine)
  - Addition of Banja Luka Exchange (Bosnia and Herzegovina)

2012

January:

- Appendix VI: Withholding Tax Rates
  - Update for Chile, Denmark, Finland, France, Greece, Israel, Italy, Portugal and Spain

February:

- Appendix VI: Withholding Tax Rates
  - Update for Finland

March:

- Appendix VI: Withholding Tax Rates
  - Removal of the note related to Italy withholding tax
  - Update for Croatia
- Appendix VII: Closing Prices Policy
  - Change in closing price definition for Turkey

April:

- Appendix VI: Withholding Tax Rates
  - Update for South Africa
- Appendix VII: Closing Prices Policy
  - Correction of the Market Identifier Code (MIC) for Ukrainian Exchange

May:

- Section 2: MSCI Daily Total Return (DTR) Index Methodology
  - 2.2.1 Timing of reinvestment
    - Details added related to reinvestment when the security does not trade
- Appendix VI: Withholding Tax Rates

  - Addition of a note related to Japan withholding tax
- Appendix IX: MSCI Real Time Indexes
  - Details added related to reinvestment when the security does not trade
- Appendix VII: Closing Prices Policy
  - Change in closing price definition for Kuwait
  - Change in closing price availability for Indonesia

June:

- Appendix VII: Closing Prices Policy
  - Addition of Saudi Arabia
- Appendix I: Saturday/Sunday Index Calculation
  - Reintroduction of Saturday Calculation information
- Appendix VI: Withholding Tax Rates
  - Update for Kazakhstan

August:

- Section 2.2.3: Dividends Resulting in a Reinvestment Only
  - Update of Regular Capital Repayment
- Section 2.3.6: Country Exceptions
  - Update of the dividend reinvestment treatment in Korea and Russia

November:

- Section 2.2.3: Dividends Resulting in a Reinvestment Only
  - Update of Regular Capital Repayment
- Section 2.3.6: Country Exceptions
  - Addition of Taiwanese Capital Repayments
- Appendix VI: Withholding Tax Rates

- Update for Japan
- Removal of the note related to Japan withholding tax

December:

- Appendix VII: Closing Prices Policy
  - Change in closing price definition, closing prices availability time, Exchange and Bloomberg Code for Czech Republic.

2013

January:

- Appendix VII: Closing Prices Policy
  - Change in closing price definition for Indonesia.
  - Change in closing price definition for Abu Dhabi Securities Exchange.
- Appendix VI: Withholding Tax Rates
  - Update for Chile
  - Update for Czech Republic
  - Update for Portugal
  - Update for Slovenia

February:

- Appendix VI: Withholding Tax Rates
  - Update for Trinidad and Tobago

May:

- Appendix IX: MSCI Real Time Indexes
  - Update of Intraday Price Adjustment Factor announcements
- Section 2.3.6: Country Exceptions

  - Update of the dividend reinvestment treatment in Russia
- Appendix VI: Withholding Tax Rates
  - Addition of Malta
- Appendix VII: Closing Prices Policy
  - Change in Exchange Name for Egypt
  - Change in closing price Description for Egypt

August:

- Section 2.3.7.2.1: Country Exceptions
  - Addition of Thailand Cash Dividends
- Appendix I: Sunday Index Calculation
  - Discontinuation of Saturday products
- Appendix VI: Withholding Tax Rates
  - Addition of a note related to Taiwan REIT withholding tax
  - Addition of a note related to Japan withholding tax

September:

- Appendix VII: Closing Prices Policy
  - Change in closing price Description for Philippines
  - Change in closing prices Availability for Philippines
- Appendix VI: Withholding Tax Rates
  - Update for Morocco

October:

- Appendix VI: Withholding Tax Rates
  - Update for Argentina
  - Addition of Palestine

November:

- Appendix VI: Withholding Tax Rates
  - Update for Japan
  - Removal of the note related to Japan withholding tax
  - Update for Portugal
- Appendix VIII: Country Composition of MSCI Selected Regional Indexes
  - Replaced index GCC COUNTRIES ex SA by index GCC COUNTRIES
  - Replaced index ARABIAN MARKETS ex SA by index ARABIAN MARKETS
  - Update for Greece and Morocco
  - Addition of Palestine

2014

January:

- Appendix VI: Withholding Tax Rates
  - Update for Slovenia, Mexico, Greece and Bosnia and Herzegovina

February:

- Section 2.2.2: Reinvestment Rules
  - Update in the definitions
- Section 2.2.3: Dividends Resulting in a Reinvestment Only
  - Update for Regular Cash Dividend
  - Update for Regular Capital Repayment
- Section 2.2.4: Dividends Resulting in a Reinvestment or in a Price Adjustment
  - Update for Special/Extra Dividend
  - Change in Special Dividend to Non-Domestic Shareholders
- Section 2.2.5: Dividends Resulting in a Reinvestment or in a Price Adjustment

  - Update for Extraordinary Capital Repayment
- Section 2.3.6: Country Exceptions
  - Addition of Singapore
  - Updates for Korea
- Section 2.3.7.1: Tax Credit
  - Update of footnote 3
  - Appendix VI: Withholding Tax Rates
  - Updates for Malaysia

March:

- Appendix VI: Withholding Tax Rates
  - Updates for Mexico

April:

- Appendix VII: Closing Prices Policy
  - Change in closing price definition for Saudi Arabia
  - Change in closing prices availability for Saudi Arabia
  - Change in closing price definition for Shenzhen Stock Exchange
  - Clarification in closing price definition for Greece
  - Change in closing price definition for Qatar
  - Change in closing price definition for Australia
  - Change in closing prices availability for Australia
- Appendix VI: Withholding Tax Rates
  - Update for Faroe Islands

May:

- Appendix VII: Closing Prices Policy
  - Updated Exchange name from Dubai Stock Exchange to Dubai Financial Market
  - Updated Exchange name from Dubai International Financial Exchange to NASDAQ Dubai
  - Updated Exchange name from Doha Securities Market to Qatar Exchange
  - Change in closing prices availability for NASDAQ Dubai
  - Change in closing price definition for Dubai Financial Market
  - Change in closing price definition for NASDAQ Dubai
- Appendix XII: MSCI Indexes with IDCo Fair Value Pricing
  - Addition of Appendix XII: MSCI Indexes with IDCo Fair Value Pricing

July:

- Appendix VI: Withholding Tax Rates
  - Update for Italy and Egypt
  - Addition of Burkina Faso, Ivory Coast, Senegal and Togo

August:

- Section 2.3.6: Country Exceptions
  - Update for Russia

October:

- Appendix VII: Closing Prices Policy
  - Correction of the Market Identifier Code (MIC) for Moscow Interbank Currency Exchange (MICEX) and NASDAQ Global Market

December:

- Appendix VI: Withholding Tax Rates
  - Update for Serbia and Togo

2015

January:

- Appendix VI: Withholding Tax Rates
  - Update for Spain and Tunisia

February:

- Section 2.3.7.2.1 Country Exceptions
  - United Kingdom Cash Dividends
- Appendix VI: Withholding Tax Rates
  - Update for United Kingdom

April:

- Appendix VIII: Country composition of MSCI Regional Indexes
  - Update for Qatar
  - Update for United Arab Emirates

May:

- Section 2.3.6 Country Exceptions
  - Change in dividend reinvestment treatment for Russian DRs

June:

- Appendix VII: Closing Prices Policy
  - Change in closing prices availability for NASDAQ Dubai
  - Change in closing prices availability for Dubai Financial Market
- Appendix XII: MSCI Indexes with Fair Value Pricing
  - Change in Appendix name from Appendix XII: MSCI Indexes with IDCo Fair Value Pricing to Appendix XII: MSCI Indexes with Fair Value Pricing
  - Addition of MSCI Indexes with ITG Fair Value Model

July:

- Appendix VI: Withholding Tax Rates
  - Update for Pakistan
  - Update for Spain

2016

January:

- Appendix VI: Withholding Tax Rates
  - Update for Spain, Belgium, Austria and Romania
- Appendix VIII: Country composition of MSCI Regional Indexes
  - Update for Qatar
  - Update for Ukraine
  - Update for United Arab Emirates

April:

- Appendix VI: Withholding Tax Rates

  Update of the note related to China withholding tax

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