MSCI Index Calculation Methodology

Index Calculation Methodology for the MSCI Equity Indices

July 2011

Contents

Introduction

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

MSCI provides two ways of calculating MSCI Equity Indices, 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 Indices 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 Indices can be found in MSCI Global Investable Market Indices Methodology Indices document, available at www.msci.com.

MSCI Equity Indices

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

MSCI country and regional equity Indices 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 indices 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.

Indices are calculated 5 days a week, from Monday to Friday with the exception of a selection of indices that have a Sunday calculation available.

In certain cases, where there are no qualifying securities, it is possible for MSCI Indices 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.

Section 1: MSCI Price Index Methodology

Price indices 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 indices 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 Indices, and not for the Large Cap, Mid Cap and Provisional Indices, as these are all constructed using the Global Investable Market Indices 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 Indices, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indices, as these are all constructed using the Global Investable Market Indices methodology and were not subject to the transition methodology.

Note:

The only difference in the formulas between USD and local currency indices 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

Day 1

	NumberOf Shares t-1	PricePer Share t	PricePer Share t-1	Inclusion Factor t	PAF t	FXrate t	FXrate t-1	IndexAdjustedMarketCapUSD t (see 1.1.1)	IndexInitialMarketCapUSD t (see 1.1.1)	IndexAdjusted MarketCapFor 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
PriceIndexLevelUSD (see 1.1)	100.273	100.000	0.27%
PriceIndexLevelLocal (see 1.1)	100.397	100.000	0.40%

Day 2

Security C is ex Right issue 1 : 1 @ 1300

	NumberOf Shares t-1	PricePer Share t	PricePer Share t-1	Inclusion Factor t	PAF t	FXrate t	FXrate t-1	IndexAdjustedMarketCapUSD t (see 1.1.1)	IndexInitialMarketCapUSD t (see 1.1.1)	IndexAdjusted MarketCapFor 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	1.1012	124.50	125.00	2,231,497	2,216,899	2,222,571
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								69,983,323	70,558,595	70,430,397

	t	t-1	daily perf
PriceIndexLevelUSD (see 1.1)	99.455	100.273	-0.82%
PriceIndexLevelLocal (see 1.1)	100.215	100.397	-0.18%

Day 3

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

	NumberOf Shares t-1	PricePer Share t	PricePer Share t-1	Inclusion Factor t	PAF t	FXrate t	FXrate t-1	IndexAdjustedMarketCapUSD t (see 1.1.1)	IndexInitialMarketCapUSD t (see 1.1.1)	IndexAdjusted MarketCapFor 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
PriceIndexLevelUSD (see 1.1)	101.424	99.455	1.98%
PriceIndexLevelLocal (see 1.1)	101.607	100.215	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:

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

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

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

$$InitialSecurityWeight_t =$$

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

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

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

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 indices 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 Indices, and not for the Large Cap, Mid Cap and Provisional Indices, as these are all constructed using the Global Investable Market Indices 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 Indices, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indices, as these are all constructed using the Global Investable Market Indices 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 indices 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 Indices, and not for the Large Cap, Mid Cap and Provisional Indices, as these are all constructed using the Global Investable Market Indices 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 Indices, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indices, as these are all constructed using the Global Investable Market Indices methodology and were not subject to the transition methodology.

1.2.4. Example of calculation using contribution

Day 1

	NumberOf Shares t-1	PricePer Share t	PricePer Share t-1	Inclusion Factor t	PAF t	FXrate t	FXrate t-1	InitialSecurityWeight t (see 1.2.2)	SecurityDailyPrice_Return USD t (see 1.2.3)	SecurityPricecontributionToIndexUSD (see 1.2.1)	SecurityDailyPrice_Return Local t (see 1.2.3)	SecurityPricecontributionToIndexLocal (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
PriceIndexLevelUSD (see 1.2)	100.273	100.000	0.27%
PriceIndexLevelLocal (see 1.2)	100.397	100.000	0.40%

Day 2

Security C is ex Right issue 1 : 1 @ 1300

	NumberOf Shares t-1	PricePer Share t	PricePer Share t-1	Inclusion Factor t	PAF t	FXrate t	FXrate t-1	InitialSecurityWeight t (see 1.2.2)	SecurityDailyPrice_Return USD t (see 1.2.3)	SecurityPricecontributionToIndexUSD (see 1.2.1)	SecurityDailyPrice_Return Local t (see 1.2.3)	SecurityPricecontributionToIndexLocal (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	1.1012	124.50	125.00	3.14%	0.66%	0.02%	0.26%	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%		-0.82%		-0.18%

	t	t-1	daily perf
PriceIndexLevelUSD (see 1.2)	99.455	100.273	-0.82%
PriceIndexLevelLocal (see 1.2)	100.215	100.397	-0.18%

Day 3

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

	NumberOf Shares t-1	PricePer Share t	PricePer Share t-1	Inclusion Factor t	PAF t	FXrate t	FXrate t-1	InitialSecurityWeight t (see 1.2.2)	SecurityDailyPrice_Return USD t (see 1.2.3)	SecurityPricecontributionToIndexUSD (see 1.2.1)	SecurityDailyPrice_Return Local t (see 1.2.3)	SecurityPricecontributionToIndexLocal (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
PriceIndexLevelUSD (see 1.2)	101.424	99.455	1.98%
PriceIndexLevelLocal (see 1.2)	101.607	100.215	1.39%

1.3. Next Day Initial Security Weight

$$InitialSecurityWeight_{t+1} =$$

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

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

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

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 indices 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 Indices, and not for the Large Cap, Mid Cap and Provisional Indices, as these are all constructed using the Global Investable Market Indices 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 Indices, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small

Cap Sectors Indices, as these are all constructed using the Global Investable Market Indices 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 indices 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 Indices, and not for the Large Cap, Mid Cap and Provisional Indices, as these are all constructed using the Global Investable Market Indices 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 Indices, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indices, as these are all constructed using the Global Investable Market Indices 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 indices 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 Indices, and not for the Large Cap, Mid Cap and Provisional Indices, as these are all constructed using the Global Investable Market Indices 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 Indices, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indices, as these are all constructed using the Global Investable Market Indices methodology and were not subject to the transition methodology.

1.6. Note on Index Calculation In Local Currency

The MSCI Country and Regional Indices 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 Indices 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 indices 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 indices).

- If the base date of the index is equal or posterior to the start date of the currency, the indices 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

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

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

Section 2: MSCI Daily Total Return (DTR) Index Methodology

Total return indices 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 indices on the ex-date of such distributions. . It applies to all index families. Regular cash distributions are not considered in price indices, except for special dividends and capital repayments deemed extraordinary in certain circumstances described below.

The standard Daily Total Return (DTR) Indices are calculated and distributed on a daily basis. The indices 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:

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

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

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 indices 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 Indices, and not for the Large Cap, Mid Cap and Provisional Indices, as these are all constructed using the Global Investable Market Indices 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 Indices, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indices, as these are all constructed using the Global Investable Market Indices 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 indices 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 Indices, and not for the Large Cap, Mid Cap and Provisional Indices, as these are all constructed using the Global Investable Market Indices 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 Indices, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indices, as these are all constructed using the Global Investable Market Indices methodology and were not subject to the transition methodology.

2.1.5. Initial Security Weight

$$InitialSecurityWeight_t =$$

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

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

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

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 indices 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 Indices, and not for the Large Cap, Mid Cap and Provisional Indices, as these are all constructed using the Global Investable Market Indices 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 Indices, MSCI Small Cap Value and Growth, MSCI Provisional Small Cap and MSCI Small Cap Sectors Indices, as these are all constructed using the Global Investable Market Indices 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 end of the ex-date-1 multiplied by the dividend per share.

In addition, the weighting factor of the security in the index is applied to the total dividend amount to be reinvested. This may 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 (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 tax depending if the indices are international or domestic:

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

- Domestic indices: 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 re-investment

The amount of an announced regular cash distribution is re-invested 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 of the regular cash distribution, the re-investment is postponed to the day when the security resumes trading.

2.2.2. Re-Investment Rules

There are two principal guidelines in accounting for dividends in MSCI's DTR Indices:

- A recurring cash distribution – in the form of dividend or capital repayment - will be reinvested among all the constituents in an index. It is not considered in price indices

- A dividend that is unusually large, i.e. at least 5% of the security cum price, or otherwise unlikely to recur on a regular basis or any dividend that is paid for with extraordinary profits is handled by applying a price adjustment factor and is hence taken into account in price indices as well as DTR Indices. Capital repayments deemed to be extraordinary are handled by applying a price adjustment factor and are, therefore, considered in price indices similarly to special dividend.

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 DTR Index:

Regular Cash Dividend

A regular cash dividend is a distribution of cash made by a company to its shareholders and is usually paid out from operating profits or retained earnings.

Regular Capital Repayment

A capital repayment or return of capital is characterized by a cash distribution from the company's share capital or additional paid-in capital (capital contribution reserve) to its shareholders. A capital repayment is considered as regular if the cash distribution is in lieu of a regular cash dividend, or is in line with the dividends' 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 DTR Indices is free of withholding tax.

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. These dividends are a common practice in the U.S. For dividend reinvestment purposes, MSCI assumes that investors elect the cash option, therefore the dividend is reinvested in the MSCI DTR Indices and price adjustment is not necessary (if the dividend is less than 5% of the cum market price of the underlying security). In the event that shareholders electing the cash option receive the dividend distribution in shares, or a combination of cash and shares, MSCI will increase the number of shares accordingly after results have been officially communicated, with two full business days notice.

In other countries, companies may extend shareholders the choice to participate in certain programs (including, but not limited to Dividend Reinvestment Plans and Bonus Buyback programs). In these cases, MSCI will assume investors choose the default distribution. If no default distribution is available, MSCI will assume investors elect the cash option. If some shareholders choose to take the stock option, when it is confirmed, the number of shares will be increased accordingly at the next regularly scheduled Index Review.

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 DTR index if, a day prior to the ex-date, the dividend impact on the price is less than 5%.

However, if the impact is at least 5%, the dividend will be reflected in the index through a price adjustment.

Special/Extra Dividend

The company declares the dividend as special or extraordinary. It is usually 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 greater than or equal to 5% of the market price of the underlying security are reflected in the MSCI Indices through an adjustment on their ex-date. A Price Adjustment Factor (PAF) using the gross dividend amount is applied for the MSCI Price Indices, the MSCI Gross DTR Indices and the MSCI Net DTR Indices.

For special cash dividends subject to withholding taxes as defined in Section 2.3.7.2, MSCI will reinvest a negative amount corresponding to the withholding tax in the MSCI Net DTR Indices only. This negative reinvestment will be reflected simultaneously with the PAF on the ex-date of the special cash dividend.

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.

Note that a special dividend is considered a regular cash dividend ('regular special') after being distributed for three consecutive years, and if it is proven to have been taken out of recurring operating profits.

2.2.5. Dividends Resulting in a Price Adjustment Only

A specific price adjustment is always applied to the security 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.

Extraordinary Capital Repayment

For the capital repayments that are deemed to be extraordinary compared to the dividends' 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.

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 events 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 will adjust 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 day prior to the ex-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. 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 MSCI's receipt 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 will use the number of shares effective on the day prior to the ex-date. The day's spot rate is used for currency conversion.

- A historical correction will be applied to all indices 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

---

[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.

December 1, 2010, for the MSCI Frontier Markets Indices (including MSCI GCC Countries Indices), 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 status between the ex-date and the correction date, no correction amount will be reinvested.

2.3.4. Payment Default

A correction will be applied when a dividend is declared unpaid (payment default). This may result in a negative reinvestment. Past index values (history) 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 on the day prior to the original ex-date.

- The default amount is reinvested on the day it is announced. The day's spot rate is used for currency conversion.

2.3.5. 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 2.3.3 above.

2.3.6. Country Exceptions

Korea and Russia: Late Dividend

Korean and Russian companies declare or may declare their dividends after their ex-date. As no estimated dividends are available before the ex-date and no fluctuation in the price (due to the dividend) is visible on the ex-date, the dividends are reinvested on the next business day following the reception date from the data sources without any correction. MSCI will use the number of shares effective on the day prior to the ex-date.

In the case of Korean and Russian companies declaring their dividends prior to their ex-date, MSCI will reinvest dividends into the MSCI DTR Indices 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 and Russian companies change following approval by the shareholders at the general meeting, there will be no correction of the past index levels.

For the depositary receipts (DR) of Russian companies, MSCI will wait until the DR depositary bank announces the dividend amount before reinvesting the dividend on the next business day following the reception date of such dividend amount from MSCI's data sources.

Japan: Late Dividend

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 will use the previous year amount as the estimation. Should the difference between the estimated and ratified dividend amount warrant correction, it 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.

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.[2] 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

---

[2] Singapore completely migrated to a one-tier tax system from imputation system effective January 1, 2008. 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. Malaysia has been transitioning from the imputation system to a single-tier tax system beginning on January 1, 2008. All Malaysian companies must move to a single-tier tax system by no later than January 1, 2014.

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 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 Indices. 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 Indices 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 Indices, 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 Indices, 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 Exception: 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[3] by Australian companies, or on the franked portion of the dividend.

In the calculation of the MSCI Net DTR International Indices for Australian dividends, MSCI uses the withholding tax rate[4] applicable to foreign non-resident institutional investors on 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.

---

[3] 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).

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

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 Indices 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

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 Indices is calculated on Sunday to reflect the performance of the markets open on this day[5].

In order to preserve compatibility with the other MSCI International Indices, 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 performance captures the price changes and reflects corporate events effective on this day.

In case of corporate events occurring on Sundays and where a PAF is needed, the PAF is applied to 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 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 equal to the ones of the price index.

The chain-linking for these indices 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

---

[5] Effective October 16, 2010, MSCI has discontinued the calculations and distribution of the Saturday files.

	Initial Weights			**Constituents**
Thursday	Friday	Saturday	Sunday	Monday

Friday calculation

Sunday calculation

Monday calculation
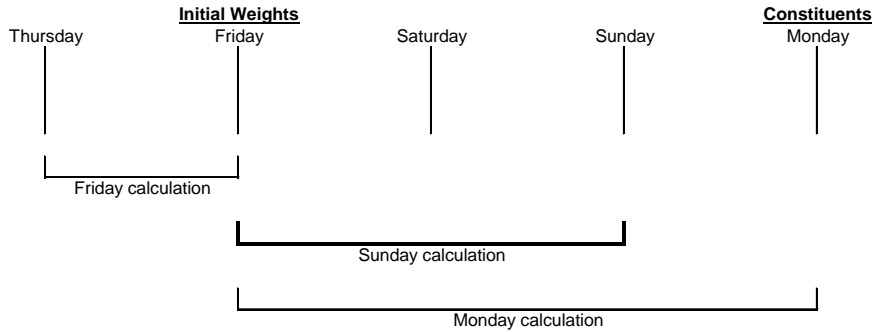
Index Calculation Formulas

$$IndexLevelLocal_{Saturday/Sunday} =$$

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

$$IndexLevelUSD_{Saturday/Sunday} =$$

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

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:

$$SecurityAdjustedFullMarketCapForLocal_{Sunday} =$$

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

$$Security\,Adjusted\,FullMarketCap\,USD_{Sunday} =$$

$$\frac{EndOfDay\,NumberOfShares_{Friday} * PricePerShare_{Sunday} * PAF_{Sunday}}{FXrate_{Sunday}}$$

$$Security\,Initial\,FullMarketCap\,USD_{Sunday} =$$

$$\frac{EndOfDay\,NumberOfShares_{Friday} * PricePerShare_{Friday}}{FXrate_{Friday}}$$

Where:

- $EndOfDay\,NumberOfShares_{Friday}$ 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 Indices.

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

msci.com

$$MTVR\_FIFAdj_{MonthN} = MonthlyMedianTradedValue_{MonthN}/SecurityFIFAdjustedMarketCapUSD_{MonthN\_enday}$$

$$MTVR\_DIFAdj_{MonthN} = MonthlyMedianTradedValue_{MonthN}/SecurityDIFAdjustedMarketCapUSD_{MonthN\_enday}$$

Where:

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

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

3. Annualized Traded Value Ratio (ATVR)

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

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

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.

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

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:

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

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

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:

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

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 indices, 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 for all the countries it provides indices 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 normally used.

MSCI independently monitors the exchange rates on all its indices. 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 Indices

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 Indices

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 Indices 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 Indices, 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 indices 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 Indices. Deleting all Malaysian companies from the developed market indices 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 indices 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 Indices 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 indices 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 Indices 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 Indices, were the Malaysian securities to remain in these indices." 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 indices 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 indices as of May 31, 2000.

MSCI Malaysia Indices will be removed from the MSCI Emerging Markets Free (EMF) series and the MSCI All Country (AC) Free Indices 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 indices:

- 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 indices 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 indices, 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 indices 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

Code	Name	Foreign	Domestic
Country Of Incorporation		**Withholding Tax Rates (%)[1]**	
Code	Name	Foreign	Domestic
AE	United Arab Emirates	0	0
AN	Netherlands Antilles	0	
AR	Argentina	0	
AT	Austria	25	
AU	Australia [2]	30	
BA	Bosnia & Herzegovina	0	
BD	Bangladesh	20	
BE	Belgium	25	
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	
CL	Chile	18.75	
CN	China [4]	0 or 10	10
CO	Colombia	0	
CW	Curacao	0	
CY	Cyprus	0	
CZ	Czech Republic	15	
DE	Germany	26.375	
DK	Denmark	28	
EE	Estonia	0	
EG	Egypt	0	

Code	Name	Foreign	Domestic
Country Of Incorporation		**Withholding Tax Rates (%)[1]**	
Code	Name	Foreign	Domestic
KE	Kenya	10	
KR	Korea	22	
KW	Kuwait	15	0
KY	Cayman Islands	0	
KZ	Kazakhstan	0	
LB	Lebanon	10	
LI	Liechtenstein	4	
LK	Sri Lanka	10	
LR	Liberia	15	
LT	Lithuania	15	
LU	Luxembourg	15	
MA	Morocco	10	
MH	Marshall Islands	0	
MK	Macedonia	10	
MU	Mauritius	0	
MX	Mexico	0	
MY	Malaysia	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	10	

msci.com

Country Of Incorporation		Withholding Tax Rates (%)[1]		Country Of Incorporation		Withholding Tax Rates (%)[1]	
Code	Name	Foreign	Domestic	Code	Name	Foreign	Domestic
EG	Egypt	0		PL	Poland	19	
ES	Spain	19		PR	Puerto Rico	10	
FI	Finland	28		PT	Portugal	21.5	
FO	Faroe Islands	38		QA	Qatar	0	0
FR	France	25		RO	Romania	16	
GB	United Kingdom	0		RS	Serbia	20	
GG	Guernsey	0		RU	Russia	15	
GH	Ghana	8		SA	Saudi Arabia	5	0
GI	Gibraltar	0		SE	Sweden	30	
GR	Greece	21		SG	Singapore [6]	0	
HK	Hong Kong	0		SI	Slovenia	20	
HR	Croatia	0		TH	Thailand	10	
HU	Hungary	0		TN	Tunisia	0	
ID	Indonesia	20		TR	Turkey	15	
IE	Ireland	20		TT	Trinidad And Tobago	15	
IL	Israel	20		TW	Taiwan	20	
IM	Isle Of Man	0		UA	Ukraine	15	
IN	India	0		US	USA	30	30
IT	Italy [5]	27		VG	British Virgin Islands	0	
JE	Jersey	0		VN	Vietnam	0	
JM	Jamaica	33.333		ZA	South Africa	0	
JO	Jordan	0		ZW	Zimbabwe	10	
JP	Japan	7					

Notes:

1. *Used in the calculation of the MSCI Net Daily Total Return (DTR) Indices. 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 Indices and Domestic rates are used in the MSCI Net DTR Domestic Indices.*

msci.com

2. *For Australian dividends, franking percentage and conduit foreign income are taken into consideration on calculation of the MSCI Net DTR Indices. 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 withholding tax rates are exceptionally based on Chinese securities' share types, regardless of the company's country of incorporation. B-share and H-share are subject to a 10% withholding tax. P-Chip and Red Chip are subject to a 0% withholding tax, unless a specific withholding tax of 10% is announced by the companies.*

5. *Dividends on Saving shares are subject to a 12.5% withholding tax.*

6. *Dividends on Real Estate Investment Trusts (REITS) are subject to a 10% withholding tax.*

Appendix VII: Closing Prices Policy

Prices used in MSCI End of Day Index Calculations, as of May 2011

Unless otherwise indicated, the prices used to calculate the MSCI Indices 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	Auction close	The closing price is determined in a single price auction which takes place at the end of normal trading.	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
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

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)
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
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	5:30PM (4:30PM*)
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
China	Shenzhen Stock Exchange	.SZ	CS	XSHE	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
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 12:00PM (11:30AM at the end of the month). The exchange defines the threshold based on price ranges.	1:00PM (12:00PM*) / 12:30AM (11.30PM*)
Colombia (US listed Depository Receipts)	NYSE	.N	UN	XNYS	see USA (NYSE)	see USA (NYSE)	see USA (NYSE)

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)
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 (SPAD)	.PR	CD	XPRA	Official Close	The official closing price is taken from the closing auction in the continuous trading market, which runs from 16:00 – 16:07PM local time. If no price is set during the closing auction, the official closing price will be the last price on the SPAD regime consistent with the Prague Stock Exchange official closing price rules.	5:15PM
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	Cairo Stock Exchange	.CA	EC	XCAI	VWAP	The closing price of a security traded on CASE (Cairo Stock 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, provided that the security trades at least 100 shares in the daily trading session. In case the security trades less than 100 shares, 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 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.	2:00PM
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.	5:20PM

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)
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 delisting from the National Stock Exchange (NSE), official closing prices from the Bombay Stock Exchange will be used.	4:00PM
Indonesia	Jakarta Stock Exchange	.JK	IJ	XIDX	Last traded price	Last traded price	4:00PM
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

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)
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
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.	3:00PM
Jordan	Amman Stock Exchange	.AM	JR	XAMM	Last traded price	Last traded price	12:00PM
Kazakhstan	Kazakhstan Stock Exchange	.KZ	KZ	XKAZ	Last traded price	Last traded price	6:00PM
Kazakhstan (UK listed Depository	London Stock Exchange	.L	LI	XLON	see UK (SETS)	see UK (SETS)	see UK (SETS)

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)
Receipts)							
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
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	Last traded price	Last traded price	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.	2:30PM
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	12:30PM
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

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)
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	1:30PM
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	Last traded price	Last traded price	12:10PM
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 4:30PM and 4:35PM. It is still possible to trade at the auction price between 4:30PM and 4:40PM.	4:35PM
Qatar	Doha Securities Market	.QA	QD	DSMD	Last traded price	Last traded price	12:30PM
Romania	Bucharest Stock Exchange	.BX	RO	XBSE	Last traded price	Last Traded Price	4:30PM
Russia	Moscow Interbank Currency	.MM	RX	XMIC	Last traded price	Last traded price	6:45PM

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 (MICEX)						
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)
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 execution, then a Volume Weighted Average Price (VWAP) taken over the last 10 minutes of trading leading up to the "closing auction" is used.	5:05PM
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

MSCI

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)
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 Exchange	.TN	TU	XTUN	Last Trade	Last traded price	11:30AM
Turkey	Istanbul Stock Exchange	.IS	TI	XIST	Last traded price	Last traded price	5:30PM
Ukraine	PFTS	.PFT	UZ	PFTS	Last traded price	Last traded price	5:00PM
United Arab Emirates	Abu Dhabi Securities Market	.AD	DH	XADS	VWAP	The closing price is the value weighted average of the stock price for the day. There is currently no minimum volume restriction.	2:00PM
United Arab Emirates	Dubai Stock Exchange	.DU	DB	XDFM	Last traded price	Last traded price	2:00PM
United Arab Emirates	Dubai International Financial Exchange	.DI	DU	DIFX	Last traded price	Last traded price	5:00PM
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,	4:35PM

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)
						then the last automatic trade price will be used as the official closing price.	
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 Market	.OQ	UR	XNCM	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 Market	.OQ	UQ	XNAS	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	.HN	VM	XSTC	Last traded price	Last traded price	11:00AM
Vietnam	Hanoi Securities Trading Center	.HM	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 indices.

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

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.

Appendix VIII: Country Composition of MSCI Selected Regional Indices

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	133710 GCC COUNTRIES ex SA	133708 ARABIAN MARKETS ex SA	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	-	-	-

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	133710 GCC COUNTRIES ex SA	133708 ARABIAN MARKETS ex SA	136614 FM (FRONTIER MARKETS)
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	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-

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	133710 GCC COUNTRIES ex SA	133708 ARABIAN MARKETS ex SA	136614 FM (FRONTIER MARKETS)
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	1-Jun-2001	1-Jun-2001	1-Jun-2001	1-Jun-2001	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	-	-	-	-	-

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	133710 GCC COUNTRIES ex SA	133708 ARABIAN MARKETS ex SA	136614 FM (FRONTIER MARKETS)
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	-	-	-	-
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

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	133710 GCC COUNTRIES ex SA	133708 ARABIAN MARKETS ex SA	136614 FM (FRONTIER MARKETS)
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	-	-	-	-	-	-	-	-	-
105765	MOROCCO	1-Jun-2001	1-Jun-2001	-	-	-	-	-	-	-	-	1-Jun-2005	-
952800	NETHERLANDS	1-Jan-1988	-	1-Jan-1970	1-Jan-1970	1-Jan-1970	1-Jan-1988	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	133710 GCC COUNTRIES ex SA	133708 ARABIAN MARKETS ex SA	136614 FM (FRONTIER MARKETS)
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
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	-	-	-	-	-

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	133710 GCC COUNTRIES ex SA	133708 ARABIAN MARKETS ex SA	136614 FM (FRONTIER MARKETS)
133715	QATAR	-	-	-	-	-	-	-	-	-	1-Jun-2005	1-Jun-2005	3-Jun-2002
136639	ROMANIA	-	-	-	-	-	-	-	-	-	-	-	1-Dec-2005
105653	RUSSIA	01-Dec-1997	01-Dec-1997	-	-	-	-	01-Dec-1997	-	-	-	-	-
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-	-	2-Dec-1974 to 1-Mar-1995	-	-	-	-	-	-	-	-	-

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	133710 GCC COUNTRIES ex SA	133708 ARABIAN MARKETS ex SA	136614 FM (FRONTIER MARKETS)
		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	-	-	-	-
815800	TAIWAN FORMER (8)	3-Sep-1996 to 2-Jun-	3-Sep-1996 to 2-Jun-2002	-	-	-	-	-	3-Sep-1996 to 2-Jun-	-	-	-	-

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	133710 GCC COUNTRIES ex SA	133708 ARABIAN MARKETS ex SA	136614 FM (FRONTIER MARKETS)
		2002							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
133717	UNITED ARAB EMIRATES	-	-	-	-	-	-	-	-	-	1-Jun-2005	1-Jun-2005	3-Jun-2002
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-	2-Feb-1994 to 31-May-2006	-	-	-	-	-	2-Feb-1994 to 31-May-	-	-	-	-

msci.com

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	133710 GCC COUNTRIES ex SA	133708 ARABIAN MARKETS ex SA	136614 FM (FRONTIER MARKETS)
		2006								2006			
986200	VENEZUELA (FORMER)	-	-	-	-	-	-	-	-	-	-	-	-
136647	VIETNAM	-	-	-	-	-	-	-	-	-	-	-	1-Dec-2006
700873	ZIMBABWE	-	-	-	-	-	-	-	-	-	-	-	-

(1) Excluded from all dividends reinvested indices.

(2) Luxembourg has been excluded from dividend reinvested indices 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 indices.

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

 Those indices 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 indices 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 indices 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 Indices

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

MSCI disseminates real time indices 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.[6]

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

MSCI Real Time Indices 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 indices which are indices 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 indices (which have exposure to multiple currencies) require the WM 4PM London closing rate to calculate the Index Close. Multi-currency indices 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 indices 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.

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

---

[6] 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.

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 Indices.

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. All dividends for which the security does not trade on the ex-date will be postponed to the next day. Late and correction dividends 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 see the discussion beginning on page 21 of this document.

General Announcement Policy for Dividends

Upcoming dividends to be reinvested in the MSCI DTR Indices 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 Indices 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 in general when a shareholder receives something other than the underlying asset.

The opening PAF announcement uses the opening price of the security and is used for Index Update calculations throughout the day. The opening PAF value is sent shortly after the first trade of the security having the corporate event and does not change throughout the day based on intraday market prices.

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 typically 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)[7], 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.

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

$$IndexUnitNumberOfSharesChange_t =$$
$$EndOfDayIndexUnitNumberOfShares_t - IntradayIndexUnitNumberOfShares_t$$

---

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

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

msci.com

Interim Constituents[8]

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:

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

---

[8] 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)

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	Interim constituent type	Interim const. trading status	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)
10/25/2009	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 delivery 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	Interim constituent type	Underlying Asset Description	Interim const. trading status	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)
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[9] 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:

---

[9] 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

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.

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

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
Rights Issue	Right of New Underlying Shares	-	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 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\n\nIf 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\n\nIf market right is traded for one "new" share: Market right or Theo-ex price of parent constituent - subscription price	Market right

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
		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 by the terms of the right	"Theo right constituent": Theo-ex price of parent security - subscription price "OtherAssetAttached constituent": Other Asset Attached price	"Theo right constituent": Ex price of parent security - subscription price "OtherAssetAttached constituent": Other Asset 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

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
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 is greater than or equal to 5%.	-	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
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,	-	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

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
	warrant, preferred, etc.)								
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

MSCI Index Calculation Methodology Book
Tracked Changes

The following section has been updated since January 2008.

2008

February:

- **Daily Hedged Indices**
  - Change in the wording to clarify the hedged indices 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 Indices**
  - 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 Indices**
  - 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 Indices**
  - 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 indices 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 Indices**
  - 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 Indices**
  - 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 Indices 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.

- o Update close price definition and description of USA (NASDAQ Global Market, NASDAQ Global Select Market)
- o Additional column of market identifier code (MIC) is added.
- o Closing price description update of ADR from Argentina, Colombia, Israel and Peru.
- o 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**
  - o MIC update for Oslo Stock Exchange and Taiwan Stock Exchange.

November:

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

2010

January:

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

February:

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

May:

- **Section 2: MSCI Daily Total Return (DTR) Index Methodology**
  - o **2.3.3 Correction**
    - ▪ Addition of precision in correction implementation timing
  - o **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**
  - o Addition of precision on corporate Events treatment
- **Appendix VII: Closing Prices Policy**
  - o Removal of pricing information for Israel non Domestic
  - o Closing price used for Pakistan updated to be Official Close
- **Appendix VIII: Country Composition of MSCI Selected Regional Indices**
  - o Changes for Bangladesh to reflect its inclusion into the FM regional index.
- **Appendix IX: Real Time Indices**
  - o New section

June:

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

August:

- **Appendix VI: Withholding Tax Rates**
  - o Addition of Bosnia and Herzegovina
  - o Update for Slovenia
- **Appendix VII: Closing Prices Policy**
  - o Addition of Bangladesh
  - o Addition of Bosnia and Herzegovina
  - o Closing price used for Greece updated
  - o Closing price used for Czech Republic updated
- **Appendix VIII: Country Composition of MSCI Selected Regional Indices**
  - o 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 Indices
- **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 Indices**
  - 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 Indices**
  - Addition of KRW as a currency indices 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 Indices**
  - 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**

        o   Update for Special/Extra Dividend
- **Appendix VI: Withholding Tax Rates**
  - o   Update for Chile

May:

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

July:

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

Client Service Information is Available 24 Hours a Day

clientservice@msci.com

Americas		Europe, Middle East & Africa		Asia Pacific	
Americas	1.888.588.4567 (toll free)	Amsterdam	+ 31.20.462.1382	China North	10800.852.1032 (toll free)
Atlanta	+ 1.404.551.3212	Cape Town	+ 27.21.673.0100	China South	10800.152.1032 (toll free)
Boston	+ 1.617.532.0920	Frankfurt	+ 49.69.133.859.00	Hong Kong	+ 852.2844.9333
Chicago	+ 1.312.675.0545	Geneva	+ 41.22.817.9777	Seoul	+827.0768.88984
Montreal	+ 1.514.847.7506	London	+ 44.20.7618.2222	Singapore	800.852.3749 (toll free)
Monterrey	+ 52.81.1253.4020	Madrid	+ 34.91.700.7275	Sydney	+ 61.2.9033.9333
New York	+ 1.212.804.3901	Milan	+ 39.02.5849.0415	Tokyo	+ 81.3.5226.8222
San Francisco	+ 1.415.836.8800	Paris	0800.91.59.17 (toll free)		
Sao Paulo	+ 55.11.3706.1360	Zurich	+ 41.44.220.9300		
Stamford	+1.203.325.5630				
Toronto	+ 1.416.628.1007				

Notice and Disclaimer

- This document and all of the information contained in it, including without limitation all text, data, graphs, charts (collectively, the "Information") is the property of MSCI Inc. or its subsidiaries (collectively, "MSCI"), or MSCI's licensors, direct or indirect suppliers or any third party involved in making or compiling any Information (collectively, with MSCI, the "Information Providers") and is provided for informational purposes only. The Information may not be reproduced or redisseminated in whole or in part without prior written permission from MSCI.

- The Information may not be used to create derivative works or to verify or correct other data or information. For example (but without limitation), the Information many not be used to create indices, databases, risk models, analytics, software, or in connection with the issuing, offering, sponsoring, managing or marketing of any securities, portfolios, financial products or other investment vehicles utilizing or based on, linked to, tracking or otherwise derived from the Information or any other MSCI data, information, products or services.

- The user of the Information assumes the entire risk of any use it may make or permit to be made of the Information. NONE OF THE INFORMATION PROVIDERS MAKES ANY EXPRESS OR IMPLIED WARRANTIES OR REPRESENTATIONS WITH RESPECT TO THE INFORMATION (OR THE RESULTS TO BE OBTAINED BY THE USE THEREOF), AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EACH INFORMATION PROVIDER EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF ORIGINALITY, ACCURACY, TIMELINESS, NON-INFRINGEMENT, COMPLETENESS, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE) WITH RESPECT TO ANY OF THE INFORMATION.

- Without limiting any of the foregoing and to the maximum extent permitted by applicable law, in no event shall any Information Provider have any liability regarding any of the Information for any direct, indirect, special, punitive, consequential (including lost profits) or any other damages even if notified of the possibility of such damages. The foregoing shall not exclude or limit any liability that may not by applicable law be excluded or limited, including without limitation (as applicable), any liability for death or personal injury to the extent that such injury results from the negligence or wilful default of itself, its servants, agents or sub-contractors.

- Information containing any historical information, data or analysis should not be taken as an indication or guarantee of any future performance, analysis, forecast or prediction. Past performance does not guarantee future results.

- None of the Information constitutes an offer to sell (or a solicitation of an offer to buy), any security, financial product or other investment vehicle or any trading strategy.

- MSCI's indirect wholly-owned subsidiary Institutional Shareholder Services, Inc. ("ISS") is a Registered Investment Adviser under the Investment Advisers Act of 1940. Except with respect to any applicable products or services from ISS (including applicable products or services from MSCI ESG Research Information, which are provided by ISS), none of MSCI's products or services recommends, endorses, approves or otherwise expresses any opinion regarding any issuer, securities, financial products or instruments or trading strategies and none of MSCI's products or services is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such.

- The MSCI ESG Indices use ratings and other data, analysis and information from MSCI ESG Research. MSCI ESG Research is produced by ISS or its subsidiaries. Issuers mentioned or included in any MSCI ESG Research materials may be a client of MSCI, ISS, or another MSCI subsidiary, or the parent of, or affiliated with, a client of MSCI, ISS, or another MSCI subsidiary, including ISS Corporate Services, Inc., which provides tools and services to issuers. MSCI ESG Research materials, including materials utilized in any MSCI ESG Indices or other products, have not been submitted to, nor received approval from, the United States Securities and Exchange Commission or any other regulatory body.

- Any use of or access to products, services or information of MSCI requires a license from MSCI. MSCI, Barra, RiskMetrics, ISS, CFRA, FEA, and other MSCI brands and product names are the trademarks, service marks, or registered trademarks or service marks of MSCI or its subsidiaries in the United States and other jurisdictions. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor's. "Global Industry Classification Standard (GICS)" is a service mark of MSCI and Standard & Poor's.

About MSCI

MSCI Inc. is a leading provider of investment decision support tools to investors globally, including asset managers, banks, hedge funds and pension funds. MSCI products and services include indices, portfolio risk and performance analytics, and governance tools.

The company's flagship product offerings are: the MSCI indices which include over 148,000 daily indices covering more than 70 countries; Barra portfolio risk and performance analytics covering global equity and fixed income markets; RiskMetrics market and credit risk analytics; ISS governance research and outsourced proxy voting and reporting services; FEA valuation models and risk management software for the energy and commodities markets; and CFRA forensic accounting risk research, legal/regulatory risk assessment, and due-diligence. MSCI is headquartered in New York, with research and commercial offices around the world.