

# MSCI MARKET OPEN INDEX FILES

The MSCI Market Open Index files help clients price or replicate MSCI indexes more efficiently at intraday and at market close. The files are delivered at the close of the day prior to market open and contain various data points, such as index divisors, index and security dividend points and intraday number of shares. "Interim index constituents" are also included to capture the impact of corporate events on the index, eliminating the need for clients to refer to Price Adjustment Factors (PAFs) for index calculation. Intraday changes to index composition are communicated via email throughout the day.

## KEY BENEFITS

- **Facilitates index replication** — disseminated after market close (t-1), the market open index files provide a complete report of the index constituents for the next day's market open (t) and intraday in a consistent and easy to use format. They also provide a list of index changes effective as of the next market close (t) for the following market open (t+1).
- **Enhances index pricing procedures** — new data points such as index divisors help value MSCI indexes intraday while dividend points show index dividends expressed as a fraction of the index level.
- **Enables efficient accounting for intraday corporate events** — intraday corporate events are represented as "interim index constituents" and the impact of such events on index valuations is calculated in real time.

## MSCI MARKET OPEN FILES—PACKAGING

The MSCI Market Open Index (MOI) files complement existing MSCI files and are available to clients that are licensed to receive the corresponding MSCI data modules. Three MOI file packages are available to address various client preferences:

- An add-on 'Core' security packages, available direct (internet FTP) and via vendors. For clients that automate the processing of multiple MSCI Core indexes.
- Integrated Client File (ICF) packages, available direct (internet FTP) and via vendors. For clients that receive MSCI Custom and MSCI Thematic & Strategy indexes.
- Single-Index files, available direct. For clients that receive a limited number of MSCI indexes. Each file contains one index, for a given currency and index variant (price, net or gross). Clients requiring Market Open Index data for more than 10-15 MSCI indexes should use the Core or the ICF packages.

## FREQUENTLY ASKED QUESTIONS

### Who would find the Market Open Index file useful?

The files contain valuable information for a wide range of clients, including:

- Broker dealers, ETF providers and market makers seeking to price or replicate MSCI Indexes on an intraday basis
- Indexed fund managers and asset managers who monitor their positions intraday
- Smaller, single index clients who want a simple delivery mechanism—one index in one file, emailed directly.

### What is the intraday index unit number of shares (NOS)?

An index constituent's intraday index unit NOS is defined as the ratio of the number of shares outstanding eligible for the index and the index divisor.

### What is an index divisor?

An index divisor is the ratio of the index market capitalization and the index level within a given day. For example, if the index market capitalization is 1 trillion and the index level is 1000, the index divisor is 1 billion.

On any day  $t$ , at any time, the index level can then be calculated as a simple sum-product:

$$\text{Index}_t = \sum \text{intraday\_idx\_unit\_nost} \times \text{price}_t$$

The index divisor needs only to be adjusted when the index market capitalization and the index level change in different proportions—in the case of corporate events, for example, and with index additions and deletions.

### What are index dividend points?

Index dividend points express dividends paid by an index constituent as a fraction of the index level. They are calculated both at the security dividend level and at the index level (the aggregation of the security dividend level index points). Two types of dividend points are calculated:

- gross and net dividend points for price indexes that represent the amount of dividends as a fraction of the index level; and, reinvestment dividend points for net and gross indexes that represent the amount of dividends that are reinvested in the net or gross index as a
- fraction of the net or gross index level.

Additionally, to provide advance notice, two kinds of index dividend points are calculated:

- preliminary index dividend points for the next day file using the exchange rate of the reinvestment date  $-1$ ; and,
- final index dividend points, delivered after the close of the reinvestment date. The final index dividend points use the exchange rate of the reinvestment date (also used for index calculation) and contain intraday dividend corrections, if any.

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