



Morningstar Equity Indexes File Specifications

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Introduction

Morningstar Indexes has been designing modern solutions for 20 years, but what makes us truly unique has been more than three decades in development. Our rich history began in 1984, when Morningstar was founded on a promise to empower investors with data and research that is independent and objective. Over time, our collection of data has expanded considerably—and so has its application. Today, Morningstar Indexes draws on unique IP to unlock an extensive range of emerging opportunities for investors of every kind, while providing a robust institutional beta platform for core investing.

Implementation Overview

Delivery Channel

Data on Morningstar indexes is delivered via Secure File Transfer Protocol (SFTP) unless otherwise stated. This documentation provides detailed information on the electronic file names, content format of the Morningstar calculated index files.

Delivery Timings

Data files are typically delivered after market close of the current business day in the file. Close files (IDX, HIDX and CON, HCON) are published approximately 2-3 hours after the final market close, and forward-looking files (OIDX, OCON, CFACT, PCON, CAL) are delivered approximately 1 hour after the close files.

There may be slight delays during the reconstitution and rebalance pro forma period.

For consolidated files (where there are multiple indexes or portfolios in a single file), the default first delivery time* is 7pm CST. The consolidated file will contain all index data available by the default delivery time. If there is a delay in any of the indexes, subsequent files will be generated hourly until all expected indexes are delivered. The subsequent files will contain any indexes data that have been made available during the hour.

* The default delivery time may be adjusted per client request.

Data Characteristics

Morningstar Index data files provide updates to index levels and constituents. The incremental data is date specific and is intended to serve as updates for the historical database.

Files Format

This section serves to outline information on the file formats and data points.

File Type and Delimiters

Files are in .csv format. Records in the Morningstar data files are a contiguous collection of variable length fields. Morningstar files are defaulted to Pipe (|) delimited, however, clients may request either Comma (,) or Tab delimited files. Each record is related to a particular index level or constituent for a particular date (effective date).

File Naming Convention

Index data files names typically follow the below convention for ongoing data. We have a publish date field in the file to show when the files are generated. For restatements, the yyyyymmdd of the file will be the date that it is restating; so this new restated file will effectively overwrite the previous one.

File Definition	File Description and Name	Frequency
Index Levels (Close) IDX	<p>This file contains closing index levels.</p> <p>MSTAR_Index Full Name_MorningstarPortfolioID_IDX_yyyymmdd.csv</p> <p>The effective date field in the file and the yyyyymmdd in the file name will match.</p> <p>Examples: MSTAR_Canada_Target_Dividend_P00000101A_IDX_yyyymmdd.csv MSTAR_US_Target_Dividend_P00000100A_IDX_yyyymmdd.csv</p>	Daily
Index Levels (Open) OIDX	<p>This file contains the next day's opening market value and divisor.</p> <p>MSTAR_Index Full Name_MorningstarPortfolioID_OIDX_yyyymmdd.csv</p> <p>The effective date field in the file will be 1 business day after the yyyyymmdd in the file name.</p> <p>Examples: MSTAR_Canada_Target_Dividend_P00000101A_OIDX_yyyymmdd.csv MSTAR_US_Target_Dividend_P00000100A_OIDX_yyyymmdd.csv</p>	Daily
Index Constituent Details (Close) CON	<p>This file contains closing Constituent information.</p> <p>MSTAR_Index Full Name_MorningstarPortfolioID_CON_BaseCurrency_yyyymmdd.csv</p> <p>The effective date field in the file and the yyyyymmdd in the file name will match.</p> <p>Examples: MSTAR_Canada_Target_Dividend_P00000101A_CON_CAD_yyyymmdd.csv MSTAR_US_Target_Dividend_P00000100A_CON_USD_yyyymmdd.csv</p>	Daily or Monthly

File Definition	File Description and Name	Frequency
Index Constituent Details (Open) OCON	<p>This file contains the next day's open Constituent information.</p> <p>MSTAR_Index Full Name_MorningstarPortfolioID_OCON_BaseCurrency_yyyymmdd.csv</p> <p>The effective date field in the file will be 1 business day after the yyyymmdd in the file name</p> <p>Examples: MSTAR_Canada_Target_Dividend_P00000101A_OCON_CAD_yyyymmdd.csv MSTAR_US_Target_Dividend_P00000100A_OCON_USD_yyyymmdd.csv</p>	Daily or Monthly
Index Constituent Details (Pro Forma) PCON	<p>This file contains the forward-looking Constituent information up to 8 days after the publish date (T), between (T+2) to (T+8) days. This reflects any changes to the Constituent information due to corporate actions, index rebalance and reconstitution. Morningstar Indexes will provide the first preview of the rebalance or reconstitution ("rebal & recon") portfolio starting from the second Wednesday of the rebal & recon month, with the T+8 effective date of the first business day following the third Friday.</p> <p>MSTAR_IndexFullName_MorningstarPortfolioID_PCON_BaseCurrency_yyyymmdd.csv</p> <p>The effective date field in the file will be the effective date of the new portfolio and the yyyymmdd in the file name will be the day that the file is published.</p> <p>Examples: MSTAR_Canada_Target_Dividend_P00000101A_PCON_CAD_yyyymmdd.csv MSTAR_US_Target_Dividend_P00000100A_PCON_USD_yyyymmdd.csv</p>	Daily
Index Corporate Actions CPACT	<p>This file contains information about corporate actions impacting the portfolio. This consists of known forward looking corporations, up to (T+20) days.</p> <p>MSTAR_Index Full Name_MorningstarPortfolioID_CPACT_yyyymmdd.csv</p> <p>The yyyymmdd in the file name will be the date that the file is published and the Effective Date column will be the effective date of the corporate action.</p> <p>Examples: MSTAR_Canada_Target_Dividend_P00000101A_CPACT_yyyymmdd.csv MSTAR_US_Target_Dividend_P00000100A_CPACT_yyyymmdd.csv</p>	Daily

File Definition	File Description and Name	Frequency
Index	This file contains any exchange or index holiday information impacting the portfolio.	Daily
Calendar CAL	MSTAR_Index Full Name_MorningstarPortfolioID_CAL_yyyymmdd.csv The yyyymmdd in the file name will be the date that the file is published and the Effective Date column will be the effective date of the calendar. Examples: MSTAR_Canada_Target_Dividend_P00000101A_CAL_yyyymmdd.csv MSTAR_US_Target_Dividend_P00000100A_CAL_yyyymmdd.csv	
Hedged Index Levels (Close) HIDX	This file contains closing hedged index levels. MSTAR_Index Full Name_MorningstarPortfolioID_HIDX_yyyymmdd.csv The effective date field in the file and the yyyymmdd in the file name will match. Examples: MSTAR_Canada_Target_Dividend_P00000101A_HIDX_yyyymmdd.csv MSTAR_US_Target_Dividend_P00000100A_HIDX_yyyymmdd.csv	Daily
Hedged Index Constituent Details (Close) HCON	This file contains closing hedged index constituent details. MSTAR_Index Full Name_MorningstarPortfolioID_HCON_yyyymmdd.csv The effective date field in the file and the yyyymmdd in the file name will match. Examples: MSTAR_Canada_Target_Dividend_P00000101A_HCON_yyyymmdd.csv MSTAR_US_Target_Dividend_P00000100A_HCON_yyyymmdd.csv	Daily

Consolidated Files

Morningstar typically provides a single file per index per file type. However, we will also be able to provide consolidated files upon request, where each consolidated file contains multiple indexes. The consolidated file names will be provided to the client based on the following convention `MSTAR_FileName_FileType_yyyymmdd.csv`.

For consolidated files (where there are multiple indexes or portfolios in a single file), the default first delivery time* is 7pm CST. The consolidated file will contain all index data available by the default delivery time. If there is a delay in any of the indexes, subsequent files will be generated hourly until all expected indexes are delivered. The subsequent files will contain any indexes data that have been made available during the hour.

Any restated index that is included in a consolidated file will be delivered as a separate, unconsolidated file. Clients will only receive the impacted index not the entire consolidated file.

Historical Files

Morningstar will provide historical index constituent and index levels in aggregated zip files. The level of aggregation will be based on the frequency of the requested historical data. The table below outlines the number of files that will be posted per year and the respective file name. The files will be posted to your SFTP account.

Data Type	History Frequency	Number of Aggregated Files	Sample File Name
Index Levels IDX	Daily	One file per calendar year	MSTAR_Index Full Name_MorningstarPortfolioID_IDX_YYYY.csv
	Monthly	One file for the entire time period	MSTAR_Index Full Name_MorningstarPortfolioID_IDX_YYYY.csv
Index Constituents CON	Daily	One file per month (12 files per calendar year)	MSTAR_Index Full Name_MorningstarPortfolioID_CON_YYYYMM.csv
	Monthly	One file per calendar year	MSTAR_Index Full Name_MorningstarPortfolioID_CON_YYYY.csv

Morningstar Indexes can only deliver daily Index Levels (IDX) and Close Constituents (CON) files for history prior to September 25, 2023. The forward-looking Corporate Actions (CPACT), Open Constituents (OCON), Pro Forma Constituents (PCON) and Calendar (CAL) files are not available for history prior to that date.

Restatements

Incorrect pricing and corporate action data for individual issues in the database will be corrected upon detection. Restated data will be sent out in the index files as of the effective date, after the restatements have been performed. The restated files will have the same file name as the "original" files, but have a publish date time in the restated file will be different from the "original file".

Any restated index that is included in a consolidated file will be delivered as a separate, unconsolidated file. Clients will only receive the impacted index not the entire consolidated file.

File Contents

This section serves to outline information on the contents of the Levels and Constituent files.

Index Levels File Contents

This file contains index levels data. The contents of the file and their definitions are as follows.

Data Point (Column Header)	Data Type	Definition	Close File	Open File	Hedged File
Portfolio Name	varchar Max length: 128	Official name of the index, as represented by the unique basket of securities (portfolio).	x	x	x
PortfolioId	varchar Max length: 36	Unique Morningstar identifier for every unique basket of securities (portfolio) in alphanumeric form.	x	x	x
Master PortfolioId	varchar Max length: 36	Unique Morningstar identifier for every unique basket of securities (portfolio) in integer form.	x	x	x
Effective Date	Date format is yyyyymmdd.	Close: Indicative of when the reported data within the file is applicable. Open: Date that data is effective (following date in the file name) Pro Forma: Pro Forma Effective Date	x	x	x
IndexId	varchar; Max. Length: 10	Unique Morningstar identifier for every index (a specific currency and return variant of the given portfolio).	x	x	x
PerformanceId	varchar; Max. Length: 10	Unique Morningstar identifier for every performance stream for an instrument.	x	x	x
IndexCode	Alphanumeric; Max. Length: 1,000	Unique external identifier for index (a specific currency and return variant of the given portfolio). Not available for every index.	x	x	x
Index Name	varchar; Max. Length: 128	Official name of the index, including currency and return variant.	x	x	x
Currency	varchar Max length: 3	Currency that applies for all currency denominated data points in the file.	x	x	x
IndexLevel	numeric Max length: 64, Scale: 18	Applies only to Close file. Daily value of the index portfolio.	x		x
Market Value	numeric Max length: 64, Scale: 18	Sum of all weighted constituent index market value. See Appendix 1 for more info.	x	x	x
FxRate	numeric Max length: 38, Scale: 18	Foreign exchange rate to translate the local price to the base currency price. Open: Prior business day forex rate	x	x	x

Data Point (Column Header)	Data Type	Definition	Close File	Open File	Hedged File
Divisor	numeric Max length:38, Scale:18	Calculated for PR variants, copied over to GR and NR variants Close: Adjustment used for daily index levels calculations, to ensure comparability of index levels across time. Divisor is adjusted when there is a change in index composition due to corporate actions, so that the index levels reflect only stock market price changes. Calculated using Market Value (t) / Index level (t-1). Open: Any adjustments made to the index CLOSE DIVISOR due to corporate actions, constituent changes or specific index methodology changes occurring on the next day are reflected in the ADJ DIVISOR (aka next day open divisor). The divisor is adjusted to ensure index levels remain consistent and comparable. Same as CLOSE DIVISOR if there are no changes.	x	x	x
Constituent Count	numeric; Max. Length: 38	Close: The number of securities that make up the index portfolio at the end-of-day close. Open: The number of securities that make up the index portfolio as of the following index trading day taking into account any additions and/or deletions	x	X	x
Index Dividend Points	numeric Max length:38, Scale:18	Applies only to TR and NR variants; in the Close file only. For Total Return - Calculated as [sum of total daily dividend/divisor]. For Net Return - Index dividends adjusted for withholding tax from the perspective of a Luxembourg investor.	x TR, NR only	x TR, NR only	x
Return	numeric Max length:64, Scale:18	Applies only to the Close file. Calculated using $[\text{IndexLevel}_t / \text{IndexLevel}_{t-1}] - 1$ for price return. Please refer to the Index Calculation Methodology document for Gross/ Total Return and Net Return calculation.	x		x
Return Type	varchar TR NR GR PR ER DR	Applies only to the Close file. Displays return variant as per calculation methodology. Types of return include Price Return (PR), Net Return (NR), Total/ Gross Return (TR or GR), Excess Return (ER) and Decrement (DR).	x	x	x
Return Period	text Daily or Monthly	Reflects the period used in return calculation. Return period can be Daily or Monthly. Only the Daily Return is supported at present.	x		x
Bloomberg Ticker	varchar Max length: 50	Bloomberg Ticker, provided on best effort basis.	x	x	x

Data Point (Column Header)	Data Type	Definition	Close File	Open File	Hedged File
RIC	varchar Max length: 32	Reuters Instrument Code, provided on best effort basis. RIC must contain exactly one period (".") and the second part must be 1 to 3 characters.	x	x	x
HedgedToCurrency	varchar Max length: 3	Applies only to hedged indexes, reflects the currency that the variant is hedged to.	x	x	x
Publish DateTime	timestamp yyyy-mm-ddThh:mm:ssZ	Time when index file is published.	x	x	x
i	text CLS OPN PE O OPRO	Indicates the portfolio file type. Close files = 'CLS', Open files = 'OPN', Pro Forma files = 'PRO'.	x	x	x
FxSource	varchar Max length: 32	Reflects timing of WMR foreign exchange timings, for example – LDN4PM, SYD4PM and SG5PM.	x	x	x
HedgeRatio	numeric Max length:64, Scale:18	The proportion of the portfolio's return on currency weight that is hedged.			x
HedgeIndex LevelAtRebalanceDate	numeric Max length:64, Scale:18	The close, hedged index level at the previous rebalance date.			x
HedgeIndex LevelAtReferenceDate	numeric Max length:64, Scale:18	The close, hedged index level at the previous reference date (1 business day before rebalance date).			x
UnderlyingIndexLevelAtRebalanceDate	numeric Max length:64, Scale:18	The close, unhedged index level at the previous rebalance date.			x
UnderlyingIndexLevel	numeric Max length:64, Scale:18	The current, close index level of the unhedged index.			x
LINE COUNT	numeric Max length: 38	The number of data rows included in the file, excluding the LINE COUNT row itself.	x	x	

"WMR Closing Spot Rates" and "WMR Intraday Spot Rates" provided by Refinitiv. Refinitiv shall not be liable for any errors in or delays in providing or making available the data contained within this service or for any actions taken in reliance on the same where "WMR Closing Spot Rates" and "WMR Intraday Spot Rates" is the appropriate information reference as listed above.

Index Constituent File Contents

This file format is used to send constituent open, close, and pro forma details. The contents of the file and their definitions are as follows.

The Global Industry Classification Standard (GICS®) was developed by and/or is the exclusive property of MSCI, Inc. and S&P Global Market Intelligence Inc. ("S&P Global Market Intelligence"). GICS is a service mark of MSCI and S&P Global Market Intelligence and has been licensed for use by Morningstar, Inc.

Data Point (Column Header)	Data Type	Data Point Definition	Close File	Open, Pro Forma File
PortfolioName	varchar Max length: 128	Official name of the index, as represented by the unique basket of securities (portfolio).	x	x
PortfolioId	varchar Max length: 36	Unique Morningstar identifier for every unique basket of securities (portfolio) in alphanumeric form.	x	x
MasterPortfolio Id	varchar Max length: 36	Unique Morningstar identifier for every unique basket of securities (portfolio) in integer form.	x	x
EffectiveDate	Date format is yyyymmdd.	Close: Indicative of when the reported data within the file is applicable. Open: Date that data is effective (following business day after date in the file name) Pro Forma: Pro Forma Effective Date	x	x
Constituent Name	varchar Max length: 1024	Name of the constituent security.	x	x
CompanyId	varchar Max length: 10	Unique Morningstar identifier for every company.	x	x
PerformanceId	varchar Max length: 10	Unique Morningstar identifier for every security, on the exchange listing level. Represents a unique pricing stream for the security on a given exchange.	x	x
RIC	varchar Max length: 20	Reuters Instrument Code, provided on best effort basis. RIC must contain exactly one period (".") and the second part must be 1 to 3 characters.	x	x
CUSIP	varchar Max length: 15	Constituent's 9-character CUSIP identifier, provided on best effort basis. This is an entitled data point.	x	x
ISIN	varchar Max length: 15	Constituent's 12-character ISIN identifier, provided on best effort basis. This is an entitled data point.	x	x

Data Point (Column Header)	Data Type	Data Point Definition	Close File	Open, Pro Forma File
SEDOL	varchar Max length: 15	Constituent's 7-character SEDOL identifier, provided on best effort basis. This is an entitled data point.	x	x
Ticker	varchar Max length: 15	Constituent's stock ticker for the exchange, provided on best effort basis.	x	x
MIC	varchar Max length: 15	Market Identification Code represents the 4-character ISO Code of the exchange the constituent is traded on. Provided on best effort basis.	x	x
SectorId	Integer Max Length: 10	Sector assigned to the constituent company, as defined by the Morningstar Global Equity Classification (GECS).	x	x
IndustryId	Integer Max length: 10	Industry assigned to the constituent company, as defined by the Morningstar Global Equity Classification Structure (GECS).	x	x
GICSSubInd	Integer; Max Length: 10	GICS classification code assigned to the security. Entitled data point.	x	x
CountryOf Classification	Text; Max. Length: 2	Country assigned to the constituent company, as defined by the Morningstar Indexes Country of Classification methodology, for the purpose of index membership.	x	x
CountryOf Domicile	Text; Max. Length: 2	2-character ISO country code assigned to the constituent company's country of incorporation, for the purpose of WHT application.	x	x
Region	Text; Max. Length: 3	Region assigned to the constituent company by Morningstar Indexes. The list includes Developed Asia Pacific, Developed Middle East/Africa, Developed North America, Emerging Asia, Emerging Latin America, Emerging Middle East/Africa, Frontier Asia, and Frontier Middle East/Africa.	x	x
MarketSegment	Text; Max. Length: 1	Market Segment assigned to the constituent company by Morningstar Indexes. The list includes developed market, emerging market, or frontier market.	x	x
Currency	Text; Max. Length: 3	Currency of the Local Close Price for the constituent security.	x	x

Data Point (Column Header)	Data Type	Data Point Definition	Close File	Open, Pro Forma File
LocalPrice	numeric Max length:64, Scale:18	Close: End-of-day closing price of the constituent security, represented in the local currency of the security. Open: Open price usually matches the prior business day's close price, unless there is a corporate action causing a price adjustment on the security. Pro Forma: The latest price available for that security when the file is generated as per PublishDateTime. If PCON file is reissued later, price will be updated to the latest available price.	x	x
FxRate	numeric Max length:64, Scale:18	Foreign exchange rate to translate the local price to the base currency price. Open: Prior business day forex rate	x	x
BaseCurrency	Text; Max. Length: 3	Base currency that the local price is converted to, for purpose of index levels calculation. This will only be available from FY2020 onwards.	x	x
BaseCurrencyPrice	numeric Max length:64, Scale:18	Local close price translated to the base currency. This is calculated using LocalClosePrice * FxRate. This will only be available from FY2020 onwards.	x	x
TotalOutstandingShares	numeric Max length:64, Scale:18	Latest number of shares outstanding for the constituent security. Open: Adjusted for any corporate actions causing a shares adjustment on the security.	x	x
MarketCap	numeric Max length:38, Scale:18	Total unadjusted market capitalization of the constituent security. This is calculated using TotalOutstandingShares * LocalClose * FxRate.	x	x
Size	varchar Max length: 15	Size assignment by Morningstar. This applies only to Style indexes.	x	x
FloatFactor	numeric Max length:64, Scale:18	Investable weight factor of the constituent security in the index, representing the free float percentage of the security. A value of 1 = 100% Free Float.	x	x
WeightAdjustmentFactor	numeric Max length:64, Scale:18	Additional weight factor adjustments, as needed for specific methodologies.	x	x

Data Point (Column Header)	Data Type	Data Point Definition	Close File	Open, Pro Forma File
IndexShares	numeric Max length:64, Scale:18	Number of shares for the constituent security used for index calculations. This is calculated using $\text{TotalOutstandingShares} * \text{FloatFactor} * \text{WeightAdjustmentFactor}$. Open: Adjusted for any corporate actions causing a shares adjustment on the security.	x	x
IndexMarketValue	numeric Max length:64, Scale:18	Portion of the constituent security's market cap used for index calculations. This is calculated using $\text{IndexShares} * \text{LocalClose} * \text{FxRate}$. Open: Adjusted in open file for corporate action; if no corporate action then the IndexMarketValue will match the close file	x	x
IndexWeight	numeric Max length:64, Scale:18	Weight of the stock within the index. Calculated as the IndexMarketCap of the stock / Sum of IndexMarketCaps of all stocks in the index.	x	x
Dividend	numeric Max length:64, Scale:18	Close: Gross regular dividend as reported by the constituent security, with an ex-date of the current day. Open: Gross regular dividend that will go ex- on effective date. Excludes Special Dividend.	x	x
NetDividend	numeric Max length:64, Scale:18	Net dividend (Gross dividend less tax and franking) for the constituent security, with an ex-date of the current day. Tax and franking rates used are as of ex-date. For ADRs, this is also net of DR fees.	x	x
PriceReturn	numeric Max length:64, Scale:18	Reflects % change in price for the constituent security. This is calculated using $(\text{BaseCurrencyPrice}_t / \text{BaseCurrency}_{t-1}) - 1$.	x	
TotalReturn	numeric Max length:64, Scale:18	Reflects % change in price and dividends for the constituent security. This is calculated using $((\text{BaseCurrency}_t + \text{Dividend}_t) / \text{BaseCurrency}_{t-1}) - 1$.	x	
NetReturn	numeric Max length:64, Scale:18	Reflects % change in price and net dividends for the constituent security. This is calculated using $((\text{BaseCurrency}_t + \text{NetDividend}_t) / \text{BaseCurrency}_{t-1}) - 1$.	x	
ReturnPeriod	Daily or Monthly	Reflects the period used in return calculation. Return period can be Daily or Monthly. Only Daily Return is supported currently.	x	
FileType	Text; Max. Length: 5	Indicates the data file type. Close files = 'CLS', Open files = 'OPN', Pro Forma files = 'PRO'.	x	x

Data Point (Column Header)	Data Type	Data Point Definition	Close File	Open, Pro Forma File
Bloomberg Ticker	varchar Max length:50	Constituent's Bloomberg ticker, provided on best effort basis.	x	x
Tax Rate	numeric Max length:38, Scale:9	The withholding tax rate used to calculate Net Dividend and Net Return.	x	x
OpenIndexMarketValue	numeric Max length:64, Scale:6	Optional field that applies to Close file only. This allows the user to replicate the return calculation with one single file.	x	
RebalRecon	-	Indicates that this reflects the rebalance/reconstitution index basket. Applies only to the Pro Forma file. 'TRUE' for Reconstitution and Rebalance effective date.		X PRO
RefDataId2	-	Placeholder column for future reference data additions.	x	x
PublishDate Time	timestamp yyyy-mm-ddThh:mm:ssZ	Date and time when index file is published.	x	x
LINE COUNT	numeric; Max. 5	The number of data rows included in the file, excluding the LINE COUNT row itself.	x	x

Index Hedged Constituent File Contents

This file format is used to send constituent hedged details. The contents of the file and their definitions are as follows.

Data Point (Column Header)	Data Type	Data Point Definition
PortfolioName	varchar Max length: 128	Official name of the index, as represented by the unique basket of securities (portfolio).
PortfolioId	varchar Max length: 36	Unique Morningstar identifier for every unique basket of securities (portfolio) in alphanumeric form.
MasterPortfolioId	varchar Max length: 36	Unique Morningstar identifier for every unique basket of securities (portfolio) in integer form.
EffectiveDate	Date format is yyyyymmdd.	Indicative of when the reported data within the file is applicable.
LastRebalanceDate	Date format is yyyyymmdd	Indicates the previous portfolio rebalance date.
NextRebalanceDate	Date format is yyyyymmdd	Indicates the next portfolio rebalance date.
HedgedToCurrency	Text Max length: 3	Reflects the currency that the portfolio is hedged to.
RebalancePortfolioCurrency	Text Max length: 3	Unique constituent security currencies in the underlying index's rebalance portfolio
RebalanceCurrencyWeight	numeric Max length: 64, Scale:18	Weight of security currencies (currency exposure) in the underlying index's rebalance portfolio. Calculated as sum of security constituent weights for each foreign currency in the rebalance portfolio
AdjustmentFactor	numeric Max length: 64, Scale:18	Monthly adjustment factor to account for the one-day lag between the rebalance date and the date on which notional amounts are determined. Calculated as the hedged index level on the reference date divided by the hedge index level on rebalance date
SpotRateAtReference	numeric Max length: 64, Scale:18	The currency spot rate used at the previous reference date.
ForwardRateAtRebalance	numeric Max length: 64, Scale:18	The currency forward rate used at the previous rebalance date.
InterpolatedForwardRate	numeric Max length: 64, Scale:18	Forward rate of currency at the index rebalance interpolated for intramonth performance of the hedge
SpotRate	numeric Max length: 64, Scale:18	The spot rate as of the file effective date
ForwardRate	numeric Max length: 64, Scale:18	The forward rate as of the file effective date

Data Point (Column Header)	Data Type	Data Point Definition
HedgeStrategy	varchar Max length: 36	Indicates the hedging strategy used in calculation. Current strategies include: HSFULL = full hedge, HSP30 = partial hedge at 30%, HSDMEM= Partial Hedge for Develop Market currencies at 100% while Emerging Market currencies hedged at 0%
ProportionFactor	numeric	Indicates the hedged proportion factor. For HedgeStrategy= HSFULL, the ProportionFactor will always be equal to 1. For HedgeStrategy = HSP30, the ProportionFactor will be 0.3. For HedgeStrategy = HSDMEM, the ProportionFactor will be 1 for currencies in developed markets (DM) and 0 for currencies in emerging markets (EM).
FileType	Text; Max. Length: 5	Indicates the portfolio file type. Close files = 'CLS',
PublishDateTime	timestamp yyyy-mm-ddThh:mm:ssZ	Date and time when constituent file is published.
LINE COUNT	numeric; Max. 5	The number of data rows included in the file, excluding the LINE COUNT row itself.

Index Corporate Action File Contents

This file format is used to provide daily corporate action file notices.

In the event there are no forward-looking corporate events being tracked by the Morningstar Indexes Corporate Events Team, a blank file with headers only will be published.

Data Point (Column Header)	Data Type	Definition
PortfolioName	varchar Max length: 128	Official name of the index, as represented by the unique basket of securities (portfolio).
PortfolioId	varchar Max length: 36	Defines the index name that this stock is related to.
IndexBaseCurrency	varchar Max length: 3	The 3-character ISO currency code for the currency in which the index level data is being reported in.
CorpActionId	Alphanumeric; Max. Length: 256	Unique corporate actions identifier.
CorpActionType	Text; Max. Length: 256	Index, country or stock event action type, including index holidays and rebalancing dates. Please refer to section CPACT Action Types within this specification for further information.
CorpActionCategory	Text; Max. Length: 256	Index, country or stock event action group.
Status	Text; Max. Length: 15	States whether the entry is finalized, estimate, pending or cancelled.
AnnouncementDate	Date format is yyyymmdd.	The date the event was first announced and appears in the file. Available for Voluntary and Rebalance Related Corporate Events, otherwise blank.
LastUpdateDate	Date format is yyyymmdd.	The date when the last change of was made to this record. For adds/drops this states the last update date of all compositions of an index.
CloseOfBusiness Date	Date format is yyyymmdd.	The previous business day relative to the EffectiveDate, taking into account holidays. Populated when EffectiveDate is available.
EffectiveDate	Date format is yyyymmdd.	Indicative of when the corporate actions data is applicable. Also known as the "ex-date". Not always available for Status = Pending actions. For Pending actions, ex-date may be populated when dates are provided by the company in the event announcement but will be subject to change.
SequenceNumber	Integer; Max. Length: 1,000	Sequence number for multiple actions on a single stock on the same effective date. A value of "1" indicates this action should be treated first. Sequence number applies to the following corp action categories: Shares or Weight Change, Distribution and Dividends, Recon & Rebalance, Composition Change. OR corp action types: Dividend, Special Dividend, Rights Offering, AWF Change - Rebalance, IWF Change - Rebalance, Price Adjustment, Share Change - Rebalance, Index Close Price, Index Open Price, AWF Change, IWF Change, Share Change, Reverse split, Stock Split, Style Change
ConstituentName	varchar Max length: 1024	The current name of the constituent.

Data Point (Column Header)	Data Type	Definition
NewConstituent Name	varchar Max length: 1024	The new name of the constituent as of the Effective Date.
PerformancelId	varchar Max length: 10	10 digit Morningstar unique Id.
NewPerformancelId	varchar Max length: 10	The new 10 digit Morningstar unique Id as of the Effective Date.
BloombergTicker	varchar Max length: 50	Constituent's current Bloomberg Ticker, provided on best effort basis. Bloomberg ticker may contain exactly one space (" "). The first part must be 1 to 8 characters and the second part must be 1 to 2 characters.
NewBloomberg Ticker	varchar Max length: 50	Constituent's new Bloomberg Ticker as of the EFFECTIVE DATE, provided on best effort basis. Bloomberg ticker may contain exactly one space (" "). The first part must be 1 to 8 characters and the second part must be 1 to 2 characters.
CUSIP	varchar Max length: 15	Constituent's current 9-character CUSIP identifier, provided on best effort basis.
NewCUSIP	varchar Max length: 15	Constituent's new 9-character CUSIP identifier as of the EFFECTIVE DATE, provided on best effort basis.
ISIN	varchar Max length: 15	Constituent's current 12-character ISIN identifier, provided on best effort basis.
NewISIN	varchar Max length: 15	Constituent's new 12-character ISIN identifier as of the EFFECTIVE DATE, provided on best effort basis.
SEDOL	varchar Max length: 15	Constituent's current 7-character SEDOL, provided on best effort basis.
NewSEDOL	varchar Max length: 15	Constituent's new 7-character SEDOL identifier as of the EFFECTIVE DATE, provided on best effort basis.
Ticker	varchar Max length: 15	Constituent's current stock ticker, associated with the exchange the constituent is traded on. Provided on best effort basis.
NewTicker	varchar Max length: 15	Constituent's new stock ticker, associated with the exchange the constituent is traded on, as of the EFFECTIVE DATE. Provided on best effort basis.
MIC	varchar Max length: 15	Constituent's current Market Identification Code, representing the 4-character ISO code of the exchange the constituent is traded on.
NewMIC	varchar Max length: 15	Constituent's new Market Identification Code, representing the 4-character ISO code of the exchange the constituent is traded on, as of the EFFECTIVE DATE.
SectorId	Integer Max Length: 10	Current Sector assigned to the constituent company, as defined by the Morningstar Global Equity Classification Structure (GECS).
NewSectorId	Integer Max Length: 10	New Sector assigned to the constituent company, as defined by the Morningstar Global Equity Classification Structure (GECS) as of the EffectiveDate.
IndustryId	Integer Max length: 10	Industry assigned to the constituent company, as defined by the Morningstar Global Equity Classification Structure (GECS).
NewIndustryId	Integer Max length: 10	New Industry assigned to the constituent company, as defined by the Morningstar Global Equity Classification Structure (GECS) as of the EffectiveDate.
GICSSubId	Integer; Max Length: 10	Constituent's current Global Industry Classification Standard code, comprising of 8 digits.

Data Point (Column Header)	Data Type	Definition
NewGICSSubInd	Integer; Max Length: 10	Constituent's new Global Industry Classification Standard code, comprising of 8 digits as of the EFFECTIVE DATE.
CountryOfClassification	Text; Max. Length: 2	Country assigned to the constituent company, as defined by the Morningstar Indexes Country of Classification methodology.
NewCountryOfClassification	Text; Max. Length: 2	New Country assigned to the constituent company, as defined by the Morningstar Indexes Country of Classification methodology as of the EffectiveDate.
CountryOfDomicile	Text; Max. Length: 2	2-character ISO country code that is associated with the constituent's current country of domicile.
NewCountryOfDomicile	Text; Max. Length: 2	2-character ISO country code that is associated with the constituent's new country of domicile as of the EFFECTIVE DATE.
Region	Text; Max. Length: 3	Constituent's current region. Available for the Global BMI family and indicates if the stock is considered part of a developed or emerging market.
NewRegion	Text; Max. Length: 3	Constituent's new region as of the EFFECTIVE DATE. Available for the Global BMI family and indicates if the stock is considered part of a developed or emerging market.
TotalOutstandingShares	numeric Max length:64, Scale:18	The constituent's current number of shares outstanding.
NewTotalOutstandingShares	numeric Max length:64, Scale:18	The constituent's new number of shares outstanding as of the EFFECTIVE DATE.
FloatFactor	numeric Max length:64, Scale:18	Investable weight factor of the constituent security in the index, representing the free float percentage of the security. A value of 1 = 100% Free Float.
NewFloatFactor	numeric Max length:64, Scale:18	The new Investible Weight Factor (IWF) of the stock as of the EFFECTIVE DATE. A value of 1 = 100% Free Float.
FloatAdjustmentFactor	numeric Max length:64, Scale:18	Float factor adjustment. Default to 1.
WeightAdjustmentFactor	numeric Max length:64, Scale:18	Additional weight factor adjustments, as needed for specific methodologies.
NewWeightAdjustmentFactor	numeric Max length:64, Scale:18	The new Additional Weight Factor (AWF) of the stock as required for certain methodologies, as of the EFFECTIVE DATE. For methodologies not using AWF, the value will be 1.
IndexShares	numeric Max length:64, Scale:18	The constituent's current index shares. Index shares represents the total number of shares determined and used by the index calculation methodology (i.e. SHARES OUSTANDING * IWF * AWF).
NewIndexShares	numeric Max length:64, Scale:18	The constituent's new index shares as of the EFFECTIVE DATE. Index shares represents the total number of shares determined and used by the index calculation methodology adjusted for corporate actions (i.e. SHARES OUSTANDING * IWF * AWF).
SharesAdjustmentFactor	numeric Max length:64, Scale:18	Number of new shares per old

Data Point (Column Header)	Data Type	Definition
SharesReceived	numeric Max length:64, Scale:18	For stock splits or rights offerings, this represents the ratio of the shares received. For example, in a 3-for-1 stock split, the ratio received would be 3. For a 0.1-for- 1 rights offering, the ratio received would be 0.1.
SharesHeld	numeric Max length:64, Scale:18	For stock splits or rights offerings, this represents the ratio of the shares held. For example, in a 3-for- 1 stock split, the ratio held would be 1. For a 0.1-for-1 rights offering, the ratio held would be 1.
SubscriptionPrice	numeric Max length:64, Scale:18	Subscription price for rights offerings.
SubscriptionPrice Currency	varchar Max length: 3	Currency of subscription price of capital increase.
PriceAdjustment Factor	numeric Max length:64, Scale:18	Amount of price adjustment.
LocalClosePrice	numeric Max length:64, Scale:18	Latest available price prior to the EFFECTIVE DATE adjusted for all corporate actions.
NewLocalClosePrice	numeric Max length:64, Scale:18	Closing price adjusted for corporate actions as of the EFFECTIVE DATE.
PriceCurrency	varchar Max length: 3	Currency of LocalClosePrice.
NewPriceCurrency	varchar Max length: 3	New currency of NewLocalClosePrice.
DividendCurrency	varchar Max length: 3	The 3-character ISO currency code for the currency the dividend is paid in.
DividendPayDate	Date format is yyyymmdd.	Payment date of cash or special dividend
GrossDividend	numeric Max length:64, Scale:18	Dividend amount as reported, as of the EFFECTIVE DATE. Dividend amount will be translated to stock currency if dividend currency differs from stock currency. If the action type is Dividend Adjustment (for Japanese and Korean equities), the dividend amount will be the difference between the confirmed dividend and any amount recognized on the original ex-date.
NetDividend	numeric Max length:64, Scale:18	Net dividend amount, as of the EFFECTIVE DATE (after subtracting taxes and franking). Tax and franking rates used are as of ex- date. Dividend amount will be translated to stock currency if dividend currency differs from stock currency. If the action type is Dividend Adjustment (for Japanese and Korean equities), the net dividend amount will be the after tax amount of the difference between the confirmed dividend and any amount recognized on the original ex-date.
FrankingRate	numeric Max length:64, Scale:18	Franking rate for Australian dividends.
TaxRate	numeric Max length:64, Scale:18	Current tax rate.

Data Point (Column Header)	Data Type	Definition
Parent/Acquirer Name	varchar Max length: 1024	Name of the parent company in a spin-off event, or the acquiring company in a merger/acquisition (M&A), as of the EFFECTIVE DATE.
Parent/Acquirer CompanyTicker	varchar Max length: 15	Ticker of the parent company in a spin-off event, or the acquiring company in a merger/acquisition (M&A), as of the EFFECTIVE DATE. Provided on a best effort basis.
Spunoff/Target SecurityName	varchar Max length: 1024	Name of spun-off company in a spin-off event, or the target company in a merger/acquisition (M&A), as of the EFFECTIVE DATE.
Spunoff/Target Ticker	varchar Max length: 15	Ticker of spun-off company in a spin-off event, or the target company in a merger/acquisition (M&A), as of the EFFECTIVE DATE. Provided on a best effort basis.
Spunoff/Target SecurityISIN	varchar Max length: 15	ISIN of spun-off company in a spin-off event, or the target company in a merger/acquisition (M&A), as of the EFFECTIVE DATE. Provided on a best effort basis.
Spunoff/Target SecuritySEDOL	varchar Max length: 15	SEDOL of spun-off company in a spin-off event, or the target company in a merger/acquisition (M&A), as of the EFFECTIVE DATE. Provided on a best effort basis.
Spunoff/Target SecurityCUSIP	varchar Max length: 15	CUSIP of spun-off company in a spin-off event, or the target company in a merger/acquisition (M&A), as of the EFFECTIVE DATE. Provided on a best effort basis.
Spunoff/Target SecurityCurrency	varchar Max length: 3	Price currency of the spun-off or target company shares.
Spunoff/Target SecurityCountryOf Incorporation	Text; Max. Length: 2	Country of Incorporation of the spun-off or target company shares.
Spunoff/Target Security Performancelid	varchar Max length: 10	Unique Morningstar ID of the spun-off or target company shares. For spun-off shares, a temporary Performance Id may be created and replaced with a permanent Performance Id subsequently.
Spunoff/Target SecurityMIC	varchar Max length: 15	Market Identifier Code of the spun-off company in a spin-off event, or the target company in a merger/acquisition (M&A), as of the EFFECTIVE DATE. Provided on a best effort basis.
Spunoff/Target SecurityIsIndex Constituent	varchar Max length: 1024	YES/NO flag, used to identify if the spun-off or M&A target stock is also a current index constituent.
TypeOfTerms	Text; Max. Length: 1,000	Terms of the acquisition or spin-off event. Stock or Cash.
StockTerms	Text; Max. Length: 1,000	Value for Stock term of acquisition or spin-off event.
CashTerms	Text; Max. Length: 1,000	Value for Cash term of acquisition or spin-off event.
CashTermsCurrency	Text; Max. Length: 20	Currency for Cash Terms, Cash and Stock OR Cash or Stock.
TenderOffer ExpirationDate	Date format is yyyymmdd.	Expiration date of tender offer.
ExpectedCompletion Date	Date format is yyyymmdd.	Expected completion date of tender offer.
ExpectedDelisting Date	Date format is yyyymmdd.	Expected delisting date of security.

Data Point (Column Header)	Data Type	Definition
Comments	Text; Max. Length: 1,000	Descriptive commentary associated with the event
PublishedDate	timestamp yyyy- mm- ddThh:mm:ssZ	Date and time when index file is published.
LINE COUNT	numeric; Max. 5	The number of data rows included in the file, excluding the LINE COUNT row itself.

Corporate Action Type and Category Mapping

This section outlines a mapping between the corporate action type and category.

CorporateAction Type	CorporateAction Category	CorporateAction Description
Drop	Composition Change	Deletion of security from the index constituents.
Add	Composition Change	Addition of security to the index constituents.
Dividend	Distribution and Dividends	Distribution of a portion of a company's earnings to shareholders of the security, as decided by its board of directors.
Dividend Adjustments	Distribution and Dividends	Difference between the estimated dividend amount applied previously and the confirmed amount, usually used for Japanese and Korean securities.
Special Dividend	Distribution and Dividends	Non-recurring cash distribution of company assets to shareholders. Results in price adjustment and not accounted for in gross dividend and return calculations.
Stock split	Information	Splitting of security by a factor.
Information	Information	Pertinent information about security.
Merger/Acquisition	Information	Information regarding two or more companies joining to form a new entity, or one company buying most or all of the target company and assumes controlling interest.
Spin-Off	Information	Information regarding sale of a business or division by a parent company resulting in an independent spun-off company.
Price Adjustment	Price Adjustment	Adjustment to a constituent's CURRENT PRICE necessitating a NEW PRICE. May be due to various corporate action activities like special dividend.
AWF Change	Recon & Rebalance	Change in a constituent's AWF (Additional weight factor) due to a reconstitution or rebalance event.
Share Change	Recon & Rebalance	Increase or decrease in the number of shares outstanding due to a reconstitution or rebalance event.
IWF Change	Recon & Rebalance	Change in a constituent's investable weight factor, also known as free float, during a reconstitution or rebalance event.
Add	Recon & Rebalance	Addition of security in index constituents during reconstitution or rebalance. Includes corporate actions effected during the proforma period.

CorporateAction Type	CorporateAction Category	CorporateAction Description
Drop	Recon & Rebalance	Drop of security from index constituents during reconstitution or rebalance. Includes corporate actions effected during the proforma period.
Identifier Change	Reference Data	Changes in Morningstar or third party identifiers to security.
Rights Offering	Shares or Weights Change	Issuance of rights to a company's existing shareholders to buy a proportional number of additional securities at a given price (usually at a discount) within a fixed period.
Share Change	Shares or Weights Change	Increase or decrease in the number of shares outstanding due to a new share issuance or stock repurchase by a constituent company.
Reverse Split	Shares or Weights Change	Reverse split reduces the number of shares and increases the share price proportionately, thus having no effect on total market value.
AWF Change	Shares or Weights Change	Change in a constituent's AWF (Additional weight factor), not due to a reconstitution or rebalance event.
IWF Change	Shares or Weights Change	Change is a constituent's investable weight factor, not during a reconstitution or rebalance event.

Index Calendar File Contents

This file format is used to provide daily holiday calendar notices.

Data Point (Column Header)	Data Type	Definition
PortfolioName	varchar Max length: 128	Official name of the index, as represented by the unique basket of securities (portfolio).
PortfolioId	varchar Max length: 36	Unique Morningstar identifier for every unique basket of securities (portfolio) in alphanumeric form.
IndexBaseCurrency	Text; Max. Length: 3	Base currency that the local price is converted to, for purpose of index levels calculation. This will only be available from FY2020 onwards.
CorpActionType	Text; Max. Length: 256	Index, country or stock event action type, including index holidays and rebalancing dates. Please refer to section CAL Type within this specification for further information.
CorpActionCategory	Text; Max. Length: 256	Index, country or stock event action group.
CloseOfBusinessDate	Date format is yyyymmdd.	The previous business day relative to the EffectiveDate, taking into account holidays. Populated when EffectiveDate is available.
EffectiveDate	Date format is yyyymmdd.	Indicative of when the holiday data is applicable.
NextBusinessDate	Date format is yyyymmdd.	The following business day relative to the EffectiveDate, taking into account holidays.
MIC	varchar Max length: 15	Market Identification Code represents the 4-character ISO Code of the exchange. Provided on best effort basis.
Comments	Text; Max. Length: 1,000	Descriptive commentary associated with the event
PublishDateTime	timestamp yyyy-mm-ddThh:mm:ssZ	Date and time when calendar file is published.

Appendix 1 – Index Market Value calculations

After September 4, 2023, Morningstar Indexes has standardized the index market value formula for any index variant to

$$IndexMarketValueinCurrency_t = IndexMarketValueinUSD_t * FXRate_t$$

Prior to September 4, 2023, the market value of a non-USD index variant for select (internally calculated) equity indexes is not only function of exchange rate on that date, but also a function of exchange rate on the index inception date.

This is because we started the base index level for the currency variants at 1000. In order to do so, we need to adjust either the divisor or the market value, since

$$IndexLevel_t = \frac{IndexMarketValue_t}{IndexDivisor_t}$$

Morningstar Indexes have opted to adjust the market value of the index, to keep the same divisor for all currency variants, and for the index level on the inception date to be 1000 for all currency and return variants. As such, the index market value is more accurately defined as an adjusted market value, as defined below –

$$IndexMarketValueinCurrency_t = IndexMarketValueinUSD_t * \frac{FXRate_t}{FXRate_{CurrBaseDate}}$$

For example,

Date	CurrencyFrom	CurrencyTo	ExchangeRate
20-Jun-08	USD	GBP	0.5062
09-May-23	USD	GBP	0.7927

Index Market Value (USD) = 5,381,570,959,624.10

Index Market Value (GBP) = 5,381,570,959,624.10 * 0.7927 / 0.5062 = 8,427,171,151,771.21

There are no plans to standardize the historical (pre-September 4, 2023) market values formula in the near future, due to the effort to recalculate the full history. Clients can adjust by multiplying the values in the file by $FxRate_{baseDate}$.

Appendix 2 – Frequently Asked Questions

Why is the file incomplete? There are there blank rows of data when I open the file in Excel.

If you are opening the csv files in Excel, the files are auto-delimited on any commas in the files. Please open the files in an application like Notepad and then copy into Excel. Alternatively, you can use a CONCAT function to join the separate columns.

Why are there only IDX and CON files historically, and no CPACT, OCON, PCON and CAL files prior to September 25, 2023?

Clients will be able to receive historical close index levels and constituent data in the IDX and CON files. Prior to September 25, 2023, Morningstar Indexes partnered with S&P Dow Jones Indices ("SPDJ") as a calculation agent for a selection of our equity indexes. The forward-looking Corporate Actions (CPACT), Open Constituents (OCON), Pro Forma Constituents (PCON) and Calendar (CAL) files are generated by Morningstar Indexes only after taking the calculation in-house.

Historical open constituents, corporate actions, and pro forma files are only supported in the legacy SPDJ file format, and may be made available for clients who are licensed for that data.

What information is provided in the PCON file during rebalance and reconstitution?

The new PCON file reflects the open constituent information between effective date T+2 days to T+8 days. During a non-rebalance or reconstitution period, the constituents are adjusted for corporate actions that are effective within that window.

The first preview of the rebalanced or reconstituted portfolio is provided on the second Wednesday of the rebalance or reconstitution month, with the T+8 effective date being the first business day following the third Friday. A new "RebalRecon" flag has been added to the file to indicate the effective date.

Changes to constituent data within the PCON file will occur through T+8 days, as new corporate actions are accounted for during this period.

I see 7 instances of each ticker in the PCON file. How do I extract the correct index composition from the file?

The PCON file is a forward-looking T+2 to T+8 daily file that applies all corporate actions happening within that period. Therefore, there are multiple effective dates in the PCON file. The reconstituted or rebalanced portfolio is flagged in the "RebalRecon" field. Lines where this flag is set to "TRUE" indicate that this is the effective date of the newly reconstituted or rebalanced portfolio, meaning the updated holdings, shares, and weights are reflected.

Please use this flag to load the new positions. Any lines with effective dates after the date in the "RebalRecon" field reflect the reconstituted or rebalanced portfolio as well.

	A	B	C	D	E	F	G	H	I
1	PortfolioName	PortfolioId	MasterPortfolio	EffectiveDate	ConstituentName	CompanyId	Performance	RIC	CUSIP
2	Morningstar US Market	P00000200G	24760	15/05/2025	3M Company	0C0000095Q	0P0000000I	MMM.N	88579Y101
3	Morningstar US Market	P00000200G	24760	14/05/2025	3M Company	0C0000095Q	0P0000000I	MMM.N	88579Y101
4	Morningstar US Market	P00000200G	24760	13/05/2025	3M Company	0C0000095Q	0P0000000I	MMM.N	88579Y101
5	Morningstar US Market	P00000200G	24760	12/05/2025	3M Company	0C0000095Q	0P0000000I	MMM.N	88579Y101
6	Morningstar US Market	P00000200G	24760	09/05/2025	3M Company	0C0000095Q	0P0000000I	MMM.N	88579Y101
7	Morningstar US Market	P00000200G	24760	08/05/2025	3M Company	0C0000095Q	0P0000000I	MMM.N	88579Y101
8	Morningstar US Market	P00000200G	24760	16/05/2025	3M Company	0C0000095Q	0P0000000I	MMM.N	88579Y101

FileTy	BloombergTick	TaxRa	OpenIndexMarketVal	ReconReb	RefData
PRO	MMM UN				
PRO	MMM UN			TRUE	
PRO	MMM UN				
PRO	MMM UN				
PRO	MMM UN				
PRO	MMM UN				
PRO	MMM UN				

Why are there effective dates for some Pending corporate actions but not others?

Pending corporate actions are provided on a “best efforts” basis, and that information is subject to change as we track the event. We will populate the effective date if that is available/ suggested in the corporate action announcement, and no effective dates will be populated if we have no information.

Why are there changes to the Morningstar PID for the same security over time?

The Morningstar PID is designed to be the permanent Morningstar identifier for a given security and should ideally not change over time. However, we have observed that there have been changes on occasion over time, especially when there are Mergers & Acquisitions. This is due to dependencies on the upstream Morningstar Reference Data team. Clients may have to use a combination of the PID and third party identifiers like ISIN and CUSIP to confirm the continuity of a given security. We will continue to work with our vendors to preserve the continuity of the identifiers over time.

Why are there NULL “Size” data points in the constituent files?

In the initial roll-out, Morningstar Indexes is populating the “Size” data point in the constituent files for securities within our Morningstar Global Markets Index. As such, securities that are not part of the Morningstar Global Markets Index will not have a Size assignment.

Why are there blank “Size” data points for certain securities?

Morningstar Indexes currently populates the “Size” data point for the constituents of parent Morningstar Global Markets Index and its child indexes. There will not be a size assignment for securities that are not part of the Morningstar Global Markets Index.

Morningstar Indexes will be enhancing the “Size” data point for the constituents of parent Morningstar All Cap Target Market Exposure index and its child indexes in the future. The “Size” data point in the constituent file for the Morningstar Global All Cap Target Market Exposure Index should also not be used to perform size carve-outs. We will enhance this data point in a future release.

For spin-off placeholder securities that are added to our indexes, they will also have a blank “Size” data point as it will not be possible to assign a size to those securities that may be added at a 0 price. Clients can identify those securities via a 0 price or a temporary PID.

Why are there different dividend amounts for the same security in different indexes?

Generally, dividends are paid to shareholder as of record date which is generally one day prior to the ex-date. When the dividend ex-date is the reconstitution effective date, there will be a difference between the index shares as of the record date and the ex-date. Morningstar Indexes will take the index share prior to the reconstitution (record date), calculate the full distribution for the given index, rescale the dividends according to the new index shares post- reconstitution, and implement the dividend on ex-date as reflected in the CON files. The index shares pre and

post reconstitution will differ across indexes, this is why there will be different Gross Dividend and Net Dividend values in the CON files for different indexes in this scenario. However, the Dividend information in the CPACT file, which is as reported by the company, will be the same across the indexes.

File and Delivery Specification Version History

Version	Date	Description
V1	September 24, 2023	Finalized version after Cirrus release, added Corporate Action Type and Categories section
V2	October 9, 2023	Removed Rights Offering as an information event (pg 22), Removed Private Equity index information to a separate specification document, Added Appendix 2 – FAQ
V3	November 16, 2023	Added clarification for Consolidated deliveries.
V4	December 4, 2023	Updated Bloomberg character length and added Hedged Index Level file details
V5	February 29, 2024	Clarification of Stock Split under Corporate Action Category
V6	April 15, 2024	Added Hedged Constituent File Details
V7	May 12, 2024	Daily Pro forma file schedule updated to reflect new T+2 to T+8 delivery schedule

About Morningstar Indexes

Morningstar Indexes was built to keep up with the evolving needs of investors—and to be a leading-edge advocate for them. Our rich heritage as a transparent, investor-focused leader in data and research uniquely equips us to support individuals, institutions, wealth managers and advisors in navigating investment opportunities across major asset classes, styles and strategies. From traditional benchmarks and unique IP-driven indexes, to index design, calculation and distribution services, our solutions span an investment landscape as diverse as investors themselves.

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