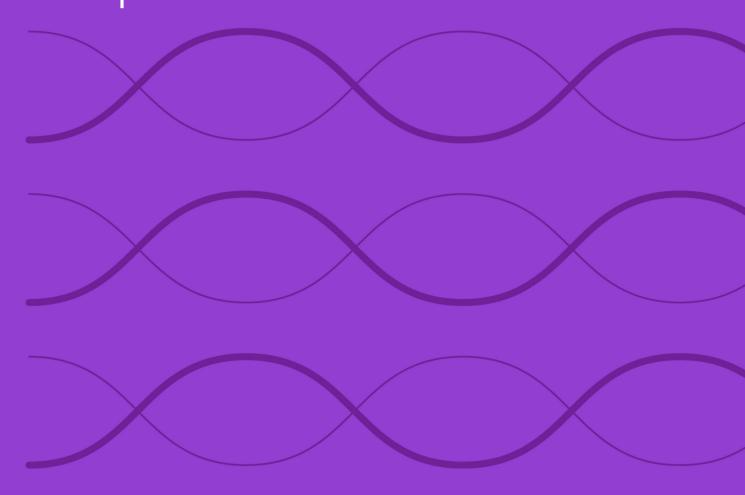


Morningstar Private Equity Indexes File Specifications



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Introduction

Morningstar, Inc. is a leading provider of independent investment research in North America, Europe, Australia, and Asia. We offer an extensive line of products and services for individual investors, financial advisors, asset managers, and retirement plan providers and sponsors. Morningstar provides data and research insights on a wide range of investment offerings, including managed investment products, publicly listed companies, private capital markets, and real-time global market data. Morningstar data covers approximately 635,000 investment offerings, including stocks, mutual funds, and similar vehicles, along with real-time global market data on approximately 22.5 million equities, indexes, futures, options, commodities, and precious metals, in addition to foreign exchange and Treasury markets. The company has operations in 27 countries.

Morningstar Indexes combine the science and art of indexing to give investors a clearer view into the world's financial markets. Our indexes are based on transparent, rules-based methodologies that are thoroughly back-tested and supported by original research. Covering all major asset classes, our indexes originate from the Morningstar Investment Research Ecosystem—our network of accomplished analysts and researchers working to interpret and improve the investment landscape. Clients such as exchange-traded fund providers and other asset management firms work with our team of experts to create distinct, investor-focused products based on our indexes. Morningstar Indexes also serve as a precise benchmarking resource.

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, and 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) are published approximately 2-3 hours after the final market close, and forward-looking files (OIDX, OCON, CPACT, PCON, CAL) are delivered approximately 1 hour after the close files.

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

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.



File Formats

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 yyyymmdd 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	This file contains closing index levels.	Daily
(Close)	MSTAR_Index Full Name_MorningstarPortfolioID_IDX_yyyymmdd.csv The effective date field in the file and the yyyymmdd in the file name will match.	
	Examples: MSTAR_PITCHBOOK_GLOBAL_UNICORN_2931334_IDX_yyyymmdd.csv	
Index	This file contains closing Constituent information.	Daily or Monthly
Constituent Details (Close)	MSTAR_Index Full Name_MorningstarPortfolioID_CON_ yyyymmdd.csv The effective date field in the file and the yyyymmdd in the file name will match.	
	Examples: MSTAR_ PITCHBOOK_GLOBAL_UNICORN_2931334_CON_yyyymmdd.csv	
Index Corporate Actions ¹	This file contains information about corporate actions impacting the portfolio. This consists of known forward looking corporations, up to (T+20) days. This is only available for select private equity indexes.	Daily
	MSTAR_Index Full Name_MorningstarPortfolioID_CPACT_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 corporate action.	
	Examples: MSTAR_ PITCHBOOK_GLOBAL_UNICORN_2931334_CPACT_yyyymmdd.csv	



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
	Daily	One file per calendar year	MSTAR_Index Full Name_MorningstarPortfolioID_IDX_YYYY.csv
Index Levels	Monthly	One file for the entire time period	MSTAR_Index Full Name_MorningstarPortfolioID_IDX_YYYY.csv
Index Constituents	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

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".



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
PortfolioName Portfoliold	varchar Max length: 128 varchar Max	Official name of the index, as represented by the unique basket of securities (portfolio). Unique Morningstar identifier for every unique basket of	Х
POLIUIIUIU	length: 36	securities (portfolio) in alphanumeric form.	X
MasterPortfoliold	varchar Max length: 36	Unique Morningstar identifier for every unique basket of securities (portfolio) in integer format.	X
EffectiveDate	Date format is yyyymmdd.	Close: Indicative of when the reported data within the file is applicable. Pro Forma: Pro Forma Effective Date	Х
IndexId	varchar; Max. Length: 10	Unique Morningstar identifier for every index (a specific currency and return variant of the given portfolio).	Х
Performanceld	varchar; Max. Length: 10	Unique Morningstar identifier for every performance stream for an instrument.	Х
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.	Х
IndexName	varchar; Max. Length: 128	Official name of the index, including currency and return variant.	Х
Currency	varchar Max length: 3	Currency that applies for all currency denominated data points in the file.	X
IndexLevel	numeric Max length:64, Scale:18	Applies only to Close file. Daily value of the index portfolio.	Х
MarketValue	numeric Max length:64, Scale:18	Sum of all weighted constituent index market value. For private equity, this applies only to both the PR and TR variants. See Appendix 1 for more info.	Х
FxRate	numeric Max length:38, Scale:18	Foreign exchange rate to translate the local price to the base currency price.	х



Data Point (Column Header)	Data Type	Definition	Close 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).	X
ConstituentCount	numeric; Max. Length: 38	Close: The number of securities that make up the index portfolio at the end-of-day close.	Х
IndexDividendPoints	numeric Max length:38, Scale:18	Applies only to TR variants; in the Close file only. For Total Return - Calculated as [sum of total daily dividend/divisor].	x TR only, value = 0
Return	numeric Max length:64, Scale:18	Applies only to the Close file. Calculated using [IndexLevel _t /Index Level _{t-1}] - 1 for price return. Please refer to the Index Calculation Methodology document for Gross/ Total Return calculation.	Х
ReturnType	varchar TR GR PR	Applies only to the Close file. Displays return variant as per calculation methodology. For Private Equity, return types only include Price Return (PR), Total/ Gross Return (TR or GR).	x PR, GR only
ReturnPeriod	text Daily or Monthly	Reflects the period used in return calculation. Return period can be Daily or Monthly. Only Daily Return is supported currently.	х
BloombergTicker	varchar Max length: 32	Bloomberg Ticker, provided on best effort basis.	Х
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.	х
HedgedToCurrency	varchar Max length: 3	Applies only to hedged indexes, reflects the currency that the variant is hedged to.	Х
PublishDateTime	timestamp yyyy- mm- ddThh:mm:ssZ	Time when index file is published.	Х
FileType	text CLS	Indicates the portfolio file type. For private equity, only Close files = 'CLS' are supported.	х
FxSource	varchar Max length: 32	Reflects timing of WMR foreign exchange timings, for example – LDN4PM, SYD4PM and SG5PM.	Х
LINE COUNT	numeric Max length: 38	The number of data rows included in the file, excluding the LINE COUNT row itself.	х



Index Constituent File Contents

This file format is used to send constituent close 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
PortfolioName	varchar Max length: 128	Official name of the index, as represented by the unique basket of securities (portfolio).	Х
Portfoliold	varchar Max length: 36	Unique Morningstar identifier for every unique basket of securities (portfolio) in alphanumeric form.	Х
MasterPortfoliold	varchar Max length: 36	Unique Morningstar identifier for every unique basket of securities (portfolio) in integer form.	X
EffectiveDate	Date format is yyyymmdd.	Close: Indicative of when the reported data within the file is applicable. Pro Forma: Pro Forma Effective Date	х
ConstituentName	varchar Max length: 1024	Name of the constituent security.	Х
CompanyId	varchar Max length: 10	Unique Morningstar identifier for every company.	х
Performanceld	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.	Х
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.	Х
CUSIP	varchar Max length: 15	Constituent's 9-character CUSIP identifier, provided on best effort basis. This is an entitled data point.	Null
ISIN	varchar Max length: 15	Constituent's 12-character ISIN identifier, provided on best effort basis. This is an entitled data point.	Null
SEDOL	varchar Max length: 15	Constituent's 7-character SEDOL identifier, provided on best effort basis. This is an entitled data point.	Null
Ticker	varchar Max length: 15	Constituent's stock ticker for the exchange, provided on best effort basis.	Х



Data Point (Column Header)	Data Type	Data Point Definition	Close File
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.	Х
SectorId	Integer Max Length: 10	Sector assigned to the constituent company, as defined by the Morningstar Global Equity Classification (GECS).	Х
Industryld	Integer Max length: 10	Industry assigned to the constituent company, as defined by the Morningstar Global Equity Classification Structure (GECS).	Х
GICSSubInd	Integer; Max Length: 10	GICS classification code assigned to the security. Entitled data point.	Null
CountryOfClassification	Text; Max. Length: 2	For private equity, country where the company headquarter is located, as captured by Pitchbook.	х
CountryOfDomicile	Text; Max. Length: 2	For private equity, country where the company headquarter is located, as captured by Pitchbook.	х
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
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.	Х
Currency	Text; Max. Length: 3	Currency of the Local Close Price for the constituent security.	Х
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.	х
FxRate	numeric Max length:64, Scale:18	Foreign exchange rate to translate the local price to the base currency price.	x Value = 1
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 USD



Data Point (Column Header)	Data Type	Data Point Definition	Close File
BaseCurrencyPrice	numeric Max length:64, Scale:18	Local close price translated to the base currency. For private equity, this is calculated using Morningstar Mark-To-Model Pricing Methodology. Price can change daily based on Morningstar's proprietary pricing model, accounting for the firm's post-deal valuation value available after each financing round.	х
TotalOutstandingShares	numeric Max length:64, Scale:18	Latest number of shares outstanding for the constituent security. Default to 10,000 for Private Equity indexes.	X
MarketCap	numeric Max length:38, Scale:18	Total unadjusted market capitalization of the constituent security. For private equity, this is calculated using BaseCurrencyPrice * 10,000.	Х
Size	varchar Max length: 15	Size assignment by Morningstar. This applies only to Style indexes.	Х
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.	Х
WeightAdjustmentFactor	numeric Max length:64, Scale:18	Additional weight factor adjustments, as needed for specific methodologies. Not available for private equity.	Х
IndexShares	numeric Max length:64, Scale:18	For private equity, Number of shares for the constituent security used for index calculations. This is calculated using synthetic TotalOutstandingShares * FloatFactor (default=1) * WeightAdjusmentFactor.	х
IndexMarketValue	numeric Max length:64, Scale:18	Portion of the constituent security's market cap used for index calculations. For private equity, this is calculated using index Shares * BaseCurrencyPrice	Х
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.	Х
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. Excludes Special Dividend.	Null



Data Point (Column Header)	Data Type	Data Point Definition	Close File
NetDividend	numeric Max length:64, Scale:18	Net dividend (Gross dividend less tax and franking) for the constituent security, with an exdate of the current day. Tax and franking rates used are as of ex-date. For ADRs, this is also net of DR fees.	Null
PriceReturn	numeric Max length:64, Scale:18	Reflects % change in price for the constituent security. This is calculated using (BaseCurrencyPrice: / BaseCurrencyt-1) - 1.	Х
TotalReturn	numeric Max length:64, Scale:18	Reflects % change in price and dividends for the constituent security. This is calculated using ((BaseCurrency _t +Dividend _t)/ BaseCurrency _{t-1}) - 1.	Null
NetReturn	numeric Max length:64, Scale:18	Reflects % change in price and net dividends for the constituent security. This is calculated using ((BaseCurrencyt+NetDividendt)/ BaseCurrencyt-1) - 1.	Null
ReturnPeriod	Daily or Monthly	Reflects the period used in return calculation. Return period can be Daily or Monthly. Only Daily Return is supported currently.	Х
FileType	Text; Max. Length: 5	Indicates the data file type. For private equity only Close Files = 'CLS' is calculated.	X
BloombergTicker	varchar Max length:20	Constituent's Bloomberg ticker, provided on best effort basis.	Х
Tax Rate	numeric Max length:38, Scale:9	The withholding tax rate used to calculate Net Dividend and Net Return.	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	varchar Max length:20	Indicates that this reflects the rebalance/ reconstitution index basket. Applies only to the Pro Forma file. 'TRUE' for Reconstitution and Rebalance effective date.	Х
PitchBookCIK	varchar Max length:20	Constituent's 10-digit CIK identifier as listed on the PitchBook platform.	Х
PitchBookIndustryCode	varchar Max length: 128	The most specific principal business focus of a company available in PitchBook's industry classification system.	Х
PitchBookld	varchar Max length:20	Unique PitchBook identifier for every company.	X
TotalValuation	numeric Max length:64, Scale:18	Total valuation estimated by the pricing model.	Х



Data Point (Column Header)	Data Type	Data Point Definition	Close File
RefDatald5	-	Placeholder column for future reference data additions.	Х
PublishDateTime	timestamp yyyy-mm- ddThh:mm:ssZ	Date and time when index file is published.	Х
LINE COUNT	numeric; Max. 5	The number of data rows included in the file, excluding the LINE COUNT row itself.	Х



Index Corporate Action File Contents

This file is available only for select private equity indexes.

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).
Portfoliold	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.	For private equity, this reflects the date the corporate action is captured by PitchBook.
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.
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 corporate actions data is applicable. Also known as the "ex-date". Not available for Status = Pending actions. For private equity, this will be the Announcement Date + 2 business days.
	Integral May	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 &
SequenceNumber	Integer; Max. Length: 1,000	Rebalance, Composition Change.
		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.
NewConstituentName	varchar Max length: 1024	The new name of the constituent as of the Effective Date.
Performanceld	varchar Max length: 10	For private equity, Unique Pitchbook identifier for every company.



Data Point (Column Header)	Data Type	Definition
NewPerformanceId	varchar Max length: 10	For private equity, the new Unique Pitchbook identifier for every company as of the Effective Date.
BloombergTicker	varchar Max length: 10	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. Not available for private equity.
NewBloombergTicker	varchar Max length: 10	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. Not available for private equity.
CUSIP	varchar Max length: 15	Constituent's current 9-character CUSIP identifier, provided on best effort basis. Not available for private equity.
NewCUSIP	varchar Max length: 15	Constituent's new 9-character CUSIP identifier as of the EFFECTIVE DATE, provided on best effort basis. Not available for private equity.
ISIN	varchar Max length: 15	Constituent's current 12-character ISIN identifier, provided on best effort basis. Not available for private equity.
NewISIN	varchar Max length: 15	Constituent's new 12-character ISIN identifier as of the EFFECTIVE DATE, provided on best effort basis. Not available for private equity.
SEDOL	varchar Max length: 15	Constituent's current 7-character SEDOL, provided on best effort basis. Not available for private equity.
NewSEDOL	varchar Max length: 15	Constituent's new 7-character SEDOL identifier as of the EFFECTIVE DATE, provided on best effort basis. Not available for private equity.
Ticker	varchar Max length: 15	Constituent's current stock ticker, associated with the exchange the constituent is traded on. Provided on best effort basis. Not available for private equity.
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. Not available for private equity.
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. Not available for private equity.
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. Not available for private equity.
SectorId	Integer Max Length: 10	Current Sector assigned to the constituent company, as defined by the Morningstar Global Equity Classification Structure (GECS). Not available for private equity.
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. Not available for private equity.
Industryld	Integer Max length: 10	Industry assigned to the constituent company, as defined by the Morningstar Global Equity Classification Structure (GECS). Not available for private equity.
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. Not available for private equity.



Data Point (Column Header)	Data Type	Definition
GICSSubInd	Integer; Max Length: 10	Constituent's current Global Industry Classification Standard code, comprising of 8 digits. Not available for private equity.
NewGICSSubInd	Integer; Max Length: 10	Constituent's new Global Industry Classification Standard code, comprising of 8 digits as of the EFFECTIVE DATE. Not available for private equity.
CountryOfClassification	Text; Max. Length: 2	For private equity, the country where the company headquarters is located, as captured by PitchBook.
NewCountryOfClassific ation	Text; Max. Length: 2	For private equity, the new country where the company headquarters is located, as captured by PitchBook, as of the Effective Date.
CountryOfDomicile	Text; Max. Length: 2	For private equity, the country where the company headquarters is located, as captured by PitchBook.
NewCountryOfDomicile	Text; Max. Length: 2	For private equity, the new country where the company headquarters is located, as captured by PitchBook, 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.
NewTotalOutstandingS hares	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.
WeightAdjustmentFacto r	numeric Max length:64, Scale:18	Additional weight factor adjustments, as needed for specific methodologies.
NewWeightAdjustment Factor	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).
SharesAdjustmentFacto r	numeric Max length:64, Scale:18	Number of new shares per old
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.
SubscriptionPriceCurre ncy	varchar Max length: 3	Currency of subscription price of capital increase.



Data Point (Column Header)	Data Type	Definition
PriceAdjustmentFactor	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. Not available for private equity.
NewLocalClosePrice	numeric Max length:64, Scale:18	Closing price adjusted for corporate actions as of the EFFECTIVE DATE. Not available for private equity.
PriceCurrency	varchar Max length: 3	Not available for private equity.
NewPriceCurrency	varchar Max length: 3	Not available for private equity.
DividendCurrency	varchar Max length: 3	The 3-character ISO currency code for the currency the dividend is paid in. Not available for private equity.
DividendPayDate	Date format is yyyymmdd.	Payment date of cash or special dividend Not available for private equity.
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. Not available for private equity.
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. Not available for private equity.
FrankingRate	numeric Max length:64, Scale:18	Franking rate for Australian dividends. Not available for private equity.
TaxRate	numeric Max length:64, Scale:18	Current tax rate.
Parent/AcquirerName	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/AcquirerCompa nyTicker Spunoff/TargetSecurity	varchar Max length: 15 varchar Max	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. Name of spun-off company in a spin-off event, or the target company in a
Name	length: 1024 varchar Max	merger/acquisition (M&A), as of the EFFECTIVE DATE. Ticker of spun-off company in a spin-off event, or the target company in a
Spunoff/TargetTicker Spunoff/TargetSecurityl SIN	length: 15 varchar Max length: 15	merger/acquisition (M&A), as of the EFFECTIVE DATE. Provided on a best effort basis. 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/TargetSecurity SEDOL Spunoff/TargetSecurity	varchar Max length: 15 varchar Max	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. CUSIP of spun-off company in a spin-off event, or the target company in a
CUSIP Spunoff/TargetSecurity	length: 15 varchar Max	merger/acquisition (M&A), as of the EFFECTIVE DATE. Provided on a best effort basis.
Currency Spunoff/TargetSecurity CountryOfIncorporation	length: 3	Price currency of the spun-off or target company shares. Country of Incorporation of the spun-off or target company shares.



Data Point (Column Header)	Data Type	Definition
Spunoff/TargetSecurity PerformanceId	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/TargetSecurity	varchar Max	Market Identifier Code of the spun-off company in a spin-off event, or the target company
MIC	length: 15	in a merger/acquisition (M&A), as of the EFFECTIVE DATE. Provided on a best effort basis.
Spunoff/TargetSecurityl	varchar Max	YES/NO flag, used to identify if the spun-off or M&A target stock is also a current index
sIndexConstituent	length: 1024	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.
TenderOfferExpirationD ate	Date format is yyyymmdd.	Expiration date of tender offer.
ExpectedCompletionDat e	,,,,	Expected completion date of tender offer.
ExpectedDelistingDate	Date format is yyyymmdd.	Expected delisting date of security.
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.
Rights Offering	Information	Information regarding rights shares offered by a company to its shareholders at a specified price.
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.
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.
Stock split	Shares or Weights Change	Stock split increases the number of shares and reduces 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 in a constituent's investable weight factor, not during a reconstitution or rebalance event.



File and Delivery Specification Version History

Version	Date	Description
1	November, 2023	First publication of Private Equity specification
2	June, 2025	Format and font style updated. No changes to content.



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.

Morningstar Index Methodology Committee

The Morningstar Index Methodology Committee oversees all new index development, index methodology changes, and cessation of indexes for any indexes where Morningstar owns the intellectual property. This committee is also charged with ensuring that indexes align with Morningstar Research principles and values. The group comprises members of the index team with index research, product development, product management, client service, index implementation, and operation expertise who provide the first layer of governance over index design and methodology.

Morningstar Index Services Methodology & Administration Committee

The purpose of the Morningstar Index Services Methodology & Administration Committee is to oversee all new index development, index methodology changes, and cessation of indexes for any indexes where Morningstar provides calculation and administration services but does not own the Intellectual Property of the indexes. The group is comprised of members of the index team with index research, product development, product management, client service, index implementation and operation expertise who provide the first layer of governance over the index calculation services and administration business, with regard to index design and methodology.

Morningstar Index Operations Committee

The Morningstar Index Operations Committee governs the processes, systems, and exception handling of the day-to-day management of all live indexes, including index rebalancing and reconstitution, restatements, market classification, and contingency management. The committee oversees the annual review of index methodology, as required by European Benchmarks Regulation (the "BMR"), ensuring that methodologies remain fit for purpose and continue to achieve their stated investment objectives. The group comprises members of the index team with data, operations, corporate actions, product development, index launch, client service, and index management experience who provide the first layer of governance over index operations.

Morningstar Index Oversight Committee

The Morningstar Index Oversight Committee is responsible for the index oversight function as per the requirements of the European Benchmarks Regulation (the "BMR"), providing independent oversight of all aspects of the governance of benchmark administration. Its remit extends to all calculation and administration-related business activities of Morningstar Indexes, including administration of Morningstar-owned benchmarks as well as client-owned benchmarks and index calculation. The oversight function is part of the organizational structure of Morningstar but is separate and independent from the index business, index management, and the other index committees.

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