# CRSP US STOCK & INDEXES DATABASES GUIDE

## FLAT FILE FORMAT 1.0

**CRSP®** | **CENTER FOR RESEARCH IN SECURITY PRICES**
An Affiliate of the University of Chicago

## CRSP CONTACT INFORMATION

105 West Adams, Suite 1700

Chicago, IL 60603

Tel:  312.263.6400

Fax:  312.263.6430

For further information, please visit our website at www.crsp.org or email support@crsp.org.

# CRSP US STOCK & INDEXES:SAS, ASCII & R FILES

## FLAT FILE TABLE LAYOUTS

Five sets of flat files are built from the CRSP Stock and Index databases. A number of our subscribers have long requested alternate formats of our databases in order to automate or streamline their processes and easily ingest CRSP data into them. These flat files are intended for these purposes.

- SIZ — 1925 US Stock and Indexes
- SAZ — 1925 US Stock
- SXZ — 1962 US Stock and Indexes
- S6Z — 1962 US Stock
- SFZ — 1925 US Indexes

| STOCK FILES | FILE NAME | FILE EXTENSIONS |
|---|---|---|
| Delist — Daily Return Information | sfz_del | |
| Delist — Monthly Return Information | sfz_mdel | |
| Distributions | sfz_dis | |
| Name History | sfz_nam | |
| NASDAQ History | sfz_ndi | |
| Security Header Information | sfz_hdr | |
| Shares History | sfz_shr | SAS: *.sas7bdat |
| Time Series — Daily Primary | sfz_dp_dly | ASCII: *.dat |
| Time Series — Daily Secondary | sfz_ds_dly | R: *.rds |
| Time Series — Monthly | sfz_mth | |
| Time Series — monthly — aggregated from daily data | sfz_agg_mth | |
| Time Series — quarterly — aggregated from daily data | sfz_agg_qtr | |
| Time Series — annual — aggregated from daily data | sfz_agg_ann | |

| STOCK AND INDEX FILES * | FILE NAME | FILE EXTENSIONS |
|---|---|---|
| Index Membership | sfz_mbr | SAS: *.sas7bdat |
| Portfolio Membership — Daily | sfz_portd | ASCII: *.dat |
| Portfolio Membership — Monthly | sfz_portm | R: *.rds |

| INDEX FILES | FILE NAME | FILE EXTENSIONS |
|---|---|---|
| Index Header | sfz_indhdr | SAS: *.sas7bdat |
| Rebalance* | sfz_rb | ASCII: *.dat |
| Time Series — Daily Index | sfz_dind | R: *.rds |
| Time Series — Monthly Index | sfz_mind | |

*Available in 1925 and 1962 US Stock & Indexes, and 1925 US Indexes, but are NOT available in 1925 and 1962 US Stock.*

Index Header and Time Series data items are available in the stock-only database for a limited number of indexes. To receive complete index, a subscription that includes indexes is necessary.

# OVERVIEW

Comparisons between the legacy CRSPAccess Stock and Index databases and the CRSP flat files will reveal differences, outlined here:

## DERIVED DATA

The flat files provide all of the underlying data that can be used to generate derived data items. Monthly, quarterly, and annual tables of many items aggregated from the daily time series are included. Examples of derived data that TSQuery and ts_print can generate that are not found in the flat files include excess and cumulative returns, last non-missing, recent, previous period versions of time series data items.

## DOUBLE PRECISION

CRSPAccess stored most items, including commonly used Price (PRC), Ask or High Price (ASKHI), and Bid or Low Price (BIDLO), as 4-byte floating point numbers. The SAS and `R' formats default to storing those items as 8-byte (double precision) floating point numbers. For the majority of historical values, this does not result in any difference. However, the conversion to double precision, makes more apparent a known issue of phantom precision related to decimal pricing. For example, IBM's price on 11/27/2015 of $138.46 will, if displayed with five decimal places, show $138.46001. For the post-2000 period, the flat files "round" these values by converting to a seven significant digits (the limit of a 4-byte floating point number) in scientific notation (e.g. 1.384600E+02) version of the number and storing it in a 8-byte floating point number. For the ASCII flat files, these are then output with 14 significant digits (the limit of the 8-byte floating point number) in scientific notation (e.g. 1.3846000000000E+02).

CRSP is re-engineering our back office to correct any remaining phantom precision and increase the real precision throughout the Stock and Indexes flat files.

## INDEX FILES CHANGES

- The investable CRSP Total Market Index is included in the index files associated with the stock and index database. Daily price-only and total returns, levels, and counts are included.
- Starting with the 202009 database
  - The breakpoint data that is projected based on partial year data is now removed. For example, in the 202009 cut of data, the capitalization breakpoints for 2021 are no longer projected based on 9/30/2020 data, and will not be included until after the 12/31/2020 data is available
  - The daily and monthly index files will no longer contain rows with missing data prior to the start of an index. The start date of the index is stored in Index Begin Date in the Index Header File.

## VOLUMES DIFFERENCES

The introduction of double precision allows for the volumes to be stored in same unit (1 share) as daily volumes rather than as a unit of 100 shares. Monthly volumes in the flat files are now stored as one hundred times the value in legacy CRSPAccess. The change also allowed for four missing daily volumes for Citigroup in 2009 and 2010 to be replaced with actual values that were in excess of two billion, and for those monthly volumes to be recalculated.

| KYPERMNO | CALDT | NEW VOL | MCALDT | NEW MVOL |
|----------|-------|---------|--------|----------|
| 70519 | 08/05/2009 | 2,674,463,281 | 08/31/2009 | 22,798,732,177 |
| 70519 | 12/17/2009 | 3,772,638,437 | 12/31/2009 | 15,021,795,593 |
| 70519 | 12/18/2009 | 2,813,697,156 | | |
| 70519 | 12/07/2010 | 3,267,829,406 | 08/31/2009 | 13,427,190,606 |

# DATA CATEGORY

Each data item in each table is associated with a Data Category. The Data Category identifies the type of item and the associated formats for use with SAS, ASCII, R, and SQL.

| DATA CATEGORY | DESCRIPTION | SAS TYPE | SAS FORMAT | ASCII | SQL TYPE | R TYPE |
|---|---|---|---|---|---|---|
| Description | Wide character field containing text information | Character | $w. | | varchar(w) | Text |
| Id | Field containing an alphanumeric identifier | Character | $w. | | varchar(w) | Text |
| Flag | Alphanumeric field containing a code value | Character | $w. | | varchar(w) | Text |
| Name | Alphanumeric field for names | Character | $w. | | varchar(w) | Text |
| Date | Date field | Numeric | yyyymmdd10. | YYYY-MM-DD | Date | date |
| Start Date | Start of a date range - paired with an end date | Numeric | yyyymmdd10. | YYYY-MM-DD | Date | date |
| End Date | End of a date range - paired with a start date | Numeric | yyyymmdd10. | YYYY-MM-DD | Date | Date |
| Timestamp | Date and time, including seconds | Numeric | datetime | YYYY-MM-DD HH:MM:SS | Datetime | datetime |
| Amount | Fixed point number | Numeric | w.n | ww.nnnnn | Decimal (p,n) | Float |
| Ratio | Calculated floating point number | Numeric | percentw.n | 1.234567890123E+12 | Float | Float |
| Value | Field with a wide range of values | Numeric | e20. | 1.234567890123E+12 | Float (or decimal) | Float |
| Code | Integer field that represents one or more characteristics | Numeric | w. | nnnn | Int | int |
| Key | Integer field that is used as a key | Numeric | w. | nnnnnnn | int | int |
| Number | Integer value < 2,000,000,000 | Numeric | w. | nnnnnnnnn | int | int |
| Quantity | Integer field with some values in excess of 2,000,000,000 | Numeric | commaw. | nnnnnnnnnnnn | bigint | Float |

## MISSING VALUES

In CRSPAccess, missing values were indicated by the use of defined non-null values (e.g -99 for returns and 0 for prices). In the flat files, missing values are now represented by null values.

Missing values are displayed as follows:

- ASCII missing values, regardless of type, is an empty string.
- SAS missing values are an empty string for character fields and SAS missing (displayed as a.) for numeric fields.
- R missing values are an empty string for character fields, and 'R' missing (displayed as N/A) for float, int, date and datetime.

# STOCK DATA FILE LAYOUTS

Note: Sort column references items in each table that, combined in the prescribed order, will identify unique records. These fields are usually a combination of one key and one date field, but sometimes includes other fields.

## DELIST — DAILY DELISTING RETURN INFORMATION — SFZ_DEL

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|------|-------------|-------------|---------------|
| 1 | KYPERMNO | PERMNO | Key |
| 2 | DLSTDT | Delist Date | Date |
| | DLSTCD | Delist Code | Code |
| | NWPERM | New PERMNO | Key |
| | NWCOMP | New PERMCO | Key |
| | NEXTDT | Date of Next Available Information | Date |
| | DLPRC | Delisting Price | Value |
| | DLPDT | Delisting Payment Date | Date |
| | DLAMT | Delisting Amount | Value |
| | DLRET | Delisting Return | Ratio |
| | DLRETX | Delisting Return without Dividends | Ratio |

## DELIST — MONTHLY DELISTING RETURN INFORMATION — SFZ_MDEL

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|------|-------------|-------------|---------------|
| 1 | KYPERMNO | PERMNO | Key |
| 2 | MDLSTDT | Delist Date | Date |
| | MDLSTCD | Delist Code | Code |
| | MNWPERM | New PERMNO | Key |
| | MNWCOMP | New PERMCO | Key |
| | MNEXTDT | Date of Next Available Information | Date |
| | MDLPRC | Delisting Price | Value |
| | MDLPDT | Delisting Payment Date | Date |
| | MDLAMT | Delisting Amount | Value |
| | MDLRET | Delisting Return | Ratio |
| | MDLRETX | Delisting Return without Dividends | Ratio |

## DISTRIBUTIONS — SFZ_DIS

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|------|-------------|-------------|---------------|
| 1 | KYPERMNO | PERMNO | Key |
| 3 | DISTCD | Distribution Code | Code |
| | DIVAMT | Dividend Amount | Value |
| | FACPR | Factor to Adjust Price | Ratio |
| | FACSHR | Factor to Adjust Shares | Ratio |
| | DCLRDT | Declaration Date | Date |
| 2 | EXDT | Ex-Distribution Date | Date |
| | RCRDDT | Record Date | Date |
| | PAYDT | Payment Date | Date |
| 4 | ACPERM | Acquiring PERMNO | Key |
| | ACCOMP | Acquiring PERMCO | Key |

## NAME HISTORY — SFZ_NAM

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|------|-------------|-------------|---------------|
| 1 | KYPERMNO | PERMNO | Key |
| 2 | NAMEDT | Name History Begin Date | Start Date |
| | NAMEENDDT | Name History End Date | End Date |
| | NCUSIP | CUSIP | ID |
| | NCUSIP9 | CUSIP9 | ID |
| | TICKER | Ticker | ID |
| | COMNAM | Company Name | Name |
| | SHRCLS | Share Class | Flag |
| | SHRCD | Share Code | Code |
| | EXCHCD | Exchange Code | Code |
| | SICCD | SIC Code | Code |
| | TSYMBOL | Trading Symbol | ID |
| | SNAICS | NAICS Code | ID |
| | PRIMEXCH | Primary Exchange | Flag |
| | TRDSTAT | Trading Status | Flag |
| | SECSTAT | Security Status | Flag |

## NASDAQ HISTORY — SFZ_NDI

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|------|-------------|-------------|---------------|
| 1 | KYPERMNO | PERMNO | Key |
| 2 | TRTSDT | NASDAQ Traits Begin Date | Start Date |
| | TRTSENDDT | NASDAQ Traits End Date | End Date |
| | NSDINX | NASDAQ Index Code | Code |
| | NMSIND | NASDAQ Market Indicator | Code |
| | MMCNT | NASDAQ Market Makers | Number |
| | TRTSCD | NASDAQ Status Code | Code |

## SECURITY HEADER INFORMATION — SFZ_HDR

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|------|-------------|-------------|---------------|
| 1 | KYPERMNO | PERMNO | Key |
| | CUSIP | CUSIP | ID |
| | CUSIP9 | CUSIP9 | ID |
| | HTICK | Ticker Symbol | ID |
| | PERMCO | PERMCO | Key |
| | COMPNO | NASDAQ Company Number | Key |
| | ISSUNO | NASDAQ Issue Identifier | Key |
| | HEXCD | Exchange Code | Code |
| | HSICCD | SIC Code | Code |
| | BEGDT | Stock Data Begin Date | Start Date |
| | ENDDT | Stock Data End Date | End Date |
| | HDLSTCD | Delist Code | Code |

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|---|---|---|---|
| | HCOMNAM | Company Name | Name |
| | HTSYMBOL | Trading Symbol | ID |
| | HSNAICS | NAICS Code | ID |
| | HSHRCD | Share Code | Code |
| | HPRIMEXCH | Primary Exchange | Flag |
| | HTRDSTAT | Trading Status | Flag |
| | HSECSTAT | Security Status | Flag |

## SHARES HISTORY — SFZ_SHR

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|---|---|---|---|
| 1 | KYPERMNO | PERMNO | Key |
| 2 | SHRSDT | Shares Out Observation Date | Start Date |
| | SHRSENDDT | Shares Out Observation End Date | End Date |
| | SHROUT | Shares Outstanding | Number |
| | SHRFLG | Shares Out Observation Flag | Code |

## TIME SERIES — DAILY PRIMARY — SFZ_DP_DLY

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|---|---|---|---|
| 1 | KYPERMNO | PERMNO | Key |
| 2 | CALDT | Date | Date |
| | PRC | Price or Bid/Ask Average | Value |
| | RET | Total Return | Ratio |
| | RETX | Return without Dividends | Ratio |
| | TCAP | Capitalization, End of Period | Value |
| | VOL | Volume | Quantity |

## TIME SERIES — DAILY SECONDARY — SFZ_DS_DLY

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|---|---|---|---|
| 1 | KYPERMNO | PERMNO | Key |
| 2 | CALDT | Date | Date |
| | BIDLO | Bid or Low Price | Value |
| | ASKHI | Ask or High Price | Value |
| | BID | Bid | Value |
| | ASK | Ask | Value |
| | NUMTRD | NASDAQ Number of Trades | Number |
| | OPENPRC | Open Price | Value |

## TIME SERIES — MONTHLY — SFZ_MTH

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|---|---|---|---|
| 1 | KYPERMNO | PERMNO | Key |
| 2 | MCALDT | Date | Date |
| | MPRC | Price or Bid/Ask Average | Value |
| | MRET | Total Return | Ratio |

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|---|---|---|---|
| | MRETX | Return without Dividends | Ratio |
| | MTCAP | Capitalization, End of Period | Value |
| | MVOL | Volume | Quantity |
| | MBIDLO | Bid or Low Price | Value |
| | MASKHI | Ask or High Price | Value |
| | MBID | Bid | Value |
| | MASK | Ask | Value |
| | MSPREAD | Closing Bid/Ask Spread | Value |
| | MALTPRC | Alternate Price | Value |
| | MALTPRCDT | Alternate Price Date | Date |

## TIME SERIES — MONTHLY — AGGREGATED FROM DAILY DATA — SFZ_AGG_MTH

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|---|---|---|---|
| 1 | KYPERMNO | PERMNO | KEY |
| 2 | YYYYMM | Integer year and month | KEY |
| | MCALDT | Date | DATE |
| | MTHPRC | Monthly Price or Bid/Ask Average | Value |
| | MTHPRCFLG | Monthly price flag | FLAG |
| | MTHPRCDT | Monthly price date | DATE |
| | MTHDTFLG | Monthly date flag | FLAG |
| | MTHDELFLG | Monthly delisting flag | FLAG |
| | MTHCAP | Monthly market capitalization | Value |
| | MTHPREVPRC | Monthly previous price | Value |
| | MTHPREVPRCFLG | Monthly previous price flag | FLAG |
| | MTHPREVDT | Monthly previous date | DATE |
| | MTHPREVDTFLG | Monthly previous date flag | FLAG |
| | MTHPREVCAP | Monthly previous capitalization | Value |
| | MTHRET | Monthly total return | RATIO |
| | MTHRETX | Monthly Return without dividends | RATIO |
| | MTHRETFLG | Monthly Return flag | FLAG |
| | MTHDISCNT | Monthly distribution count | NUMBER |
| | MTHVOL | Monthly Volume traded | Quantity |
| | MTHVOLFLG | Monthly volume flag | FLAG |
| | MTHPRCVOL | Monthly price volume | Value |
| | MTHFACSHRFLG | Monthly share factor flag | FLAG |
| | MTHPRCVOLMISSCNT | Monthly count of missing prices or volumes | NUMBER |
| | NCUSIP | cusip associated with the period | ID |
| | TICKER | Ticker associated with the period | ID |
| | COMNAM | Company name associated with the period | NAME |
| | SHRCD | Share code associated with the period | CODE |
| | NMSIND | NASDAQ MARKET INDICATOR associated with the period | CODE |
| | PRIMEXCH | Primary exchange associated with the period | FLAG |
| | TRDSTAT | Trading status associated with the period | FLAG |
| | SECSTAT | Security status associated with the period | FLAG |

## TIME SERIES — QUARTERLY — AGGREGATED FROM DAILY DATA — SFZ_AGG_QTR

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|---|---|---|---|
| 1 | KYPERMNO | PERMNO | KEY |
| 2 | YYYYQ | Integer year and calendar quarter in the year | KEY |
| | QCALDT | Date | DATE |
| | QTRPRC | Quarterly Price or Bid/Ask Average | Value |
| | QTRPRCFLG | Quarterly price flag | FLAG |
| | QTRPRCDT | Quarterly price date | DATE |
| | QTRDTFLG | Quarterly date flag | FLAG |
| | QTRDELFLG | Quarterly delisting flag | FLAG |
| | QTRCAP | Quarterly market capitalization | Value |
| | QTRPREVPRC | Quarterly previous price | Value |
| | QTRPREVPRCFLG | Quarterly previous price flag | FLAG |
| | QTRPREVDT | Quarterly previous date | DATE |
| | QTRPREVDTFLG | Quarterly previous date flag | FLAG |
| | QTRPREVCAP | Quarterly previous capitalization | Value |
| | QTRRET | Quarterly total return | RATIO |
| | QTRRETX | Quarterly return without dividends | RATIO |
| | QTRRETFLG | Quarterly Return flag | FLAG |
| | QTRDISCNT | Quarterly distribution count | NUMBER |
| | QTRVOL | Quarterly Volume traded | Quantity |
| | QTRVOLFLG | Quarterly volume flag | FLAG |
| | QTRPRCVOL | Quarterly price volume | Value |
| | QTRFACSHRFLG | Quarterly Share factor flag | FLAG |
| | QTRPRCVOLMISSCNT | Quarterly COUNT OF MISSING PRICES OR VOLUMES | NUMBER |
| | NCUSIP | cusip associated with the period | ID |
| | TICKER | Ticker associated with the period | ID |
| | COMNAM | Company name associated with the period | NAME |
| | SHRCD | Share code associated with the period | CODE |
| | NMSIND | NASDAQ MARKET INDICATOR associated with the period | CODE |
| | PRIMEXCH | Primary exchange associated with the period | FLAG |
| | TRDSTAT | Trading status associated with the period | FLAG |
| | SECSTAT | Security status associated with the period | FLAG |

## TIME SERIES — ANNUAL — AGGREGATED FROM DAILY DATA — SFZ_AGG_ANN

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|---|---|---|---|
| 1 | KYPERMNO | PERMNO | KEY |
| 2 | YYYY | Integer year | KEY |
| | ACALDT | Date | DATE |
| | ANNPRC | Annual Price or Bid/Ask Average | Value |
| | ANNPRCFLG | Annual price flag | FLAG |
| | ANNPRCDT | Annual price date | DATE |
| | ANNDTFLG | Annual date flag | FLAG |
| | ANNDELFLG | Annual delisting flag | FLAG |
| | ANNCAP | Annual market capitalization | Value |

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|---|---|---|---|
| | ANNPREVPRC | Annual previous price | Value |
| | ANNPREVPRCFLG | Annual previous price flag | FLAG |
| | ANNPREVDT | Annual previous date | DATE |
| | ANNPREVDTFLG | Annual previous date flag | FLAG |
| | ANNPREVCAP | Annual previous capitalization | Value |
| | ANNRET | Annual total return | RATIO |
| | ANNRETX | Annual return without dividends | RATIO |
| | ANNRETFLG | Annual Return flag | FLAG |
| | ANNDISCNT | Annual distribution count | NUMBER |
| | ANNVOL | Annual Volume traded | Quantity |
| | ANNVOLFLG | Annual volume flag | FLAG |
| | ANNPRCVOL | Annual price volume | Value |
| | ANNFACSHRFLG | Annual Share Factor flag | FLAG |
| | ANNPRCVOLMISSCNT | Annual COUNT OF MISSING PRICES OR VOLUMES | NUMBER |
| | NCUSIP | CUSIP associated with the period | ID |
| | TICKER | Ticker associated with the period | ID |
| | COMNAM | Company name associated with the period | NAME |
| | SHRCD | Share code associated with the period | CODE |
| | NMSIND | NASDAQ MARKET INDICATOR associated with the period | CODE |
| | PRIMEXCH | Primary exchange associated with the period | FLAG |
| | TRDSTAT | Trading status associated with the period | FLAG |
| | SECSTAT | Security status associated with the period | FLAG |

## STOCK AND INDEX DATA FILE LAYOUTS

Available in 1925 and 1962 US Stock & Indexes, but are NOT available in 1925 and 1962 US Stock.

### INDEX MEMBERSHIP — SFZ_MBR

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|---|---|---|---|
| 1 | KYPERMNO | PERMNO | Key |
| 2 | KEYSET | INDEX FAMILY | Key |
| 3 | MBRDT | Member Begin Date | Start Date |
| | MBRENDDT | Member End Date | End Date |
| | MBRFLAG | Member Flag | Code |

### PORTFOLIO MEMBERSHIP — DAILY — SFZ_PORTD

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|---|---|---|---|
| 1 | KYPERMNO | PERMNO | Key |
| 2 | KEYSET | Index Family† | Key |
| 3 | ANNUAL | Year | Number |
| | PPORTNUM | Portfolio Decile Number | Code |
| | PINDNO | Index INDNO for Daily Family | Key |
| | PSTAT | Portfolio Statistic for Daily Family | Value |
| | PPFLG | Member Flag for Daily Family | Code |

## PORTFOLIO MEMBERSHIP – MONTHLY – SFZ_PORTM

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|------|-------------|-------------|---------------|
| 1 | KYPERMNO | PERMNO | Key |
| 2 | KEYSET | Index Family † | Key |
| 3 | ANNUAL | Year or YYYYMM for Cap-Based | Number |
| | MPPORTNUM | Portfolio Decile Number | Code |
| | MPINDNO | Index INDNO for Monthly Family | Key |
| | MPSTAT | Portfolio Statistic for Monthly Family | Value |
| | MPPFLG | Member Flag for Monthly Family | Code |

# INDEX DATA FILE LAYOUTS

## INDEX HEADER – SFZ_INDHDR

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|------|-------------|-------------|---------------|
| 1 | KYINDNO | INDNO | Key |
| | INDNAME | Index Name | Name |
| | INDBEGDT | Beginning Date of Index | Start Date |
| | INDENDDT | End Date of Index | End Date |
| | INDFAM | Index Family | Key |
| | PORTNUM | Portfolio Number | Code |
| | BASELVL | Index Base Level | Value |
| | BASEDT | Index Base Date | Date |
| | AVAILABILITY | Index Item Availability | Name |
| | CALCRULE | Index Rules | Code |
| | LISTRULE | Index Listing Exception Rules | Code |
| | METHOD | Index Methodology | Code |
| | REBALRULE | Index Rebalance Rule | Code |
| | PUNIVERSE | Universe Subset | Code |
| | UNIVERSE | Universe Used | Code |

## REBALANCE – SFZ_RB

*Available in 1925 and 1962 US Stock & Indexes, and 1925 US Indexes, but are NOT available in 1925 and 1962 US Stock.*

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|------|-------------|-------------|---------------|
| 1 | KYINDNO | INDNO | Key |
| 2 | RBBEGDT | Index Rebalancing Begin Date | Start Date |
| | RBENDDT | Index Rebalancing End Date | End Date |
| | RUSDCNT | Index Rebalancing Count | Number |
| | MINID | PERMNO Associated with Minimum Statistic | Key |
| | MAXID | PERMNO Associated with the Maximum Statistic | Key |
| | MINSTAT | Minimum Statistic | Value |
| | MAXSTAT | Maximum Statistic | Value |

## DAILY INDEX TIME SERIES — SFZ_DIND

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|------|-------------|-------------|---------------|
| 1 | KYINDNO | INDNO | Key |
| 2 | CALDT | Date | Date |
| | TRET | Total Return on Index | Ratio |
| | TIND | Total Return Index Level | Value |
| | ARET | Return without Dividends on Index | Ratio |
| | AIND | Return without Dividends Index Level | Value |
| | IRET | Income Return on Index | Ratio |
| | IIND | Income Return Index Level | Value |
| | USDCNT | Used Count | Number |
| | USDVAL | Used Value | Value |
| | TOTCNT | Total Count | Number |
| | TOTVAL | Total Value | Value |

## MONTHLY INDEX TIME SERIES — SFZ_MIND

| SORT | COLUMN NAME | DESCRIPTION | DATA CATEGORY |
|------|-------------|-------------|---------------|
| 1 | KYINDNO | INDNO | Key |
| 2 | MCALDT | Date | Date |
| | MTRET | Total Return on Index | Ratio |
| | MTIND | Total Return Index Level | Value |
| | MARET | Return without Dividends on Index | Ratio |
| | MAIND | Return without Dividends Index Level | Value |
| | MIRET | Income Return on Index | Ratio |
| | MIIND | Income Return Index Level | Value |
| | MUSDCNT | Used Count | Number |
| | MUSDVAL | Used Value | Value |
| | MTOTCNT | Total Count | Number |
| | MTOTVAL | Total Value | Value |

# FLAGS AND DATA CODING SCHEMES

## FLAGS

The CRSP Stock files contain several flags to provide more information about an observation. For most uses these distinctions are not important and the flags can be ignored, and that will include the most complete data. However, the flags could also be used to very easily exclude unusual cases in order to simplify the data by pro-actively removing potential outliers. With a large number of observations, either approach is unlikely to materially impact the results. However, if looking at a small subset of securities or observations, these flags, particularly the return flag, can identify observations that might require more investigation before including them or might point to causes if anomalies show up in the results.

### PRICE AND PREVIOUS PRICE FLAG

Price and Previous Price Flags describe the price used in the period. Closing Trade Prices account for about 81% of price and previous price values in the data set, and Bid/Ask Averages make up about 18%.

The arithmetic average of the Closing Bid and Closing Ask $\left(\frac{BID + ASK}{2}\right)$ is the value used by CRSP to calculate security returns and capitalization when a closing trading price is unavailable. Closing trading prices are unavailable for securities across all exchanges and throughout the entire history on days when there is no trading. While for most research this flag can be ignored, the subtle differences among the characteristics and behavior of closing trade prices and bid-ask averages can be important. The PRCFLG and PREVPRCFLG are provided to allow that granularity if desired. While less critical in a monthly return than in a single day return, a return that has a mix of the two represents not just the change in value of the security, but also the change in the valuation method used.

| PRCFLG PREVPRCFLG | DESCRIPTION | DEFINITION |
|---|---|---|
| TR | Trade Price | Closing Trade Price |
| BA | Bid-Ask Average | The average of the Closing Bid and the Closing Ask if no Trade Price is available |
| MP | Missing Price | If missing, the price is set to null |
| MI | Missing | PREVPRCFLG only: Previous period is before BEGDT |

### DATE AND PREVIOUS DATE FLAG

Depending on the frequency, between 90% and 98% of the flags indicate period-end (PE) dates. The vast majority of the remaining previous data flags indicate the first day of trading for a new security (NS) and the remaining date flags indicate the end date (ED) we have for the security.

The vast majority of returns, and the most comparable across securities, is a return calculated from the previous period-end price to a current period-end price. However, CRSP provides flags to identify uncommon circumstances so that they can easily be excluded, if desired, or used to select the uncommon data to determine if they are applicable before including.

For example:

- PREVDTFLG = NS will select the all-first period of trading records, and could be used to see how newly listed securities perform.
- PREVDTFLG <> NS will exclude the first period of trading for any security and could be used to simulate if a portfolio selection process happened once a period.
- DTFLG = ED will select all last month of trading records and could be used to see which securities have delisted in your sample.
- PREVDTFLG = PE and DTFLG = PE could be used to exclude all uncommon cases and restrict the data to only the most comparable data.

| DTFLG PREVDTFLG | DESCRIPTION | DEFINITION |
|---|---|---|
| PE | Period-End | The date used is the last trading day of the period |
| LA | Last Available | The last available non-missing value for the period. See Price Date for the date of the value used |
| NS | New Security | The price is from the beginning date of the security |
| ED | End Date | DTFLG ONLY: The date is the End Date of the Security (never PREVDTFLG) |
| MI | Missing/Not Tracked | THERE ARE NO PRICES FOR THE ENTIRE PERIOD, THE PRICE AND RETURN ARE SET TO MISSING |
| NT | Not tracked | PREVDTFLG ONLY: PREVIOUS PERIOD IS BEFORE BEGDT |

## DELISTING FLAG

Delisting Flag indicates where the returns from Delists (see above) are included in the compounded period return. Therefore there is at most one record per security where the Delisting Flag is not set to N (no delist). Therefore DELFLG = N for over 99% of monthly records, 98% quarterly, and 93% for annual. The delisting flag (DELFLG) can be used to filter data for various delisting events. For example:

- DELFLG = N will select all records where the security did not delist during the period.

- Looking at the characteristics of the final period's return by the DELFLG could determine the applicability and potential bias of including or excluding period returns that include delists.

- DELFLG = A or DELFLG = P could be used to identify the rows and recalculate the period aggregate return to exclude the delisting return (TS_print default) with the formula:

$$ReturnWithoutDelistingReturn = \left(\frac{1 + RETMTH}{1 + DLRET}\right) - 1$$

| DELFLG | DESCRIPTION | DEFINITION |
|---|---|---|
| N | No (Not Applicable) | This security did not delist during this period. The compounded period return does NOT include the delisting return |
| A | Amount | The compounded period return includes a delisting return calculated from a delisting amount (See DLPDT and DLAMT in Delists) |
| P | Price | The compounded period return includes a delisting return calculated from a next available price (See DLPRC and NEXTDT in Delists) |
| M | Missing | The compounded period return does NOT include the delisting return, because it is missing. See Delists for more information |
| G | Gap | The compounded period return does NOT include the delisting return, because the date associated with the delisting return is greater than ten trading dates from the delisting date. See Delists for more information |

## RETURN FLAG

Return Flags describe the completeness of the return, and some of its characteristics. The vast majority of records have daily returns for the entire period with no missing returns and are flagged as Complete Returns (CR). However, there is a wide variation among the frequencies, with approximately 95% of monthly records, 90% quarterly, and 80% annual.

The intent of the Return Flag (RETFLG) is to provide the ability to easily include or exclude returns that have common characteristics. For example, if calculating an excess period return, excluding returns with partial period data to avoid comparing a one-period market return with a security return that might be much shorter and therefore not a valid excess return. There is overlap between the RETFLG and the other flags, but there are important distinctions and they can be used alone or in conjunction with the other flags to include or exclude even more granular cases. For example:

- RETFLG = NS is a subset of PREVDTFLG = NS. PREVDTFLG = NS will identify all securities for their first period of trading, but RETFLG = NS will identify only those ones where once listed the security has no missing prices in the period.

- Similarly, RETFLG = DE is a subset of DTFLG=ED. DTFLG=ED will identify all securities in their last period of trading, but RETFLG = DE will identify only those where the security has no missing prices during the period or on the previous period end.

| RETFLG | DESCRIPTION | DEFINITION |
|---|---|---|
| CR | Compounded Return | Daily returns are compounded into a period return from last trading day of the previous period to the last trading day of this period, with no missing returns |
| DE | Compounded Return - Delists | Daily returns are compounded into a period return from last trading day of the previous period to the delisting date with no missing returns and, when appropriate, the Delisting Return is also compounded into this return. See Delist Flag |
| NS | New Security | Daily returns are compounded into a period return from beginning date of the security until the last trading day of this period with no missing returns |
| MP | Compounded Return - Missing Price(s) | Daily returns are compounded into a period return from last trading day of the previous period to the last trading day of this month, with one or more missing returns |
| GP | Gap Between Prices is Too Large | The period Return is set to missing, because the price on the PRCDT is after a gap in the daily returns data of greater than 10 trading days for the security |
| NT | Not Tracked | The period return is set to missing, because there is no return data for the entire period in the daily file |
| IP | Compounded Return - Incomplete Period | The period return is compounded from the daily return, but it is an unusual circumstance that doesn't match any of the above conditions |

## VOLUME FLAG

Volume Flags describe the completeness of the aggregated volume and price volume. The completeness of volumes is similar to the completeness of returns, but due primarily to data source limitations for NASDAQ securities between 1972 and 1982, completeness is lower. Approximately, 90% of the monthly records have complete volumes, 85% of quarterly, and 70% of annual. The intent of the Volume Flag (VOLFLG) is to provide the ability to easily include or exclude volumes or price volumes that have common characteristics. For example, if calculating a median annual volume across all securities, excluding annual volumes with only partial annual data would avoid skewing the distribution with incomplete data. The volume flag can also be used to determine the completeness of the data. For example:

- After subsetting to securities and periods of interest, calculating a COUNT of VOLFLG by PERIOD would provide information about the percent with complete data to determine the appropriateness of certain analysis.
- VOLFLG = MV will select trading records where there are one or more missing volumes. These records could then be further filtered to determine which records are acceptable for the intended use. For example, the MISSPRCVOLCNT could be used to divide the subset into those with less than 5 missing values during the period.

| VOLFLG | DESCRIPTION | DEFINITION |
|---|---|---|
| CV | Complete Volume | Complete data for the entire period |
| MI | Missing | Data is missing for the entire period |
| MV | Missing volume | One or more volumes are missing during the period |
| DE | delisting | Delisted, but data is complete in the period until the delisting date |
| NS | New security | New Security, but data is complete in the period after start date |
| gp | Gap During Period | Aggregate value is computed from the entire period, but the price on the PRCDT is after a gap of 10 or more consecutive trading days of missing data |
| ip | Incomplete Period | Aggregate value is computed, but it is an unusual circumstance that doesn't match any of the above conditions |

## SHARE FACTOR FLAG

Factor to Adjust Shares Flags (FACSHRFLG) indicate where there were any distributions with a factor to adjust shares during the period. The vast majority of periods have no share factors at all (FACSHRTFLG=N); over 99% of the monthly records, over 97% of the quarterly records, and about 90% of the annual records. By far, the most common (about 90%) distribution types with a factor to adjust shares are stock splits and stock dividends (DISTCD between 5500 and 5599 — see table below). The factor to adjust shares (FACSHR) and distribution code (DISTCD) fields are in the Distribution File (SFZ_DIS). The purpose of this flag is to identify periods where the previous period price and the period end price are not directly comparable and where the total volumes might need special consideration. For example:

- FACSHRFLG = N when combined with VOLFLG = CV (no missing volumes) will select trading records that are consistent and complete over the entire period to eliminate periods that might require special consideration.

- After subsetting to securities and period of interest, FACSHRFLG = O or FACSHRFLG = B would quickly identify the trading records with unusual distributions, and, if desired, the underlying distributions could be examined in the    SFZ_DIS table to determine if the records should be kept in the subset or excluded from further processing.

| FACSHRFLG | DESCRIPTION | DEFINITION |
|---|---|---|
| N | NONE | There are no factors to adjust shares during the period |
| S | STOCK SPLIT | There are one or more stock splits and/or stock dividends (DISTCD - 5500-5599) during the period |
| O | OTHER | There are one or more distributions with a factor to adjust shares that are neither stock splits nor stock dividends during the period |
| B | BOTH | There are distributions during the period with both stock splits/dividends and other factors |

# DATA CODING SCHEMES

## DISTRIBUTION CODES

The following table describes some of the most commonly coded distribution events in the CRSP stock files. CRSP did not verify the tax status of ordinary dividends in the NYSE/NYSE American file after April 1987, or in the Supplemental NASDAQ file at any time. Instead, CRSP assigned ordinary dividends the default tax code (12*2); that is, US cash dividend, taxable in the normal way as a dividend. If a dividend received is in the form of a security which is traded on the CRSP Stock files, the dividend code will be in the form*7**.

| DIVIDEND | |
|---|---|
| CODE | DESCRIPTION |
| 1212 | US cash dividend, unspecified frequency, taxable same rate as dividends |
| 1214 | US cash dividend, tax status - return of capital, gain recognized, loss not |
| 1222 | US cash dividend, monthly, taxable same rate as dividends |
| 1224 | US cash dividend, monthly, tax status - return of capital, gain recognized, loss not |
| 1232 | US cash dividend, quarterly, taxable same rate as dividends |
| 1234 | US cash dividend, quarterly, tax status - return of capital, gain recognized, loss not |
| 1242 | US cash dividend, semi-annual, taxable same rate as dividends |
| 1244 | US cash dividend, semi-annual, tax status - return of capital, gain recognized, loss not |
| 1252 | US cash dividend, annual, taxable same rate as dividends |
| 1254 | US cash dividend, annual, tax status - return of capital, gain recognized, loss not |
| 1262 | US cash dividend, year-end or final, taxable same rate as dividends |
| 1272 | US cash dividend, extra or special, taxable same rate as dividends |
| 1274 | US cash dividend, extra or special, tax status - return of capital, gain recognized, loss not |
| 1292 | US cash dividend, non-recurring, or proceeds from sale of rights, taxable same rate as dividends |

## DIVIDEND

| CODE | DESCRIPTION |
|------|-------------|
| 1312 | Cash dividend (foreign currency converted to US), unspecified frequency, tax status - unspecified or not applicable |
| 1332 | Cash dividend (foreign currency converted to US), quarterly, taxable same rate as dividends |
| 1342 | Cash dividend (foreign currency converted to US), semi-annual, taxable same rate dividends |
| 1348 | Cash dividend (foreign currency converted to US), semi-annual, fully taxable as ordinary income to individuals |
| 1352 | Cash dividend (foreign currency converted to US), annual, taxable same rate as dividends |
| 1372 | Cash dividend (foreign currency converted to US), extra or special, taxable same rate as dividends |

## LIQUIDATION

| CODE | DESCRIPTION |
|------|-------------|
| 2216 | Cash paid in distribution, tax status - realized capital gains, (Investment Companies) |
| 2234 | Cash paid in partial liquidation, tax status - return of capital, gain recognized, loss not |
| 2243 | Cash paid as a step in liquidation, non-taxable |
| 2244 | Cash paid as a step in liquidation tax status - return of capital, gain recognized, loss not |
| 2245 | Cash paid as a step in liquidation, tax status - return of capital, gain or loss realized |
| 2255 | Cash paid as a final liquidating payment, tax status - return of capital, gain or loss realized |

## ACQUISITION/REORGANIZATION

| CODE | DESCRIPTION |
|------|-------------|
| 3225 | Cash received in a merger, tax status - gain or loss realized compared with cost |
| 3285 | Cash received in an exchange of stock, tax status - gain or loss realized compared with cost |
| 3723 | Issue of file, received in a non-taxable merger |
| 3753 | Issue on file, received as a non-ordinary stock distribution, non-taxable |
| 3763 | Issue on file, received as a spin-off in reorganization, non-taxable |
| 3783 | Issue on file, received as an exchange, non-taxable |
| 3823 | Issue not on file, received in a merger, non-taxable |
| 3853 | Issue not on file, received as a non-ordinary distribution, non-taxable |
| 3862 | Issue not on file, received in a reorganization, taxable as dividend |
| 3863 | Issue not on file, received in a reorganization, non-taxable |
| 3883 | Issue not on file, received in an exchange of stock, non-taxable |
| 3888* | Partially coded final or other non-ordinary distribution; amount or some terms missing; tax status unknown |

## RIGHTS

| CODE | DESCRIPTION |
|------|-------------|
| 4523 | Rights to buy more of this security, at market value, non-taxable |
| 4533 | Rights to buy more of this security at indicated value, non-taxable |
| 4563 | Rights to buy more of this security, non-transferable value at exdate, calculated (based on recdate if exdate unavailable), non-taxable |
| 4623 | Rights to buy 'units' that include this security, non-taxable |
| 4823 | Rights to buy other securities, nontaxable |
| 4999* | Missing rights distribution, tax status - dividend reinvestment plan qualifies for the limited exclusion provided by Sec. 305(e) of the Internal Revenue Code |

| STOCK | |
|---|---|
| CODE | DESCRIPTION |
| 5523 | Stock split, non-taxable |
| 5533 | Stock dividend, non-taxable |
| 5538 | Stock dividend, fully taxable as ordinary income to individuals |
| 5763 | Stock distribution in different issue of same company which trades on the file, non-taxable |
| 5773 | Initial stock distribution of other class of common, same company, which is on the file, non-taxable |

*This code alerts the user to information that is not coded, and is inconsistent with the conventional distribution-coding scheme.

## DELISTING CODES

| ACTIVE | |
|---|---|
| CODE | DESCRIPTION |
| 100 | Issue still trading NYSE/NYSE American, NASDAQ, NYSE Arca or Bats |

| MERGERS | |
|---|---|
| CODE | DESCRIPTION |
| 231 | When merged, shareholders primarily receive common stock or ADRs. Replaces codes 201, 202 and 203. Codes 201-203 are no longer assigned |
| 232 | When merged, shareholders primarily receive common stock or ADRs. (Merged stock is not maintained on the CRSP file.) Replaces codes 210-220. Codes 210-220 are no longer assigned |
| 233 | When merged, shareholders receive cash payments |
| 241 | When merged, shareholders primarily receive common stock and cash, issue on CRSP file |
| 242 | When merged, shareholders primarily receive common stock and preferred stock or warrants or rights or debentures or notes, issue on CRSP file |
| 244 | When merged, shareholders primarily receive common stock or ADR, and cash and preferred stock or warrants or rights or debentures or notes. Issue on CRSP file |
| 251 | When merged, shareholders primarily receive common stock or ADRs and cash. (Merged stock is not maintained on the CRSP file) |
| 252 | When merged, shareholders primarily receive common stock or ADRs and preferred stock, or warrants, or rights, or debentures, or notes |
| 261 | When merged, shareholders primarily receive cash and preferred stock, or warrants, or rights, or debentures, or notes. |
| 262 | When merged, shareholders primarily receive cash and other property |

| EXCHANGES | |
|---|---|
| CODE | DESCRIPTION |
| 331 | Issue exchanged, primarily for another class of common stock. Replaces codes 301, 302, and 303. Codes 301-303 are no longer assigned |
| 332 | Issue exchanged, primarily for another class of common stock. (Other stock is not maintained on the CRSP file) |
| 341 | Flags an exchange, shareholders receive common stock and cash. Issue on CRSP file |
| 342 | Flags an exchange, shareholders receive common stock and preferred stock or warrants or rights or debentures or notes. Issue on CRSP file |

| LIQUIDATIONS | |
|---|---|
| CODE | DESCRIPTION |
| 450 | Issue liquidated, final distribution verified, issue closed to further research |
| 470 | Issue liquidated, no final distribution is verified, issue pending further research |
| 480 | Issue liquidated, no distribution information is available, issue is pending further research |

| DROPPED | |
|---|---|
| CODE | DESCRIPTION |
| 520 | Issue stopped trading current exchange - trading Over-the-Counter |
| 550 | Delisted by current exchange - insufficient number of market makers |
| 551 | Delisted by current exchange - insufficient number of shareholder |
| 552 | Delisted by current exchange - price fell below acceptable level |
| 560 | Delisted by current exchange - insufficient capital, surplus, and/or equity |
| 561 | Delisted by current exchange - insufficient (or non-compliance with rules of) float or assets |
| 570 | Delisted by current exchange - company request (no reason given) |
| 573 | Delisted by current exchange - company request, deregistration (gone private) |
| 574 | Delisted by current exchange - bankruptcy, declared insolvent |
| 575 | Delisted by current exchange - company request, offer rescinded, issue withdrawn by underwriter |
| 580 | Delisted by current exchange - delinquent in filing, non-payment of fees |
| 582 | Delisted by current exchange - failure to meet exception or equity requirements |
| 584 | Delisted by current exchange - does not meet exchange's financial guidelines for continued listing |
| 585 | Delisted by current exchange - protection of investors and the public interest |
| 587 | Delisted by current exchange - corporate governance violation |
| 591 | Delisted by current exchange - delist required by Securities Exchange Commission (SEC) |

## SHARE CODES

2-digit code as of end of period. First digit describes the type of security, second digit provides further security or company detail.

First Digit:

| CODE | DESCRIPTION |
|---|---|
| 1 | Ordinary Common Shares |
| 2 | Certificates, Americus Trust Components (Prime, Score, & Units) |
| 3 | ADRs (American Depositary Receipts) |
| 4 | SBIs (Shares of Beneficial Interest) |
| 7 | Units (Depositary Units, Units of Beneficial Interest, Units of Limited Partnership Interest, Depositary Receipts, etc), Exchange Traded Funds |

Second Digit:

| CODE | DESCRIPTION |
|---|---|
| 0 | Securities which have not been further defined |
| 1 | Securities which need not be further defined |
| 2 | Companies incorporated outside the US |
| 3 | Americus Trust Components (Prime, Score, & Units), Exchange Traded Funds |
| 4 | Closed-end funds |
| 5 | Closed-end fund companies incorporated outside the US |
| 8 | REIT's (Real Estate Investment Trusts) |

The following table includes a mapping of Indexes to their location in the legacy files.

| INDFAM | INDNO | INDNAME | START DATE | LEGACY FILE | LEGACY FILE DESCRIPTION |
|--------|-------|---------|-----------|-------------|-------------------------|
| 1100000 | 1000000 | CRSP NYSE Value-Weighted Market Index | 1925 | *sia | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE |
| 1100001 | 1000001 | CRSP NYSE Equal-Weighted Market Index | 1925 | *sia | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE |
| 1100012 | 1000002 | CRSP NYSE Market Capitalization Decile 1 | 1925 | *sia | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE |
| 1100012 | 1000003 | CRSP NYSE Market Capitalization Decile 2 | 1925 | *sia | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE |
| 1100012 | 1000004 | CRSP NYSE Market Capitalization Decile 3 | 1925 | *sia | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE |
| 1100012 | 1000005 | CRSP NYSE Market Capitalization Decile 4 | 1925 | *sia | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE |
| 1100012 | 1000006 | CRSP NYSE Market Capitalization Decile 5 | 1925 | *sia | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE |
| 1100012 | 1000007 | CRSP NYSE Market Capitalization Decile 6 | 1925 | *sia | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE |
| 1100012 | 1000008 | CRSP NYSE Market Capitalization Decile 7 | 1925 | *sia | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE |
| 1100012 | 1000009 | CRSP NYSE Market Capitalization Decile 8 | 1925 | *sia | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE |
| 1100012 | 1000010 | CRSP NYSE Market Capitalization Decile 9 | 1925 | *sia | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE |
| 1100012 | 1000011 | CRSP NYSE Market Capitalization Decile 10 | 1925 | *sia | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE |
| 1100020 | 1000020 | CRSP NYSE American Value-Weighted Market Index | 1962 | *sib | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE American |
| 1100021 | 1000021 | CRSP NYSE American Equal-Weighted Market Index | 1962 | *sib | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE American |
| 1100032 | 1000022 | CRSP NYSE American Market Capitalization Decile 1 | 1962 | *sib | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE American |
| 1100032 | 1000023 | CRSP NYSE American Market Capitalization Decile 2 | 1962 | *sib | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE American |
| 1100032 | 1000024 | CRSP NYSE American Market Capitalization Decile 3 | 1962 | *sib | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE American |
| 1100032 | 1000025 | CRSP NYSE American Market Capitalization Decile 4 | 1962 | *sib | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE American |
| 1100032 | 1000026 | CRSP NYSE American Market Capitalization Decile 5 | 1962 | *sib | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE American |

| INDFAM | INDNO | INDNAME | START DATE | LEGACY FILE | LEGACY FILE DESCRIPTION |
|---|---|---|---|---|---|
| 1100032 | 1000027 | CRSP NYSE American Market Capitalization Decile 6 | 1962 | *sib | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE American |
| 1100032 | 1000028 | CRSP NYSE American Market Capitalization Decile 7 | 1962 | *sib | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE American |
| 1100032 | 1000029 | CRSP NYSE American Market Capitalization Decile 8 | 1962 | *sib | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE American |
| 1100032 | 1000030 | CRSP NYSE American Market Capitalization Decile 9 | 1962 | *sib | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE American |
| 1100032 | 1000031 | CRSP NYSE American Market Capitalization Decile 10 | 1962 | *sib | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE American |
| 1100040 | 1000040 | CRSP NYSE/NYSE American Value-Weighted Market Index | 1925 | *sic | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American |
| 1100041 | 1000041 | CRSP NYSE/NYSE American Equal-Weighted Market Index | 1925 | *sic | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American |
| 1100052 | 1000042 | CRSP NYSE/NYSE American Market Capitalization Decile 1 | 1925 | *sic | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American |
| 1100052 | 1000043 | CRSP NYSE/NYSE American Market Capitalization Decile 2 | 1925 | *sic | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American |
| 1100052 | 1000044 | CRSP NYSE/NYSE American Market Capitalization Decile 3 | 1925 | *sic | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American |
| 1100052 | 1000045 | CRSP NYSE/NYSE American Market Capitalization Decile 4 | 1925 | *sic | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American |
| 1100052 | 1000046 | CRSP NYSE/NYSE American Market Capitalization Decile 5 | 1925 | *sic | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American |
| 1100052 | 1000047 | CRSP NYSE/NYSE American Market Capitalization Decile 6 | 1925 | *sic | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American |
| 1100052 | 1000048 | CRSP NYSE/NYSE American Market Capitalization Decile 7 | 1925 | *sic | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American |
| 1100052 | 1000049 | CRSP NYSE/NYSE American Market Capitalization Decile 8 | 1925 | *sic | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American |
| 1100052 | 1000050 | CRSP NYSE/NYSE American Market Capitalization Decile 9 | 1925 | *sic | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American |

| INDFAM | INDNO | INDNAME | START DATE | LEGACY FILE | LEGACY FILE DESCRIPTION |
|--------|-------|---------|------------|-------------|------------------------|
| 1100052 | 1000051 | CRSP NYSE/NYSE American Market Capitalization Decile 10 | 1925 | *sic | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American |
| 1100053 | 1000053 | CRSP NYSE/NYSE American Trade-Only Value-Weighted Market Index | 1925 | | |
| 1100060 | 1000060 | CRSP Nasdaq Value-Weighted Market Index | 1972 | *sio | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NASDAQ |
| 1100061 | 1000061 | CRSP NASDAQ Equal-Weighted Market Index | 1972 | *sio | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NASDAQ |
| 1100072 | 1000062 | CRSP NASDAQ Market Capitalization Decile 1 | 1972 | *sio | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NASDAQ |
| 1100072 | 1000063 | CRSP NASDAQ Market Capitalization Decile 2 | 1972 | *sio | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NASDAQ |
| 1100072 | 1000064 | CRSP NASDAQ Market Capitalization Decile 3 | 1972 | *sio | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NASDAQ |
| 1100072 | 1000065 | CRSP NASDAQ Market Capitalization Decile 4 | 1972 | *sio | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NASDAQ |
| 1100072 | 1000066 | CRSP NASDAQ Market Capitalization Decile 5 | 1972 | *sio | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NASDAQ |
| 1100072 | 1000067 | CRSP NASDAQ Market Capitalization Decile 6 | 1972 | *sio | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NASDAQ |
| 1100072 | 1000068 | CRSP NASDAQ Market Capitalization Decile 7 | 1972 | *sio | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NASDAQ |
| 1100072 | 1000069 | CRSP NASDAQ Market Capitalization Decile 8 | 1972 | *sio | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NASDAQ |
| 1100072 | 1000070 | CRSP NASDAQ Market Capitalization Decile 9 | 1972 | *sio | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NASDAQ |
| 1100072 | 1000071 | CRSP NASDAQ Market Capitalization Decile 10 | 1972 | *sio | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NASDAQ |
| 1100080 | 1000080 | CRSP NYSE/NYSE American/NASDAQ Value-Weighted Market Index | 1925 | *six | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American + NASDAQ |
| 1100081 | 1000081 | CRSP NYSE/NYSE American/NASDAQ Equal-Weighted Market Index | 1925 | *six | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American + NASDAQ |
| 1100092 | 1000082 | CRSP NYSE/NYSE American/NASDAQ Market Capitalization Decile 1 | 1925 | *six | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American + NASDAQ |
| 1100092 | 1000083 | CRSP NYSE/NYSE American/NASDAQ Market Capitalization Decile 2 | 1925 | *six | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American + NASDAQ |
| 1100092 | 1000084 | CRSP NYSE/NYSE American/NASDAQ Market Capitalization Decile 3 | 1925 | *six | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American + NASDAQ |
| 1100092 | 1000085 | CRSP NYSE/NYSE American/NASDAQ Market Capitalization Decile 4 | 1925 | *six | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American + NASDAQ |

| INDFAM | INDNO | INDNAME | START DATE | LEGACY FILE | LEGACY FILE DESCRIPTION |
|--------|-------|---------|------------|-------------|------------------------|
| 1100092 | 1000086 | CRSP NYSE/NYSE American/NASDAQ Market Capitalization Decile 5 | 1925 | *six | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American + NASDAQ |
| 1100092 | 1000087 | CRSP NYSE/NYSE American/NASDAQ Market Capitalization Decile 6 | 1925 | *six | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American + NASDAQ |
| 1100092 | 1000088 | CRSP NYSE/NYSE American/NASDAQ Market Capitalization Decile 7 | 1925 | *six | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American + NASDAQ |
| 1100092 | 1000089 | CRSP NYSE/NYSE American/NASDAQ Market Capitalization Decile 8 | 1925 | *six | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American + NASDAQ |
| 1100092 | 1000090 | CRSP NYSE/NYSE American/NASDAQ Market Capitalization Decile 9 | 1925 | *six | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American + NASDAQ |
| 1100092 | 1000091 | CRSP NYSE/NYSE American/NASDAQ Market Capitalization Decile 10 | 1925 | *six | Daily, Monthly, Quarterly, Annual Indexes Built on Market Cap Deciles - NYSE + NYSE American + NASDAQ |
| 1100112 | 1000102 | CRSP NYSE/NYSE American Beta Decile 1 | 1925 | dsbc | Daily, Indexes Built on Beta Deciles - NYSE + NYSE American |
| 1100112 | 1000103 | CRSP NYSE/NYSE American Beta Decile 2 | 1925 | dsbc | Daily, Indexes Built on Beta Deciles - NYSE + NYSE American |
| 1100112 | 1000104 | CRSP NYSE/NYSE American Beta Decile 3 | 1925 | dsbc | Daily, Indexes Built on Beta Deciles - NYSE + NYSE American |
| 1100112 | 1000105 | CRSP NYSE/NYSE American Beta Decile 4 | 1925 | dsbc | Daily, Indexes Built on Beta Deciles - NYSE + NYSE American |
| 1100112 | 1000106 | CRSP NYSE/NYSE American Beta Decile 5 | 1925 | dsbc | Daily, Indexes Built on Beta Deciles - NYSE + NYSE American |
| 1100112 | 1000107 | CRSP NYSE/NYSE American Beta Decile 6 | 1925 | dsbc | Daily, Indexes Built on Beta Deciles - NYSE + NYSE American |
| 1100112 | 1000108 | CRSP NYSE/NYSE American Beta Decile 7 | 1925 | dsbc | Daily, Indexes Built on Beta Deciles - NYSE + NYSE American |
| 1100112 | 1000109 | CRSP NYSE/NYSE American Beta Decile 8 | 1925 | dsbc | Daily, Indexes Built on Beta Deciles - NYSE + NYSE American |
| 1100112 | 1000110 | CRSP NYSE/NYSE American Beta Decile 9 | 1925 | dsbc | Daily, Indexes Built on Beta Deciles - NYSE + NYSE American |
| 1100112 | 1000111 | CRSP NYSE/NYSE American Beta Decile 10 | 1925 | dsbc | Daily, Indexes Built on Beta Deciles - NYSE + NYSE American |
| 1100132 | 1000122 | CRSP NYSE/NYSE American Standard Deviation Decile 1 | 1925 | dssc | Daily, Indexes Built on Standard Deviation Deciles - NYSE + NYSE American |
| 1100132 | 1000123 | CRSP NYSE/NYSE American Standard Deviation Decile 2 | 1925 | dssc | Daily, Indexes Built on Standard Deviation Deciles - NYSE + NYSE American |
| 1100132 | 1000124 | CRSP NYSE/NYSE American Standard Deviation Decile 3 | 1925 | dssc | Daily, Indexes Built on Standard Deviation Deciles - NYSE + NYSE American |
| 1100132 | 1000125 | CRSP NYSE/NYSE American Standard Deviation Decile 4 | 1925 | dssc | Daily, Indexes Built on Standard Deviation Deciles - NYSE + NYSE American |

| INDFAM | INDNO | INDNAME | START DATE | LEGACY FILE | LEGACY FILE DESCRIPTION |
|---|---|---|---|---|---|
| 1100132 | 1000126 | CRSP NYSE/NYSE American Standard Deviation Decile 5 | 1925 | dssc | Daily, Indexes Built on Standard Deviation Deciles - NYSE + NYSE American |
| 1100132 | 1000127 | CRSP NYSE/NYSE American Standard Deviation Decile 6 | 1925 | dssc | Daily, Indexes Built on Standard Deviation Deciles - NYSE + NYSE American |
| 1100132 | 1000128 | CRSP NYSE/NYSE American Standard Deviation Decile 7 | 1925 | dssc | Daily, Indexes Built on Standard Deviation Deciles - NYSE + NYSE American |
| 1100132 | 1000129 | CRSP NYSE/NYSE American Standard Deviation Decile 8 | 1925 | dssc | Daily, Indexes Built on Standard Deviation Deciles - NYSE + NYSE American |
| 1100132 | 1000130 | CRSP NYSE/NYSE American Standard Deviation Decile 9 | 1925 | dssc | Daily, Indexes Built on Standard Deviation Deciles - NYSE + NYSE American |
| 1100132 | 1000131 | CRSP NYSE/NYSE American Standard Deviation Decile 10 | 1925 | dssc | Daily, Indexes Built on Standard Deviation Deciles - NYSE + NYSE American |
| 1100152 | 1000142 | CRSP NASDAQ Beta Decile 1 | 1973 | dsbo | Daily, Indexes Built on Beta Deciles - NASDAQ |
| 1100152 | 1000143 | CRSP NASDAQ Beta Decile 2 | 1973 | dsbo | Daily, Indexes Built on Beta Deciles - NASDAQ |
| 1100152 | 1000144 | CRSP NASDAQ Beta Decile 3 | 1973 | dsbo | Daily, Indexes Built on Beta Deciles - NASDAQ |
| 1100152 | 1000145 | CRSP NASDAQ Beta Decile 4 | 1973 | dsbo | Daily, Indexes Built on Beta Deciles - NASDAQ |
| 1100152 | 1000146 | CRSP NASDAQ Beta Decile 5 | 1973 | dsbo | Daily, Indexes Built on Beta Deciles - NASDAQ |
| 1100152 | 1000147 | CRSP NASDAQ Beta Decile 6 | 1973 | dsbo | Daily, Indexes Built on Beta Deciles - NASDAQ |
| 1100152 | 1000148 | CRSP NASDAQ Beta Decile 7 | 1973 | dsbo | Daily, Indexes Built on Beta Deciles - NASDAQ |
| 1100152 | 1000149 | CRSP NASDAQ Beta Decile 8 | 1973 | dsbo | Daily, Indexes Built on Beta Deciles - NASDAQ |
| 1100152 | 1000150 | CRSP NASDAQ Beta Decile 9 | 1973 | dsbo | Daily, Indexes Built on Beta Deciles - NASDAQ |
| 1100152 | 1000151 | CRSP NASDAQ Beta Decile 10 | 1973 | dsbo | Daily, Indexes Built on Beta Deciles - NASDAQ |
| 1100172 | 1000162 | CRSP NASDAQ Standard Deviation Decile 1 | 1973 | dsso | Daily, Indexes Built on Standard Deviation Deciles - NASDAQ |
| 1100172 | 1000163 | CRSP NASDAQ Standard Deviation Decile 2 | 1973 | dsso | Daily, Indexes Built on Standard Deviation Deciles - NASDAQ |
| 1100172 | 1000164 | CRSP NASDAQ Standard Deviation Decile 3 | 1973 | dsso | Daily, Indexes Built on Standard Deviation Deciles - NASDAQ |
| 1100172 | 1000165 | CRSP NASDAQ Standard Deviation Decile 4 | 1973 | dsso | Daily, Indexes Built on Standard Deviation Deciles - NASDAQ |
| 1100172 | 1000166 | CRSP NASDAQ Standard Deviation Decile 5 | 1973 | dsso | Daily, Indexes Built on Standard Deviation Deciles - NASDAQ |
| 1100172 | 1000167 | CRSP NASDAQ Standard Deviation Decile 6 | 1973 | dsso | Daily, Indexes Built on Standard Deviation Deciles - NASDAQ |

| INDFAM | INDNO | INDNAME | START DATE | LEGACY FILE | LEGACY FILE DESCRIPTION |
|--------|-------|---------|-----------|-------------|------------------------|
| 1100172 | 1000168 | CRSP NASDAQ Standard Deviation Decile 7 | 1973 | dsso | Daily, Indexes Built on Standard Deviation Deciles - NASDAQ |
| 1100172 | 1000169 | CRSP NASDAQ Standard Deviation Decile 8 | 1973 | dsso | Daily, Indexes Built on Standard Deviation Deciles - NASDAQ |
| 1100172 | 1000170 | CRSP NASDAQ Standard Deviation Decile 9 | 1973 | dsso | Daily, Indexes Built on Standard Deviation Deciles - NASDAQ |
| 1100172 | 1000171 | CRSP NASDAQ Standard Deviation Decile 10 | 1973 | dsso | Daily, Indexes Built on Standard Deviation Deciles - NASDAQ |
| 1100180 | 1000180 | CRSP NYSE Arca Value-Weighted Market Index | 2006 | *sir | Daily, Monthly, Indexes Built on Market Cap Deciles - NYSE Arca |
| 1100181 | 1000181 | CRSP NYSE Arca Equal-Weighted Market Index | 2006 | *sir | Daily, Monthly, Indexes Built on Market Cap Deciles - NYSE Arca |
| 1100200 | 1000200 | CRSP NYSE/NYSE American/NASDAQ/NYSE Arca Value-Weighted Market Index | 1925 | *siy | Daily, Monthly, Indexes Built on Market Cap Deciles - NYSE Arca |
| 1100201 | 1000201 | CRSP NYSE/NYSE American/NASDAQ/NYSE Arca Equal-Weighted Market Index | 1925 | *siy | Daily, Monthly, Indexes Built on Market Cap Deciles - NYSE Arca |
| 1100300 | 1000300 | CRSP NYSE Cap-Based Portfolio 1 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100300 | 1000301 | CRSP NYSE Cap-Based Portfolio 2 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100300 | 1000302 | CRSP NYSE Cap-Based Portfolio 3 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100300 | 1000303 | CRSP NYSE Cap-Based Portfolio 4 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100300 | 1000304 | CRSP NYSE Cap-Based Portfolio 5 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100300 | 1000305 | CRSP NYSE Cap-Based Portfolio 6 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100300 | 1000306 | CRSP NYSE Cap-Based Portfolio 7 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100300 | 1000307 | CRSP NYSE Cap-Based Portfolio 8 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100300 | 1000308 | CRSP NYSE Cap-Based Portfolio 9 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100300 | 1000309 | CRSP NYSE Cap-Based Portfolio 10 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100310 | 1000310 | CRSP NYSE Cap-Based Portfolio 1-2 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100310 | 1000311 | CRSP NYSE Cap-Based Portfolio 3-5 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100310 | 1000312 | CRSP NYSE Cap-Based Portfolio 6-8 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100310 | 1000313 | CRSP NYSE Cap-Based Portfolio 9-10 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100314 | 1000314 | CRSP NYSE Cap-Based Portfolio 1-5 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |

| INDFAM | INDNO | INDNAME | START DATE | LEGACY FILE | LEGACY FILE DESCRIPTION |
|--------|-------|---------|------------|-------------|------------------------|
| 1100314 | 1000315 | CRSP NYSE Cap-Based Portfolio 6-10 | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100316 | 1000316 | CRSP NYSE Cap-Based Portfolio Market | 1925 | mhistn | Monthly Cap-based Indexes Results - NYSE |
| 1100320 | 1000320 | CRSP NYSE/NYSE American Cap-Based Portfolio 1 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100320 | 1000321 | CRSP NYSE/NYSE American Cap-Based Portfolio 2 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100320 | 1000322 | CRSP NYSE/NYSE American Cap-Based Portfolio 3 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100320 | 1000323 | CRSP NYSE/NYSE American Cap-Based Portfolio 4 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100320 | 1000324 | CRSP NYSE/NYSE American Cap-Based Portfolio 5 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100320 | 1000325 | CRSP NYSE/NYSE American Cap-Based Portfolio 6 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100320 | 1000326 | CRSP NYSE/NYSE American Cap-Based Portfolio 7 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100320 | 1000327 | CRSP NYSE/NYSE American Cap-Based Portfolio 8 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100320 | 1000328 | CRSP NYSE/NYSE American Cap-Based Portfolio 9 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100320 | 1000329 | CRSP NYSE/NYSE American Cap-Based Portfolio 10 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100330 | 1000330 | CRSP NYSE/NYSE American Cap-Based Portfolio 1-2 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100330 | 1000331 | CRSP NYSE/NYSE American Cap-Based Portfolio 3-5 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100330 | 1000332 | CRSP NYSE/NYSE American Cap-Based Portfolio 6-8 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100330 | 1000333 | CRSP NYSE/NYSE American Cap-Based Portfolio 9-10 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100334 | 1000334 | CRSP NYSE/NYSE American Cap-Based Portfolio 1-5 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100334 | 1000335 | CRSP NYSE/NYSE American Cap-Based Portfolio 6-10 | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100336 | 1000336 | CRSP NYSE/NYSE American Cap-Based Portfolio Market | 1925 | mhista | Monthly Cap-based Indexes Results - NYSE + NYSE American |
| 1100340 | 1000340 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 1 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100340 | 1000341 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 2 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100340 | 1000342 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 3 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |

| INDFAM | INDNO | INDNAME | START DATE | LEGACY FILE | LEGACY FILE DESCRIPTION |
|---|---|---|---|---|---|
| 1100340 | 1000343 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 4 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100340 | 1000344 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 5 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100340 | 1000345 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 6 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100340 | 1000346 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 7 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100340 | 1000347 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 8 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100340 | 1000348 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 9 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100340 | 1000349 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 10 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100350 | 1000350 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 1-2 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100350 | 1000351 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 3-5 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100350 | 1000352 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 6-8 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100350 | 1000353 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 9-10 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100354 | 1000354 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 1-5 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100354 | 1000355 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio 6-10 | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100356 | 1000356 | CRSP NYSE/NYSE American/NASDAQ Cap-Based Portfolio Market | 1925 | mhistq | Monthly Cap-based Indexes Results -NYSE + NYSE American + NASDAQ |
| 1100500 | 1000500 | CRSP Value-Weighted Index of the S&P 500 Universe | 1925 | *sp500 | Daily, Monthly CRSP Index File on the S&P 500 © |
| 1100501 | 1000501 | CRSP Equal-Weighted Index of the S&P 500 Universe | 1925 | *sp500 | Daily, Monthly CRSP Index File on the S&P 500 © |
| 1100502 | 1000502 | S&P 500 Composite | 1925 (Daily 1962) | | All files except NASDAQ-only, cap-based, and CTI files |
| 1100503 | 1000503 | NASDAQ Composite | 1972 | *sio | All NASDAQ-only files |
| 1100510 | 1000510 | CRSP Value-Weighted Portfolios of the S&P 500 Universe | 1925 | *sp500p | Daily, Monthly CRSP Portfolios on the S&P 500 © |
| 1100511 | 1000511 | CRSP Equal-Weighted Portfolios of the S&P 500 Universe | 1925 | *sp500p | Daily, Monthly CRSP Portfolios on the S&P 500 © |
| 1100700 | 1000700 | CRSP 30-Year Bond Returns | 1925 | *cti | Monthly, Quarterly, Annual CRSP US Treasury and Inflation Indexes |
| 1100701 | 1000701 | CRSP 20-Year Bond Returns | 1925 | *cti | Monthly, Quarterly, Annual CRSP US Treasury and Inflation Indexes |
| 1100702 | 1000702 | CRSP 10-Year Bond Returns | 1925 | *cti | Monthly, Quarterly, Annual CRSP US Treasury and Inflation Indexes |

| INDFAM | INDNO | INDNAME | START DATE | LEGACY FILE | LEGACY FILE DESCRIPTION |
|---|---|---|---|---|---|
| 1100703 | 1000703 | CRSP 7-Year Bond Returns | 1925 | *cti | Monthly, Quarterly, Annual CRSP US Treasury and Inflation Indexes |
| 1100704 | 1000704 | CRSP 5-Year Bond Returns | 1925 | *cti | Monthly, Quarterly, Annual CRSP US Treasury and Inflation Indexes |
| 1100705 | 1000705 | CRSP 2-Year Bond Returns | 1925 | *cti | Monthly, Quarterly, Annual CRSP US Treasury and Inflation Indexes |
| 1100706 | 1000706 | CRSP 1-Year Bond Returns | 1925 | *cti | Monthly, Quarterly, Annual CRSP US Treasury and Inflation Indexes |
| 1100707 | 1000707 | CRSP 90-Day Bill Returns | 1925 | *cti | Monthly, Quarterly, Annual CRSP US Treasury and Inflation Indexes |
| 1100708 | 1000708 | CRSP 30-Day Bill Returns | 1925 | *cti | Monthly, Quarterly, Annual CRSP US Treasury and Inflation Indexes |
| 1100800 | 1000709 | Consumer Price Index | 1925 | *cti | Monthly, Quarterly, Annual CRSP US Treasury and Inflation Indexes |
| 1101330 | | CRSP US Total Market Index | 2011 | | New! |
| | | s*rb files. | | rebal* | NYSE, NYSE American, NASDAQ and combinations not available in the index tables |

## AGGREGATE FILE EXAMPLES

### 1. LAST AVAILABLE AND INCOMPLETE PERIODS

This example demonstrates the use of flags to provide insight into the daily price and volume series used in the new aggregate files when a security did not trade for the entire period.

| PERMNO 82670 - CURRENTLY T G THERAPEUTICS INC | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ROW IDENTIFIERS | | | CURRENT PERIOD INFO | | | PREV PERIOD INFO | | | RETURN AND VOLUME INFO | | |
| KYPERMNO | yyyy | acaldt | annprcflg | annprcdt | anndtflg | annprevprcflg | annprevdt | annprevdtflg | annretflg | annvolflg | annprcvolmisscnt |
| 82670 | 2000 | 12/29/2000 | TR | 12/29/2000 | PE | TR | 12/31/1999 | PE | CR | CV | 0 |
| 82670 | 2001 | 12/31/2001 | TR | 8/22/2001 | LA | TR | 12/29/2000 | PE | IP | IP | 86 |
| 82670 | 2002 | 12/31/2002 | MP | | MI | TR | 8/22/2001 | LA | NT | MI | 252 |
| 82670 | 2003 | 12/31/2003 | MP | | MI | MP | | MI | NT | MI | 252 |
| 82670 | 2004 | 12/31/2004 | MP | | MI | MP | | MI | NT | MI | 252 |
| 82670 | 2005 | 12/30/2005 | TR | 12/30/2005 | PE | MP | | MI | IP | IP | 193 |
| 82670 | 2006 | 12/29/2006 | TR | 12/29/2006 | PE | TR | 12/30/2005 | PE | CR | CV | 0 |
| 82670 | 2007 | 12/31/2007 | TR | 12/31/2007 | PE | TR | 12/29/2006 | PE | CR | CV | 0 |
| 82670 | 2008 | 12/31/2008 | TR | 3/25/2008 | LA | TR | 12/31/2007 | PE | IP | IP | 196 |
| 82670 | 2009 | 12/31/2009 | MP | | MI | TR | 3/25/2008 | LA | NT | MI | 252 |
| 82670 | 2010 | 12/31/2010 | MP | | MI | MP | | MI | NT | MI | 252 |
| 82670 | 2011 | 12/30/2011 | MP | | MI | MP | | MI | NT | MI | 252 |
| 82670 | 2012 | 12/31/2012 | MP | | MI | MP | | MI | NT | MI | 250 |
| 82670 | 2013 | 12/31/2013 | TR | 12/31/2013 | PE | MP | | MI | IP | IP | 102 |
| 82670 | 2014 | 12/31/2014 | TR | 12/31/2014 | PE | TR | 12/31/2013 | PE | CR | CV | 0 |

#### NOTES

1. Security leaves a CRSP tracked exchange on 8/22/2001. For the 2001 year, the price is flagged with LA (Last Available) and the return and volume are flagged with IP (Incomplete period) and there are 86 missing prices or volumes during the period. However, a partial year return and partial year volume are calculated

2. For the 2002-2004 years, the price date flag is MI (Missing for the entire year) and the price, price date, and cap values are set to missing and the price flag is set to MP (Missing Prices). The returns are set to missing and the return flag is set to NT (Not Tracked). The Volume and Price Volume are also set to missing values and the Volume Flag is set to MI to indicate the entire year is missing. The count of missing is 252.

3. For 2005, the security is listed on a CRSP tracked exchange again. The Previous Price is still missing, but the current price is from the Period End (PE) on 12/30/2005. The Return Flag and Volume Flag are both set IP (Incomplete Period). The missing count is 196.

4. Analogous to #1 above -- Security leaves a CRSP tracked exchange on 3/25/2008. For the 2008 year, the price is flagged with LA (Last Available) and the return and volume are flagged with IP (Incomplete period) and there are 196 missing prices or volumes during the period. However, a partial year return and partial year volume are calculated. The 3/25/2008 price is available in the 2009 year as the previous price, but is flagged as Last Available.

5. Analogous to #2 above -- For the 2009-2012 years, the price date flag is MI (Missing for the entire year) and the price, price date, and cap values are set to missing and the price flag is set to MP (Missing Prices). The returns are set to missing and the return flag is set to NT (Not Tracked). The Volume and Price Volume are also set to missing values and the Volume Flag is set to MI to indicate the entire year is missing. The count of missing is 252.

6. For 2013, the security is listed on a CRSP tracked exchange again. The Previous Price is still missing, but the current price is from the Period End (PE) on 12/31/2013. The Return Flag and Volume Flag are both set to IP (Incomplete Period). The missing count is 102.

7. For completeness, in all of these rows, DELFLG = N, ANNFACSHRFLG = N DISCNT = 0, and do not impact these rows.

8. Whether it is appropriate to use the rows flagged as "Incomplete Period" in your dataset will vary depending on the research design. It is also important to note that the aggregates are a convenience for some applications, but not intended to be a replacement in all cases, for the underlying data in SFZ_DP_DLY.

## 2. NEW SECURITY

This example demonstrates how the use of flags and new date fields provide additional context for first period of a security trading in the new aggregate files.

| KYPERMNO | yyyy | acaldt | annprc | annprcflg | annprcdt | anndtflg | anncap | annprevprc | annprevprcflg | annprevdt | annprevdtflg | annprevcap | annret | annretx | annretflg | discnt | annvol |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12490 | 1926 | 12/31/1926 | 54.25 | TR | 12/31/1926 | PE | 31,410.75 | 144.50 | TR | 12/31/1925 | NS | 27,888.50 | 20.34% | 12.63% | CR | 6 | 353,300 |
| 14593 | 1980 | 12/31/1980 | 34.1875 | BA | 12/31/1980 | PE | 1,884,962.00 | 28.81 | BA | 12/12/1980 | NS | 1,588,606.00 | 18.66% | 18.66% | NS | 0 | |

**SIZ ANNUAL AGGREGATE - 1926 FOR IBM (PERMNO=12490) AND 1980 FOR APPLE (PERMNO = 14593) - SUBSET OF FIELDS**

### CHANGES AND ENHANCEMENTS

1. For a New Security (ANNPREVDTFLG = 'NS'), the previous price and cap are from the date in the ANNPREVDT field and not necessarily the end of the previous period. In this example, the previous price and cap for Apple are from 12/12/1980.

2. The returns for the Aggregate match the ts_print returns, because both start with the same 12/31/1925 price.

3. Flags exist in the aggregate file to indicate whether the price and previous price is a closing price (TR - in the example above), a bid-ask average (BA) or a missing price (MP). See documentation for other values.

4. Flags exist in the aggregate file to indicate whether the price and previous price are from the last trading date of the Period (PE) or the first price of a New Security (NS). See documentation for other values.

5. Return flag was created (CR Complete return - no missing prices during period) - see documentation for other values; a row count of missing prices or volumes has also been added.

6. The current price, cap, volume match as expected for other values and on or through the date stored in ANNPRCDT field. In these examples they are both the end of the trading period as indicated by the PE in ANNDTFLG.

## 3. DELIST

This example demonstrates how delisting information is provided in the new aggregate tables and how to associate with the existing delisting table.

### NEW AGGREGATE ANNUAL FILE - SFZ_AGG_ANN (NOT ALL FIELDS SHOWN)

| KYPERMNO | yyyy | acaldt | annprc | annprcdt | anndtflg | anndelflg | annret | annretx | annretflg | NCUSIP | TICKER | COMNAM | SHRCD | NMSIND | PRIMEXCH | TRDSTAT | SECSTAT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14322 | 2005 | 12/30/2005 | 50.04 | 3/24/2005 | ED | A | 17.71% | 17.18% | DE | 81238710 | S | SEARS ROEBUCK & CO | 11 | | N | A | R |
| 48071 | 2000 | 12/29/2000 | 165.50 | 12/29/2000 | ED | A | 32.34% | 29.36% | DE | 61688010 | JPM | MORGAN J P & CO INC | 11 | | N | A | R |

### EXISTING SFZ_DEL - DETAIL DELIST TABLE

| KYPERMNO | DLSTDT | DLSTCD | NWPERM | NWCOMP | NEXTDT | DLPRC | DLPDT | DLAMT | DLRET | DLRETX |
|---|---|---|---|---|---|---|---|---|---|---|
| 14322 | 3/24/2005 | 241 | 89757 | 44118 | | 0 | 3/28/2005 | 59.795 | 19.49% | 19.49% |
| 48071 | 12/29/2000 | 231 | 47896 | 20436 | | 0 | 1/3/2001 | 163.8 | -1.03% | -1.03% |

### NOTES

1. When ANNDELFLG <> 'N', the Security information corresponds with the ANNPRCDT (3/24/2005 & 12/29/2000) and not the last trading day of the period (12/30/2005 & 12/29/2000 respectively). Note: PERMNO 48071 the data are the same.
2. The returns in both examples includes the Delisting Returns (19.49% and -1.03%).
3. YYYY exists so that the annual record can be found without needing to know that 12/30/2005 and 12/29/2000 were the last trading days of their respective years. Similarly YYYYQ has been added for quarterly and YYYYMM for monthly.
4. Flags exist in the aggregate file to indicate a delisting return is included - RETFLG = DE (Delist included) and DELFLG = A (delist from distribution Amount).
5. The date flag is set to ED (End of CRSP Data) and price date is set to the delisting date, so that the delisting date is available without going to the delist info in SFZ_DEL
6. The delisting info record (SFZ_DEL) is still available and contains fields not available in the aggregate file. If the partial period return without the delist is desired, the calculation is [(1+annret)/(1+DLRET)]-1
7. Even thought the Delisting Payment Date (DLPDT) is after, the end of the period (ACALDT), the return is still included if it is within 10 trading days of the delisting date.

## 4. APPLE EXAMPLE

Four separate tables – This example uses Apple to demonstrate the use of various new flags to provide information about presented data.

### APPLE 1981-1984 - DATES AND DATE FLAGS

| KYPERMNO | yyyy | acaldt | annprcdt | anndtflg | annprevdt | annprevdtflg |
|---|---|---|---|---|---|---|
| 14593 | 1981 | 12/31/1981 | 12/31/1981 | PE | 12/31/1980 | PE |
| 14593 | 1982 | 12/31/1982 | 12/31/1982 | PE | 12/31/1981 | PE |
| 14593 | 1983 | 12/30/1983 | 12/30/1983 | PE | 12/31/1982 | PE |

## NOTES

1. YYYY exists to allow the annual record to be matched without needing the last trading date of the period. In the example above, the 1983 record has a ACALDT and ANNPRCDT of 12/30/1983, rather than 12/31/1983, because 12/30/1983 is the last trading day of 1983. Similarly YYYYQ has been added for quarterly and YYYYMM for monthly.

2. ANNDTFLG and ANNPREVDTFLG provide additional information about the ANNPRCDT and ANNPREVDT respectively. In the example above, and in the vast majority of records, the flag value indicates a Period End (PE); the last trading day of the period.

3. The Price date and flag for one period become the previous price data and flag for the next year. In the example above, the 1981 ANNPRCDT and ANNDTFLG are the 1982 previous values and the 1982 ANNPRCDT and ANNDTFLG are the 1983 previous values.

4. Acaldt is the last trading day of the period, regardless of the data available of the security. The ANNPRCDT is the date of the price used for the record. In the vast majority of case, and in the three records in this example, they will be equal.

### APPLE 1981-1984 - PRICE AND CAPS

| KYPERMNO | yyyy | acaldt | annprc | annprcflg | annprcdt | anndtflg | anncap | annprevprc | annprevprcflg | annprevdt | annprevdtflg | annprevcap |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 14593 | 1981 | 12/31/1981 | 22.1875 | BA | 12/31/1981 | PE | 1,229,653.44 | 34.1875 | BA | 12/31/1980 | PE | 1,884,962.00 |
| 14593 | 1982 | 12/31/1982 | 29.875 | TR | 12/31/1982 | PE | 1,722,234.00 | 22.1875 | BA | 12/31/1981 | PE | 1,229,653.44 |
| 14593 | 1983 | 12/30/1983 | 24.375 | TR | 12/30/1983 | PE | 1,448,118.75 | 29.875 | TR | 12/31/1982 | PE | 1,722,234.00 |

## NOTES

1. ANNPRCFLG and ANNPREVPRCFLG provide additional information ANNPRC and ANNPREVPRC respectively. In the example above, the 1981 PRC and PREVPRC and the 1982 PREVPRC are flagged as BA - BidAsk Average, and the 1982 PRC and the 1983 PRC and PREVPRC are flagged as TR - Closing Trade Price.

2. The Price and Cap for one period, becomes the previous price and cap for the next period. In the example above, the 1981 PRC (22.1875) becomes the 1982 PREVPRC, the 1982 PRC (29.875) becomes the 1983 PREVPRC.

### APPLE 1981-1984 - RETURNS AND RETURN RELATED FIELDS AND FLAGS

| KYPERMNO | yyyy | acaldt | anndtflg | anndelflg | annprevdtflg | annret | annretx | annretflg | anndiscnt | annfacshrflg |
|---|---|---|---|---|---|---|---|---|---|---|
| 14593 | 1981 | 12/31/1981 | PE | N | PE | -35.10% | -35.10% | CR | 0 | N |
| 14593 | 1982 | 12/31/1982 | PE | N | PE | 34.65% | 34.65% | CR | 0 | N |
| 14593 | 1983 | 12/30/1983 | PE | N | PE | -18.41% | -18.41% | CR | 0 | N |

## NOTES

1. ANNDTFLG provides context to the return. In the examples above, period end (PE) indicates that all the returns were calculated from an ending value from the last trading day of the current period.

2. ANNDELFLG provides information about whether the return includes the securities delisting return. In the example above, the value N (no delist) indicates that the return does not contain a delisting return. See Delisting Example for more details.

3. ANNPERVDTFLG provides context to the return. In the examples above, period end (PE) indicates that all the returns were calculated from a starting value from the last trading day of the previous period.

4. ANNRETFLG provides summary information about the return. The four most common values are CR (Complete Return), NS (New Security - see NS example), DE (Delisting - see DE Example), and MP (Missing Prices). In the example above, they are the most common value of CR - complete return.

5. ANNDISCNT provides additional context to the return, by providing the number of distributions during the period, most commonly cash dividends, that can be found in the SFZ_DIS file, if details are desired. In the example above, Apple did not have distributions in any of the three years.

6. ANNFACSHRFLG provides additional context to the return, by providing the a flag to indicate where distributions during the period impacted the shares outstanding, and that can be found in the SFZ_DIS file, if details are desired. In the example above, Apple did not have distributions in any of the three years and therefore none that impacted the shares.

## APPLE 1981-1984 - VOL & PRCVOL

| KYPERMNO | yyyy | acaldt | annvol | annvolflg | annprcvol | annfacshrflg | annprcvolmisscnt |
|---|---|---|---|---|---|---|---|
| 14593 | 1981 | 12/31/1981 | | MI | | N | 253 |
| 14593 | 1982 | 12/31/1982 | 14,104,087 | MV | 428,024,725.30 | N | 232 |
| 14593 | 1983 | 12/30/1983 | 201,395,359 | CV | 6,958,946,530.10 | N | 0 |

## NOTES

1. The ANNVOLFLG provides context for the ANNVOL and ANNPRCVOL values. In the 1983 record, CV (Complete Volume) - the most common value, indicates that there are no missing prices or volumes during the period and corresponds to the ANNPRCVOLMISSCNT of 0.

2. The ANNVOLFLG provides context for the ANNVOL and ANNPRCVOL values. In the 1982 record, MV (Missing Volume) indicates that there are on or missing volumes or prices during the period, but that some volumes and prices exist and an aggregate is calculated missing. The ANNPRCVOLMISSCNT indicates that there were 232 missing volumes during the 1982 year (these were due to a data source limitation). These two fields provide a caution that the 1982 aggregate volume of approximately 14M is not comparable to the complete volume of 201M in 1983.

3. The ANNVOLFLG provides context for the ANNVOL and ANNPRCVOL values. In the 1981 record, MI (Missing Data) indicates that the ANNVOL is and ANNVOLPRC are set to missing, because there was missing data for all of 1981.

4. The ANNFACSHRFLG provides context for the ANNVOL and ANNPRCVOL values. In this examples, all the records are set N (No Share impacting distributions in the SFZ_DIS file). The vast majority of the rows have a value of N.

## 5. MISSING PRICES/MISSING VOLUMES

This example demonstrates the use of flags in the new aggregate files to identify periods where a security had missing values for returns, volumes, and prices during the period or for the entire period.

| PERMNO 75023 - CURRENTLY T G THERAPEUTICS INC - AMERICUS TR FOR UNION PAC SHS | | | | | | | | | | | | |
| ROW IDENTIFIERS | | | CURRENT PERIOD INFO | | | | PREV PERIOD INFO | | | RETURN AND VOLUME INFO | | | | |
| KYPERMNO | yyyy | acaldt | annprcflg | annprcdt | anndtflg | anndelflg | annprevprcflg | annprevdt | annprevdtflg | annretflg | anndiscnt | annvolflg | annfacshrflg | annprcvolmisscnt |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 75023 | 1987 | 12/31/1987 | BA | 12/31/1987 | PE | N | BA | 5/28/1987 | NS | IP | 3 | IP | N | 26 |
| 75023 | 1988 | 12/30/1988 | BA | 12/30/1988 | PE | N | BA | 12/31/1987 | PE | MP | 4 | MV | N | 11 |
| 75023 | 1989 | 12/29/1989 | BA | 12/29/1989 | PE | N | BA | 12/30/1988 | PE | MP | 4 | MV | N | 8 |
| 75023 | 1990 | 12/31/1990 | TR | 12/31/1990 | PE | N | BA | 12/29/1989 | PE | MP | 4 | MV | N | 5 |
| 75023 | 1991 | 12/31/1991 | BA | 12/31/1991 | PE | N | TR | 12/31/1990 | PE | MP | 5 | MV | S | 64 |
| 75023 | 1992 | 12/31/1992 | BA | 4/14/1992 | ED | A | BA | 12/31/1991 | PE | IP | 1 | IP | N | 3 |

#### NOTES

1. For the 1987 row, the Previous Price Date (5/28/1987) and flag of NS indicates the first day of prices for the new security. Most commonly, the return and volume would be NS to indicate a partial period due to a new security, but because there are 26 missing prices or volumes after the starting date, this row is marked as IP (Incomplete Period) to indicate a combination of NS and MP cases.

2. For 1988 to 1991, the security trades from beginning to end of the periods (ANNDTFLG and ANNPREVDTFLG are both PE - Period End). Returns and volumes are calculated, but they are flagged with MP - Missing Price and MV - Missing Volumes to indicate that trading was not continuously reported. The missing count provides additional information and range from a very small 5 days during the year to a high of 64. See #3 below for more.

3. Whether it is appropriate to use the rows flagged as "Missing Prices" or "Missing Volumes" in your dataset will vary depending on the research design. CRSP has a convention to set a daily return to missing if there are ten consecutive days of missing prices. So there is a potential for a missing returns to be have material impact on the compounded return. It is also important to note that the aggregates are a convenience for some applications, but not intended to be a replacement, in all cases, for the underlying data in SFZ_DP_DLY. In the example above, 1987 and 1988 rows do not have more than 10 consecutive days of missing prices, and therefore no missing return issue. However, 1991 does have one period of twelve consecutive days of missing prices and therefore a missing return. This was determined by looking at the SFZ_DP_DLY.

4. For the 1992 row, the Price Date (4/14/1992) and flag of ED and a delisting flag of A indicates the end date of the security (Delisting Date) on 4/14/1992 and that a delisting return calculated (details in SFZ_DEL) from a delisting amount (details in SFZ_DIS) was included in the compounded return. Most commonly, the return and volume would be DE to indicate a partial period due to a delisted security, but because there are 3 missing prices or volumes after the start of the period and prior to the delisting date, this row is marked as IP (Incomplete Period) to indicate a combination of DE and MP cases.

5. The distribution count, ranging from 1 to 5, indicate that this security paid distributions. Also note that the Share Factor Flag indicates that in 1991 the security had a stock split or stock dividend. If desired, details of these, or any, distributions can be found in SFZ_DIS.

6. It is worth noting that this security is an usual security type; an Americus Trust (SHRCD = 23). Some CRSP Indexes exclude this (and other) share code, and some include them. In order to provide the most complete and comparable file to the underlying daily data (SFZ_DP_DLY), the aggregate files do not do any share code, exchange, or NMS Indicator filtering or restrictions. However, it is therefore incumbent about the use to apply an restrictions or filtering that they would like to implement.