



**CRSP® RESEARCH DATA PRODUCTS**

**DATA DESCRIPTIONS GUIDE**

FOR CRSPACCESS (FIZ) US STOCK &  
INDEX DATABASES



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# CHAPTER 1: BACKGROUND

## CRSP CALENDARS

A CRSP calendar is a set of time periods with header information about those time periods. The calendar time periods are chosen as points of interest rather than all calendar days, and therefore a daily calendar contains only the dates where trading was conducted on a major US exchange. Data are never provided on weekends or trading holidays. The standard identification of a time period is the date, an integer in YYYYMMDD format, at the end of the period.

There are currently five calendars provided with CRSPAccess databases: daily, monthly, weekly, quarterly, and annual. The daily calendar is used to derive the others so that the last trading date in each month, week, quarter, or year is used to build those respective calendars.

Time series data are always associated with one of these calendars. The list of time series observations is synchronized with a calendar so that the nth time series observation is associated with the nth calendar period.

A Calendar Name and an integer Calendar Identification Number identify each calendar. The calendars supported in CRSPAccess databases are:

Calendar	ID	Name	Beginning Date
Daily	100	Daily Trading Calendar	19251231
Monthly	101	Month-end Trading Calendar	19251231
Annual	300	Annual Trading Calendar	19251231
Quarterly	310	Quarterly Trading Calendar	19251231
Weekly	500	Weekly Trading Calendar	19260102

## STOCK DATA UNIVERSE

CRSP stock data includes data from NYSE, NYSE MKT, NASDAQ, Arca and Cboe BZX stock exchanges.

**The following items are included in our stock databases:**

- Common Stocks
- Certificates
- ADRs
- Shares of Beneficial Interest
- Units (Depository Units, Units of Beneficial Interest, Units of Limited Partnership Interest, Depository Receipts, etc.)
- ETFs
- Closed-End Mutual Funds
- Foreigns on NYSE, NYSE MKT, NASDAQ, Arca and Cboe BZX

- Americus Trust Components (Primes and Scores)
- HOLDRs Trusts
- REITs (Real Estate Investment Trusts)

**CRSP stock databases exclude:**

- Rights and Warrants
- Preferreds and notes
- Units Representing Common Stocks Bundled with Rights or Warrants
- Over the Counter Bulletin Board Issues
- When Issued Trading
- ETNs

## DEVELOPMENT OF THE CRSP STOCK FILES

CRSP STOCK FILE DATA DATES BY EXCHANGE		
EXCHANGE	MONTHLY STOCK FILES BEGINNING DATE	DAILY STOCK FILES BEGINNING DATE
NYSE	12/31/1925	12/31/1925
NYSE MKT	07/31/1962	07/02/1962
NASDAQ	12/29/1972	12/14/1972
Arca	03/31/2006	03/08/2006
Cboe BZX	01/31/2012	01/24/2012

The CRSP Data Files were developed by the Center for Research in Security Prices (CRSP), Booth School of Business, University of Chicago. Lawrence Fisher and James Lorie, during their tenure at the University of Chicago, built the CRSP stock file and originated its basic design and content.

The original CRSP stock file contained month-end prices and returns from the New York Stock Exchange (NYSE) dating from December, 1925. Daily and monthly American Stock Exchange (NYSE MKT) data and Daily NYSE data beginning in July, 1962, were respectively combined into monthly and daily NYSE/NYSE MKT files providing price and return information on NYSE/NYSE MKT common stock securities. CRSP's data coverage expanded in 1987 to include NASDAQ daily and monthly stock data, with information for domestic common stocks and ADRs traded on the NASDAQ Stock Market beginning December 14, 1972.

In 2005, CRSP completed the compilation and merging of daily data between 1925 and 1962 for securities that traded on NYSE in that period, resulting in seamless daily and monthly data for securities trading on NYSE between as early as December 1925.

Arca daily and monthly data were added in July 2007 for securities with primary listings on that exchange. Arca coverage begins on March 8, 2006.

On October 1, 2008, NYSE Euronext completed its acquisition of the American Stock Exchange LLC.

The Cboe BZX exchange was added with data beginning January 24, 2012.

The Investors Exchange IEX listed its first public company on October 5 2018 but later in 2019 left the public company listing business.”

## NASDAQ MARKETS

The NASDAQ Stock Market<sup>SM</sup> consists of three subsets of securities, the NASDAQ Global Market, Global Select Market, and the NASDAQ Capital Market. The Securities are tiered based on criteria setting minimum levels for: annual income, numbers of publicly traded shares, market capitalization, share price, and number of market makers. A security may move between tiers as its status changes.

Prior to July 2006, the Global and Global Select Markets were combined in a single tier called the NASDAQ National Market. The NASDAQ Capital Market was called the NASDAQ SmallCap Market. The NASDAQ National Market was initiated in April 1982 for larger and generally more actively traded NASDAQ securities. The NASDAQ National Market Securities had to meet higher financial and non-financial criteria than other NASDAQ stocks, and were subject to last-sale reporting. In June of 1992 the regular NASDAQ segment of The NASDAQ Stock Market was renamed The NASDAQ SmallCap Market and for the first time these became subject to real-time price and volume reporting.

The CRSP Access NASDAQ security data include closing bid, closing ask, and the number of trades, formerly included in the CRSP Supplemental NASDAQ Data File. The latter data items have been reported for issues listed on The NASDAQ National Market since November 1, 1982. Issues listed on The NASDAQ SmallCap Market have had these data reported since June 15, 1992.

For a more detailed description of how to identify The NASDAQ Market Tiers, see the NASDAQ National Market Indicator definition in the NASDAQ information history array described in the data definitions section.

## DATA ACCURACY OF THE CRSP STOCK DATA

CRSP stock files are designed for research and educational use and have proven to be highly accurate. Considerable resources are expended in ongoing efforts to check and improve data quality both historically and in the current update. Data corrections to historical information are made as errors are identified and are detailed in the Release Notes that accompany each data cut.

Historical corrections to security data may result in changes to historical CRSP index returns and levels. In any given year, the calendar year-end stock database may ship as the standard “Z-Cut”, as well as a second “X-Cut” if there have been substantial or significant corrections applied at year end. Both data cuts reflect corrections, however, the “Z-Cut” contains routine minor monthly corrections while the “X-Cut’s” year-end data edits typically required more extensive research efforts and may hold a greater potential to impact the CRSP indexes.

## DATA SOURCES

### ORIGINAL CRSP MONTHLY DATABASE

- December 1925-January 1928: Commercial and Financial Chronicle, “Bank and Quotation Section”
- February 1928-December 1960: Bank and Quotation Record, an expansion of the Bank and Quotation Section.

The collection and initial correction of cash dividends in the original CRSP Monthly Database was performed as follows:

- 1937-1960: annual issues of Moody’s, Standard and Poor’s Dividend Records, or the annual section of the Standard Corporation Records were used, depending on which was in the University of Chicago Library
- 1926-1936: Moody’s Quarterly Dividend Record

Since the only known complete file of this last publication was in Moody’s New York offices, the data from the earlier period were recorded in the Moody’s offices by trainees working for the research division of Merrill Lynch, Pierce, Fenner & Smith Inc.

### PRE62 DATABASE

The primary source for the Pre62 daily data was The New York Times newspaper. In cases where the stock information was either missing from The New York Times or the available data were questionable, The Wall Street Journal Newspaper served as CRSP’s secondary

data source. For the years prior to 1933, CRSP compared distribution data from The New York Times and The Wall Street Journal with that in the original database. CRSP determined that The New York Times and The Wall Street Journal ex-date data were more complete and accurate than the original data. Based on these findings, CRSP made the decision to rely on The New York Times as the primary data source for distribution ex-date data from 1925 through 1933.

## **CRSP US STOCK & INDEX DATABASE**

### **NYSE and NYSE MKT**

- July 1962-September 1, 1972: daily price and dividend data provided by Standard & Poor's Price Tape and Punched Card Dividend Service
- July 1962-March 1987: High, low, and volume data provided by Interactive Data Services, Inc. (IDSI), a subsidiary of Interactive Data Corporation (IDC)
- September 1972-April 1987: Interactive Data Corporation (IDC)

The Standard & Poor's Price Tape and Punched Card Dividend Service was acquired by IDC.

- April 1987-September 1999: Interactive Data Services, Inc. (IDSI)
- 1999-present: Interactive Data Corporation

### **Arca**

- March 2006-present: Interactive Data Corporation (IDC)

Coverage of companies with primary listings on Arca who have traded since 3/8/2006.

### **NASDAQ**

- December 12, 1972-August 31, 1984: Interactive Data Corporation (IDC)
- November 1, 1982-present (with the exception of February 1986): National Association of Securities Dealers (NASD)
- November 1, 1982-August 31, 1984: Interactive Data Corporation (IDC) was used as a secondary source to NASD
- February 1986: Interactive Data Services, Inc. (IDSI)
- March 2004-present: Interactive Data Corporation used as secondary source

### **SIC Codes**

Mergent was the primary source for SIC Code for NYSE, NYSE MKT & Arca securities from 20010824 through 2009. IDC has always been a continuous alternate

source of SIC codes, so no holes in coverage were introduced by the elimination of the Mergent data. The differences in codes resulting from our change in source did not impact the CRSP Indexes.

### **NAICS Codes**

In the December 2009 Stock Database, CRSP removed NAICS codes provided by our source, Mergent, and replaced them with NAICS codes from Interactive Data Corporation. Mergent was CRSP's only source for NAICS beginning 20010824. The IDC NAICS codes begin 20040610.

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## CHAPTER 2: DATA DEFINITIONS

### A.

#### ACQUIRING PERMCO

Acquiring PERMCO is the PERMCO of another company linked to a distribution. If the Acquiring PERMNO is nonzero and represents an associated security, Acquiring PERMCO is set to the PERMCO of that security. If Acquiring PERMNO is less than 1000, then Acquiring PERMCO can still be set. In this case, it represents a link to a company tracked by CRSP rather than a specific issue. For example, if a company pays cash to shareholders in a merger, then the Acquiring PERMCO is set to the PERMCO of that company.

Acquiring PERMCO is zero if not applicable, unknown, or associated with a company not tracked by CRSP. Data in this field is incomplete prior to 1985.

GENERAL INFORMATION	
Primary Concepts	Distribution Event Array
Data Type	integer number
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/di
C USAGE	
Object	dists_arr
Array	dists[ ]
Element	accomp
FORTRAN-95 USAGE	
Type or Subtype	dists_arr
Member and/or Array	dists()
Element	accomp

#### ACQUIRING PERMNO

Acquiring PERMNO is the PERMNO of another security linked to a distribution where a stock was received in a spin-off, exchange, merger, or other distribution event. It can also link to a security that was acquired in a merger causing a shares increase.

Acquiring PERMNO is set to a number less than 1000 if inapplicable or unknown. If multiple distributions exist with

the same Distribution Code and Ex-Distribution Date, they are numbered in the Acquiring PERMNO field. Data in this field are incomplete prior to 1985. Acquiring PERMNO may point to four-digit securities. Data for these securities are not included in the databases. Acquiring PERMNO values between 1 and 9 do not represent securities. These values as used to distinguish multiple distribution records with the same Distribution Code on the same Ex-Distribution Date.

GENERAL INFORMATION	
Primary Concepts	Distribution Event Array
Data Type	integer number
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/di
C USAGE	
Object	dists_arr
Array	dists[ ]
Element	acperm
FORTRAN-95 USAGE	
Type or Subtype	dists_arr
Member and/or Array	dists()
Element	acperm

#### AMOUNT AFTER DELISTING

Amount After Delisting is the value of a security after it delists from an exchange. The amount can be either an off-exchange price, an off-exchange price quote, or the sum of a series of distribution payments. The Amount After Delisting is used to calculate the Delisting Return. This amount is set to zero if the security is still active, if no price or payment information is available, or if the stock is worthless.

**Monthly:** If no value after the Delisting Date exists, but daily prices exist after the previous month's last trading date, then the Amount After Delisting is set to the last daily trading value found in the Price or Bid/Ask Average. This price is a daily price for activity that occurred during the delisting month.

GENERAL INFORMATION
---------------------

Primary Concepts	Delisting History Array
Data Type	real number
Unit of Item	USD
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/de
C USAGE	
Object	delist_arr
Array	delist[ ]
Element	dlamt
FORTRAN-95 USAGE	
Type or Subtype	delist_arr
Member and/or Array	delist()
Element	dlamt

### ARRAY STRUCTURE SIZE

Array Structure Size is the number of bytes needed in each structure element for this array type in a CRSPAccess object structure.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Time Series Objects, Event Array Objects, Header Objects
Data Type	integer number
Unit of Item	Set (no. of bytes)
DATE RANGE AVAILABILITY	
Daily	-
Monthly	-
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_*
Array	n/a
Element	size_of_array_width
FORTRAN-95 USAGE	
Type or Subtype	
Member and/or Array	
Element	

### ARRAY TYPE CODE

Array Type Code is an integer code which defines the type of data in a CRSPAccess object structure array. It can define a basic data type or a CRSP-defined structure.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Time Series Objects, Event Array Objects, Header Objects
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	-
Monthly	-
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_*
Array	n/a
Element	arrtype
FORTRAN-95 USAGE	
Type or Subtype	crsp_ts or crsp_array
Member and/or Array	n/a
Element	arrtype

### ASK ADJUSTED, END OF PERIOD

**Category:** Prices

**Data Type:** Floating Point

**Description:**

- Daily — Closing ask on the trading date being accessed, adjusted for distributions.
- Monthly — Closing ask on the last trading date of the month of the period being accessed, adjusted for distributions.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjask
Monthly ITEMID	madjask
Header	Adjask

SUBNO	0
-------	---

## ASK ADJUSTED, LAST AVAILABLE NONMISSING

**Category:** Prices

**Data Type:** Floating Point

- **Description:** Daily — Last available non-missing closing ask as of the trading date being accessed, adjusted for distributions.
- Monthly — Last available non-missing month-end closing ask as of the trading date being accessed, adjusted for distributions.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjask
Monthly ITEMID	madask
Header	Adjaskprev
SUBNO	1

## ASK, END OF PERIOD

**Category:** Prices

**Data Type:** Floating Point

**Description:**

- Daily — Closing ask on the trading date being accessed.
- Monthly — Closing ask on the last trading date of the month of the period being accessed.

### Extended Information

Ask is available both daily and monthly for all securities on the NYSE, NYSE MKT, NASDAQ, and Arca. Ask prices for NASDAQ are handled a little differently than for NYSE/NYSE MKT and outlined as follows:

### NASDAQ

Ask is available for issues trading on the NASDAQ Stock Market during time periods when Ask or High Price can contain the high price.

Since July 1980, NASDAQ has used the inside quotation as the closing bid and ask, with the close being at 4:00PM Eastern time. The inside quotation is the highest bid and lowest ask for each trade date.

Ask is reported for all NASDAQ National Market securities since November 1, 1982 and for all NASDAQ securities since June 15, 1992, with the following

exceptions due to source limitations:

- Ask is missing for 15 NASDAQ National Market securities in December 1982.
- Ask is missing for all NASDAQ National Market securities in February 1986.

### NYSE/ NYSE MKT

The ask for NYSE and NYSE MKT securities is not the inside quotation, but the ask price from the last representative quote before the markets close for each trading date. Due to source limitations, only an unrepresentative quote was available on many days. This unrepresentative quote showed very large spreads, frequently a bid of a penny and an ask of approximately double the price. These were usually posted by a market maker not on the primary listed exchange, who was required to post a quote but not interested in making a trade. From 1992 on, Bid and Ask were set to 0 when CRSP determined that the available quote was unrepresentative of trading activity, pending further research.

Ask data for NYSE are available from December 31, 1925 through the most currently completed month for securities when no closing price is available. Between December 31, 1925 and February 23, 1942, a continuous series of ask data are available whether or not a closing price is available. Between February 24, 1942 and December 27, 1992, ask is available only in cases when a closing price is missing. Beginning December 28, 1992, a continuous series of ask data are available.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	ask
Monthly ITEMID	mask
Header	Ask
SUBNO	0

## ASK, LAST AVAILABLE NONMISSING

**Category:** Prices

**Data Type:** Floating Point

**Description:**

- Daily — Last available non-missing closing ask as of the trading date being accessed.

- **Monthly** — Last available non-missing month-end closing ask as of the trading date being accessed.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	ask
Monthly ITEMID	mask
Header	Askprev
SUBNO	1

### ASKHI ADJUSTED, MAXIMUM IN PERIOD

**Category:** Prices

**Data Type:** Floating Point

- **Description: Daily** — Highest trading price during the day, or the closing ask if trading price not available, adjusted for distributions. Ask identified by a leading dash -.
- **Monthly** — Highest trading price during the month, or the highest bid-ask spread if trading price not available, adjusted for distributions. Bid-ask spreads identified by preceding dash -.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjaskhi
Monthly ITEMID	madjaskhi
Header	Adjaskhi
SUBNO	0

### ASKHI, MAXIMUM IN PERIOD

**Category:** Prices

**Data Type:** Floating Point

- **Description: Daily** — Highest trading price during the day, or the closing ask if trading price not available. Ask identified by a leading dash -.
- **Monthly** — Highest trading price during the month, or the highest bid-ask spread if trading price not available. Bid-ask spreads identified by preceding dash -.

### Extended Information

**Daily:** Ask or High Price is the highest trading price during the day, or the closing ask price on days when the closing price is not available. The field is set to zero if no Ask or High Price is available. If the Price or Bid/Ask Average is negative, this field contains the closing ask. If positive, this field contains the highest trade.

Daily trading prices for the NASDAQ National Market securities were first reported November 1, 1982. Daily trading prices for The NASDAQ SmallCap Market were first reported June 15, 1992. Therefore, Ask or High Price for NASDAQ securities is always an ask before these dates.

**Monthly:** Monthly files contain the lowest daily Price or Bid/Ask Average during the month. The field is set to zero when no Price or Bid/Ask Average was available during the month a value is found for incomplete months. If Price or Bid/Ask Average contains any bid/ask averages, these will be marked with a negative symbol. The absolute value of Price or Bid/Ask Average is used to select the lowest, but the sign is preserved if a bid/ask average is selected.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	askhi
Monthly ITEMID	maskhi
Header	Askhi
SUBNO	0

### ASSOCIATED INDEX RETURNS

**Category:** Returns Related to an Index

**Data Type:** Floating Point

**Description:** Total returns of an index that a user selects to be associated with a security or group of securities.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	

Daily ITEMID	indtret
Monthly ITEMID	mindtret
Header	Indtret
SUBNO	INDNO

## ASSOCIATED INDEX RETURNS, CUMULATIVE

**Category:** Returns Related to an Index

**Data Type:** Floating Point

**Description:** Compounded total returns of an index that a user selects to be associated with a security or group of securities. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumindtret
Monthly ITEMID	mcumindtret
Header	Cumindtret
SUBNO	INDNO

## ASSOCIATED INDEX RETURNS ON INCOME

**Category:** Returns Related to an Index

**Data Type:** Floating Point

**Description:** Returns on income only of an index that a user selects to be associated with a security or group of securities.

DATE RANGE AVAILABILITY	
Daily	Monthly
1925	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	Product Types
CRSPAccess	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	indirect
Monthly ITEMID	mindirect
Header	Indirect
SUBNO	INDNO

## ASSOCIATED INDEX RETURNS ON INCOME, CUMULATIVE

**Category:** Returns Related to an Index

**Data Type:** Floating Point

**Description:** Compounded return, on income only, of an index that a user selects to be associated with a security or group of securities. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumindirect
Monthly ITEMID	mcumindirect
Header	Cumindirect
SUBNO	INDNO

## ASSOCIATED INDEX RETURNS WITHOUT DIVIDENDS

**Category:** Returns Related to an Index

**Data Type:** Floating Point

**Description:** Compounded price appreciation only, of an index that a user selects to be associated with a security or group of securities.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	indaret
Monthly ITEMID	mindaret
Header	Indaret
SUBNO	INDNO



## ASSOCIATED INDEX RETURNS WITHOUT DIVIDENDS, CUMULATIVE

**Category:** Returns Related to an Index

**Data Type:** Floating Point

**Description:** Compounded price appreciation only, of an index that a user selects to be associated with a security or group of securities. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumindaret
Monthly ITEMID	mcumindaret
Header	Cumindaret
SUBNO	INDNO

## ASSOCIATED PORTFOLIOS RETURNS

**Category:** Returns Related to a Portfolio Type

**Data Type:** Floating Point

**Description:** Total returns of a portfolio that a user selects to be associated with a security or group of securities.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	portret
Monthly ITEMID	mportret
Header	Portret
SUBNO	PORTID

## ASSOCIATED PORTFOLIOS RETURNS ON INCOME

**Category:** Returns Related to a Portfolio Type

**Data Type:** Floating Point

**Description:** Returns on income only of a portfolio that a user selects to be associated with a security or group of securities.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	portiret
Monthly ITEMID	mportiret
Header	Portiret
SUBNO	PORTID

## ASSOCIATED PORTFOLIOS RETURNS WITHOUT DIVIDENDS

**Category:** Returns Related to a Portfolio Type

**Data Type:** Floating Point

**Description:** Price appreciation only, of a portfolio a user selects to be associated with a security or group of securities.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	portaret
Monthly ITEMID	mportaret
Header	Portaret
SUBNO	PORTID

**B.****BEGIN OF GROUP DATA**

Begin of Group Data is the first date the group data is valid in YYYYMMDD format.

GENERAL INFORMATION	
Primary Concepts	Group Data
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/g#, # is grouptype
C USAGE	
Object	group_arr[i], i+1 is grouptype
Array	group[i,]
Element	grpdt
FORTRAN-95 USAGE	
Type or Subtype	group_arr(i) i is grouptype
Member and/or Array	group()
Element	grpdt

**BEGIN OF STOCK DATA**

Begin of Stock Data is the date that data begins for the security, in YYYYMMDD format. It is the date of the first period in the time series arrays and is always greater than zero.

GENERAL INFORMATION	
Primary Concepts	Header Identification and Summary Data
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/hh , /hr , /hrl , /hn
C USAGE	
Object	header_row
Array	header
Element	begdt

FORTRAN-95 USAGE	
Type or Subtype	stkhdr
Member and/or Array	n/a
Element	begdt

**BEGIN OF VALID DATA**

Begin of Valid Data is the index of the first calendar period with valid data in a time series. If no data of this type are available, it is set to zero. The Calendar Trading Date at this index is the date of the first calendar period with data of this type.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Time Series Objects
Data Type	integer number
Unit of Item	Array index
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_TIMESERIES
Array	n/a
Element	beg
FORTRAN-95 USAGE	
Type or Subtype	crsp_ts
Member and/or Array	n/a
Element	beg

**BID ADJUSTED, END OF PERIOD**

**Category:** Prices

**Data Type:** Floating Point

**Description:** Daily — Closing bid on the trading date being accessed, adjusted for distributions.

Monthly — Closing bid on the last trading date of the month of the period being accessed, adjusted for distributions.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK

TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjbid
Monthly ITEMID	madjbid
Header	Adjbid
SUBNO	0

## BID ADJUSTED, LAST AVAILABLE NONMISSING

**Category:** Prices

**Data Type:** Floating Point

**Description:** Daily — Last available non-missing closing bid as of the trading date being accessed, adjusted for distributions.

Monthly — Last available non-missing month-end closing bid as of the trading date being accessed, adjusted for distributions.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjbid
Monthly ITEMID	madjbid
Header	Adjbidprev
SUBNO	1

## BID, END OF PERIOD

**Category:** Prices

**Data Type:** Floating Point

**Summary:** Daily — Closing bid on the trading date being accessed.

Monthly — Closing bid on the last trading date of the month.

**Extended Information:** Bid is available both daily and monthly for all securities on the NYSE, NYSE MKT, NASDAQ, and Arca exchanges. Bid prices for NASDAQ are handled a little differently than for NYSE/NYSE MKT and outlined as follows:

## NASDAQ

Bid is available for issues trading on the NASDAQ Stock Market during time periods when Bid or Low Price can contain the high price.

Since July 1980, NASDAQ has used the inside quotation as the closing bid and ask, with the close being at 4:00PM Eastern time. The inside quotation is the highest bid and lowest ask for each trade date.

Bid is reported for all NASDAQ National Market securities since November 1, 1982 and for all NASDAQ securities since June 15, 1992, with the following exceptions due to source limitations:

- Bid is missing for 15 NASDAQ National Market securities in December 1982.
- Bid is missing for all NASDAQ National Market securities in February 1986.

## NYSE / NYSE MKT

The bid for NYSE and NYSE MKT securities is not the inside quotation, but the bid price from the last representative quote before the markets close for each trading date. Due to source limitations, only an unrepresentative quote was available on many days. This unrepresentative quote showed very large spreads, frequently a bid of a penny and an ask of approximately double the price. These were usually posted by a market maker not on the primary listed exchange, who was required to post a quote but not interested in making a trade. From 1992 on, Bid and Ask are set to 0 when CRSP determined that the available quote was unrepresentative of trading activity, pending further research.

Bid data for NYSE are available from December 31, 1925 through the most currently completed month for securities when no closing price is available. Between December 31, 1925 and February 23, 1942, a continuous series of bid data are available whether or not a closing price is available. Between February 24, 1942 and December 27, 1992, bid is available only in cases when a closing price is missing. Beginning December 28, 1992, a continuous series of bid data are available.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK

TS_PRINT/TSQUERY USAGE	
Daily ITEMID	bid
Monthly ITEMID	mbid
Header	Bid
SUBNO	0

### BID, LAST AVAILABLE NONMISSING

**Category:** Prices

**Data Type:** Floating Point

**Description:** Daily — Last available non-missing closing bid as of the trading date being accessed.

Monthly — Last available non-missing month-end closing bid as of the trading date being accessed.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	bid
Monthly ITEMID	mbid
Header	Bidprev
SUBNO	1

### BIDLO ADJUSTED, MINIMUM IN PERIOD

**Category:** Prices

**Data Type:** Floating Point

**Description:** Daily — Lowest trading price during the day, or the closing bid if trading price not available, adjusted for distributions. Bid identified by a leading dash -.

Monthly — Lowest trading price during the month, or the lowest bid-ask spread if trading price not available, adjusted for distributions. Bid-ask spreads identified by preceding dash -.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjbidlo
Monthly ITEMID	madjbidlo
Header	Adjbidlo
SUBNO	0

### BIDLO, MINIMUM IN PERIOD

**Category:** Prices

**Data Type:** Floating Point

**Summary:** Daily — Lowest trading price during the day, or the closing bid if trading price not available. Bid identified by a leading dash -.

Monthly — Lowest trading price during the month, or the lowest bid-ask spread if trading price not available. Bid-ask spreads identified by preceding dash -.

**Extended Information:** Daily: Bid or Low Price is the lowest trading price during the day or the closing bid price on days when the closing price is not available. The field is set to zero if no Bid or Low Price is available.

Daily trading prices for the NASDAQ National Market securities were first reported November 1, 1982. Daily trading prices for The NASDAQ SmallCap Market were first reported June 15, 1992. Therefore, Bid or Low Price for NASDAQ securities is always a bid before these dates.

Monthly: Monthly files contain the lowest daily Price or Bid/Ask Average during the month. The field is set to zero when no Price or Bid/Ask Average was available during the month a value is found for incomplete months. If Price or Bid/Ask Average contains any bid/ask averages, these will be marked with a negative symbol. The absolute value of Price or Bid/Ask Average is used to select the lowest, but the sign is preserved if a bid/ask average is selected.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	bidlo
Monthly ITEMID	mbidlo
Header	Bidlo
SUBNO	0

**C.****CALENDAR ASSOCIATED WITH A TIME SERIES**

Calendar Associated with a Time Series is a pointer in a CRSP time series object to the associated CRSPAccess calendar structure needed to assign the time to data in a time series array.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Calendar Objects, Time Series Objects
Data Type	structure
Unit of Item	Array index
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_TIMESERIES
Array	n/a
Element	cal
FORTRAN-95 USAGE	
Type or Subtype	crsp_ts
Member and/or Array	n/a
Element	cal

**CALENDAR IDENTIFICATION NUMBER**

Calendar Identification Number is an integer code assigned by CRSP to trading calendars. A Calendar Name and Calendar Identification Number identify each calendar. The calendars supported in CRSPAccess databases are:

CALENDARS	CALENDAR ID	CALENDAR NAME	BEGINNING DATE
Daily	100	Daily Trading Calendar	19251231
Monthly	101	Month-End Trading Calendar	19251231
Annual	300	Annual Trading Calendar	19251231
Quarterly	310	Quarterly Trading Calendar	19251231
Weekly	500	Weekly Trading Calendar	19260102

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Calendar Objects

Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_CAL
Array	n/a
Element	calid
FORTRAN-95 USAGE	
Type or Subtype	crsp_cal
Member and/or Array	n/a
Element	calid

**CALENDAR IDENTIFICATION NUMBER OF ASSIGNMENT CALENDAR**

Calendar Identification Number of Assignment Calendar identifies a calendar that determines the dates when index breakpoints and buy/sell rules are valid. The assignment calendar is used when using rebalancing information to assign issues to a portfolio. The calendar periods of the Calendar Identification Number of Rebalancing Calendar, Calendar Identification Number of Assignment Calendar, and Calendar Identification Number of Calculations Calendar are synchronized, although the actual date ranges for each period may differ. The assignment calendar uses the same calendars listed in Calendar Identification Number.

GENERAL INFORMATION	
Primary Concepts	Index Header, Calendars
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row

Array	indhdr
Element	assign.assigncal
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	assign
Element	assigncal

## CALENDAR IDENTIFICATION NUMBER OF CALCULATIONS CALENDAR

Calendar Identification Number of Calculations Calendar identifies a calendar that determines the range of dates used to calculate statistics to form portfolios. The calendar periods of the Calendar Identification Number of Rebalancing Calendar, Calendar Identification Number of Assignment Calendar, and Calendar Identification Number of Calculations Calendar are synchronized, although the actual date ranges for each period number may differ. The calculations calendar uses the same calendars described in Calendar Identification Number.

GENERAL INFORMATION	
Primary Concepts	Index Header, Calendars
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	assign.calccal
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	assign
Element	calccal

## CALENDAR IDENTIFICATION NUMBER OF REBALANCING CALENDAR

Calendar Identification Number of Rebalancing Calendar identifies a calendar that determines the time periods when the portfolios in the index are held. The new portfolio universe is held from the end of one period in the rebalancing calendar until the end

of the next period. The calendar period numbers of the Calendar Identification Number of Rebalancing Calendar, Calendar Identification Number of Assignment Calendar, and the Calendar Identification Number of Calculations Calendar are synchronized, although the actual date ranges for each period number may differ. The rebalancing calendar uses the same calendars listed in Calendar Identification Number.

GENERAL INFORMATION	
Primary Concepts	Index Header, Calendars
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	assign.rebalcal
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	assign
Element	rebalcal

## CALENDAR NAME

Calendar Name is a text **Description:** of a calendar. These include: Daily Trading Calendar, Month-End Trading Calendar, Annual Trading Calendar, Quarterly Trading Calendar, Weekly Trading Calendar.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAAccess Data Structures, Calendar Objects
Data Type	character
Unit of Item	Description
DATE RANGE AVAILABILITY	
Daily	1926
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a

GENERAL INFORMATION	
C USAGE	
Object	CRSP_CAL
Array	n/a
Element	name
FORTRAN-95 USAGE	
Type or Subtype	crsp_cal
Member and/or Array	n/a
Element	name

### CALENDAR PERIOD GROUPING IDENTIFIER

Calendar Period Grouping Identifiers are integers assigned for each trading period in a calendar. These identifiers can be used as alternate names to Calendar Trading Date for the calendar periods. The values stored for each period in Calendar Period Grouping Identifier for the current calendars are:

CALENDAR NAME	DATE FORMAT
Daily Trading Calendar	YYYYWW
Month-End Trading Calendar	YYYYMM
Annual Trading Calendar	YYYY
Quarterly Trading Calendar	YYYYMM
Weekly Trading Calendar	YYYYWW

where YYYY is the 4-digit year, MM the month, and WW the week within the current year. The last week of the previous year is continued for the entire week when the year changes.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Calendar Objects
Data Type	integer number
Unit of Item	Description
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_CAL
Array	callist[ ]
Element	n/a
FORTRAN-95 USAGE	
Type or Subtype	crsp_cal
Member and/or Array	callist()
Element	n/a

### CALENDAR TIME PERIOD DESCRIPTION CODE

#### Calendar Time Period

**Description:** Code is a code that indicates the type of calendar array best used to read a CRSP Stock or Index time series. This code equals 2, indicating that calendar time periods are identified by the last trading date in the period using Calendar Trading Date.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Time Series Objects
Data Type	Integer Number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_TIMESERIES
Array	n/a
Element	caltpe
FORTRAN-95 USAGE	
Type or Subtype	crsp_ts
Member and/or Array	n/a
Element	caltpe

### CALENDAR TYPE AVAILABILITY FLAG

Calendar Type Availability Flag identifies the calendar available for use with the data. It is set to 1 if Calendar Period Grouping Identifier is available, 2 if Calendar Trading Date is available, and 3 if both are available.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Calendar Objects
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a



C USAGE	
Object	CRSP_CAL
Array	n/a
Element	loadflag
FORTRAN-95 USAGE	
Type or Subtype	crsp_cal
Member and/or Array	n/a
Element	loadflag

### CAPITALIZATION, END OF PERIOD

**Category:** Capitalization

**Data Type:** Floating Point

**Description:** Closing price \* shares outstanding (in 1000s), as of end of the period. If an index, capitalization is the total market value of the issues used in the index at the beginning of the period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
ts_print/TsQuery Usage	
Daily ITEMID	tcap
Monthly ITEMID	mtcap
Header	TCap
SUBNO	0

### CAPITALIZATION, END OF PREVIOUS PERIOD

**Category:** Capitalization

**Data Type:** Floating Point

**Description:** Closing price \* shares outstanding (in 1000s) at the end of the previous period. If an index, capitalization is the total market value of the issues used in the index at the beginning of the previous period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cap
Monthly ITEMID	mcap
Header	Cap
SUBNO	0

### COMPANY NAME, END OF PERIOD

**Category:** Name History

**Data Type:** String

**Summary:** Company name effective at the end of the period reported.

**Extended Information:** Company Name is the name of the company at the time of its name history record. CRSP allocates a 35 character name **Description:** field for all securities. Preference is given to the spellings and abbreviations provided in Standard & Poor's CUSIP Directory. In cases where name sources provide descriptions in excess of 35 characters, CRSP furnishes its own abbreviations. Daily: The daily file includes all historical names included in the file beginning in 1925.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	comnam
Monthly ITEMID	mcomnam
Header	Company Name
SUBNO	0

### COMPANY NAME, END OF PREVIOUS PERIOD

**Category:** Name History

**Data Type:** String

**Description:** Company name effective at the end of the period preceding the period reported.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	comnam
Monthly ITEMID	mcomnam
Header	Effective Name
SUBNO	1

### COMPANY NAME, MOST RECENT

**Category:** Name History

**Data Type:** String

**Description:** The most recent company name known to

## CRSP.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	comnam
Monthly ITEMID	mcomnam
Header	Last Company Name
SUBNO	2

## COUNT AT END OF REBALANCING PERIOD

Count at End of Rebalancing Period is the count of entities belonging to a portfolio at the end of a rebalancing period. It is set to zero if unavailable.

GENERAL INFORMATION	
Primary Concepts	Index Rebalancing History Arrays
Data Type	integer number
Unit of Item	Count
DATE RANGE AVAILABILITY	
Daily	-
Monthly	-
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/rs#
C USAGE	
Object	rebal_arr[ ]
Array	rebal[ ][ ]
Element	endcnt
FORTRAN-95 USAGE	
Type or Subtype	rebal_arr()
Member and/or Array	rebal(,)
Element	endcnt

## COUNT AVAILABLE AS OF REBALANCING

Count Available as of Rebalancing is the total count of entities available in the universe eligible for a portfolio at the beginning of a rebalancing period. It is set to zero if unavailable.

GENERAL INFORMATION	
Primary Concepts	Index Rebalancing History Arrays
Data Type	integer number
Unit of Item	Count

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/rs#
C USAGE	
Object	rebal_arr[ ]
Array	rebal[ ][ ]
Element	totcnt
FORTRAN-95 USAGE	
Type or Subtype	rebal_arr()
Member and/or Array	rebal(,)
Element	totcnt

## COUNT USED AS OF REBALANCING

Count Used as of Rebalancing is the count of entities in a portfolio as of the beginning of a rebalancing period. It is set to zero if unavailable.

GENERAL INFORMATION	
Primary Concepts	Index Rebalancing History Arrays
Data Type	integer number
Unit of Item	Count
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/rb#
C USAGE	
Object	rebal_arr
Array	rebal
Element	usdcnt
FORTRAN-95 USAGE	
Type or Subtype	rebal_arr()
Member and/or Array	rebal(,)
Element	usdcnt

## CUMULATIVE FACTOR TO ADJUST PRICES OVER A DATE RANGE

**Category:** Dividends

**Data Type:** Floating Point

**Description:** Cumulative factor from a base date used to adjust prices after distributions so that equivalent comparisons can be made between prices before and after the distribution.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumfacpr
Monthly ITEMID	mcumfacpr
Header	Cumfacpr
SUBNO	0

### CUMULATIVE FACTOR TO ADJUST SHARES/VOLUME OVER A DATE RANGE

**Category:** Dividends

**Data Type:** Floating Point

**Description:** Cumulative factor from a base date used to adjust shares and volume after distributions so that equivalent comparisons can be made between values before and after the distribution. Represented as a ratio of the additional shares out expected after the distribution to the last known observation.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumfacshr
Monthly ITEMID	mcumfacshr
Header	Cumfacshr
SUBNO	0

### CUSIP, END OF PERIOD

**Category:** Name History

**Data Type:** String

**Summary:** The 8 character CUSIP identifier for a security at the end of the period reported.

**Extended Information:** CUSIP refers to the CUSIP identifier valid during the date range of a name structure. All non-blank CUSIPs are 8 characters long.

The CUSIP Agency will often change an issue's CUSIP identifier to reflect name or capital structure changes.

CRSP has preserved all CUSIPs assigned to a given issue over time. CUSIP identifiers were first assigned in 1968. All CUSIPs in a name history before that date are unavailable. Dummy CUSIP identifiers are not included in the name history.

For more details of the CUSIP identifier; See CUSIP - Header.

DATE RANGE AVAILABILITY	
Daily	19680102
Monthly	19680102
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	ncusip
Monthly ITEMID	mncusip
Header	NCUSIP
SUBNO	0

### CUSIP, END OF PREVIOUS PERIOD

**Category:** Name History

**Data Type:** String

**Description:** The 8 character CUSIP identifier for a security at the end of period preceding the period reported.

DATE RANGE AVAILABILITY	
Daily	19680102
Monthly	19680102
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	ncusip
Monthly ITEMID	mncusip
Header	NCUSIPE
SUBNO	1

### CUSIP, HEADER

**Category:** Identification

**Data Type:** String

**Summary:** The latest 8 character CUSIP identifier for a security.

**Extended Information:** CUSIP - Header is the latest 8 character CUSIP identifier for the security through the end of the file. CUSIP identifiers are supplied to CRSP by the CUSIP Global Services (CGS). CGS is managed on behalf of the American Bankers Association (ABA) by S&P Global Market Intelligence LLC, Copyright 2021.

CUSIP identifiers were first assigned in 1968 as integers and expanded in 1984 to include alphabetic characters. The first six characters (including leading zeroes) identify the issuer, while the last two characters identify the issue. CUSIP issuer identifiers are assigned to maintain an approximately alphabetical sequence. The CUSIP identifier may change for a security if its name or capital structure changes.

No header or historical CUSIP is reused on our files. For securities no longer in existence or that were never assigned an official CUSIP identifier, CRSP has assigned a dummy CUSIP identifier for use in this field in accordance with the rules published in the CUSIP Directory. There are two potential types of dummy CUSIP - Headers which are assigned by CRSP. One, \*\*\*99\*9\*, (containing a 9 in the fourth, fifth, and seventh character positions) represents a CRSP-assigned CUSIP with a dummy issuer number (the first 6 character positions) and a dummy issue number (the last 2 character positions). The other, \*\*\*\*\*9\*, (containing a 9 in the seventh character position) represents a CRSP-assigned CUSIP with a real issuer number but a dummy issue number. For example:

A CUSIP - Header such as 12399099 or 12345699 is assigned by CRSP, and an identifier such as 12345610 is assigned by the CUSIP Agency.

Securities actively traded on an international basis, domiciled outside the United States and Canada, will be identified by a CINS (CUSIP International Numbering System) number. CINS numbers employ the same identifier system set by the CUSIP Numbering System: Issuer (6 characters) plus Issue (2 characters) per 8 characters. It is important to note that the first portion of a CINS code is always represented by an alphabetic character, signifying the issuer's country code (domicile) or geographic region. For more information, see the current CUSIP Directory and see Share Types.

DATE RANGE AVAILABILITY	
Daily	19680102
Monthly	19680102
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cusip
Monthly ITEMID	mncusip
Header	CUSIP
SUBNO	0

## CUSIP, MOST RECENT

**Category:** Name History

**Data Type:** String

**Description:** The most recently used 8 character CUSIP identifier for a security through the end of the file.

DATE RANGE AVAILABILITY	
Daily	19680102
Monthly	19680102
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	ncusip
Monthly ITEMID	mncusip
Header	NCUSIPL
SUBNO	2

**D.****DATA SECONDARY SUBTYPE CODE**

Data Secondary Subtype Code is an integer code further defining the Data Subtype Code of a CRSP array object. It is set to zero if unused.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Event Array Objects
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	
Monthly	
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_ARRAY
Array	n/a
Element	dummy
FORTRAN-95 USAGE	
Type or Subtype	crsp_array
Member and/or Array	n/a
Element	dummy

**DATA SUBTYPE CODE**

Data Subtype Code is an integer code further defining categories of data in a CRSP object that otherwise have the same structure, such as the difference between a return and price data item. It is set to zero if unused. The Data Subtype Code for portfolio assignments and statistics time series is set to the INDNO of the index group with portfolio results for the market segment portfolio type.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Time Series Objects, Event Array Objects, Header Objects
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	
Monthly	
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess

Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_*
Array	n/a
Element	subtype
FORTRAN-95 USAGE	
Type or Subtype	crsp_array or crsp_ts
Member and/or Array	n/a
Element	subtype

**DATE**

**Category:** Other

**Data Type:** Double Precision Floating Point

**Summary:** Trading date in the CRSP output calendar for the period. (Last trading day in week for weekly, month for monthly, and so on.)

**Extended Information:** Calendar Trading Date contains the list of trading dates for a CRSP calendar. Each date represents the last date in a calendar period, in YYYYMMDD (year, month, day) format. These dates begin in the first element of the array and continue to the Number of Periods in Calendar. Calendar dates for weekends and trading holidays are not included.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	caldt
Monthly ITEMID	mcaldt
Header	Caldt
SUBNO	0

**DATE - YYYYMMDD TRADING DATE (PARTIAL PERIOD DATA)**

**Category:** Other

**Data Type:** Double Precision Floating Point

**Description:** Trading dates used with partial period data.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925

DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	altdt
Monthly ITEMID	maltdt
Header	Altldt
SUBNO	0

## DELISTING CODE

Delisting Code is a 3-digit integer code. It either (1) indicates that a security is still trading or (2) provides a specific reason for delisting. All coded delistings are categorized by the first digit of the delisting code.

PRIMARY FIRST DIGIT OF CODE	CATEGORY
1	still trading or halted but not yet delisted
2	merger
3	exchange
4	liquidation
5	delisted by NYSE, NYSE MKT, NASDAQ or Arca
7	delisted by the Securities and Exchange Commission
8	trading simultaneously on more than one exchange

The second and third digits of the delisting codes provide further detail of delisting events. Additional delisting codes, specific to various delisting categories, have been created to indicate when an issue is closed to further research, or if the issue is pending further research.

GENERAL INFORMATION	
Primary Concepts	Delisting History Array
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/de
C USAGE	
Object	delist_arr
Array	delist[ ]
Element	dlstcd
FORTRAN-95 USAGE	
Type or Subtype	delist_arr
Member and/or Array	delist()

Element	dlstcd
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## DELISTING CODE - HEADER

Delisting Code - Header is the issue's delisting status at the end of the file. See Delisting Code for additional information.

GENERAL INFORMATION	
Primary Concepts	Header Identification and Summary Data
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/hh, /hn
C USAGE	
Object	header_row
Array	header
Element	dlstcd
FORTRAN-95 USAGE	
Type or Subtype	stkhdr
Member and/or Array	n/a
Element	dlstcd

## DELISTING DATE

Delisting Date is an integer containing the date in YYYYMMDD format of a security's last price on the current exchange. If the security is still active, Delisting Date is set to the last date of available price data. Delisting date is never missing.

Monthly: Delisting Date is not necessarily a month-end trading date and might not be included in the Calendar Trading Date array of monthly time series.

GENERAL INFORMATION	
Primary Concepts	Delisting History Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess

Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/de
C USAGE	
Object	delist_arr
Array	delist[ ]
Element	dlstdt
FORTRAN-95 USAGE	
Type or Subtype	delist_arr
Member and/or Array	delist()
Element	dlstdt

### DELISTING DATE OF NEXT AVAILABLE INFORMATION

Delisting Date of Next Available Information is the integer date (in YYYYMMDD format) of a security's Delisting Price - the price or quote found after delisting. This date is set to zero if the security is still active. It is also set to zero if the final value of the security is determined by one or more distributions or if the value of the security is unknown after suspension of trading or after delisting.

If a liquidation or merger was announced in advance, and trading continued on the exchange, then this date is set to the date of the announcement. If the security became worthless after delisting and there is no evidence of any trading after delisting, then the Delisting Date of Next Available Information is set to one trading day after the Delist Date, and the Delisting Price is set to zero.

GENERAL INFORMATION	
Primary Concepts	Delisting History Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/de
C USAGE	
Object	delist_arr
Array	delist[ ]
Element	nextdt
FORTRAN-95 USAGE	

Type or Subtype	delist_arr
Member and/or Array	delist()
Element	nextdt

### DELISTING PAYMENT DATE

Delisting Payment Date is the effective date (in YYYYMMDD format) of the Amount After Delisting value used in the Delisting Return calculations. If a price is used for the Amount After Delisting, then the Delisting Payment Date is set to the Delisting Date of Next Available Information. If distribution payments are used for the Amount After Delisting, then the Delisting Payment Date is set to the Ex-Distribution Date of the last known distribution payment. This date is set to zero if the security is still active or if no price or payment information is available.

Monthly: If no delisting information is found, and the security did not delist on the last trading day of the month, then the Delisting Payment Date is set to the Delisting Date and the Amount After Delisting is set to the last daily trading value found in the Price or Bid/Ask Average.

GENERAL INFORMATION	
Primary Concepts	Delisting History Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/de
C USAGE	
Object	delist_arr
Array	delist[ ]
Element	dlpdt
FORTRAN-95 USAGE	
Type or Subtype	delist_arr
Member and/or Array	delist()
Element	dlpdt

### DELISTING PRICE

Delisting Price refers to a trade price or a price quote (given as the average of bid and ask quotes) on another exchange or over-the-counter. The date of this price or quote is specified in the Delisting Date of Next Available Information.



If the Delisting Price is positive, then it is a trade price. If the Delisting Price is negative, then it is the average of bid and ask quotes. A Delisting Price is set to zero if the security is still active, if there was no further trading for the security after the delist date, or if prices or price quotes are not available after the delist date. If delisting payments were made using distributions, the Delisting Price is also set to zero, and the sum of the distribution payments is specified in the Amount After Delisting.

GENERAL INFORMATION	
Primary Concepts	Delisting History Array
Data Type	real number
Unit of Item	USD
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/de
C USAGE	
Object	delist_arr
Array	delist[ ]
Element	dlprc
FORTRAN-95 USAGE	
Type or Subtype	delist_arr
Member and/or Array	delist()
Element	dlprc

## DELISTING RETURN

Delisting Return is the return of a security after it has delisted from NYSE, NYSE MKT, NASDAQ, or Arca. The Delisting Return is calculated by comparing the security's Amount After Delisting with its price on the last day of trading. The Amount After Delisting can be either an off-exchange price, an off-exchange price quote, or the sum of a series of distribution payments. The effective date of the delisting return is specified in the Delisting Payment Date.

The return for any issue that has been closed to further research is calculated as follows:

- If a price within 10 periods of the delist date is available, then the delisting return is calculated using that price.
- If a final distribution is available, then the delisting return is calculated using all known distribution

information occurring after the date of last price.

- If distributions occurring after the date of last price are available, but no final distribution has been found, then the delisting return is calculated as if a final distribution were found. (This applies only to issues closed to further research.)
- If there is evidence that no distributions will ever be paid to shareholders, then the stock is considered worthless. The delisting return is set to -1 (i.e. a 100% loss).
- If there is evidence that the stock has been declared worthless, then the delisting return is set to -1 (i.e. a 100% loss).

For any issue that is closed to further research and none of the above criteria are met, the delisting return is given a missing return code. For any issue that is pending further research, the delisting return is given a missing return code of -55.0.

## MISSING DELISTING RETURN CODES

CODE	REASON FOR MISSING RETURN
-55.0	CRSP has no sources to establish a value after delisting or is unable to assign a value to one or more known distributions after delisting
-66.0	more than 10 trading periods between a security's last price and its first available price on a new exchange
-88.0	security is still active
-99.0	security trades on a new exchange after delisting, but CRSP currently has no sources to gather price information

Monthly: If Amount After Delisting is non-zero and Delisting Payment Date is less than or equal to the Delisting Date, the Delisting Return represents a partial-month return, not a Delisting Return. The partial-month returns compare the value on the last day of trading with the value on the last month-end date and do not factor in additional after-delisting information.

GENERAL INFORMATION	
Primary Concepts	Delisting History Array
Data Type	real number
Unit of Item	Ratio
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	ret/0 when the DLRET option is included in the FORMAT option

ts_print Monthly Usage	mret/0 when the DLRET option is included in the FORMAT option
stk_print Option(s)	/de
C USAGE	
Object	delist_arr
Array	delist[ ]
Element	dlret
FORTRAN-95 USAGE	
Type or Subtype	delist_arr
Member and/or Array	delist()
Element	dlret

## DELISTING RETURN WITHOUT DIVIDENDS

Delisting Return Without Dividends is the return of a security after it has delisted from NYSE, NYSE MKT, NASDAQ, or Arca. Ordinary dividends that were paid between the last trading date and the Date of Delisting Payment are not included in these return calculations. However, the ordinary dividends are included in the Delisting Return calculations. See Delisting Return in the Calculations Section for calculation and missing values.

GENERAL INFORMATION	
Primary Concepts	Delisting History Array
Data Type	real number
Unit of Item	Ratio
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	retx/0 when the DLRET option is included in the FORMAT option
ts_print Monthly Usage	mretx/0 when the DLRET option is included in the FORMAT option
stk_print Option(s)	/de
C USAGE	
Object	delist_arr
Array	delist[ ]
Element	dlretx
FORTRAN-95 USAGE	
Type or Subtype	delist_arr
Member and/or Array	delist()
Element	dlretx

## DISTRIBUTION CODE

CRSP describes company distributions and corporate actions in the distribution history with a 4-digit code.

The first digit describes the type of distribution. The second digit describes the payment method. The third digit augments the type denoted by the first digit. The fourth digit provides information regarding the tax status of the distribution for details.

CRSP has not verified the tax status of ordinary cash dividends since 1987. CRSP assigns the most common tax code, taxable as dividend, to ordinary dividends to these issues. CRSP does verify the tax status of stock distributions and distributions associated with rights offerings, spin-offs, liquidations, mergers, reorganizations, and exchanges.

GENERAL INFORMATION	
Primary Concepts	Distribution Event Array
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/di
C USAGE	
Object	dists_arr
Array	dists[ ]
Element	distcd
FORTRAN-95 USAGE	
Type or Subtype	dists_arr
Member and/or Array	dists()
Element	distcd

## DISTRIBUTION DECLARATION DATE

Distribution Declaration Date is the date (in YYYYMMDD format) on which the board of directors declared a distribution. If a declaration cannot be found, then this date is set to zero.

If the distribution is associated with a merger tender offer, then the Distribution Declaration Date is set to the announcement date of the tender offer. If the distribution represents merger payments or merger terms, then this date is set to the announcement date of the payments or terms.

GENERAL INFORMATION	
Primary Concepts	Distribution Event Array

Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/di
C USAGE	
Object	dists_arr
Array	dists[ ]
Element	dclrdt
FORTRAN-95 USAGE	
Type or Subtype	dists_arr
Member and/or Array	dists()
Element	dclrdt

### DIVIDEND AMOUNT IN PERIOD, ADJUSTED

**Category:** Dividends

**Data Type:** Floating Point

**Description:** Ordinary and return-of-capital dividends, adjusted using the Price adjustment factor.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjdiv
Monthly ITEMID	madjdiv
Header	Adjdiv
SUBNO	0

### DIVIDEND AMOUNT IN PERIOD, BEGINNING BASIS

**Category:** Dividends

**Data Type:** Floating Point

**Description:** Ordinary and return-of-capital dividends during the period, adjusted to beginning of period basis.

DATE RANGE AVAILABILITY	
Daily	1925

Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
ts_print/TsQuery Usage	
Daily ITEMID	tdivamt
Monthly ITEMID	mtdivamt
Header	Tdivamt
SUBNO	0

### DIVIDEND AMOUNT IN PERIOD, ORDINARY, ADJUSTED

**Category:** Dividends

**Data Type:** Floating Point

**Description:** Ordinary cash dividends paid, adjusted using the price adjustment factor.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjodiv
Monthly ITEMID	madjodiv
Header	Adjodiv
SUBNO	0

### DIVIDEND AMOUNT IN PERIOD, ORDINARY, BEGINNING BASIS

**Category:** Dividends

**Data Type:** Floating Point

**Description:** Ordinary cash dividends paid during the period, adjusted to beginning of period basis.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	odivamt
Monthly ITEMID	modivamt
Header	Odivamt
SUBNO	0

## DIVIDEND CASH AMOUNT

Dividend Cash Amount is the US dollar value per share of distributions resulting from cash dividends, spin-offs, mergers, exchanges, reorganizations, liquidations, and rights issues. Dividend Cash Amount includes the cash value of ordinary and non-ordinary (return of capital) dividends. When the distribution is paid in shares of a trading security, the Dividend Cash Amount is set to the exchange ratio times the price of the security at the close of the Ex-Distribution Date.

In a distribution where a limited percentage of shares are accepted in exchange for cash, the Dividend Cash Amount is set to the offer price, and the value must be adjusted using the Factor to Adjust Price. These are identified by a Distribution Code with the first digit 6 and a Factor to Adjust Price between -1 and 0. Note: regular income dividends for ADRs use the gross.

GENERAL INFORMATION	
Primary Concepts	Distribution Event Array
Data Type	real number
Unit of Item	USD
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/di
C USAGE	
Object	dists_arr
Array	dists[ ]
Element	divamt
FORTRAN-95 USAGE	
Type or Subtype	dists_arr
Member and/or Array	dists()
Element	divamt

## E.

### END OF GROUP DATA

End of Group Data is the last date group data is valid in YYYYMMDD format.

GENERAL INFORMATION	
Primary Concepts	Header Identification and Summary Data, Group Data
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/gp
C USAGE	
Object	group_arr
Array	group
Element	grpenddt
FORTRAN-95 USAGE	
Type or Subtype	group_arr()
Member and/or Array	group(,)
Element	grpenddt

### END OF STOCK DATA

End of Stock Data is the date that data ends for the security, in YYYYMMDD format. It is the date of the last period in the time series arrays and is always greater than zero.

GENERAL INFORMATION	
Primary Concepts	Header Identification and Summary Data
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	/hh , /hr , /hrl , /hn
C USAGE	
Object	header_row

Array	header
Element	enddt
FORTRAN-95 USAGE	
Type or Subtype	stkhdr
Member and/or Array	n/a
Element	enddt

### END OF VALID DATA

End of Valid Data is the index of the last calendar period with valid data for a security. If no data of this type are available, it is set to zero. The Calendar Trading Date at this index is the date of the last calendar period with data of this type for this security.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Time Series Objects
Data Type	integer number
Unit of Item	Array index
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	/hr
C USAGE	
Object	CRSP_TIMESERIES
Array	n/a
Element	end
FORTRAN-95 USAGE	
Type or Subtype	crsp_ts
Member and/or Array	n/a
Element	

### ENTITY BEGIN DATE RANGE OR EVENT DATE

**Category:** Other

**Data Type:** Double Precision Floating Point

**Description:** First period in a selected date range, or event date for an entity.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK

TS_PRINT/TSQUERY USAGE	
Daily ITEMID	date1
Monthly ITEMID	mdate1
Header	Date1
SUBNO	0

### ENTITY END DATE RANGE

**Category:** Other

**Data Type:** Double Precision Floating Point

**Description:** Last date in a selected date range for an entity.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	date2
Monthly ITEMID	mdate2
Header	Date2
SUBNO	0

### EX-DISTRIBUTION DATE

Ex-Distribution Date is the ex-dividend or ex-distribution date. It is the date on which the security is first traded without the right to receive the distribution. This date is coded as an integer in YYYYMMDD format and is always a daily trading date.

For distributions in a merger or exchange where the company disappeared, the Ex-Distribution Date is, by convention, set equal to the trading day immediately after the date of the last price.

Ex-Distribution Dates of liquidating payments after delistings are reported when available, and set to Record Date or Delisting Payment Date if unavailable.

GENERAL INFORMATION	
Primary Concepts	Distribution Event Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK

ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/di
C USAGE	
Object	dists_arr
Array	dists[ ]
Element	exdt
FORTRAN-95 USAGE	
Type or Subtype	dists_arr
Member and/or Array	dists()
Element	exdt

## EXCESS RETURNS ON INCOME VS. ASSOCIATED PORTFOLIOS

**Category:** Returns Related to a Portfolio Type

**Data Type:** Floating Point

**Description:** Difference between a security's return on income and the return on income of a portfolio that a user selects to be associated with the security.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	portxsiret
Monthly ITEMID	mportxsiret
Header	Portxsiret
SUBNO	PORTID

## EXCESS RETURNS ON INCOME VS. ASSOCIATED PORTFOLIOS, CUMULATIVE

**Category:** Returns Related to a Portfolio Type

**Data Type:** Floating Point

**Description:** Compounded difference between a security's return on income and the return on income of a portfolio that a user selects to be associated with the security. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	

Daily ITEMID	cumxspiret
Monthly ITEMID	mcumxspiret
Header	Cumxspiret
SUBNO	PORTID

## EXCESS RETURNS ON INCOME VS. INDEX SERIES

**Category:** Returns Related to an Index

**Data Type:** Floating Point

**Description:** Difference between a security's return on income and the return on income of an index that a user selects to be associated with the security.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	xsiret
Monthly ITEMID	mxsiret
Header	Xsiret
SUBNO	INDNO

## EXCESS RETURNS ON INCOME VS. INDEX SERIES, CUMULATIVE

**Category:** Returns Related to an Index

**Data Type:** Floating Point

**Description:** Compounded difference between a security's return on income and the return on income of an index that a user selects to be associated with the security. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumxsiret
Monthly ITEMID	mcumxsiret
Header	Cumxsiret
SUBNO	INDNO

## EXCESS RETURNS VS. ASSOCIATED PORTFOLIOS

**Category:** Returns Related to a Portfolio Type

**Data Type:** Floating Point

**Description:** Difference between a security's total

return and the total return of a portfolio that a user selects to be associated with the security.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	portxstret
Monthly ITEMID	mportxstret
Header	Portxstret
SUBNO	PORTID

### EXCESS RETURNS VS. ASSOCIATED PORTFOLIOS, CUMULATIVE

**Category:** Returns Related to a Portfolio Type

**Data Type:** Floating Point

**Description:** Compounded difference between a security's total return and the total return of a portfolio that a user selects to be associated with the security. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumxsptret
Monthly ITEMID	mcumxsptret
Header	Cumxsptret
SUBNO	PORTID

### EXCESS RETURNS VS. INDEX SERIES

**Category:** Returns Related to an Index

**Data Type:** Floating Point

**Description:** Difference between a security's total return and the total return of an index that a user selects to be associated with the security.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	

Daily ITEMID	xstret
Monthly ITEMID	mxstret
Header	Xstret
SUBNO	INDNO

### EXCESS RETURNS VS. INDEX SERIES, CUMULATIVE

**Category:** Returns Related to an Index

**Data Type:** Floating Point

**Description:** Compounded difference between a security's total return and the total return of an index that a user selects to be associated with the security. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumxstret
Monthly ITEMID	mcumxstret
Header	Cumxstret
SUBNO	INDNO

### EXCESS RETURNS WITHOUT DIVIDENDS VS. ASSOCIATED PORTFOLIOS

**Category:** Returns Related to a Portfolio Type

**Data Type:** Floating Point

**Description:** Difference between a security's capital appreciation and the capital appreciation of a portfolio a user selects to be associated with the security.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	portxsaret
Monthly ITEMID	mportxsaret
Header	Portxsaret
SUBNO	PORTID

### EXCESS RETURNS WITHOUT DIVIDENDS VS. ASSOCIATED PORTFOLIOS, CUMULATIVE

**Category:** Returns Related to a Portfolio Type

**Data Type:** Floating Point



**Description:** Compounded difference between a security's capital appreciation and the capital appreciation of a portfolio that a user selects to be associated with the security. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumxsparet
Monthly ITEMID	mcumxsparet
Header	Cumxsparet
SUBNO	PORTID

### EXCESS RETURNS WITHOUT DIVIDENDS VS. INDEX SERIES

**Category:** Returns Related to an Index

**Data Type:** Floating Point

**Description:** Difference between a security's capital appreciation and the capital appreciation of an index a user selects to be associated with the security.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	xsaret
Monthly ITEMID	mxsaret
Header	Xsaret
SUBNO	INDNO

### EXCESS RETURNS WITHOUT DIVIDENDS VS. INDEX SERIES, CUMULATIVE

**Category:** Returns Related to an Index

**Data Type:** Floating Point

**Description:** Compounded difference between a security's capital appreciation and the capital appreciation of an index that a user selects to be associated with the security. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumxsaret
Monthly ITEMID	mcumxsaret
Header	Cumxsaret
SUBNO	INDNO

### EXCHANGE CODE, END OF PERIOD

**Category:** Name History

**Data Type:** Double Precision Floating Point

**Description:** Integer code(s) indicating the exchange(s) on which the security is listed at the end of the period reported.

#### Extended Information

Valid Exchange Code – Header values are 1,2,3,4,5, or 6, which correspond to the NYSE, NYSE MKT, NASDAQ, Arca, Cboe BZX, and IES respectively. An Exchange Code of zero indicates that a security is either trading on an unknown exchange, or is temporarily not trading at all. Adding 30 to the normal Exchange Codes (31, 32, 33 and 34) identifies when-issued trading, such as during a reorganization. The following table contains a list of most of the Exchange Codes in the name history array.

CODE	EXCHANGE NAME
-2	Halted by Primary Listing Exchange
-1	Suspended by Primary Listing Exchange
0	Not Trading on Primary Listing Exchange
1	NYSE
2	NYSE MKT
3	NASDAQ
4	Arca
5	BZX Exchange
6	Investors Exchange (IEX)
10	Boston Stock Exchange
13	Chicago Stock Exchange
16	Pacific Stock Exchange
17	Philadelphia Stock Exchange
20	Over-The-Counter (Non-NASDAQ Dealer Quotations)
31	When-Issued Trading on NYSE
32	When-Issued Trading on NYSE MKT
33	When-Issued Trading on NASDAQ

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	exchcd
Monthly ITEMID	mexchcd
Header	EX
SUBNO	0

### EXCHANGE CODE, END OF PREVIOUS PERIOD

**Category:** Name History

**Data Type:** Double Precision Floating Point

**Description:** Integer code(s) indicating the exchange(s) on which the security is listed at the end of the period preceding the period reported.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	exchcd
Monthly ITEMID	mexchcd
Header	EXE
SUBNO	1

### EXCHANGE CODE, MOST RECENT

**Category:** Name History

**Data Type:** Double Precision Floating Point

**Description:** The most recently known integer code(s) indicating the exchange(s) on which the security is listed.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	exchcd
Monthly ITEMID	mexchcd
Header	EXL
SUBNO	2

### EXCHANGE CODE - HEADER

Exchange Code - Header displays the Exchange Code on which a security was last listed. Valid Exchange Code - Header values are 1, 2, 3, 4 or 5, which correspond to the NYSE, NYSE MKT, NASDAQ, Arca and Bats respectively. Other Exchange Codes are not included in the Exchange Code - Header field.

GENERAL INFORMATION	
Primary Concepts	Header Identification and Summary Data
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	STK
ts_print Daily Usage	
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	header_row
Array	header
Element	hexcd
FORTRAN-95 USAGE	
Type or Subtype	stkhdr
Member and/or Array	n/a
Element	hexcd

**E.****FACTOR TO ADJUST PRICE IN PERIOD****Category:** Dividends**Data Type:** Floating Point

**Description:** Factor from a base date used to adjust prices after distributions so that equivalent comparisons can be made between prices before and after the distribution.

**Extended Information**

Factor to Adjust Price equals Factor to Adjust Shares Outstanding for most distribution events. There are three types of distributions where this is the case:

1. For ordinary cash dividends or partial liquidating payments, Factor to Adjust Price is set to zero.
2. For cases of mergers, total liquidations, or exchanges where all shares were exchanged, a final liquidation payment was announced, or the security disappeared, Factor to Adjust Price is set to negative one by convention.
3. For stock dividends and splits, Factor to Adjust Price is the number of additional shares per old share issued:

$$\text{facpr} = (s(t) - s(t'))/s(t') = (s(t)/s(t')) - 1$$

where  $s(t)$  is the number of shares outstanding,  $t$  is a date after or on the Ex-Distribution Date for the split, and  $t'$  is a date before the split. In a reverse split, Factor To Adjust Price will be between -1 and 0.

In other less common distribution events, spin-offs, non-total or non-final liquidating distributions, and rights, Factor to Adjust Price is not equal to Factor to Adjust Shares Outstanding. Factor to Adjust Price is defined as the Dividend Cash Amount divided by the stock price on the Ex-Distribution Date,  $P(t)$ :

$$\text{facpr} = \text{DIVAMT}/P(t)$$

If there is no available price on the Ex-Distribution Date, and there is a price within ten periods after  $P(t)$ , CRSP substitutes that price for  $P(t)$ .

Note that  $P(t)$  is the price on the Ex-Distribution Date. Therefore, unless it happens to be a month-end, the price is not available in our monthly file.

Other cases where Factor to Adjust Price may not be equal to factor to adjust shares are issuances and limited tender offers. For issuances, Factor to Adjust Price is set to zero. For limited tender offers where

a limited set percentage of shares are accepted in exchange for cash, Factor to Adjust Price is set to the ratio of shares accepted multiplied by -1.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	facprc
Monthly ITEMID	mfacprc
Header	Facprc
SUBNO	0

**FACTOR TO ADJUST SHARES OUTSTANDING**

Factor to Adjust Shares Outstanding is an adjustment to Shares Outstanding observations due to a distribution event. It is the number of additional shares outstanding expected after the Ex-Distribution Date of the distribution event relative to the last known observation. Factor to Adjust Shares Outstanding equals Factor to Adjust Price for most distribution events. There are five types of distributions where this is the case. See Factor to Adjust Price in Period above for these cases and how they are handled.

For spin-offs, Factor to Adjust Shares Outstanding is set to zero. For rights issues, Factor to Adjust Shares Outstanding is calculated based on all shareholders exercising the rights on the Ex-Distribution Date. If it is set to 0, this distribution leaves the actual shares outstanding adjustment to this right to shares observations in the quarterly reports. For issuances and offers, if it is nonzero, then it is calculated in the same manner as for stock splits.

GENERAL INFORMATION	
Primary Concepts	Distribution Event Array, Calculations
Data Type	real number
Unit of Item	Conversion Factor
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	/di
C USAGE	

Object	dists_arr
Array	dists[ ]
Element	facshr
FORTRAN-95 USAGE	
Type or Subtype	dists_arr
Member and/or Array	dists( )
Element	facshr

### FIRST DATE INCLUDED IN LIST

First Date Included in List is the date, in YYYYMMDD format, of the first date an issue is included in a portfolio defined as a selected list of securities.

GENERAL INFORMATION	
Primary Concepts	Index List History Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	n/a
C USAGE	
Object	list_arr[ ]
Array	list[ ][ ]
Element	begdt
FORTRAN-95 USAGE	
Type or Subtype	list_arr
Member and/or Array	list(,)
Element	begdt

### G.

### GROUP FLAG OF ASSOCIATED INDEX, END OF PERIOD

**Category:** Other

**Data Type:** Double Precision Floating Point

**Description:** Code identifying a group to which a security belongs. Currently, S&P 500 group flag 16 is the only active group. If the security belongs to the selected group type, the Group Flag of Associated Index will contain a one (1). If it does not belong to the group, or is not valid according to the group rules, the field contains a zero (0).

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	grpflg
Monthly ITEMID	mgrpflg
Header	SPInd
SUBNO	16

### GROUP FLAG OF ASSOCIATED INDEX, END OF PREVIOUS PERIOD

**Category:** Other

**Data Type:** Double Precision Floating Point

**Description:** Code identifying a group to which a security belongs, in the period preceding the period reported. Currently, S&P 500 group flag 16 is the only active group.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	egrpflg
Monthly ITEMID	megrpflg
Header	ESPInd
SUBNO	16

## GROUP FLAG OF ASSOCIATED INDEX, LAST FLAG, ALL PERIODS

**Category:** Other

**Data Type:** Double Precision Floating Point

**Description:** Last known code identifying a group to which a security belongs. Currently, S&P 500 group flag 16 is the only active group.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	lgrpflg
Monthly ITEMID	mlgrpflg
Header	LSPInd
SUBNO	16

## H.

### HIGHEST CLOSE

**Category:** Prices

**Data Type:** Floating Point

**Description:** Daily — Highest daily closing price within the selected output calendar.

Monthly — Highest month end closing price within the selected calendar. Appropriate to use with quarterly and annual output calendars.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	high
Monthly ITEMID	mhigh
Header	High
SUBNO	0

## HOLDING PERIOD TOTAL RETURN

A return is the change in the total value of an investment in the security over some period of time per dollar of initial investment. Holding Period Total Return is the return for a sale on the given day. It is based on a purchase on the most recent time previous to this day when the security had a valid price. Usually, this time is the previous calendar period. See “Returns” in the Calculations section.

**Daily:** In daily databases, dividends are reinvested on the Ex-Distribution Date.

**Monthly:** In monthly databases, returns are holding period returns from month-end to month-end, not compounded from daily returns, and ordinary dividends are reinvested at month-end.

A series of special missing return codes specify the reason a return is missing.

CODE	REASON FOR MISSING RETURN
-66.0	Valid current price but no valid previous price. Either first price, unknown exchange between current and previous price, or more than 10 periods between time t and the time of the preceding price t'.
-77.0	Not trading on the current exchange at time t.
-88.0	No data available to calculate returns.
-99.0	Missing return due to missing price at time t; usually due to suspension in trading or trading on unknown exchange.

GENERAL INFORMATION	
Primary Concepts	Price, Volume, and Return Time Series Arrays
Data Type	real number
Unit of Item	Ratio
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	STK
ts_print Daily Usage	ret/0
ts_print Monthly Usage	mret/0
ind_print Option(s)	/pr, /dd, /dr, /dx
C USAGE	
Object	ret_ts
Array	ret[ ]
Element	
FORTRAN-95 USAGE	
Type or Subtype	ret_ts
Member and/or Array	ret( )
Element	

## I.

**INDEX BASIC ASSIGNMENT TYPES CODE**

Index Basic Assignment Types Code is an integer code of basic assignment types for fractile or rule-based indexes. The following codes are currently used.

CODE	DESCRIPTION
0	Unknown or not applicable
1	Annual rebalancing
2	Quarterly rebalancing
3	Monthly rebalancing

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	assign.assigncode
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	assign
Element	assigncode

**INDEX BASIC EXCEPTION TYPES CODE**

Index Basic Exception Types Code is an integer code of the basic exception characteristics used in building an index. The following codes are currently used:

CODE	DESCRIPTION
0	Unknown or not available
1	CRSP market index flags
2	Cap-Based index flags
3	CRSP market index trade-only prices flags

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925

DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	flags.flagcode
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	flags
Element	flagcode

**INDEX BASIC RULE TYPES CODE**

Index Basic Rule Types Code is an integer code of basic portfolio methodology rule types used in building indexes. The following codes are currently used:

CODE	DESCRIPTION
0	Unknown or not applicable
1	Group by previous period end issue capitalization
2	Group by previous period end company capitalization
3	Group by Scholes-Williams beta over previous year
4	Group by standard deviation over previous year

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	rules.rulecode
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	rules
Element	rulecode

## INDEX CAPITAL APPRECIATION RETURN

Index Capital Appreciation Return is the return, excluding ordinary dividends, of an index. See “Index Returns” in the Calculations Section for details on how CRSP index returns are calculated. If CRSP includes a public index such as the S&P 500 Composite or the NASDAQ Composite, Index Capital Appreciation Return is derived from data provided by the creator of the index.

GENERAL INFORMATION	
Primary Concepts	Index Time Series
Data Type	real number
Unit of Item	Ratio
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	retx/0
ts_print Monthly Usage	mretx/0
ind_print Option(s)	/ar
C Usage Object	aret_ts[ ]
Array	aret[ ][ ]
Element	n/a
FORTRAN-95 USAGE	
Type or Subtype	aret_ts
Member and/or Array	aret(, )
Element	n/a

## INDEX COUNT TOTAL

**Category:** Other

**Data Type:** Double Precision Floating Point

**Description:** Total number of securities in an index universe with a valid price on the selected trading date.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	tcnt
Monthly ITEMID	mtcnt
Header	TCnt
SUBNO	0

## INDEX COUNT USED

**Category:** Other

**Data Type:** Double Precision Floating Point

**Description:** Number of issues used to create a specific index or portfolio during one calendar period. A security must be a member of the index or portfolio with valid prices for both the current and the previous trading periods to be included in the count. See the Index Methodologies section for information including rebalancing frequency and universe inclusion for specific indexes.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cnt
Monthly ITEMID	mcnt
Header	Cnt
SUBNO	0

## INDEX EXCEPTION HANDLING FLAGS

Index Exception Handling Flags is a group of fields describing how an index supports exceptions in the data, such as new and delisted issues and missing data. The flags contain the following fields: Index Basic Exception Type Code, Index New Issues Flag, Index Ineligible Issues Flag, Return of Delisted Issues Flag, and Index Missing Data Flag.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	structure
Unit of Item	Set (exception codes/flags)
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	flags
FORTRAN-95 USAGE	



Type or Subtype	indhdr
Member and/or Array	flags
Element	n/a

### INDEX FUNCTION CODE FOR BUY RULES

Index Function Code for Buy Rules is a code defining a function used to determine whether an issue is added to a portfolio during rebalancing. This variable is not yet available, and is always set to 0.

GENERAL INFORMATION	
Primary Concepts	Index Header, Index Rebalancing History Arrays
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	rules.buyfnct
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	rules
Element	buyfnct

### INDEX FUNCTION CODE FOR GENERATING STATISTICS

Index Function Code for Generating Statistics is a code defining a function used to generate a statistic to be used in determining inclusion in a portfolio. The following codes are currently used.

CODE	DESCRIPTION
0	Unknown or not applicable
1	Capitalization at end of previous period
2	Scholes-Williams beta over previous year
3	Standard deviation over previous year

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	

Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	rules.statfnct
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	rules
Element	statfnct

### INDEX FUNCTION CODE FOR SELL RULES

Index Function Code for Sell Rules is a code defining a function used to determine whether to sell current issues in a portfolio at a rebalancing period. This is not yet available, and is always set to 0.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	rules.sellfnct
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	rules
Element	sellfnct

### INDEX GROUP NAME

Index Group Name is the name of the index group to which an index belongs. All indexes with the same Permanent Index Group Identification Number have the

same Index Group Name.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	character
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hh , /hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	groupname
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	n/a
Element	groupname

## INDEX INCOME RETURN

Index Income Return is the ordinary dividend return of an index. See “Index Returns” in the Calculations section for details on how CRSP index returns are calculated. Index Capital Appreciation Return is available for CRSP-generated indexes.

GENERAL INFORMATION	
Primary Concepts	Index Time Series
Data Type	real number
Unit of Item	Ratio
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	reti
ts_print Monthly Usage	mreti
ind_print Option(s)	/ir
C USAGE	
Object	iret_ts[ ]
Array	iret[ ][ ]
Element	n/a
FORTRAN-95 USAGE	
Type or Subtype	iret_ts

Member and/or Array	iret(,)
Element	n/a

## INDEX INELIGIBLE ISSUES FLAG

Index Ineligible Issues Flag is a code describing how issues that become ineligible for an index are handled in the index. The following codes are used:

CODE	DESCRIPTION
0	Unknown or not available
1	Issues becoming ineligible are held until the next time period.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	flags.delflag
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	flags
Element	delflag

## INDEX LEVEL OF RETURNS

**Category:** Index Levels

**Data Type:** Floating Point

**Description:** Value of an index, including all distributions, relative to its value at one fixed point in time.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	tlvl

Monthly ITEMID	mtlvl
Header	TLvl
SUBNO	0

## INDEX LEVEL OF RETURNS ON INCOME

**Category:** Index Levels

**Data Type:** Floating Point

**Description:** Ordinary dividend value of an index, relative to its value at one fixed point in time.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	ilvl
Monthly ITEMID	milvl
Header	ILvl
SUBNO	0

## INDEX LEVEL OF RETURNS WITHOUT DIVIDENDS

**Category:** Index Levels

**Data Type:** Floating Point

**Description:** Value of an index, excluding ordinary dividends, relative to its value at one fixed point in time.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	alvl
Monthly ITEMID	malvl
Header	ALvl
SUBNO	0

## INDEX LEVEL OF TOTAL RETURNS

Index Total Return Index Level is the value of an index, including all distributions, relative to its value at one fixed point in time. See “Index Levels” in the Calculations section for details on how CRSP index levels are calculated. Index Total Return Index Level is only available for CRSP-generated indexes. Index levels for the CRSP Stock File Indexes and the CRSP CTI Indexes are set to an initial value of 100.00 on 19721229. Index levels for the Cap-Based Portfolios are set to 1.00 on 19251231.

GENERAL INFORMATION	
Primary Concepts	Index Time Series
Data Type	real number
Unit of Item	Ratio
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	tind
ts_print Monthly Usage	mtind
ind_print Option(s)	/ti
C USAGE	
Object	tind_ts[ ]
Array	tind[ ][ ]
Element	n/a
FORTRAN-95 USAGE	
Type or Subtype	tind_ts
Member and/or Array	tind(,)
Element	n/a

## INDEX METHOD TYPE CODE

Index Method Type Code is an integer code indicating the basic methodology for an index. It represents the combination of Index Primary Methodology Type, Index Secondary Methodology Group, Index Reweighting Type Flag, and Index Reweighting Timing Flag characteristics. Current codes are:

CODE	DESCRIPTION
1	CRSP Cap-Based Portfolios
3	CRSP Risk-Based Decile Indexes
4	CRSP Value-Weighted Market Indexes
5	CRSP Equal-Weighted Market Indexes
6	CRSP Capitalization Decile Market Indexes
7	S&P 500 Composite
8	CRSP Value-Weighted Index on the S&P 500 Universe
9	CRSP Equal-Weighted Index on the S&P 500 Universe
10	NASDAQ Composite
12	CRSP Fixed Term Bond Returns
13	CRSP Fixed Term Bill Returns
14	Provided by External Source

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925

Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	method.methcode
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	method
Element	methcode

### INDEX METHODOLOGY DESCRIPTION STRUCTURE

Index Methodology Description Structure contains fields describing the rules used to build the index. These fields contain information on primary and secondary methodologies and rules for weighting securities within the index. The fields are Index Method Type Code, Index Primary Methodology Type, Index Secondary Methodology Group, Index Reweighting Type Flag, and Index Reweighting Timing Flag.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	structure
Unit of Item	Set (methodology)
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	method
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	method
Element	n/a

### INDEX MISSING DATA FLAG

Index Missing Data Flag describes the possible actions taken for securities with missing data during the range in an index portfolio. The following codes are currently used:

CODE	DESCRIPTION
0	Unknown or not applicable
3	Issues without single period returns are excluded
5	Alternate prices are used if possible to generate single period returns
13	Quotes without trades are treated as missing prices

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	flags.missflag
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	flags
Element	missflag

### INDEX NAME

Index Name is the name of the index or portfolio.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	character
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hh , /hr

C USAGE	
Object	indhdr_row
Array	indhdr
Element	indname
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	n/a
Element	indname

### INDEX NEW ISSUES FLAG

Index New Issues Flag is an integer code describing how new issues are used in an index. The following codes are used:

CODE	DESCRIPTION
0	Unknown or not available
1	New securities are included the first period they meet existing portfolio restrictions
2	Securities are never added until next rebalancing period

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	flags.addflag
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	flags
Element	addflag

### INDEX PRIMARY LINK

Index Primary Link is the INDNO of an index group containing this index portfolio series. It is set to zero if this index is a group or if there is no primary group index associated with this index series. A series index representing one portfolio of a group can use Index Primary Link to refer back to the primary index. The primary index contains rebalancing information and

data for all portfolios in that group.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hh , /hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	primflag
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	n/a
Element	primflag

### INDEX PRIMARY METHODOLOGY TYPE

Index Primary Methodology Type is an integer code describing the index type. The following types are currently used:

CODE	NAME	DESCRIPTION
0	Fractile Index	A market segment index where breakpoints based on some rule and/or statistic are used to divide eligible issues into portfolios at different intervals. The breakpoint function is continuous so that all eligible issues are in exactly one portfolio during each period.
1	Selected Index	Universe is supplied from an outside source, with given issues or companies and the data ranges for each.
3	Market Index	Portfolio of all eligible issues is reevaluated each period based on constant universe restrictions.
4	Other	Not Applicable.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND

ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
<b>C USAGE</b>	
Object	indhdr_row
Array	indhdr
Element	method.primtype
<b>FORTRAN-95 USAGE</b>	
Type or Subtype	indhdr
Member and/or Array	method
Element	primtype

### INDEX REBALANCING BEGIN DATE

Index Rebalancing Begin Date is the integer date, in YYYYMMDD format, of the first date in the rebalancing period of an index.

<b>GENERAL INFORMATION</b>	
Primary Concepts	Index Rebalancing History Arrays
Data Type	integer number
Unit of Item	YYYYMMDD date
<b>DATE RANGE AVAILABILITY</b>	
Daily	1925
Monthly	1925
<b>DATABASE AVAILABILITY AND UTILITY USAGE</b>	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/rb#
<b>C USAGE</b>	
Object	rebal_arr[ ]
Array	rebal[ ][ ]
Element	rbbegdt
<b>FORTRAN-95 USAGE</b>	
Type or Subtype	rebal_arr()
Member and/or Array	rebal(,)
Element	rbbegdt

### INDEX REBALANCING END DATE

Index Rebalancing End Date is the integer date, in YYYYMMDD format, of the last date in the rebalancing period of an index.

<b>GENERAL INFORMATION</b>	
Primary Concepts	Index Rebalancing History Arrays
Data Type	integer number
Unit of Item	YYYYMMDD date
<b>DATE RANGE AVAILABILITY</b>	

Daily	1925
Monthly	1925
<b>DATABASE AVAILABILITY AND UTILITY USAGE</b>	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/rb#
<b>C USAGE</b>	
Object	rebal_arr[ ]
Array	rebal[ ][ ]
Element	rbenddt
<b>FORTRAN-95 USAGE</b>	
Type or Subtype	rebal_arr()
Member and/or Array	rebal(,)
Element	rbenddt

### INDEX RETURNS WITHOUT DIVIDENDS

Index Capital Appreciation Return is the return, excluding ordinary dividends, of an index. See “Index Returns” in the Calculations section for details on how CRSP index returns are calculated. If CRSP includes a public index such as the S&P 500 Composite or the NASDAQ Composite, Index Capital Appreciation Return is derived from data provided by the creator of the index.

<b>GENERAL INFORMATION</b>	
Primary Concepts	Index Time Series
Data Type	real number
Unit of Item	Ratio
<b>DATE RANGE AVAILABILITY</b>	
Daily	1925
Monthly	1925
<b>DATABASE AVAILABILITY AND UTILITY USAGE</b>	
Database Formats	CRSPAccess
Product Types	STK*, IND
ts_print Daily Usage	retx/0
ts_print Monthly Usage	mretx/0
ind_print Option(s)	/ar
<b>C USAGE</b>	
Object	aret_ts[ ]
Array	aret[ ][ ]
Element	n/a
<b>FORTRAN-95 USAGE</b>	
Type or Subtype	aret_ts
Member and/or Array	aret(,)
Element	n/a

## INDEX REWEIGHTING TIMING FLAG

Index Reweighting Timing Flag is an integer code indicating how frequently weights are recalculated in the existing portfolio. The following codes are currently used:

CODE	DESCRIPTION
0	Not available
11	Weights are applied each time period

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	method.wgtflag
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	method
Element	wgtflag

## INDEX REWEIGHTING TYPE FLAG

Index Reweighting Type Flag is an integer code indicating the method of weighting the issues in the portfolio index. The following codes are currently used:

CODE	DESCRIPTION
0	Not available
1	Value-weighted, weights not supplied by CRSP
2	Value-weighted
3	Equal-weighted

GENERAL INFORMATION	
Primary Concepts	Index Header, Portfolio Statistics and Assignment Arrays
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925

Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	method.wgttype
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	method
Element	wgttype

## INDEX SECONDARY METHODOLOGY GROUP

Index Secondary Methodology Group is an integer code with further detail for the Index Primary Methodology Type. The following codes are currently used:

CODE	DESCRIPTION
0	No further description
10	Portfolios based on market capitalization
12	Portfolios based on result statistic: beta or standard deviation
13	Issues in S&P 500 Index
14	Issues in the NASDAQ Composite Index
15	Treasury Issues of Selected Maturity Ranges

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	method.subtype
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	method



Element	subtype
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### INDEX STATISTIC GROUPING CODE

Index Statistic Grouping Code is an integer code describing the type of grouping done on issues before any statistics are applied. The following codes are currently used:

CODE	DESCRIPTION
0	Unknown or not applicable
1	Each issue is grouped independently
2	Multiple issues of a company are combined

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	rules.groupflag
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	rules
Element	groupflag

### INDEX SUBCATEGORY CODE

Index Subcategory Code is an integer flag indicating a subcategory of the primary index in an index list history to which the security belongs. It is set to zero if no subcategory is applicable.

GENERAL INFORMATION	
Primary Concepts	Index List History Array
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	

Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	n/a
C USAGE	
Object	list_arr[ ]
Array	list[ ][ ]
Element	subind
FORTRAN-95 USAGE	
Type or Subtype	list_arr()
Member and/or Array	list(,)
Element	subind

### INDEX SUBSET SCREENING STRUCTURE

Index Subset Screening Structure, like the Partition Subset Screening Structure, is a structure of fields used to restrict a database using various screening variables. The screen fields are: Universal Subset Type Code, First Trading Date Allowed in Restriction, Index Restriction End Date, Valid Exchange Codes in Universe, Valid NASDAQ Market Groups in Universe, Valid When-Issued Securities in Universe, Valid Incorporation of Securities in Universe, and Share Code Screen Structure. Index Subset Screening Structure screens are used to restrict the securities used in the actual index.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	structure
Unit of Item	Set (screen markets)
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	induniv
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	induniv
Element	n/a

## INDEX TOTAL RETURN

Index Total Return is the return, including all distributions, of an index. See “Index Returns” in the Calculations section for details on how CRSP index returns are calculated. Index Total Return is only available for CRSP-generated indexes.

GENERAL INFORMATION	
Primary Concepts	Index Time Series
Data Type	real number
Unit of Item	Ratio
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK*, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/tr
C USAGE	
Object	tret_ts[ ]
Array	tret[ ][ ]
Element	n/a
FORTRAN-95 USAGE	
Type or Subtype	tret_ts
Member and/or Array	tret(, )
Element	n/a

## INDEX TOTAL VALUE

Index Total Value is the total market value of the non-ADR securities in the index universe, in \$1000s, with valid prices and shares outstanding amounts on the selected Calendar Trading Date. See the Index Methodologies section for information including rebalancing frequency and universe inclusion for specific indexes.

GENERAL INFORMATION	
Primary Concepts	Index Time Series
Data Type	real number
Unit of Item	USD
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	cap/0
ts_print Monthly Usage	mcap/0
ind_print Option(s)	/tv

C USAGE	
Object	total_ts[ ]
Array	total[ ][ ]
Element	n/a
FORTRAN-95 USAGE	
Type or Subtype	total_ts
Member and/or Array	total(, )
Element	n/a

## INDEX USED VALUE

Index Used Value is the beginning total market value, in \$1000s, of all securities that are used in an index on the selected Calendar Trading Date. In a CRSP value-weighted index the Index Used Value is the weight of the index.

For standard CRSP market indexes the beginning total market value is calculated using prices and shares from the previous trading day. In these indexes a security cannot be an ADR and must have prices and shares on the current and previous trading dates. See “Index Returns” in the Calculations Section, and see the Index Methodologies Section.

GENERAL INFORMATION	
Primary Concepts	Index Time Series
Data Type	real number
Unit of Item	Ratio
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	cap/1
ts_print Monthly Usage	mcap/1
ind_print Option(s)	/ur
C USAGE	
Object	usdval_ts[ ]
Array	usdval[ ][ ]
Element	n/a
FORTRAN-95 USAGE	
Type or Subtype	usdval_ts
Member and/or Array	usdval(, )
Element	n/a

**INDNO**

INDNO indicates the unique permanent identifier assigned by CRSP to every supported index. All INDNO identifiers are 7-digit integers. There is no inherent meaning in the numbers. The indexes sets in a CRSPAccess database are sorted by this field. See page 109 for a full list of CRSP Indexes.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	permno
ts_print Monthly Usage	mpermno
ind_print Option(s)	/hh, /hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	indno
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	n/a
Element	indno

**INDNO OF ASSOCIATED INDEX**

INDNO of Associated Index is the identifier of an associated index used to supply rebalancing breakpoint information used for assignments or buy/sell rules to this index. It is set to zero if external portfolio data are used.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr

C USAGE	
Object	indhdr_row
Array	indhdr
Element	assign.asperm
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	assign
Element	asperm

**INTEREST RATE OR STRIKE PRICE - HEADER**

Interest Rate of Strike Price - Header is the guaranteed annualized interest rate, in percentages, for preferred stock or effective rate of a right, warrant or debt hybrid. It is set to 0 if not applicable or not known.

GENERAL INFORMATION	
Primary Concepts	Header Identification and Summary Data
Data Type	real number
Unit of Item	% rate
DATE RANGE AVAILABILITY	
Daily	
Monthly	
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/hn
C USAGE	
Object	header_row
Array	header
Element	hrating
FORTRAN-95 USAGE	
Type or Subtype	stkhdr
Member and/or Array	n/a
Element	hrating

**L****LAST DATE INCLUDED IN LIST**

Last Date Included in a List is the integer date, in YYYYMMDD format, of the last date an issue is included in a portfolio, defined as a time-dependent list of members.

GENERAL INFORMATION	
Primary Concepts	Index List History Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/li
C USAGE	
Object	list_arr[ ]
Array	list[ ][ ]
Element	enddt
FORTRAN-95 USAGE	
Type or Subtype	list_arr()
Member and/or Array	list_arr(,)
Element	enddt

**LAST DATE OF NAME**

Last Date of Name is the last effective date of a security's name history structure. It is set to the date preceding the Name Effective Date of the next name structure, the maximum of End of Stock Data, or the Delisting Date of the last name structure.

The name information on any given date can be found by finding the name structure where the target date is between Name Effective Date and Last Date of Name. There is always only one name structure for any select date between the first Name Effective Date and the Delisting Date.

GENERAL INFORMATION	
Primary Concepts	Name History Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	

Database Formats	CRSPAAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/n , /xn4 , /an1
C USAGE	
Object	names_arr
Array	names[ ]
Element	nameenddt
FORTRAN-95 USAGE	
Type or Subtype	names_arr
Member and/or Array	names()
Element	nameenddt

**LOWEST CLOSE**

**Category:** Prices

**Data Type:** Floating Point

**Description:** Daily — Lowest daily closing price within the selected output calendar.

Monthly — Lowest month end closing price within the selected calendar. Appropriate to use with quarterly and annual output calendars.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	low
Monthly ITEMID	mlow
Header	Low
SUBNO	0

**M.****MAXIMUM COUNT DURING PERIOD**

Maximum Count During Period is the largest count of issues in a portfolio at any point within an index rebalancing period.

GENERAL INFORMATION	
Primary Concepts	Index Rebalancing History Arrays
Data Type	integer number
Unit of Item	Count
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/rs#
C USAGE	
Object	rebal_arr[ ]
Array	rebal[ ][ ]
Element	maxcnt
FORTRAN-95 USAGE	
Type or Subtype	rebal_arr()
Member and/or Array	rebal(,)
Element	maxcnt

**MAXIMUM NUMBER OF ARRAY ELEMENTS**

Maximum Number of Array Elements is the maximum number of time periods available in a time series or calendar, or the maximum number of observations in an event array.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Time Series Objects, Event Array Objects, Calendar Objects
Data Type	integer number
Unit of Item	Metadata
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	

Object	CRSP_TIMESERIES, CRSP_CAL, CRSP_ARRAY
Array	n/a
Element	maxarr
FORTRAN-95 USAGE	
Type or Subtype	
Member and/or Array	
Element	

**MEMBER PORTFOLIO RETURNS, CUMULATIVE**

**Category:** Returns Related to a Portfolio Type

**Data Type:** Floating Point

**Description:** Compounded total returns of a portfolio that a user selects to be associated with a security or group of securities. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumptret
Monthly ITEMID	mcumptret
Header	Cumptret
SUBNO	PORTID

**MEMBER PORTFOLIO RETURNS ON INCOME, CUMULATIVE**

**Category:** Returns Related to a Portfolio Type

**Data Type:** Floating Point

**Description:** Compounded return, on income only, of a portfolio that a user selects to be associated with a security or group of securities. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumpiret
Monthly ITEMID	mcumpiret

Header	Cumpiret
SUBNO	PORTID

### MEMBER PORTFOLIO RETURNS WITHOUT DIVIDENDS, CUMULATIVE

**Category:** Returns Related to a Portfolio Type

**Data Type:** Floating Point

**Description:** Compounded price appreciation only, of a portfolio that a user selects to be associated with a security or group of securities. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumparet
Monthly ITEMID	mcumparet
Header	Cumparet
SUBNO	PORTID

**N.**

### NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS) CODE, END OF PERIOD

**Category:** Name History

**Data Type:** String

**Description:** North American Industry Classification System, 6-character industry code, at the end of period reported.

**Extended Information:** NAICS codes were adopted in 1997 and implemented in 1999, by the Office of Management and Budget (OMB), to replace the U.S. Standard Industrial Classification (SIC) system. The 6-character code is used to group establishments with similar products or services. While there are exceptions to the definition, an establishment “is generally a single, physical location at which economic activity occurs (e.g., store, factory, farm, etc.)<sup>1</sup>”. NAICS was designed to encompass all fields of economic activities, producing and non-producing. Each establishment is assigned to one industry that matches its primary activity. The codes were developed by the US, Canada, and Mexico to provide a business activity standard throughout North America, to facilitate economic analyses of North America’s economies.

NAICS is a hierarchical code, containing up to six digits: The first two fields, NAICS sectors, designate general categories of economic activity, the third field, sub-sector, further defines the sector, the fourth field is the industry group, the fifth field is the NAICS industry, and the sixth field represents the national industry (a zero in the 6th digit generally indicates that the NAICS industry and the country industry are the same). For example, 1123 represents Poultry and Egg Production, 11231 represents Chick Egg Production, and 112310 represents Chicken Egg Production.

NAICS codes are available for securities in the CRSP database from August 24, 2001 onwards. Unknown NAICS codes are blank. For additional information on NAICS codes, please refer to the Executive Office of the President Office of Management and Budget’s most current North American Industry Classification System manual, or visit the US Census Bureau’s website at <http://www.census.gov/epcd/www/naics.html>.

In the December 2009 stock database, CRSP removed NAICS Codes provided by our source, Mergent, from our Stock Databases and replaced them with NAICS Codes from Interactive Data Corporation. Mergent was CRSP’s

only source for NAICS beginning 20010824. The IDC I NAICS Codes begin 20040610.

DATE RANGE AVAILABILITY	
Daily	20010824
Monthly	20010824
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	snaics
Monthly ITEMID	msnaics
Header	Naics
SUBNO	0

### NAICS, END OF PREVIOUS PERIOD

**Category:** Name History

**Data Type:** String

**Description:** North American Industry Classification System, 6-character industry code, at the end of period preceding the period reported.

DATE RANGE AVAILABILITY	
Daily	20010824
Monthly	20010824
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	snaics
Monthly ITEMID	msnaics
Header	Naicse
SUBNO	1

### NAICS, MOST RECENT

**Category:** Name History

**Data Type:** String

**Description:** The most recently known North American Industry Classification System, 6-character industry code.

DATE RANGE AVAILABILITY	
Daily	20010824
Monthly	20010824
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	snaics
Monthly ITEMID	msnaics

Header	Naicsl
SUBNO	2

### NAICS - HEADER

North American Industry Classification System - Header is an 6-character code used to group companies with similar products or services. It contains the most current NAICS code in the database. See North American Industry Classification System (NAICS) for additional detail on NAICS codes. N.B. this field includes data starting on 20040610.

GENERAL INFORMATION	
Primary Concepts	Header Identification and Summary Data
Data Type	character
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	20040610
Monthly	20040610
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	
ts_print Monthly Usage	n/a
stk_print Option(s)	/hn
C USAGE	
Object	header_row
Array	header
Element	hnaics
FORTRAN-95 USAGE	
Type or Subtype	stkhdr
Member and/or Array	n/a
Element	hnaics

### NAME EFFECTIVE DATE

Name Effective Date is the starting date of a set of security name information, stored in YYYYMMDD format. If the CUSIP, Company Name, Ticker Symbol, Exchange Code, or s changes, CRSP adds a new name structure that records the change and the date the change became effective. Name Effective Date is the date associated with a specific name structure.

GENERAL INFORMATION	
Primary Concepts	Name History Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925



DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/n , /xn
C USAGE	
Object	names_arr
Array	names[ ]
Element	namedt
FORTRAN-95 USAGE	
Type or Subtype	names_arr
Member and/or Array	names()
Element	namedt

### NASDAQ COMPANY NUMBER

**Category:** Identification

**Data Type:** Double Precision Floating Point

**Description:** Unique integer assigned by NASDAQ to each company with a listed security on the NASDAQ exchange.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	compno
Monthly ITEMID	mcompno
Daily Header	Compno
Monthly Header	COMPNO
SUBNO	0

### NASDAQ INDEX CODE, END OF PERIOD

**Category:** Nasdaq

**Data Type:** Double Precision Floating Point

**Description:** Integer code indicating the issue's classification within NASD's internal business description categories, at the end of each period reported. This field is not available between April, 1998 and February, 2000.

DATE RANGE AVAILABILITY	
Daily	198211
Monthly	198211
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess

Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	nsdinx
Monthly ITEMID	mnsdinx
Header	Nsdinx
SUBNO	0

### NASDAQ INDEX CODE, END OF PREVIOUS PERIOD

**Category:** Nasdaq

**Data Type:** Double Precision Floating Point

**Description:** Integer code indicating the issue's classification within NASD's internal business

**Description:** categories, at the end of the period preceding the period reported.

DATE RANGE AVAILABILITY	
Daily	198211
Monthly	198211
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	nsdinx
Monthly ITEMID	mnsdinx
Header	Nsdinx
SUBNO	1

### NASDAQ INDEX CODE, MOST RECENT

**Category:** Nasdaq

**Data Type:** Double Precision Floating Point

**Description:** Integer code indicating the issue's most recent classification within NASD's internal business

**Description:** categories.

DATE RANGE AVAILABILITY	
Daily	198211
Monthly	198211
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	nsdinx
Monthly ITEMID	mnsdinx
Header	Nsdinxl
SUBNO	2

## NASDAQ ISSUE NUMBER

NASDAQ Issue Number is a unique integer assigned by the National Association of Securities Dealers (NASD) to each listed security on The NASDAQ Stock Market<sup>SM</sup>. It is this issue-specific identifier which differentiates securities issued by the same company. If the issue number is unknown, the NASDAQ Issue Number is set to zero. If an NYSE/NYSE MKT security was ever traded on NASDAQ, this number is set to the last issue number assigned when it was trading on NASDAQ. The NASDAQ Issue Number in the CRSP Data File may change if NASDAQ assigns a new number to an issue CRSP considers to be a continuation of an existing issue.

GENERAL INFORMATION	
Primary Concepts	Header Identification and Summary Data
Data Type	integer number
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	198211
Monthly	198211
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/hh, /hr, /hrl, /hn
C USAGE	
Object	header_row
Array	header
Element	issuno
FORTRAN-95 USAGE	
Type or Subtype	stkhdr
Member and/or Array	n/a
Element	issuno

## NASDAQ MARKET MAKERS, END OF PERIOD

**Category:** Nasdaq

**Data Type:** Double Precision Floating Point

**Description:** Number of registered market makers for an issue trading on NASDAQ, at the end of the period reported. This contains a 0 if there are no active market makers at that time, or if the date falls in December of 1982 for a NASD Company Number less than 1025, or in February of 1986.

DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	198211
DATABASE AVAILABILITY AND PRODUCT TYPES	

Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	mmcnt
Monthly ITEMID	mmmcnt
Header	Mmcnt
SUBNO	0

## NASDAQ MARKET MAKERS, END OF PREVIOUS PERIOD

**Category:** Nasdaq

**Data Type:** Double Precision Floating Point

**Description:** Number of registered market makers for an issue trading on NASDAQ, at the end of the period preceding the period reported.

DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	198211
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	mmcnt
Monthly ITEMID	mmmcnt
Header	Mmcnte
SUBNO	1

## NASDAQ MARKET MAKERS, MOST RECENT

**Category:** Nasdaq

**Data Type:** Double Precision Floating Point

**Description:** Number of registered market makers for an issue trading on NASDAQ, the most recently known value.

DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	198211
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	mmcnt
Monthly ITEMID	mmmcnt
Header	Mmcntl
SUBNO	2

## NASDAQ NATIONAL MARKET INDICATOR, END OF PERIOD

**Category:** Nasdaq

**Data Type:** Double Precision Floating Point

**Description:** One-digit integer code indicating an issue's membership within the NASDAQ Market tier system.

### Extended Information

Prior to June 15, 1992, transaction data was not available for NASDAQ SmallCap Securities. As of June 15, 1992 transaction data became available.

NASDAQ introduced a 3-tier market initiative in July 2006. As a result, the CRSP NASDAQ National Market Indicator (NMSIND) coding scheme was changed. Specifically:

- Small-Cap - renamed Capital Market, CRSP code 4
- National Market - split into two:
  - Global Market, CRSP code 5
  - Global Select Market, CRSP code 6.

To achieve expected results, the subset functionality in the ts\_print interface is labeled to reflect these changes. After July 1, 2006, SmallCap is renamed to Capital Market. National Market is renamed to Global Market. In addition, a subset of Global Market is identified as the Global Select Market.

CODE	DESCRIPTION
0	Unknown or unavailable
1	The NASDAQ SmallCap Market before June 15, 1992
2	The NASDAQ National Market
3	The NASDAQ SmallCap Market after June 15, 1992
4	Capital Market (formerly SmallCap) after July 1, 2006
5	Global Market (formerly National Market) after July 1, 2006
6	Global Select Market - new subset of Global Market after July 1, 2006

DATE RANGE AVAILABILITY	
Daily	19920615
Monthly	199206
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	nmsind
Monthly ITEMID	mnmsind
Header	Nmsind
SUBNO	0

## NASDAQ NATIONAL MARKET INDICATOR, END OF PREVIOUS PERIOD

**Category:** Nasdaq

**Data Type:** Double Precision Floating Point

**Description:** One-digit integer code indicating an issue's membership within the NASDAQ Market tier system, at the end of the previous period.

DATE RANGE AVAILABILITY	
Daily	19920615
Monthly	199206
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	nmsind
Monthly ITEMID	mnmsind
Header	Nmsinde
SUBNO	1

## NASDAQ NATIONAL MARKET INDICATOR, MOST RECENT

**Category:** Nasdaq

**Data Type:** Double Precision Floating Point

**Description:** One-digit integer code indicating an issue's membership within the NASDAQ Market tier system, most recently known value.

DATE RANGE AVAILABILITY	
Daily	19920615
Monthly	199206
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	nmsind
Monthly ITEMID	mnmsind
Header	Nmsindl
SUBNO	2

## NASDAQ NUMBER OF TRADES

**Daily:** NASDAQ Number of Trades contains the number of trades made on the NASDAQ Stock Market each date for a security. Trades on all exchanges are connected to NASDAQ's composite pricing network and all late trades are included in the count. If the number of trades is unavailable, the field is set to -99.

Number of trades is available only for issues trading on The NASDAQ Stock MarketSM. It is reported for all securities listed on The NASDAQ National Market since November 1, 1982, and all NASDAQ securities

since June 15, 1992. Due to lack of sources, NASDAQ Number of Trades data are missing for 15 NASDAQ National Market securities in December, 1982, and all The NASDAQ National Market securities in February, 1986.

Monthly: Not available.

GENERAL INFORMATION	
Primary Concepts	Supplemental NASDAQ Time Series
Data Type	integer number
Unit of Item	Count
DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	n/a
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	numtrd/0
ts_print Monthly Usage	n/a
stk_print Option(s)	/pn
C USAGE	
Object	numtrd_ps
Array	numtrd[ ]
Element	numtrd
FORTRAN-95 USAGE	
Type or Subtype	numtrd_ts
Member and/or Array	numtrd( )
Element	numtrd

## NASDAQ STATUS CODE, END OF PERIOD

**Category:** Nasdaq

**Data Type:** Double Precision Floating Point

**Description:** One-digit integer describing the trading status of an issue listed on NASDAQ, at the end of each period reported.

CODE	DESCRIPTION
0	Unknown or not applicable
1	Active
2	Trading with only one market maker
3	Suspended
4	Inactive
5	Delisted

DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	198211

DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	trtscd
Monthly ITEMID	mtrtscd
Header	Trtscd
SUBNO	0

## NASDAQ STATUS CODE, END OF PREVIOUS PERIOD

**Category:** Nasdaq

**Data Type:** Double Precision Floating Point

**Description:** One-digit integer describing the trading status of an issue listed on NASDAQ, at the end of the period preceding each period reported.

DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	198211
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	trtscd
Monthly ITEMID	mtrtscd
Header	Trtscd
SUBNO	1

## NASDAQ STATUS CODE, MOST RECENT

**Category:** Nasdaq

**Data Type:** Double Precision Floating Point

**Description:** One-digit integer describing the most recently known trading status of an issue listed on NASDAQ.

DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	198211
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	trtscd
Monthly ITEMID	mtrtscd
Header	Trtscd
SUBNO	2

## NASDAQ STATUS DATE

NASDAQ Status Date is the effective integer begin date, in YYYYMMDD format, for a NASDAQ information structure for a security listed on the NASDAQ Stock Market.

GENERAL INFORMATION	
Primary Concepts	NASDAQ Information Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	198211
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/q
C USAGE	
Object	nasdin_arr
Array	nasdin[ ]
Element	trtsdt
FORTRAN-95 USAGE	
Type or Subtype	nasdin_arr
Member and/or Array	nasdin()
Element	trtsdt

## NASDAQ TRAITS END DATE

NASDAQ Traits End Date is the last date, in YYYYMMDD format, for which information in a NASDAQ information array structure is valid for a security. It is set to the last trading date before the next NASDAQ information event, or to 99999999 in the last structure.

GENERAL INFORMATION	
Primary Concepts	NASDAQ Information Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	198211
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/q
C USAGE	
Object	nasdin_arr

Array	nasdin[ ]
Element	trtsenddt
FORTRAN-95 USAGE	
Type or Subtype	nasdin_arr
Member and/or Array	nasdin()
Element	trtsenddt

## NEW PERMCO

New PERMCO is an integer link to a company assigned when an issue ceases trading as a result of a merger or exchange when shareholders receive some payment from the acquiring company. If New PERMNO is nonzero, New PERMCO is the PERMCO of that security. If New PERMNO is zero, New PERMCO can still be nonzero if the shareholders receive a payment from an acquiring company known to CRSP, but the payments are not primarily in the stock of the company. New PERMCO is zero if the company is unknown to CRSP or if the delisting does not represent a merger or exchange. See Acquiring PERMCO for companies associated with individual payments.

GENERAL INFORMATION	
Primary Concepts	Delisting History Array
Data Type	integer number
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/de
C USAGE	
Object	delist_arr
Array	delist[ ]
Element	nwcomp
FORTRAN-95 USAGE	
Type or Subtype	delist_arr
Member and/or Array	delist()
Element	nwcomp

## NEW PERMNO

New PERMNO is an integer pointer to a new security assigned when an issue ceases trading as a result of a merger or exchange where shareholders receive stock in the acquiring company. The New PERMNO is the PERMNO of the primary security received from

the acquiring company. It acts as a forward pointer, allowing the user to trace the ongoing history of surviving companies. New PERMNO may identify an issue that exists on a different CRSP Stock File. It is set to zero if there is no new primary security applicable, the issue is unknown, or the delisting does not represent a merger or exchange. The distribution history arrays contain an itemized record of all types of payments to shareholders in an exchange or merger. See Acquiring PERMNO for companies associated with individual payments.

GENERAL INFORMATION	
Primary Concepts	Delisting History Array
Data Type	integer number
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/de
C USAGE	
Object	delist_arr
Array	delist[ ]
Element	nwperm
FORTRAN-95 USAGE	
Type or Subtype	delist_arr
Member and/or Array	delist()
Element	nwperm

### NUMBER OF ARRAY ELEMENTS

Number of Array Elements is the count of actual event structures available in a CRSP event object for the current entity.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Event Array Objects
Data Type	integer number
Unit of Item	Count
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a

ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_ARRAY
Array	n/a
Element	num
FORTRAN-95 USAGE	
Type or Subtype	crsp_array
Member and/or Array	n/a
Element	num

### NUMBER OF INDEX LIST TYPES

Number of Index List Types is the number of lists available for INDNOs in an index set. It is set to one in index group and index series sets. If there are no data for a list, Number of Available Array Elements for the list is set to zero.

GENERAL INFORMATION	
Primary Concepts	Index List History Array
Data Type	integer number
Unit of Item	Count
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	n/a
C USAGE	
Object	ind
Array	n/a
Element	listtypes
FORTRAN-95 USAGE	
Type or Subtype	n/a
Member and/or Array	n/a
Element	listtypes

### NUMBER OF INDEX TYPES

Number of Index Types is the number of indexes or portfolio time series available for INDNOs in an index set. In a series set, the Number of Index Types is always 1. In a group set, the Number of Index Types is always 17. Not all INDNOs have data for all available time series. If there are no data for one of the available time series, Begin of Valid Data and End of Valid Data of that time series are set to zero.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Index Time Series
Data Type	integer number
Unit of Item	Count
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	n/a
C USAGE	
Object	n/a
Array	n/a
Element	indtypes
FORTRAN-95 USAGE	
Type or Subtype	n/a
Member and/or Array	n/a
Element	indtypes

### NUMBER OF PERIODS IN CALENDAR

Number of Periods in Calendar is the number of periods in a CRSP calendar. This is the last calendar period with valid calendar or time series data. In daily, monthly, and weekly calendars, the last calendar period represents the last trading date with available prices. Annual and quarterly calendars are extended to the end of the next calendar year after the last day of prices.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Calendar Objects
Data Type	integer number
Unit of Item	Range
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_CAL
Array	n/a
Element	ndays

FORTRAN-95 USAGE	
Type or Subtype	crsp_cal
Member and/or Array	n/a
Element	ndays

### NUMBER OF PORTFOLIO TYPES

Number of Portfolio Types is the maximum number of different portfolio methodologies available in a stock set. It is set to 9 in daily databases and 8 in monthly databases. If there are no data for a portfolio time series, Begin of Valid Data and End of Valid Data are both set to zero.

GENERAL INFORMATION	
Primary Concepts	Portfolio Statistics and Assignment Arrays, Shares Outstanding Observations Array
Data Type	integer number
Unit of Item	Count
DATE RANGE AVAILABILITY	
Daily	
Monthly	
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK*
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	n/a
C USAGE	
Object	n/a
Array	n/a
Element	porttypes
FORTRAN-95 USAGE	
Type or Subtype	n/a
Member and/or Array	n/a
Element	porttypes

### NUMBER OF REBALANCING TYPES

Number of Rebalancing Types is the number of portfolio rebalancing arrays available for INDNOs in an index set. In a series set, Number of Rebalancing Types is always 1. In a group set, Number of Rebalancing Types is always 10. Not all INDNOs have rebalancing data for all available portfolios. If there are no rebalancing data for one of the available rebalancing series, Number of Array Elements Series for that array is set to zero.

GENERAL INFORMATION	
Primary Concepts	Rebalancing History Arrays
Data Type	integer number
Unit of Item	Count



DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	n/a
C USAGE	
Object	n/a
Array	n/a
Element	rebaltypes
FORTRAN-95 USAGE	
Type or Subtype	n/a
Member and/or Array	n/a
Element	rebaltypes

**Q.****OBJECT ARRAY**

Object Array identifies the generic array used to store time series, event, or header data in CRSPAccess object data structures.

GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Time Series Objects, Event Array Objects, Header Objects
Data Type	generic pointer
Unit of Item	Pointer
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_TIMESERIES CRSP_ARRAY CRSP_ROW CRSP_CAL
Array	n/a
Element	arr
FORTRAN-95 USAGE	
Type or Subtype	Variable Specific Version of C Usage Objects. FORTRAN-95 does not have generic object arrays.
Member and/or Array	n/a
Element	Variable-specific Array

**OBJECT TYPE CODE**

Object Type Code is an integer code defining the type of object data structure. Object Type Codes are assigned as follows:

STRUCTURE NAME	OBJECT TYPE CODE
CRSP_CAL	1
CRSP_TIMESERIES	2
CRSP_ARRAY	3
CRSP_ROW	5
GENERAL INFORMATION	
Primary Concepts	Base CRSPAccess Data Structures, Time Series Objects, Event Array Objects, Header Objects, Calendar Objects
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925

Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK, IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	n/a
C USAGE	
Object	CRSP_TIMESERIES CRSP_ARRAY CRSP_ROW CSRP_CAL
Array	n/a
Element	objtype
FORTRAN-95 USAGE	
Type or Subtype	crsp_ts crsp_array crsp_row
Member and/or Array	crsp_cal
Element	objtype

### OPEN PRICE

Daily open prices are available for securities traded on NYSE, NYSE MKT, and NASDAQ exchanges beginning June 15, 1992. They represent the first trade after market opens. For NYSE, additional daily open prices are available between December 1925 and June 1962. Open prices are available for Arca securities beginning March 8, 2006.

GENERAL INFORMATION	
Primary Concepts	Auxiliary Time Series Data
Data Type	real number
Unit of Item	USD
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	openprc/0
ts_print Monthly Usage	n/a
stk_print Option(s)	/po
C USAGE	
Object	openprc_ts
Array	openprc[ ]
Element	
FORTRAN-95 USAGE	
Type or Subtype	openprc_ts
Member and/or Array	openprc( )
Element	

### P.

#### PARTITION SUBSET SCREENING STRUCTURE

Partition Subset Screening Structure, like the Index Subset Screening Structure, is a set of fields used to restrict a database using various screening variables. The screen fields are Universal Subset Type Code, First Trading Date Allowed in Restriction, Index Restriction End Date, Valid Exchange Codes in Universe, Valid NASDAQ Market Groups in Universe, Valid When-Issued Securities in Universe, Valid Incorporation of Securities in Universe, and Share Code Screen Structure. Partition Subset Screening Structure screens are used to restrict the securities used in defining partition breakpoints of an index.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	structure
Unit of Item	Set (header information)
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	partuniv
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	partuniv
Element	n/a

### PAYMENT DATE

Payment Date is the integer date in YYYYMMDD format upon which dividend checks are mailed or other distributions are made. It is set to zero if unavailable. For a merger, exchange or total liquidation where the company disappeared Payment Date is, by convention, set equal to the date of the last price or Delisting Date.

For rights offerings the Payment Date is set equal to the record date, found in “Moody’s Dividend Record” by convention.

Payment Dates of liquidating payments after delisting are reported when available and are set to 0 when unavailable.

GENERAL INFORMATION	
Primary Concepts	Distribution Event Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/di
C USAGE	
Object	dists_arr
Array	dists[ ]
Element	paydt
FORTRAN-95 USAGE	
Type or Subtype	dists_arr
Member and/or Array	dists( )
Element	paydt

## PERMANENT NUMBER OF SECURITIES IN INDEX LIST

Permanent Number of Securities in Index List is the CRSP PERMNO of a security that is assigned to an index specified with an Index List Array.

GENERAL INFORMATION	
Primary Concepts	Index List History Array
Data Type	integer number
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	n/a
C USAGE	
Object	list_arr[ ]
Array	list[ ][ ]
Element	permno
FORTRAN-95 USAGE	
Type or Subtype	ind_list_arr( )
Member and/or Array	list(,)
Element	permno

## PERMCO/INDCO

**Category:** Identification

**Data Type:** Double Precision Floating Point

**Description:** A unique permanent company identification number assigned by CRSP to all companies with issues on a CRSP File. This number is permanent for all securities issued by a company regardless of name changes.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	permco
Monthly ITEMID	mpermco
Header	PERMCO
SUBNO	0

## PERMNO/INDNO

**Category:** Identification

**Data Type:** Double Precision Floating Point

**Description:** A unique permanent identification number assigned by CRSP to each security.

### Extended Information

Unlike the CUSIP, Ticker Symbol, and Company Name, the PERMNO neither changes during an issue's trading history, nor is it reassigned after an issue ceases trading. The user may track a security through its entire trading history in CRSP's files with one PERMNO, regardless of name or capital structure changes. The Stock Data are sorted and indexed by this field. PERMNO is currently a 5-digit integer for all common securities in the CRSP files. The range -999989 to -100 and 100 to 999989 is reserved for CRSP PERMNO assignments.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	permno
Monthly ITEMID	mpermno
Header	PERMNO
SUBNO	0

## PORTFOLIO ASSIGNMENT

**Category:** Other

**Data Type:** Double Precision Floating Point

**Description:** Integer portfolio assignment of a security for the portfolio type.

### Extended Information

If no assignment is made for the security during the period, Portfolio Assignment Number is set to zero.

Portfolio assignment rules are based on the index methodology of a portfolio type. See “CRSP Index Methodologies” for details. The time period of Portfolio Assignment Number is the time the security is held in the portfolio, but is usually based on the statistic in a previous period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	port
Monthly ITEMID	mport
Header	Port
SUBNO	PORTID

## PORTFOLIO BUILDING RULES STRUCTURE

Portfolio Building Rules Structure is a group of fields describing rules used to build index portfolios. Portfolio Building Rules Structure contains fields Index Basic Rule Type Code, Index Function Code for Buy Rules, Index Function Code for Sell Rules, Index Function Code for Generating Statistics, and Index Statistic Grouping Code.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	structure
Unit of Item	Set (portfolio building rules)
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr

C USAGE	
Object	indhdr_row
Array	indhdr
Element	rules
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	rules
Element	n/a

## PORTFOLIO NUMBER IF SUBSET SERIES

Portfolio Number if Subset Series is the portfolio number within an index group to which this index series belongs. The Index Primary Link variable contains the Permanent Index Group Identification Number. This index is the nth series within the group index, or zero if it is a stand-alone series.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hh , /hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	portnum
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	n/a
Element	portnum

## PORTFOLIO NUMBER IN ASSOCIATED INDEX

Portfolio Number in Associated Index is the portfolio number within an associated index group defined in INDNO of Associated Index. The associated index breakpoint information for that portfolio is used for this index. It is set to zero if no outside rebalancing information is used to build this index.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number

Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	assign.asport
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	assign
Element	asport

## PORTFOLIO STATISTIC

**Category:** Other

**Data Type:** Floating Point

**Description:** Statistic calculated for the security based on the rules for the selected portfolio type.

### Extended Information

If no statistic is calculated, a missing value dependent on the portfolio statistic is set. Missing market capitalizations are set to zero, and missing beta or standard deviations are set to -99.0.

Statistic calculations are based on the methodology of the portfolio type. The statistic is for the current period, and usually determines the portfolio assignment of the next period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	stat
Monthly ITEMID	mstat
Header	Stat
SUBNO	PORTID

## PRICE ADJUSTED, END OF PERIOD

**Category:** Prices

**Data Type:** Floating Point

### Description:

Daily — Daily close, adjusted for distributions. Replaced with bid/ask average if price not available. Bid/ask average identified by a leading dash -.

Monthly — The closing price of a security for the last trading day of the month, adjusted for distributions. If unavailable, the number in the price field is replaced with a bid/ask average (marked by a leading dash).

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjprc
Monthly ITEMID	madjprc
Header	Adjprc
SUBNO	0

## PRICE ADJUSTED, LAST AVAILABLE NONMISSING

**Category:** Prices

**Data Type:** Floating Point

### Description:

Daily — Last available non-missing daily close or bid/ask average, adjusted for distributions. Bid/ask average is used if price is not available. Bid/ask average identified by a leading dash -.

Monthly — The last non-missing closing price of a security for the last trading day of the month, adjusted for distributions. If unavailable, the number in the price field is replaced with a bid/ask average (marked by a leading dash).

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjprc
Monthly ITEMID	madjprc
Header	Adjprcprev

SUBNO	1
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## PRICE ALTERNATE

Monthly: Price Alternate is an alternate monthly price derived from daily prices. Price Alternate contains the last non-missing price in the month. The date of this price is stored in the Price Alternate Date field. Price Alternate is set to zero if no prices are available in the month. New issues that do not begin on the last trading date of a month have the first price and date of the first price at the beginning of the Price Alternate and Price Alternate Date time series arrays.

Price Alternate is available only on monthly databases during time periods when daily data are available.

GENERAL INFORMATION	
Primary Concepts	Auxiliary Time Series Data
Data Type	real number
Unit of Item	USD
DATE RANGE AVAILABILITY	
Daily	n/a
Monthly	196207
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/po
C USAGE	
Object	altprc_ts
Array	altprc[ ]
Element	n/a
FORTRAN-95 USAGE	
Type or Subtype	altprc_ts
Member and/or Array	altprc_ts()
Element	n/a

## PRICE ALTERNATE DATE

Monthly: Price Alternate Date contains the date of the monthly Price Alternate (derived from daily data) in YYYYMMDD format. If this price is nonzero, then Price Alternate Date contains the date of that price. If there are no non-missing prices in the month, then Price Alternate Date and Price or Bid/Ask Average are set to zero. New issues that do not begin on the last trading date of a month are set to the first price and date available in the month.

GENERAL INFORMATION	
Primary Concepts	Auxiliary Time Series Data
Data Type	integer number

Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	n/a
Monthly	196207
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/pn
C USAGE	
Object	numtrd_ts
Array	numtrd[ ]
Element	n/a
FORTRAN-95 USAGE	
Type or Subtype	altprcdt_ts
Member and/or Array	altprcdt_ts()
Element	n/a

## PRICE, END OF PERIOD

**Category:** Prices

**Data Type:** Floating Point

**Description:** If the closing price is not available for any given period, the number in the price field is replaced with a bid/ask average. Bid/ask averages have dashes placed in front of them. These do not wrongly reflect negative prices, but serve simply to distinguish bid/ask averages from actual closing prices. If neither price nor bid/ask average is available, Price or Bid/Ask Average is set to zero.

If the security of a company is included in the composite pricing network, then the closing price while listed on the exchange on a trading date is the last trading price for that day on the exchange on which the security last traded. Similarly, highs, lows, and volumes include trades on all U.S. exchanges on which that security traded. For example, if a stock trades on both the NYSE and the PACX (Pacific Stock Exchange), and the last trade occurs on the PACX, the closing price on that day represents the closing price on the PACX, not the NYSE.

Price data for NASDAQ securities come directly from the NASD with the close of the day. Automated trades and after hour trading are not reflected in the close, high, low, bid, or ask, but are included in the number of trades and volumes. There is no price data from one trading day applied to the next trading day.

All prices are raw prices as they were reported at the time of trading.

**Daily:** Price or Bid/Ask Average is the closing price or the bid/ask average for a trading day. If the closing price is not available on any given trading day, the number in the price field is a bid/ask average, not an actual closing price.

Daily trading prices for The NASDAQ National Market securities were first reported November 1, 1982. Daily trading prices for The NASDAQ SmallCap Market were first reported June 15, 1992. Price or Bid/Ask Average for NASDAQ securities is always a negative bid/ask average before this time.

**Monthly:** In a monthly database, Price or Bid/Ask Average is the price on the last trading date of the month. The price series begins the first month-end after the security begins trading and ends the last complete month of trading. If the closing price is not available on any given end of month trading day, the number in the price field is a bid/ask average, not an actual closing price. Trading prices for The NASDAQ National Market securities were first reported November 1, 1982. Trading prices for The NASDAQ SmallCap Market were first reported June 15, 1992. Price or Bid/Ask Average for NASDAQ securities is always a bid/ask average, (identified with “-” before the value) before these dates.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	prc
Monthly ITEMID	mprc
Header	Prc
SUBNO	0

### PRICE, LAST AVAILABLE NONMISSING

**Category:** Prices

**Data Type:** Floating Point

**Description:** Daily — The last non-missing daily closing price or bid/ask average of a security. If price is unavailable, the number in the price field is replaced with a bid/ask average (marked by a leading dash).

Monthly — The last non-missing closing price of a security for the last trading day of the month. If unavailable, the number in the price field is replaced with a bid/ask average (marked by a leading dash).

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	prc
Monthly ITEMID	mprc
Header	Prcprev
SUBNO	1

### PRIMARY EXCHANGE, END OF PERIOD

**Category:** Name History

**Data Type:** Character

**Description:** Character code indicating the exchange on which the security has its primary listing at the end of the period reported. (N = NYSE, A = NYSE MKT, Q = NASDAQ, R = Arca, B = Bats, I = IEX, X = Other)

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
ts_print/TsQuery Usage	
Daily ITEMID	primexch
Monthly ITEMID	mprimexch
Header	Primexch
SUBNO	0

### PRIMARY EXCHANGE, END OF PREVIOUS PERIOD

**Category:** Name History

**Data Type:** Character

**Description:** Character code indicating the exchange on which the security has its primary listing at the end of the period preceding the period reported. (N = NYSE, A = NYSE MKT, Q = NASDAQ, R = Arca, B = Cboe BZX, I = IEX, X = Other)

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	primexch
Monthly ITEMID	mprimexch



Header	Primexche
SUBNO	1

## PRIMARY EXCHANGE, MOST RECENT

**Category:** Name History

**Data Type:** Character

**Description:** As of the period being accessed, the character code indicating the exchange on which the security has its most recently known primary listing. (N = NYSE, A = NYSE MKT, Q = NASDAQ, R = Arca, B = Cboe BZX, I = IEX, X = Other)

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	primexch
Monthly ITEMID	mprimexch
Header	Primexchl
SUBNO	2

## R.

## RECORD DATE

Record Date is the record date on which the stockholder must be registered as holder of record on the stock transfer records of the company in order to receive a particular distribution directly from the company. This integer date is coded as YYYYMMDD, and set to 0 if unavailable.

For a merger, exchange, or total liquidation in which the company disappeared, Record Date is, by convention, set equal to the date of the last price or Delisting Date.

Record dates of liquidating payments after delisting are reported when available, and set to 0 when unavailable.

GENERAL INFORMATION	
Primary Concepts	Distribution Event Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/di
C USAGE	
Object	dists_arr
Array	dists[ ]
Element	rcrddt
FORTRAN-95 USAGE	
Type or Subtype	dists_arr
Member and/or Array	dists( )
Element	rcrddt

## RELATED ASSIGNMENT INFORMATION

Related Assignment Information is a group of fields defining the time periods and associated indexes used to form portfolios. It primarily defines the rebalancing periods when the portfolio is reformed based on new information. Related Assignment Information contains the fields Basic Assignment Type Code, INDNO of Associated Index, Portfolio Number in Associated Index, Calendar Identification Number of Rebalancing Calendar, Calendar Identification Number of Assignment Calendar, and Calendar Identification Number of Calculations Calendar.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	structure
Unit of Item	Set (partition assignment)
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	assign
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	assign
Element	n/a

### RESTRICTION BEGIN DATE (PARTITION OR INDEX)

Restriction Begin Date is the first date, in YYYYMMDD format, of data included in a partition universe restriction or an index universe restriction. Restriction Begin Date is set to 0 if there is no date restriction.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	induniv.begdt or partuniv.begdt
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	induniv or partuniv
Element	begdt

### RESTRICTION END DATE (PARTITION OR INDEX)

Restriction End Date is the last date, in YYYYMMDD format, of data included in a partition universe restriction or an index universe restriction. Restriction End Date is set to 0 if there is no date restriction.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	induniv.enddt or partuniv.enddt
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	induniv or partuniv
Element	enddt

### RETURN OF DELISTED ISSUES FLAG

Return of Delisted Issues Flag is a code describing whether delisting returns are applied to securities delisting from the exchange during a rebalancing period of an index. The following codes are used:

CODE	DESCRIPTION
0	Unknown or not applicable
1	Delisting return is applied to issues that delist during the period
2	Issues must have price during period on target exchange to be included in index

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a

ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	flags.delretflag
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	flags
Element	delretflag

## RETURNS

**Category:** Returns

**Data Type:** Floating Point

**Summary:** Daily — Daily change in the total value of an investment, using prices or bid/ask averages if prices not available. Dividends are reinvested on the Ex-date.

Monthly — Month-end to month-end change in total investment of a security, with ordinary dividends reinvested at the month-end.

**Extended Information:** Delisting Return is the return of a security after it has delisted from NYSE, NYSE MKT, or NASDAQ. The Delisting Return is calculated by comparing the security's Amount After Delisting with its price on the last day of trading. The Amount After Delisting can be either an off-exchange price, an off-exchange price quote, or the sum of a series of distribution payments. The effective date of the delisting return is specified in the Delisting Payment Date.

The return for any issue that has been closed to further research is calculated as follows:

- If a price within 10 periods of the delist date is available, then the delisting return is calculated using that price.
- If a final distribution is available, then the delisting return is calculated using all known distribution information occurring after the date of last price.
- If distributions occurring after the date of last price are available, but no final distribution has been found, then the delisting return is calculated as if a final distribution were found. (This applies only to issues closed to further research.)
- If there is evidence that no distributions will ever be paid to shareholders, then the stock is considered worthless. The delisting return is set to -1 (i.e. a

100% loss).

- If there is evidence that the stock has been declared worthless, then the delisting return is set to -1 (i.e. a 100% loss).

For any issue that is closed to further research and none of the above criteria are met, the delisting return is given a missing return code. For any issue that is pending further research, the delisting return is given a missing return code of -55.0.

## MISSING DELISTING RETURN CODES

CODE	REASON FOR MISSING RETURN
-55.0	CRSP has no sources to establish a value after delisting or is unable to assign a value to one or more known distributions after delisting
-66.0	more than 10 trading periods between a security's last price and its first available price on a new exchange
-88.0	security is still active
-99.0	security trades on a new exchange after delisting, but CRSP currently has no sources to gather price information

Monthly: If Amount After Delisting is non-zero and Delisting Payment Date is less than or equal to the Delisting Date, the Delisting Return represents a partial-month return, not a Delisting Return. The partial-month returns compare the value on the last day of trading with the value on the last month-end date and do not factor in additional after-delisting information.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	ret
Monthly ITEMID	mret
Header	Ret
SUBNO	0

## RETURNS, CUMULATIVE

**Category:** Returns

**Data Type:** Floating Point

**Description:** Daily — Daily total returns compounded from the beginning day in the range. Each trading day in the time series contains a cumulative return since the beginning period.

Monthly — Monthly total returns compounded from the beginning month in the range. Each period in the time

series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumtret
Monthly ITEMID	mcumtret
Header	Cumtret
SUBNO	0

## RETURNS ON INCOME

**Category:** Returns

**Data Type:** Floating Point

**Description:** Return on dividends, the difference between total return and return without dividends.

Compounding income returns over a longer time series interval using CRSP software does not produce the difference between the associated compounded total return and compounded return without dividends. Compounding income return produces results irrespective of capital appreciation on the reinvested dividend amount over the time period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	reti
Monthly ITEMID	mreti
Header	Reti
SUBNO	0

## RETURNS ON INCOME, CUMULATIVE

**Category:** Returns

**Data Type:** Floating Point

**Description:** Daily — Daily returns on income compounded from the beginning day in the range. Each period in the time series contains a cumulative return since the beginning period.

Monthly — Monthly returns on income compounded from the beginning month in the range. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumiret
Monthly ITEMID	mcumiret
Header	Cumiret
SUBNO	0

## RETURNS WITHOUT DIVIDENDS

**Category:** Returns

**Data Type:** Floating Point

**Description:** Daily — Day-to-day capital appreciation of a security, calculated as a change in price, or bid/ask average if prices not available.

Monthly — Month-end to month-end capital appreciation of a security, calculate as a change in price only.

### Extended Information

Ordinary dividends and certain other regularly taxable dividends are excluded from the returns calculation. See “Holding Period Total Return” for missing values. The formula is the same as for Holding Period Total Returns except that ordinary dividends are not included in d(t).

### Missing Value Codes

A series of special return codes specify the reason a return is missing:

CODE	REASON FOR MISSING RETURN
-66.0	Valid current price but no valid previous price. Either first price, unknown exchange between current and previous price, or more than 10 periods between time t and the time of the preceding price t'.
-77.0	Not trading on the current exchange at time t.
-88.0	Outside the security's price range.
-99.0	Missing return due to missing price at time t; usually due to suspension in trading or trading on unknown exchange.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	retx
Monthly ITEMID	mretx
Header	Retx
SUBNO	0

### RETURNS WITHOUT DIVIDENDS, CUMULATIVE

**Category:** Returns

**Data Type:** Floating Point

**Description:** Daily — Daily returns without dividends compounded from the beginning month in the range. Each period in the time series contains a cumulative return since the beginning period.

Monthly — Monthly returns without dividends compounded from the beginning month in the range. Each period in the time series contains a cumulative return since the beginning period.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	cumaret
Monthly ITEMID	mcumaret
Header	Cumaret
SUBNO	0

**S.**

### SECURITY STATUS, END OF PERIOD

**Category:** Name History

**Data Type:** Character

**Description:** One-character code describing the status of a security at the end of the period reported. (W = when issued, R = regular way, E = ex-distributed, Q = non-leading when issued, X = untracked exchange or unknown)

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	secstat
Monthly ITEMID	msecstat
Header	Secstat
SUBNO	0

### SECURITY STATUS, END OF PREVIOUS PERIOD

**Category:** Name History

**Data Type:** Character

**Description:** One-character code describing the status of a security at the end of the period preceding the period reported. (W = when issued, R = regular way, E = ex-distributed, Q = non-leading when issued, X = untracked exchange or unknown)

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	secstat
Monthly ITEMID	msecstat
Header	Secstate
SUBNO	1

**SECURITY STATUS, MOST RECENT****Category:** Name History**Data Type:** Character

**Description:** One-character code describing the most recently known status of a security at the end of the period reported. (W = when issued, R = regular way, E = ex-distributed, Q = non-leading when issued, X = untracked exchange or unknown)

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	secstat
Monthly ITEMID	msecstat
Header	Secstatl
SUBNO	2

**SHARE CLASS, END OF PERIOD****Category:** Name History**Data Type:** String

**Description:** Character identifying the class of stock as of the end of period, generally left blank. Assigned by the exchange in cooperation with the company. Any letter that identifies the class of stock (e.g., "A" for class A common) is contained in the first position of this field.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	shrcls
Monthly ITEMID	mshrcls
Header	CL
SUBNO	0

**SHARE CLASS, END OF PREVIOUS PERIOD****Category:** Name History**Data Type:** String

**Description:** Character identifying the class of stock as of the period preceding the period being accessed, generally left blank. Assigned by the exchange in cooperation with the company.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	shrcls
Monthly ITEMID	mshrcls
Header	CLE
SUBNO	1

**SHARE CLASS, MOST RECENT****Category:** Name History**Data Type:** String

**Description:** Character identifying the most recently known class of stock as of the end of period, generally left blank. Assigned by the exchange in cooperation with the company.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	shrcls
Monthly ITEMID	mshrcls
Header	CLL
SUBNO	2

**SHARE CODE GROUPINGS FOR SUBSETS (PARTITION OR INDEX RESTRICTION)**

Share Code Groupings for Subsets is an integer code describing the generic share code groupings used in universe subsets describing the valid issues used when partitioning the market or in the actual index. The following codes are used:

CODE	DESCRIPTION
0	No share code restriction or not applicable
1	Common stocks excluding ADRs
2	Common stocks excluding ADRs and foreign incorporated companies
3	Common stocks excluding ADR's, foreign incorporated companies, REITS, and closed end funds
4	Common stocks

GENERAL INFORMATION	
Primary Concepts	Index Header

Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	induniv.shrcd.sccode or partuniv.shrcd.sccode
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	induniv or partuniv
Element	sccode

### SHARE CODE SCREEN STRUCTURE (PARTITION OR INDEX RESTRICTION)

Share Code Screen Structure contains fields defining groups of CRSP security share codes included in the subset describing the valid issues used when partitioning the market or in the actual index. See “Share Type Code” for details of the 2-digit share codes used by CRSP in the Share Code variable. The fields in the structure are Share Code Groupings for Subsets, Valid First Digit of Share Code, and Valid Second Digit of Share Code.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	structure
Unit of Item	Set (Id codes)
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	n/a
C USAGE	
Object	indhdr_row
Array	indhdr
Element	induniv.shrcd or partuniv.shrcd
FORTRAN-95 USAGE	
Type or Subtype	indhdr

Member and/or Array	induniv or partuniv
Element	shrcd

### SHARE TYPE CODE, END OF PERIOD

**Category:** Name History

**Data Type:** Double Precision Floating Point

**Description:** 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	SBLs (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)

For example, a Share Type Code of 14 represents ordinary common shares of a closed-end fund.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	shrcd
Monthly ITEMID	mshrcd
Header	SC
SUBNO	0

### SHARE TYPE CODE, END OF PREVIOUS PERIOD

**Category:** Name History

**Data Type:** Double Precision Floating Point

**Description:** 2-digit code as of the period preceding the period reported. First digit describes the type of security, second digit provides further security or



company detail.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	shrcd
Monthly ITEMID	mshrcd
Header	SCE
SUBNO	1

### SHARE TYPE CODE, MOST RECENT

**Category:** Name History

**Data Type:** Double Precision Floating Point

**Description:** 2-digit code, most recently known as of end of period. First digit describes the type of security, second digit provides further security or company detail.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	shrcd
Monthly ITEMID	mshrcd
Header	SCL
SUBNO	2

### SHARES OUTSTANDING

**Category:** Shares

**Data Type:** Double Precision Floating Point

**Description:** The unadjusted number of publicly held shares on NYSE, NYSE MKT, NASDAQ, Arca, Cboe BZX, and IEX stock exchanges, recorded in 1000s.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	shr
Monthly ITEMID	mshr
Header	Shr

SUBNO	0
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### SHARES OUTSTANDING, ADJUSTED

**Category:** Shares

**Data Type:** Double Precision Floating Point

**Description:** Shares Outstanding is the number of publicly held shares of securities listed on NYSE, NYSE MKT, NASDAQ, Arca, Cboe BZX, and IEX stock exchanges, recorded in 1000s. This figure represents the actual, undiluted value.

The Shares Outstanding Observations Array contains observation events and cannot be used to directly find the shares outstanding each calendar period. Utility functions and programs are available to map observations to time series to calculate market capitalization. If there is no time series data over a time period, but the security has a Shares Outstanding value, the last valid Shares Outstanding value has been carried over.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjshr
Monthly ITEMID	madjshr
Header	Adjshr
SUBNO	0

### SHARES OUTSTANDING, ADJUSTED FOR RIGHTS

**Category:** Shares

**Data Type:** Double Precision Floating Point

**Description:** The number of publicly held shares on NYSE, NYSE MKT, NASDAQ, Arca, Cboe BZX, and IEX stock exchanges, recorded in 1000s and adjusted for rights only.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjshr
Monthly ITEMID	madjshr
Header	Adjshr
SUBNO	1

## SHARES OUTSTANDING OBSERVATION DATE

Shares Observation Date is a specific date corresponding to a Shares Outstanding value. The shares date is either the statement date from a firm's annual or quarterly report, the Ex-Distribution Date of a distribution affecting the shares outstanding, or the date of a shares observation taken from another source.

GENERAL INFORMATION	
Primary Concepts	Shares Outstanding Observations Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/sh, /sa
C USAGE	
Object	shares_arr
Array	shares[ ]
Element	shrsdt
FORTRAN-95 USAGE	
Type or Subtype	shares_arr
Member and/or Array	shares()
Element	shrsdt

## SHARES OUTSTANDING OBSERVATION END DATE

Shares Observation End Date is the last effective date of a shares outstanding observation. It is set to the latest date prior to the Shares Observation Date of the next observation. The Shares Observation End Date of the last observation is set to the Delisting Date. If the Shares Observation Date is after the Delisting Date, then the Shares Observation End Date is set to 99999999.

GENERAL INFORMATION	
Primary Concepts	Shares Outstanding Observations Array
Data Type	integer number
Unit of Item	YYYYMMDD date
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a

ts_print Monthly Usage	n/a
stk_print Option(s)	/sh, /sa
C USAGE	
Object	shares_arr
Array	shares[ ]
Element	shrsenddt
FORTRAN-95 USAGE	
Type or Subtype	shares_arr
Member and/or Array	shares()
Element	shrsenddt

## SHARES OUTSTANDING OBSERVATION FLAG

Shares Outstanding Observation Flag is an integer value indicating the source of the shares outstanding observation:

INTEGER VALUE	DESCRIPTION
0	Share structure extracted from CRSP data sources
1	Share structure imputed from a split or other distribution
2	Shares observation added on the date of a change in the name history, using the effective shares outstanding on that date implied by another

GENERAL INFORMATION	
Primary Concepts	Shares Outstanding Observations Array
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print Option(s)	/sh, /sa
C USAGE	
Object	shares_arr
Array	shares[ ]
Element	shrflg
FORTRAN-95 USAGE	
Type or Subtype	shares_arr
Member and/or Array	shares()
Element	shrflg

## SHARES OUTSTANDING, UNADJUSTED FOR RIGHTS

**Category:** Shares

**Data Type:** Double Precision Floating Point

**Description:** The number of publicly held shares on NYSE, NYSE MKT, NASDAQ, and Arca exchanges, recorded in 1000s and adjusted for price factors other than rights.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	shr
Monthly ITEMID	mshr
Header	Shrxr
SUBNO	1

## SIC CODE, END OF PERIOD

**Category:** Name History

**Data Type:** Double Precision Floating Point

**Description:** The SIC code used to group companies with similar products or services at the end of the period reported.

**Extended Information:** The Standard Industrial Classification Manual contains descriptions of categories recognized by the US Government. SIC Code is an integer between 100 and 9999. The first two digits refer to a major group. The first three digits refer to an industry group. All four digits indicate an industry. Missing SIC Codes are set to either 0 or 9999, more so the latter after March 2000 although both do still exist after this time frame. Prior to March 2000, the NASDAQ stock exchange reported the first three digits of NASDAQ listed companies based on the company reported primary industry and CRSP has commonly added a fourth digit of zero in these situations. SIC codes of NYSE and NYSE MKT companies are reported with four digits based on SEC groupings. Since March 2000 most new SIC Codes assigned include four significant digits, but not all do and so some codes after March 2000 may still only have 3 significant digits.

SIC Codes were introduced around 1930. Securities populating the CRSP universe that existed prior to 1930 may have code assignments. CRSP actively chose to apply the original SIC coding scheme to these securities as a way to provide a valid means of classification.

The North American Industry Classification System (NAICS) was introduced in 1997, to succeed the SIC

codes. See “North American Industry Classification System Code”.

In the December 2009 stock database, CRSP removed SIC Codes provided by our source, Mergent, from our Stock Databases and replaced them with SIC Codes from Interactive Data Corporation. Mergent was the primary source for SIC Code for NYSE, NYSE MKT & Arca securities from 20010824 through 2009. IDC has always been a continuous alternate source of SIC Codes, so no holes in coverage were introduced by the elimination of the Mergent data. The differences in codes resulting from our change in source did not impact the CRSP Indexes.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	siccd
Monthly ITEMID	msiccd
Header	SIC
SUBNO	0

## SIC CODE, END OF PREVIOUS PERIOD

**Category:** Name History

**Data Type:** Double Precision Floating Point

**Description:** The SIC code used to group companies with similar products or services at the end of the period preceding the period reported.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	siccd
Monthly ITEMID	msiccd
Header	SICE
SUBNO	1

## SIC CODE, MOST RECENT

**Category:** Name History

**Data Type:** Double Precision Floating Point

**Description:** The most recent SIC code used to group companies with similar products or services.

Date Range Availability	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	siccd
Monthly ITEMID	msiccd
Header	SICL
SUBNO	2

### SIC CODE - HEADER

Standard Industrial Classification (SIC) Code - Header is the last non-zero SIC Code found in a specific security's name structure. The Standard Industrial Classification (SIC) Code - Header is zero for companies for which CRSP has no SIC Codes.

GENERAL INFORMATION	
Primary Concepts	Header Identification and Summary Data
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	/hh, /hr, /hrl, /hn
C USAGE	
Object	header_row
Array	header
Element	hsiccd
FORTRAN-95 USAGE	
Type or Subtype	stkhdr
Member and/or Array	n/a
Element	hsiccd

### SPREAD BETWEEN BID AND ASK

Monthly: Spread Between Bid and Ask is the difference between the closing bid and ask quotes for a security. It is available only when Ask or High Price and Bid or Low Price are available and Closing Price or Bid/Ask Average is a bid/ask average. If Closing Price or Bid/Ask Average is zero and Spread between Bid and Ask is negative, the spread represents a Bid or Low Price. If Closing Price or Bid/Ask Average is zero and Spread between Bid and Ask is positive, Spread Between Bid and Ask represents

an Ask or High Price. It is set to zero if unavailable.

GENERAL INFORMATION	
Primary Concepts	Auxiliary Time Series Data
Data Type	real number
Unit of Item	Mathematical value
DATE RANGE AVAILABILITY	
Daily	n/a
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
stk_print or ind_print Option(s)	/p2
C USAGE	
Object	spread_ts
Array	spread[ ]
Element	n/a
FORTRAN-95 USAGE	
Type or Subtype	spread_ts
Member and/or Array	spread()
Element	n/a

### STATISTIC AVERAGE IN PERIOD

Statistic Average in Period is the average statistical value in a portfolio at the beginning of a rebalancing period of a market segment index. It is set to zero if missing or unavailable.

GENERAL INFORMATION	
Primary Concepts	Index Rebalancing History Arrays
Data Type	real number
Unit of Item	Mathematical value
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	n/a
C USAGE	
Object	rebal_arr[ ]
Array	rebal[ ][ ]
Element	avgstat
FORTRAN-95 USAGE	
Type or Subtype	rebal_arr()
Member and/or Array	rebal(,)
Element	avgstat

## STATISTIC MAXIMUM IDENTIFIER

Statistic Maximum Identifier is the identifier of the entity in a portfolio with the maximum statistic at the beginning of a rebalancing period. The identifier can be PERMNO or PERMCO depending on Index Statistic Grouping Code. It is set to zero if unavailable.

GENERAL INFORMATION	
Primary Concepts	Index Rebalancing History Arrays
Data Type	integer number
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/rb#
C USAGE	
Object	rebal_arr[ ]
Array	rebal[ ][ ]
Element	maxid
FORTRAN-95 USAGE	
Type or Subtype	rebal_arr()
Member and/or Array	rebal(,)
Element	maxid

## STATISTIC MAXIMUM IN PERIOD

Statistic Maximum in Period is a maximum statistic value in the portfolio at the beginning of a rebalancing period. It is set to zero if unavailable.

GENERAL INFORMATION	
Primary Concepts	Index Rebalancing History Arrays
Data Type	real number
Unit of Item	Mathematical value
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/rb#
C USAGE	
Object	rebal_arr[ ]
Array	rebal[ ][ ]

Element	maxstat
FORTRAN-95 USAGE	
Type or Subtype	rebal_arr()
Member and/or Array	rebal(,)
Element	maxstat

## STATISTIC MEDIAN IN PERIOD

Statistic Median in Period is the median statistic value in a portfolio at the beginning of a rebalancing period. It is set to zero if unavailable.

GENERAL INFORMATION	
Primary Concepts	Index Rebalancing History Arrays
Data Type	real number
Unit of Item	Mathematical value
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	n/a
C USAGE	
Object	rebal_arr[ ]
Array	rebal[ ][ ]
Element	medstat
FORTRAN-95 USAGE	
Type or Subtype	rebal_arr()
Member and/or Array	rebal(,)
Element	medstat

## STATISTIC MINIMUM IDENTIFIER

Statistic Minimum Identifier is the identifier of the entity in a portfolio with the minimum statistic at the beginning of a rebalancing period. The identifier can be PERMNO or PERMCO depending on the Index Statistic Grouping Code. It is set to zero if unavailable.

GENERAL INFORMATION	
Primary Concepts	Index Rebalancing History Arrays
Data Type	integer number
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND

ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/rb#
<b>C USAGE</b>	
Object	rebal_arr[ ]
Array	rebal[ ][ ]
Element	minid
<b>FORTRAN-95 USAGE</b>	
Type or Subtype	rebal_arr()
Member and/or Array	rebal(,)
Element	minid

### STATISTIC MINIMUM IN PERIOD

Statistic Minimum in Period is the minimum statistic value in the portfolio at the beginning of the rebalancing period. It is set to zero if unavailable.

<b>GENERAL INFORMATION</b>	
Primary Concepts	Index Rebalancing History Arrays
Data Type	real number
Unit of Item	Mathematical value
<b>DATE RANGE AVAILABILITY</b>	
Daily	1925
Monthly	1925
<b>DATABASE AVAILABILITY AND UTILITY USAGE</b>	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/rb#
<b>C USAGE</b>	
Object	rebal_arr[ ]
Array	rebal[ ][ ]
Element	minstat
<b>FORTRAN-95 USAGE</b>	
Type or Subtype	rebal_arr()
Member and/or Array	rebal(,)
Element	minstat

## T.

### TICKER, END OF PERIOD

**Category:** Name History

**Data Type:** String

**Description:** An alphabetic symbol assigned to a security by an exchange at the end of the period reported.

### Extended Information

Tickers can be reused over time. The combination of Ticker Symbol, Share Class, Exchange Code, and Calendar Trading Date uniquely identifies a security. A ticker may be one to three characters for NYSE and NYSE MKT securities or four to five characters for NASDAQ securities.

NASDAQ trading tickers have four base characters and may include a fifth character suffix that provides information about an issue's type or temporary information about an issue's status. CRSP only includes the suffix when it provides permanent descriptive information. The following table describes the suffixes appearing in CRSP databases:

SUFFIX	DESCRIPTION
A	Class A
B	Class B
S	Shares of Beneficial Interest
U	Unit
V	When-issued
Y	ADR
Z	Miscellaneous common issues

Occasionally NASDAQ will add two additional suffixes to the base ticker to identify certain issues. However, because the NASDAQ ticker field only allows for five characters, one letter of the base ticker will be dropped. For example:

If a foreign company with a class A stock has a base ticker symbol ABCD, NASDAQ adds two additional characters, A and F. Due to NASDAQ's limited fields, they will delete a letter from the base ticker, so ABCDAF would be truncated to ABCAF.

There is no guarantee that the ticker suffix matches a share type. The Share Code variable should be used to determine the security's share type. NASDAQ tickers before 1982 in an issue's name history are presumed to represent legitimate trading symbols for that issue at some point in time, although these symbols may be listed out of proper chronological sequence. In addition, the NASDAQ file ticker symbols provided do not necessarily constitute a definitive list of all symbols



used throughout an issue's trading history. Due to source limitations, the ticker field may be blank in name histories of NASDAQ securities that stopped trading from the early 1970s through the early 1980s.

NYSE tickers prior to July 1962 are blank.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	ticker
Monthly ITEMID	mticker
Header	Ticker
SUBNO	0

### TICKER, END OF PREVIOUS PERIOD

**Category:** Name History

**Data Type:** String

**Description:** An alphabetic symbol assigned to a security by an exchange at the end of the period preceding the period reported.

DATE RANGE AVAILABILITY	
Daily	1962
Monthly	196207
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	ticker
Monthly ITEMID	mticker
Header	Tickere
SUBNO	1

### TICKER - HEADER

Ticker - Header is set to the first seven characters of Trading Ticker Symbol - Header for active issues, and is blank for delisted issues. The Trading Ticker Symbol - Header contains the symbol used by automated trading systems, including all supplied class, share type, or status suffixes, with no punctuation for active securities in the file. There are no current trading symbols longer than seven characters.

Ticker - Header is used in CRSP access routines and utility programs using ticker as a database key. Usage is

unchanged, but input lists built on previous conventions of TICKER.SHRCLS for NYSE and NYSE MKT securities must be changed to comply with the new data. This

change provides a field in the CRSP database that contains an exact match with symbols available directly from exchanges and other sources.

GENERAL INFORMATION	
Primary Concepts	Header Identification and Summary Data
Data Type	character
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	1962
Monthly	196207
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hh, /hn
C USAGE	
Object	header_row
Array	header
Element	htick
FORTRAN-95 USAGE	
Type or Subtype	stkhdr
Member and/or Array	n/a
Element	htick

### TICKER, MOST RECENT

**Category:** Name History

**Data Type:** String

**Description:** The most recently used alphabetic symbol assigned to a security by an exchange.

DATE RANGE AVAILABILITY	
Daily	1962
Monthly	196207
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	ticker
Monthly ITEMID	mticker
Header	Tickerl
SUBNO	2



**TRADING STATUS, END OF PERIOD****Category:** Name History**Data Type:** Character

**Description:** One-character field describing the status of a security at the end of the period. (A = active, H = halted, S = suspended, X = unknown)

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	trdstat
Monthly ITEMID	mtrdstat
Header	Trdstat
SUBNO	0

**TRADING STATUS, END OF PREVIOUS PERIOD****Category:** Name History**Data Type:** Character

**Description:** One-character field describing the status of a security at the end of the period preceding the period reported. (A = active, H = halted, S = suspended, X = unknown)

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	trdstat
Monthly ITEMID	mtrdstat
Header	Trdstat
SUBNO	1

**TRADING STATUS - HEADER**

Trading Status is a one-character field containing the trading status of securities. See Trading Status for a list of codes.

GENERAL INFORMATION	
Primary Concepts	Header Identification and Summary Data
Data Type	character
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925

Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	STK
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hn
C USAGE	
Object	header_row
Array	header
Element	htrdstat
FORTRAN-95 USAGE	
Type or Subtype	stkhdr
Member and/or Array	n/a
Element	htrdstat

**TRADING STATUS, MOST RECENT****Category:** Name History**Data Type:** Character

**Description:** One-character field describing the status of a security most recently known at the end of the period. (A = active, H = halted, S = suspended, X = unknown)

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	trdstat
Monthly ITEMID	mtrdstat
Header	Trdstat
SUBNO	2

**TRADING TICKER SYMBOL, END OF PERIOD****Category:** Name History**Data Type:** String

**Description:** Trading symbol listed by exchanges and consolidated quote systems, including all temporary values, share classes and share type suffixes, at the end of the period reported. There is no punctuation (no periods) in the Trading Ticker Symbol. N.B. this field includes data starting on 20020102 for NYSE/NYSE MKT, and 19821101 for NASDAQ.

DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	198211
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	tsymbol
Monthly ITEMID	mtsymbol
Header	Symbol
SUBNO	0

## TRADING TICKER SYMBOL, END OF PREVIOUS PERIOD

**Category:** Name History

**Data Type:** String

**Description:** Trading symbol listed by exchanges and consolidated quote systems, including all temporary values, share classes and share type suffixes, at the end of the period preceding each period reported.

DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	198211
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	tsymbol
Monthly ITEMID	mtsymbol
Header	Symbole
SUBNO	1

## TRADING TICKER SYMBOL - HEADER

Trading Ticker Symbol - Header is the most current trading symbol on file, listed by exchanges and consolidated quote systems. It includes all temporary values, share classes, and share type suffixes.

GENERAL INFORMATION	
Primary Concepts	Header Identification and Summary Data
Data Type	character
Unit of Item	Id
DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	198211
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	STK
ts_print Daily Usage	n/a

ts_print Monthly Usage	n/a
ind_print Option(s)	/hn
C USAGE	
Object	header_row
Array	header
Element	htsymbol
FORTRAN-95 USAGE	
Type or Subtype	stkhdr
Member and/or Array	n/a
Element	htsymbol

## TRADING TICKER SYMBOL, MOST RECENT

**Category:** Name History

**Data Type:** String

**Description:** Trading symbol listed by exchanges and consolidated quote systems, including all temporary values, share classes and share type suffixes, most recently known.

DATE RANGE AVAILABILITY	
Daily	19821101
Monthly	198211
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	tsymbol
Monthly ITEMID	mtsymbol
Header	Symbol
SUBNO	2

**U.****UNIVERSE SUBSET TYPE CODE (PARTITION OR INDEX RESTRICTION)**

Universe Subset Type Code is an integer code defining a set of restrictions used to define the universe of stocks used to create partitions for an index or for the actual index. The following codes are used:

CODE	DESCRIPTION
0	Identifier restriction not applicable
10	NYSE common excluding foreign, ADRs, REIT, Closed End Funds
11	NYSE/NYSE MKT common excluding foreign, ADRs, REIT, Closed End Funds
12	NYSE/NYSE MKT/The NASDAQ National Market common excluding foreign, ADRs, REIT, Closed End Funds
20	NYSE common excluding ADRs
21	NYSE MKT common excluding ADRs
22	NYSE/NYSE MKT common excluding ADRs
23	NASDAQ common excluding ADRs
24	NYSE/NYSE MKT/NASDAQ common excluding ADRs
30	NYSE common
31	NYSE MKT common
32	NYSE/NYSE MKT common
33	NASDAQ common
34	NYSE/NYSE MKT/NASDAQ common
35	NYSE common excluding ADRs and foreigners
36	NYSE MKT common excluding ADRs and foreigners
37	NYSE/NYSE MKT common excluding ADRs and foreigners
38	NASDAQ common excluding ADRs and foreigners
39	NYSE/NYSE MKT/NASDAQ common excluding ADRs and foreigners
40	Arca common excluding ADRs
41	Arca common
42	NYSE/NYSE MKT/NASDAQ/Arca common excluding ADRs
43	NYSE/NYSE MKT/NASDAQ/Arca common

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row

Array	indhdr
Element	partuniv.univcode or induniv.univcode
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	partuniv or induniv
Element	univcode

**V.****VALID EXCHANGE CODES IN UNIVERSE (PARTITION OR INDEX RESTRICTION)**

Valid Exchange Codes in Universe is an integer code indicating the base exchanges in the universe used to partition an index or to populate the actual index. The following table lists the base codes used. The sum of two or more codes indicates all selected exchanges are valid.

CODE	DESCRIPTION
0	No exchange restriction
1	NYSE
2	NYSE MKT
4	NASDAQ Stock Market
8	Arca

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	partuniv.wantexch or induniv.wantexch
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	partuniv or induniv
Element	wantexch

**VALID FIRST DIGIT OF SHARE CODE (PARTITION OR INDEX RESTRICTION)**

Valid First Digit of Share Code is an integer code describing the valid digits in the first digit of the share code in a subset universe used to partition an index or in the actual index. Valid First Digit of Share Code is the decimal representation of a 10-digit binary number. The nth bit of the binary number is 1 if an n in the first digit of the Share Code is valid in the subset, and a 0 otherwise.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	partuniv.shrcd.fstdig or induniv.shrcd.fstdig
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	partuniv or induniv
Element	fstdig

**VALID INCORPORATION OF SECURITIES IN UNIVERSE (PARTITION OR INDEX RESTRICTION)**

Valid Incorporation of Securities in Universe describes the incorporation of companies selected in a subset universe used to partition an index or in the actual index. The following integer codes are used.

CODE	DESCRIPTION
0	Not applicable or no restriction by country of incorporation
1	Companies incorporated outside of the US are excluded

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1962
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row

Array	indhdr
Element	partuniv.wantinc or induniv.wantinc
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	partuniv or induniv
Element	wantinc

### VALID NASDAQ MARKET GROUPS IN UNIVERSE (PARTITION OR INDEX RESTRICTION)

Valid NASDAQ Market Groups in Universe is an integer code indicating valid NASDAQ markets in the universe subset used to partition an index or used in the actual index. The NASDAQ National Market is a subset of The NASDAQ Stock Market<sup>SM</sup>. The following codes are used:

CODE	DESCRIPTION
0	No National Market restriction, or not applicable
1	Only issues listed on The NASDAQ National Market are included

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	19820402
Monthly	198204
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	partuniv.wantnms or induniv.wantnms
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	partuniv or induniv
Element	wantnms

### VALID SECOND DIGIT OF SHARE CODE (PARTITION OR INDEX RESTRICTION)

Valid Second Digit of Share Code is an integer code describing the valid digits in the second digit of the Share Code in a subset universe used in an index partition or in the actual index. Valid Second Digit of Share Code is the decimal representation of a 10-digit binary number. The nth bit of the binary number is 1 if an n in the second digit of the Share Code is valid in the

subset, and a 0 otherwise.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	partuniv.shrcd.secdig or induniv.shrcd.secdig
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	partuniv or induniv
Element	secdig

### VALID WHEN-ISSUED SECURITIES IN UNIVERSE (PARTITION OR INDEX RESTRICTION)

Valid When-Issued Securities in Universe is an integer code describing the types of when-issued trading allowed in a subset universe used in an index partition or in the actual index. The following codes are used:

CODE	DESCRIPTION
0	No when-issued restrictions, or not applicable
10	Initial when-issued trading is included when available. Ex-distribution trading is excluded. When-issued trading during reorganizations is included.
110	Initial when-issued trading is excluded until issue attains regular-way status. Ex-distribution trading is excluded. When-issued trading during reorganizations is included.

GENERAL INFORMATION	
Primary Concepts	Index Header
Data Type	integer number
Unit of Item	Code
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a

ind_print Option(s)	/hr
C USAGE	
Object	indhdr_row
Array	indhdr
Element	partuniv.wantwi or induniv.wantwi
FORTRAN-95 USAGE	
Type or Subtype	indhdr
Member and/or Array	partuniv or induniv
Element	wantwi

## VOLUME, AVERAGE

**Category:** Volume

**Data Type:** Double Precision Floating Point

**Description:** Daily — Average daily volume traded within the selected output calendar. For example, the weekly calendar will average the 5 trading days within each week.

Monthly — Average monthly volume traded within the selected output calendar. For example, the quarterly calendar will average the 3 month-end volumes in the quarter.

Date Range Availability	
Daily	1925
Monthly	1925
Database Availability and Product Types	
Database Formats	CRSPAccess
Product Types	STK
ts_print/TsQuery Usage	
Daily ITEMID	volavg
Monthly ITEMID	mvolavg
Header	Volavg
SUBNO	0

## VOLUME, MEDIAN

**Category:** Volume

**Data Type:** Double Precision Floating Point

**Description:** Daily — Median daily volume traded within the selected output calendar. For example, the weekly calendar will select the median value for the 5 trading days within each week.

Monthly — Median monthly volume traded within the selected output calendar. For example, the quarterly calendar will select the median value for the 3 month-end volumes in the quarter.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	volmed
Monthly ITEMID	mvolmed
Header	Volmed
SUBNO	0

## VOLUME, TOTAL

**Category:** Volume

**Data Type:** Floating Point

**Description:**

**Daily:** Total raw number of shares of a stock traded on that day, and is not adjusted for splits during the month and it does not contain over-allotments.

**Monthly:** The sum of the trading volumes during that month. Monthly volumes are the sum of shares reported in units of 100, and are not adjusted for splits during the month.

Volume, Total is the integer raw number of shares traded during the calendar period. It is expressed in units of one share, for daily data, and on hundred shares for monthly data. Up until March, 2014, our data source for NYSE/NYSE MKT reports the number rounded to the nearest hundred. For example, 12,345 shares traded will be reported on the NASDAQ Stock Exchange as 12,345 and on the NYSE or NYSE MKT exchanges as 12,300. Volume is set to -99 if the value is missing. A volume of zero usually indicates that there were no trades during the time period and is usually paired with bid/ask quotes in price fields. Trades on all exchanges connected to the consolidated pricing network are included in the volume.

On NASDAQ, volumes of after-hours trades are included in the current day, while the trades or quotes are included the next day. Therefore, it is possible to have bid/ask or missing price quotes paired with nonzero volumes. Trades on all exchanges connected to the consolidated pricing network and all late trades are included in the volume. There are no volumes available on NASDAQ prior to November 1, 1982.

Until June 15, 1992, NASDAQ reported volumes differently on the NASDAQ National Market and NASDAQ SmallCap Market. On the National Market, the volume of each transaction was reported by one party

involved in the transaction. On the SmallCap Market, all market makers of a security made two volume reports at the end of the market day, the total number of shares they bought and the total number of shares they sold. The NASDAQ system summed the greater figure (whether buy or sell) from the market reports to create daily volume figures.

Beginning in November 2008, the BATS Exchange joined the consolidated pricing network. From that time forward, volumes reported in the CRSP Stock database include trades on the BATS Exchange, which now accounts for over 10% of all US equity trading on a daily basis.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	tvol
Monthly ITEMID	mtvol
Header	Vol
SUBNO	0

## VOLUME, TOTAL ADJUSTED

**Category:** Volume

**Data Type:** Floating Point

**Description:**

**Daily:** Total volume traded within the selected output calendar, adjusted for splits. For example, the weekly calendar will sum the 5 trading days within each week.

**Monthly:** Total volume traded within the selected output calendar, adjusted for splits. For example, the quarterly calendar will sum the 3 months within each quarter.

DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND PRODUCT TYPES	
Database Formats	CRSPAccess
Product Types	STK
TS_PRINT/TSQUERY USAGE	
Daily ITEMID	adjvol
Monthly ITEMID	madjvol
Header	Adjvol
SUBNO	0

## W.

### WEIGHT OF ISSUE

Weight of Issue is the defined weight of an issue within the index during the range indicated in a list defining the index. It is set to zero if weighting is defined based on data and not part of the list definition.

GENERAL INFORMATION	
Primary Concepts	Index List History Array
Data Type	real number
Unit of Item	Mathematical value
DATE RANGE AVAILABILITY	
Daily	1925
Monthly	1925
DATABASE AVAILABILITY AND UTILITY USAGE	
Database Formats	CRSPAccess
Product Types	IND
ts_print Daily Usage	n/a
ts_print Monthly Usage	n/a
ind_print Option(s)	/hr
C USAGE	
Object	list_arr[]
Array	list[][]
Element	weight
FORTRAN-95 USAGE	
Type or Subtype	list_arr()
Member and/or Array	list()
Element	weight



## CHAPTER 3: CRSP CALCULATIONS

This area contains formulas and methodologies used to derive CRSP variables in the stock and index files and generated by the CRSP data utilities.

### ADJUSTED DATA

Price, dividend, shares, and volume data are historically adjusted for split events to make data directly comparable at different times during the history of a security. CRSP provides raw, Unadjusted Data, but data utilities `stk_print` and `ts_print` can be used to generate Adjusted Data.

An adjustment base date is chosen as the anchor date. All data on this date are unadjusted, and other data are converted based on the split events between the base date and the time of that data. The adjustment base date is usually chosen to be the last available day of trading.

Split events always include stock splits, stock dividends, and other distributions with price factors such as spin-offs, stock distributions, and rights. Shares and volumes are only adjusted using stock splits and stock dividends. Split events are applied on the Ex-Distribution Date.

**Price and dividend data are adjusted with the calculation:**

$$A(t) = P(t) / C(t),$$

where  $A(t)$  is the adjusted value at time  $t$ ,  $P(t)$  is the raw value at time  $t$ , and  $C(t)$  is the cumulative adjustment factor at time  $t$ .

**Share and volume data are adjusted with the calculation:**

$$A(t) = P(t) * C(t),$$

where  $A(t)$  is the adjusted value at time  $t$ ,  $P(t)$  is the raw value at time  $t$ , and  $C(t)$  is the cumulative adjustment factor at time  $t$ .

In both cases, where  $C_0$  is the adjustment base date, the cumulative adjustment factor is:

if  $t = C_0$ ,

$$C(t) = 1.0$$

if  $t > C_0$  and no split events since  $t-1$ ,

$$C(t) = C(t-1)$$

if  $t > C_0$  and a split event with factor  $f$  since  $t-1$ ,

$$C(t) = C(t-1) * f$$

if  $t > C_0$  and split event change

$$C(t-1)/f$$

if  $t < C_0$  and a split event change

$$C(t+1) * f$$

Where factor is typically the Factor to Adjust Price variable + 1.

If there is a gap in trading where possible split events are not known, all adjusted values are set to missing when the gap is between the observation and the adjustment base date.

Monthly: If monthly summary data (id or Low Price, Ask or High Price, and Volume Traded) are adjusted, the adjustment factor cannot take into account adjustments that take place in the middle of the month. Therefore, the result assumes all adjustment events occur on the last trading day of the month. A more accurate monthly adjusted value can be derived by adjusting and resummarizing the underlying daily data.

### ANNUALIZED RETURN

Annualized Return is the constant annual return applied to each period in arrays that would result in the actual compounded return over that range. An Annualized Return is a special case of a Geometric Average Return where the time periods are expressed in terms of years.

### ASSOCIATED PORTFOLIO RETURN

Associated Portfolio Returns are a composite of a group of portfolio index series based on a time-dependent portfolio assignment for a security. They are built for each security based on assignments within the specified portfolio type. The associated portfolio return at any time is the return of the portfolio to which the security belongs at that time. If the security is not assigned to a portfolio of that type at the time, the associated portfolio return is set to a missing value.

### CUMULATIVE RETURN

A Cumulative Return is a compounded return from a fixed starting point. Each period in a time series of Cumulative Returns contains the compounded return from the first period in the time series to the end of that period.

### DELISTING RETURN

Delisting Return is the return of security after it is delisted. It is calculated by comparing a value after delisting against the price on the security's last trading date. The value after delisting can include a price on another exchange or the total value of distributions to shareholders. If there is no

opportunity to trade a stock after delisting before it is declared worthless, the value after delisting is zero. Delisting Returns are calculated similarly to total returns except that the value after delisting is used as the current price.

Valid delisting payment information is either a valid price with at least a bid and ask quote within ten trading periods, or a complete set of payments received for the shares. If information after delisting is insufficient to generate a return a missing value is reported.

**Monthly:** The monthly Delisting Return is calculated from the last month ending price to the last daily trading price if no other delisting information is available. In this case the delisting payment date is the same as the delisting date. If the return is calculated from a daily price, it is a partial-month return. The partial-month returns are not truly Delisting Returns since they do not represent values after delisting, but allow the researcher to make a more accurate estimate of the Delisting Returns.

When valuing a portfolio, the Delisting Return or other representation can be used to assign a value to the delisted security. The researcher must decide whether to assign alternate estimated values based on the Delisting Code when delisting payment information is unavailable. If using monthly data and an alternate estimate for Delisting Return is used, partial month returns should also be adjusted by this factor.

#### **DIVIDEND AMOUNT IN PERIOD (TS\_PRINT ITEM)**

Dividend Amount is the cash adjustment factor in a holding period return time period used to calculate returns. It is an adjusted summation of all distribution cash amounts available in the distribution history with Ex-distribution dates after the previous period and up to and including the current period, adjusted to the basis at the end of the previous period. Dividend Amount can be divided into nonordinary and ordinary types. Nonordinary dividends include return of capital distributions. Ordinary dividends are excluded from capital appreciation returns calculations.

To calculate an adjusted Dividend Amount in Period to its basis at the end of a date range, the following formula may be used with data items extracted through `ts_print`:

$$\text{Divamt in period adjusted to end of range} = \text{divamt} / \text{cumfacpr} / \text{facpr}$$

#### **Where**

<b>divamt</b>	Dividend Amount in Period
<b>cumfacpr</b>	Cumulative Factor to Adjust Prices over a Date Range
<b>facpr</b>	Factor to Adjust Price in Period

Thus, to calculate a total return using adjusted prices and dividends,

$$\text{Total Return} = (\text{adjprc} + (\text{divamt} / \text{cumfacpr} / \text{facpr})) / \text{prev\_adjprc} - 1$$

#### **Where**

<b>adjpr</b>	Price Adjusted, End of Period
<b>ev_adjprc</b>	Price Adjusted, End of Previous Period

### **EXCESS RETURN**

An Excess Return is defined as the return in excess of a comparable benchmark. The benchmark can be a single associated index series or a composite of a group of portfolio index series based on security and time-dependent portfolio assignments.

**If an Excess Return is based on a single index series, the Excess Return for a period is**

$$E(t) = R(t) - I(t),$$

where  $E(t)$  is the Excess Return at time  $t$ ,  $R(t)$  is the security return at time  $t$ , and  $I(t)$  is the index return at time  $t$ . If the security return  $R(t)$  is based on a previous price  $t'$  that is not the previous time period,  $I(t)$  is the compounded index return from  $t' + 1$  to  $t$ .

**If an Excess Return is based on associated portfolios, the Excess Return for a period is**

$$E(t) = R(t) - I(p(t), t)$$

where  $E(t)$  is the Excess Return at time  $t$ ,  $R(t)$  is the security return at time  $t$ ,  $p(t)$  is the portfolio assignment of the security at time  $t$ , and  $I(p(t), t)$  is the return of that portfolio at time  $t$ . If the security return  $R(t)$  is based on a previous price  $t'$  that is not the previous time period,  $I(p(t), t)$  is the compounded return of the security's portfolio return from  $t' + 1$  to  $t$ . If the security is not assigned a portfolio assignment of the given type at time  $t$ ,  $E(t)$  is set to a missing value.

When cumulating Excess Return, the security returns and the index returns are cumulated separately before subtracting the difference.

**FACTOR TO ADJUST PRICES IN PERIOD (TS\_PRINT ITEM)**

Factor to Adjust Prices in Period is the amount the current price is multiplied by in returns calculations so that current and previous prices are on the same split-adjusted basis. Factor to Adjust Prices in Period is derived from the Factor to Adjust Price field of distributions with Ex-Distribution Dates after the previous period and up to and including the current period. In simple stock splits, Factor to Adjust Prices in Period is distribution Factor to Adjust Price plus one.

**GEOMETRIC AVERAGE RETURN**

A Geometric Average Return is the constant return applied to each period in a range that would result in the compounded return over that range.

The Geometric Average Return is calculated using the formula below:

$$g_n = (1 + r_c)^{1/n} - 1$$

Where

$g_n$  = the Geometric Average Return applicable on each subset period  $n$

$r_c$  = the cumulative return over the entire period

$n$  = the number of equal subset periods to average the return

**INCOME RETURN**

Income Return is the return on the ordinary dividends paid to shareholders of a security. It is the ratio of the amount of ordinary dividends since the end of the previous period up to and including the end of the period of interest to the price at the end of the previous period. It is similar to a dividend yield.

Income Return is calculated by CRSP as the difference of the Total Return and Capital Appreciation Return, as follows.

$$iret_t = tre_t - aret_t \text{ where:}$$

$iret_t$  is the income return for time  $t$

$tre_t$  is the total return for time  $t$ ,

$aret_t$  is the capital appreciation return for time  $t$ .

**INDEX COUNT**

Index Count is the count in an index for a time period is the number of securities in the portfolio during the time period. Rules are based on the specific index or portfolio methodology. See Total and Used Counts for more details.

**INDEX LEVEL**

Index Level is the value of an investment relative to its value at one fixed point in time. Index Levels allow convenient comparison of the relative performance of the different portfolios or asset classes. Differences arise when indexes are based on different underlying databases such as daily and monthly CRSP stock products.

The initial date and value are set arbitrarily, but must be consistent if comparing multiple indexes. The Index Level for any series at any time after the initial point indicates the value at that time of the initial value invested at the initial point. The Index Level for any series at any time before the initial point, indicates the value invested at that time that will result in the initial value at the initial point. The Index Level of a series missing prior to its first available return. Let:

- $I_t$  = Index Level for any series at time  $t$
- $R_t$  = return for the period  $t-1$  to  $t$
- $F$  = First Return. The time of the first non-missing return of the series
- $D$  = Initial Date. An arbitrary date where the level is set to the initial value
- $L$  = Initial Level. An arbitrary value the level is set to on the initialization date

then

- if  $t = D$ , then  $I_t = L$
- if  $t > D$ , then  $I_t = \frac{I_{t-1}}{1 + R_{t-1}}$
- if  $t < D$ , then  $I_t = \frac{I_{t-1}}{1 + R_{t-1}}$
- if  $t-1 < F$  then  $I_t$  is set to missing- Note: Missing values are file format specific.

Defined CRSP indexes use the following initial dates and levels:

**CRSP Stock File Indexes**

initial level	100.00
initial date	December 29, 1972

**CRSP Cap-Based Portfolios**

initial level	1.00
initial date	December 31, 1925

**CRSP US Government Treasury and Inflation Indexes**

initial level	100.00
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initial date December 29, 1972

Publicly available indexes such as for the S&P 500 Composite and NASDAQ Composite have initial values set by their creators and differ from the CRSP initializations.

### INDEX RETURN

An Index Return is the change in value of a portfolio over some holding period. The return on an index ( $R_t$ ) is calculated as the weighted average of the returns for the individual securities in the index:

$$R_t = \frac{\sum(w_{i,t} * r_{i,t})}{\sum(w_{i,t})}$$

where:

- $R_t$  is the index return
- $w_{i,t}$  is the weight of security  $i$  at time  $t$ .
- $r_{i,t}$  is the return of security  $i$  at time  $t$ . (see section xxxx of Stock guide for Security Return Calculation)

In a value-weighted index, the weight ( $w_{i,t}$ ) assigned is its total market value; see **Index Weight** below. In an equally-weighted index, the weight is equal and by convention  $w_{i,t}$  is set to one for every stock. Such an index would consist of  $n$  stocks, with the same dollar amount invested in each stock.

The security returns can be total returns or capital appreciation (returns without dividends). This determines whether the index is a total return index or a capital appreciation index.

In an index where the individual components are not known, but an index level is available from an external source, such as the Standard & Poor's 500 Composite Index, the return  $R_t$  is calculated as follows:

$$R_t = \frac{I_t}{I_{t-1}} - 1$$

$R_t$  is the index return for time  $t$

$I_t$  is the index level at time  $t$

$I_{t-1}$  is the index level at end of the previous period (time  $t-1$ )

### INDEX WEIGHT

The weight of an index for a time period is the total market value of the securities in the index at the end of

the previous trading period.  $V_t = \sum(w_{i,t}) = \sum(v_{i,t})$  where:  
 $v_{i,t} = p_{i,t-1} * s_{i,t-1}$  in which:

- $v_{i,t}$  is value of security  $i$  at time  $t$
- $p_{i,t-1}$  is the price of security  $i$  at the end of the previous trading period (time  $t-1$ ).
- $s_{i,t-1}$  is the number of shares outstanding of security  $i$  at the end of the previous trading period (time  $t-1$ ).

### MARKET CAPITALIZATION

Market Capitalization (in 1000s) is a measurement of the size of a security defined as the price multiplied by the number of shares outstanding. CRSP uses the closing price or the absolute value of the bid/ask average from the Price or Bid/Ask Average variable and the applicable shares observation from the Shares Outstanding Observation Array for each calendar period to calculate Market Capitalization.

### REBASING INDEX LEVELS

It is possible to rebase an index to make index levels of two index level series comparable. To rebase an index, choose a new initial date and value, find the current index level on the new initial date, and multiply the levels on all dates by the new initial value divided by the old initial date index level:

$$N_t = I_t * \frac{L}{I_D}$$

where:

- $I_t$  = Original Index Level for the series at time  $t$
- $N_t$  = New Index Level for the series at time  $t$
- $D$  = New Initial Date.
- $I_D$  = Original Index Level for the series on the new initial date
- $L$  = New Initial Level.

**RETURN**

A Return is the change in the total value of an investment in a security over some period of time per dollar of initial investment. Total Return is the Holding Period Total Return for a sale of a security on the given day, taking into account and reinvesting all distributions to shareholders. It is based on a purchase on the most recent time previous to this day when the security had a valid price. Usually, this time is the previous calendar period, but may be up to ten calendar periods prior to the calculation.

**Returns are calculated as follows:**

For time  $t$  (a holding period), let

- ♦  $t'$  = time of last available price <  $t$
- ♦  $r(t)$  = return on purchase at  $t'$ , sale at  $t$
- ♦  $p(t)$  = last sale price or closing bid/ask average at time  $t$
- ♦  $d(t)$  = dividend amount for  $t$
- ♦  $f(t)$  = factor to adjust price in period  $t$
- ♦  $p(t')$  = last sale price or closing bid/ask average at time of last available price <  $t$

$$r(t) = \frac{p(t)f(t) + d(t)}{p(t')} - 1$$

$t'$  is usually one period before  $t$ , but  $t'$  can be up to ten periods before  $t$  if there are no valid prices in the interval. If there is a trading gap with unknown status between  $t$  and  $t'$ , the previous price is considered invalid.

In daily databases, dividends are reinvested in the security on the Ex-Distribution Date. In monthly databases, the returns are holding period returns from month-end to month-end, not compounded daily returns, and dividends are reinvested in the security at month-end.

The Factor to Adjust Prices in Period is derived from the distribution history Factor to Adjust Price using all distributions with Ex-Distribution dates after the previous period and up to the end of the current period. The dividend amount is derived from the distribution history Dividend Cash Amount and Factor to Adjust Price in the same range. For example, if a 2-for-1 split

is the only distribution event in the time range, Factor to Adjust Price is 1.0, Factor to Adjust Prices in Period is 2.0, and Dividend Cash Amount is 0.0. If a one dollar dividend is the only distribution event in the time range, both Dividend Cash Amount and dividend amount are 1.0.

A series of special return codes specify the reason a return is missing:

-66.0	Valid current price, but no valid previous price; either first price, unknown exchange between current and previous price, or more than 10 periods between time $t$ and the time of the preceding price $t'$
-77.0	Not trading on the current exchange at time $t$
-88.0	Outside the range of the security's price range
-99.0	Missing return due to missing price at time $t$

**SCHOLES-WILLIAMS BETA**

Beta is a statistical measurement of the relationship between two time series, and has been used to compare security data with benchmark data to measure risk in financial data analysis. CRSP provides annual betas computed using the methods developed by Scholes and Williams (Myron Scholes and Joseph Williams, "Estimating Betas from Nonsynchronous Data," Journal of Financial Economics, vol 5, 1977, 309-327).

$$\beta_i = \frac{\sum (lr_{i,t} * M3_t) - \left(\frac{1}{n_i}\right) * (\sum lr_{i,t}) * (\sum M3_t)}{\sum (lm_t * M3_t) - \left(\frac{1}{n_t}\right) * (\sum lm_t) * (\sum M3_t)}$$

where:

- $\beta_i$  is the Beta for security  $i$  for the year being calculated
- $r_{i,t}$  is the return of security  $i$  at day  $t$
- $lr_{i,t} = \ln(1+r_{i,t})$  is the natural log of the return of security  $i$  at time  $t+1$  or the continuously compounded return.
- $M_t$  is the value-weighted market return at time  $t$
- $lm_t = \ln(1+M_t)$  is the natural log of the value-weighted market return at time  $t+1$  or the continuously compounded return.
- $M3_t = lm_{t-1} + lm_t + lm_{t+1}$  is the three-day moving window of the above market return



- $n_i$  is the number of non-missing returns for security  $i$  during the year

where the summations are over  $t$  and include all days on which security  $i$  traded, beginning with the first trading day of the year and ending with the last trading day of the year. There are two index families based on Scholes-Williams Beta calculations: NYSE/NYSE MKT and NASDAQ-only.

In the NYSE/NYSE MKT family, only trading prices are considered in the beta calculation, and a security must have traded half the days in a year to be given a non-missing beta for that year. The index used in the calculation is the total returns on the Trade-only NYSE/NYSE MKT Value-Weighted Market Index.

Betas for the NASDAQ family do not use the standard Scholes-Williams trade-only data restriction, since most NASDAQ securities were not required to report transactions until 1992. Removing bid/ask averages would restrict NASDAQ data to only NASDAQ National Market securities after 1982. NASDAQ returns based on bid/ask averages have different characteristics from trade-based returns, and betas are provided for comparison. NASDAQ betas are based on the total returns on the NASDAQ Value-Weighted Market Index.

### **STANDARD DEVIATION**

Standard Deviation is a statistical measurement of the volatility of a series. CRSP provides annual standard deviations of daily returns using the following calculations:

$$\sigma_i = \sqrt{\frac{\sum (r_{i,t}^2) - \left(\frac{1}{n_i}\right) * (\sum r_{i,t})^2}{n_i - 1}}$$

where:

- $\sigma_i$  is the standard deviation for security  $i$  for the year being calculated
- $r_{i,t}$  is the return of security  $i$  at time  $t$
- $n_i$  is the number of non-missing returns for security  $i$  during the year

where the summations are over  $t$  and include all days on which security  $i$  had a non-missing return, beginning with the first trading day of the year and ending with the last trading day of the year. A security must have valid returns for eighty percent of the trading days in a year to have a Standard Deviation calculated. There are two families of indexes provided by CRSP with annual standard deviations as the statistic, the NYSE/NYSE

MKT Standard Deviation Portfolios and the NASDAQ Standard Deviation Portfolios.

### **TOTAL COUNTS (TOTCNT) AND USED COUNTS (USDCNT)**

Total Counts and Used Counts are provided for all indexes and portfolios. The following table identifies differences.

TOTAL COUNT	USED COUNT
Current Day closing price required for inclusion	Previous day & current day closing prices required for inclusion
On same date the Total Count will always be greater than or equal to the Used Count. The difference will be the number of securities with missing prices on the previous day (usually adds).	The Total Count on Day $t$ will be greater than or equal to the Used Count on Day $t+1$ . The difference will be the number of securities with missing prices on $t+1$ (usually the drops)
Total Count will fluctuate throughout the year.	Used Count will fluctuate throughout the year.

### **TOTAL VALUE (TOTVAL) AND USED VALUE (USDVAL)**

Total Value and Used Value are provided for all CRSP stock indexes. The following table identifies differences.

TOTAL VALUE	USED VALUE
Current Day market value of eligible securities - price and shares for the current day are required for inclusion	For value-weighted indexes, this is the Index weight - market value of eligible securities with - price for the current day and price and shares for the previous day are required for inclusion
On same date the Total Value will always be greater than or equal to the Used Value.	

### **TRADE-ONLY DATA**

CRSP provides Price or Bid/Ask Average as the standard daily price field, and derives returns from this field. Bid/ask averages are marked as negative numbers by convention. A trade-only price is derived from Price or Bid/Ask Average by setting all bid/ask average prices to missing. Trade-only returns are calculated using trade-only prices. A trade-only index is calculated using trade-only prices and returns.

### **UNADJUSTED DATA**

Unadjusted Data is price, dividend, shares, and volume data reported in the amounts reported at the time of the observations. All CRSP data are provided unadjusted. However, the distribution history can be used to generate Adjusted Data from the raw data.

**WEIGHTED RETURN**

Weighted Return is the relative weight of a security within a portfolio or index multiplied by its return. In a value-weighted portfolio, Weighted Return is the capitalization at the end of the previous period multiplied by the return for the period.



## CHAPTER 4: INDEX METHODOLOGIES

CRSP provides a wide range of indexes that can be used as benchmarks of market performance. Broad market indexes are provided with CRSP stock files. Additional market indexes, stock portfolios, bond indexes, and inflation series are provided with CRSP index files. The combination of portfolio results and assignment data provided with CRSP index files added to the security data in CRSP stock files allows a comparison of securities against comparative benchmarks with a historical perspective.

### I. STOCK FILE INDEXES

The CRSP Stock File Indexes are a set of Market Indexes and Decile Portfolio Indexes provided daily, monthly, quarterly, and annually for five market groups of securities. The market groups of securities for which indexes are calculated are the individual NYSE, NYSE MKT, NASDAQ and Arca markets, the NYSE/NYSE MKT, NYSE/NYSE MKT/NASDAQ, and the NYSE/NYSE MKT/NASDAQ/Arca market combinations. Published S&P 500 and NASDAQ Composite Index Data are also included.

The ranges for individual exchange data are listed below. The series containing combinations of exchanges begin at the earliest point that data for any of the exchanges is available.

- The New York Stock Exchange (NYSE) all series begins December 31, 1925
- NYSE MKT all series begins July 2, 1962
- The NASDAQ Stock Market (NASDAQ) all series begins December 14, 1972
- The Arca Exchange (Arca) all series begins March 8, 2006

NOTE: Quarterly and annual index returns are not available for the series including Arca.

Daily and monthly index returns are calculated based on daily and monthly security holding period returns respectively. Quarterly and annual frequency index returns are calculated by compounding monthly index returns.

### A. CRSP MARKET INDEXES

An Equal-Weighted Index and a Value-Weighted Index are calculated for each market group. Each index contains index returns with and without dividends, index weights and counts.

The Equal-Weighted Index is an Equal-Weighted Portfolio built each calendar period from all issues listed on the selected

exchanges with valid prices on the current and previous periods.

The Value-Weighted Index is a Value-Weighted Portfolio built each calendar period using all issues listed on the selected exchanges with available shares outstanding and valid prices in the current and previous periods, excluding American Depositary Receipts. Issues are weighted by their Market Capitalization at the end of the previous period.

An additional daily trade-only value-weighted index is available for NYSE/NYSE MKT. This index uses the same methodology as the NYSE/NYSE MKT Value-Weighted Market Index, but only includes non-ADR securities with trades on current and previous trading days.

Index Levels of CRSP Market Indexes are set to 100.0 on December 29, 1972.

The NYSE/NYSE MKT/NASDAQ/Arca Market Indexes are available in Daily and Monthly Stock Files. Other exchange combinations are available in the CRSP US Index Database and Security Portfolio Assignment Module.

### B. PUBLISHED S&P 500 AND NASDAQ COMPOSITE INDEX DATA

The S&P 500 Composite Index is a value-weighted index created by Standard & Poor's. Since March 1957, the index contains 500 securities. Prior to that time the index contained 90 securities. These have been combined into a single time series. S&P Composite levels are collected from public sources such as the Dow Jones New Service, the Wall Street Journal and the Standard & Poor's Statistical Service.

The NASDAQ Composite Index is a value-weighted index created by the NASDAQ Stock Market.

Published S&P 500 and NASDAQ Composite Index Data are provided with the daily and monthly CRSPAccess Stock Files. Index levels and returns exclude dividends. As a result, the Return with Dividends variable returns a -88, or missing return code, for both indexes. Total returns and membership data for the S&P 500 are available to subscribers of the CRSPAccess Index Files.

### C. CRSP STOCK FILE CAPITALIZATION DECILE INDEXES

CRSP Stock File Capitalization Decile Indexes are calculated for each of the Stock File Indexes market groups. All securities excluding American Depositary Receipts on a given exchange or combination of exchanges are ranked according

to capitalization and then divided into ten equal parts each rebalancing period.

The portfolios are rebalanced each year, using the security market capitalization at the end of the previous year to rank the securities. If a security starts trading in the middle of a year, its first capitalization of the year is used in the ranking. The largest securities are placed in portfolio 10 and the smallest in portfolio 1. A security not assigned to a portfolio is not used in the index and has its Portfolio Assignment set to 0.

Value-Weighted Index Returns including all dividends are calculated on each of the ten portfolios. Index levels are calculated based on an initial value of 100.0 on December 29, 1972.

Each set of decile indexes represents one Index Group of index results and one Portfolio Type of portfolio assignments and statistics. Ten Index Series are created for each Portfolio Type.

#### D. CRSP STOCK FILE RISK-BASED DECILE INDEXES

CRSP Stock File Risk-Based Decile Indexes are created for the daily NYSE/NYSE MKT and NASDAQ market combinations for two risk-based criteria. In these Market Segment Indexes, portfolios are created by ranking securities according to a measurement of the risk of their returns. One ranking uses beta values computed using the methods developed by Scholes and Williams (Myron Scholes and Joseph Williams, "Estimating Betas from Nonsynchronous Data", Journal of Financial Economics, vol 5, 1977, 309-327). The other ranking uses the annual standard deviation of the daily returns for its ranking.

The methodologies used to calculate these statistics are described in the CRSP Calculations section under Scholes- Williams Beta and Standard Deviation.

CRSP Stock File Risk-Based Decile Indexes are rebalanced each year by ranking the statistics at the end of the previous year. If there are no data for the previous year for an issue but a valid statistic can be calculated for the current year, that statistic is used in the rankings.

CRSP Beta Deciles are ranked with Portfolio 1 containing the securities with the largest positive betas and 10 containing securities with the smallest and most negative.

CRSP Standard Deviation Deciles are ranked with Portfolio 1 containing the securities containing the largest standard deviations and portfolio 10 containing securities with the lowest. Once securities are assigned

to portfolios, an equal-weighted total return index is calculated for each portfolio each calendar period. Trade-only security total returns are used for the NYSE/NYSE MKT Beta Portfolios only. Index levels are calculated based on an initial value of 100.0 on December 29, 1972.

Each set of decile indexes represents one Index Group of index results and one Portfolio Type of portfolio assignments and statistics. Ten Index Series are created for each Portfolio Type.

## II. CRSP CAP-BASED PORTFOLIOS

CRSP Cap-Based Portfolio Index data are a monthly series based on portfolios that are rebalanced quarterly. The methodology used to calculate the series differs from the CRSP Stock File Capitalization Decile Indexes.

The universe includes all common stocks listed on the NYSE, NYSE MKT, and NASDAQ National Market excluding Unit Investment Trusts, Closed-End Funds, REITs, Americus Trusts, foreign stocks and American Depositary Receipts. Eligible companies with primary listings on the NYSE are ranked into equally populated deciles. The largest capitalizations in each decile serve as the breakpoints that are applied to various exchange groupings of the universe.

Decile results are created for three exchange groups:

- NYSE only
- NYSE and NYSE MKT. NYSE MKT data are added beginning July 1962
- NYSE, NYSE MKT and the NASDAQ National Market. The NASDAQ National Market data are added beginning April 1982

Individual decile portfolios are created for each exchange group, the largest being in decile 1 and the smallest in decile 10. In addition to each decile portfolio, returns are calculated for the following: CRSP 1-2, CRSP 3-5, CRSP 6- 8, CRSP 9-10, CRSP 6-10 and CRSP 1-10.

Companies becoming eligible or ineligible during a quarter are handled with the following rules:

- Previous period market capitalizations are used for assigning deciles and weights.
- Securities added during a quarter are assigned to appropriate portfolios when two consecutive month-end prices are available.
- When a security's last price is a month-end price, its

month's return is included in the portfolios' quarterly return.

- When the month-end price is missing, a replacement month-end value is derived from the delisting return including merger terms, regional exchanges, etc. If the derived replacement month-end price is not available, the last available daily price is used.
- If an issue becomes ineligible for an index in the middle of a quarter but is still active, such as after an exchange change or because the issue is leaving the NASDAQ National Market, the issue is considered held until the end of the month and then dropped.
- Index Total Returns, Index Capital Appreciation, and Index Income Returns are calculated from a value-weighted portfolio of securities in the portfolio each period. Index Levels are calculated for each of these returns series based on an investment of one dollar on December 25, 1925.
- Only monthly indexes and portfolio assignments are calculated for the Cap-Based Portfolios. Each of the three sets of Cap-Based Indexes represents one Index Group of index results and one Portfolio Type of portfolio assignments and statistics. Seventeen Index Series, one for each decile and each composite, are created for each Portfolio Type.

### III. CRSP INDEXES FOR THE S&P 500 UNIVERSE

CRSP Indexes for the S&P 500® Universe are standard CRSP Market Indexes derived from CRSP Stock Files but include only issues from the CRSP stock data that are in the S&P 500® universe.

The CRSP Indexes for the S&P 500® series contain value- and equal-weighted returns with and without dividends for a market of stocks in the S&P 500® universe. Daily and monthly data beginning December 25, 1925 are provided. The published S&P 500® index and returns are also included for comparison. For a security to be included in the CRSP indexes for the S&P 500 Universe, it must have a price at the end of the current period, a price at the end of the previous period, and it must be a member of the S&P 500 Universe at the end of the current period. See CRSP Market Indexes for the variables calculated and the methodology used.

Prior to March, 1957, the index contains 90 issues. CRSP does not have data for two securities between 1925 and 1931 as follows.

Company Name	Start Date	End Date
INT'L MERCANTILE MARINE PFD	31-dec-1925	22-jul-1929
STANDARD POWER & LIGHT "B"	06-feb-1930	16-nov-1931

Due to differences in handling mergers, reorganizations, and other major corporate actions, CRSP data and the S&P 500® universe do not always have a one-to-one mapping. In some cases this results in a short period where CRSP is missing prices or has multiple prices per company listed by S&P.

The Count of Securities Used is not always 500 (90 prior to March 1957) due to missing prices. Known reasons for missing prices are when-issued trading, halts, and suspensions.

### A. CRSP PORTFOLIOS FOR THE S&P 500 UNIVERSE

The CRSP Portfolios for the S&P 500 Universe include an alternate value- and equal-weighted version of the CRSP indexes for the S&P 500 Universe. The methodology differences are:

- Issues are selected based on membership in the S&P 500 at the end of the previous period instead of the end of the current period.
- Delisting returns are used to evaluate the value of securities that delist before the end of a period they were selected.

### IV. CRSP TREASURY AND INFLATION INDEXES

The CRSP US Treasury and Inflation Series (CTI) Files are provided on a monthly frequency. The series contains returns adapted from the CRSP US Treasury Fixed Term Index Series, the CRSP Risk Free Rates File, and the US Government Consumer Price Index. These derived files offer 10 groups of indexes: 30 year, 20 year, 10 year, 7 year, 5 year, 2 year, 1 year, 90 day, and 30 day target maturity indexes, as well as the Consumer Price Index.

For fixed-term series with maturities of one year or greater, a representative Treasury bond or note for each series is selected. Available issues are filtered on the basis of their characteristics. Each month, the most recent non-callable, non-flower, and fully taxable issue closest to the target maturity is selected. If none are found, a second pass allows flower bonds. Note that all these series begin in 1941 or 1942 due to the lack of suitable issues in the early history.

For thirty and ninety day risk-free series, a representative Treasury bill for each series is selected. Each month the issue maturing closest to the target

duration, as measured from the end of the previous month, is selected. Bills must have at least thirty days to their maturity date to be selected for the thirty day series. However, for ninety day series, bills with less than ninety days to maturity may be selected. Due to the lack of data, the selection process in periods prior to 1942 is somewhat subjective and the maturities of the selected issues may deviate more than several days from the thirty and ninety day targets. Where bills were not available, certificates or notes may have been used. Exclusions may include:

- suspicious quotes,
- issues that did not mature on their next coupon payment data, or
- bid quotations that implied negative yields.

Each monthly return is calculated as price change plus interest, divided by last month's price. The returns and corresponding index values are set to -99 for months in which a return cannot be calculated, i.e. if the price is missing for either this month or last month, or if no valid issue was available.

The issue chosen for the 30, 20, 10, 7, 5, 2, and 1 year Fixed Term Index series for a given date was selected based on its length to maturity as of the date. The returns contained in these series are calculated under the assumption that the relevant issue is bought one month prior to the quote date and sold on the date.

The issue chosen for the 90 and 30 day Treasury Bill series on a given date was selected based on its length to maturity as of the month immediately prior to the date. The 90 and 30 day series returns were calculated on the basis of buying the relevant issue one month prior to the date and selling it on the date. For example, a 90 day bill return is calculated between a date approximately 90 days prior to the bill's maturity, and the date which is a month after this date. Likewise, a 30 day bill return is calculated between a date approximately 30 days prior to the bill's maturity, and the date which is a date one month later. In cases where the date chronologically approached or exceeded the maturity date, thereby making a final price unavailable, the return was calculated based on a final price of \$100.

The associated index levels of the CRSP US Treasury and Inflation Series all have been initialized so that December 29, 1972 (19721229) equals 100. This facilitates comparison between the CTI Indexes and Stock File Indexes.

## V. CRSP SELECT FILE SPECIFICATIONS

### A. LONG TERM BOND SELECTION

1. Select the 20-year bond that is the closest to having a term of at least 19.5 years to maturity at the beginning of the year. If more than one exists, choose the bond with the most current dated date (i.e. most recently issued).
2. If a 20-year bond does not meet the above criteria, choose the 25-year bond with at least 19.7 years to maturity at the beginning of the year. If more than one exists, choose the bond closest to 20 years to maturity.
3. If a 25-year bond does not meet the above criteria, choose the 30-year bond with at least 19.7 years to maturity at the beginning of the year. If more than one exists, choose the bond closest to 20 years to maturity on the quote date.

The bond chosen under any of the categories above cannot be dated any later than December 1st of the previous year for which the bond is being considered for inclusion in the index (i.e. dated date + one month  $\leq$  quote date). Before 1942, only partially tax-exempt bonds (itax=2) are chosen because of the limited number of fully taxable bond issues. After 1942, only fully taxable issues are chosen (itax=1).

The bond is held for one full year in the index. Bonds chosen for this index are either non-callable or callable Treasury bonds with a type of Bond or Callable Bond. A 20-year bond can be selected from a universe of bonds that were issued as having a term to maturity of 7305-7693 days, a 25-year bond from an issue of 8766-9892 days, and a 30-year bond from an issue of 10955-11288 days.

### B. INTERMEDIATE TERM BOND SELECTION

1. Select the most currently issued 5 year bond with at least 5 years to maturity at the beginning of the calendar year.
2. If a 5-year bond does not meet the above criteria select the next shortest maturity that is closest to 5 years to maturity on the quote date. For example, if a 7-year bond exists, choose the 7-year closest to 5 years to maturity. If a 7-year bond does not exist move up to the next highest maturity and so forth.

For the period 1934-1942, always choose a non-flower bond (iflwr of 1) and preference is given to a bond that is partially tax-exempt (itax of 2). If a partially tax-exempt bond does not meet the above criteria, choose a wholly taxexempt bond ( itax of 3). After 1942 only fully taxable non-flower bonds are chosen.

Callable and non-callable U.S. Treasury bonds and notes are considered for index inclusion. The issues are chosen from a universe of bonds issued with a term to maturity between 1000 to 7000 days to maturity.

#### SHORT TERM BOND SELECTION

Choose the Treasury Bill closest to 90 days to maturity on the quote date. A bill can be within 4 days of target maturity, i.e. 90 days plus or minus 4 days. If a bill is not available use a certificate or a note.



## VI. CRSP INDEX SERIES

## A. CRSP INDEX SERIES

The following table lists all CRSP Index Series by INDNO.

INDNO	Index Name	Daily Setid	Monthly Setid	Product
1000000	CRSP NYSE Value-Weighted Market Index	460	420	IX
1000001	CRSP NYSE Equal-Weighted Market Index	460	420	IX
1000002	CRSP NYSE Market Capitalization Decile 1	460	420	IX
1000003	CRSP NYSE Market Capitalization Decile 2	460	420	IX
1000004	CRSP NYSE Market Capitalization Decile 3	460	420	IX
1000005	CRSP NYSE Market Capitalization Decile 4	460	420	IX
1000006	CRSP NYSE Market Capitalization Decile 5	460	420	IX
1000007	CRSP NYSE Market Capitalization Decile 6	460	420	IX
1000008	CRSP NYSE Market Capitalization Decile 7	460	420	IX
1000009	CRSP NYSE Market Capitalization Decile 8	460	420	IX
1000010	CRSP NYSE Market Capitalization Decile 9	460	420	IX
1000011	CRSP NYSE Market Capitalization Decile 10	460	420	IX
1000012	CRSP NYSE Market Capitalization Deciles	440	400	IX
1000020	CRSP NYSE MKT Value-Weighted Market Index	460	420	IX
1000021	CRSP NYSE MKT Equal-Weighted Market Index	460	420	IX
1000022	CRSP NYSE MKT Market Capitalization Decile 1	460	420	IX
1000023	CRSP NYSE MKT Market Capitalization Decile 2	460	420	IX
1000024	CRSP NYSE MKT Market Capitalization Decile 3	460	420	IX
1000025	CRSP NYSE MKT Market Capitalization Decile 4	460	420	IX
1000026	CRSP NYSE MKT Market Capitalization Decile 5	460	420	IX
1000027	CRSP NYSE MKT Market Capitalization Decile 6	460	420	IX
1000028	CRSP NYSE MKT Market Capitalization Decile 7	460	420	IX
1000029	CRSP NYSE MKT Market Capitalization Decile 8	460	420	IX
1000030	CRSP NYSE MKT Market Capitalization Decile 9	460	420	IX
1000031	CRSP NYSE MKT Market Capitalization Decile 10	460	420	IX
1000032	CRSP NYSE MKT Market Capitalization Deciles	440	400	IX
1000040	CRSP NYSE/NYSE MKT Value-Weighted Market Index	460	420	IX
1000041	CRSP NYSE/NYSE MKT Equal-Weighted Market Index	460	420	IX
1000042	CRSP NYSE/NYSE MKT Market Capitalization Decile 1	460	420	IX
1000043	CRSP NYSE/NYSE MKT Market Capitalization Decile 2	460	420	IX
1000044	CRSP NYSE/NYSE MKT Market Capitalization Decile 3	460	420	IX
1000045	CRSP NYSE/NYSE MKT Market Capitalization Decile 4	460	420	IX
1000046	CRSP NYSE/NYSE MKT Market Capitalization Decile 5	460	420	IX
1000047	CRSP NYSE/NYSE MKT Market Capitalization Decile 6	460	420	IX
1000048	CRSP NYSE/NYSE MKT Market Capitalization Decile 7	460	420	IX
1000049	CRSP NYSE/NYSE MKT Market Capitalization Decile 8	460	420	IX
1000050	CRSP NYSE/NYSE MKT Market Capitalization Decile 9	460	420	IX
1000051	CRSP NYSE/NYSE MKT Market Capitalization Decile 10	460	420	IX
1000052	CRSP NYSE/NYSE MKT Market Capitalization Deciles	440	400	IX
1000053	CRSP NYSE/NYSE MKT Trade-Only Value-Weighted Market Index	460	-	IX
1000060	CRSP NASDAQ Value-Weighted Market Index	460	420	IX
1000061	CRSP NASDAQ Equal-Weighted Market Index	460	420	IX

INDNO	Index Name	Daily Setid	Monthly Setid	Product
1000062	CRSP NASDAQ Market Capitalization Decile 1	460	420	IX
1000063	CRSP NASDAQ Market Capitalization Decile 2	460	420	IX
1000064	CRSP NASDAQ Market Capitalization Decile 3	460	420	IX
1000065	CRSP NASDAQ Market Capitalization Decile 4	460	420	IX
1000066	CRSP NASDAQ Market Capitalization Decile 5	460	420	IX
1000067	CRSP NASDAQ Market Capitalization Decile 6	460	420	IX
1000068	CRSP NASDAQ Market Capitalization Decile 7	460	420	IX
1000069	CRSP NASDAQ Market Capitalization Decile 8	460	420	IX
1000070	CRSP NASDAQ Market Capitalization Decile 9	460	420	IX
1000071	CRSP NASDAQ Market Capitalization Decile 10	460	420	IX
1000072	CRSP NASDAQ Market Capitalization Deciles	440	400	IX
1000080	CRSP NYSE/NYSE MKT/NASDAQ Value-Weighted Market Index	460	420	IX
1000081	CRSP NYSE/NYSE MKT/NASDAQ Equal-Weighted Market Index	460	420	IX
1000082	CRSP NYSE/NYSE MKT/NASDAQ Market Capitalization Decile 1	460	420	IX
1000083	CRSP NYSE/NYSE MKT/NASDAQ Market Capitalization Decile 2	460	420	IX
1000084	CRSP NYSE/NYSE MKT/NASDAQ Market Capitalization Decile 3	460	420	IX
1000085	CRSP NYSE/NYSE MKT/NASDAQ Market Capitalization Decile 4	460	420	IX
1000086	CRSP NYSE/NYSE MKT/NASDAQ Market Capitalization Decile 5	460	420	IX
1000087	CRSP NYSE/NYSE MKT/NASDAQ Market Capitalization Decile 6	460	420	IX
1000088	CRSP NYSE/NYSE MKT/NASDAQ Market Capitalization Decile 7	460	420	IX
1000089	CRSP NYSE/NYSE MKT/NASDAQ Market Capitalization Decile 8	460	420	IX
1000090	CRSP NYSE/NYSE MKT/NASDAQ Market Capitalization Decile 9	460	420	IX
1000091	CRSP NYSE/NYSE MKT/NASDAQ Market Capitalization Decile 10	460	420	IX
1000092	CRSP NYSE/NYSE MKT/NASDAQ Market Capitalization Deciles	440	400	IX
1000102	CRSP NYSE/NYSE MKT Beta Decile 1	460	-	IX
1000103	CRSP NYSE/NYSE MKT Beta Decile 2	460	-	IX
1000104	CRSP NYSE/NYSE MKT Beta Decile 3	460	-	IX
1000105	CRSP NYSE/NYSE MKT Beta Decile 4	460	-	IX
1000106	CRSP NYSE/NYSE MKT Beta Decile 5	460	-	IX
1000107	CRSP NYSE/NYSE MKT Beta Decile 6	460	-	IX
1000108	CRSP NYSE/NYSE MKT Beta Decile 7	460	-	IX
1000109	CRSP NYSE/NYSE MKT Beta Decile 8	460	-	IX
1000110	CRSP NYSE/NYSE MKT Beta Decile 9	460	-	IX
1000111	CRSP NYSE/NYSE MKT Beta Decile 10	460	-	IX
1000112	CRSP NYSE/NYSE MKT Beta Deciles	440	-	IX
1000122	CRSP NYSE/NYSE MKT Standard Deviation Decile 1	460	-	IX
1000123	CRSP NYSE/NYSE MKT Standard Deviation Decile 2	460	-	IX
1000124	CRSP NYSE/NYSE MKT Standard Deviation Decile 3	460	-	IX
1000125	CRSP NYSE/NYSE MKT Standard Deviation Decile 4	460	-	IX
1000126	CRSP NYSE/NYSE MKT Standard Deviation Decile 5	460	-	IX
1000127	CRSP NYSE/NYSE MKT Standard Deviation Decile 6	460	-	IX
1000128	CRSP NYSE/NYSE MKT Standard Deviation Decile 7	460	-	IX
1000129	CRSP NYSE/NYSE MKT Standard Deviation Decile 8	460	-	IX
1000130	CRSP NYSE/NYSE MKT Standard Deviation Decile 9	460	-	IX
1000131	CRSP NYSE/NYSE MKT Standard Deviation Decile 10	460	-	IX
1000132	CRSP NYSE/NYSE MKT Standard Deviation Deciles	440	-	IX



INDNO	Index Name	Daily Setid	Monthly Setid	Product
1000142	CRSP NASDAQ Beta Decile 1	460	-	IX
1000143	CRSP NASDAQ Beta Decile 2	460	-	IX
1000144	CRSP NASDAQ Beta Decile 3	460	-	IX
1000145	CRSP NASDAQ Beta Decile 4	460	-	IX
1000146	CRSP NASDAQ Beta Decile 5	460	-	IX
1000147	CRSP NASDAQ Beta Decile 6	460	-	IX
1000148	CRSP NASDAQ Beta Decile 7	460	-	IX
1000149	CRSP NASDAQ Beta Decile 8	460	-	IX
1000150	CRSP NASDAQ Beta Decile 9	460	-	IX
1000151	CRSP NASDAQ Beta Decile 10	460	-	IX
1000152	CRSP NASDAQ Beta Deciles	440	-	IX
1000162	CRSP NASDAQ Standard Deviation Decile 1	460	-	IX
1000163	CRSP NASDAQ Standard Deviation Decile 2	460	-	IX
1000164	CRSP NASDAQ Standard Deviation Decile 3	460	-	IX
1000165	CRSP NASDAQ Standard Deviation Decile 4	460	-	IX
1000166	CRSP NASDAQ Standard Deviation Decile 5	460	-	IX
1000167	CRSP NASDAQ Standard Deviation Decile 6	460	-	IX
1000168	CRSP NASDAQ Standard Deviation Decile 7	460	-	IX
1000169	CRSP NASDAQ Standard Deviation Decile 8	460	-	IX
1000170	CRSP NASDAQ Standard Deviation Decile 9	460	-	IX
1000171	CRSP NASDAQ Standard Deviation Decile 10	460	-	IX
1000172	CRSP NASDAQ Standard Deviation Deciles	440	-	IX
1000200	CRSP NYSE/NYSE MKT/NASDAQ/Arca Value-Weighted Market Index	460	440	STK, IX
1000201	CRSP NYSE/NYSE MKT/NASDAQ/Arca Equal-Weighted Market Index	460	440	STK, IX
1000300	CRSP NYSE Cap-Based Portfolio 1	-	420	IX
1000301	CRSP NYSE Cap-Based Portfolio 2	-	420	IX
1000302	CRSP NYSE Cap-Based Portfolio 3	-	420	IX
1000303	CRSP NYSE Cap-Based Portfolio 4	-	420	IX
1000304	CRSP NYSE Cap-Based Portfolio 5	-	420	IX
1000305	CRSP NYSE Cap-Based Portfolio 6	-	420	IX
1000306	CRSP NYSE Cap-Based Portfolio 7	-	420	IX
1000307	CRSP NYSE Cap-Based Portfolio 8	-	420	IX
1000308	CRSP NYSE Cap-Based Portfolio 9	-	420	IX
1000309	CRSP NYSE Cap-Based Portfolio 10	-	420	IX
1000310	CRSP NYSE Cap-Based Portfolio 1-2	-	420	IX
1000311	CRSP NYSE Cap-Based Portfolio 3-5	-	420	IX
1000312	CRSP NYSE Cap-Based Portfolio 6-8	-	420	IX
1000313	CRSP NYSE Cap-Based Portfolio 9-10	-	420	IX
1000314	CRSP NYSE Cap-Based Portfolio 1-5	-	420	IX
1000315	CRSP NYSE Cap-Based Portfolio 6-10	-	420	IX
1000316	CRSP NYSE Cap-Based Portfolio Market	-	420	IX
1000317	CRSP NYSE Cap-Based Portfolios	-	400	IX
1000320	CRSP NYSE/NYSE MKT Cap-Based Portfolio 1	-	420	IX
1000321	CRSP NYSE/NYSE MKT Cap-Based Portfolio 2	-	420	IX
1000322	CRSP NYSE/NYSE MKT Cap-Based Portfolio 3	-	420	IX
1000323	CRSP NYSE/NYSE MKT Cap-Based Portfolio 4	-	420	IX

INDNO	Index Name	Daily Setid	Monthly Setid	Product
1000324	CRSP NYSE/NYSE MKT Cap-Based Portfolio 5	-	420	IX
1000325	CRSP NYSE/NYSE MKT Cap-Based Portfolio 6	-	420	IX
1000326	CRSP NYSE/NYSE MKT Cap-Based Portfolio 7	-	420	IX
1000327	CRSP NYSE/NYSE MKT Cap-Based Portfolio 8	-	420	IX
1000328	CRSP NYSE/NYSE MKT Cap-Based Portfolio 9	-	420	IX
1000329	CRSP NYSE/NYSE MKT Cap-Based Portfolio 10	-	420	IX
1000330	CRSP NYSE/NYSE MKT Cap-Based Portfolio 1-2	-	420	IX
1000331	CRSP NYSE/NYSE MKT Cap-Based Portfolio 3-5	-	420	IX
1000332	CRSP NYSE/NYSE MKT Cap-Based Portfolio 6-8	-	420	IX
1000333	CRSP NYSE/NYSE MKT Cap-Based Portfolio 9-10	-	420	IX
1000334	CRSP NYSE/NYSE MKT Cap-Based Portfolio 1-5	-	420	IX
1000335	CRSP NYSE/NYSE MKT Cap-Based Portfolio 6-10	-	420	IX
1000336	CRSP NYSE/NYSE MKT Cap-Based Portfolio Market	-	420	IX
1000337	CRSP NYSE/NYSE MKT Cap-Based Portfolios	-	400	IX
1000340	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 1	-	420	IX
1000341	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 2	-	420	IX
1000342	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 3	-	420	IX
1000343	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 4	-	420	IX
1000344	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 5	-	420	IX
1000345	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 6	-	420	IX
1000346	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 7	-	420	IX
1000347	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 8	-	420	IX
1000348	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 9	-	420	IX
1000349	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 10	-	420	IX
1000350	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 1-2	-	420	IX
1000351	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 3-5	-	420	IX
1000352	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 6-8	-	420	IX
1000353	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 9-10	-	420	IX
1000354	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 1-5	-	420	IX
1000355	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio 6-10	-	420	IX
1000356	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolio Market	-	420	IX
1000357	CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolios	-	400	IX
1000500	CRSP Value-Weighted Index of the S&P 500 Universe	460	420	IX
1000501	CRSP Equal-Weighted Index of the S&P 500 Universe	460	420	IX
1000502	S&P 500 Composite	460	420	STK, IX
1000503	NASDAQ Composite	460	420	STK, IX
1000510	CRSP Value-Weighted Portfolios of the S&P 500 Universe	460	420	IX
1000511	CRSP Equal-Weighted Portfolios of the S&P 500 Universe	460	420	IX
1000700	CRSP 30-Year Bond Returns	-	420	IX
1000701	CRSP 20-Year Bond Returns	-	420	IX
1000702	CRSP 10-Year Bond Returns	-	420	IX
1000703	CRSP 7-Year Bond Returns	-	420	IX
1000704	CRSP 5-Year Bond Returns	-	420	IX
1000705	CRSP 2-Year Bond Returns	-	420	IX
1000706	CRSP 1-Year Bond Returns	-	420	IX
1000707	CRSP 90-Day Bill Returns	-	420	IX

INDNO	Index Name	Daily Setid	Monthly Setid	Product
1000708	CRSP 30-Day Bill Returns	-	420	IX
1000709	Consumer Price Index	-	420	IX

## B. CRSP INDEX GROUPS

The following table lists all CRSP Index Groups by INDNO.

Index Group	INDNO	Daily	Monthly	Product Availability
CRSP NYSE Market Capitalization Deciles	1000012	Yes	Yes	IX
CRSP NYSE MKT Market Capitalization Deciles	1000032	Yes	Yes	IX
CRSP NYSE/NYSE MKT Market Capitalization Deciles	1000052	Yes	Yes	IX
CRSP NASDAQ Market Capitalization Deciles	1000072	Yes	Yes	IX
CRSP NYSE/NYSE MKT/NASDAQ Market Capitalization Deciles	1000092	Yes	Yes	IX
CRSP NYSE/NYSE MKT Beta Deciles	1000112	Yes	-	IX
CRSP NYSE/NYSE MKT Standard Deviation Deciles	1000132	Yes	-	IX
CRSP NASDAQ Beta Deciles	1000152	Yes	-	IX
CRSP NASDAQ Standard Deviation Deciles	1000172	Yes	-	IX
CRSP NYSE Cap-Based Portfolios	1000317	-	Yes	IX
CRSP NYSE/NYSE MKT Cap-Based Portfolios	1000337	-	Yes	IX
CRSP NYSE/NYSE MKT/NASDAQ National Market Cap-Based Portfolios	1000357	-	Yes	IX

## C. CRSP PORTFOLIO TYPES

Portfolio Type Description	Rebalancing Calendar	INDNO	Daily Portfolio Type	Monthly Portfolio Type	Product Availability
NYSE/NYSE MKT/NASDAQ Capitalization Deciles	Annual	1000092	1	1	DA, MA, IX
NYSE/NYSE MKT Capitalization Deciles	Annual	1000052	2	2	IX
NASDAQ Capitalization Deciles	Annual	1000072	3	3	IX
NYSE Capitalization Deciles	Annual	1000012	4	4	IX
NYSE MKT Capitalization Deciles	Annual	1000032	5	5	IX
NYSE/NYSE MKT Beta Deciles	Annual	1000112	6	-	IX
NYSE/NYSE MKT Standard Deviation Deciles	Annual	1000132	7	-	IX
NASDAQ Beta Deciles	Annual	1000152	8	-	IX
NASDAQ Standard Deviation Deciles	Annual	1000172	9	-	IX
Cap-Based NYSE/NYSE MKT/NASDAQ National Market Portfolios	Quarterly	1000357	-	6	IX
Cap-Based NYSE Portfolios	Quarterly	1000317	-	7	IX
Cap-Based NYSE/NYSE MKT Portfolios	Quarterly	1000337	-	8	IX

## CHAPTER 5: DATA CODING SCHEMES

### I. NAME HISTORY ARRAY CODES

#### SHARE TYPE

A share type code contains two digits. The first digit describes the type of security traded.

The second digit describes more detailed information about the type of security.

#### SHARE TYPE - FIRST DIGIT

CODE	DEFINITION
1	Ordinary Common Shares
2	Certificates, Americus Trust Components (Prime, Score, & Units)*
3	ADRs (American Depositary Receipts)
4	SBLs (Shares Of Beneficial Interest)
7	Units (Depositary Units, Units Of Beneficial Interest, Units Of Limited Partnership Interest, Depositary Receipts, etc.), Exchange Traded Funds**

Note: \*Americus Trust Components are exclusive to First Digit 2 and Second Digit 3.

Note: \*\*Exchange Traded Funds are exclusive to First Digit 7 and Second Digit 3.

#### SHARE TYPE - SECOND DIGIT

CODE	DEFINITION
0	Securities Which Have Not Been Further Defined
1	Securities Which Need Not Be Further Defined
2	Companies Incorporated Outside The U.S
3	Americus Trust Components (Prime, Score, & Units)*, Exchange Traded Funds**
4	Closed-End Funds and Unit Investment Trusts
5	Closed-End Fund Companies Incorporated Outside The US
8	REIT's (Real Estate Investment Trusts)

Note: \*Americus Trust Components are exclusive to First Digit 2 and Second Digit 3.

Note: \*\*Exchange Traded Funds are exclusive to First Digit 7 and Second Digit 3.

### NORTH AMERICAN SECURITY EXCHANGE & INDEX CODES

The following is a list of codes for major North American security exchanges and indexes found in the CRSP data files:

CODE	EXCHANGE NAME
-2	Halted By NYSE Or NYSE MKT
-1	Suspended By NYSE, NYSE MKT, or NASDAQ
0	Not Trading On NYSE, NYSE MKT, or NASDAQ
1	NYSE
2	NYSE MKT
3	NASDAQ
4	Arca
5	Cboe BZX (As Quoted By NASDAQ)
6	IEX
10	Boston Stock Exchange
13	Chicago Stock Exchange
16	Pacific Stock Exchange
17	Philadelphia Stock Exchange
19	Toronto Stock Exchange
20	Over-The-Counter (Non-NASDAQ Dealer Quotations)
31	When-Issued Trading On NYSE
32	When-Issued Trading On NYSE MKT
33	When-Issued Trading On NASDAQ
34	When-Issued Trading On Arca

### II. DISTRIBUTION CODES

A four-digit code describes distribution events. The first digit describes the distribution in general terms. The second digit describes the form or method of payment. The meaning of the third digit varies with the value of the first digit, and gives a more detailed description of the event. The fourth digit provides information about the tax status of the distribution.

The coding and meanings of the four digits are described below. For digits 2, 3, and 4, special conventions apply: a value of "0" implies that CRSP has not yet discovered the descriptive information for the corresponding digit; a value of "1" implies sources have been checked and the status for the corresponding attribute is actually unspecified, not applicable, or not available for the distribution.

**FIRST DIGIT: EVENT TYPE**

CODE	MEANING
1	ordinary dividend
2	liquidating dividend
3	exchanges and reorganizations
4	subscription rights
5	splits and stock dividends
6	notation of issuance (change in shares outstanding)
7	general information announcement for dropped issues

**SECOND DIGIT: PAYMENT METHOD**

CODE	MEANING
0	unknown, not yet coded
1	unspecified or not applicable
2	cash, United States dollars
3	cash, foreign currency converted to US dollars
4	cash, Canadian dollars (now obsolete, converted to US dollars)
5	same issue of common stock
6	units including same issue of common stock
7	an issue of a different common stock which is on the file
8	other property

**THIRD DIGIT:****Dividend Frequency (for first digit = 1 only)**

CODE	MEANING
0	unknown, not yet coded
1	unspecified or not applicable
2	monthly
3	quarterly
4	semi-annual
5	annual
6	year-end or final
7	extra or special
8	interim
9	non-recurring

**Event Descriptor (for first digit = 2 only)**

CODE	MEANING
0	unknown, not yet coded
1	unspecified or not applicable
3	partial liquidation
4	step in total liquidation
5	final liquidation
6	approval of liquidation
7	sale of assets resulting in liquidation of company
8	court proceedings determining status of company assets

**Event Descriptor (for first digit = 3 only)**

CODE	MEANING
0	unknown, not yet coded
1	unspecified or not applicable
2	merger
5	non-ordinary distribution in another stock
6	reorganization
7	option of stock
8	exchange

**Rights Valuation Method (for first digit = 4 only)**

CODE	MEANING
0	unknown, not yet coded
1	Transferable unknown value (no price or assigned value)
2	market value of trading right on exdate
3	Fair market value
4	Value at exdate, calculate
5	Non-transferable fair market value
6	Non-transferable value at exdate, calculated (based on recdate if exdate is unavailable)
7	Non-transferable, unknown value

**Split Type (for first digit = 5 only)**

CODE	MEANING
0	unknown, not yet coded
1	unspecified or not applicable
2	split
3	stock dividend
4	split & stock dividend
5	option of cash
6	distribution of different issue of common; same company
7	initial distribution of other class of common; same company

**Types of Offer or Reason for Issuance (for first digit = 6 only)**

CODE	MEANING
0	unknown, not yet coded
1	unspecified or not applicable
2	step in merger with company on file
3	step in merger with company not on file
4	stock conversion
5	executive option exercise
6	own tender offer: stock buy-back
7	own exchange offer: recapitalization
8	stock offering

**Event Descriptor (for first digit = 7 only)**

CODE	MEANING
0	unknown, not yet coded
1	bankruptcy filing

2	negative financial performance
3	external tender offer results in too few shareholders
4	internal tender offer results in too few shareholders
5	US government intervention
6	foreign or external intervention
7	company request
8	failure to meet exchange requirements

#### FOURTH DIGIT: TAX STATUS

CODE	MEANING
0	unknown, not yet coded
1	unspecified or not applicable
2	normal taxable at same rate as dividends
3	normal non-taxable
4	return of capital (i.e., gain recognized, loss not)
5	gain or loss realized compared with cost
6	realized capital gain (Investment Companies)
7	capital gains tax credit
8	fully taxable as ordinary income to individuals
9	dividend reinvestment plan qualifies for the limited exclusion provided by Sec. 305(e) of the Internal Revenue Code

Coding convention note for distribution codes with the fourth digit (tax status) coded as 2 or 8: Until 1986, distribution codes 2 and 8 were used in conjunction with one another such that the 2 represented the part of the dividend qualifying for the dividend exclusion and the 8 representing the part that did not. Since the tax reform act of 1986, which eliminated the exclusion, these have been coded as 2's.

#### Commonly Coded Distribution Events in CRSP Stock Files

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 MKT 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\*\*.

The distribution codes 6\*\*\*, excepting 6225, are informational. They indicate a significant change in the shares outstanding and the reason for the change. Code 6225 specifies a dividend amount. See the variable Dividend Cash Amount for additional information on the 6225 code.

DIVIDEND	
CODE	DESCRIPTION
1200	US cash dividend, tax status unknown
1202	US cash dividend, taxable in normal way
1212	US cash dividend, unspecified frequency, taxable same rate as dividends
1214	US cash dividend, tax status - return of capital, gain recognized, loss not
1218	US cash dividend, unspecified frequency, fully taxable as ordinary income to individuals
1222	US cash dividend, monthly, taxable same rate as dividends
1224	US cash dividend, monthly, tax status - return of capital, gain recognized, loss not
1228	US cash dividend, monthly, fully taxable as ordinary income to individuals
1232	US cash dividend, quarterly, taxable same rate as dividends
1234	US cash dividend, quarterly, tax status - return of capital, gain recognized, loss not
1238	US cash dividend, quarterly, fully taxable as ordinary income to individuals
1239	US cash dividend, quarterly, tax status - dividend reinvestment plan qualifies for the limited exclusion provided by Sec. 305(e) of the Internal Revenue Code
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
1248	US cash dividend, semi-annual, fully taxable as ordinary income to individuals
1252	US cash dividend, annual, taxable same rate as dividends
1254	US cash dividend, annual, tax status - return of capital, gain recognized, loss not
1258	US cash dividend, annual, fully taxable as ordinary income to individuals
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
1278	US cash dividend, extra or special, fully taxable as ordinary income to individuals
1282	US cash dividend, interim, taxable same rate as dividends
1292	US cash dividend, non-recurring, or proceeds from sale of rights, taxable same rate as dividends
1312	Cash dividend (foreign currency converted to US), unspecified frequency, tax status - unspecified or not applicable
1318	Cash dividend (foreign currency converted to US), unspecified frequency, fully taxable as ordinary income to individuals
1332	Cash dividend (foreign currency converted to US), quarterly, taxable same rate as dividends
1338	Cash dividend (foreign currency converted to US), quarterly; fully taxable as ordinary income to individuals

DIVIDEND	
CODE	DESCRIPTION
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
1378	Cash dividend (foreign currency converted to US), extra or special, fully taxable as ordinary income to individuals
1412	Cash dividend return of capital, taxable as normal dividend
1712	Dividend in other issue on file, unspecified frequency, taxable same rate as dividends
1713	Dividend in other issue on file, non-taxable
1714	Dividend in other issue on file, taxable as return of capital
1718	Dividend in other issue on file, taxable as ordinary income to individuals
1772	Dividend in other issue on file with an extra or special frequency, taxable same rate as dividends
1812	Dividend in issue not on file, unspecified frequency, taxable as dividend
1813	Dividend in issue not on file, non-taxable
1814	Dividend in issue not on file, taxable as return of capital
1872	Special Dividend in issue not on file, taxable as normal dividend
1999*	Missing dividend terms, tax status - dividend reinvestment plan qualifies for the limited exclusion provided by Sec. 305(e) of the Internal Revenue Code

LIQUIDATION	
CODE	DESCRIPTION
2161	Announcement of liquidation or liquidating plan, tax status unspecified
2171	Announcement of sale of assets, tax status unspecified
2181	Liquidation involved in court proceedings, tax status unspecified
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
2235	Cash paid in partial liquidation, tax status - return of capital, gain, loss realized
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
2744	Other issue on file distributed as a step in liquidation, tax status - return of capital, gain recognized, loss not

LIQUIDATION	
CODE	DESCRIPTION
2817	Issue not on file distributed as a step in unspecified liquidation process, tax status - capital gains tax credit
2844	Issue not on file distributed as a step in liquidation, tax status return of capital, gain recognized, loss not
2999*	Missing liquidation information, tax status - dividend reinvestment plan qualifies for the limited exclusion provided by Sec. 305(e) of the Internal Revenue Code

ACQUISITION/REORGANIZATION	
CODE	DESCRIPTION
3131	Announcement of tender offer - offer not accepted, offer rescinded, or merger failed, tax status unspecified
3215	Cash received, preferred redeemed, tax status - gain or loss realized compared with cost
3222	Cash received in a merger, taxable same rate as dividends
3224	Cash received in a merger, tax status - return of capital gain, gain recognized, loss not
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
3724	Issue on file, received in a merger tax status - return of capital, gain recognized, loss not
3725	Issue on file, received in a merger, tax status - gain or loss realized compared with cost
3752	Issue on file, received as a non-ordinary stock distribution, taxable same rate as dividends
3753	Issue on file, received as a non-ordinary stock distribution, non-taxable
3762	Issue on file, received as a spin-off in reorganization, taxable same rate as dividends
3763	Issue on file, received as a spin-off in reorganization, non-taxable
3764	Issue on file, received as a spin-off in reorganization, tax status - return of capital, gain recognized, loss not
3783	Issue on file, received as an exchange, non-taxable
3784	Issue on file, received as an exchange, tax status - return of capital, gain recognized, loss not
3785	Issue on file, received as an exchange, tax status - gain or loss realized compared with cost
3823	Issue not on file, received in a merger, non-taxable
3824	Issue not on file, received in a merger, tax status - return of capital, gain recognized, loss not
3825	Issue not on file, received in a merger, tax status - gain or loss realized compared with cost
3852	Issue not on file, received as a non-ordinary distribution in another stock, taxable same rate as dividends
3853	Issue not on file, received as a non-ordinary distribution, non-taxable
3854	Issue not on file, received as a non-ordinary distribution, tax status - return of capital, gain recognized, loss not



**ACQUISITION/REORGANIZATION**

CODE	DESCRIPTION
3862	Issue not on file, received in a reorganization, taxable as dividend
3863	Issue not on file, received in a reorganization, non-taxable
3864	Issue not on file, received in a reorganization, tax status - return of capital, gain recognized, loss not
3883	Issue not on file, received in an exchange of stock, non-taxable
3884	Issue not on file, received in an exchange of stock, return of capital (gain recognized, loss not), nontaxable
3885	Issue not on file, received in an exchange of stock, gain or loss realized compared with cost
3888*	Partially coded final or other non-ordinary distribution; amount or some terms missing; tax status unknown
3989*	Debenture without established market value, tax status unknown

**RIGHTS**

CODE	DESCRIPTION
4523	Rights to buy more of this security, transferrable value at exdate, 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 reccdate if exdate unavailable), non-taxable
4623	Rights to buy 'units' that include this security, non-taxable
4722	Rights to buy another common issue on file, taxable same rate as dividends
4822	Rights to buy other securities at market value, taxable same rate as dividends
4823	Rights to buy other securities, nontaxable
4833	Rights to buy other securities at indicated value, non-taxable
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
5872	Initial stock distribution in different issue of common, same company, which is not on file, taxable same rate as dividends
5873	Initial stock distribution in different issue of common, same company, which does not trade on the file, non-taxable

**OFFER/ISSUANCES**

CODE	DESCRIPTION
6235	Common shares increased by merger with company not on file, tax status - gain or loss realized compared with cost
6261	Common shares decreased through a companies own tender offer, tax status - unknown
6511	Common shares increased or decreased for reasons not specified
6521	Common shares increased by merger with company on file, tax status - unspecified or not applicable
6531	Common shares increased by merger with company not on file, tax status - unspecified or not applicable
6541	Common shares increased through stock conversion, tax status - unspecified or not applicable
6543	Common shares increased through stock conversion, non-taxable
6561	Common shares reduced through company's buy-back of shares, tax status - unspecified or not applicable
6571	Common shares increased through company's own exchange offer, tax status - unspecified or not applicable
6581	Common shares increased through sale of stock other than rights issue, tax status - unspecified or not applicable
7111	Bankruptcy filing (for any reason) tax status - unspecified or not applicable
7121	Negative financial performance tax status - unspecified or not applicable
7131	External tender offer results in too few shareholders tax status - unspecified or not applicable
7141	Internal tender offer results in too few shareholders tax status - unspecified or not applicable
7151	US government intervention (SEC intervention, other government intervention or request)
7161	Foreign or external intervention (non-US government intervention, foreign non-government intervention, "acts of god") tax status - unspecified or not applicable
7171	Company request (any reason except bankruptcy) tax status - unspecified or not applicable
7181	Failure to meet exchange requirements tax status - unspecified or not applicable

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

## III. DELISTING CODES

ACTIVE	
CODE	DESCRIPTION
100	Issue still trading NYSE/NYSE MKT, BASDAQ, Arca, Cboe BZX, or IEX
150*	Issue still active, but no prices in this version of file.
160*	Issue stopped trading, but no prices in file after 840831.
170*	Issue stopped trading, but not delisted from current exchange (suspended or inactive).

MERGERS	
CODE	DESCRIPTION
200	Issue acquired in merger, payment details unknown.
201	Merged into or in order to form an issue trading on NYSE.
202	Merged into or in order to form an issue trading on NYSE MKT.
203	Merged into or in order to form an issue trading on NASDAQ.
205	When merged, shareholders primarily receive shares of mutual funds.
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.
234	When merged, shareholders primarily receive preferred stock, bundled units, warrants, or rights, or debentures, or notes, or bundled units.
235	When merged, shareholders primarily receive other property.
240*	Flags merger with missing final distribution information.
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.
243	When merged, shareholders primarily receive common stock, issue on CRSP file and other property, 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.
253	When merged, shareholders primarily receive common stock or ADRs and other property.
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.
271	When merged, shareholders primarily receive preferred stock or warrants, or rights, or debentures, or notes and other property.
280	Issue delisted due to merger attempt, but merger attempt failed.

## MERGERS

CODE	DESCRIPTION
290	Flags a merger with missing final distribution information. Replaces code 240. Code 240 is no longer assigned.

## EXCHANGES

CODE	DESCRIPTION
300	Issue acquired by exchange of stock, details unknown.
301	Issue exchanged for issue trading on NYSE.
302	Issue exchanged for issue trading on NYSE MKT.
303	Issue exchanged for issue trading on NASDAQ.
320	Issue exchanged for stock trading Over-the-Counter.
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.)
333	Issue exchanged, primarily for cash.
334	Issue exchanged, primarily for preferred stock, or rights, or warrants, or debentures, or notes.
335	Issue exchanged, primarily for other property.
340*	Flags an exchange with missing final distribution information.
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.
343	Flags an exchange, shareholders receive common stock and other property. Issue on CRSP file.
350*	Flags an exchange attempt that was not sufficient to "kill" issue.
351	Flags an exchange, shareholders receive common stock and cash. Issue not on CRSP file.
352	Flags an exchange, shareholders receive common stock and preferred stock, or warrants, or rights, or debentures, or notes. Issue not on CRSP file.
353	Flags an exchange, shareholders receive common stock and other property. Issue not on CRSP file.
361	When exchanged, shareholders primarily receive cash and preferred stock or warrants or rights or debentures or notes.
362	When exchanged, shareholders primarily receive cash and other property.
371	When exchanged, shareholders primarily receive preferred stock or warrants or rights or debentures or notes and other property.
390*	Flags an unsuccessful exchange attempt with missing distribution information.

## LIQUIDATIONS

CODE	DESCRIPTION
400	Issue stopped trading as result of company liquidation.
401	Issue liquidated, for issue trading on NYSE.
403	Issue liquidated for issue trading on NASDAQ.

LIQUIDATIONS	
CODE	DESCRIPTION
450	Issue liquidated, final distribution verified, issue closed to further research.
460	Issue liquidated, no final distribution is 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.
490	Issue liquidated, no distributions are to be paid, issue closed to further research.

DROPPED	
CODE	DESCRIPTION
500	Issue stopped trading on exchange - reason unavailable.
501	Issue stopped trading current exchange - to NYSE.
502	Issue stopped trading current exchange - to NYSE MKT.
503	Issue stopped trading current exchange - to NASDAQ.
505	Issue stopped trading current exchange - to Mutual Funds.
510	Issue stopped trading current exchange - to Boston Exchange.
513	Issue stopped trading current exchange - to Midwest Exchange.
514	Issue stopped trading current exchange - to Montreal Exchange.
516	Issue stopped trading current exchange - to Pacific Stock Exchange.
517	Issue stopped trading current exchange - to Philadelphia Stock Exchange.
519	Issue stopped trading current exchange - to Toronto Stock Exchange.
520	Issue stopped trading current exchange - trading Over-the-Counter.
535	Delisted by current exchange - unlisted trading privileges.
550	Delisted by current exchange - insufficient number of market makers.
551	Delisted by current exchange - insufficient number of shareholders.
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).
572*	Delisted by current exchange - company request, liquidation.
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.
581	Delisted by current exchange - failure to register under 12G of Securities Exchange Act.
582	Delisted by current exchange - failure to meet exception or equity requirements.

DROPPED	
CODE	DESCRIPTION
583	Delisted by current exchange - denied temporary exception requirement.
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.
586	Delisted by current exchange - composition of unit is not acceptable.
587	Delisted by current exchange - corporate governance violation.
588	Conversion of a closed-end investment company to an open-end investment company.
589	Delisted by current exchange - unlisted trading privileges
591	Delisted by current exchange - delist required by Securities Exchange Commission (SEC)

EXPIRATIONS	
CODE	DESCRIPTION
600	Expired warrant or right
601	Warrants, rights, preferreds, or units called for redemption
610	Unit split into its component parts

DOMESTICS THAT BECAME FOREIGN	
CODE	DESCRIPTION
900	A domestic Security becomes foreign
901	A domestic Security becomes foreign, but continues to trade on NYSE
902	A domestic Security becomes foreign, but continues to trade on NYSE MKT
903	A domestic Security becomes foreign, but continues to trade on NASDAQ

\*Discontinued. Replaced with specific codes in the 400-range.

## IV. NASDAQ INFORMATION CODES

## NASDAQ STATUS CODE

0	Unknown or not applicable
1	Active
2	Trading with only one market maker
3	Suspended
4	Inactive
5	Delisted

## NASDAQ NATIONAL MARKET INDICATOR

0	Unknown or unavailable
1	The NASDAQ SmallCap Market before June 15, 1992
2	The NASDAQ National Market
3	The NASDAQ SmallCap Market after June 15, 1992

## NASDAQ INDEX CODE

1	NONE - No index
2	INDS - Nasdaq Industrial
3	BANK - Nasdaq Bank
4	OFIN - Nasdaq Other Finance
5	INSR - Nasdaq Insurance
6	TRAN - Nasdaq Transportation
7	IXUT - Nasdaq Utility
8	IXTC - Nasdaq Telecommunication
9	IXCO - Nasdaq Computer
10	IXBT - Nasdaq Biotechnology
11	IXCM - Nasdaq Composite
12	NDX - Nasdaq 100
13	IXO - Nasdaq 100(Unadjusted)
17	NDXE - Nasdaq 100 alternate
18	IXHC - Nasdaq Health Care
19	XNBI - NQ Biotechnology Tot Ret
20	DIVQ - NQ Div. Achievers Index
21	NBIE - NQ Biotech Equal Weight
22	IXIDN - Nasdaq NNM Industrial
23	IXBKN - Nasdaq NNM Bank
24	IXFNN - Nasdaq NNM Other Finance
25	IXISN - Nasdaq NNM Insurance
28	IXTCN - Nasdaq NNM Telecommunicat
29	IXCON - Nasdaq NNM Computer
30	IXBTN - Nasdaq NNM Biotechnology
31	IXCMN - Nasdaq NNM Composite
32	DTEC - NQ Dallas Regional Chambe
33	DVQT - NQ Div. Achievers Tot Ret
34	NDXT - NQ-100 Tech. Sector Ind.
35	NDXX - NQ-100 Ex-Tech Sect. Ind.

39	NQGS - NQ Glob Sel Mark Comp Ind
40	NQGM - NQ Glob Market Comp Index
41	RCMP - Nasdaq Cap Mkt Composite
42	IXIDR - Nasdaq SCM Industrial
43	IXBKR - Nasdaq SCM Bank
44	IXFNR - Nasdaq SCM Other Finance
45	IXISR - Nasdaq SCM Insurance
49	IXCS - Nasdaq SCM Computer
50	IXBTS - Nasdaq SCM Biotechnology
51	IXCMR - SmallCap Market Composite
52	NETR - NQ100 Eq Wght Tot Ret Ind
53	NTTR - NQ100 Tech Sec Tot Ret In
54	NXTR - NQ100 Ex-Tech Sec Tot Ret
55	BIXX - BetterInvesting 100 Index
62	IXF - Nasdaq Financial 100
63	NDXL - NQ 100 Double Leverage IN
70	QGRD - NQ OMX CIn Edg Smrt Gr IN
71	NBI - Nasdaq Biotechnology(DRM)
72	QNET - NASDAQ Internet Index
73	ILTI - NQ OMX AeA IL Tech Index
74	NOCO - NQ OMX Excess Return Indx
75	QWND - NQ OMX Clean Edge Wind IN
76	QWNX - NQ OMX Clean Edge Wind TR
77	NHXC - NQ OMX Halter USX China I
78	FINX - NQ Banking & Finl Index
79	QAGR - NQ OMX Glob Agri Index
80	QAGX - NQ OMX Glob Agri Tot Ret
81	HAUL - Wilder Glob Enrgy Tran IN
82	HAUX - Wilder Glob Enrgy Tot Ret
83	QGBI - NQ OMX Glob Biotech Index
84	QGBX - NQ OMX Glob Biotech Tot R
85	QCOL - NQ OMX Glob Coal Index
86	QCLX - NQ OMX Glob Coal Tot Ret
87	QSTL - NQ OMX Glob Steel Index
88	QSTS - NQ OMX Glob Steel Tot Ret
89	QGLD - NQ OMX Glob Gold&Prec Ind
90	QLGX - NQ OMX Glob Gold&Prec Tot
91	CDGR - Copeland Risk Man Div GTR
92	ABQI - NQ OMX ABA Comm Bank Indx
93	ABQX - NQ OMX ABA Com Bank IndxR
94	CHXI - Unknown
95	CDGX - Copeland Risk Man Div Gro
96	XABQ - ABA NQ COM BANK TOT RET
97	QCRX - NQ OMX CRD GL SUS TOT RET
98	QCRD - NQ OMX CRD GLOB SUST 50
99	XCMP - NQ COMP TOT RET

## V. MISSING RETURN CODES

PARAMETER	RET(I)	REASON FOR MISSING RETURN
RMISSN	-44.0	missing excess return due to no portfolio assignment.
RMISSD	-55.0	missing delisting return.
RMISSG	-66.0	more than 10 trading days between this day and the day of latest preceding price.
RMISSE	-77.0	not trading on an included exchange for this file.
RMISSR	-88.0	no return, array index not within range of Begin and End Index of Return Data.
RMISSP	-99.0	missing return due to missing price.

# CHAPTER 6: DATABASE STRUCTURES

## I. BASE CRSPACCESS DATA STRUCTURES

### A. TIME SERIES OBJECTS

Time Series Objects are data structures used to store time series data in CRSPAccess databases. A CRSP time series contains information about the type of data stored for each observation, the ranges of valid data for the current entity, the actual list of data observations, and the calendar information needed to place the observations in time.

	Variable Name	Variable
Data Description Information	Object Type Code	objtype
	Array Type Code	arrtype
	Data Subtype Code	subtype
	Array Structure Size	size_of_array_width
	Maximum Number of Array Elements	maxarr
Ranges of Valid Data	Begin of Valid Data	beg
	End of Valid Data	end
Associated Calendar Information	Calendar Time Period Description Code	caltype
	Calendar Associated with Time Series	cal
Object Array	Object Array	arr

### B. EVENT ARRAY OBJECTS

Event Array Objects are data structures used to store event data in CRSPAccess databases. A CRSP event array contains information about the type of data stored for each observation, the number of events for the current entity, and the actual event observations. The event dates or effective date ranges are contained within the observations.

	Variable Name	Variable
Data Description Information	Object Type Code	objtype
	Array Type Code	arrtype
	Data Subtype Code	subtype
	Array Structure Size	size_of_array_width
	Data Secondary Subtype Code	dummy
	Maximum Number of Array Elements	maxarr
Number of Array Elements	Number of Array Elements	num
Object Array	Object Array	arr

### C. HEADER OBJECTS

Header Objects are data structures used to store header data in CRSPAccess databases. A CRSP Header Object contains information about the type of data stored and the actual header fields.

	Variable Name	Variable
Data Description Information	Object Type Code	objtype
	Array Type Code	arrtype
	Data Subtype Code	subtype
	Array Structure Size	size_of_array_width
Object Array	Object Array	arr

### D. CALENDAR OBJECTS

Calendar Objects are data structures used to store calendar data in CRSPAccess databases. A Calendar Object contains information about the type of data stored, descriptive information about the calendar, the number of time periods available, and lists of calendar periods. The Calendar Objects are used with Time Series Objects to match data observations with a point in time. The calendar periods are usually identified by the last trading date in the period.

	Variable Name	Variable
Data Description Information	Object Type Code	objtype
	Maximum Number of Array Elements	maxarr
	Calendar Type Availability Flag	loadflag
Ranges of Valid Data	Number of Periods in Calendar	ndays
Calendar Description Information	Calendar Name	name
	Calendar Identification Number	calid
Calendar Period Arrays	Calendar Period Grouping Identifiers	callist
	Calendar Trading Date	caldt

## II. STOCK DATA STRUCTURE

### A. HEADER IDENTIFICATION AND SUMMARY DATA - HEADER

Header Identification and Summary Data is a set of variables, in a CRSPAccess stock database using CRSP C access functions, that identify an issue and summarize its classification. There is no time component to the header data so the data are valid the entire range of the issue. Header Identification and Summary Data contains the most current information on the issue maintained in the file. There is only one header structure per issue for any data iteration. Note that Ticker Symbol - Header only contains tickers for active securities.

	Variable Name	Variable
Primary Permanent Identifiers	PERMCO	permco
	PERMNO	permno
Secondary Permanent Identifiers	CUSIP - Header	hcusip
	NASDAQ Company Number	compno
	NASDAQ Issue Number	issuno
Security Date Ranges	Begin of Stock Data	begdt
	End of Stock Data	enddt
Most Recent Header Identification and Summary Data Information	Company Name - Header	hcomnam
	Convertible Code - Header	hconvcd
	Country Code - Header	hcntrycd
	Eligibility Code - Header	heligcd
	Exchange Code - Header	hexcd
	Expiration Date	hexpdt
	Incorporation Code - Header	hinccd
	Interest Rate or Strike Price	hrating
	Intermarket Trading System Indicator - Header	hits
	Issue Description - Header	hnamedesc
	Issuer Code - Header	hissuercd
	Name Code - Header	hnamecd
	Name Description - Header	hnamedesc
	Name Flag - Header	hnameflag
	North American Industry Classification Code - Header	hnaics
	Primary Exchange - Header	hprimexch
	Security Status - Header	hsecstat
	Share Code - Header	hshrcd
	Share Type - Header	hshrtype
	Standard Industrial Classification (SIC) Code - Header	hsiccd
	Sub-exchange - Header	hsubexch
	Ticker Symbol - Header (active securities only)	htick
	Trading Denomination - Header	hdenom
	Trading Ticker Symbol - Header	htsymbol

	Variable Name	Variable
Most Recent Listing Information	Delisting Code - Header	dlstcd
	Trading Status - Header	htrdstat

### B. NAME HISTORY ARRAY - NAMES

The Name History Array includes sets of identification variables effective at different times during the history of a security. Each set of information, or name structure, contains name and classification fields and the effective date ranges of those fields. Each security has at least one name structure.

	Variable Name	Variable
Secondary Identifiers	CUSIP	ncusip
	North American Industry Classification System (NAICS) Code	naics
	Ticker Symbol	ticker
	Standard Industrial Classification (SIC) Code	siccd
Date Range of Name History Record	Name Effective Date	namedt
	Last Date of Name <sup>1</sup>	nameenddt
Identifying Information	Company Name	comnam
	Convertible Code	convcd
	Country Code	cntrycd
	Eligibility Code	eligcd
	Exchange Code	exchcd
	Expiration Date	expdt
	Incorporation Code	inccd
	Interest Rate or Stricke Price	rating
	Intermarket Trading System Indicator	its
	Issuer Code	issuercd
	Name Code	namecd
	Name Description	namedesc
	Name Flag	nameflag
	Primary Exchange	primexch
	Security Status	secstat
	Share Class	shrcls
	Share Code	shrcd
	Share Type	shrtype
	Sub-exchange	subexch
	Trading Denomination	denom
	Trading Status	trdstat
	Trading Ticker Symbol	tsymbol

<sup>1</sup>CRSPAccess only

If the CUSIP, Company Name, Exchange Code, Exchange Ticker Symbol, Share Class, or SIC Code changes during the security's trading history, a new name structure is added, with the Name Effective Date of the change. That information is valid until another



name structure is added or the security becomes obsolete.

Name Histories may include periods, possibly outside the data range, when the security is trading on a different exchange or is not trading at all. The Exchange Code description contains more detailed information on trading status and location for a given date range.

### C. DISTRIBUTION EVENT ARRAY - DISTS

The Distribution Event Array is a list of events describing cash dividends, capital adjustments, and other distributions made to shareholders of a security.

	Variable Name	Variable
Distribution Information	Distribution Code	DISTCD
	Dividend Cash Amount	DIVAMT
Factors to Adjust Prices and Shares	Factor to Adjust Price	FACPR
	Factor to Adjust Shares Outstanding	FACSHR
Dates Associated with the Distribution	Distribution Declaration Date	DCLRDT
	Ex-Distribution Date	EXDT
	Record Date	RCRDDT
	Payment Date	PAYDT
Securities/Companies Related to the Event	Acquiring PERMNO <sup>1</sup>	ACPERM
	Acquiring PERMCO <sup>1</sup>	ACCOMP

<sup>1</sup>CRSPAccess variable only, available in both FORTRAN and C.

If a distribution event has more than one component, CRSP codes each component of the event separately with a four-digit code. All components of a distribution event share the same Ex-Distribution Date. Distributions for each security are unique and are sorted by Ex-Distribution Date, Distribution Code, and Acquiring PERMNO. Distribution Events are a descriptive set of events, not a summary by period. The data can be summarized for returns calculations, delisting returns, price and shares adjustments, and dividend and split totals. The following types of event are available:

- Periodic and special cash dividends - the cash amount in US dollars, frequency, and related dates of all cash dividends are provided.
- Stock splits, stock dividends, and reverse splits - the factors to adjust price and shares, type of action, and related dates of all splits are provided.
- Spin-offs - All spin-off events are included. The cash value of the spin-off is the price at the end of the ex-distribution date of the stock received. A price factor is calculated by dividing the cash amount by the price of the parent security on the Ex-Distribution Date. Acquiring PERMNO and Acquiring PERMCO can be used to link to the new company when available.
- Liquidation payments - All partial and final liquidation

payments are included. These contain the value of each payment and relevant dates that are known. If the payment is in the form of stock, or if a payment is known to come from the purchase of assets by a known company, the Acquiring PERMNO and Acquiring PERMCO are set to that company or issue.

- Return of capital distributions.
- Rights offerings.
- Merger, acquisition, and reorganization distributions.
- Limited tender offers.
- Information on announcements related to liquidations and tender offers that resulted in delistings.
- Known shares buybacks, offerings, and share increases due to acquisitions.

See Distribution Codes for the coding scheme used by CRSP, as well as examples of specific cases of distributions.

### D. SHARES OUTSTANDING OBSERVATIONS ARRAY - SHARES

The Shares Outstanding Observations Array contains the history of observations of the shares outstanding history of a security. CRSP records the shares outstanding only for the security, not the total shares for the company. Treasury shares are not included. Shares outstanding for American Depositary Receipts (ADRs) are the shares outstanding of the ADR, not the underlying issue. Shares outstanding are recorded in thousands.

	Variable Name	Variable
Shares Information	Shares Outstanding	SHROUT
	Shares Outstanding Observation Flag	SHRFLG
Share Observation Date Range	Shares Outstanding Observation End Date <sup>1</sup>	SHRENDT
	Shares Outstanding Observation Date	SHRSDT

<sup>1</sup> CRSPAccess data access only.

There are two types of Shares Outstanding Observations:

1. Primary shares observations contain a shares outstanding amount taken directly from an annual or quarterly report or a data source using company reports.
2. These are supplemented with imputed shares observations derived from distributions affecting shares outstanding using Factor to Adjust Shares.

A new entry does not imply that there was a change in the number of shares outstanding. In general, every company has at least one shares structure per year.

Exactly one shares structure is effective each date in the security's history. One shares outstanding observation is effective until the next observation or the delisting date. The first shares observation is effective from the Shares Observation Date backward to the beginning of data.

The Shares Outstanding Observations Array cannot be used to directly find the shares outstanding each calendar period. Utility functions and programs are available to map observations to time series used to calculate market capitalization.

### E. DELISTING EVENT ARRAY - DELIST

Every security on the CRSP file is assigned one delist record. The Delisting Event Array contains information on the status of a security after it is no longer listed on an exchange in a CRSP file. Each delisting history event contains a code describing the reason for delisting, the value after delisting (when available), forward links to acquiring issue and company traded on NYSE, NYSE MKT, NASDAQ, or Arca and delisting return. Active issues have a delisting history event where Delisting Date is set to the last date of available price data. The Distribution History Array includes itemized data on the payments made to shareholders after the delisting, and includes announcement information related to the delisting when available.

	Variable Name	Variable
Delist Information	Amount After Delisting	dlamt
	Delisting Code	dlstcd
	Delisting Price	dlprc
	Delisting Return	dlret
	Delisting Return without Dividends	dlretx
Dates Associated with Delist	Delisting Date	dlstdt
	Date of Next Available Information	nextdt
	Delisting Payment Date	dlpdt
Securities/Companies Associated with Delist	New PERMCO <sup>1</sup>	nwcomp
	New PERMNO <sup>1</sup>	nwperm

<sup>1</sup> CRSPAccess C and FORTRAN only.

In current CRSP files only the most recent delisting event is coded in the Delisting Event Array. If an issue leaves an exchange in the CRSP data files and later returns, the gap is marked in the Name History Array with an Exchange Code of 0. During this time, event

data are not tracked and time series data are filled in with missing values.

Delisting information is determined by several factors: the exchange of shares at the earliest possible opportunity, trade on a secondary market, payments from the company, or outstanding tender offer. The information is coded as it becomes available. An issue is considered closed to further research if any of the following conditions apply:

- Research has verified that a final distribution has been paid to stockholders.
- A price is found on another exchange.
- Research has verified that no distributions were ever paid to stockholders.
- Some distributions have been paid to stockholders, but no final distribution information can be found and 10 years have passed since the date of the most recent delisting information.
- No information concerning the delisting can be found and 10 years have passed since the delist date.

If none of these conditions applies to a delisted issue, the issue is pending, which means that further research is required until one of the above conditions has been met. If no information is found or the information found is incomplete, no delisting return will be calculated by CRSP.

Monthly: If no delisting information exists, and daily data exist after the last month-end trading date, CRSP generates partial-month delisting amounts and returns by using the price on the last daily trading date. Although the partial month returns are stored in the Delisting Return field, they are not delisting returns.

### F. NASDAQ INFORMATION ARRAY - NASDIN

The NASDAQ Information Array contains a history of an issue's trading status on The NASDAQ Stock Market. Each set of information, or structure, contains status and classification fields and the effective date ranges of those fields. If the NASDAQ Traits Code, NASDAQ National Market Indicator, NASD Index Code, or Market Makers Count changes, then a new structure is added, and the date of the change is recorded in the NASDAQ Traits Date. Each issue traded on the NASDAQ Stock Market since November 1982 has at least one NASDAQ Information Array.

	Variable Name	Variable
NASDAQ Information Array Data	Market Maker Count	mmcnt
	NASD Index Code	nsdinx
	NASDAQ National Market Indicator	nmsind
	NASDAQ Traits Code	trtscd

	Variable Name	Variable
NASDAQ Information Date Range	NASDAQ Traits Date	trtsdt
	NASDAQ Traits End Date	trtsenddt

NASDAQ information structures are available for securities trading on NASDAQ beginning on April 1, 1982 for NASDAQ Traits Date and NASDAQ National Market Indicator. All fields are available beginning November 1, 1982.<sup>1</sup>

<sup>1</sup> NASDAQ information data are missing in December, 1982 for all issues with NASD company numbers less than 1025 (approximately 20 percent of the securities active at that time), and are missing in February, 1986 for all issues. NASDAQ Traits Date, NASDAQ Traits Code, and NASDAQ National Market Indicator are complete. All other fields are missing.

The NASDAQ National Market was initiated in April 1982 for larger and generally more actively traded NASDAQ securities. The NASDAQ National Market Securities must meet higher financial and non-financial criteria than other NASDAQ stocks, and were always subject to last-sale reporting. In June of 1992 the regular NASDAQ segment of the NASDAQ Stock Market was renamed The NASDAQ SmallCap Market and for the first time these issues became subject to real-time price and volume reporting.

## G. PRICE, VOLUME, AND RETURN TIME SERIES ARRAYS

Price, Volume, and Return Time Series Arrays are a set of time series that makes up the core of CRSP stock data. This includes three price time series, total returns, and trading volumes. All these time series in a stock file use the same calendar(s).

	Variable Name	Variable
Price, Volume, and Return Time Series Data	Ask or High Price	askhi
	Bid or Low Price	bidlo
	Holding Period Total Return	ret
	Price or Bid/Ask Average	prc
	Volume Traded	vol

## H. AUXILIARY TIME SERIES DATA

Auxiliary Data Time Series are additional time series provided in CRSPAccess stock files at the same frequency as the Price, Volume, and Return Time Series Arrays.

	Variable Name	Variable
Monthly Alternate Price and Date, Daily Open Price, Returns Without Dividends, Spread Time Series Data	Price Alternate (monthly only)	altprc
	Price Alternate Date (monthly only)	altprcdt
	Return Without Dividends	retx
	Spread Between Bid and Ask (monthly only)	spread
	Open Price (daily only)	openprc
	Ask	ask
	Bid	bid
	NASDAQ Number of Trades (daily only)	numtrd

## I. PORTFOLIO STATISTICS AND ASSIGNMENT TIME SERIES - PORT

Portfolio Statistics and Assignment Time Series is a set of portfolio time series. Each portfolio time series is based on a portfolio type defined by CRSP and contains a history of statistics and portfolio assignments for a security. Two variables are available for each calendar period:

	Variable Name	Variable
Portfolio Statistic and Assignment Times Series Data	Portfolio Assignment Number	port
	Portfolio Statistic Value	stat

Each Portfolio Statistics and Assignment Time Series in the set is called a Portfolio Type. Portfolio Types are predefined groupings based on CRSP indexes. The portfolio time series can be linked to CRSP index returns data to calculate excess returns of a security against its assigned index portfolio at any time during its history.

Each Portfolio Type represents a predefined index group with its own methodology and rebalancing period. The portfolio time series can be linked to different calendars based on the rebalancing frequency of the index. The timing and calculation of the statistic and assignment rules are also dependent on the index. Calendars used in portfolios are not the same calendars used with security price and returns data. Portfolio ranges and calendars can differ for all portfolio types. In a portfolio time series, the Data Subtype Code is set to the Permanent Index Identification Number, INDNO, of an index that contains the performance results of the group of index series built using the assignments.

The portfolio assignments for the CRSP Stock File Decile Capitalization Indexes for NYSE/NASDAQ are provided with daily and monthly stock files. Additional Portfolio Types are available with the CRSP US Index Database and Security Portfolio Assignment Module.

Note that the portfolio information is a module of the associated CRSPAccess daily or monthly stock data. Portfolio assignment data for daily or monthly indexes can be extracted through the stock utilities when the user subscribes to the appropriate stock and index products. Indexes based on the portfolios are included in the CRSP Index File and Portfolio Assignments product.

See the Portfolio Types table for more details about the defined portfolios available in monthly and daily stock files.

## J. GROUP DATA

Group Data are a set of arrays of universe inclusion events. Each supported universe is called a grouptype and assigned an integer number that identifies it. The array for each grouptype lists the number of universe events and dates.

	Variable Name	Variable
Group Data	Group Flag of Associated Index	grpflag
	Group Secondary Flag	grpsubflag
Group Date Range	Begin of Group Data	grpdt
	End of Group Data	grpenddt

The only grouptype currently available is 16 - S&P 500 Universe. Only inclusion events are added to this group, so Group Flag of Associated Index is always 1. Begin of Group Data and End of Group Data identify the range the security was included in the S&P 500 index. The user must subscribe to the appropriate stock and index databases to extract group data.

## III. INDEX DATA STRUCTURES

### A. INDEX HEADER - INDHDR

The Index Header is a set of fields containing identification and methodology information about an index series or group. See Index Methodologies for more descriptive information about the methodologies of the CRSP index types.

	Variable Name	Variable
Permanent Index Identifiers	INDNO	indno
	INDCO	indco
Descriptive Identifiers	Index Primary Link	primflag
	Portfolio Number if Subset Series	portnum
	Index Name	indname
	Index Group Name	groupname
Index Structures (detailed below)	Index Methodology Description Structure	method
	Index Exception Handling Flags	flags
	Index Subset Screening Structure	partuniv
	Partition Subset Screening Structure	induniv
	Portfolio Building Rules Structure	rules
	Related Assignment Information	assign

### **1. Index Methodology Description Structure – method - Expansion**

	Variable Name	Variable
Methodology Description Structure	Index Method Type Code	methcode
	Index Primary Methodology Type	primtype
	Index Secondary Methodology Group	subtype
	Index Reweighting Type Flag	wgttype
	Index Reweighting Timing Flag	wgtflag

### **2. Index Exception Handling Flags – flags - Expansion**

	Variable Name	Variable
Exception Handling Flag Structure	Index Basic Exception Types Code	flagcode
	Index New Issues Flag	addflag
	Index Ineligible Issues Flag	delflag
	Return of Delisted Issues Flag	delretflag
	Index Missing Data Flag	missflag

### **3. Partition/Index Subset Screening Structure - partuniv/induniv - Expansion**

	Variable Name	Variable
Index Subset Screening Structure and Partition Subset Screening Structure	Universe Subset Types Code in a Restriction	univcode
	Restriction Beginning Date	begdt
	Restriction End Date	enddt
	Valid Exchange Codes in Universe in a Restriction	wantexch
	Valid NASDAQ Market Groups in Universe in a Restriction	wantnms
	Valid When-Issued Securities in Universe in a Restriction	wantwi
	Valid Incorporation of Securities in Universe in a Restriction	wantinc
	Share Code Screen Structure in a Restriction	shrcd

### **4. Share Code Screen Structure in a Partition or Index Restriction - shrcd - Expansion**

	Variable Name	Variable
Share Code Screen Structure	Share Code Groupings for Subsets in a Restriction	sccode
	Valid First Digit of Share Code in a Restriction	fstdig
	Valid Second Digit of Share Code in a Restriction	secdig

### **5. Portfolio Building Rules Structure - rules - Expansion**

	Variable Name	Variable
Portfolio Building Rules	Index Basic Rule Types Code	rulecode
	Index Function Code for Buy Rules	buyfnct
	Index Function Code for Sell Rules	sellfnct
	Index Function Code for Generating Statistics	statfnct
	Index Statistic Grouping Code	groupflag

### **6. Related Assignment Information – assign - Expansion**

	Variable Name	Variable
Portfolio Building Rules Structure	Index Basic Assignment Types Code	assigncode
	INDNO of Associated Index	asperm
	Portfolio Number in Associated Index	asport
	Calendar Identification Number of Rebalancing Calendar	rebalcal
	Calendar Identification Number of Assignment Calendar	assigncal
	Calendar Identification Number of Calculations Calendar	calccal

## B. INDEX REBALANCING HISTORY ARRAY - REBAL[#] [N]

The Index Rebalancing History Arrayss are a set of CRSPAccess event array structures containing decile-level historical rebalancing statistical information for rebalancing periods in an index. Each event array structure within the history contains the characteristics for one portfolio for one time range in the index, including the breakpoints used to assign securities to the portfolio.

	Variable Name	Variable
Rebalancing Date Ranges	Index Rebalancing Begin Date	rbbegdt
	Index Rebalancing End Date	rbenddt
Rebalancing Portfolio Statistics	Count Used as of Rebalancing	usdcnt
	Maximum Count During Period	maxcnt
	Count Available as of Rebalancing	totcnt
	Count at End of Rebalancing Period	endcnt
Breakpoint Information	Statistic Minimum Identifier	minid
	Statistic Maximum Identifier	maxid
	Statistic Minimum in Period	minstat
	Statistic Maximum in Period	maxstat
	Statistic Median in Period	medstat
	Statistic Average in Period	avgstat

The variable Number of Rebalancing Types contains the count of the rebalancing history arrays available for all indexes in a set. There are ten possible rebalancing arrays in current Index Groups and one in all Index Series. Each array has its own count of periods, which is set to zero if not applicable to the particular index.

## C. INDEX LIST HISTORY ARRAY

	Variable Name	Variable
Security Identifier	Permanent Number of Securities in Index List	permno
Date Range	First Date Included in List	begdt
	Last Date Included in List	enddt
Security Characteristics	Index Subcategory Code	subind
	Weight of Issue	weight

## D. INDEX TIME SERIES

Index Time Series are sets of result and summary time series arrays for indexes. They include the following variables:

	Variable Name	Variable
Index Summary Statistics	Index Used Count	usdcnt
	Index Total Count	totcnt
	Index Used Value	usdval
	Index Total Value	totval
Index Returns	Index Total Return	tret
	Index Capital Appreciation Return	aret
	Index Income Return	iret
Index Levels	Index Total Return Index Level	tind
	Index Capital Appreciation Index Level	aind
	Index Income Return Index Level	iind

The variable Number of Index Types contains the count of index series available for each of the indexes in a set. There is always one time series for all data items in an index series, and more than one time series for data items in an index group. Not all time series are available for each index. If the range for one of the time series is not set, data of that type is not available for that index.