CHICAGO BOOTH

CRSP®
Center for Research in Security Prices

# 1925 HISTORICAL INDEXES GUIDE

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CHICAGO BOOTH

# CRSP®
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# CHAPTER 1: OVERVIEW

## DATA SOURCES

### 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

### NYSE ARCA

- March 2006-present: Interactive Data Corporation (IDC)
- Coverage of companies with primary listings on NYSE 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) used as secondary data source to NASD
- March 2004-present: Interactive Data Corporation used as secondary source to NASD

## INDEX DATA AVAILABILITY

CRSP Indexes-only subscribers have access to the stand-alone version of the index files, including ASCII, Excel, and SAS formats.

CRSP Stock & Index subscribers may access the stand-alone files in addition to accessing Stock File Indexes, their decile level statistics and portfolio assignments through CRSPSift and CRSPAccess utilities. Available through CRSP utilities is an additional index, the NYSE/NYSE MKT Trade-Only Value-Weighted Index.

CRSP Stock Database-only subscribers have access to the CRSP NYSE/NYSE MKT/NASDAQ/ARCA Equal- and Value-Weighted Indexes, the S&P 500 Composite, and the NASDAQ Composite.

## DATA ACCURACY AND THE CRSP INDEXES

CRSP data files are designed for research and educational use and have proven to be highly accurate. Considerable resources are expended on improving and assuring data quality.

The 2006 addition of the pre-1962 daily stock data to the CRSP databases provided a new level of granularity. Information provided through the addition of the daily prices enabled CRSP to clean up distribution information and security trading date ranges. Changes were introduced in phases with annual shipments to our subscribers over three years, the last being the 2007 data cut that shipped in early 2008. Included in each of these shipments were two cuts of the databases, pre- and post-revisions. While CRSP felt that the differences between the two data cuts and the impact on indexes was insignificant, it was important to provide all data so that subscribers had full control over comparing differences and in determining which data cuts were appropriate for their uses.

Throughout each year, CRSP makes edits to the stock files, which may result in slight changes to the historical values of indexes derived from the stock databases. In the event that

CRSP determines that changes are material, we will advise subscribers, produce, and ship pre- and post-revision cuts of the data.

## CRSP INDEXES

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 the 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.

A full listing of CRSP Indexes is available in Appendix A at the end of this document. Indexes are listed by INDNO®, CRSP's permanent index identifier.

**Groups of Indexes include:**

1. CRSP Stock File Indexes, including:
   - CRSP Market Indexes
   - Published S&P 500 and NASDAQ Composite Index Data
   - CRSP Stock File Capitalization Decile Indexes
   - CRSP Stock File Risk-Based Decile Indexes
2. CRSP Cap-Based Portfolios
3. CRSP Indexes for the S&P 500 Universe
4. CRSP US Treasury and Inflation Series
5. CRSP Select (Formerly the Andex Series)

### 1. STOCK FILE INDEXES

There are seven groups of securities for which index data are calculated:

- Individual NYSE, NYSE MKT, NASDAQ, and ARCA markets (4)
- NYSE/NYSE MKT combined (1)
- NYSE/NYSE MKT/NASDAQ combined (1)
- NYSE/NYSE MKT/NASDAQ/ ARCA combined (1)

Indexes are available in daily, monthly, quarterly, and annual frequencies. A value-weighted and equal-weighted series is calculated for each market combination, and market decile series are formed for combinations except for those indexes that include ARCA.

Dates of data availability differ for each exchange. When a series includes combinations of exchanges, the beginning of the series begins with the earliest date that data are available.

New York Stock Exchange (NYSE)
begins December 31, 1925

American Stock Exchange (NYSE MKT)
begins July 2, 1962

NASDAQ Stock Market (NASDAQ)
begins December 14, 1972

ARCA Exchange (ARCA)
begins March 8, 2006

NOTE: Quarterly and annual index returns are not available for the ARCA series.

Daily and monthly index returns are calculated based on daily and monthly security holding period returns respectively. Returns are calculated using prices from end-of-period to end-of-period. Total returns always include cash dividends. Quarterly and annual frequency index returns are calculated by compounding monthly index returns.

#### 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, counts, used values, and total values.

The equal-weighted index is an equal-weighted portfolio built each calendar period using 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. Valid prices include trading prices or bid-ask averages when trading prices are not available. Issues are weighted by their market capitalization at the end of the previous period.

Index levels of CRSP Market Indexes are calculated based on an initial value of 100 on December 29, 1972.

Equal- and Value-Weighted CRSP Market Indexes for the combined NYSE, NYSE MKT, NASDAQ, and ARCA exchanges are included with all CRSP Stock Databases.

## 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 was called the S&P 90, containing 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 News 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 in all CRSP Stock Databases on a daily and monthly basis. The S&P 500 (S&P 90 until March 1957) is available month-end beginning December 31, 1925, and daily beginning July 2, 1962. The NASDAQ Composite is available daily beginning December 14, 1972, with month-end values reported beginning December 29, 1972. Levels and Returns of both indexes exclude dividends, so no total returns or total return index levels are available. 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, and total returns calculated in the CRSP Index File on the S&P 500 are available to Indexes subscribers.

## CRSP STOCK FILE CAPITALIZATION DECILE INDEXES

There are five groups of securities for which indexes are calculated:

- Individual NYSE, NYSE MKT, NASDAQ markets (3)
- NYSE/NYSE MKT combined (1)
- NYSE/NYSE MKT/NASDAQ combined (1)

Excluding ADRs, for each rebalancing period, all securities on a given exchange or combination of exchanges are ranked by their capitalization and then divided into 10 deciles with an equal number of securities in each decile.

These portfolios are rebalanced each calendar year using the security market capitalization at the end of the previous year for the rankings. If a security starts trading in the middle of a year, its first available 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 a portfolio assignment of 0.

CRSP Market Capitalization Deciles do not use delisting returns. If a security is dropped mid-year, its last available month-end return is used.

Value-weighted index returns include all dividends and are calculated on each of the 10 portfolios. Index levels are calculated based on an initial value of 100 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.

## 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 using beta and standard deviation as the measures of risk. One set of portfolios is created by ranking securities on 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). The other set is created by ranking securities on the annualized standard deviation of their daily returns.

CRSP Stock File Risk-Based Decile Indexes are rebalanced each calendar 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. Portfolio 1 contains the securities with the highest risk as measured by the statistics, and portfolio 10 contains the securities with the lowest risk.

Once securities are assigned to portfolios, an equal-weighted total return index is calculated for each portfolio every 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 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.

## 2. CRSP CAP-BASED PORTFOLIOS

CRSP Cap-Based Portfolio Indexes are a monthly series based on portfolios that are rebalanced quarterly.

The universe includes all common stocks listed on the NYSE, NYSE MKT, and NASDAQ Global and Global Select Markets (NASDAQ National Market prior to July 2006). Unit Investment Trusts, Closed-End funds, Real Estate Investment Trusts, Americus Trusts, Foreign Stocks, and American Depository Receipts are all excluded. For a security to be included in an index, it must have a valid price in the current and previous periods. Valid prices include trading prices or bid-ask averages when trading prices are not available.

Eligible companies listed on the NYSE are ranked into equally populated deciles at the end of each calendar quarter. The largest capitalizations in each decile serve as the breakpoints that are applied to various exchange groupings of the universe.

CRSP's PERMCO, the permanent company identifier, was created as part of the development that produced the Cap-Based indexes. All market caps of eligible securities of a company are summed and used in creating portfolio assignments, both for setting the breakpoints for NYSE companies, and for assigning all companies to the portfolios. If there is a company with a NYSE security and a NASDAQ security, only the NYSE security market cap is used for setting breakpoints, but the combined market cap is used to add both securities to the same portfolio.

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 NASDAQ Global and Global Select Markets. The NASDAQ Global and Global Select Markets were formerly the NASDAQ National Market, which was 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.

The returns of the combined portfolios are not the sum of two or more decile returns. The returns of the combined portfolios are the value-weighted returns of the relevant deciles.

Index levels are calculated based on an initial value of one dollar on December 31, 1925. Monthly index returns are calculated based on both daily and monthly security holding period returns. Returns are calculated using prices from end-of-period to end-of-period. Total returns always include cash dividends.

Companies becoming eligible or ineligible during a quarter are handled with the following rules:

- 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 portfolio's 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 Global or Global Select Markets, 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.

Only monthly indexes and portfolio assignments are calculated for the Cap-Based Portfolios. Each of the three Cap-Based Indexes represents one index group of index results and one portfolio type of portfolio assignments and statistics. Seventeen series, one for each decile and each composite, are created for each Portfolio Type.

There are slight differences between our CRSP production databases sent to subscribers and those used internally by CRSP to calculate returns of cap-based portfolios. While very close, decile returns calculated using the CRSP production database may not exactly match those calculated in the CRSP Cap-based reports.

## 3. CRSP INDEXES FOR THE S&P 500® UNIVERSE

CRSP Indexes for the S&P 500® Universe, formerly the S&P 90®, 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 stocks in the S&P 500® universe. Daily and monthly data begin on December 31, 1925. 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.

Prior to March, 1957, the index contains 90 issues. CRSP does not have data for two securities that were part of the S&P 90® at different times between 1925 and 1931, as follows:

| COMPANY NAME | START DATE | END DATE |
|---|---|---|
| Int'l Mercantile Marine PFD | Dec 31, 1925 | July 22, 1929 |
| Standard Power & Light "B" | Feb 6, 1930 | Nov 16, 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.

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.

### 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 twofold:

- 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.

## 4. CRSP TREASURY AND INFLATION INDEXES

The CRSP US Treasury and Inflation Series (CTI) files are available with 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, and 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 earlier history.

For the 30- and 90-day risk-free series, a representative Treasury bill for each series is selected. Each month the issue maturing closest to the target duration is selected, as measured from the end of the previous month. Bills must have at least 30 days to their maturity date to be selected for the 30 day series. However, for the 90-Day series, bills with less than 90 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 30- and 90-day targets. Where bills were not available, certificates or notes may have been used.

Exclusions in the series may be made due to:

- 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. For months in which a return cannot be calculated, the returns and corresponding index values are set to -99 in ASCII .dat files, missing values in SAS, and empty cells in EXCEL (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 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 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 to correspond with the index base date in the Stock and Index files of December 29, 1972.

Each 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 quote date.

**CTI BEGIN DATES**

| ISSUES | BEGIN DATES |
|---|---|
| 30 Year Bond Returns & Level | November 29, 1941 |
| 20 Year Bond Returns & Level | January 31, 1942 |
| 10 Year Bond Returns & Level | May 31, 1941 |
| 7 Year Bond Returns & Level | April 30, 1941 |
| 5 Year Bond Returns & Level | April 30, 1941 |
| 2 Year Bond Returns & Level | January 31, 1941 |
| 1 Year Bond Returns & Level | January 31, 1941 |
| 90 Day Bill Returns & Level | Recommend Use after 1942* |
| 30 Day Bill Returns & Level | Recommend Use after 1937* |
| Consumer Price Index Rate of Change & Level | March 31, 1926 |

**CRSP recommends restricting usage after these dates due to scarce availability prior to that time.*

## 5. CRSP SELECT SERIES

The CRSP Select Series (formerly Andex) consist of 20-year, 5-year, and 90-day return indexes. For the 20-year

index, a bond with at least 19.5 years to maturity and closest to 20 years is selected at the beginning of the year. Monthly returns are calculated using the chosen bond. For the 5-year index, a bond with at least 5 years to maturity and closest to 5 years is selected at the beginning of the year. For the 90-day index, the Treasury Bill closest to 90 days maturity is chosen each month.

## BOND SELECTION DETAILS:

### Long Term Bond Selection

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).

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.

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 1 of the previous year for which the bond is being considered for inclusion in the index (i.e. dated date + one month < = quote date). Before 1942, only partially tax-exempt bonds are chosen because of the limited number of fully taxable bond issues. After 1942, only fully taxable issues are chosen.

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.

### Intermediate Term Bond Selection

Select the most currently issued 5-year bond with at least 5 years to maturity at the beginning of the calendar year.

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 and a bond that is partially tax-exempt. If a partially tax-exempt bond does not meet the above criteria, choose a wholly tax-exempt bond. 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.

# CHAPTER 2: INDEX DEFINITIONS & CALCULATIONS

Calculations and definitions that are used in or are useful for understanding the CRSP Research Indexes are included in this section.

## 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 similiar to a dividend yield.

Income Return can be derived from Total Return and Capital Appreciation as follows:

*iret(t) = tret(t)-aret(t)*
where *iret* is the income return for time *t*, *tret* is the total return for time *t*, and *aret* is the capital appreciation 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.

## 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 between the daily Index Levels and the Index Levels of other frequencies due to compounding; therefore, these series are not directly comparable.

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 of a series is set to zero prior to available data. Let:

- $i_t$ = Index Level for any series at time $t$
- $r_t$ = return for the period $t$-1 to $t$
- $t_0$ = the time of the first non-missing return of the series
- $D_0$ = initialization date. An arbitrary date where the level is set to the initial value
- $V_0$ = initialization value. An arbitrary value the level is set to on the initialization date

then

- if $t = D_0$ then $i_t = V_0$
- if $t > D_0$ then $i_t = i_{t-1}(1+r_t)$
- if $t < D_0$ and $t_{0-1}$ then $i_t = i_{t+1} / (1+r_{t+1})$
- if $t < t_{0-1}$ then $i_t = 0$

*Note: It is better to have missing values rather than 0s, for 0s can be interpreted as real values.*

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 |
| **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

$$R(I) = \frac{\sum_n w_n(I) r_n(I)}{\sum_n w_n(I)}$$

An Index Return is the change in value of a portfolio over some holding period. The return on a portfolio ($R(I)$) is calculated as the weighted average of the returns for the individual securities in the portfolio:

In a value-weighted portfolio, the weight ($w_n(I)$) assigned to security $n$'s return is its total market value $v_n(I)$.

CRSP defines the market value of a security ($v_n(I)$) as the product of its price ($p_n(I-1)$) and its number of shares outstanding ($s_n(I-1)$), at the end of the previous trading period.

$$w_n(I) = p_n(I-1)s_n(I-1)$$

In an equally-weighted portfolio, $w_n(I)=1$ for every stock. Such a portfolio would consist of $n$ stocks, with the same dollar amount invested in each stock.

The security returns can be total returns, capital appreciation, or income returns. This determines whether the index is a total return index, a capital appreciation index, or an income return 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, return is calculated as follows:

$r(t) = level(t) / level(t') - 1$

where $t$ is the current period, $t'$ is the previous period, and the levels are known at the end of the current and previous periods.

The number of shares outstanding for a security on a given day ($s_n^{(I)}$) is derived from the Shares Outstanding Observations Array.

## INDEX WEIGHT

The weight of an index for a time period is the total market value of the portfolio at the end of the previous trading period. The total market value $v(I)$ of the portfolio is

$$V(I) = \sum_n v_n(I) = \sum_n w_n(I)$$

where $v_n(I)$ is the market value of one security in the portfolio, and $w_n(I)$ is the weight of that security.

## REBASING INDEX LEVELS

It is possible to rebase an index to make index levels of two index level series comparable if the returns of both indexes were created using the same holding periods. 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.

## 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 < $t$

$$r(t) = \frac{p(t)f(t) + d(t)}{p(f)} = 1$$

$t'$ 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 is calculated each year as follows:**

$ret_{i,t}$ = log of ( 1 + return for security $i$ on day $t$)
$mret_t$ = log of (1 + value-weighted market return on day $t$)
$mret3_t = mret_{t-1} + mret_t + mret_{t+1}$ (a 3 day moving average market window)
$n$ = number of observations for the year

$$\beta_i \frac{\sum_t (ret_{i,t}\ mret\ 3_t - (\frac{1}{n})(\sum_1 ret_{i,t})(\sum_1 mret3_t)}{\sum_t (mret_t\ mret\ 3_t - (\frac{1}{n})(\sum_1 mret_t)(\sum_1 mret3_t)}$$

where summations over $t$ are over 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 portfolio types based on Scholes-Williams Beta calculations: NYSE/NYSE MKT and NASDAQ-only.

In the NYSE/NYSE MKT portfolios, 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 portfolios 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 and NASDAQ SmallCap securities after June 15, 1992. 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:

$$O_i = \sqrt{\frac{\sum_t (ret_{i,t})^2 - \frac{1}{n}(\sum_t ret_{i,t})^2}{n-1}}$$

$ret_{i,t}$ = daily return (trade or average of bid and ask) of security $i$ on day $t$

$n$ = number of observations for the year (of $ret_{i,t}$)

$o_i$= yearly standard deviation for the $i^{th}$ company

where summation over $t$ is over all returns for the $i^{th}$ company in the given calendar 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 portfolio types 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, will always be greater by the number of adds. | The difference between the Total Count on Day 1 and the Used Count on Day 2 will be the number of drops. |
| Total Count will fluctuate throughout the year | Used Count will drop as the year progresses. |

## TIME-SERIES DATA DEFINITIONS

### PORT INDEX LEVEL W/O DIVS

Aind / Alvl

### INDEX LEVEL OF RETURNS WITHOUT DIVIDENDS

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

| GENERAL INFORMATION | | |
|---|---|---|
| Primary Concepts | Index Levels | |
| Data Type | Floating Point | |
| Unit of Item | | |
| DATE RANGE AVAILABILITY | | |
| Daily | 1925 | |
| Monthly | 1925 | |
| DATABASE AVAILABILITY AND PRODUCT TYPES | | |
| Database Formats | CRSPAccess / CRSPSift | |
| Product Type | STK | |
| UTILITY USAGE | TS_PRINT TSQUERY | IND_PRINT INDQUERY |
| Daily ITEMID | alvl | aind |
| Monthly ITEMID | malvl | maind |
| Header | Aind | Aind |
| SUBNO | 0 | |
| C USAGE | | |
| Object | aind_ts[ ] | |
| Array | aind[ ] [ ] | |
| Element | n/a | |
| FORTRAN-95 USAGE | | |
| Type or Subtype | aind_ts | |
| Member and/or Array | aind(,) | |
| Element | n/a | |

### PORT RETURNS W/O DIVS

Aret

### INDEX CAPITAL APPRECIATION RETURN

Index Capital Appreciation Return is the return, excluding ordinary dividends, of an index. See "Index Returns" in the Definitions & 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 | Floating Point | |
| Unit of Item | Ratio | |
| DATE RANGE AVAILABILITY | | |
| Daily | 1925 | |
| Monthly | 1925 | |
| DATABASE AVAILABILITY AND PRODUCT TYPES | | |
| Database Formats | CRSPAccess / CRSPSift | |
| Product Types | IND | |
| UTILITY USAGE | TS_PRINT TSQUERY | IND_PRINT INDQUERY |
| ts_print Daily Usage | retx/0 | aret |
| ts_print Monthly Usage | mretx/0 | maret |
| Header | Aret | Aret |
| 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 | |

### INCOME RETURN INDEX LEVEL

Iind / Ilvl

### INDEX LEVEL OF RETURNS ON INCOME

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

| GENERAL INFORMATION | |
|---|---|
| Primary Concepts | Index Levels |
| Data Type | Floating Point |
| Unit of Item | |
| DATE RANGE AVAILABILITY | |
| Daily | 1925 |
| Monthly | 1925 |

| DATABASE AVAILABILITY AND PRODUCT TYPES | | |
|---|---|---|
| Database Formats | CRSPAccess/CRSPSift | |
| Product Type | STK | |
| UTILITY USAGE | TS_PRINT TSQUERY | IND_PRINT INDQUERY |
| Daily ITEMID | ilvl | iind |
| Monthly ITEMID | milvl | miind |
| Header | lind | lind |
| SUBNO | 0 | |
| C USAGE | | |
| Object | iind_ts[ ] | |
| Array | iind[ ] [ ] | |
| Element | n/a | |
| FORTRAN-95 USAGE | | |
| Type or Subtype | iind_ts | |
| Member and/or Array | iind(,) | |
| Element | n/a | |

## INCOME RETURN ON INDEX

Iret

### INDEX INCOME RETURN

Index Income Return is the ordinary dividend return of an index. See "Index Returns" in the Definitions & 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 | Floating Point | |
| Unit of Item | Ratio | |
| DATE RANGE AVAILABILITY | | |
| Daily | 1925 | |
| Monthly | 1925 | |
| DATABASE AVAILABILITY AND PRODUCT TYPES | | |
| Database Formats | CRSPAccess/CRSPSift | |
| Product Types | IND | |
| UTILITY USAGE | TS_PRINT TSQUERY | IND_PRINT INDQUERY |
| ts_print Daily Usage | reti | |
| ts_print Monthly Usage | mreti | |
| Header | iret | miret |
| 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 | |

## TOTAL INDEX LEVEL W/ DIVS

Tind

### 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 | Floating Point | |
| Unit of Item | Ratio | |
| DATE RANGE AVAILABILITY | | |
| Daily | 1925 | |
| Monthly | 1925 | |
| DATABASE AVAILABILITY AND PRODUCT TYPES | | |
| Database Formats | CRSPAccess/CRSPSift | |
| Product Types | IND | |
| UTILITY USAGE | TS_PRINT TSQUERY | IND_PRINT INDQUERY |
| ts_print Daily Usage | tlvl | tind |
| ts_print Monthly Usage | mtlvl | mtind |
| Header | Tind | Tind |
| 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 | |

## TOTAL COUNT

Totcnt

### 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 PRODUCT TYPES** | | |
| **Database Formats** | CRSPAccess/CRSPSift | |
| **Product Types** | IND | |
| **UTILITY USAGE** | **TS_PRINT TSQUERY** | **IND_PRINT INDQUERY** |
| **ts_print Daily Usage** | tcnt | totcnt |
| **ts_print Monthly Usage** | mtcnt | mtotcnt |
| **Header** | TotCnt | TotCnt |
| **C USAGE** | | |
| **Object** | rebal_arr[ ] | |
| **Array** | rebal[ ] [ ] | |
| **Element** | totcnt | |
| **FORTRAN-95 USAGE** | | |
| **Type or Subtype** | rebal_arr() | |
| **Member and/or Array** | rebal(,) | |
| **Element** | totcnt | |

## TOTAL VALUE OF INDEX

Totval

### 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** | Floating Point | |
| **Unit of Item** | USD | |
| **DATE RANGE AVAILABILITY** | | |
| **Daily** | 1925 | |
| **Monthly** | 1925 | |
| **DATABASE AVAILABILITY AND PRODUCT TYPES** | | |
| **Database Formats** | CRSPAccess/CRSPSift | |
| **Product Types** | STK, IND | |
| **UTILITY USAGE** | **TS_PRINT TSQUERY** | **IND_PRINT INDQUERY** |
| **ts_print Daily Usage** | tcap | totval |
| **ts_print Monthly Usage** | mtcap | mtotval |
| **Header** | TotVal | TotVal |
| **C USAGE** | | |
| **Object** | totval_ts[ ] | |
| **Array** | totval[ ][ ] | |
| **Element** | /tv | |
| **FORTRAN-95 USAGE** | | |
| **Type or Subtype** | totval_ts | |
| **Member and/or Array** | totval(, ) | |
| **Element** | n/a | |

## TOTAL RETURN ON INDEX

Tret

### 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** | Floating Point | |
| **Unit of Item** | Ratio | |
| **DATE RANGE AVAILABILITY** | | |
| **Daily** | 1925 | |
| **Monthly** | 1925 | |
| **DATABASE AVAILABILITY AND PRODUCT TYPES** | | |
| **Database Formats** | CRSPAccess/CRSPSift | |
| **Product Types** | STK, IND | |
| **UTILITY USAGE** | **TS_PRINT TSQUERY** | **IND_PRINT INDQUERY** |
| **ts_print Daily Usage** | ret | tret |
| **ts_print Monthly Usage** | mret | mtret |

| | | |
|---|---|---|
| **Header** | Tret | Tret |
| **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 | |

## USED COUNT

Usdcnt/Rusdcnt

### 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 PRODUCT TYPES** | | |
| **Database Formats** | CRSPAccess/CRSPSift | |
| **Product Types** | IND | |
| **UTILITY USAGE** | **TS_PRINT TSQUERY** | **IND_PRINT INDQUERY** |
| **ts_print Daily Usage** | tcnt | usdcnt |
| **ts_print Monthly Usage** | intcnt | musdcnt |
| **Header** | Usdcnt | Usdcnt |
| **C USAGE** | | |
| **Object** | rebal_arr | |
| **Array** | rebal | |
| **Element** | usdcnt | |
| **FORTRAN-95 USAGE** | | |
| **Type or Subtype** | rebal_arr() | |
| **Member and/or Array** | rebal(,) | |
| **Element** | usdcnt | |

## USED VALUE

Usdval/Rusdval

### 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** | Floating Point | |
| **Unit of Item** | Ratio | |
| **DATE RANGE AVAILABILITY** | | |
| **Daily** | 1925 | |
| **Monthly** | 1925 | |
| **DATABASE AVAILABILITY AND PRODUCT TYPES** | | |
| **Database Formats** | CRSPAccess/CRSPSift | |
| **Product Types** | STK, IND | |
| **UTILITY USAGE** | **TS_PRINT TSQUERY** | **IND_PRINT INDQUERY** |
| **ts_print Daily Usage** | cap | usdval |
| **ts_print Monthly Usage** | mcap | musdval |
| **Header** | Usdval | Usdval |
| **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 | |

## CRSPSIFT & CRSPACCESS

### CRSPSIFT

CRSPSift, CRSP's Securities Information Filtering Tool, lets you extract data from your CRSP Stock & Index Databases. It provides an intuitive interface to the CRSPAccess command-line utilities in Windows environments.

Two tools provide access.

- TsQuery provides access to indexes alongside stock data. Data items include raw and derived items.
- IndQuery provides access to index data only.

Access through CRSPSift is explained in the CRSPSift User Guide available on the CRSP website at www.crsp.chicagobooth.edu/documentation.

### CRSPACCESS

The CRSPAccess software, also known as CUPL, CRSP Utilities and Programming Libraries, includes utilities that may be used to extract CRSP stock and index data from the CRSP proprietary databases on Linux and Solaris platforms. They also include C and Fortran-95 programming libraries. For usage information, refer to the software and programming guides on the CRSP website at www.crsp.chicagobooth.edu/documentation.

## STAND-ALONE FILES

### FILE NAMING

Referencing the following coding scheme will allow users to determine file names in the stand-alone index files. For example, the file DSIX.xls, is the Excel spreadsheet containing the daily indexes for the NYSE, NYSE MKT, and NASDAQ exchanges.

**First character represents the frequency**

| | |
|---|---|
| D | Daily |
| M | Monthly |
| Q | Quarterly |
| A | Annual |

**Second and third characters represent the data**

| | |
|---|---|
| SI | Stock + Index |
| SS | Stock + Standard Deviation |
| SB | Stock + Beta |

**Fourth character represents the exchange**

| | |
|---|---|
| A | NYSE |
| B | NYSE MKT |
| C | NYSE + NYSE MKT |
| O | Nasdaq |
| R | NYSE Arca |
| X | NYSE + NYSE MKT + Nasdaq |
| Y | NYSE + NYSE MKT + Nasdaq + NYSE Arca |

### DATABASE FILES

Each file comes in three formats:

- ASCII (.dat)
- SAS (.sas7bdat)
- Excel (.xls)

The following table is a listing of files included in the Stand-alone Index Files product.

| LEGEND | DESCRIPTION | RECORD LENGTH | INDEX GROUP |
|---|---|---|---|
| acti | Annual CRSP US Treasury and Inflation Series (CTI) file | 290 | CRSP U.S. Treasury and Inflation Indexes |
| cselect20yr | Index Level Associated with the 20 Year Bond Returns (.dat file only) | 49 | CRSP Select 20 Year (formerly Andex) |
| cselect5yr | Index Level Associated with the 5 Year Bond Returns (.dat file only) | 43 | CRSP Select 5 Year (formerly Andex) |
| cselect90d | Index Level Associated with the 90 Day Bill Returns (.dat file only) | 70 | CRSP Select 90 Day (formerly Andex) |
| asia | Annual Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) | 468 | CRSP Market Indexes |
| asib | Annual Indexes built on Market Capitalization Deciles — American Stock Exchange (NYSE MKT) | 468 | CRSP Market Indexes |
| asic | Annual Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) | 468 | CRSP Market Indexes |
| asio | Annual Indexes built on Market Capitalization Deciles — Nasdaq | 468 | CRSP Market Indexes |
| asix | Annual Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) + Nasdaq | 468 | CRSP Market Indexes |
| dsbc | Daily Indexes built on Beta Deciles — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) | 468 | CRSP Market Indexes |
| dsbo | Daily Stock & Beta Nasdaq | 468 | CRSP Market Indexes |
| dsia | Daily Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) | 468 | CRSP Market Indexes |
| dsib | Daily Indexes built on Market Capitalization Deciles — American Stock Exchange (NYSE MKT) | 468 | CRSP Market Indexes |
| dsic | Daily Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) | 468 | CRSP Market Indexes |
| dsio | Daily Indexes built on Market Capitalization Deciles — Nasdaq | 468 | CRSP Market Indexes |
| dsir | Daily Indexes built on Market Capitalization Deciles — ARCA | 468 | CRSP Market Indexes |
| dsix | Daily Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) + Nasdaq | 468 | CRSP Market Indexes |
| dsiy | Daily Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT), Nasdaq, and ARCA | 468 | CRSP Market Indexes |
| dsp500 | Daily CRSP Index file on the S&P 500© | 132 | CRSP S&P 500 Indexes |
| dsp500p | Daily CRSP Portfolios of the S&P 500© | 132 | CRSP S&P 500 Indexes |
| dssc | Daily Indexes built on Standard Deviation Deciles — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) | 468 | CRSP Market Indexes |
| dsso | Daily Indexes built on Standard Deviation Deciles — Nasdaq | 468 | CRSP Market Indexes |
| mcti | Monthly CRSP US Treasury and Inflation Series (CTI) file | 290 | CRSP U.S. Treasury and Inflation Indexes |
| mhista | Monthly Cap-Based Indexes Results — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) | 94 | Cap-Based Monthly History Files |
| mhistn | Monthly Cap-Based Indexes Results — New York Stock Exchange (NYSE) | 94 | Cap-Based Monthly History Files |
| mhistq | Monthly Cap-Based Indexes Results — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) + Nasdaq | 94 | Cap-Based Monthly History Files |
| msia | Monthly Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) | 468 | CRSP Market Indexes |
| msib | Monthly Indexes built on Market Capitalization Deciles — American Stock Exchange (NYSE MKT) | 468 | CRSP Market Indexes |
| msic | Monthly Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) | 468 | CRSP Market Indexes |
| msio | Monthly Indexes built on Market Capitalization Deciles — Nasdaq | 468 | CRSP Market Indexes |
| msir | Monthly Indexes built on Market Capitalization Deciles — ARCA | 468 | CRSP Market Indexes |
| msix | Monthly Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) + Nasdaq | 468 | CRSP Market Indexes |
| msiy | Monthly Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT), Nasdaq, and ARCA | 468 | CRSP Market Indexes |
| msp500 | Monthly CRSP Index file on the S&P 500© | 132 | CRSP S&P 500 Indexes |

| LEGEND | DESCRIPTION | RECORD LENGTH | INDEX GROUP |
|---|---|---|---|
| msp500p | Monthly CRSP Portfolios of the S&P 500© | 132 | CRSP S&P 500 Indexes |
| qcti | Quarterly CRSP US Treasury and Inflation Series (CTI) file | 290 | CRSP Market Indexes |
| qsia | Quarterly Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) | 468 | CRSP Market Indexes |
| qsib | Quarterly Indexes built on Market Capitalization Deciles — American Stock Exchange (NYSE MKT) | 468 | CRSP Market Indexes |
| qsic | Quarterly Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) | 468 | CRSP Market Indexes |
| qsio | Quarterly Indexes built on Market Capitalization Deciles — Nasdaq | 468 | CRSP Market Indexes |
| qsix | Quarterly Indexes built on Market Capitalization Deciles — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) + Nasdaq | 468 | CRSP Market Indexes |
| rebala | Quarterly Cap-Based Indexes Results — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) | 102 | CRSP Quarterly Rebalancing Records |
| rebaln | Quarterly Cap-Based Indexes Results — New York Stock Exchange (NYSE) | 102 | CRSP Quarterly Rebalancing Records |
| rebalq | Quarterly Cap-Based Indexes Results — New York Stock Exchange (NYSE) + American Stock Exchange (NYSE MKT) + Nasdaq | 102 | CRSP Quarterly Rebalancing Records |

## FILE SPECIFICATIONS

The tables in the following pages detail the exact specifications of the formatted CRSP ASCII files. Each table represents one file on the DVD. The table names match the names in the DVD layout descriptions. The "Character Positions" column shows where in the character record each field is positioned. The "Format (Scientific Notation)" and "Suggested Alternative Format" columns are listed in the formats that appear on the DVD. The "Associated Name" column refers to the data item defined in the "Description of Definition" section of this guide.

### CRSP STOCK DECILE INDEXES FILE SPECIFICATIONS

This section shows the exact specifications of a formatted CRSP Stock Decile Indexes File. A CRSP Stock Decile Indexes File contains a record for each trading date in the file, sorted by date. Records are all fixed-length 468 characters long with dates containing years in YYYY format. Fields are delimited by spaces. All files are written on DVD in ASCII , Excel, and SAS on the index data DVD. These files are only available if you subscribe to the CRSP US Index Database and Security Portfolio Assignment Module.

There are 10 portfolios described by Return on Decile (DECRET) and Index Level Associated with the Return on Decile (DECIND). The Return on Decile is in character positions `146+28*(I-1)` through `158+28*(I-1)` and the Index Level Associated with the Return is in character positions `160+28*(I-1)` through `172+28*(I-1)`. The Stock Decile Indexes Record table contains each return and index level field in a record.

| CHARACTER POSITION | DATA TYPE | ASSOCIATED NAME | ASSOCIATED MNEMONIC | FORMAT (SCIENTIFIC NOTATION) | SUGGESTED ALTERNATIVE FORMAT |
|---|---|---|---|---|---|
| 2-9 | INTEGER | Calendar Trading Date | CALDT | I8 | I8 |
| 11-23 | REAL | Total Return Value-Weighted Index | VWRTED | E13.6 | F10.6 |
| 25-37 | REAL | Index Level Associated with the Total Return on Value-Weighted Index | VWINDD | E13.6 | F10.6 |
| 39-51 | REAL | Return (Excluding Dividends) on Value-Weighted Index | VWRETX | E13.6 | F10.6 |
| 53-65 | REAL | Index Level Associated with the Return (Excluding Dividends) on Value-Weighted Index | VWINDX | E13.6 | F10.6 |
| 67-79 | REAL | Total Return Equal-Weighted Index | EWRETD | E13.6 | F10.6 |

| CHARACTER POSITION | DATA TYPE | ASSOCIATED NAME | ASSOCIATED MNEMONIC | FORMAT (SCIENTIFIC NOTATION) | SUGGESTED ALTERNATIVE FORMAT |
|---|---|---|---|---|---|
| 81-93 | REAL | Index Level Associated with the Total Return on Equal-Weighted Index | EWINDD | E13.6 | F10.6 |
| 95-107 | REAL | Return (Excluding Dividends) on Equal-Weighted Index | EWRETX | E13.6 | F10.6 |
| 109-121 | REAL | Index Level Associated with the Return (Excluding Dividends) on Equal-Weighted Index | EWINDX | E13.6 | F10.6 |
| 123-135 | REAL | S&P 500 Composite Index Return/ NASDAQ Composite Return (in NASDAQ index files) | SPRTRN or NCRTRN | E13.6 | F10.6 |
| 137-144 | REAL | S&P 500 Composite Index Level or NASDAQ Composite Leve (in NASDAQ index files) | SPINDX or NCINDX | E13.6 | F10.6 |
| 146-158 | REAL | Return on Decile 1 | DECRET(1) | E13.6 | F10.6 |
| 160-172 | REAL | Index Level Associated with the Return on Decile 1 | DECIND(1) | E13.6 | F10.6 |
| | REAL | Return on Deciles (2-9) | DECRET(n) | E13.6 | F10.6 |
| | REAL | Index Level Associated with the Return on Deciles (2-9) | DECIND(n) | E13.6 | F10.6 |
| 398-410 | REAL | Return on Decile 10 | DECRET(10) | E13.6 | F10.6 |
| 412-424 | REAL | Index Level Associated with the Return on Decile 10 | DECIND(10) | E13.6 | F10.6 |
| 427-440 | REAL | Total Value of Index | TOTVAL | E15.8 | F14.2 |
| 442-446 | INTEGER | Total Count of Index | TOTCNT | I5 | I5 |
| 448-462 | REAL | Market Value of Securities Used | USDVAL | E15.8 | F14.2 |
| 464-468 | INTEGER | Count of Securities Used | USDCNT | I5 | I5 |

## CRSP CAP-BASED PORTFOLIOS FILE SPECIFICATIONS

This section shows the exact specifications of the Cap-Based Portfolios monthly results and rebalancing reports. The monthly results report contains a record for each decile or composite portfolio for each month, sorted by date, then portfolio. Records are all fixed-length 94 characters long for the YYYY format. Fields are delimited by spaces. The rebalancing report contains a record for each decile portfolio each quarter, sorted by date, then portfolio. Fields are delimited by pipe characters ( | ). All files are written in ASCII character, Excel Worksheets (5.0) and SAS on DVDs with line feed record delimiters standard on Unix and readable in most PC applications.

### MONTHLY HISTORY RECORDS

The Monthly History Record table contains the format of each field. The character positions show where in the 94 character record each field is positioned. The data type shows whether the field contains character, real, or integer data.

| CHARACTER POSITION | DATA TYPE | ASSOCIATED NAME | ASSOCIATED MNEMONIC | FORMAT (SCIENTIFIC NOTATION) | SUGGESTED ALTERNATIVE FORMAT |
|---|---|---|---|---|---|
| 1-8 | INTEGER | Calendar Trading Date - YYYYMMDD format | CALDT | I8 | I8 |
| 10-13 | CHARACTER | Portfolio Sequence Number | PRTNAM | A4 | A4 |
| 15-18 | INTEGER | Portfolio Issue Count | PRTCNT | I4 | I4 |
| 20-30 | REAL*8 | Portfolio Weight | PRTWGT | F11.0 | F11.0 |
| 32-41 | REAL | Return on Portfolio | TOTRET | F10.6 | F10.6 |
| 43-51 | REAL | Index Level Associated with Total Return on Portfolio | TOTIND | F9.3 | F9.3 |
| 53-62 | REAL | Capital Appreciation on Portfolio | CAPRET | F10.6 | F10.6 |
| 64-72 | REAL | Index Level Associated with Capital Appreciation on Portfolio | CAPIND | F9.3 | F9.3 |
| 74-83 | REAL | Return on Income Portfolio | INCRET | F10.6 | F10.6 |
| 85-93 | REAL | Index Level Associated with Income Return on Portfolio | INCIND | F9.3 | F9.3 |

### QUARTERLY REBALANCING RECORDS

The Quarterly Rebalancing Record table contains the format of each field. The character positions show where in the 102 character record in YYYY format each field is positioned. The data type shows whether the field contains character, real, or integer data.

| CHARACTER POSITION | DATA TYPE | ASSOCIATED NAME | ASSOCIATED MNEMONIC | FORMAT (SCIENTIFIC NOTATION) | SUGGESTED ALTERNATIVE FORMAT |
|---|---|---|---|---|---|
| 1-6 | INTEGER | Year and Month of Quarter | YYYYMM | I6 | I6 |
| 8-9 | INTEGER | Portfolio Number of Decile | PRTNO | I2 | I2 |
| 11-15 | INTEGER | Portfolio Company Count | PRTCCT | I5 | I5 |
| 17-25 | REAL | Capitalization of Smallest Company in Portfolio | MINCWT | F9.0 | F9.0 |
| 27-58 | CHARACTER | Portfolio Smallest Company Name | MINCNM | A32 | A32 |
| 60-68 | REAL | Capitalization of Largest Company in Portfolio | MAXCWT | F9.0 | F9.0 |
| 70-101 | CHARACTER | Portfolio Largest Company Name | MAXCNM | A32 | A32 |

## CRSP INDEXES ON THE S&P 500

This section shows the exact specifications of the CRSP Index Files for the S&P 500® universe. The files contain a record for each date, and are sorted by date. Records are all fixed-length 132 characters long. Fields are delimited by spaces. These are the same format as used by CRSP stock file Calendar/Index files and can used with CRSP stock file Calendar/Index access subroutines. All files are written in ASCII, Excel , and SAS on the DVDs with linefeed delimiters standard on Unix and readable in most PC applications.

| CHARACTER POSITION | DATA TYPE | ASSOCIATED NAME | ASSOCIATED MNEMONIC | FORMAT (SCIENTIFIC NOTATION) | SUGGESTED ALTERNATIVE FORMAT |
|---|---|---|---|---|---|
| 2-9 | INTEGER | Calendar Trading Date - YYYYMMDD format | CALDT | I8 | I8 |
| 11-23 | REAL | Total Return Value-Weighted Index | VWRTED | E13.6 | F10.6 |
| 25-37 | REAL | Return (Excluding Dividends) on Value-Weighted Index | VWRETX | E13.6 | F10.6 |
| 39-51 | REAL | Total Return Equal-Weighted Index | EWRETD | E13.6 | F10.6 |
| 53-65 | REAL | Return (Excluding Dividends) on Equal-Weighted Index | EWRETX | E13.6 | F10.6 |
| 67-81 | REAL | Total Value of Index | TOTVAL | E13.6 | F14.2 |
| 83-87 | INTEGER | Total Count of Index | TOTCNT | E13.6 | I5 |
| 89-103 | REAL | Market Value of Securities Used | USDVAL | E13.6 | F14.2 |
| 105-109 | INTEGER | Count of Securities Used | USDCNT | E13.6 | I5 |
| 111-118 | REAL | S&P 500 Composite Index Level | SPINDX | E13.6 | F8.2 |
| 120-132 | REAL | S&P 500 Composite Index Return | SPRTRN | E13.6 | F10.6 |

## CRSP U.S. TREASURY AND INFLATION INDEXES (CTI)

This section shows the exact specifications of a formatted CTI Data File. A CTI File contains a record for each monthly trading date in that Data File, sorted by date. Records are all fixed-length 290 characters long in the YYY format. Fields are delimited by spaces. Floating point numbers are written using the FORTRAN E format specifier to ensure a constant number of significant digits. Data are provided in ASCII, Excel, and SAS output on DVDs.

| CHARACTER POSITION | DATA TYPE | ASSOCIATED NAME | ASSOCIATED MNEMONIC | FORMAT (SCIENTIFIC NOTATION) | SUGGESTED ALTERNATIVE FORMAT |
|---|---|---|---|---|---|
| 2-9 | INTEGER | Calendar Trading Date - YYYYMMDD format | CALDT | I8 | I8 |
| 11-23 | REAL | Return on 30 Year Bonds | B30RET | E13.6 | F10.6 |
| 25-37 | REAL | Index Level Associated with the 30 Year Bond Returns | B30IND | E13.6 | F10.6 |
| 39-51 | REAL | Return on 20 Year Bonds | B20RET | E13.6 | F10.6 |
| 53-65 | REAL | Index Level Associated with the 20 Year Bond Returns | B20IND | E13.6 | F10.6 |
| 67-79 | REAL | Return on 10 Year Bonds | B10RET | E13.6 | F10.6 |
| 81-93 | REAL | Index Level Associated with the 10 Year Bond Returns | B10IND | E13.6 | F10.6 |
| 95-107 | REAL | Return on 7 Year Bonds | B7RET | E13.6 | F10.6 |
| 109-121 | REAL | Index Level Associated with the 7 Year Bond Returns | B7IND | E13.6 | F10.6 |
| 123-135 | REAL | Return on 5 Year Bonds | B5RET | E13.6 | F10.6 |
| 137-149 | REAL | Index Level Associated with the 5 Year Bond Returns | B5IND | E13.6 | F10.6 |
| 151-163 | REAL | Return on 2 Year Bonds | B2RET | E13.6 | F10.6 |
| 165-177 | REAL | Index Level Associated with the 2 Year Bond Returns | B2IND | E13.6 | F10.6 |
| 179-191 | REAL | Return on 1 Year Bonds | B1RET | E13.6 | F10.6 |
| 193-205 | REAL | Index Level Associated with the 1 Year Bond Returns | B1IND | E13.6 | F10.6 |
| 207-219 | REAL | Return on 90-Day Bills | T90RET | E13.6 | F10.6 |
| 221-233 | REAL | Index Level Associated with the 90 Day Bill Returns | T90IND | E13.6 | F10.6 |
| 235-247 | REAL | Return on 30-Day Bills | T30RET | E13.6 | F10.6 |
| 249-261 | REAL | Index Level Associated with the 30 Day Bill Returns | T30IND | E13.6 | F10.6 |
| 263-275 | REAL | Consumer Price Index Rate of Change | CPIRET | E13.6 | F10.6 |
| 277-289 | REAL | Index Level Associated with the Rate of Change in Consumer Price Index | CPIIND | E13.6 | F10.1 |

The CTI Records table contains the format of each calendar and index field. The character positions show where in the 290 character record in YYYY format for each field is positioned. The FORTRAN format is the format that is written on the file. The alternative format indicates the size and type of data found in the field. The data type shows whether the field contains real or integer data.

## CRSP SELECT (FOMERLY ANDEX)

The following three tables show the file specifications for the bond series formerly created for Andex. Output is limited to ASCII format.

### 5-YEAR

| CHARACTER POSITION | DATA TYPE | ASSOCIATED NAME | ASSOCIATED MNEMONIC | FORMAT (SCIENTIFIC NOTATION) | SUGGESTED ALTERNATIVE FORMAT |
|---|---|---|---|---|---|
| 2-9 | INTEGER | Quote Date | | I8 | I8 |
| 11-25 | CHARACTER | CRSPID | | A15 | A15 |
| 27-34 | REAL | Days to Maturity | | F8.3 | F8.3 |
| 36-42 | REAL | Annualized Yield-to-Maturity | | F7.3 | F7.3 |

### 20-YEAR

| CHARACTER POSITION | DATA TYPE | ASSOCIATED NAME | ASSOCIATED MNEMONIC | FORMAT (SCIENTIFIC NOTATION) | SUGGESTED ALTERNATIVE FORMAT |
|---|---|---|---|---|---|
| 2-9 | INTEGER | Quote Date | | I8 | I8 |
| 11-25 | CHARACTER | CRSPID | | A15 | A15 |
| 27-35 | REAL | Days to Maturity | | F8.3 | F8.3 |
| 37-48 | REAL | Total Return | | F9.3 | F9.3 |

### 90-DAY

| CHARACTER POSITION | DATA TYPE | ASSOCIATED NAME | ASSOCIATED MNEMONIC | FORMAT (SCIENTIFIC NOTATION) | SUGGESTED ALTERNATIVE FORMAT |
|---|---|---|---|---|---|
| 2-9 | INTEGER | Quote Date | | I8 | I8 |
| 11-25 | CHARACTER | CRSPID | | A15 | A15 |
| 27-32 | REAL | Annualized Yield to Maturity | | F6.3 | F6.3 |
| 34-43 | REAL | Bid | | F10.3 | F10.3 |
| 45-54 | REAL | Ask | | F10.3 | F10.3 |
| 56-65 | REAL | Bid-Ask Average | | F10.3 | F10.3 |
| 67-69 | REAL | Days to Maturity | | I3 | I3 |

# APPENDIX: CRSP INDEX SERIES

## 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 |

| INDNO | INDEX NAME | DAILY SETID | MONTHLY SETID | PRODUCT |
|---|---|---|---|---|
| 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 |
| 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 | STK, IX |
| 1000081 | CRSP NYSE/NYSE MKT/NASDAQ Equal-Weighted Market Index | 460 | 420 | STK, 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 |

| INDNO | INDEX NAME | DAILY SETID | MONTHLY SETID | PRODUCT |
|---|---|---|---|---|
| 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 |
| 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 |

| INDNO | INDEX NAME | DAILY SETID | MONTHLY SETID | PRODUCT |
|---|---|---|---|---|
| 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 |
| 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 |

| INDNO | INDEX NAME | DAILY SETID | MONTHLY SETID | PRODUCT |
|---|---|---|---|---|
| 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 |
| 1000708 | CRSP 30-Day Bill Returns | - | 420 | IX |
| 1000709 | Consumer Price Index | - | 420 | IX |

## 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 Value-Weighted Market Index | 1000080 | Yes | Yes | STK, 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 |

## CRSP PORTFOLIO INDEXES

| 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 |

| Portfolio Type Description | Rebalancing Calendar | INDNO | Daily Portfolio Type | Monthly Portfolio Type | Product Availability |
|---|---|---|---|---|---|
| Cap-Based NYSE/NYSE MKT Portfolios | Quarterly | 1000337 | - | 8 | IX |