CENTER FOR RESEARCH IN SECURITY PRICES
An Affiliate of the University of Chicago

500 W Madison St Ste 2900, Chicago, IL 60661 | Phone: 312.263.6400 | Fax: 312.263.6430 | **crsp.org**

CRSP US STOCK & INDEXES NEW FLAT FILE FORMAT 2.0 (CIZ) SUMMARY OF DIFFERENCES TO LEGACY FILES

BACKGROUND

CRSP was established in 1960 as a research center at the University of Chicago to support Professor Lawrence Fisher and James Lorie's seminal research paper, "Rates of Return on Investment in Common Stocks." Since that time, CRSP has been curating data for scholarly researchers and investment practitioners. From time-to-time CRSP makes refinements to its databases when new incremental data becomes available. To incorporate new data and enhance the user experience, CRSP developed and in 2022 released a new US Stock & Indexes Database Flat File Format 2.0 (CIZ).

These changes were motivated by CRSP's commitment to provide subscribers with the most complete and accurate data available by reflecting additional data from new sources. This also allowed CRSP to reconsider how best to present monthly data derived from daily data, which is now complete back to 1925. The new data allows for more accurate and precise monthly stock and index return calculations which are provided in CIZ. These return calculation changes were announced in 2022 when CIZ was introduced to subscribers.

MONTHLY HOLDING PERIOD RETURN CALCULATIONS: LEGACY ASSUMPTIONS

For all versions of CRSP's US Stock & Indexes Database prior to CIZ, monthly holding period return calculations for stocks and indexes were based on month-end prices and shares outstanding. While monthly returns are ideally calculated based by compounding daily returns within the month, this approach was not feasible for these versions due to the absence of daily share prices prior to 1962 (only month-end prices were available).

Methods and assumptions used to calculate monthly holding period returns for stocks and indexes using month-end data introduced simplifications that are no longer necessary. The impacts of these simplifications included:

- The loss of two consecutive months of return calculations for any stock with a missing month-end share price.
- The implicit assumption that stock dividends were reinvested at month-end.
- The loss of initial, partial-month returns for any stock that did not start trading or was not tracked on the last trading day of a month (applies to most new securities and all NASDAQ-listed stocks at the beginning of CRSP history on December 14, 1972).
- The implicit assumption that proceeds from a delisted stock in its final incomplete month are all received at the date of the delisting payment.
- Inconsistent application of conventions in the consideration of trading gaps in the calculation of daily and monthly returns.

NEW MONTHLY RETURN CALCULATIONS BASED ON COMPOUNDED DAILY RETURNS

All CRSP databases now contain daily share prices (to the extent available) and as result, the calculation of monthly returns for stocks and indexes based on compounded daily returns is now possible. CIZ incorporates more complete and accurate monthly return calculations based on the compounding of daily returns and addresses undesirable or unintended impacts of the prior calculation methodology.

Note that monthly returns for stocks in CIZ are now consistent with compounding the daily returns for stocks which have been available to CRSP subscribers in database versions prior to CIZ. CIZ has also introduced additional fields that provide context for the data available for the monthly returns.

ADDITIONAL RESOURCES

Subscribers may refer to several additional documents to become familiar with the CIZ files:

Executive Summary of Differences - summarizes differences between Flat File Format 1.0 (SIZ) and Flat File Format 2.0 (CIZ), including easier and faster tabulation, file restructuring, new data items, new flag items for delists, distributions, and share codes, and metadata files.

Flat File Format 2.0 User Guide - provides a table-by-table listing of data items in Flat File Format 2.0 (CIZ) and short definitions.

Cross Reference Guide - assists in transitioning from legacy format through a high-level description of files and tables drawing relationships between legacy and CIZ data items.

CRSP Metadata Guide - There are ten metadata files included in Flat File Format 2.0 (CIZ) including schema information, flag files, coverage files, and calendar files, and SIZ to CIZ mapping information.

CRSP Index Calculations and Methodologies - This guide contains formulas and methodologies used to derive CRSP variables in the stock and index files and generated by the CRSP data utilities.

Release Notes - Summarize release dates and monthly, quarterly and annual data updates.

QUESTIONS?

Please contact support@crsp.org with questions.