CRSP ZIMAN/REAL ESTATE DATA SERIES RELEASE NOTES

DECEMBER 2020 MONTHLY UPDATE

FILE VERSION SPECIFICS

- The CRSP/Ziman Real Estate Data Series contains data through December 2020, available in January 2021.
- The data series contains 662 securities of which 220 are currently trading. The date range is from 19800102-20201231.
- This release may be installed on Windows and Linux. ASCII, SAS and R versions of the data series are available for all three platforms. The Zip files available for download include a version for each different set of files, found in the table in the zip file structure section below.

RESEARCH AND PROGRAMMING NOTES

Prices and indexes in this product begin in January of 1980. This is true even when the Ziman REIT Info table states that the REIT was in existence prior to 1980.

The base year for the CRSP/Ziman Indexes is 12/30/1994, at which point they are set to a value of 100. This differs from CRSP Market Indexes which are set to 100 on 12/29/1972.

Due to some inconsistent trading early in the time series, a few additional rules were implemented to improve the continuity of the portfolios used to calculate the indexes. Please refer to Chapter 2 of the CRSP/Ziman Real Estate Data Series Guide for an explanation of universe and price selection criteria.

202012 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
20191	APARTMENT INCOME REIT CORP	AIRC	03750L10	12/15/2020	12/31/2020
DELISTS					
78089	TAUBMAN CENTERS INC	TC0	87666410	11/20/1992	12/28/2020

CRSP DATABASE CHANGES

PE	ERMNO	COMPANY NAME	DESCRIPTION
86	6996	S B A COMMUNICATIONS CORP NEW	SHARES OUTSTANDING CHANGE FROM 111443 TO 111115 FOR 20201030 — PRESENT.

DELIVERY METHOD, INSTALLS, AND DATA FORMATS

DELIVERY

CRSP data delivery for all products is available through the "Cloud." By utilizing IPSwitch's MOVEit Cloud product (https://crsp.moveitcloud.com, you can download data products either on demand, or with scheduled processes.

ZIP INSTALLS

CRSP uses a zip process for data installation. ZIP utilities that are standard on all platforms should work to unzip the databases. On Windows computers, CRSP recommends using 7-ZIP, which can be downloaded from this site: http://www.7-zip.org/

Several important items to note:

- All directories are extracted to lower case letters. For example: C:\crspdata\raz201308
- All Windows Users: Extracting a zipped file does not create an installed program in Windows. It will not show in the Windows Control Panel. When uninstalling the data, just delete the directories that contain the detailed files

Red Hat Linux Users: If your version of Red Hat is earlier than 6.0, you will need to install an updated version of the "File Roller" program in order to install the data.

ZIP FILE STRUCTURE AND PROCESS:

Four individual zip files need to be unzipped separately. Unzip the files into the root or home or your target directory. For example, c:\ in Windows; /home for Linux. The unzip process will created the \crspdata subdirectory.

Note that the destination directories have also changed as part of this process:

ZIP FILE ON DISK	DESCRIPTION	INSTALL PATH
RAZYYYYMM_ASCII	ASCII FILES	\CRSPDATA\RAZYYYYMM_ASCII
RAZYYYYMM_SAS	SAS FILES	\CRSPDATA\RAZYYYYMM_SAS
RAZYYYYMM_R	R FILES	\CRSPDATA\RAZYYYYMM_R

Contact CRSP Client Services for assistance at support@crsp.org or call 312-263-6400, Option 2.

SYSTEM REQUIREMENTS

- SAS, ASCII, R, or an analytical tool of your choice
- Sufficient disk space to load and manipulate the data series.*

DATA SERIES FORMAT	MONTHLY DATA SERIES	DAILY/MONTHLY DATA SERIES
ASCII	10.9 MB	234 MB
SAS	12.4 MB	253 MB
R FILES	N/A	33.5 MB

^{*}Additional disk space will be needed for data manipulation.

File name specifications and installation information can now be found in the guide.