CRSP ZIMAN/REAL ESTATE DATA SERIES RELEASE NOTES

AUGUST 2019 MONTHLY UPDATE

FILE VERSION SPECIFICS

- The CRSP/Ziman Real Estate Data Series contains data through August 2019, available in September 2019.

- The data series contains 653 securities of which 218 are currently trading. The date range is from 19800102-20190830.

- This release may be installed on Windows and Linux. ASCII and SAS versions of the data series are available for all three platforms and in addition, a Microsoft Access database is available for Windows. 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.

201908 REIT SUMMARY

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13752	CYRUSONE INC	shares outstanding change from 110317 to 113173 for 20190425-20190627, from 113173 to 113176 for 20190628-20190724 and from 113176 to 113192 for 20190725-present.
14252	GAMING & LEISURE PROPERTIES INC	shares outstanding change from 215010 to 214659 for 20190502-20190627, from 214659 to 214673 for 20190628-20190806 and from 214673 to 214683 for 20190807-present.
14279	EXTENDED STAY AMERICA INC	shares outstanding change from 188412 to 188420 for 20190731-present.
14651	CARETRUST REIT INC	shares outstanding change from 95582 to 95073 for 20190628-20190804 and from 95073 to 95557 for 20190805-present.
15279	UNITI GROUP INC	shares outstanding change from 182670 to 184157 for 20190503-20190627, from 184157 to 183123 from 20190628-20190801 and from 183123 to 193143 for 20190802-present.
16266	REVEN HOUSING REIT INC	shares outstanding change from 11027 to 11039 for 20190628-present.
17952	AMERICAN FINANCE TRUST INC	shares outstanding change from 106211 to 106246 for 20190628-present.
49744	POTLATCHDELTIC CORP	shares outstanding change from 67186 to 67187 for 20190729-present.
79129	BROOKFIELD PROPERTY REIT INC	shares outstanding change from 103138 to 93932 for 20190508-20190627, from 93932 to 79389 from 20190628-20190806 and from 79389 to 73532 for 20190807-present.
79782	REGENCY CENTERS CORP	shares outstanding change from 167106 to 167519 for 20190509-20190627, from 167519 to 167125 from 20190628-20190801 and from 167125 to 167557 for 20190802-present.
81917	HOSPITALITY PROPERTIES TRUST	shares outstanding change from 164442 to 164440 for 20190509-20190627, from 164440 to 164455 from 20190628-20190807 and from 164455 to 164449 for 20190808-present.
83879	LAMAR ADVERTISING CO NEW	shares outstanding change from 85584 to 85568 for 20190425-20190627, from 85568 to 85689 from 20190628-20190731 and from 85689 to 85956 for 20190801-present.

PERMNO	COMPANY NAME	DESCRIPTION
86996	S B A COMMUNICATIONS CORP NEW	shares outstanding change from 113205 to 113251 for 20190430-20190627, from 113251 to 113090 from 20190628-20190730 and from 113090 to 113106 for 20190731-present.
87289	SENIOR HOUSING PROPERTIES TRUST	shares outstanding change from 237730 to 237726 for 20190508-20190627, from 237726 to 237741 from 20190628-20190806 and from 237741 to 237738 for 20190807-present.
89617	EQUINIX INC	shares outstanding change from 84070 to 84819 for 20190628-present.
89823	GLADSTONE COMMERCIAL CORP	shares outstanding change from 29958 to 30291 for 20190430-20190627, from 30291 to 30878 from 20190628-20190729 and from 30878 to 31004 for 20190730-present.
90092	SABRA HEALTHCARE REIT INC	shares outstanding change from 179501 to 189515 for 20190628-present.
90214	NEW YORK MORTGAGE TRUST INC	shares outstanding change from 208092 to 210873 for 20190628-present.
92680	A G N C INVESTMENT CORP	shares outstanding change from 536412 to 547800 for 20190628-20190730 and from 547800 to 547818 for 20190731-present.
92948	OFFICE PROPERTIES INCOME TRUST	shares outstanding change from 48092 to 48090 for 20190430-20190627, from 48090 to 48113 from 20190628-20190731 and from 48113 to 48112 for 20190801-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:

Three separate 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_msaccess	MS Access tables	\crspdata\razyyyymm_msaccess
razyyyymm_sas	SAS files	\crspdata\razyyyymm_sas

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

SYSTEM REQUIREMENTS

- SAS version 8 or higher, Microsoft Access, 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	13.0 MB	277 MB
Microsoft Access	12.6 MB	238 MB
SAS V 9.1	14.8 MB	295 MB

*Additional disk space will be needed for data manipulation.

FILE NAME SPECIFICATIONS AND INSTALLATION

ASCII

All files contain variable-width records, ending with line-feeds, with pipe-delimited "|" fields. There are no header records. See Table Definitions in Chapter 3 of the guide for field order in each file.

File Name	Description
crsp_daily_data.txt*	daily REIT security data
crsp_header.txt	security REIT header data
crsp_monthly_data.txt	monthly REIT security data
crsp_names.txt	security name history of REITS
crsp_ziman_daily_index.txt*	daily index results
crsp_ziman_monthly_index.txt	monthly index results
index_type_map.txt	definitions of REIT indexes and characteristics
price_type.txt	definitions of available price types
Property_type.txt	definitions of available REIT property types
reit_type.txt	definitions of available REIT categories
sub_property_type.txt	definitions of available REIT property subtypes
ziman_reit_info.txt	REIT information

SAS

Column names and labels are embedded in the data sets. The full descriptions for fields can be found in the table definitions section of Chapter 3 of the guide.

File Name	Description
crsp_daily_data.sas7bdat* crsp_daily_data.sas7bndx*	daily REIT security data and index
crsp_header.sas7bdat crsp_header.sas7bndx	security REIT header data and index
crsp_monthly_data.sas7bdat crsp_monthly_data.sas7bndx	monthly REIT security data and index
crsp_names.sas7bdat crsp_names.sas7bndx	security name history of REITS and index
crsp_ziman_daily_index.sas7bdat* crsp_ziman_daily_index.sas7bndx*	daily index results and index
crsp_ziman_monthly_index.sas7bdat crsp_ziman_monthly_index.sas7bndx	monthly index results and index

File Name	Description
index_type_map.sas7bdat	definitions of REIT indexes and characteristics
price_type.sas7bdat	definitions of available price types
Property_type.sas7bdat	definitions of available REIT property types
reit_type.sas7bdat	definitions of available REIT categories
sub_property_type.sas7bdat	definitions of available REIT property subtypes
ziman_reit_info.sas7bdat ziman_reit_info.sas7bndx	REIT information and index

MSACCESS

A Microsoft Access database is provided named `reit_db.mdb` containing all data tables. The database is in Access 2000 file format. The design view menu within Access can be used to view available fields, data types, and descriptions.