CRSP ZIMAN/REAL ESTATE DATA SERIES RELEASE NOTES

NOVEMBER 2019 MONTHLY UPDATE

FILE VERSION SPECIFICS

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

- The data series contains 653 securities of which 216 are currently trading. The date range is from 19800102-20191129.

- 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.

201911 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
19037	ALPINE INCOME PROPERTY TRUST INC	PINE	02083X10	11/22/2019	11/29/2019
19033	BROADMARK REALTY CAPITAL INC	BRMK	11135B10	11/15/2019	11/29/2019
DELISTS					
16266	REVEN HOUSING REIT INC	RVEN	76137820	8/30/2016	11/1/2019

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13752	CYRUSONE INC	shares outstanding change from 113192 to 113197 for 20190930-20191023 and from 113197 to 113196 for 20191024-present.
13756	GLADSTONE LAND CORP	shares outstanding change from 20810 to 20888 for 20190930 to 20191104 and from 20888 to 20937 for 20191105-present.
14252	GAMING & LEISURE PROPERTIES IN	shares outstanding change from 214683 to 214693 for 20191024-present.
14279	EXTENDED STAY AMERICA INC	shares outstanding change from 188420 to 184501 for 20190930 to 20191030 and from 184501 to 182819 for 20191031-present.
14651	CARETRUST REIT INC	shares outstanding change from 95557 to 95103 for 20190930 to 20191105 and from 95103 to 95557 for 20191106-present.
15279	UNITI GROUP INC	shares outstanding change from 193143 to 192138 for 20190930 to 20191031 and from 192138 to 193276 for 20191101-present.
16936	TREMONT MORTGAGE TRUST	shares outstanding change from 8192 to 8240 for 20190930-present.

PERMNO	COMPANY NAME	DESCRIPTION
17222	INDUSTRIAL LOGISTICS PPTYS TR	shares outstanding change from 65088 to 65182 for 20190930 to 20191027 and from 65182 to 65181 for 20191028-present.
17952	AMERICAN FINANCE TRUST INC	shares outstanding change from 106246 to 106678 for 20190930 to 20191031 and from 106678 to 106762 for 20191101-present.
18259	MEDALIST DIVERSIFIED REIT INC	shares outstanding change from 4486 to 4500 for 20190930-present.
79129	BROOKFIELD PROPERTY REIT INC	shares outstanding change from 73532 to 66057 for 20190930 to 20191105 and from 66057 to 65457 for 20191106-present.
79782	REGENCY CENTERS CORP	shares outstanding change from 167557 to 167127 for 20190930 to 20191031 and from 167127 to 167564 for 20191101-present.
80014	C I M COMMERCIAL TRUST CORP	shares outstanding change from 14609 to 14602 for 20190930-present.
81917	SERVICE PROPERTIES TRUST	shares outstanding change from 164449 to 164565 for 20190930-present.
83879	LAMAR ADVERTISING CO NEW	shares outstanding change from 85956 to 86011 for 20190930-present.
86996	S B A COMMUNICATIONS CORP NEW	shares outstanding change from 113106 to 112604 for 20190930 to 20191030 and from 112604 to 112601 from 20191031-present.
87289	SENIOR HOUSING PROPERTIES TRUS	shares outstanding change from 237738 to 237900 for 20190930 to 20191105 and from 237900 to 237899 from 20191106-present.
89617	EQUINIX INC	shares outstanding change from 84819 to 85279 for 20190930-present.
89823	GLADSTONE COMMERCIAL CORP	shares outstanding change from 31004 to 31220 for 20190930 to 20191029 and from 31220 to 31229 from 20191030-present.
89823	GLADSTONE COMMERCIAL CORP	shares outstanding change from 31004 to 31220 for 20190930 to 20191029 and from 31220 to 31229 from 20191030-present.
90214	NEW YORK MORTGAGE TRUST INC	shares outstanding change from 258873 to 262621 for 20190930-present.
92343	RETAIL OPPORTUNITY INVST CORP	shares outstanding change from 115325 to 115996 for 20191025-present.
92680	A G N C INVESTMENT CORP	shares outstanding change from 547818 to 540900 for 20190930 to 20191030 and from 540900 to 540918 from 20191031-present.
92948	OFFICE PROPERTIES INCOME TRUST	shares outstanding change from 48112 to 48203 for 20190930-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	13.1 MB	279 MB
Microsoft Access	12.7 MB	240 MB
SAS V 9.1	14.9 MB	297 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
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.