CRSP ZIMAN/REAL ESTATE DATA SERIES RELEASE NOTES

SEPTEMBER 2018 MONTHLY/QUARTERLY UPDATE

FILE VERSION SPECIFICS

- The CRSP/Ziman Real Estate Data Series contains data through September 2018, available in October 2018.
- The data series contains 650 securities of which 224 are currently trading. The date range is from 19800102-20180928.
- 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.

201809 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
DELISTS					
12965	M T G E INVESTMENT CORP	MTGE	55378A10	8/4/2011	9/6/2018
90524	EDUCATION REALTY TRUST INC	EDR	28140H20	1/26/2005	9/19/2018

201808 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
DELISTS					
91635	D C T INDUSTRIAL TRUST INC	DCT	23315320	12/13/2006	8/21/2018
92945	C Y S INVESTMENTS INC	CYS	12673A10	6/12/2009	7/31/2018

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13700	WHEELER REAL ESTATE INV TR INC	had a shares change to 9343 from 9057 for 20180629-20180731
13752	CYRUSONE INC	had a shares change to 99114 from 98933 for 20180430-20180731
13756	GLADSTONE LAND CORP	had a shares change to 16024 from 15216 for 20180531-20180731
14252	GAMING & LEISURE PROPERTIES INC	had a shares change to 213502 from 213498 for 20180430-20180731
14651	CARETRUST REIT INC	had a shares change to 78551 from 76138 for 20180629-20180731
15279	UNITI GROUP INC	had a shares change to 175029 from 174970 for 20180531-20180731
81917	HOSPITALITY PROPERTIES TRUST	had a shares change to 164349 from 164346 for 20180531-20180731

PERMNO	COMPANY NAME	DESCRIPTION
83879	LAMAR ADVERTISING CO NEW	had a shares change to 84405 from 84024 for 20180629-20180731
86996	S B A COMMUNICATIONS CORP NEW	had a shares change to 115186 from 116472 for 20180430-20180731
87289	SENIOR HOUSING PROPERTIES TRUST	had a shares change to 237644 from 237629 for 20180629-20180731
89617	EQUINIX INC	had a shares change to 79508 from 79458 for 20180629-20180731
90092	SABRA HEALTHCARE REIT INC	had a shares change to 178284 from 178282 for 20180629-20180731
92680	A G N C INVESTMENT CORP	had a shares change to 434100 from 425952 for 20180629-20180731
92948	GOVERNMENT PROPERTIES INCOME TR	had a shares change to 99166 from 99145 for 20180531-20180731

201807 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS	ADDS				
17952	AMERICAN FINANCE TRUST INC	AFIN	02607T10	7/19/2018	7/31/2018
17860	RETAIL VALUE INC	RVI	76133Q10	7/2/2018	7/31/2018
DELISTS					
16346	QUALITY CARE PROPERTIES INC	QCP	74754510	11/1/2016	7/26/2018

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13309	SELECT INCOME REIT	shares outstanding change from 89487 to 89490 on 20180430-20180628 and from 89490 to 89505 on 20180629-present.
14279	EXTENDED STAY AMERICA INC	shares outstanding change from 189955 to 188994 on 20180629-present.
17222	INDUSTRIAL LOGISTICS PPTYS TR	shares outstanding change from 65005 to 65020 on 20180629-present.
89823	GLADSTONE COMMERCIAL CORP	shares outstanding change from 28424 to 28425 on 20180501-20180628 and from 28425 to 28579 on 20180629-present.
90214	NEW YORK MORTGAGE TRUST INC	shares outstanding change from 117932 to 124313 on 20180628-present.
92343	RETAIL OPPORTUNITY INVST CORP	shares outstanding change from 112721 to 112720 on 20180426-20180628 and from 112720 to 112719 on 20180629-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	12.6 MB	269 MB
Microsoft Access	12.3 MB	231 MB
SAS V 9.1	14.3 MB	286 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 "I" 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*	daily REIT security data and index
crsp_daily_data.sas7bndx*	ually NETT Security data and index

File Name	Description
crsp_header.sas7bdat	accurity DEIT booder data and index
crsp_header.sas7bndx	security REIT header data and index
crsp_monthly_data.sas7bdat	monthly DEIT coourity data and index
crsp_monthly_data.sas7bndx	monthly REIT security data and index
crsp_names.sas7bdat	security name history of REITS and index
crsp_names.sas7bndx	security manne mistory of NETTS and midex
crsp_ziman_daily_index.sas7bdat*	daily index results and index
crsp_ziman_daily_index.sas7bndx*	daily illuex results allu illuex
crsp_ziman_monthly_index.sas7bdat	monthly index results and index
crsp_ziman_monthly_index.sas7bndx	monthly maex results and maex
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	RFIT information and index
ziman_reit_info.sas7bndx	INCIT IIIIOIIIIAUUII AIIU IIIUEX

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.