CRSP ZIMAN/REAL ESTATE DATA SERIES RELEASE NOTES

DECEMBER 2018 MONTHLY/QUARTERLY UPDATE

FILE VERSION SPECIFICS

- The CRSP/Ziman Real Estate Data Series contains data through December 2018, available in January 2019.
- The data series contains 651 securities of which 222 are currently trading. The date range is from 19800102-20181231.
- 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.

201812 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
DELISTS					
31974	FOREST CITY REALTY TRUST INC	FCE	34560510	01/04/2016	12/07/2018

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION	
75269	DYNEX CAPITAL INC	Changed shares outstanding to 55832 from 65644 for 20171229-20180227, to 55788 from 55832 for 20180228-	
		20180328, to 56906 from 66906 for 20180629-20180730 and to 57512 from 66906 for 20180731-20180830	

201811 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
18259	MEDALIST DIVERSIFIED REIT INC	MDRR	58403P10	11/28/2018	11/30/2018
DELISTS					
14575	NEW YORK REIT INC	NYRT	64976L20	04/15/2014	11/02/2018

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13700	WHEELER REAL ESTATE INV TR INC	shares outstanding change from 9383 to 9402 on 20180928-20181106 and from 9402 to 9453 on 20181107-present.
13752	CYRUSONE INC	shares outstanding change from 99114 to 99115 on 20180731-20180927 and from 99115 to 105838 on 20181107-present.

PERMNO	COMPANY NAME	DESCRIPTION
13756	GLADSTONE LAND CORP	shares outstanding change from 16024 to 16071 on 20180807-present.
14252	GAMING & LEISURE PROPERTIES INC	shares outstanding change from 213738 to 213769 on 20180730-20180927 and from 213769 to 214038 on 20180928-present.
14651	CARETRUST REIT INC	shares outstanding change from 78551 to 80981 on 20180731-20180927 and from 80981 to 83353 on 20180928-present.
15279	UNITI GROUP INC	shares outstanding change from 175029 to 175687 on 20180803-20180927 and from 175687 to 178210 on 20180928-present.
16266	REVEN HOUSING REIT INC	shares outstanding change from 10770 to 10945 on 20180928-present.
16936	TREMONT MORTGAGE TRUST	shares outstanding change from 3143 to 3179 on 20180928-present.
17952	AMERICAN FINANCE TRUST INC	shares outstanding change from 53594 to 79966 on 20180807-present.
79129	BROOKFIELD PROPERTY REIT INC	shares outstanding change from 160000 to 127326 on 20180928-present.
81917	HOSPITALITY PROPERTIES TRUST	shares outstanding change from 164364 to 164442 on 20180928-present.
83879	LAMAR ADVERTISING CO NEW	shares outstanding change from 84405 to 84408 on 20180801-20180927 and from 84408 to 84723 on 20180928-present.

201810 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO COMPANY NAME		TICKER	CUSIP	START DATE	END DATE
DELISTS					
13889	GRAMERCY PROPERTY TRUST	GPT	38500230	5/21/2013	10/9/2018

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13309	SELECT INCOME REIT	shares outstanding change from 89505 to 89551 on 20180928-present.
13752	CYRUSONE INC	shares outstanding change from 99114 to 99115 on 20180731-present.
14279	EXTENDED STAY AMERICA INC	shares outstanding change from 188994 to 188919 on 20180723-20180927 and from 188919 to 188517 on 20180928-present.
17222	INDUSTRIAL LOGISTICS PPTYS TR	shares outstanding change from 65020 to 65072 on 20180928-present.
89823	GLADSTONE COMMERCIAL CORP	shares outstanding change from 28579 to 28664 on 20180730-20180927 and from 28664 to 28926 on 20180928-present.
92343	RETAIL OPPORTUNITY INVST CORP	shares outstanding change from 112719 to 112775 on 20180720-20180927 and from 112775 to 113985 on 20180928-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	12.7 MB	270 MB
Microsoft Access	12.3 MB	232 MB
SAS V 9.1	14.4 MB	288 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	
crsp_header.sas7bdat	accurity DEIT header data and index	
crsp_header.sas7bndx	security REIT header data and index	
crsp_monthly_data.sas7bdat	monthly REIT security data and index	
crsp_monthly_data.sas7bndx	monthly NETT security data and midex	
crsp_names.sas7bdat	security name history of REITS and index	
crsp_names.sas7bndx	security fiallie filstory of KETTS and fildex	
crsp_ziman_daily_index.sas7bdat*	daily index results and index	
crsp_ziman_daily_index.sas7bndx*	ually filluex results and filluex	
crsp_ziman_monthly_index.sas7bdat	monthly index verylte and index	
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	REIT information and index	
ziman_reit_info.sas7bndx	INCH IIIIOHIIIauon anu muex	

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.