CRSP ZIMAN/REAL ESTATE DATA SERIES RELEASE NOTES

DECEMBER 2017 MONTHLY/QUARTERLY UPDATE

FILE VERSION SPECIFICS

- The CRSP/Ziman Real Estate Data Series contains data through December 2017, available in January 2018.
- The data series contains 641 securities of which 222 are currently trading. The date range is from 19800102-20171229.
- 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.

201712 REIT SUMMARY

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
89878	FIRST POTOMAC REALTY TRUST	had a price change to 0 from \$11.150 on 20171130

201711 REIT SUMMARY

CRSP ADDS. DELISTS. AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
DELISTS					
14415	STARWOOD WAYPOINT HOMES	SFR	85572F10	1/22/2014	11/15/2017

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13700	WHEELER REAL ESTATE INV TR INC	had a shares change from 8673 to 8731 on 20170929-20171031.
13752	CYRUSONE INC	had a shares change from 91289 to 91309 on 20171031 to present.
13756	GLADSTONE LAND CORP	had a shares change from 12012 to 13485 on 20170929-20171031.
14651	CARETRUST REIT INC	had a shares change from 75902 to 75473 on 20170929-20171031.
15279	UNITI GROUP INC	had a many share changes from 175449 to 174821 on 20170929-20171026 and 175449 to 175463 on 20171031-present.
16936	TREMONT MORTGAGE TRUST	had a shares change from 3125 to 3100 on 20170929-present.
81917	HOSPITALITY PROPERTIES TRUST	had a shares change from 164283 to 164349 on 20170929-present.

PERMNO	COMPANY NAME	DESCRIPTION
83879	LAMAR ADVERTISING CO NEW	had a shares change from 83614 to 83676 on 20170929-present.
86996	S B A COMMUNICATIONS CORP NEWT	had a shares change from 120358 to 118428 on 20170929-20171026 and from 120358 to 117543 on 20171027-present.
87289	SENIOR HOUSING PROPERTIES TRUST	had a shares change from 237559 to 237630 on 20170929-20171030 and from 27642 to 27706 on 20170929-20171030.
89617	EQUINIX INC	had a shares change from 77945 to 78234 on 20170929-present.
89823	GLADSTONE COMMERCIAL CORP	had a shares change from 27642 to 27695 on 20170929-20171030 and from 27642 to 27706 on 20171031-present.
90092	SABRA HEALTHCARE REIT INC	had a shares change from 175831 to 175832 on 20170929-20171029.
90214	NEW YORK MORTGAGE TRUST INC	had a shares change from 111891 to 111854 on 20170929-present.
90506	SOTHERLY HOTELS INC	had a shares change from 13815 to 13823 on 20170929-present.
92680	A G N C INVESTMENT CORP	had a shares change from 391296 to 391300 on 20170929-present.

201710 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
DELISTS					
16340	PARKWAY INC	PKY	70156Q10	10/7/2016	10/11/2017

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13309	SELECT INCOME REIT	had a shares change from 89443 to 89487 on 20170929-20171031.
13752	CYRUSONE INC	had a shares change from 91292 to 91289 on 20170929-20171031.
14252	GAMING & LEISURE PROPERTIES INC	had a shares change from 212218 to 212487 on 20170630-20170726, 212218 to 212487 on 20170728-20170928 and from 212218 to 212603 on 20170929-present.
80014	C I M COMMERCIAL TRUST CORP	had many share changes from 20010330-present.
90092	SABRA HEALTHCARE REIT INC	had a shares change from 65438 to 175831 on 20170928-20171029.
92680	A G N C INVESTMENT CORP	had a shares change from 355551 to 391296 on 20170929-present.
92948	GOVERNMENT PROPERTIES INCOME TR	had a shares change from 96195 to 99146 on 20170929-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	12.3 MB	262 MB
Microsoft Access	12.0 MB	226 MB
SAS V 9.1	14.0 MB	279 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	security REIT header data and index	
crsp_header.sas7bndx	Security NETT fleader data and fildex	
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 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	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.