

CRSP ZIMAN/REAL ESTATE DATA SERIES RELEASE NOTES

DECEMBER 2018 ANNUAL 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.

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
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					
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.

201806 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
17919	ESSENTIAL PROPERTIES RLTY TR INC	EPRT	29670E10	6/21/2018	6/29/2018
17791	SPIRIT M T A REIT	SMTA	84861U10	6/1/2018	6/29/2018

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
92680	A G N C INVESTMENT CORP	had a shares change from 391327 to 425952 on 20180529-present.

201805 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
17789	COREPOINT LODGING INC	CPLG	21872L10	5/31/2018	5/31/2018
DELISTS					
85772	RAIT FINANCIAL TRUST	RAS	74922760	1/9/1998	5/11/2018

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13700	WHEELER REAL ESTATE INV TR INC	had a shares change from 8744 to 8947 on 20180329-20180506 and 8947 to 9057 on 20180507-present.
13752	CYRUSONE INC	had a shares change from 96126 to 96708 on 20180312-20180328 and 96708 to 98933 on 20180329-present.
13756	GLADSTONE LAND CORP	had a shares change from 13896 to 15216 on 20180329-present.
14252	GAMING & LEISURE PROPERTIES INC	had a shares change from 213223 to 213348 on 20180220-20180328 and 213348 to 213498 on 20180329-present.
14651	CARETRUST REIT INC	had a shares change from 76138 to 75522 on 20180229-20180401 and 75522 to 76138 on 20180402-present.
15279	UNITI GROUP INC	had a shares change from 175428 to 175780 on 20180316-20180328 and 175780 to 174970 on 20180329-present.
16266	REVEN HOUSING REIT INC	had a shares change from 10734 to 10770 on 20171229-present.
16936	TREMONT MORTGAGE TRUST	had a shares change from 3126 to 3128 on 20180329-20180510 and 3128 to 3143 on 20180511-present.
49744	POTLATCHDELTIC CORP	had a shares change from 62754 to 62755 on 20180315-present.
78090	WELLSFORD RESIDENTIAL PROPTY TR	had a price change from 31.813 to 31.781 on 19970630-present.
83879	LAMAR ADVERTISING CO NEW	had a shares change from 83838 to 83978 on 20180319-20180328 and from 83978 to 84024 on 20180329-present.
86996	S B A COMMUNICATIONS CORP NEW	had a shares change from 116508 to 116433 on 20180316-20180328 and from 116433 to 116472 on 20180329-present.
87289	SENIOR HOUSING PROPERTIES TRUS	had a shares change from 237626 to 237629 on 20170329-present.
89617	EQUINIX INC	had a shares change from 79228 to 79458 on 20180329-present.

201804 REIT SUMMARY

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13756	GLADSTONE LAND CORP	had a shares change from 13792 to 13896 on 20180228-present.
15279	UNITI GROUP INC	had a shares change from 174852 to 175428 on 20180228-present.
14252	GAMING & LEISURE PROPERTIES INC	had a shares change from 212718 to 13896 on 20170228-present.
86996	S B A COMMUNICATIONS CORP NEW	had a shares change from 116446 to 116508 on 20180228-present.
14651	CARETRUST REIT INC	had a shares change from 75478 to 76138 on 20180228-present.
16266	REVEN HOUSING REIT INC	had a shares change from 10734 to 10770 on 20180329-present.
92343	RETAIL OPPORTUNITY INVST CORP	had a shares change from 112420 to 112545 on 20180228-20180328 and 112545 to 112721 on 20180329-present.
49744	POTLATCHDELTIC CORP	had a shares change from 40612 to 62737 on 20180228-20180328 and 62737 to 62754 on 20180329-present.
81917	HOSPITALITY PROPERTIES TRUST	had a shares change from 164349 to 164346 on 20180228-present.
87289	SENIOR HOUSING PROPERTIES TRUST	had a shares change from 237630 to 237626 on 20180228-present.
92948	GOVERNMENT PROPERTIES INCOME TR	had a shares change from 99146 to 99145 on 20180228-present.

201803 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
HISTORICAL CHANGES					
89878	FIRST POTOMAC REALTY TRUST	FPO	33610F10	10/23/2003	09/29/2017

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13752	CYRUSONE INC	had a shares change from 96138 to 96126 on 20180228-present.
15279	UNITI GROUP INC	had a shares change from 175463 to 174852 on 20171229-present.
13700	WHEELER REAL ESTATE INV TR INC	had a shares change from 8731 to 8744 on 20171229-present.
86996	S B A COMMUNICATIONS CORP NEW	had a shares change from 117543 to 116446 on 20171229-present.
90214	NEW YORK MORTGAGE TRUST INC	had a shares change from 111854 to 111910 on 20170929-20180226 and 111910 to 112117 on 20180227-present.
90506	SOTHERLY HOTELS INC	had a shares change from 13823 to 14079 on 20171229-present.
92343	RETAIL OPPORTUNITY INVST CORP	had a shares change from 112347 to 112420 on 20180228-present.
89617	EQUINIX INC	had a shares change from 79038 to 79228 on 20170228-present.
89823	GLADSTONE COMMERCIAL CORP	had a shares change from 28384 to 28420 on 20180228-present.
92680	A G N C INVESTMENT CORP	had a shares change from 391300 to 391317 on 20180131-present.
89823	GLADSTONE COMMERCIAL CORP	had a shares change from 27706 to 28384 on 20171229-present.
90092	SABRA HEALTHCARE REIT INC	had a shares change from 178232 to 178256 on 20171229-present.
92680	A G N C INVESTMENT CORP	had a shares change from 391296 to 391300 on 2017129-present.

201802 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
17287	COLONY NORTHSTAR CREDIT RE INC	CLNC	19626A10	2/1/2018	2/28/2018
17307	VICI PROPERTIES INC	VICI	92565210	2/1/2018	2/28/2018

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13752	CYRUSONE INC	had a shares change from 91309 to 96138 on 20171229-present.
13756	GLADSTONE LAND CORP	had a shares change from 13638 to 13792 on 20171229-present.
14252	GAMING & LEISURE PROPERTIES INC	had a shares change from 212603 to 212718 on 20171229-present.
14651	CARETRUST REIT INC	had a shares change from 75923 to 75478 on 20171229-present.
49744	POTLATCHDELTIC CORP	had a share changes from 40611 to 40612 on 20171229-present.
16936	TREMONT MORTGAGE TRUST	had a shares change from 3100 to 3126 on 20171229 to present.
83879	LAMAR ADVERTISING CO NEW	had a shares change from 84012 to 83838 on 20171229-present.
92343	RETAIL OPPORTUNITY INVST CORP	had a shares change from 109730 to 112347 on 20171229-present.
89878	FIRST POTOMAC REALTY TRUST	had a ptype change from 12 to 13 on 20180131.
89617	EQUINIX INC	had a shares change from 78234 to 79038 on 20170929-present.
89823	GLADSTONE COMMERCIAL CORP	had a shares change from 27706 to 28384 on 20171229-present.
90092	SABRA HEALTHCARE REIT INC	had a shares change from 178232 to 178256 on 20171229-present.
92680	A G N C INVESTMENT CORP	had a shares change from 391296 to 391300 on 2017129-present.

201801 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
17226	AMERICOLD REALTY TRUST	COLD	03064D10	1/19/2018	1/31/2018
17222	INDUSTRIAL LOGISTICS PPTYS TR	ILPT	45623710	1/12/2018	1/31/2018

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
80014	C I M COMMERCIAL TRUST CORP	had a shares change from 57876 to 43785 on 20171229-present
80014	FIRST POTOMAC REALTY TRUST	had a price change from 11.150 to 0 on 20171229

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 create the \crspdata subdirectory.

Note that the destination directories have also changed as part of this process:

Zip file on disk	Description	Install Path
razyyyyymm_ascii	ASCII files	\crspdata\razyyyyymm_ascii
razyyyyymm_msaccess	MS Access tables	\crspdata\razyyyyymm_msaccess
razyyyyymm_sas	SAS files	\crspdata\razyyyyymm_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 “|” 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.