

CRSP ZIMAN/REAL ESTATE DATA SERIES RELEASE NOTES

DECEMBER 2017 ANNUAL 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.

201709 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
16936	TREMONT MORTGAGE TRUST	TRMT	89478910	9/14/2017	9/29/2017
DELISTS					
15044	MONOGRAM RESIDENTIAL TRUST INC	MORE	60979P10	11/21/2014	9/19/2017
92331	DUPONT FABROS TECHNOLOGY INC	DFT	26613Q10	10/19/2007	09/13/2017
80747	FELCOR LODGING TRUST INC	FCH	31430F10	7/22/1994	8/31/2017

201708 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
DELISTS					
15598	CARE CAPITAL PROPERTIES INC	CCP	14162410	8/18/2015	8/16/2017

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13700	HEELER REAL ESTATE INV TR INC	had a shares change from 8616 to 8667 on 20170630-20170806
13752	CYRUSONE INC	had a shares change from 87726 to 91291 on 20170630-20170730 and from 87726 to 91292 for 20170731-present
14651	CARETRUST REIT INC	had a shares change from 72551 to 75467 on 20170630-20170731.
15279	UNITI GROUP INC	had a shares change from 175448 to 174813 on 20170630-20170727 and from 175448 to 175449 on 20170728-present.
80014	C I M COMMERCIAL TRUST CORP	had a shares change from 84048 to 57876 on 20170630-present.
81917	HOSPITALITY PROPERTIES TRUST	had a shares change from 164268 to 164283 on 20170630-present.
83879	LAMAR ADVERTISING CO NEW	had a shares change from 83491 to 83614 on 20170630-present.
86996	S B A COMMUNICATIONS CORP NEW	had a shares change from 121301 to 120981 on 20170630-20170725 and from 121301 to 120358 on 20170726-present.
87289	SENIOR HOUSING PROPERTIES TRUST	had a shares change from 237544 to 237559 on 20170630-present.
89617	EQUINIX INC	had a shares change from 77912 to 77945 on 20170630-present.
89823	GLADSTONE COMMERCIAL CORP	had a shares change from 25195 to 27642 on 20170731-present.
90092	SABRA HEALTHCARE REIT INC	had a shares change from 65411 to 65425 on 20170630-20170725 and from 65411 to 65438 on 20170726-present.
90214	NEW YORK MORTGAGE TRUST INC	had a shares change from 111843 to 111891 on 20170630-present.
90506	SOTHERLY HOTELS INC	had a shares change from 13798 to 13815 on 20170630-present.
92680	A G N C INVESTMENT CORP	had a shares change from 355546 to 355600 on 20170630-20170730 and from 355546 to 355551 on 20170731-present.
92948	GOVERNMENT PROPERTIES INCOME TR	had a shares change from 71178 to 71195 on 20170630-20170704.

201707 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
16813	T P G RE FINANCE TRUST INC	TRTX	87266M10	7/20/2017	7/31/2017
16809	J B G SMITH PROPERTIES	JBGS	46590V10	7/18/2017	7/31/2017

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13309	SELECT INCOME REIT	had a shares change from 89428 to 89443 for 20170630-present
14252	GAMING & LEISURE PROPERTIES INC	had a shares change from 208137 to 208200 on 20170501-20170629 and from 208137 to 212218 for 20170630-present
49744	POTLATCH CORP NEW	had a shares change from 40609 to 40611 on 20170630 to present
89823	GLADSTONE COMMERCIAL CORP	had a shares change from 25195 to 25755 on 20170630 to present

201706 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
16768	PLYMOUTH INDUSTRIAL REIT INC	PLYM	72964010	6/9/2017	6/30/2017
16764	GRANITE POINT MORTGAGE TRUST INC	GPMT	38741L10	6/23/2017	6/30/2017
16770	SAFETY INCOME & GROWTH INC	SAFE	78649D10	6/22/2017	6/30/2017
DELISTS					
65584	FOREST CITY REALTY TRUST INC	FCE	34560520	1/4/2016	6/12/2017
85659	ACRE REALTY INVESTORS INC	AIII	00489F10	12/9/1997	6/28/2017

201705 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
16691	K K R REAL ESTATE FINANCE TR INC	KREF	48251K10	5/5/2017	5/31/2017
DELISTS					
13736	SILVER BAY REALTY TRUST CORP	SBY	82735Q10	12/14/2012	5/8/2017

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13752	CYRUSONE INC	had a shares change from 87862 to 87725 on 20170331
13752	CYRUSONE INC	had a shares change from 87862 to 87726 on 20170428
15279	UNITI GROUP INC	had a shares change from 155931 to 155276 on 20170331
15279	UNITI GROUP INC	had a shares change from 155931 to 175448 on 20170428
86996	S B A COMMUNICATIONS CORP NEW	had a shares change from 121244 to 121256 on 20170331
86996	S B A COMMUNICATIONS CORP NEW	had a shares change from 121244 to 121301 on 20170428
90506	SOTHERLY HOTELS INC	had a shares change from 14950 to 14469 on 20161230 to 20170228
92343	RETAIL OPPORTUNITY INVST CORP	had a shares change from 109726 to 109730 on 20170428
92680	A G N C INVESMETS CORP	had a shares change from 331046 to 331000 on 20161230 to 20170228
13756	GLADSTONE LAND CORP	had a shares change from 10025 to 11851 on 20170428
14252	GAMING & LEISURE PROPERTIES INC	had a shares change from 207757 to 208137 on 20170428
15279	CARETRUST REIT INC	had a shares change from 67294 to 72000 on 20170428
81087	CONDOR HOSPITALITY TRUST INC	had a shares change from 10918 to 11554 on 20170331
81087	CONDOR HOSPITALITY TRUST INC	had a shares change from 10918 to 11555 on 20170428
81087	GLADSTONE COMMERCIAL CORP	had a shares change from 24977 to 25004 on 20170428
90092	SABRA HEALTHCARE REIT INC	had a shares change from 65286 to 65411 on 20170428
90506	SOTHERLY HOTELS INC	had a shares change from 14481 to 63798 on 20170428

201704 REIT SUMMARY

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13700	WHEELER REAL ESTATE INV TR INC	had a shares change from 68172 to 68704 on 20170331.
14252	GAMING & LEISURE PROPERTIES INC	had a shares change from 207677 to 207757 on 20170331.
15279	UNITI GROUP INC	had a shares change from 155786 to 155931 on 20170331.
49744	POTLATCH CORP NEW	had a shares change from 40547 to 40609 on 20170331.
81087	CONDOR HOSPITALITY TRUST INC	had a shares change from 1041 to 10918 on 20170331.
83879	LAMAR ADVERTISING CO NEW	had a shares change from 82824 to 83491 on 20170331.
86996	S B A COMMUNICATIONS CORP NEW	had a shares change from 120977 to 121244 on 20170331.
89617	EQUINIX INC	had a shares change from 71637 to 77912 on 20170331.

201703 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
DELISTS					
86013	EQUITY ONE INC	EQY	29475210	5/14/1998	3/1/2017
HISTORICAL CHANGES					
OLD					
82217	SUNSTONE HOTEL INVESTORS INC	SSHI	86793310	8/15/1995	11/22/1999
75819	VENTAS INC	VTR	92276F10	9/19/1989	2/28/2017
NEW					
82217	SUNSTONE HOTEL INVESTORS INC	SSI	86793310	8/11/1995	11/22/1999
75819	VENTAS INC	VTR	92276F10	5/1/1998	3/31/2017

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13700	WHEELER REAL ESTATE INV TR INC	had a shares change from 67965 to 68172 on 20161230 to 20170228.
13752	CYRUSONE INC	had a shares change from 83536 to 87862 on 20170228.
15279	UNITI GROUP INC	had a shares change from 155139 to 155786 on 20170228.
16266	REVEN HOUSING REIT INC	had a shares change from 10552 to 10734 on 20161230 to 20170228.
81917	HOSPITALITY PROPERTIES TRUST	had a shares change from 164269 to 164268 on 20161230 to 20170228.
83879	LAMAR ADVERTISING CO NEW	had a shares change from 82823 to 82824 on 20170228.
86996	S B A COMMUNICATIONS CORP NEW	had a shares change from 124073 to 120977 on 20170131 to 20170228.
89617	EQUINIX INC	had a shares change from 71409 to 71637 on 20170228.
89617	EQUINIX INC	had a shares change from 71379 to 71409 on 20161230 to 20170131.
90214	NEW YORK MORTGAGE TRUST INC	had a shares change from 109569 to 111475 on 20161230 to 20170228.
90506	SOTHERLY HOTELS INC	had a shares change from 14950 to 14469 on 20161230 to 20170228.
92343	RETAIL OPPORTUNITY INVST CORP	had a shares change from 109302 to 109726 on 20161230 to 20170228.
92680	A G N C INVESMETS CORP	had a shares change from 331000 to 331046 on 20161230 to 20170228.

ZIMAN REIT INFO CHANGES

There was a historical change for PERMNO 14686 (COLONY NORTHSTAR INC) from 1/11/2016 to 2/28/2016.

INDICES DIFFS

(any change over 5% for 1000800 and 1000850, except new adds and drops, or any suspicious change in returns, usdval or usdcnt for any indno)

Daily

INDNO 1000850 & 1000800 had an absolute percentage change of 1000% addcnts on 19950814 due to PERMNO 82217, which began trading as a REIT on 19950811.

INDNO 1000850 & 1000800 had an absolute percentage change of 1000% addcnts on 19980504 due to PERMNO 75819, which began trading as a REIT on 19980501.

INDNO 1000850 & 1000800 had an absolute percentage change of 1000% addcnts on 19890920 due to PERMNO 75819, which began trading as a REIT on 19890919.

INDNO 1000850 & 1000800 had an absolute percentage change of 1000% addcnts on 19950816 due to PERMNO 82217, which began trading as a REIT on 19950815.

201702 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
16577	CLIPPER REALTY INC	CLPR	18885T30	2/10/2017	2/28/2017
16581	INVITATION HOMES INC	INVH	46187W10	2/1/2017	2/28/2017
16585	SACHEM CAPITAL CORP	SACH	78590A10	2/10/2017	2/28/2017
DELISTS					
15711	AMERICAN FARMLAND COMPANY	AFCO	02589Y10	10/20/2015	2/1/2017
HISTORICAL CHANGES					
14686	COLONY NORTHSTAR INC	CLNS	19625W10	1/11/2017	2/28/2017

CRSP DATABASE CHANGES

PERMNO	COMPANY NAME	DESCRIPTION
13309	SELECT INCOME REIT	had a shares change from 89429 to 89428 on 20161230 to 20170131.
13752	CYRUSONE INC	had a shares change from 83525 to 83536 on 20161230 to 20170131.
14252	GAMING & LEISURE PROPERTIES INC	had a shares change from 207127 to 207677 on 20161230 to 20170131.
14651	CARETRUST REIT INC	had a shares change from 58079 to 64816 on 20161230 to 20170131.
15279	UNITI GROUP INC	had a shares change from 155790 to 155139 on 20161230 to 20170131.
49744	POTLATCH CORP NEW	had a shares change from 40519 to 40547 on 20161230 to 20170131.
83879	LAMAR ADVERTISING CO NEW	had a shares change from 82712 to 82823 on 20161230 to 20170131.
87289	SENIOR HOUSING PROPERTIES TRUST	had a shares change from 237546 to 237544 on 20161230 to 20170131.
89617	EQUINIX INC	had a shares change from 71379 to 71409 on 20161230 to 20170131.
89823	GLADSTONE COMMERCIAL CORP	had a shares change from 23748 to 24883 on 20161230 to 20170131.
90092	SABRA HEALTHCARE REIT INC	had a shares change from 65260 to 65286 on 20161230 to 20170131.
92343	RETAIL OPPORTUNITY INVST CORP	had a shares change from 109298 to 109302 on 20161230 to 20170131.
92680	A G N C INVSMETS CORP	had a shares change from 331046 to 331000 on 20161230 to 20170131.
92948	GOVERNMENT PROPERTIES INCOME TR	had a shares change from 71179 to 71178 on 20161230 to 20170131.

ZIMAN REIT INFO CHANGES

There was a historical change for PERMNO 14686 (COLONY NORTHSTAR INC) from 1/11/2016 to 2/28/2016.

INDICES DIFFS

(any change over 5% for 1000800 and 1000850, except new adds and drops, or any suspicious change in returns, usdval or usdcnt for any indno)

Daily

INDNO 1000850 & 1000800 had an absolute percentage change of 1000% addcnts on 20170118 due to PERMNO 14686, which began trading as a REIT on 20170117.

201701 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

PERMNO	COMPANY NAME	TICKER	CUSIP	START DATE	END DATE
ADDS					
86996	S B A COMMUNICATIONS CORP NEW	SBAC	78410G10	1/17/2017	1/31/2017
DELISTS					
90388	NORTHSTAR REALTY FINANCE CORP	NRF	66704R80	10/26/2004	1/10/2017
93018	COLONY CAPITAL INC	CLNY	19624R10	9/24/2009	1/10/2017

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
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 “|” 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*	
crsp_header.sas7bdat	security REIT header data and index
crsp_header.sas7bndx	
crsp_monthly_data.sas7bdat	monthly REIT security data and index
crsp_monthly_data.sas7bndx	
crsp_names.sas7bdat	security name history of REITS and index
crsp_names.sas7bndx	
crsp_ziman_daily_index.sas7bdat*	daily index results and index
crsp_ziman_daily_index.sas7bndx*	

File Name	Description
crsp_ziman_monthly_index.sas7bdat	monthly index results and index
crsp_ziman_monthly_index.sas7bndx	
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	

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.