

CRSP/ZIMAN REAL ESTATE DATA SERIES RELEASE NOTES

APRIL 2015 MONTHLY UPDATE

FILE VERSION SPECIFICS

- The CRSP/Ziman Real Estate Data Series contains data through April 2015, shipped in May.
- The data series contains 610 securities of which 224 are currently trading. The date range is from 19800102-20150430.
- This release that may be installed on three platforms: Windows, Linux, and Sun. 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.

201504 REIT SUMMARY

CRSP ADDS, DELISTS, AND CHANGES:

| PERMNO | COMPANY NAME | TICKER | CUSIP | START DATE | END DATE |
|----------------|--------------------------------|--------|----------|------------|-----------|
| ADDS | | | | | |
| 15279 | COMMS SALES & LEASING INC | CSAL | 20341J10 | 4/27/2015 | 4/30/2015 |
| 15323 | NATIONAL STORAGE AFFILIATES TR | NSA | 63787010 | 4/23/2015 | 4/30/2015 |
| 15231 | NEXPOINT RESIDENTIAL TRUST INC | NXRT | 65341D10 | 4/1/2015 | 4/30/2015 |
| DELISTS | | | | | |
| 13803 | AVIV REIT INC | AVIV | 05381L10 | 3/21/2013 | 4/1/2015 |

CRSP DATABASE CHANGES:

| PERMNO | COMPANY NAME | DESCRIPTION |
|--------|----------------------------------|--|
| 13003 | AMERICAN REALTY CAPITAL PROP INC | Had a shares outstanding change to 905,239 from 905,530 from 20141231-20150331. |
| 13752 | CYRUSONE INC | Had a shares outstanding change to 39,063 from 38,639 for the month of 20150331. |
| 89617 | EQUINIX INC | Had a shares outstanding change to 56,474 from 56,451 from 2150130-20150331. |
| 90506 | SOTHERLY HOTELS INC | Had a shares outstanding change to 10,607 from 10,571 from 20150227-20150331. |

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 and Solaris. 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 | 11.2 MB | 239 MB |
| Microsoft Access | 10.9 MB | 205 MB |
| SAS V 9.1 | 12.8 MB | 254 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 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.

| 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.