Database Guides: WRDS

Overview   **Identifiers and Linking Files**

Why Tickers and CUSIPs Change

The most standard identifiers, such as companies' tickers and CUSIPs, tend to change over time. For example, if a company ceases to exist, its ticker may be reassigned to another company; a company may be allotted multiple CUSIPs caused by corporate structural changes. For these reasons, identifiers such as tickers or CUSIPs don't work well with historical analysis.

What are Permanent Identifiers

For historical analysis on securities, researchers use permanent identifiers, such as PERMNO, PERMCO, and GVKEY that never change for the duration of the company's life span regardless of the name changes or other instances and are never being reused.

PERMCO and **PERMNO** are unique permanent identification numbers assigned by CRSP to all companies listed in CRSP dataset.

- **PERMCO** is a unique company level identifier that remains unchanged throughout the whole term of company's existence even if the company changed name/s.
  For example, the *PERMCO 21566* stays unchanged through the whole history of the company that started with the name Consolidated Grocers Corp. in 1946, then changes to Consolidated Foods Corp.(CFD) in 1954, then became Sara Lee (SLE) in 1985, and as of 2012 is called Hillshire Brands Co. (HSH).

- **PERMNO** is a unique stock (share class) level identifier. While most of the companies have one class shares, some companies have more than one class shares traded at different prices, and this is the reason why a company can have more than one PERMNOs.
  For example, CBS Corporation (CBS) has two classes of shares (at the time of publishing of this document), and respectively two PERMNOs. On December 24, 2018 the closing price of shares with PERMNO *75104* was *$42.440* and shares with PERMNO *76226* closed at *$42.020*.

GVKEY (Global Company Key) is a unique number assigned to each company in the Compustat-Capital IQ database.

What are Linking Tools

Different datasets in WRDS are collected from different sources, e.g. CRISP is maintained by Chicago Booth CRSP, and Compustat by S&P. To ensure that the data from different datasets applies to the same company, researchers need tools to convert permanent identifiers from one to another or to link data from different datasets for the same companies.

WRDS offers just such tools of commonly used link resources. By using WRDS tools, researches can easily perform the following operations:

- Link any type of identifier (ticker, CUSIP, PERMNO, etc.) to GVKEY and one another.
  On Home page, select **CRSP > CRSP/Compustat Merged > Linking Table.** To use, do the following:

  1. **Step 1:** Apply company codes individually, or as a list, or choose the entire database.

  2. **Step 2** (optional)**:** Select individual linking options if needed. The linking types are listed as mnemonics. To find the meaning of each mnemonic, in **Step 3** click **?** icon next to **Link Type Code** variable.

  3. **Step 3:** Select the output variables if needed in addition to default selections of GVKEY code and the company name.

  4. **Step 4:** Select the output format.

  5. Click **Submit Query**.

- Convert tickers or NCUSIP codes into PERMCO or PERMNO. (NCUSIP is a historical eight digit CUSIP assigned at the equity issue).
  On Home page, select **CRSP > Tools > Translate to PERMCO/PERMNO**

- Download link table between various heavily used databases on WRDS platform, such as *IBES CRSP* linking file.
  On Home page, select **Linking Suite by WRDS**.

- Convert 8-digit CUSIPS into 9 and 6-digit CUSIPs.
  Convert 9-digit CUSIPS into 8 and 6-digit CUSIPs.
  On Home page, select **Compustat-Capital IQ > Tools > CUSIP Converter**