This dataset links regulatory identification numbers (RSSD ID) from the National Information Center (NIC) to the permanent company number (PERMCO) used in the Center for Research in Security Prices (CRSP) from June 30, 1986 to September 30, 2022. The RSSD ID¹ is a unique identifier assigned to commercial banks or bank holding companies by the Federal Reserve and is the primary identifier of entities in regulatory reports such as the Call Report (FFIEC031) and Y9-C. The PERMCO is a unique and permanent company identification number assigned to publicly-traded institutions in the CRSP database. While a company may change its name, ticker, exchange, or CUSIP, the PERMCO will remain the same. In CRSP, companies with multiple tranches of publicly traded stock will be assigned to multiple PERMNOs. These PERMNOs will be linked back to a single PERMCO. Linking the RSSD ID to PERMCO allows researchers to match bank regulatory data with financial market data.²

Variable Definitions

- *name*: The most recent institution name
- *inst_type*: The institution type (commercial bank or bank holding company)
- entity: RSSD ID (RSSD9001) identifier
- *permco*: CRSP PERMCO identifier
- *dt_start*: Start date of link (YYYYMMDD format)
- *dt_end*: End date of link (YYYYMMDD format)

Matching Methodology: 1990Q1-2007Q4

The matching methodology until 2007Q4 is based on the December volume of the SNL *Bank Quarterly* for the years 1990-2006. The SNL *Bank Quarterly* contains geographic and financial data for publicly traded banks and bank-holding companies on a quarterly basis. It provides market data on banks traded on the NYSE, AMEX, and NASDAQ exchanges as well as entities traded on the OTC Bulletin Board and Pink Sheets beginning in 2001.

FRBNY researchers used the bank name and state location from the *Bank Quarterly* and regulatory data to match banks from these two datasets so that each RSSD ID is mapped to a ticker symbol. Finally, each RSSD ID-ticker pair is manually matched to a PERMNO/PERMCO by inputting the company name or ticker information into the CRSP code lookup web interface.

¹The RSSD ID is also known as the "entity code" or by its mnemonic RSSD9001.

² Financial market data identifiers include a stock ticker (which are reassigned and not unique), a six-digit CUSIP (the first six digits of the eight- or nine-digit S&P issuance identifier identify the issuer company), a PERMNO (the permanent security identification number assigned by CRSP), or the PERMCO (the permanent company identification number assigned by CRSP). The file links RSSD ID and PERMCO since both refer to an entity at the company level rather than at the security level. The link between PERMCO and PERMNO is maintained by CRSP and can be found through the CODE LOOKUP tables.

Current Methodology (since 2011Q1)

The SNL *Bank Quarterly* was discontinued in 2006.³ As a result, updates to the PERMCO-RSSD dataset after 2007Q4 have utilized a new methodology that matches banks from Compustat and regulatory reports on name, city and state, and balance sheet variables.

Specifically, FRBNY researchers begin with all entities filing regulatory reports and match these banks to the universe of financial services companies in Compustat.⁴Although Compustat uniquely identifies companies with a GVKEY identifier, the Wharton Research Data Services (WRDS) maintains a database of links between GVKEYs and PERMCOs. Researchers use the CCM linking table (ccmxpf_linktable) from the CRSP/Compustat Merged Database in WRDS to link PERMCO identifiers to each GVKEY.

In order to link RSSD IDs to PERMCOs, researchers match banks on name, city and state, and balance sheet variables (total assets and total liabilities). Due to reporting discrepancies, balance sheet variables can occasionally differ between Compustat and regulatory filings; as a result, a difference threshold of one percent is used to match balance sheet variables. This methodology is used to update both new and old PERMCO-RSSD links to the most recent quarter.

Method to determine the last date of a link:

- If the match runs through the most recent quarter, researchers assume the link remains valid.
- If the match stops after a particular quarter, researchers manually research the institution history of the entity through NIC to determine if the entity was merged, acquired or taken under government receivership and/or closed.⁵ The link end date is updated in these cases. If the entity continues to exist but the PERMCO link fails to match, then researchers use the STOCKNAMES table in CRSP to research changes in the company's security. The STOCKNAMES table provides a historical record of the start and end dates for PERMCO-company name links.⁶

The PERMCO generally accounts for all mergers and acquisitions over time. However, in some cases, such as the conversion of a publicly traded bank into a publicly traded bank holding company or the acquisition of a public bank or bank holding company by a private entity, the entity id and/or the PERMCO may change. This information is updated in the date ranges in the file. The date ranges for these links refer to the parent regulatory entity that is publicly traded, not necessarily the regulatory highholder.⁷

³ Some of the data is replicated through the web SNL interface, name as part of the "Tearsheet", but this information is not kept on a historical basis.

⁴ Entities in Compustat have a four-digit SIC code. We take the two-digit major group numbers 60-67 as finance, insurance, and real estate entities. We use two regulatory reports: the FFIEC 031 and the FR-Y9c filed by banks and bank holding companies, respectively.

⁵ National Information Center (NIC) is a data repository of institution characteristics collected by the Federal Reserve System. NIC Institution Search is available at <u>http://www.ffiec.gov/nicpubweb/nicweb/SearchForm.aspx.</u>

⁶ WRDS through the UNIX environment allows access to the SAS table *STOCKNAMES* in the directory (/wrds/crsp/sasdata/ and /wrds/compustat/sasdata). More information on access is available through WRDS Support (http://wrds-web.wharton.upenn.edu/wrds/support/).

⁷ For example, although the regulatory high-holder of Unionbancal Corporation (PERMCO 841 and entity code 1378434) is Mitsubishi UFJ Financial Group, Inc. (entity code 2961897), the PERMCO 841 is not linked to the regulatory high-holder because Unionbancal Corporation was publicly traded as a separate entity.

Because the matching methodology uses balance sheet items, it requires a company to be in Compustat. Although the Compustat and CRSP link maintained by WRDS is highly accurate, the two datasets have slightly different company coverage. The methodology will thus match most large banks as these large banks appear in both Compustat and CRSP.⁸ Small banks may be missed because they are not large enough to be in Compustat or because they do not file consolidated regulatory reports (Y9-C).⁹

Thus, in order to identify smaller banks not covered in the Compustat universe, we use Standard & Poor's Capital IQ database to collect information on bank initial public offerings since the last update and subsequently match the bank PERMCOs from CRSP to company identifiers from Capital IQ using exchange tickers. From Capital IQ, researchers are also able to find geographic information that is used in addition to bank names to match PERMCOs to RSSDs.

Finally, researchers then take the universe of all banks in CRSP and attempt to name-match any remaining banks to RSSD IDs.¹⁰ By using the name history in CRSP and NIC, researchers add a measure of robustness to this final name-matching method.

Matching Methodology: 1986Q2-1990Q1

Beginning with the 2016Q4 update, matches extend back to 1986Q2, the first quarter the FR Y9-C was reported. The methodology for these updates is very similar to that used since 2011Q1 with a few small differences.

First, the start dates of matches that previously began in 1990Q1 have been extended back to their actual start date or to 1986Q2, whichever comes later. This process is the same as the forward extension of matches in the current methodology, just reversed.

Second, matches that end before 1990Q1 but after 1986Q2 are added in a manner similar to new matches in the current methodology; however, a five percent difference threshold is used, and matches are manually checked.

Current Update (2022Q3)

The above matching techniques yield 1,477 PERMCO-RSSD links from June 30, 1986 to September 30, 2022.

Important Notes

Typically, we match PERMCOs to the highest corporate parent (i.e. the Bank Holding Company for commercial banks that are part of a bank holding company).

⁸ CRSP covers stock market data on companies listed on major stock exchanges (NYSE, AMEX, NASDAQ); Compustat includes large companies on the NYSE, AMEX, and NASDAQ, including companies comprising the S&P Industrial Index.

⁹ The respondent panel for the FR Y9-C comprises Bank Holding Companies with total consolidated assets of \$500 million or more; banks, including those of smaller BHCs, file only the FFIEC 031.

¹⁰ Researchers subset the bank universe in CRSP by applying the following industry filters: three-digit SIC equal to 602 or 671 and/or NAICS code equal to 522110 or 551111.

Information about bank holding company structures can be found in Avraham, Selvaggi and Vickery (2012) <u>http://www.newyorkfed.org/research/epr/12v18n2/1207avra.pdf</u>

We do not match foreign banks or their subsidiaries to publicly traded firms outside of the US.