Documentation for BankRisk GitHub repository:

Files:

* BankRisk\_Demos\_pt1.zip: Contains demo and exhibit excel files for chapters 1-6 (credit risk). There are the files I used to develop all of the exhibits for the book. Many use excel data tables (which I find to be indispensable.) Unzip all files into C:/BankRisk. Note: Only one file is incomplete: chap05\_exhib\_2011allbanks\_pds\_template.xlsx. Two worksheets within that file were too big to upload to GitHub. The first worksheet needs to be populated with all of the data in 2011allbanks\_pds\_20111231\_roe0mm2.csv. (I left the first 20 rows or so to show how the data must be arranged.) There are roughly 7000 rows here. Next, there is a huge worksheet named 200903\_201412 that must be populated with all of the data in allbanks\_f2468\_roe0mm2\_2009\_2014.csv (74MB and 165,000+ rows). Again, I left 20 or so rows to show how the data must be arranged. (Note: Those files will be generated by running the ipynb code for the PD/LGD models.)
* BankRisk\_Demos\_pt2.zip: Contains demo and exhibit excel files for chapters 7-11 (interest rate risk). Unzip all files into C:/BankRisk.
* BankRisk\_ipynb.zip: All of the ipython (Jupyter) notebook code files. These files should be placed into a subdirectory called: C://Users/yourname/bankrisk. The python software will look for the code files in the C://Users/yourname directory. When it opens you should see bankrisk listed as a subdirectory. Just click on it to work with the code files. (Do not attempt to run these files if you are not proficient in python and ipython notebook. This is not the material to use if you are just beginning to learn python.) (This directory is hardcoded into all of the ipynb files. If you wish to use a different directory, you must modify the working directory command, which is at the end of the first code cell in each ipynb file.)
* BankRisk\_processingtables.csv: These are all of the ancillary data tables that are referenced by the ipynb files. They should all be placed into a root directory called C://BankRisk.
* df2\_2001\_2009.7z and df2\_2010\_2015.7z: These are the Call Report raw data extracts for the indicated years for all banks in the country. (I also provided the python code that created these files from the bulk data files.) You must use 7-Zip open source software (which is superior in many ways to WinZip) to un-compress these files. Put them in the C://BankRisk directory.

How to get started:

1. Run br001b\_CallDataExtr\_concat.ipynb. This concatenates the two df2… files into one large one which is used for everything.
2. Run br001c\_CallDataCalcs\_AllBanks\_20160511.ipynb. This processes the raw Call Report data stored in the df2… files into calculated fields. For example, the Call Report shows year-to-date income and expense numbers. This processing will convert them into quarterly numbers to allow individual quarter incomes or rolling 4q averages to be calculated.
3. Definitely study: br003ma, br003mb, and br003mc code files. They are the same code, but they illustrate how to set up specialized BHCs, large aggregates, or small aggregates. There is a large block of code near the top of the files where all of the selections are made. The output from these three files is discussed in detail in the book.
4. Good luck! Let me know if you run into problems.