



BOARD OF GOVERNORS *of the* FEDERAL RESERVE SYSTEM

Differences between Wholesale Portfolio Loans and Public Debt

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Classification

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The Use of Public Debt in Model Development

- Research on the credit risk of portfolio loans would ideally be conducted using data on the performance of those loans.
 - These data are scarce and often not available over a range of business cycles.
- The lack of data has historically been addressed by using data on public debt markets, for example:
 - Using the variation of the expected distance to default (EDF) from corporate bonds to proxy for the probability of default of corporate loans in portfolio.
 - Estimating loan level default models for portfolio CRE loans using data from loans packaged in commercial mortgage backed securities.

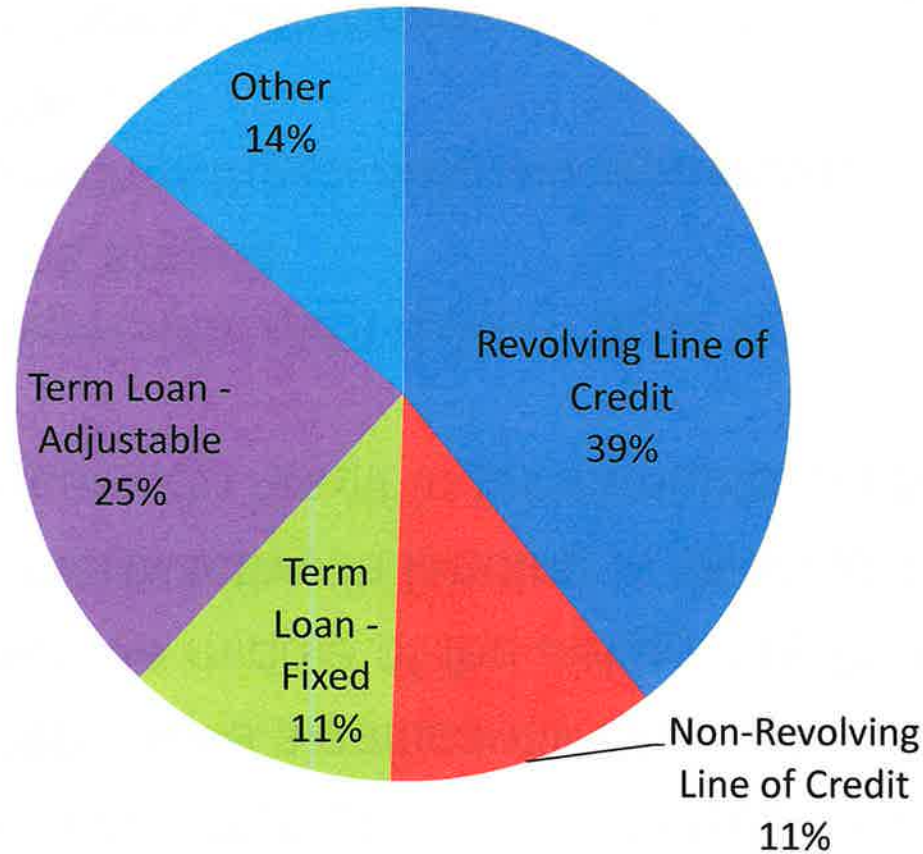


Does this matter?

- Portfolio loans differ from public debt in many ways.
 - Portfolio loans have significantly different structures.
 - Banks target the middle of the obligor credit distribution.
 - Banks are more active in lending to specific industries.
- These differences can result in fundamental differences in credit risk.
- A modeler using public debt data to build and calibrate models of portfolio loans should:
 - Evaluate whether these data are representative of the loans being modeled.
 - Account for these differences either in the model design or through the appropriate use of model overlays.



What is in the Corporate Loan Portfolio?



Note: Distribution is for a sample of FR Y-14 reporters as of 2014Q4. Shares are based on current outstanding.

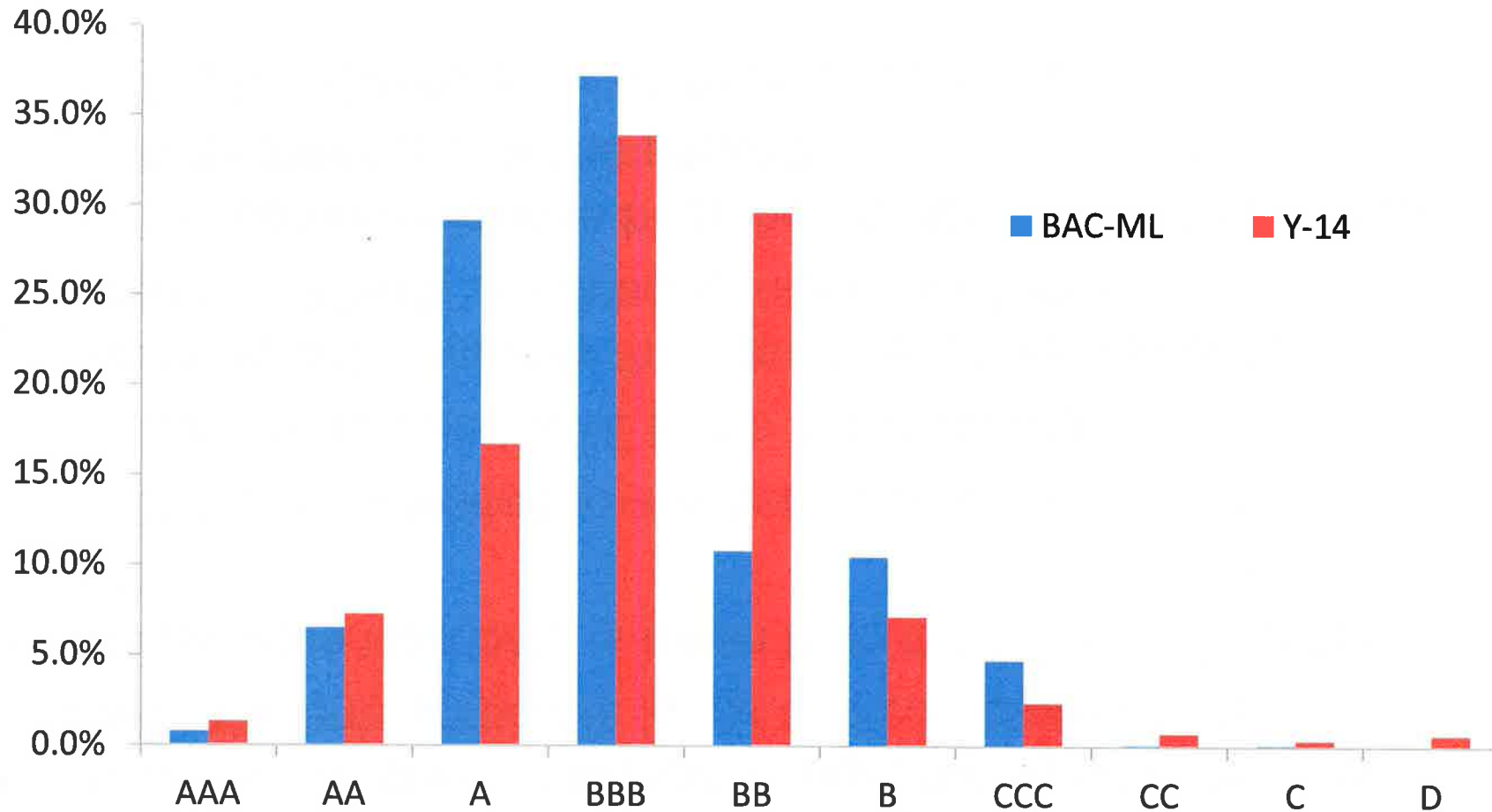


Comparing Portfolio Loans to Public Debt – Corporate

- Made the samples as similar as possible by comparing only fixed rate term corporate loans and corporate bonds.
- The portfolio loan data is taken from the FR Y-14 Q Schedule H.1.
 - The data is limited to a subsample of respondents
 - Owner-occupied CRE loans are excluded.
- The bond data includes the component bonds in Bank of America – Merrill Lynch bond index (BAC-ML).
 - The sample includes both the investment grade and sub-investment grade components.
 - The bond data is pulled from Bloomberg.



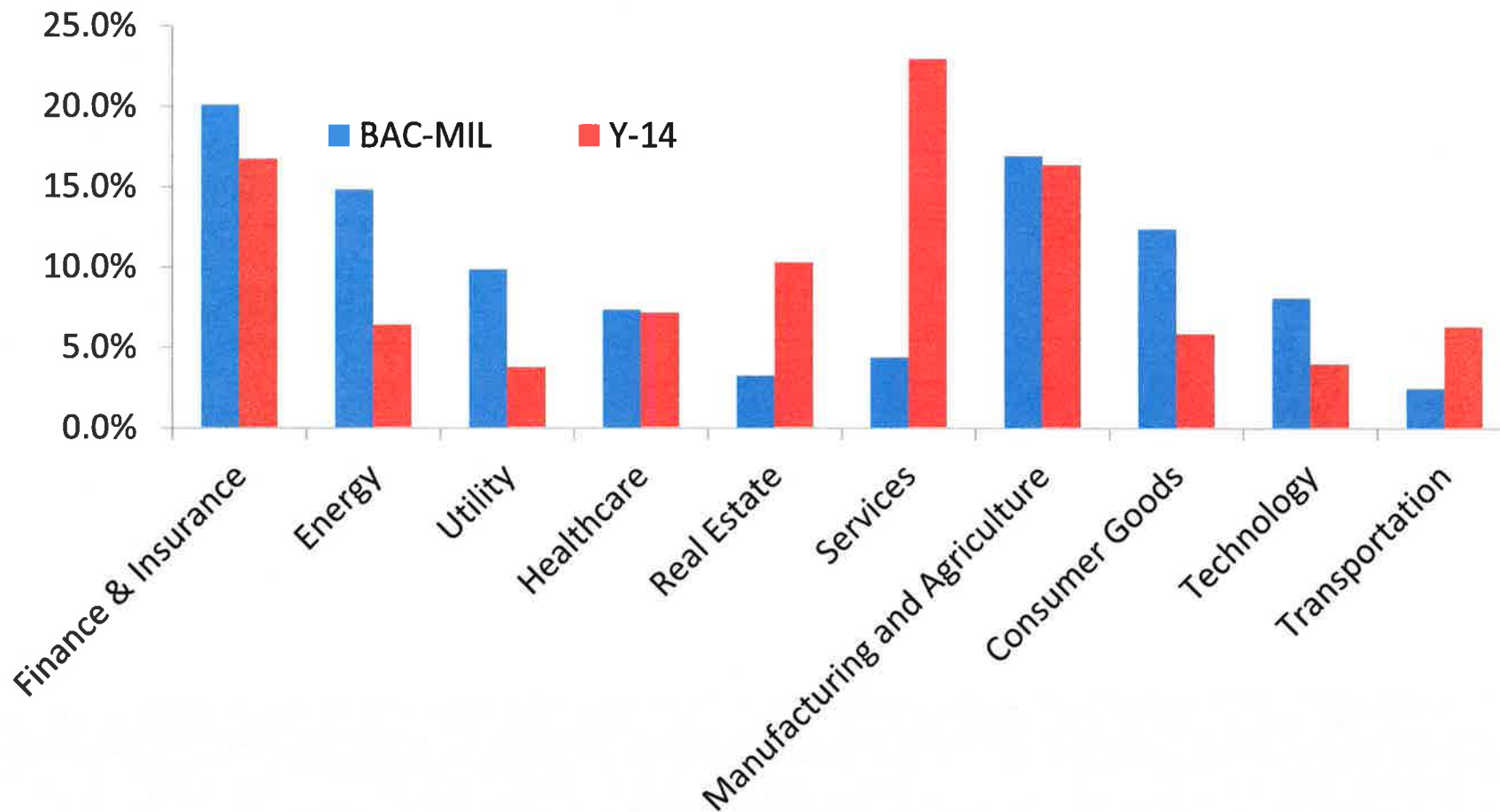
Difference in Credit Quality



Note: FR Y-14 distribution is for fixed rate term loans from a sample reporters as of 2014Q4. BAC-MIL distribution is as of December 2014. Shares are based on current outstanding. Credit ratings for Y-14 loans are based on bank internal ratings mapped to the external rating scale using bank supplied concordance maps.



Differences in Industry Coverage



Note: FR Y-14 distribution is for fixed rate term loans from a sample reporters as of 2014Q4. BAC-MIL distribution is as of December 2014. Industry categories are based on FRB staff definitions. Shares are based on current outstanding.



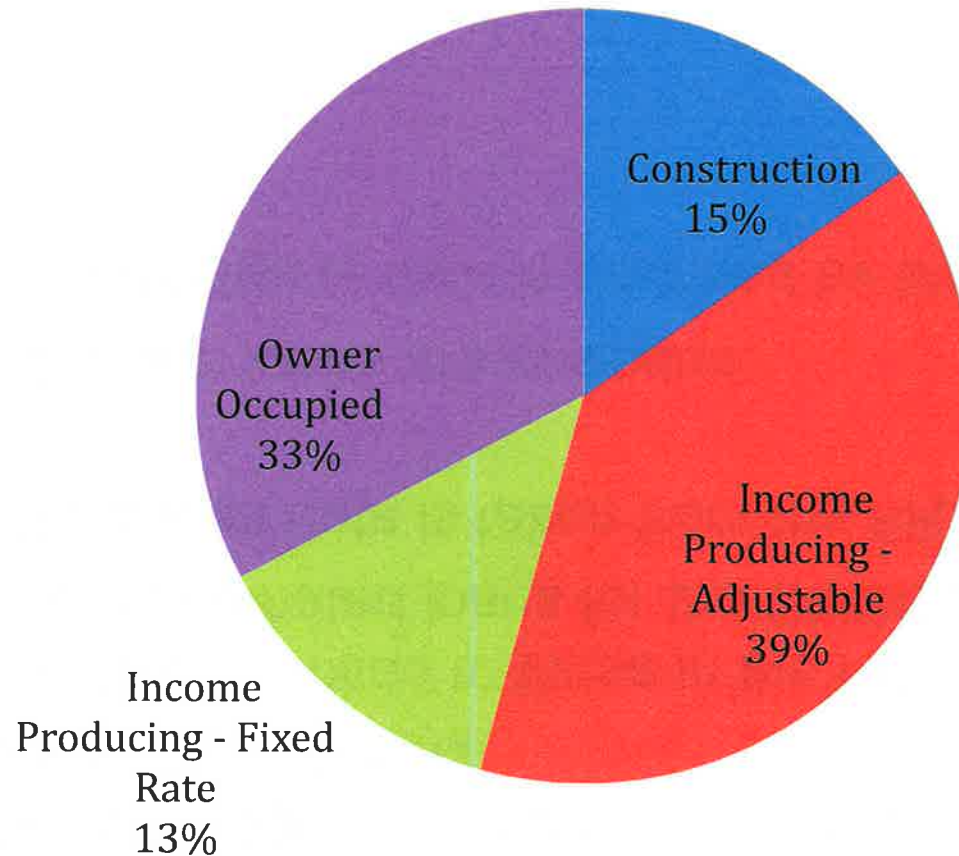
Differences in Loan Characteristics

Loan Characteristic	Bloomberg BAC-ML Index	FR Y-14 Corporate Fixed Rate Term Loans
Original Term (years)	13.55 (10.77)	8.78 (5.23)
Current Balance (million \$s)	691.47 (565.9)	6.81 (21.7)
Coupon Rate (%)	5.27 (2.15)	3.80 (1.76)
Share with International Obligor	22.5%	35.4%
Share Senior	93.3%	59.2%

Note: Standard deviations are reported in ()s. BAC-MIL data is as of December 2014. FR Y-14 data is as of 2014Q4. Shares are reported as of commitment balance.



CRE Portfolio Loans by Loan Type



Note: The data reports the share of bank portfolios by loan type for a set of banks active in origination for both securitization and their own portfolios as of 2012 Q1. The source is the FR Y-14 Q and the chart was first produced for Black et. al (2015).

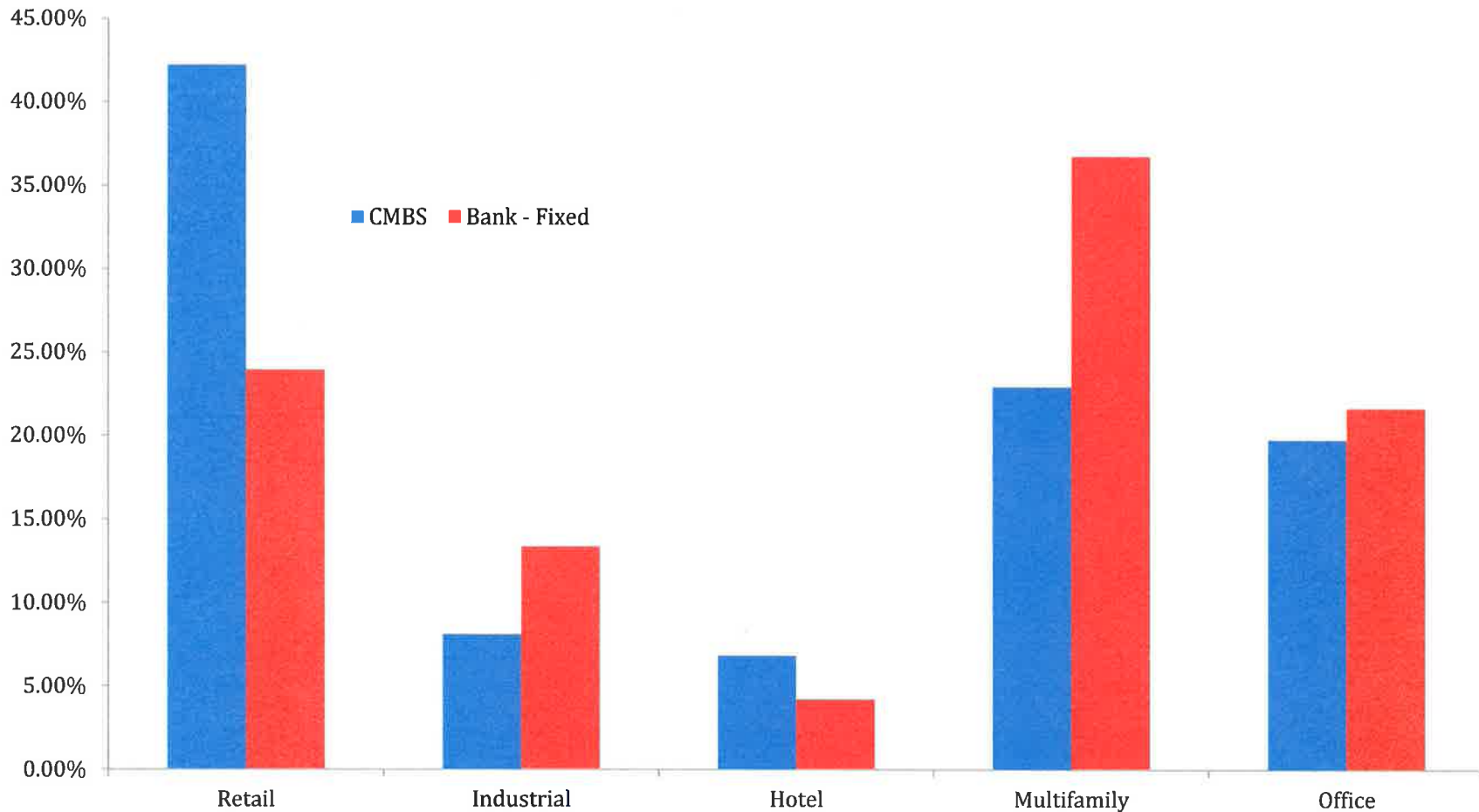


Comparing Portfolio Loans to Public Debt - CRE

- Made the samples as similar as possible by comparing only fixed rate mortgages on income producing properties originated by the same pool of firms.
 - The firms are limited to those in the FR Y-14 reporting panel who also originated loans for the CMBS market.
- The portfolio loan data is taken from the FR Y-14 Q Schedule H.2.
 - Construction loans are excluded.
- The CMBS mortgage data is provided by Morningstar.



Differences in CRE Portfolio Loans and CMBS Loans by Property Type



Note: The source of the bank data is the FR Y-14 Q and the CMBS data is Morningstar. Both samples are limited to fixed-rate loans from the same set of banks active in origination for both securitization and their own portfolios. The chart was first produced for Black et. al (2015).

