Supervisory Model Changes: Principals, Processes, and Governance

Principles in Practice: Alternative Approaches to OTTI

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2017 Stress Testing Model Symposium
October 4, 2017

Disclaimer

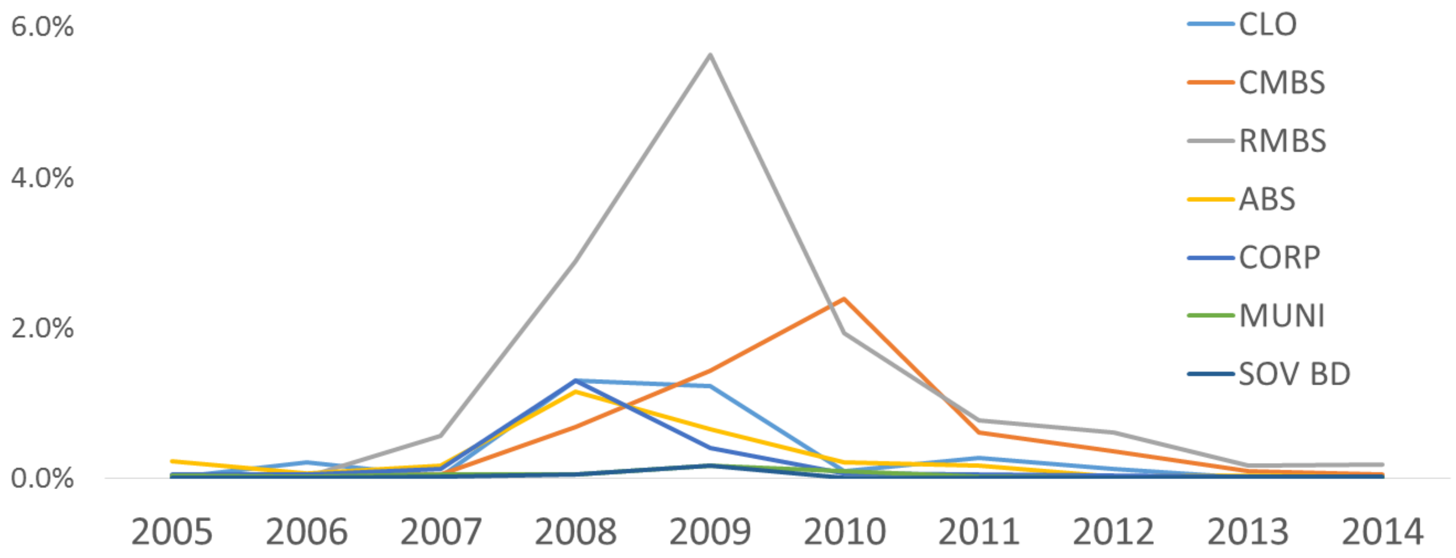
The views expressed in this presentation are those of the author and do not necessarily reflect those of the Federal Reserve System or the Federal Reserve Board.

What is OTTI?

- “Other than Temporary Impairment” charges on investment securities are recognized in earnings
- An impairment occurs when the fair value of a security falls below its amortized cost
- OTTI may be recognized if there is a non-temporary decline in present value of cash flow below amortized cost (i.e., a “credit loss”)
- OTTI may also reflect the potential that a security may be sold before recovering amortized cost

Historical OTTI Write-downs

(Pct. of Amortized Cost)

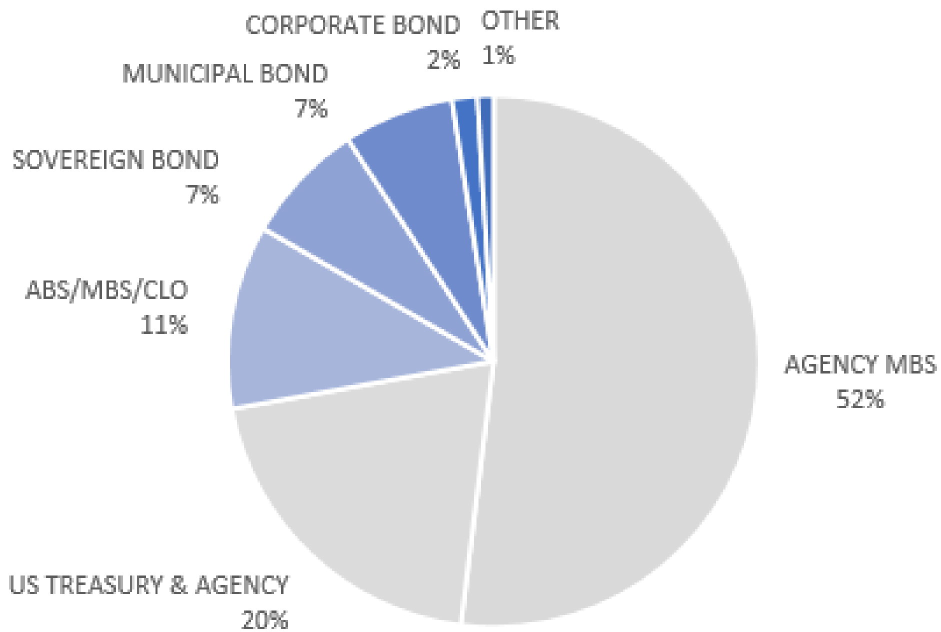


Source: Life insurance statutory filings
CUSIPs without prior OTTI

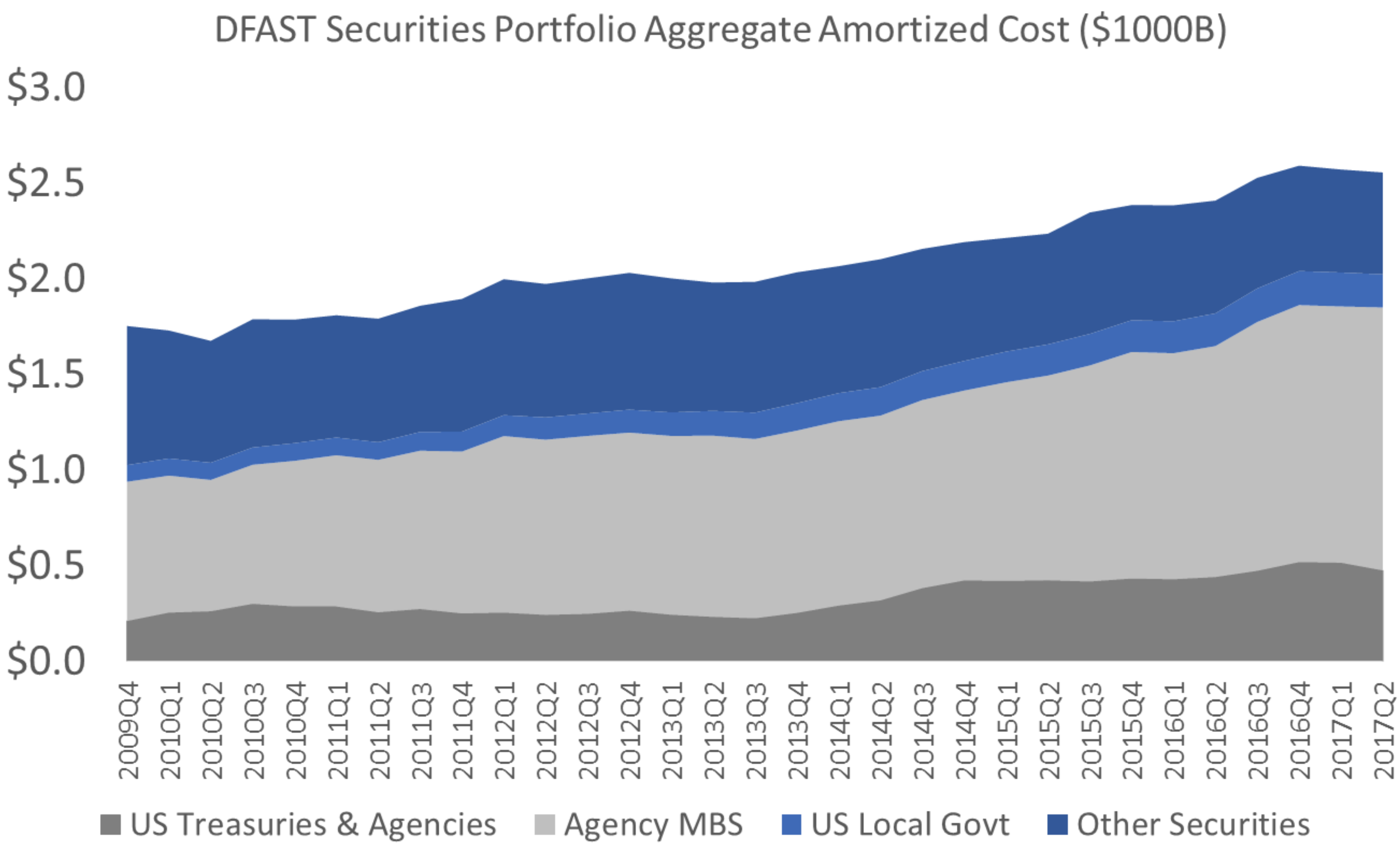
Overview

- Simplifying the OTTI models is one way in which supervisors are putting model development principles into practice
- The Federal Reserve applies several models to specific types of securities to project OTTI
- Certain models may have limited materiality; most securities are US government-backed bonds not at risk of credit impairment

DFAST Securities Exposure



Percent of amortized cost as of December 31, 2016



Source: FR Y-9C
DFAST Firms as of 2017

Current models employ deterministic methods to calculate OTTI

- Econometric components project path of underlying risk variables on each credit
  - Examples: PD, CDS spread
- Deterministic methods determine whether there is a credit loss requiring an OTTI write-down
  - Direct calculation of present value shortfall
  - Rating triggers
- Current approaches require a number of assumptions, including appropriate thresholds

The Federal Reserve is exploring a more direct approach for projecting OTTI

- Simple econometric model:
  - OTTI as percent of amortized cost (book) is positively related to current and future impairment
  - Relationship can be estimated for broad array of securities
  - Would reflect empirical security-level OTTI outcomes
- Data: bank historical OTTI data plus security-level data from insurance companies from 2004-2016
- Key input: changes in fair value, which are already projected under the stress test

Such an approach may enhance consistency and simplicity while also meeting other objectives

- Consistency and comparability
  - Common approach for all debt securities
  - Ease of comparing losses across security types
  - Ease of comparing losses on very different portfolios
- Simplicity and transparency
  - Simple functional form can be used
  - Less information required relative to other models
  - Easy to identify model sensitivities and vet results
  - No dependence on deterministic methods

Ongoing model testing helps to ensure that we meet current performance objectives

- Benchmarking
  - The alternative model is currently used as a benchmark model.
- Back-testing
- Sensitivity Analysis