The opinions in this presentation are those of the presenter, and not those of the Federal Reserve Bank of New York or the Federal Reserve System.
Focus of this panel: Federal Reserve’s independent model-based supervisory projections of bank income and capital under stress (used for CCAR and DFAST).

Topics:
- Discuss principles that guide the design of Fed supervisory models, and policies derived from those principles.
- Discuss issues related to greater public disclosure of the Fed’s supervisory models and projections.
- Highlight some particular areas of ongoing model research and development.
Why are model enhancements necessary?

- Why make changes in supervisory models? Some reasons:
  - To incorporate richer or more up-to-date data.
  - To reflect advancements in modelling techniques.
  - To address issues identified by the Fed’s System Model Validation (SMV) group.
  - To adopt a more stable model or one which performs better, particularly under stress.

- Federal Reserve practice is to public disclose significant model enhancements along with rationale.
  - e.g., in 2017, enhancements to operational risk, pre-provision net revenue and commercial real estate models.
Example: Potential risks of static models

- Academic research: pre-crisis stress tests of Fannie Mae and Freddie Mac would have better reflected rising mortgage default risk if models had been updated over time.

Notes: Two year cumulative default rate. Source: Frame et al. (2015, see slide 7 for full reference)
Some areas of modelling R&D

- Simplify and enhance modelling of other-than-temporary impairment for investment securities (more details shortly).

- Enhanced modelling of commercial & residential mortgage loss-given default (LGD) incorporating richer data.

- More granular modeling of bank deposit interest expenses.

- Expanding suite of “benchmark” models. Why?
  - Reference point for assessing results from primary model.
  - “Sandpit” to test out alternative assumptions and ideas.
  - In some cases, first step before shifting to new model.
Our panelists

- Robert Sarama, Manager, Stress Testing Research
  Federal Reserve Board

- Patrick de Fontnouvelle, Vice President
  Federal Reserve Bank of Boston

- Michael Moise, Manager, Stress Testing Modeling and Analysis
  Federal Reserve Board
Reference

- Reference for graph on slide 4:


  https://www.frbatlanta.org/research/publications/wp/2015/03.aspx