BANK OF ENGLAND
PRUDENTIAL REGULATION
AUTHORITY

Model Risk Management Principles for stress testing

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Model Risk Management – stress testing

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Introduction

- Rapid increase in quantity of data and computing power lead to improvements in risk modelling and the use of automatic decision making.

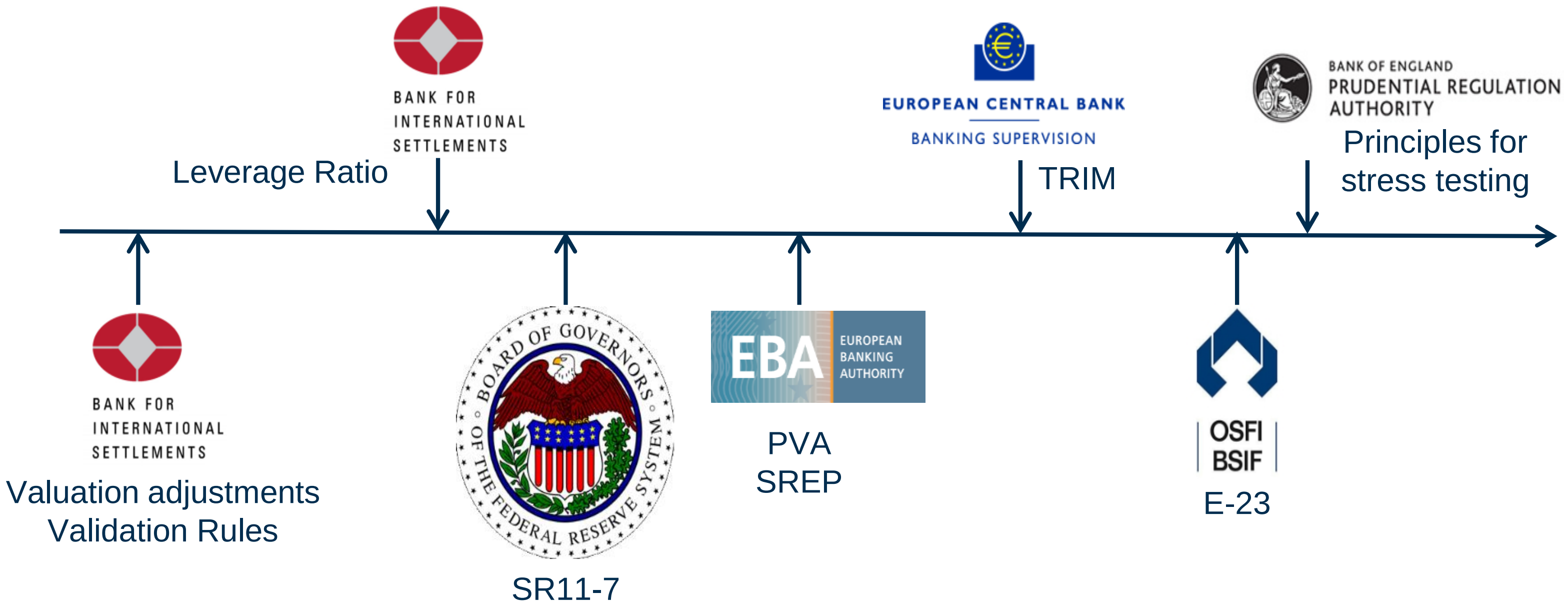
- Data are useful information to support decisions, but there is no guarantee that the outcomes are correct.

- While the use of models undoubtedly improve the way decisions are made, it comes at a potential cost …

the risk of an economic loss due to the misuse or incorrect use of model results for strategic business decisions.

Model Risk – regulatory responses

- Historically, model risk led to significant losses:
  - The London whale
  - Scholes & Merton’s hedge fund
  - The 2007 subprime crisis



Importance of managing model risk for stress testing

- Stress testing is an important risk management & supervisory tool
- Banks
  - Balance sheet vulnerabilities
  - Strategic business decisions
  - Internal buffers and profit distributions
- Regulators
  - Test resilience of the system
  - Micro and macro-prudential requirements

Review of banks' stress testing frameworks

- Managing of stress test model risk lags
  - BAU models
  - Improvements in other areas of stress testing frameworks

- The better performing banks
  - Model development standards
  - Clear & well-documented frameworks / policies
  - Robust inventories & strong independent review capabilities

- Challenges
  - Scope and coverage
  - Documentation
  - Engagement with senior management and board

SS3/18 ‘Model Risk Management Principles for stress testing’

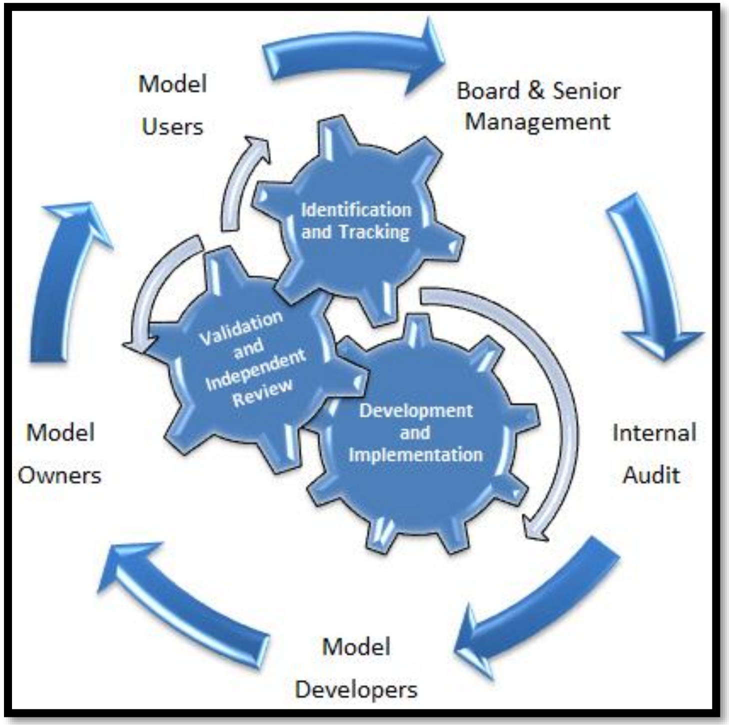
Model risk management principles for stress testing

- Principle 1 – Banks have an established definition of a model and maintain a model inventory.
- Principle 2 – Banks have implemented an effective governance framework, policies, procedures and controls to manage their model risk.
- Principle 3 – Banks have implemented a robust model development and implementation process, and ensure appropriate use of models.
- Principle 4 – Banks undertake appropriate model validation and independent review activities to ensure sound model performance and greater understanding of model uncertainties.

Concluding remarks

An effective model risk management framework is …

an integrated and iterative process supported by a strong governance culture



We should keep challenging ourselves

- How do you present model risk to your board?
- Is there value in formalising the principles for all models?
- How do you quantify the impact of model risk?