

Supervisory Review of
Performance Monitoring
2018 Modeling Symposium
October 10, 2018



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Federal Reserve Board

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What Is Performance Monitoring (PM)?

- Broadly speaking, performance monitoring is the task of assessing the quality of a quantitative or qualitative approach to confirm it is functioning as intended
 - ✓ The idea is that a firm should provide evidence to justify the ongoing use of a chosen approach – “burden of proof”
 - ✓ PM has different elements, including outcomes testing, sensitivity analysis, and benchmarking
 - ✓ PM should differ based on type of approach and how it is used
 - ✓ Performance should be assessed during development, during implementation, and over time (esp. when changes occur)
 - ✓ Generally, no single test or measure captures performance alone – but one poor result could disqualify an approach’s use
 - ✓ Overall, firms should present a good case to senior mgmt as to why an approach is suitable and worth using
 - But also where it has limitations and uncertainties

PM for Capital Planning & Stress Testing

- Firms' capital planning efforts are intended to assess impact in various conditions & circumstances, including stressful ones
- PM for capital planning presents some particular challenges
 - ✓ Paucity of realized outcomes against which to test projections
 - ✓ Much more difficult to conduct out-of-sample/time testing
 - ✓ Scenario conditions driving outcomes usually not observed
 - ✓ Structural changes and regime shifts can occur
 - ✓ Often need to “triangulate” using more than one method
- Thus, greater caution warranted in PM for capital planning
 - ✓ Might involve more focus on qualitative information, such as key assumptions used or data constraints
 - ✓ Often higher uncertainty and lower confidence in PM outcomes
 - ✓ Be wary of test results that appear too positive!

Range of Practice for Overall PM

- Weaker practices in overall PM include:
 - ✓ Weak internal standards for comprehensive PM
 - ✓ PM policies and standards are sound, but not always followed
 - ✓ Internal standards do not call for ongoing and updated PM
 - ✓ Qualitative approaches not subject to same PM rigor
 - ✓ Independent review groups do not review PM with critical eye
- Better practices in overall PM include:
 - ✓ Take a holistic view of PM, reviewing all relevant information to render a judgment on the quality of the approach
 - ✓ Greater application of sensitivity analysis and benchmarking when “traditional” testing is less reliable or incomplete
 - ✓ Established standards for which tests/measures are best applied to which types of models
 - ✓ Ex ante thresholds for good/mediocre/bad test outcomes against which ongoing results are evaluated
 - ✓ Appropriate caveats used to describe uncertainty in output

Range of Practice for Sensitivity Analysis

- Weaker practices for sensitivity analysis include:
 - ✓ Do not analyze sensitivity to key assumptions
 - ✓ Do not apply sensitivity analysis to qualitative approaches
 - ✓ Only “top-line” analysis is conducted, not of component pieces
 - ✓ No action taken on questionable sensitivity analysis outcomes
- Better practices for sensitivity analysis include:
 - ✓ Both technical modeling and business assumptions are analyzed
 - ✓ Combine sensitivity analysis for a set of approaches to determine collective impact on portfolio or set of exposures
 - ✓ Extra sensitivity analysis conducted for vendor models
 - ✓ Conduct analysis on multiple variables at once to see interactions
 - ✓ Sensitivity analysis helps confirm conservatism of approach
 - ✓ Ongoing sensitivity analysis (not just during development)
 - ✓ Summarize sensitivity analysis into succinct, coherent reports for management that isolate key vulnerabilities

Range of Practice for Benchmarking

- Benchmarking practices should supplement overall PM, not meant to crowd out other activities or to be main source of PM
- Weaker practices for benchmarking include:
 - ✓ Internal standards do not list benchmarking as an expectation
 - ✓ Benchmarking is not applied where most needed
 - ✓ When benchmark methodologies (BMMs) used to influence estimates, not subject to review or broader MRM standards
 - ✓ Benchmarking developed just to “check the box” – not really used
- Better practices for benchmarking include:
 - ✓ Prioritization for application of benchmarking, including BMMs
 - ✓ Benchmarking uses a different approach (data, methodology, etc)
 - ✓ Different BMM types used (challenger, confirming, qualitative)
 - ✓ Benchmarking output combined with other PM to develop overall perspective on quality of estimates
 - ✓ Benchmarking results used to develop conservative overlays