

Model Review Options

| ASSUMPTION | Description | Who Does it? | Frequency | More Information |
|-----------------------|--|---|---|---|
| Backtesting | A test of whether actual results are consistent with previously modeled results. The goal is to isolate causes of discrepancies, in order to understand them and potentially change underlying model assumptions to enhance future model predictability. | Can be done in-house or via an independent vendor with deep knowledge of the Compass model. Contact Plansmith for more information about services we provide ¹ | Typically Annually, or more frequently if required. | ² See Note |
| Model Validation | Indepenent test that the model's math and methodologies work as expected. It is <u>not</u> a test of reasonable results from a specific model, but rather a test that the software works properly. | Plansmith contracts with an outside vendor to complete the validation; a copy of the most current validation can be requested from Plansmith. | Periodic (i.e. since it is a test that the math and methodologies in the model are correct, an updated validation is completed when there have been significant changes to the underlying software that would suggest the need for a new validation.) | Call Plansmith at 1- 800-323-3281 or email us at support@plansmit h.com |
| Independent Review | Review of the integrity, accuracy and reasonableness of the model's results, as well as the entire internal IRR process (including Board/ALCO involvement and oversight, policies, internal controls, etc.). This review is highly dependant on the institution-specific assumptions input into the model. | Contact Plansmith for more information about services | Typically annually. The timing and scope consistent with the risk and complexity of the organization. | ² See Note |
| Stress Testing | Stress testing or sensitivity analysis tests a model's parameters and key model assumptions without relating those changes to an underlying event or real world outcome. | Can be done in-house or via an independent vendor. Contact Plansmith for more information about services we provide ¹ . | Typically Annually, or more frequently if required. | ² See Note |
| Scenario Testing | Scenario analysis uses the model to predict a possible future outcome given an event or series of events. | Can be done in-house or via an independent vendor. Contact Plansmith for more information about services we provide ¹ . | Typically Annually, or more frequently if required. Also can be done pro-actively when considering different business alternatives. | ² See Note |

¹ Plansmith's Advisory Services Department can perform Backtesting, Independent Reviews and Stress Testing services. Please contact Dave Wicklund at 800-323-3281 or dwicklund@plansmith.com for more information.

² Note: More Information is available via the FDIC's website. Look under "**Director's Resources**" for videos giving an overview of IRR processes. The 2010 Interagency Advisory on Interest Rate Risk Management (**FIL 2-2010**) gives a comprehensive overview of IRR processes. Additionally **FIL 2-2102** answers FAQs from the joint perspective of several agencies.