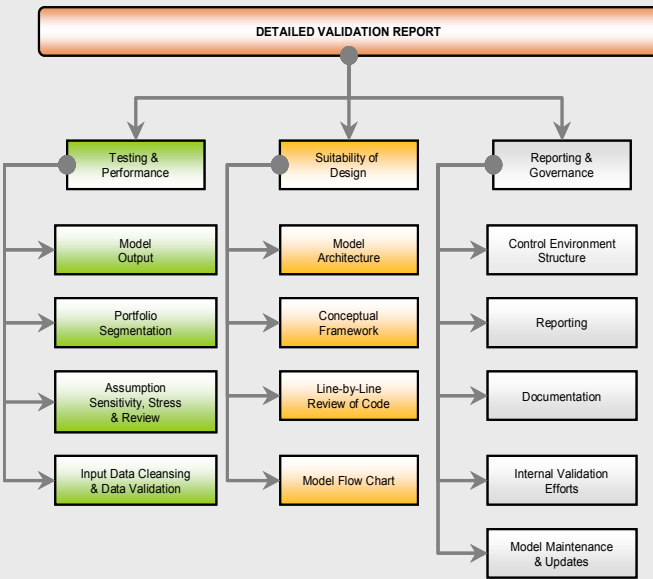




**“Basel II Credit Risk Model Validation encompasses a range of processes and activities that contribute to an assessment of whether ratings adequately differentiate risk and whether estimates of risk components (such as PD, LGD or EAD) appropriately characterize the relevant aspects of risk.” (AIG, Jan 2005)**

## General Validation Approach

Prescio’s model validation approach is holistic. The overview below illustrates how elements come together to create a complete view of a model’s efficacy.



Prescio’s validation approach focuses first on data inputs and key assumptions then on sound theoretical formulation and documentation.

The most critical factor contributing to an effective model is the validity of the input data. If these data are not correct, the output of the model may be severely flawed. Prescio Model Validation practice calls for a comprehensive audit of all data inputs to the model. Because models are based upon contextual assumptions, these assumptions also must be evaluated and adjusted for changing environment and market conditions. Inadequate review of contextual assumptions is the most common shortcoming in model development.

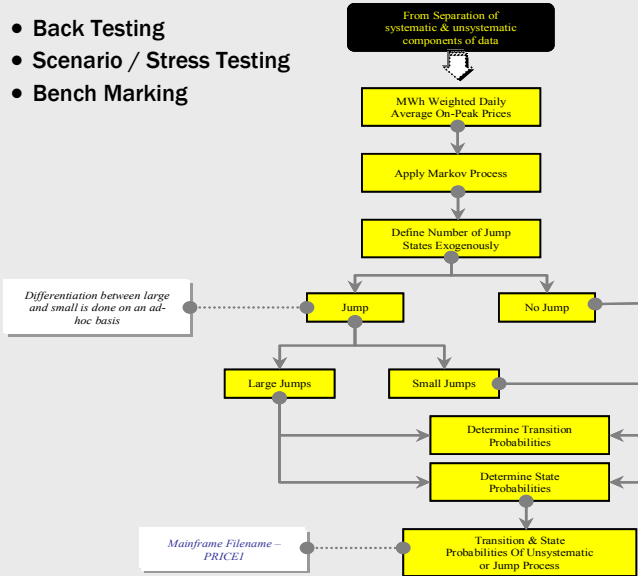
Complex theoretical model development is more of an art than a science. It often depends directly on the model developers’ judgment and proficiency in understanding the context for which the model is designed. A primary source of model error is poor understanding or inappropriate usage of the theoretical tools applied to develop the model within a business context. We strive to identify such types of errors.

To ensure that the business context and model design are compatible, Prescio stresses proper documentation of all theoretical considerations that go into developing the models.

This includes an evaluation of your model techniques and the strength and reliance of the model’s predictive power within clearly defined risk tolerance levels. These standards apply to both internally developed and vendor-supplied models.

Prescio validation often includes comparison of outputs with similar in-house models. Further emphasis is placed on the following validation tests to identify issues in models:

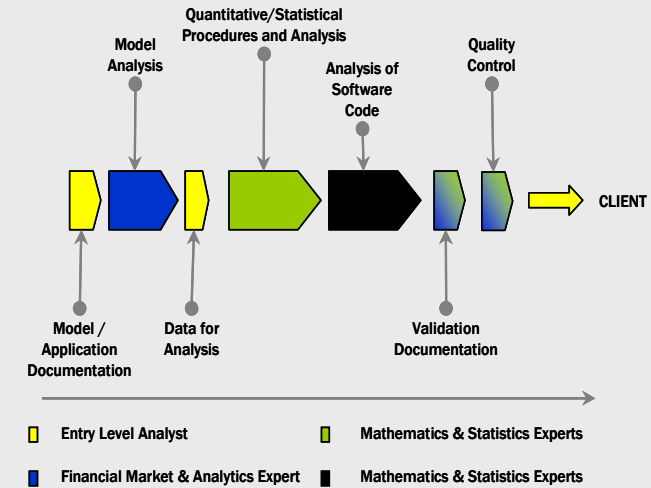
- Back Testing
- Scenario / Stress Testing
- Bench Marking



- \* Our team has worked with complex quantitative and statistical models in financial institutions and utilities and are well versed with the business context where these models are applied.
- \* Our depth of experience and understanding are applied to assessing and making concrete improvements to your models.
- \* Our depth in both model theory and real world experience can help your company avoid pitfalls and achieve profit and stability.

## Prescio’s Resource Engagement Approach

Prescio’s team is experienced in dealing with regulatory bodies including the OCC, OTS, FDIC, Federal Reserve, S&P, Moody’s, and Fitch. Prescio fields seasoned personnel with deep experience in US financial markets, quantitative methods, and regulatory requirements.



## Prescio’s Experience with Clients

The following are a representative sample of services provided by Prescio:

- Market Making Firm
  - Volatility Term Structure models and applications
  - Financial derivative valuation models and applications
- Major U.S. Bank
  - Advanced Operational Risk Modeling processes
  - Validation of theoretical concepts of EVT-based Operational Risk Models
  - Validation of Structured Scenario or Expert Judgment data collection procedures
  - Loan Loss Reserve model and application development for consumer and commercial portfolios, including mortgages
- Large Wholesale Bank / Retail Bank
  - Portfolio Value at Risk
  - Exposure Analysis and Modeling
  - Interest rate & Derivative Model Validation
  - Loss Severity / Frequency Analysis
  - Asset Quality forecast model and application development
  - Loss Given Default analysis, model and N-tier application development
  - Markovian loan loss migration model and application for commercial real estate and construction loans