



**THEMELLION**  
BUILD ON KNOWLEDGE

Prescient Models LLC

# Reinventing Retail Lending Analytics: Scoring, Forecasting, Stress Testing , and Capital for a World of Uncertainty

## Course Overview

Retail lending has changed dramatically in the last couple of decades, moving from a largely intuitive process to an increasingly automated one. With automation comes the danger of rapidly magnifying problems, as with the 2009 Global Financial Crisis. Reliance on weak, out-dated models can create portfolio disasters. Managing a retail loan portfolio successfully depends on properly developing, validating, deploying, and integrating a wide range of models.



Prescient Models LLC

**Seeing the future through models.**

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## Who will benefit?

This course is for modelers, analysts, and credit professionals who are involved in modeling or managing retail lending and small business portfolios.

Although the course covers the development and use of sophisticated analytical techniques, it is intended for portfolio managers, financial analysts, credit policy professionals, and statistical analysts. Anyone with decision-making responsibility in this field will benefit. Discussions will minimize mathematical derivations, instead emphasizing intuitive understanding, use of available algorithms, and best practices in application

## You will

- Learn the basics of retail lending analytics.
- Gain an understanding for when these methods can be used reliably, when they fail, and how to use new methods to succeed.
- Obtain a deep understanding of the drivers of credit risk, and how various models capture some, or all, of these drivers.
- Study the latest techniques for moving from rank-order scoring to loan-level probability forecasting.
- Learn best practices in stress testing
- Receive a free copy of *Reinventing Retail Lending Analytics: Forecasting, Stress Testing, Capital, and Scoring for a World of Crises*

## Location

Dubai, UAE

Venue TBC

**Registration by 14 March, 2014**

## Instructor

*Joseph L. Breeden Ph.D.*, Chief Executive Officer, Prescient Models  
[www.prescientmodels.com](http://www.prescientmodels.com)

Dr. Breeden has almost 20 years of experience in financial services and is a recognized leader in the industry. At Prescient Models, he is directly involved in research into new modeling techniques and products. He co-founded Strategic Analytics in 1999, where he led the design of advanced analytic solutions including the invention of Dual-time Dynamics.

Dr. Breeden has created models through the 1995 Mexican peso crisis, the 1997 Asian economic crisis, the 2001 global recession, the 2003 Hong Kong SARS recession, and the 2007–2009 U.S. mortgage crisis and global financial crisis. These crises have provided Dr. Breeden with a rare perspective on crisis management and the analytics needs of executives for strategic decision-making. Dr. Breeden's own models were successful throughout the U.S. mortgage crisis and warned of problems as early as the beginning of 2006. Similar courses have been held around the globe, in Russia, Singapore, USA, and Germany.

His book *Reinventing Retail Lending Analytics: Forecasting, Stress Testing, Capital, and Scoring for a World of Crises* was published by Risk-books in 2010. He currently serves as associate editor for the *Journal of Risk Model Validation*. Each participant will receive a copy of the book as part of the course materials.

## Curriculum

### March 25 (1:00 p.m. – 5:00 p.m.)

- Dynamics of Retail Lending
  - Drivers of Retail Loan Performance
  - Age-Vintage-Time Dependency
  - Macroeconomic Adverse Selection
  - Why is Managing Retail Portfolios so Difficult?
- Loan-level Analysis
  - Overview of Modeling Techniques
  - Scoring Techniques and their Weaknesses
- Loan-level Methods for Predicting Probabilities
  - Survival Models
  - Panel Data Methods / GLM / GLMM
  - Data Requirements
  - When not to use A-V-T Models

### March 26 (9:00 a.m. – 5:00 p.m.)

- Using Loan-level Models for Portfolio Analysis
- Using Aggregate Models for Portfolio Analysis
  - Vintage Analysis

- Including Macroeconomic Factors for Stress Testing
  - Variable Selection
  - Proper Transformations
  - Data Requirements
- Scenario Design
- Model Validation

### March 27 (9:00 a.m. – 5:00 p.m.)

- Volatility Analysis, Capital, and Basel II/III
  - Unconditional (Through-the-Cycle) Volatility Analysis with A-V-T Models
  - Conditional (Point-in-Time) Volatility Analysis via Monte Carlo Simulation
  - Asset-Correlation Models
  - Basel II Best Practices
  - Basel III Modeling Opportunities
  - Correlation and Capital Aggregation

**Prerequisites** You should be comfortable with the basics of retail lending in at least one area and have some familiarity with building models in banking and have a basic understanding of credit scoring.

## Registration

### Registration Fees

Individuals	\$1,495
Additional participants beyond first two per institution	\$1,295

### Dubai, UAE

March. 25th: 1:00 pm to 5:00 pm  
March. 26th: 9:00 am to 5:00 pm  
March. 27th: 9:00 am to 5:00 pm

o Mr. o Mrs. o Ms.

First Name: \_\_\_\_\_ M.I.: \_\_\_\_ Last Name: \_\_\_\_\_

Title: \_\_\_\_\_

Institution: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State/Province: \_\_\_\_\_

Zip/Postal Code: \_\_\_\_\_ Country: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email Address: \_\_\_\_\_

Signature: \_\_\_\_\_

Please sign and return this page to [info@themellion.com](mailto:info@themellion.com). We will provide you with the payment details after receiving your application.

### Cancellation Policy

Full refunds will be available on all cancellations mailed or faxed to the registrar up to 15 working days prior to the start of the event. Registrations cancelled 6–14 working days prior to the event are subject to a service fee equal to 50% of the registration fee. Registrants who cancel reservations 5 or fewer working days prior to the event will forfeit the entire fee. Registrants failing to attend the event—no-shows—will not be eligible for refunds.

If you cancel your registration and are due a refund, any foreign exchange differential between your initial payment and the refund is your responsibility.