

This is an in-depth introduction to the analysis of structured securities. It reviews all the essential methods used by rating agencies in appraising the credit of ABS and MBS, and takes the student through a realistic hands-on exercise leading to the assignment of credit ratings. Minimum requirements are an intermediate level of facility with Excel, and some knowledge of finance and statistics.

## **Asset Backed Securities: 4-Day Course Outline**

### **Day 1 Foundation Concepts**

- i- How the analysis of structured and corporate securities differs [9:00 – 9:30 AM]
- ii- Legal foundations of the analysis of structured securities [9:30 – 10:15 AM]
  - Asset sale vs. secured financing
  - Bankruptcy and bankruptcy-remoteness
  - Perfecting a security interest
  - Notification
  - Netting
- iii- Financial foundations [10:15 – 11:30 AM]
  - The meaning of ratings
  - The structured rating scale
  - Key financial variables
  - Parity conditions
  - Power and precision in modeling
- iv- Market and operational structures [11:30 AM – 12:30 PM]
  - De-constructing and reconstructing a market
  - Market institutions: the third-party players
  - Risk transfer mechanisms
  - The periodic payment timeline
- v- Case Study: reading and interpreting an Offering Memorandum [1:30 – 3:00 PM]
- vi- A static rating model for structured finance: the “BOTE” method [3:00 – 4:30 PM]
  - The BOTE rating “scale”
  - Sizing risk and capital
  - The Average Life calculation
- vii- Case Study: piecing the credit together from public documents [4:30 – 5 PM, Homework]

### **Day 2 Tools and Applications**

- i- Review of the Case Study [9:00 – 9:45 AM]
- ii- Extrapolating losses from data [9:45 AM – 12:00 PM]
  - Static pools vs. servicer portfolios
  - The delinquency matrix
  - Recognizing and accounting for losses and recoveries
  - Loss curves: generic vs. asset-specific features
- iii- Loss distributions vs. loss curves [1:30 – 2:00 PM]
  - Randomness and the expected loss
  - The functional form of a loss curve
  - Crafting a structure from a loss curve or distribution
- iv- Cash flow modeling of asset pools (one-loan version) [2:00 – 3:15 PM]
  - Working with dollars and accounts
  - Calculating the Average Life of the pool given prepayment and default data
  - Preparing the asset side of the cash flow analysis

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- v- Cash flow modeling of liabilities (two-class structure [3:15 – 4:30PM])
  - Modeling the payment waterfall
  - Correct implementation of principal payment regimes
- vi. Discussion: Differences in the credit card and other ABS rating models [4:30 – 5:00 PM]

### **Day 3 Cash Flow Analysis (ABS - Loss Curve)**

- i- Delegates will build a technically correct cash flow model for a plain vanilla transaction structure with two classes of securities. This segment builds intensively on the instruction in Days 1-2
- ii- Cash Flow Lab:
  - Delegates will apply asset-side stresses and consider the results
  - Delegates will look at variations on the principal payment structure at different pricing points and consider the nature of pro rata vs. sequential structures.

### **Day 4 Cash Flow Analysis (ABS - Loss Distribution)**

- i- Introduction to the main structural variations on the plain vanilla structure:
  - Reserve and spread accounts
  - Triggers (asset- and liability-based)
  - PACs (Principal Amortization Classes)
  - TACs (Targeted Amortization Classes)
  - Wraps (surety bonds)
- ii- Delegates will add a reserve account to the model. A short cash flow lab will follow.
- iii- Running Monte Carlo simulations
  - Going from a (single scenario) loss curve to a loss distribution
  - Using the IDFM method to select losses from a distribution
  - Writing the code for the engine

At the conclusion of this exercise, delegates will have built models that can re-engineer the Moody's and S&P ratings on the two classes of notes.

- iv- If time is available at the end of this course, we will turn to a discussion of rating agency methods for analyzing Collateralized Debt Obligations