

# Boot Camp:

## Mortgage & Mortgage-Backed Securities

### Overview

A 2-day intensive training program where students are instructed on mortgages and mortgage-backed securities. The program is designed to introduce participants to the broad variety of mortgage and MBS products, explain technical aspects of MBS performance, and demonstrate why and how different types of MBS structures are created.

The program includes both in-depth presentations and modeling case studies using MS Excel. Participants will explore a wide variety of concepts while gaining experience in modeling cash flows, market execution and risks.

### Boot Camp Agenda

Day 1: MBS market logic & history, mortgage product description, MBS pool creation, MBS markets & trading

Day 2: Prepayments & MBS price performance, mortgage credit, structured agency & non-agency MBS

### What sets this program apart?

- The program offers comprehensive instruction on the mortgage and MBS markets, including sections devoted to areas that are highly technical and difficult to teach.
- The program includes intensive Excel modeling sessions on:
  - generating mortgage and MBS cash flows
  - calculating average lives, durations and yields
  - creating MBS pools and calculating "best execution"
  - calculating dollar roll break-evens and carry
  - converting prepayment metrics
  - calculating effective durations and convexities
  - creating simple agency structuring variations

**Be sure to bring your Excel-enabled portable computers!**  
(Required for the modeling sessions)

- The program will be run by Bill Berliner of Manhattan Capital. Bill is a well-known authority on mortgages and mortgage-backed securities with 28+ years of experience in research, trading, sales, and operations. He is the co-author, with Frank Fabozzi and Anand Bhattacharya, of an award-winning text book on the sector, and has taught classes in the Fixed-Income program for CFA-LA since 2003.

### TARGET AUDIENCES

- › Private equity associates
- › Fixed Income trading & sales associates
- › Investment analysts
- › Loan originators – Secondary Markets associates
- › Accounting/Treasury/CFO Professionals
- › Regulators
- › MBAs

### PREREQUISITES

Understanding of capital markets  
Excel – Beginner level

### FORMAT

Full course – 2 days  
Course materials included

### CONTINUING ED CREDITS

12 Credits

### PRICING

\$900 for CFALA Members  
\$1,000 for non-Members

### VENUE

Biltmore Court  
520 S. Grand Ave., Suite TBD  
Los Angeles, CA 90071

### CONTACT

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# Boot Camp:

## Mortgage & Mortgage-Backed Securities

### Morning Session (8:30-11:30)

- Introduction to mortgages and MBS
- Mortgage products
- Creating MBS pools
- Loan pricing and the MBS markets
- Excel modeling of:
  - MBS cash flows
  - Loan pricing
  - Pooling execution
  - MBS carry

### Midday Session (12:30-2:00)

- Prepayment calculations
- Modeling exercise #1
  - Prepayment calculations and conversions
  - Generating cash flows
  - Loan pricing and “best execution”

### Afternoon Session (2:30-4:00)

- MBS trading
- Specified pool creation and trading
- Modeling exercise #2
  - Dollar roll break-evens
  - Calculating carry
  - Pool creation
  - Calculation of average lives and modified durations

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## Day 1 – MBS Product and Markets

### Summary

Participants will receive a thorough introduction to mortgages and mortgage-backed securities. In addition to learning a variety of concepts and terms, participants will build increasingly complex spreadsheet calculators and models.

### Subjects include:

- A brief history of the MBS market
- Different mortgage products
- How MBS pools are created
- The different markets in which MBS trade
- How carry for MBS is calculated

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### Morning Session (8:30-11:00)

- MBS relative value
- Prepayment basics
- Impact of Prepayments on MBS Performance
- Measuring the interest-rate risk of MBS
- Estimating price performance based on duration and convexity
- Modeling Exercise #3
  - Calculating effective duration and convexity
  - Calculating empirical durations

### Midday Session (12:00-2:00)

- Introduction to mortgage credit
- Agency MBS structures

### Afternoon Session (2:30-4:00)

- Modeling exercise #4
  - Calculating voluntary and involuntary prepayment speeds
  - Creating simple structures
- Non-agency MBS structures

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## Day 2 – MBS Analysis and Structuring

### Summary

The session will focus on MBS performance and structuring. Emphasis will be placed on why MBS perform differently than other fixed-income assets, and how to understand and assess their unique risk profile. The instructor will explain why different types of structures evolved and how they are designed to meet various investor clienteles' needs. The session will conclude with a discussion of non-agency MBS structures.

### Subjects include:

- The causes and effects of prepayments
- Different MBS risk metrics
- Mortgage credit
- Agency and non-agency MBS structures
- Excel modeling of
  - Duration and convexity calculations
  - Advanced prepayment calculations
  - Agency and Non-agency structures