Bond Case Briefs

Municipal Finance Law Since 1971

Bond Math Bootcamp.

August 15-16, 2016 – New York City

See Full Agenda

Register

The Bond Math Boot Camp program is a two-day training program delivered via interactive lecture format. The BootCamp is facilitated in a fashion that encourages group participation with numerous leading/rhetorical questions to draw the audience into focused discussions. The course concepts and methodologies discussion will be supplemented by in-class hands-on exercises as well as optional homework. This seminar will provide an in-depth exposure to yield, pricing and interest rate conventions for fixed income securities. The session begins with an introduction to such fundamental concepts as time value of money, interest/discount rates as well as the compounding and day count conventions upon which market measures are based.

The balance of the class will be devoted to exploring how these concepts are applied to the determination of price, yield, interest/discount rates, rates of return, accrued interest, etc. The presentation will incorporate the mechanics of the calculation: formula or methodology for determining a numeric value; source and nature of inputs into formula; implicit or explicit assumptions being used. This discussion of conventional calculations will be augmented by an introduction to the interpretation and application of the numbers – how market participants use the numbers for investment/market insights. We strongly recommend that you bring an HP12c calculator or a similar model to ensure you get the benefit of the hands-on activities during this two-day class.

Concepts and measures will be addressed in a pertinent fixed income market context, illustrating these ideas with a discussion of their use by bond traders and portfolio managers when assessing risk and return. The approach taken to address each of the major topics:

First, explain the concept and the related market intuition, what does the concept/number attempt to quantify and how do market participants interpret the number regarding any insight into market conditions/securities valuation

Second, review the specific methodology by which the measure/concept is quantified, what is the structure of the computation or process by which the number is determined, what are the inputs for the computation/process and how are they obtained as well as any implicit assumptions used in the calculation

Third, illustrate the computation/process using current market data, taking values/rates/contract details of treasury, corporate and mortgage-backed securities. To the extent possible the presentation will be guided by participant questions.

INTEREST RATES

What Is An Interest Rate?
Definitions
Interest rates, yields and rates of return compared
Interest Conventions
Simple interest
Compound interest

FINANCIAL MATHEMATICS
Time Value of Money
Significant issues
Future value
Present value

BOND PRICES AND YIELDS
Bond Prices
Present value of the cash flows to maturity (first call date)
Pricing zeros/strips and coupon bonds
Bond pricing versus bond valuation
Pricing discount securities (T-bills)
Bond Yields
Types of yields
Calculation and interpretation
Yield to maturity versus rate of return
Expected Risks Versus Expected Returns
Sources of return
Risks of fixed income securities
Yield to maturity reconsidered

YIELD CURVES
Fundamentals
Terms and definitions
Types of yield curves by security type
Yield curve construction methodologies
Yield Curves Theory and Practice
Interest rate levels and shape of the yield curve
Yield Curve Movements And The Real Economy
Yield Curves And Securities Valuation
Spot rates and the spot rate curve
Construction/determination
Analytic applications
Treasury strip market
Forward Rates – Pricing and Analytic Applications
Forward rates
Riding the yield curve
Pricing derivative contracts

QUANTIFYING AND MANAGING INTEREST RATE (PRICE) RISK
Factors Determining Sensitivity of Price to Change in YTM
Non callable bonds
Callable bonds – embedded options
Quantifying Price Sensitivity to Changes In Market Yields

Modified duration
Effective duration
Dollar duration
Impact of convexity
Non Callable Bonds
Price behavior
Modified duration and convexity
Callable Bonds
Price behavior
Effective duration and convexity
Applications of duration
Portfolio management
Hedging

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Registration Fee: The price for this two-day seminar is $1,695. Group discounts are available.
To Register: Please register online. Call 973-615-8967 or e-mail our registrar with registration questions.