Analysis and Valuation of Bonds and Fixed Income Securities

Duration: 3 Day class - 18 CPD POINTS

Course Outline

COURSE OBJECTIVES:

- To provide an appreciation and understanding of the fundamental issues, challenges and complexities around Interest Rate Measurement.
- To introduce participants to the tools and techniques of Valuation of Fixed Income Annuities.
- To equip participants with knowledge and tools of Loan Repayment schedules.
- To equip participants with knowledge and tools of Bond Valuation and Bond Analytics.
- To develop a critical mindset that can tackle continuously evolving new investment opportunities.

CONTENT:

1. Introduction to Interest Rate Measurement
   - Interest Accumulation and Effective Rates of Interest
   - Present Value
   - Equation of Value
   - Nominal Rates of Interest
   - Effective and Nominal Rates of Discount
   - Inflation and Real Rate of Interest

2. Valuation of Annuities
   - Level Payments Annuities
   - Applications and Illustrations

3. Loan Repayment
   - The Amortization of Loan Repayment
   - Amortization of a Loan with Level Payments
   - The Sinking-Fund Method of Loan Repayment
   - Applications and Illustrations

4. Fixed-Income Securities - Types of Fixed-Income Securities
   - Treasury notes (T-notes)
   - Treasury bond
   - Treasury bills
   - Municipal bond
   - Certificate of deposit (CD)
   - International Bonds : Eurobonds, Global Bonds, Brady Bonds

5. Benefits of Fixed-Income Securities
6. Risks of Fixed-Income Securities
7. Bond Basic Concepts

8. Bond Valuation
   - Valuation of zero-coupon bonds
   - Valuation of semi-annual coupon bonds
   - Bond Amortization
   - Bond Amortization - Effective Interest Method
   - Valuation between Coupon-Payment Dates
   - Change in price of bonds with time

9. Callable Bonds Valuation
   - The Corresponding Amortization Schedule

10. Traditional Yield Measures
    - Current Yield
    - Yield to Maturity (YTM)
    - Bond Equivalent Yield (BEY) and Annual-Pay Yield
    - Cash Flow Yield (CFY)

11. Bonds Analytics
    - Change in price of bonds with time
    - Duration
    - Effective Duration
    - Percentage Change in Price Using Duration
    - Macaulay Duration
    - Change in price of bonds with change in discount rate