



4 day course

Who Should Attend?

- Treasurers
- Finance Directors
- Analysts
- Corporate Finance Managers
- Back Office Staff
- Debt Managers
- Auditors & Risk Controllers
- Fund & Investment Managers

# FIXED INCOME INSTRUMENTS

## Valuing, Pricing and Hedging Techniques for Investors and Issuers

June 7-10, 2010

December 13-16, 2010

NEW YORK CITY

**This is a rigorous 4-day course on fixed income instruments and analysis**

- Focus on understanding and evaluating bond prices and yields, measures of market value sensitivity like duration, convexity, and value-at-risk, and risk management instruments such as interest rate futures, swaps, and options.
- Emphasize use as well as the limitations of these risk and rate of return statistics and hedging strategies.
- Taught by an award-winning university professor having over 20 years of experience researching fixed income and interest rate risk management and teaching professional.

**Course Director: Donald Smith,**  
Associate Professor of Finance & Economics, Boston University

**Guest Speaker: James F. Adams, CFA, Ph.D.,**  
Managing Director, JPMorgan Chase

Secure your place!  
Register before  
May 7 at

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## Agenda

# Fixed Income Instruments

### Course Background

This course has been offered by Euromoney Training in New York since 1991. It will provide delegates with a solid foundation in fixed income analysis comparable to an MBA finance elective course and CFA® exam levels I and II. Delegates will receive an extensive set of course notes including many numerical problems and solutions and supplemental readings.

### You Will Learn to:

- Understand the factors shaping innovation and change in the fixed income markets
- Determine yield and price calculations on fixed income securities
- Analyze duration and convexity in measuring interest rate risk
- Examine exchange-traded futures contracts, forward rate agreements (FRAs) and interest rate swaps
- Reverse-engineer a structured note into a plain vanilla bond and embedded derivatives

### Guest Speaker

**James F. Adams, Ph.D.**, is a Managing Director in the Global Rates Group at JPMorgan in New York. Now in his sixteenth year at JPMorgan, James heads a team responsible for the structuring and origination of risk management solutions for tax-exempt issuer clients. His particular focus is on higher education and not-for-profit clients. Prior to joining the tax-exempt risk management team earlier this year, he spent over a decade in corporate interest rate and foreign exchange risk management, and was most recently responsible for the Transportation, Technology, Media and Telecommunications sectors. He began his career at the firm in Europe, where he spent five years in Corporate Finance based in Germany covering major European multinational clients. James has also taught undergraduate and graduate economics and finance courses at The Ohio State University and City University in Frankfurt, Germany, and most recently has been a guest lecturer at both internal and external training programs.

## Day 1

### Introduction to Capital Market Structures

- Determining the Level of Bond Yields and Prices: The Demand and Supply of Funds
- Market Structures: Private Placements, Broker Markets, Dealer Markets, Intermediated Markets (Banks, Pensions, and Mutual Funds)
- Determinants of Liquidity: Market Size, Trading Volume, and the Time and Cost of Assessing Value
- Factors Shaping Innovation and Change in Capital Markets: Technology, Securitization, Disintermediation, Globalization, Derivative Markets, Yield Curve and Currency Plays, Taxation and Regulation
- Financial Engineering Zero-Coupon Government Debt: The Classic Case of CATS, TIGRs, LIONS and Treasury STRIPS
- Financial Engineering Securitized Assets: The Classic Case of Collateralized Mortgage Obligations (CMOs)

### Yield and Price Calculations on Fixed-Income Securities

- Par Value, Discount and Premium Bonds
- Yield Statistics: Current Yield, Simple Yield, Yield to Maturity
- Assumptions and Limitations to Yield Statistics
- Bond Price and Yield Calculations
- Converting a Nominal Rate to an Effective Rate
- General Periodicity Conversions
- Bond Pricing Theorems Assuming Parallel Yield Curve Shifts
- Horizon Yields, Coupon Reinvestment Risk, Price Risk
- Constant-Yield Price Trajectory
- Accrued Interest and Bond Pricing between Coupon Dates
- Generalized Bond Pricing for any Payment Frequency
- Yield Statistics on Bond Portfolios
- Credit Risk Analysis: Spreads over Benchmark Treasuries
- Expected Loss Rates, Risk-Neutrality and Risk-Aversion

**WORKSHOP:** Numerical Exercises on Bond Prices and Yields

## Day 2

### Yield Curve Analysis

- U.S. Treasury Bills, Notes and Bonds: The Auction Process, Price and Yield Quotation
- Treasury STRIPS and Bond Arbitrage: Coupon Stripping and Bond Reconstitution
- Calculating Implied Spot (Zero-Coupon) Rates from Coupon Bonds
- Using the Implied Spot Curve: Discount Factors and Static Spreads
- Calculating Implied Forward Rates
- Using the Implied Forward Curve in Maturity Choice Decisions
- Classic Theories of the Term Structure of Interest Rates: Expectations Theory, Segmented Markets Theory, and Liquidity Preference Theory Duration and Convexity Analysis
- Introduction to Duration
- Modified Duration, Dollar Duration, Basis-Point-Values
- Duration as the Link Between Changes in Market Value and Changes in the Yield to Maturity
- Calculating Duration as a Weighted Average Maturity
- Calculating Duration with a Closed-Form Formula
- Effective (Modified) Duration
- Annualizing the Duration Statistic
- Implied Duration of Floating-Rate Notes (FRNs)
- Relationship Between Duration and Maturity
- Calculating Duration Between Coupon Dates and on Portfolios
- Calculating and Using the Convexity Statistic
- Potential Gains from Increasing Convexity on Bond Portfolios
- Limitations to Exploiting Convexity
- Balancing Coupon Reinvestment Risk and Price Risk
- Immunization as Replicating an Idealized Zero-Coupon Bond
- Importance of the Investment Horizon in Risk Analysis
- Using Duration as a Benchmark for Portfolio Performance

### Value-at-Risk Analysis

- Applications of Value-at-Risk Measures: Position Limits, Resource Allocation, Capital Reserve Adequacy
- Calculating Value-at-Risk (VAR) on a Bond Portfolio
- Critical Assumptions: Confidence Intervals, Historical Volatility, Correlation

**WORKSHOP:** Numerical Exercises on Yield Curve and Duration and Convexity Analysis

## Course Director

### Don Smith

Don Smith is an Associate Professor of Finance and Economics at the School of Management, Boston University. He received his M.B.A. and Ph.D. degrees in Economic Analysis and Policy at the School of Business Administration, University of California at Berkeley. Don specializes in teaching Capital Markets and Risk Management courses. He has published widely in academic and trade journals, including the

*Journal of Finance, Journal of Money, Credit, and Banking, Journal of Fixed Income, Journal of Financial Engineering, Financial Management, Journal of Applied Corporate Finance, Euromoney Corporate Finance, Derivatives Strategy, Derivatives Quarterly, and the Journal of Derivatives. Don has co-authored chapters of the [Handbook of Financial Engineering, Interest Rate Swaps as well as Cross-Currency Swaps, and two monographs for the Association for Investment Management and*

*Research, Interest Rate and Currency Swaps: A Tutorial and Derivatives, Risk Management, and Financial Analysis Under SFAS 133]. Don has been actively involved with executive education for over fifteen years, starting with Manufacturers Hanover Trust Company, where he was Senior Consultant to the Corporate Professional Development Department. He has developed and led training courses for many financial institutions, including Chemical Bank, Chase*

Enquire or register your interest today!

Web

# NEW YORK CITY

## Day 3

### Exchange-Traded Futures Contracts

- Market Structure, Role of the Clearinghouse
- Daily Mark-to-Market Valuation and Settlement, Margin Accounts
- Long-Term Bond Futures: The U.S. Treasury Bond Contract
- Short-Term Interest Rate Futures: The Eurodollar Contract
- Assessing the Probability of FOMC Policy Actions from Fed Funds Futures

### Forward Rate Agreements (FRAs)

- Market Structure, Role of Commercial Banks as Market Makers
- Quotation and Settlement Calculations
- Pricing and Hedging FRAs with Futures Contracts
- Pricing Long-Dated FRAs: The Convexity Adjustment

### Applications of Interest Rate Derivatives in Management of Fixed Income Instruments

James F. Adams, CFA, Ph.D  
Managing Director, JPMorgan Chase

### Interest Rate Swaps

- Contract Design and Market Structure
- Quotation and Settlement Calculations
- Plain Vanilla Swaps as a Series of Off-Market Forwards
- Credit Risk Analysis on Interest Rate Swaps
- A Swap as a Portfolio of Capital Market Instruments
- Mark-to-Market Value, the Duration of a Swap
- Pricing an Interest Rate Swap Using the Forward Curve and Zero-Coupon Discount Factors
- Swap Applications: Arbitrating Credit Spread Differentials across Markets, Restructuring to Shorten or Lengthen the Average Duration of Assets or Liabilities
- Innovations: Varying Notional Principal Swaps, Off-Market Swaps, Forward-Start Swaps Credit Derivatives
- Credit Default Swaps
- Total Return Swaps
- Applications in Fixed Income Management

**WORKSHOP:** Numerical Exercises on Futures, Forward Rate Agreements, Interest Rate Swaps and Credit

## Day 4

### Overview of Options Contracts

- Vocabulary of Options
- Payoff Diagrams for Call and Put Options to the Buyer and Writer
- Factors that Determine the Value of an Option: the Key Role of Volatility in Option Valuation
- Basic Option Strategies: Portfolio Insurance and Yield Enhancement Options Embedded in Capital Market Instruments
- Callable and Puttable Bonds
- Option-Adjusted Spreads (OAS)
- Interest Rate Cap and Floor Agreements
- Implications of Cap-Floor-Swap Parity
- Reverse Engineering Structured Notes

**WORKSHOP:** Pricing Structured Notes Using Interest Rate and Credit Derivatives

This program is available in-house.

For further information, please contact:

+1 212 361 3299

[inhouse@euromoneyny.com](mailto:inhouse@euromoneyny.com)

### About Us

Euromoney Training has been the market-leader in the provision of practical banking and financial training since its inception in 1987. Over the last decade we have trained more than 30,000 market professionals globally, continually matching their financial training needs with an incisive, practical and topical portfolio of financial training courses covering all financial and legal sectors.

### In-house Training

Our in-house courses offer a highly cost effective training option for you and your clients. We can deliver all of our programs in your chosen location at a time which is convenient for you. For further information, please contact:

Tel: +1 212 361 3299

Email: [inhouse@euromoneyny.com](mailto:inhouse@euromoneyny.com)

### Venue

All of our training courses are held in 4-5 star centrally located venues. The training venues are selected by both their location and training and refreshment facilities, this ensures that you will only learn in comfortable and convenient environments. Due to the variation of delegate numbers, confirmation of the venue, full address and details of how to get there can only be sent to you approximately three weeks prior to the course start.

### Accommodation

If you require accommodation for the duration of the course, Euromoney Training has negotiated discounted rates on your behalf for standard rooms. We strongly advise to make your hotel reservation early. To book a room and for the most competitive rates currently available, please contact:

Tel: +1 212 361 3299

Email: [registration@euromoney.com](mailto:registration@euromoney.com)

Manhattan Bank, Lehman Brothers and the World Bank. He has been teaching Fixed Income and Advanced Interest Rate Risk Management courses with Euromoney for over ten years. While most of his executive training work is in New York, Don has taught courses in London and Hong Kong, as well as in Toronto, Mexico City, Caracas, Sao Paulo, Buenos Aires, Quito, Cairo, Bahrain, Tokyo, Seoul, Sydney, Singapore and Kuala Lumpur.



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4 day course

# FIXED INCOME INSTRUMENTS

## Valuing, Pricing and Hedging Techniques for Investors and Issuers

June 7-10, 2010

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### 5 easy ways to register

Please quote reference UF2081 or UF2106

1. Mail: Course Administrator  
Euromoney Training  
225 Park Avenue South, 8th Floor  
New York, NY 10003-1604 USA
2. Call: +1 212-361-3299
3. Fax: +1 212-361-3499
4. Email: [registration@euromoneyny.com](mailto:registration@euromoneyny.com)
5. Web: [www.euromoneytraining.com/americas](http://www.euromoneytraining.com/americas)

Course Director: Donald Smith

**This is a rigorous 4-day course on fixed income instruments and analysis**

- Focus on understanding and evaluating bond prices and yields, measures of market value sensitivity like duration, convexity, and value-at-risk, and risk management instruments such as interest rate futures, swaps, and options.
- Emphasize use as well as the limitations of these risk and rate of return statistics and hedging strategies.
- Taught by an award-winning university professor having over 20 years of experience researching fixed income and interest rate risk management and teaching professionals.

## Registration form

Yes, please register me for **Fixed Income Instruments**

- June 7-10, 2010 (UF2081) \$5,485 – NEW YORK CITY
- December 13-16, 2010 (UF2106) \$5,485 – NEW YORK CITY

### Delegate details

Surname \_\_\_\_\_ Mr/Mrs/Ms  
 First name \_\_\_\_\_  
 Position \_\_\_\_\_ Department \_\_\_\_\_  
 Company \_\_\_\_\_  
 Address \_\_\_\_\_  
 Telephone \_\_\_\_\_ Fax \_\_\_\_\_  
 Email \_\_\_\_\_  
 I have read and understood the booking terms and conditions  
 Signature \_\_\_\_\_ Date \_\_\_\_\_

### Fees

Fees include tuition documentation, lunch and refreshments. Delegates are responsible for their own accommodation. An invoice will be sent upon receipt of registration form. Please note, payment must be received prior to course start.

### Payment options (please tick as appropriate)

- Check enclosed: Payable to: **Euromoney Training, Inc.** Checks must be drawn on a US bank.
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### Sponsor details I wish to register the delegate indicated

Surname \_\_\_\_\_ Mr/Mrs/Ms  
 First name \_\_\_\_\_  
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 Signature \_\_\_\_\_ Date \_\_\_\_\_

### Course Venue and Accommodation

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### Fee

The registration fee covers seminar materials, refreshments, and lunch. Fee must be paid 21 working days in advance by cash, company check (U.S. dollars), VISA, MasterCard, or American Express.

### Team Discounts

When two people from the same organization register, each gets a discount of 5%. Registrations must be made at the same time and paid for together and may not be combined with any other discount.

### Cancellations

A full refund less an administration fee of \$150 will be given for cancellations up to 21 days before the event. Cancellations must be made in writing (letter or fax) and reach this office before the 21 day deadline. Delegates who cancel less than 21 days before the event, or who don't attend, are liable to pay the full course fee and no refunds can be given. However, if you wish to attend the next course, and you have paid your course fee in full, you will only be invoiced for 25% of that course fee. Please note that the next course must take place within 6 months of the initial application. Of course, a replacement is always welcome. For more information regarding administrative policies, please contact our office at +1 212 361 3299.

### Schedule Changes

Euromoney may occasionally find it necessary to reschedule or cancel sessions and will give registrants advance notice of such changes. Euromoney Training will not accept liability for costs incurred by participants or their organizations for the cancellation of travel arrangements and/or accommodation reservations as a result of the course being cancelled or postponed. We therefore recommend that delegates take out travel insurance.

### Confidentiality

The information you provide will be safeguarded by the Euromoney Institutional Investor PLC group, whose subsidiaries may use it to keep you informed of relevant products and services. As an international group, we may transfer your data on a global basis for the purposes indicated above. If you object to contact by:  telephone  fax  email please tick the appropriate box. We occasionally allow reputable companies outside the Euromoney Institutional Investor PLC group to contact you with details of products that may be of interest to you.  If you do not want us to share your information with other reputable companies, please tick this box.

### \*\*Group Booking Discounts

- 2 delegates - 5% discount
- 3 delegates - 10% discount
- 4 delegates - 12% discount
- 5 delegates - 15% discount

Available for delegates from one organisation attending the same course.