

**PI ETA CONSULTING COMPANY**

**Treasury Markets  
and  
Products**

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## **OUTLINE FOR TREASURY MARKETS AND PRODUCTS PROGRAM, A 2-DAY PROGRAM**

- **An Overview of Treasury Markets**
- **Some Essential Concepts**
  - Definition and Examples of Derivatives
    - Definition
    - Examples
    - Over-the-Counter (OTC) Derivatives
    - Exchange-Traded (ET) Derivatives
  - Development of Financial Markets, Products and Derivatives
    - Purpose of Financial Products and Derivatives
    - Development of the Financial Products and Derivative Markets
    - Evolution of the Financial Markets
    - Future of the Financial Markets
  - Introduction to Term Structure
  - Introduction to Yield Curves and Discount Factor Curves
    - Understand the Various Types of Yield and Discount Factor Curves
    - Understand the True Purpose of Yield and Discount Factor Curves
    - Understand the one-to-one relationship between Yield and Discount Factor Curves
- **Understanding The Interest Rate Markets:**
  - Introduction to Interest Rate Markets
    - Definition of Interest
    - Interest Calculation Methods
    - Money Market Interest Calculations
      - DayCount Conventions
    - History of Interest Rate Markets
    - Interest Rate Quotation Formats
    - Some Common Interest Rate Benchmarks
      - LIBOR/SIBOR
      - Swap Offer Rates (SOR)
    - Yield and Discount Curves
  - Factors Influencing the Movement of Interest Rates
    - Fundamental Factors
    - Technical Factors
    - Some Key Market Indicators
  - Examples of Interest Rate Exposures
    - Practical Examples of Interest Rate Exposures
  - Overview of Interest Rate Financial Instruments
  - A Discussion on Hedging Strategies
    - Definition of Hedging
    - Direct Hedge
    - Cross Hedge
    - Dynamic Hedge
    - Static Hedge
  - A Discussion on Investment Strategies
    - Direct Investments
    - Indirect Investments

➤ **Basic Interest Rate Products and Derivative Instruments, and Their Applications**

- Different Types of Interest Rates
  - Money Market Rates
  - Spot and Forward Interest Rates
  - Interest Rate Benchmarks
- Fixed Income Instruments
  - Coupon Bonds
  - Zero-Coupon Bonds
  - Structured Bonds
  - Derivatives on Fixed Income Instruments
- Interest Rate Derivatives
  - Forward Rate Agreements (FRA)
  - Interest Rate Futures
  - Swaps
    - Interest Rate Swaps
    - Cross Currency Swaps
    - Non-Deliverable Swaps (NDSs)
    - Asset Swaps
- Products and Derivatives Dealing using The **PERMIT**<sup>®1</sup> System
  - Products and Derivatives Dealing
  - Sensitivity Analysis
- Application of Interest Rate Products and Derivatives to Hedging and Investments

➤ **Understanding The Foreign Exchange Markets:**

- Introduction to Foreign Exchange Markets
  - Definition of Foreign Exchange
  - History of Foreign Exchange Markets
  - Foreign Exchange Quotation Formats
    - European Quotation Format
    - American Quotation Format
    - Cross Rate Quotation Format
- Factors Influencing the Movement of Foreign Exchange Rates
  - Fundamental Factors
  - Technical Factors
  - Some Key Market Indicators
- Examples of Foreign Currency Exposures
  - Practical Examples of Foreign Exchange Exposures
- Overview of Foreign Exchange Financial Instruments
- A Discussion on Hedging Strategies
  - Hedging Short Underlying Exposures
  - Hedging Long Underlying Exposures
- A Discussion on Investment Strategies

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<sup>1</sup> **PERMIT**<sup>®</sup>, which is an acronym for **PI ETA Risk Management Information Technology**, is a registered trademark of PI ETA Consulting Company.

- **Basic Currency Products and Derivative Instruments, and Their Applications**
  - Graphical Representations of Currency Risks
    - Short Position
    - Long Position
  - Currency Forward Contracts
    - Definitions
    - Currency Forward Buy Contract
    - Currency Forward Sell Contract
    - Non-Deliverable Forwards (NDFs)
  - Currency Option Contracts
    - Definitions
    - Types of Options
      - European Options
      - American Options
      - Bermudan Options
      - Other Options
  - Some Common Options Terminologies
    - In-the-Money, At-the-Money, Out-of-the-Money
    - Option Cuts
    - Intrinsic Value
    - Time Value
    - Other Terminologies
      - Greeks - Delta, Vega, etc.
  - Time Value of Options
  - Some Vanilla Option Structures
    - Call Option Spreads
    - Put Option Spreads
    - Straddles
    - Strangles
    - Combinations
    - Risk Reversals
    - Calendar Spreads
    - Other Option Structures
  - Applications of Currency Products and Options To Hedging and Investments
- **Extension of Above Notions of Currency Products and Options to Other Markets**
  - Equity Markets
  - Commodity Markets
- **The Cryptocurrency Markets, BitCoins, AltCoins, MemeCoins, StableCoins, Non-Fungible Tokens (NFTs) etc. and New Developments in these Markets.**

For more information, please contact PI ETA Engagement Resource (PEER) Group at  
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## PROGRAM FACILITATOR

### **Dr. Jeffrey C. K. Lim**

**Ph.D., C.Sci., C.Math., FIMA, FCPS, FRM, PRM, B.Fel.**

**Dr. Jeffrey C. K. Lim**, certified Financial Risk Manager (FRM<sup>2</sup>) and certified Professional Risk Manager (PRM<sup>3</sup>), is currently the Managing Director of PI ETA Consulting Company, a Treasury & Financial Risk Management Consulting Company.

A Chartered Scientist (C.Sci.<sup>4</sup>), a Chartered Mathematician (C.Math.<sup>5</sup>) and an elected Fellow of the Institute of Mathematics and Its Applications (IMA), U.K. (FIMA), Jeff earned his Ph.D. in Stochastic Financial Modeling from the University of Cambridge in England. Jeff's research interest at Cambridge was in the area of Arbitrage Opportunities occurring in the Mispricing of Financial Options, and his original research culminated in the publication of his doctoral dissertation entitled: "Multi-period Mean-Variance Option Portfolio Strategies".

Jeff was an authorized Securities & Financial Derivatives Representative in London, having been certified by The Securities and Futures Authority (SFA) in England, where he started his career as a Derivatives Analyst with Nomura International in London, England. He subsequently joined NatWest Markets from London, England to become its Head of Currency Structured Products for South and South-East Asia. Jeff then moved to American Express Bank to become its Director of Structured Products, prior to assuming his current position.

Jeff has also contributed to the development and enhancement of talent and infrastructure for Singapore's financial center as a guest Professor at the National University of Singapore's Center for Financial Engineering, where he was responsible for the curriculum of its Master of Science degree program's core modules in Financial Derivatives and Treasury Management. In addition, Jeff has also been invited by the Nanyang Technological University and the Singapore Management University to share his expertise in a similar capacity. In recognition of Jeff's expertise and experience in the field of Treasury and Financial Risk Management, the University of New South Wales Asia appointed Jeff to be its first Adjunct Professor with the university's Division of Business and Humanities.

At PI ETA Consulting Company, Jeff was Principal Inventor in two of the Patents that the company currently holds – one in Treasury & Financial Risk Management Systems, and the other in Knowledge Management Systems.

Professionally, Jeff is a Fellow of both The Global Association of Risk Professionals (GARP), U.S.A. and The Professional Risk Managers International Association (PRMIA), U.S.A. He is also an elected Fellow of the Cambridge Philosophical Society, U.K. (FCPS) and a Life-time Member of The Cambridge Society, U.K. Jeff is also honoured to be a Fellow of The Cambridge Commonwealth Society, U.K., having been previously awarded the Cambridge Commonwealth Trust and the Shell Group of Companies Doctoral Research Scholarship.

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<sup>2</sup> The *Financial Risk Manager* (FRM) designation is awarded by The Global Association of Risk Professionals (GARP), U.S.A.

<sup>3</sup> The *Professional Risk Manager* (PRM) designation is awarded by The Professional Risk Managers International Association (PRMIA), U.S.A.

<sup>4</sup> The *Chartered Scientist* (C.Sci.) designation is awarded by The Science Council, U.K.

<sup>5</sup> The *Chartered Mathematician* (C.Math.) designation is awarded by The Institute of Mathematics and Its Applications (IMA), U.K.

As a special recognition of Jeff's professional achievements, on 9 April 1999, Barons Who's Who conferred Jeff with the Barons Fellowship status, making him a Barons Fellow (B.Fel.). This award by their Charter, is limited to only the top 10% of those selected for publication in Barons Who's Who International.