

# Treasury Markets and Products

## *Comments from past participants*

*"I feel that Jeff brought out the subject matter in an enjoyable way that did not make me feel tired or sleepy even though my language is limited. I quite understand the transmission."*

– Mrs. Yadi Yuhardinata, Bank Indonesia, Indonesia.  
[Class of December 2009]

*"I really enjoyed the seminar. Very good facilitator! Didn't fall asleep at all and it's useful for me."*

– Mrs. Fifi Dermawan, PT Bank Kesawan, Indonesia.  
[Class of December 2009]

*"This seminar was good and a must for all newcomers to attend. The facilitator (Dr. Jeff) is very knowledgeable and experienced. He even shared with us a lot of his knowledge not found in books."*

– Mr. Desmond Tan, AFC Merchant Bank, Singapore.  
[Class of December 2009]

*"It's so refreshing to see Jeff share with such passion and enthusiasm! I have learnt many insights about Treasury / FX Markets that I believe would not be presented or taught elsewhere."*

*I am glad that Jeff took effort to make me feel comfortable and is concerned that I benefit from the course. His passion and dedication for what he does has encouraged me to ask questions - even those I've stopped asking after I left school.*

*I believe that Jeff's previous working experience and academically acquired knowledge together with his inquisitive character has equipped him to do his job well."*

– Ms. Grace Kwa, BNP Paribas, Singapore.  
[Class of February 2010]

# PI ETA CONSULTING COMPANY

**SEMINAR CODE: PTM02**

*"Great!!! One must join this seminar! It's very good treasury markets training, easy to understand, easy to remember!"*

– Ms. Raden Widawati (Dawie), Bank of Tokyo-Mitsubishi UFJ Ltd (Jakarta Branch), Indonesia.  
[Class of May 2010]

*"Totally different approach...Jeff took on a different perspective to deliver the seminar, which makes you understand the background, the history and the essence of the financial markets and the treasury products coming out of it. The knowledge will stay in your head for the rest of your life!"*

– Mr. David Pirzada, Bank of Tokyo-Mitsubishi UFJ Ltd (Jakarta Branch), Indonesia.  
[Class of May 2010]

*"I enjoyed the seminar very much... It's very interesting! Jeff made me have a wider concept about Treasury Markets and Products. Thanks Jeff."*

– Ms. Penny Halim, PT Bank Kesawan Tbk, Indonesia.  
[Class of May 2010]

## *Highlights*

- Understand the development of Treasury Markets and its historical evolution, its current role and its future.
- Be properly introduced to the Interest Rate Markets, its historical evolution, and where the markets are today.
- Understand the basic working mechanics involved in the Interest Rate Markets.
- Have an overview of the various Interest Rate Market Products that are commonly traded.
- Be properly introduced to Yield Curves and Discount Factor Curves.
- See examples of Interest Rate Products that are used in creating Hedging Strategies and Investment Strategies.
- Be properly introduced to the Foreign Exchange Markets, its historical evolution, and where the markets are today.
- Understand the basic working mechanics involved in the Foreign Exchange Markets.
- Have an overview of the various Foreign Exchange Market Products that are commonly traded.
- See examples of Foreign Exchange Products that are used in creating Hedging Strategies and Investment Strategies.
- Be introduced to Structured Products that are used in Hedging Strategies as well as in Investment Strategies.
- Have the opportunity to “experience the real world of financial markets” through The PERMIT<sup>®1</sup> System.

**Seminar Facilitator**  
**Dr. Jeffrey C. K. Lim, Ph.D., C.Sci., C.Math., FIMA, FRM, PRM, B.Fel.**

**Seminar Duration**  
**2 Days, 9:00am to 5:00pm**

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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.

## Seminar Background

*"Derivatives are like a surgeon's scalpel; in the wrong hands it can kill, but in the right hands, it can be used to save lives!"*

Dr. Jeffrey C. K. Lim

*"The Study of Probability Theory stems from man's inability and yet the need to comprehend the science of exactness."*

Dr. Jeffrey C. K. Lim

Many financial market participants do not always fully appreciate the reasons for the development of the financial markets, the true purpose and the optimal usage of financial products and derivatives.

In addition to the above, in as far as an appreciation of the construction of Yield Curves as a pivotal part of the financial instruments pricing engines is concerned, many participants merely view these as black boxes, with no necessity to fully understand the concepts behind the black boxes; instead they are contented to fully rely on systems to do the necessary computations for them. The lack of understanding of the key concepts behind these black boxes often leads to a lack of understanding of the inherent components of the various treasury products and derivatives, and the risk exposures they can generate.

This program intends to provide an initial basic foundational introduction to treasury markets and financial products, and to explain why some of these financial products were developed in the first instance, and how these products should be properly used and what some of the inherent risks are when dealing such products, both from the perspective of an end user as well as that of a dealer in a financial institution.

Concepts will be strongly emphasized throughout the program, and emphasis will also be on practical aspects involved in the dealing of financial products.

Participants will be put through some "dirty their hands" exercises, thought-provoking challenges and analysis of treasury products and derivatives from a dealer's perspective as well as a risk manager's perspective. The program will also include a discussion of treasury products and derivatives from an end-User's perspective.

## Seminar Content

- **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
- **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

## **Additional Reference Material**

Delegates are encouraged to browse through articles found at the following link:  
[http://www.pi-eta.com/Articles/Main\\_Page/Articles\\_FRM.asp](http://www.pi-eta.com/Articles/Main_Page/Articles_FRM.asp)

## **Options Pricing Models**

Delegates who wish to have a feel for options pricing and options sensitivities are encouraged to go to:  
[http://www.pi-eta.com/Products/Option\\_Pricing\\_Calculator\\_Intro.asp](http://www.pi-eta.com/Products/Option_Pricing_Calculator_Intro.asp)

## Benefits of Attendance

Participants will gain a good solid basic foundational knowledge of treasury markets and financial products, and understand why some of these financial products were developed in the first instance, and how these products should be properly used and what some of the inherent risks are when dealing such products, both from the perspective of an end user as well as that of a dealer in a financial institution.

## Who should attend?

Treasury and Finance Personnel, Operations and Settlements Personnel, Corporate Banking Personnel, Wealth Management Personnel, Risk Management Personnel, Accountants, Internal and External Auditors.

## Seminar Facilitator

**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.

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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.

# PI ETA CONSULTING COMPANY

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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 a Fellow of the Cambridge Philosophical Society, U.K. 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.

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.

**For more information, please contact PI ETA Engagement Resource (PEER) Group at**  
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