

# **Financial Markets Simulation**

## **- Individual Experimentation with Review Session**

### ***Highlights***

- First-of-its-kind Financial Markets Simulation experience.
- This is the Individual Experimentation with Review Session module in a series of linked modules in the Financial Markets Simulation Centre (FMSC) Foundational Program.
- Participants will have the opportunity to independently explore and experience the full practical dealing process flows on their own in dealing in the various instruments in the following Financial Markets – Interest Rate Markets, Foreign Exchange Markets, Equity Markets and Commodity Markets.
- Participants will have full access to PI ETA Consulting Company’s Dealing System - The **PERMIT**<sup>®1</sup> System to “experience the real world of financial markets and products”.
- The **PERMIT**<sup>®</sup> System is a multi-tier networkable enterprise Treasury & Financial Risk Management system developed entirely in-house by PETS<sup>2</sup> Group working in tandem with PEER<sup>3</sup> Group, that supports straight-through processing of on-line treasury transactions. PERMIT<sup>®</sup> is the world’s first comprehensive software to adopt the PET-DOG<sup>®4</sup> system (on-line Help Functions and Guidance Features).

**Chief Program Facilitator**

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

**Program Duration**

**28 Hours, Independent Schedule  
And 1 Day Interactive Review Session**

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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**.

<sup>2</sup> **PETS** is an acronym for **PI ETA Technological Support**

<sup>3</sup> **PEER** is an acronym for **PI ETA Engagement Resource**

<sup>4</sup> **PET-DOG**<sup>®</sup>, which is an acronym for **PI ETA Tactically-Developed On-line Guidance**, is a registered trademark of **PI ETA Consulting Company**.

# PI ETA CONSULTING COMPANY

**PROGRAM CODE: PFMS04**

## **Program Background**

"The extent of one's achievement is often constrained by one's believes. What we believe makes us who we are."

Dr. Jeffrey C. K. Lim

"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

Simulation offers one the ability to "experience life" without having to pay the "potentially high price" and it also cuts down on the actual time required to be invested in order to learn about the real world.

This is particularly true of trading in the financial markets.

One needs to have the opportunity to have several "dry runs" in order to have an initial feel of the financial markets; otherwise, if one is to be thrown into the system fresh, then risk exposures to the organizations they join can be high!

**PI ETA Academy-Kappa (PEAK)**, which is a subsidiary of PI ETA Consulting Company, is the *first* to provide the world with the **FMSC (Financial Markets Simulation Centres)** concept kind of interactive experiential financial markets training – allowing learning that is holistic, effective and sticks!

This Individual Experimentation with Interactive Review Session module allows participants to (on their own schedule) have the opportunity to independently experience the various dealing processes involved in the dealing of Financial Products through the use of the Dealing System. At the end of the module, there will be a one-day Interactive Review Session carried out to ensure that participants are on the right track in their Financial Markets Dealing experiential learning process.

## Program Content

### ➤ Individual Experimentation with Review Session Module

- Having gone through the initial assisted practical modules already, participants are now in a position to independently go through practical simulations on their own.
- Participants are strongly encouraged to push boundaries in their practical learning experience and to experiment with PI ETA's Treasury and Risk Management systems and its processes in order to be able to fully utilize the systems.
- A one-day Interactive Review session will be conducted at the end of the module to ensure that participants are on the right track in the Financial Markets Dealing experiential learning process.

### ➤ Introduction to Basic Interest Rate Products and Derivative Instruments

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

### ➤ Introduction to Basic Currency Products and Derivative Instruments

- Currency Spot Contracts
  - Short Position
  - Long Position
- Currency Forward Contracts
  - Currency Forward Buy Contract
  - Currency Forward Sell Contract
  - Non-Deliverable Forwards (NDFs)
- Currency Option Contracts
  - Types of Options
    - European Options
    - American Options
    - Other Options
    - Greeks - Delta, Vega, etc.
- Some Vanilla Option Structures
  - Call Option Spreads

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<ul style="list-style-type: none"><li>○ Put Option Spreads</li><li>○ Straddles</li><li>○ Strangles</li><li>○ Combinations</li><li>○ Risk Reversals</li><li>○ Calendar Spreads</li><li>○ Other Option Structures</li></ul> <p>➤ <b>Extension of Above Notions of Currency Products and Options to Other Markets</b></p> <ul style="list-style-type: none"><li>● Equity Markets</li><li>● Commodity Markets</li></ul>
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## Options Pricing Models

Participants who wish to have a feel for options pricing and options sensitivities at their convenience 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 have the opportunity to independently experience the dealing of Financial Market products, and to push the boundaries in their learning experience. An Interactive Review Session is included at the end of this module to ensure participants are on track in the Financial Markets Dealing experiential learning process. This will then prepare them for the next follow-up module in the Financial Markets Simulation Centres (FMSC) Foundational Program. Upon completion of the above practical sessions, trainees are then asked to evaluate their experiences and review the practical aspects of the lessons they have learnt to date through the use of PI ETA's Treasury and Risk Management systems. Facilitators will also provide a form of resource to assist trainees to evaluate the lessons learnt at this phase as well.

## Pre-requisites

Participants must have attended the following modules in the FMSC Foundational Program:

- Basic Theoretical Knowledge Acquisition Module
- Basic Practical Knowledge Acquisition Module
- Full Practical Process Flow Experience Module
- Initial Evaluation of the Practical Experience Module

## Who should attend?

Senior Management, Risk Management Personnel, Treasury and Finance Personnel, Operations and Settlements Personnel, Accountants, Internal and External Auditors, and anyone interested in gaining more in-depth knowledge in the Treasury and Financial Markets.

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## **Program Facilitator**

**Dr. Jeffrey C. K. Lim**, certified Financial Risk Manager (FRM<sup>5</sup>) and certified Professional Risk Manager (PRM<sup>6</sup>), is currently the Managing Director of PI ETA Consulting Company, a Treasury & Financial Risk Management Consulting Company.

A Chartered Scientist (C.Sci.<sup>7</sup>), a Chartered Mathematician (C.Math.<sup>8</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.

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

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<sup>5</sup> The *Financial Risk Manager* (FRM) designation is awarded by The Global Association of Risk Professionals (GARP), U.S.A.

<sup>6</sup> The *Professional Risk Manager* (PRM) designation is awarded by The Professional Risk Managers International Association (PRMIA), U.S.A.

<sup>7</sup> The *Chartered Scientist* (C.Sci.) designation is awarded by The Science Council, U.K.

<sup>8</sup> The *Chartered Mathematician* (C.Math.) designation is awarded by The Institute of Mathematics and Its Applications (IMA), U.K.

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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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