

PI ETA CONSULTING COMPANY

**FUTURES, OPTIONS
AND
EXCHANGE TRADED FUNDS**

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Outline for Futures, Options and Exchange Traded Funds, a 2-Day Program

- Financial Mathematics:
 - Interest Compounding Methods
 - Fixed Income Instrument Pricing and Yield Relationships
 - Notion of Duration and Convexity
 - Yield Curves and Composites

- Types of Market Measures:
 - Interest Rates
 - Bonds
 - Equity Indices
 - Individual Equities
 - Currencies
 - Other Developing Market Measures

- Principles of Trading Financial Futures:
 - Definitions
 - Futures Contract Specifications
 - Pricing
 - Costs of Carry
 - Convenience Yield
 - Basis, Contango and Backwardation

- Futures Applications and Risk Considerations

- Principles of Trading Financial Options:
 - Definitions
 - Types
 - Pricing Models
 - Black-Scholes Option Pricing Model
 - Cox-Ross-Rubinstein Option Pricing Model
 - Put-Call Parity
 - Common Terminologies
 - Time-value
 - Vanilla Option Structures
 - Call Spreads
 - Put Spreads
 - Straddles
 - Combinations
 - Strangles
 - Risk-Reversals
 - Calendar Spreads
 - Other Vanilla Option Structures

- Option Applications and Risk Considerations

- Principles of Trading Exchange Traded Funds (ETFs)
 - Definition
 - Examples of ETFs
 - Unit Investment Trusts
 - Open-ended Index Funds
 - Grantor Trusts
 - Features of ETFs

- ETFs Applications and Risk Considerations

- Clearing Principles
 - Definition and Purpose
 - Registration and Novation
 - Guarantee
 - Margin Requirements
 - Closing Out a Contract
 - Exercising and Assignment of Options
 - Transaction Costs and Settlement Processing.

Program Facilitator

Dr. Jeffrey C. K. Lim, Ph.D., C.Sci., C.Math., FIMA, FRM, PRM

Dr. Jeffrey C. K. Lim, certified Financial Risk Manager (FRM¹) and certified Professional Risk Manager (PRM²), is currently the Managing Director of PI ETA Consulting Company, a Treasury & Financial Risk Management Consulting Company.

A Chartered Scientist (C.Sci.³), a Chartered Mathematician (C.Math.⁴) 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 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.

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.. 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.

¹ The *Financial Risk Manager* (FRM) designation is awarded by The Global Association of Risk Professionals (GARP), U.S.A.

² The *Professional Risk Manager* (PRM) designation is awarded by The Professional Risk Managers International Association (PRMIA), U.S.A.

³ The *Chartered Scientist* (C.Sci.) designation is awarded by The Science Council, U.K.

⁴ The *Chartered Mathematician* (C.Math.) designation is awarded by The Institute of Mathematics and Its Applications (IMA), U.K.