

PI ETA CONSULTING COMPANY

Firm-Wide Risk Management

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“Firm-wide Risk Management should be everybody’s business, not just the CEO’s, CFO’s or the CRO’s!”

Dr. Jeffrey C. K. Lim

“Risk Management is essentially an art-form, and not a Science. Science merely provides one with the foundational platform to perfect one's art.”

Dr. Jeffrey C. K. Lim

“In Risk Management, NOT seeing the Risk is usually the biggest Risk!”

Dr. Jeffrey C. K. Lim

“Risk Management should not be about compliance alone, nor should it be for public relations and other trivial purposes alone. It must be embraced as a powerful strategic business management tool to enhance competitiveness and to ensure the continuity of an organization so that the organization can continue to do what it is best at! That should be the true purpose of Risk Management.”

Dr. Jeffrey C. K. Lim

“It is not the strongest of the species that survives, nor the most intelligent, but the most responsive to change!”

Charles Darwin

OUTLINE FOR FIRM-WIDE RISK MANAGEMENT PROGRAM, A 2-DAY PROGRAM

➤ **Introduction to Enterprise-wide Risk Exposures**

- What are Risks?
- Examples of Risks
- Types of Risks
 - Market Risk
 - Credit Risk
 - Operational Risk
- Understanding The Impact of Enterprise-wide Risk Exposures
 - Market Risk
 - Credit Risk
 - Operational Risk
 - Understanding that the above risks are inter-twined and often do not occur in silos
- True Purpose of Firm-wide Risk Management
 - Not Just for Regulatory Purposes
 - Not Just to meet Accounting Standards
 - Not Just for Public Relations Purposes
 - Not Just because it is the “in” thing
 - True Purpose

➤ **Market Risk**

- Definition of Market Risk
- Examples of Market Risk
- Types of Market Risks
 - Interest Rate Risk
 - Foreign Exchange Risk
 - Equity Risk
 - Commodity Risk
 - Other Market Risks
- Quantitative Market Risk Measures
 - Value-at-Risk (VaR)
 - VaR Horizons
 - VaR Confidence Levels
 - VaR Features
 - VaR Limitations
 - Conditional Value-at-Risk (C-VaR)
 - C-VaR Features
 - C-VaR Limitations
- Stress Testing as a Complementary Measure
- Back-Testing as a Control Measure

➤ **Credit Risk**

- Definition of Credit Risk
- Examples of Credit Risk
- Definition of Credit Events
 - Bankruptcy
 - Failure to pay
 - Obligation/Cross Default
 - Obligation/Cross Acceleration
 - Repudiation/Moratorium
 - Restructuring
 - Downgrade
 - Other Credit Events
- Types of Credit Risks
 - Settlements Risk
 - The Failure of Bankhaus Herstatt (1974)
 - BCCI
 - Pre-Settlement Risks
- Elements of Credit Risk
 - Probability of Default
 - Exposure Given Default
 - Recovery Rates
- Understand the Link Between A CounterParty's Enterprise Risk Exposures and The Bank's Credit Risk Exposure To The CounterParty and A CounterParty's Default
- Understanding The Role of Credit Officers as Gate-Keepers of Bank's Assets
- Understanding The Role of Credit Risk Managers as Gate-Keepers of Bank's Assets

➤ **Operational Risk**

- Definition of Operational Risk
- Types of Operational Risks
 - People Risks
 - Process Risks
 - System Risks
 - External Risks
 - Reputation Risks
 - Other Operational Risks
- Examples of Operational Risk
 - Barings Futures Singapore Fiasco
 - Sumitomo
 - NatWest Markets
- Operational Risk Classification Scheme
- Some Operational Risk Mitigating Strategies
 - Training
 - Systems
 - Insurance
 - Outsourcing

- **Recommended Risk Management Organizational Structure and The Role of The Chief Risk Officer (CRO) and other Risk Officers**
 - Recommended Risk Management Organizational Structure
 - Chief Risk Officer (CRO) reporting independently to the Board of Directors (BOD)
 - Chief Market Risk Officer, Chief Credit Risk Officer and Chief Operational Risk Officer reporting to the Chief Risk Officer
 - Role of the Board of Directors (BOD) Risk Management Committee
 - Role of the Chief Risk Officer and Other Risk Officers
 - Catalytic Risk Champions
 - Strategic Alliance Partners
 - Creation of an Enterprise Risk Culture
 - Inducing a Radical Collaboration Practice
 - Effective Gate-Keepers

- **The Basel Capital Accord**
 - The Basel Committee
 - History Of The Basel Capital Standards
 - The 1988 Basel Capital Accord
 - The 1996 Amendment
 - The June 1999 proposal
 - The Proposed New Accord
 - Structure Of The New Accord
 - The First Pillar: Minimum Capital Requirement
 - The Second Pillar: Supervisory Review Process
 - The Third Pillar: Market Discipline

Additional Reference Material

Participants are encouraged to browse through articles found at the following link:
http://www.pi-eta.com/Articles/Main_Page/Articles_FRM.asp

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 (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, 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.

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.

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.