



BF029: UNDERSTANDING FINANCIAL DERIVATIVES (WITH FRS 32 & SAS 33 EXPLAINED)

Seminar Background

The aftermath of the Asian economic crisis and the current global economic upheavals have increased the emphasis on good financial risk management practices by both financial institutions and corporations. One of the essential tools in financial risk management is the use of financial derivative(s) to hedge against market risk exposures to minimize losses. With the recent liberalization of the financial markets and the availability of more exotic financial derivatives in the market, it is critical that organizations have a solid foundational knowledge of financial derivatives, and have the expertise to apply them in practice to minimize market risk.

Benefits of Attendance

At the end of the seminar, participants will acquire the foundational knowledge of various basic financial derivatives in the market place and develop an intuitive feel for such products. This will equip participants with an extended toolbox, thereby optimizing their hedging and financial risk management solutions. They will also understand the treatment of such instruments in light of the FRS 32 and SAS 33 accounting standards.

Who should attend?

Senior Management, Treasury Personnel, Finance Personnel, Risk management Personnel, Project Personnel, Accountants, Internal and External Auditors.

Seminar Contents

- 1. Some Essential Mathematical Concepts**
 - 1.1. Definition and Examples of Derivatives
 - 1.1.1. Definition
 - 1.1.2. Examples
 - 1.2. Some Essential Mathematical Concepts
 - 1.2.1. Probability Theory
 - 1.2.2. Permutations and Combinations
 - 1.2.3. Mathematical Expectation
 - 1.3. Time Value of Money
 - 1.3.1. Definition
 - 1.3.2. Future Value of Money
 - 1.3.3. Present Value of Money
 - 1.4. Concept of Fair Value and Option Premium
 - 1.5. Introduction to Term Structure
 - 1.6. Building a Yield Curve
- 2. Some Basic Interest Rate Derivative Instruments and Their Applications**
 - 2.1. Different Types of Interests Rates
 - 2.1.1. Cash Rates
 - 2.1.2. Spot & Forward Interest Rates
 - 2.2. Interest Rate Derivatives
 - 2.2.1. Interest Rate Futures
 - 2.2.2. Swaps
 - Interests Rate Swaps
 - Cross Currency Swaps
 - 2.3. Valuation of Interest Rate Swaps
 - 2.4. Building The Yield Curve
 - 2.5. Valuation of Cross Currency Swaps
 - 2.6. Other Interest Rate Derivatives
 - 2.6.1. Variations of Basic Swaps
 - 2.6.2. Caps and Floors
 - 2.6.3. Swaptions
 - 2.6.4. Limited Caps and Floors
 - 2.7. Sensitivity Analysis – The Greek Alphabets
 - 2.8. Derivatives Dealing using The **PERMIT**[®] System
 - 2.8.1. Derivatives Dealing
 - 2.8.2. Sensitivity Analysis
 - 2.9. Applications of Interest Rate Derivatives to Hedging and Investments



3. **Some Basic Currency Derivative Instruments and Their Applications**
 - 3.1. Graphical Representations of Currency Risks
 - 3.2. Currency Forwards Contracts
 - 3.2.1. Definitions
 - 3.2.2. Currency Forward Buy Contract
 - 3.2.3. Currency Forward Sell Contract
 - 3.3. Currency Option Contracts
 - 3.3.1. Definitions
 - 3.3.2. Types of Options
 - 3.4. Pricing of Options
 - 3.4.1. Black-Scholes Option Pricing Model
 - 3.4.2. Binomial Option Pricing Model
 - 3.4.3. Limiting Case of the Binomial Option Pricing Model
 - 3.4.4. Put-Call Parity
 - 3.4.5. Volatility Determination
 - 3.4.6. The Volatility Smile Curve
 - 3.5. Some Common Options Terminologies
 - 3.6. Time Value of Options
 - 3.7. Some Vanilla option Structures
 - 3.8. Sensitivity Analysis and The Greek Alphabets
 - 3.8.1. Definitions
 - 3.8.2. Calculating the Greek Alphabets
 - 3.9 Options Dealing using The **PERMIT**[®] System
 - 3.9.1. Options Pricing and Structuring
 - 3.9.2. Sensitivity Analysis
 - 3.9.3. Scenario Analysis
 - 3.10. Applications of Currency Options to Hedging and Investments
4. **Accounting and Audit Aspects**
 - 4.1. **FRS 32:** Financial Instruments: Disclosure and Presentation
 - 4.2. **SAS 33:** Financial Instruments: Recognition and Measurement



Seminar Facilitators

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, 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.

Seminar Details

Duration : 3 days (24 CPE hours)
Dates : 18 - 20 May' 05; 26 – 28 Oct' 05
Time : 9.00am to 5.00pm
Fees* : ICPAS Members S\$1,700.00
Non-members S\$2,200.00

Venue : 20 Aljunied Road, CPA House, Singapore

**The fees quoted are inclusive of seminar materials and refreshments. GST (Goods and Services Tax) will additionally be charged at the prevailing rate.*

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.