# Financial Market Risk Management

#### Comments from past participants

"This is one of the best treasury-related seminars I've attended so far. Dr. Jeffrey Lim was able to bring us back to the basics, which set us in focused thought processes for the seminar contents. He was able to bring out the essence and key points of the key risk areas."

– Ms. Loo Yin Ha, United Overseas Bank, Singapore. [Class of April 2002]

"Instructor shared much of his practical experience and made the class effective and interesting by making the seminar interactive. A highly recommended seminar indeed!"

– Ms. Selina Chew, Daiwai Securities SMBC Singapore Ltd, Singapore. [Class of April 2002]

"The Financial Market Risk Management Seminar is insightful. The approach is intuitive and is a must-attend for any financial professional."

> – Mr. Vincent Chia, American International Assurance Co., Singapore. [Class of September 2003]

"The seminar was a very good learning experience and was full of insights on the use of risk management. The exercises were good experiences as well, as it allowed participants to perform the calculations and apply VaR to their respective areas of business. Additionally, the approach of Dr. Jeffrey Lim was light-hearted and casual which made the learning fun."

 Mr. Rafael G. Ayuste, Jr., Metropolitan Bank & Trust Company, Philippines. [Class of March 2004]

#### SEMINAR CODE: PRM02

"The seminar was very challenging, considering the time-frame of 2 days and given the depth of the topic itself. However we are mostly satisfied by the presentation given by Dr. Jeffrey C. K. Lim which opened our minds up to new ways of thinking about Risk Management."

> – Mr. Irwan Hendroyono, Bank Panin, Indonesia. [Class of March 2004]

"Attending PI ETA's Financial Market Risk Management seminar is really a very good learning experience for me. Not only did the lecturer explain the various types of risks in the financial markets and the tools used to measure them, he also explained the rationale behind the computations to measure risks. The actual experiences of Dr. Jeff. Lim helped the participants understand the concept of risks better as he was able to relate it to actual events in the workplace.

Dr. Jeffrey Lim made the two-day affair a very lively and exciting seminar. He is one of the best lecturers I have come across!"

 Mr. Dennis Anthony Elayda, Metropolitan Bank & Trust Company, Philippines. [Class of March 2004]

"Time is money. Time is so precious, but we waste no time at all by attending this 'must-see' seminar by PI ETA!" – Mr. Emil S. Darmadi, Bank Panin, Indonesia. [Class of March 2004]

"Very relevant, practical and useful! Detailed explanation given on basic fundamentals." – Ms. Tan Yee Hoon, Mizuho Corporate Bank, Singapore. [Class of September 2004]

"It is a seminar that should be attended by anyone who is involved in risk management. Jeff's clear and precise explanations have dispelled all ambiguity that one may have regarding VaR. A seminar not to be missed!"

– Mr. Tan Kok How, UOB Asset Management Ltd, Singapore. [Class of September 2005]

"This seminar really widens my perspective on Risk Management and introduces me to new ideas." – Mr. Bryan Thio, UOB Asset Management Ltd, Singapore. [Class of September 2005]

"It is an excellent seminar given by an equally excellent risk management professional." – Mr. Sim Choo Kay, PT. Bank UOB Indonesia, Indonesia. [Class of August 2006]

"Very insightful and stimulating seminar! I've enjoyed the 2-full day seminar very much." – Mr. Patrick Hong, Rabobank International, Singapore. [Class of February 2007]

"I'm happy that PI ETA provided us a humble and expert facilitator. Though the time allotted for the seminar is quite short, everybody really appreciated how Jeff makes it easier for us to internalize the importance of "Risk Management"."

Mr. Gener C. Salvador, Bank of Commerce, Philippines.
[Class of February 2008]

#### SEMINAR CODE: PRM02

"I would like to commend the facilitator for being able to explain the complex world of financial risk management in simple and understandable terms. A complete paradigm shift on how to look at things. An Excellent and Highly recommended seminar!"

 Mr. Joel M. Escala, Equitable PCI Bank, Philippines. [Class of February 2008]

"The seminar was very helpful in making us understand the basics of VaR and how it came to be developed. The rationale behind industry practices were explained and you'll be amazed at how these were derived. Important concepts and developments were also discussed which cannot be found in textbooks.

With the help of Prof. Lim, we were able to comprehend complex formulas and understand its different uses in the financial world (you'd want to go back to your college math professor and tell him "I would have understood math better if you taught it this way!"). We also did Excel/Visual Basic exercises to better understand the different methodologies of VaR.

Prof. Lim has a way of connecting to the participants despite the alphabets at the end of his name. He was able to discuss what financial risk management is all about and how it can help your company to continue to do what it's best at!"

Ms. Ma. Jennifer A. Garcia, Equitable PCI Bank, Philippines.
[Class of February 2008]

"A sensational seminar delivered with full practicality on financial risk management aspects to be adopted by any business institutions in the current era. Topics covered are accentuated with real life examples and not just textbook references. A must for all risk management professionals and/or treasury dealing personnel who wish to use the knowledge acquired from this seminar as a tool to improve overall business management and profitability!"

– Mr. Roland Yeoh Kong Eng, AmBank Group, Malaysia. [Class of February 2008]

"This is an enlightening seminar for me. Jeffrey is able to make the seminar easily understandable and practical. Very comprehensive! Suitable for Risk Managers to attend."

Mr. Andrew Chew Keng Soon, Bangkok Bank, Singapore.
[Class of February 2009]

"The seminar was very insightful. Besides that, the facilitator, Jeff, has a lot of experience about this subject so he can answer all the participants' questions in a smart way and is easy to understand."

> Ms. Novianawati Wahyuni, The Bank of Tokyo Mitsubishi UFJ, Indonesia. [Class of August 2010]

"The seminar provides a very good insight to the fundamentals of Risk Management!" – Mr. Lim Chng Hou, United Overseas Bank Limited, Singapore. [Class of August 2010]

"Jeffrey makes complex things look easy through real life examples. More importantly, he makes it interesting." – Mr. Md. Zakir Hossen, IPDC of Bangladesh Limited, Bangladesh. [Class of March 2011]

"This seminar is a great learning experience! Dr. Jeffrey shares some good real life experiences in dealing with financial markets."

Mr. Md. Ashique Hossain, IPDC of Bangladesh Limited, Bangladesh.
[Class of March 2011]

#### SEMINAR CODE: PRM02

"The seminar was great and very helpful in understanding market risk management!" – Ms. An Lan, Bank of Communications Co., Ltd, Singapore. [Class of May 2013]

"The seminar was great! Jeff knows how to explain the concepts of Risk Management in Financial Markets with simple and interesting way. A highly recommended seminar."

– Mr. Rio Adhitomo, The Bank of Tokyo Mitsubishi-UFJ, Jakarta Branch, Indonesia. [Class of October 2017]

"Great insight to Risk Management! Really made me understand." – Mr. Ahmad Faisal Hamdi Bin Dato Paduka Haji Junaidi, Brunei Investment Agency, Brunei Darussalam.

[Class of October 2017]

"Great and out-of-textbook session!" – Ms. Sharon Teo Peck San, Bangkok Bank Public Company Limited, Singapore. [Class of May 2018]

"This seminar is an Eye-Opener. Changed my mindset on Risk Management!" – Ms. Chen Suyang, Bank of Communications Co. Ltd, Singapore. [Class of May 2019]

"Very Challenging Topic, but Jeff explained well!" – Ms. Jenny Woon, Sumitomo Mitsui Banking Corporation, Singapore. [Class of April 2021]

"Real Life Case Studies encouraged a lot of Thinking and Reflection!" – Ms. Joey Lin, The Bank of Nova Scotia, Singapore. [Class of March 2022]

"Very detailed Financial illustrations! I learnt more than I expected and wish I can apply to my work to improve my working performance. Thanks for the Two-day program!"

– Ms. Xiao Meng Ni, Bank of Taiwan, Taiwan. [Class of May 2024]

"I fully understand my job responsibilities now and have a better understanding of how things are calculated. Was easy to understand the formulae and concepts even without a Math background!"

– Ms. Ethel Joan Yeong, PT Bank Negara Indonesia (Persero) Tbk, Singapore. [Class of May 2025]

#### SEMINAR CODE: PRM02

# Highlights

- Risk Management is everyone's business, not just the CEO's, CFO's or CRO's
- The biggest Risk in Risk Management is NOT seeing the Risk!
- In living life, the secret of the How's is actually in the Why's!
- Gain an insight to various Good Risk Management Practices
- Understand the Importance of embracing practices that will bolster **Operational Resilience**
- Acquire foundational knowledge on Bond Mathematics and an understanding of Probability Distributions from a first principles perspective
- Be introduced to the notion of Value-at-Risk (VaR) and actually perform calculations to obtain VaR under simulated scenarios
- Examine the advantages and disadvantages of **VaR** and explore alternative risk measures like Conditional Value-at-Risk (**C-VaR**)
- Have an understanding of the amount of exposure that an organization faces in relation to the different types and sources of Financial Market Risk
- Be introduced to The Basel Capital Accord

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

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

### SEMINAR CODE: PRM02

## Seminar Background

Risk Management should be everybody's business, not just the CEO's, CFO's or the CRO's!

Financial Risk Management is crucial in all businesses.

During the recent crises, many companies suffered irrecoverable blows due to the lack of a proper risk management process, policies and framework. In addition to this lack, weak corporate governance also contributed to many failures that we have seen in recent times. We need to understand the Importance of embracing good practices that will bolster *Operational Resilience*.

As we move ahead, regulators here are requiring companies to implement means of measuring their financial risks (mark-to-market) and to be prudent, i.e., hedge their exposures (IAS 39). As a result, there is a need for companies to understand the various Market Risk Management concepts and know-how in order to *identify, mitigate, measure, monitor and manage* their risks successfully.

This seminar aims to raise the awareness on the importance of market risk management on a firmwide basis and to equip attendees with requisite knowledge and foundational tools to make those key decisions.

# Seminar Content

### Bond Mathematics

- Interest Compounding Methodologies
- Price and Yield Relationship
- Duration and Convexity

### Probability Distributions

- Random Variables and their Moments
- Function of Random Variables
- Key Probability Distributions

### Value-at-Risk (VaR)

- Definitions
- VaR Confidence Levels and Horizons
- Back and Stress Testing
- Conditional VaR (**C-VaR**)

### Types of Financial Market Risk

- Systematic and Non-systematic
- Sources of Financial Risk
  - Interest Rate, Foreign Exchange, Equity and Commodity

#### SEMINAR CODE: PRM02

### VaR Calculation Methodologies

- Historical Simulation Method
- Monte Carlo Method
- Other alternative Methodologies

### **Benefits of Attendance**

Participants will acquire an understanding of the notion of Value-at-Risk (from a basic foundational approach). Equipped with this knowledge, they can better measure, monitor and manage the various sources of financial market risk that an organization is exposed to.

#### Who should attend?

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

### Seminar Facilitator

**Dr. Jeffrey C. K. Lim**, certified Financial Risk Manager (FRM<sup>1</sup>) and certified Professional Risk Manager (PRM<sup>2</sup>), is currently the Managing Director of PI ETA Consulting Company, a Treasury & Financial Risk Management Consulting Company.

A Chartered Scientist (C.Sci.<sup>3</sup>), a Chartered Mathematician (C.Math.<sup>4</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

<sup>&</sup>lt;sup>1</sup> The *Financial Risk Manager* (FRM) designation is awarded by The Global Association of Risk Professionals (GARP), U.S.A.

<sup>&</sup>lt;sup>2</sup> The *Professional Risk Manager* (PRM) designation is awarded by The Professional Risk Managers International Association (PRMIA), U.S.A.

<sup>&</sup>lt;sup>3</sup> The *Chartered Scientist* (C.Sci.) designation is awarded by The Science Council, U.K.

<sup>&</sup>lt;sup>4</sup> The *Chartered Mathematician* (C.Math.) designation is awarded by The Institute of Mathematics and Its Applications (IMA), U.K.

#### SEMINAR CODE: PRM02

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 by their Charter, is limited to only the top 10% of those selected for publication in Barons Who's Who International.