

SMU-SGX Quantitative Trading Course

Singapore Management University
School of Accountancy, Basement 1
Simulated Trading Room

Trainers: Associate Professor Christopher Ting and Mr. Ng Tee How

Course Duration: 2 Days

Course Features

- Hands-on "proprietary trading" with live-feed market data from SGX and Eurex
- Step-by-step hand-holding by an industry expert to implement a trading strategy
- Practical and useful lessons conducted by a professor who had seen it and done it
- Insightful observations on the correlating behaviours of some SGX derivatives with derivatives of other exchanges
- Simple-is-beautiful approach to design and implement quantitative trading strategies



By the end of the course, participants will be able to:

- Put into practice the knowledge of computing the cash index directly and deriving the fair value of a futures contract.
- Apply the fair value as a reference price, and estimate the premium or discount in the market price by the leading futures market at different hours of the day
- Implement the simple calendar spread
- Compute the hedge ratio of two highly correlated futures contracts
- Derive the fair value of the quanto spread
- Apply different orders to either stop out or to ride the momentum
- Describe the importance of finding a few quantitative trading models that work for the trader
- Develop the ability and habit to manage risk and stay healthy mentally
- Start "prop" trading as a business venture

Highly recommended for:

- Junior traders who are short of solid foundation in Quantitative Finance
- Retail traders who want to start trading futures contracts
- Entrepreneurial individuals who want to start the trading business
- Beginners who are curious and willing to learn

Course Description

This 2-day course hand-holds the beginners to go about trading futures by journeying from the very basics to the intermediate level. Through hands-on trading experiments on a trading platform used by many professional traders, participants will learn the trade plied by disciplined traders who are able to trade futures for a (good) living. The course introduces a few simple quantitative trading strategies, demystifies "high-frequency" and "algorithmic" trading, presents practical methods to generate a "reference" price to gauge the market sentiment, and to gain a deeper understanding of how futures markets lean on each other for direction. More importantly, participants will know how to calculate the number of contracts per trade/position to achieve the optimal reward-to-risk ratio, as well as the optimal level to cut loss or to take profit. At the end of this course, participants will acquire a well-grounded confidence and discipline to start trading futures contracts.

Course Schedule

DAY ONE

Session 1

Overview of SGX's Derivative Products and Electronic Market Place

A. An overview of tradable financial instruments

- Four major asset classes: equities, currencies, commodities, and fixed income
- Cash markets versus derivative markets
- Exchange versus OTC
- Financial instruments with maturities versus those without maturities
- Linear payoff versus nonlinear payoff

B. Trading versus investment

- Holding period or investment horizon
- Portfolio rebalancing versus market timing
- Hedging versus scalping
- Market making
- Linear payoff versus nonlinear payoff

Session 3

Case Study: Trading Singapore MSCI Index Futures

A. Calculation of cash index value from the component stocks

- Free float
- Divisor

B. Calculation of the fair value of SIMSCI index futures

C. Market behaviors of SIMSCI index futures

D. A simple trading strategy using stop-limit orders

Session 2

A. Price grid, tick size

B. Market order versus limit orders versus stop order

C. Dynamics of the limit-order book

D. Liquidity

- Bid-ask spread
- Market depth

E. Price Impact

F. Order Flows

Session 4

Trading Strategies

A. An overview of automated trading

- Market making
- Program trading

B. State-of-the-art HFT infrastructure

C. Calendar spread trading

D. Inter-market spread trading

E. Quanto spread trading

F. Mishedges and cutting losses

Session 5

Batch Auction

A. Short-term intraday momentum

B. Effects of overnight market

Session 6

Managing the Risk of Professional Trading

A. Proprietary trading as a business

B. Margin

C. Money & risk management

D. Kelly's criterion

Session 7

Hands-on trading and risk management

Session 8

Summary

Registration Details

Course Fee

Before GST
SGD 934.58

After GST (7%)
SGD 1,000

Online Registration starts now!

Mode of Payment

- Credit Card (through Paypal)

Cancellation Policy

All cancellation has to be made in writing.

100% of the course fee will be refunded if notification is received three weeks or earlier before the course date.

50% of the course fee will be refunded if notification is received two weeks before the course date.

There will be no refund if notification is received within a week before the course date.

For enquiries, please email to :
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