ECON 3140A Financial Data Analysis Fall 2021

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Office Hours:	Mon 2:00 pm – 4:30 pm or by appointment	
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Lecture Time:	Mon 4:30 pm – 7:15 pm, YIA LT3	

Course Objectives and Learning Outcomes

This course aims to introduce contemporary approaches to technical analysis. Technical analysis involves the use of historical stock prices, volume, and other related data to forecast future price movements. Its objective is to identify trend changes at an early stage based on information available.

On completion of this course, students should be able to analyze financial data by using mainstream technical analysis techniques, evaluate the performance of different technical trading rules in different markets, and write a research paper on technical analysis.

References

Reading materials of this course will be mainly based on the lecture handouts, which will be uploaded regularly at the Blackboard: <u>https://blackboard.cuhk.edu.hk</u>

Murphy (1999), Technical Analysis of the Financial Markets, New York Institute of Finance

Pring (2014), <u>Technical Analysis Explained</u>, McGraw-Hill

Soros (1994, 2003), The Alchemy of Finance, John Wiley & Sons

There are many studies in the literature on technical analysis. You may go to the Library homepage, use the search engine "<u>EconLit</u>", type "trading rules" or "technical analysis" to search for those journal articles.

Useful websites:

http://www.hkex.com.hk http://www.etnet.com.hk http://www.aastocks.com http://www.google.com.hk/finance http://hk.finance.yahoo.com http://www.bloomberg.com

<u>Assessment</u>

Term Paper = 25%Deadline: Dec 6

- → Each group should have no more than 4 members. The project is a <u>2000-word</u> paper studying the <u>profitability of trading rules</u>. Data can be obtained from <u>Thomson Reuters Eikon (DataStream)</u> in the University Library. Span of the time series data used in the project should be at least 10 years.
- ➔ All student groups must upload the electronic copy of their term papers to the plagiarism detection engine, VeriGuide. Term papers that without the VeriGuide receipt will <u>not</u> be graded.

Mid-term Exam = 30% In-Class, Oct 25

Final Exam = 45% University Centralized Exam Period: Dec 8 to Dec 23

→ Make-up exam will <u>never</u> be provided. Absence <u>must</u> lead to <u>zero</u> point.

Teaching Schedule

Part 1. Brief Introduction to the Stock Market of Hong Kong and other Equity Markets

- The History of Hong Kong Stock market
- The Calculation of Hang Seng Index
- The Hang Seng Futures

Part 2. Chart Construction

- Type of Charts Available
- Construction of the Daily Bar Chart

Part 3. Chart Pattern Analysis

- Support, Resistance
- Trendlines, Channels, Trend Channels
- One-day Reversal, Two-day Reversal
- Blowoffs and Selling Climaxes
- V Formation and the Extended V Formation
- Double Bottoms and Double Tops
- Triple Tops and Bottoms
- Saucer Top or Rounding Top
- Saucer Bottom or Round Bottom
- Head-and-Shoulders Top

Part 4. Moving Average

- Simple Moving Average
- Weighted Moving Average
- Exponential Moving Average

Part 5. Oscillators Analysis

- Oscillators, Momentum
- Relative Strength Index
- Stochastics

Part 6. Warrants

- Covered and Noncovered Warrants
- American and European Warrants
- Premiums

Part 7. The Elliott Wave Theory

- Corrective Waves
- The Rule of Alternation
- Channeling
- Fibonacci Numbers as the Basis of the Wave Principle

Academic Honesty

Commodity Market

- Forex Market
- Weekly and Monthly Bar Charts
- Candlesticks
- Head-and-Shoulders Bottom
- Complex Head-and-Shoulders Pattern
- Head-and-Shoulders Consolidation
- Inverted Triangle, Symmetrical Triangle, Ascending Triangle, Descending Triangle
- Rising Wedge, Falling Wedge
- Rectangle
- Flag, Pennant
- Scallops, Fan Principle
- Gaps, The Island Reversal
- Moving-Average Channels
- Bollinger Bands
- MACD
- DMI
- OBV
- Gearings
- Profit-Loss diagram
- Fibonacci Ratios and Retracements
- Using Fibonacci and Other Number Series to Establish Price and Time Targets

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