

The University of Greenwich



Trading Techniques

Final Examination

Summer 2009

Time Allowed: 2 hours

**Students must answer ALL questions in Section 1,
ALL questions in Section2 and
ONE question in Section 3.**

No calculator permitted in this examination.

SECTION 1**ANSWER ALL QUESTIONS IN THIS SECTION**

For each of the multiple-choice questions below, identify the correct answer and write a brief justification for your choice, where appropriate. Additional marks will be awarded for correct explanations.

1. Which one of the following institutions is the largest public debt issuer?

- a Central Bank of China
- b General Motors
- c US Treasury
- d Japanese Ministry of Finance

Marks [2]

c – US Treasury

2. On a daily candlestick chart, what does a large white candlestick body illustrate?

- a The closing level was significantly lower than the opening level
- b The market closed at the high of the day
- c The closing level was significantly higher than the opening level
- d The market volume was at a very high level

Marks [2]

c - A large open/close range and an “up” day

3. Last year your client invested in a new issue 10 year fixed rate annual coupon fixed income security at par. As 10 year market interest rates rise, his position holding will incur a:

- a Mark-to-market profit as the security price rises
- b Mark-to-market loss as the security price falls
- c realized profit as the security price rises
- d realized loss as the security price falls

Marks [2]

b – Higher interest rates imply lower security prices

4. What type(s) of chart give(s) high, low, open and close data?

- a Line charts and bar charts
- b Bar charts only
- c Line charts and candle charts
- d Bar charts and candle charts

Marks [2]

d – They both provide OHLC data – line charts just give one price

5 The beta coefficient of a stock that has much greater volatility than the index would most likely be:

- a -1
- b 0
- c 1
- d 2

Marks [2]

d – Higher volatility = Higher beta coefficient

6 Which of the following is not a tenet of Dow Theory?

- a Some fundamental information may not be reflected in the price
- b Markets move in trends and trends persist
- c Volume should increase in the direction of the trend
- d Major trends go through three phases

Marks [2]

a – All information – including fundamental info - is discounted in the price

7 Which of the following best describes a Eurobond?

- a A Swiss company issues a Samurai bond
- b A German company issues US dollar bonds in New York
- c A Japanese company issues US dollar bonds outside the USA
- d A US company borrows yen in Tokyo

Marks [2]

c - A **Eurobond** is an international bond denominated in a currency not native to the country where it is issued. It can be categorized according to the currency in which it is issued. London is one of the centers of the Eurobond market, but Eurobonds may be traded throughout the world.

8 **When a downtrend line is broken, this tells us that:**

- a The downtrend is definitely going to reverse
- b Market volume is increasing
- c The downtrend is losing momentum
- d None of the above

Marks [2]

c – The breaking of the downtrend line only tells us that the trend is not going down as fast as it was (i.e. downtrend losing momentum)

9 **For which of the privileges below do common stockholder not qualify?**

- a The right to vote on election of company's directors
- b Dilution risk
- c Income payments according to profit availability
- d Dividend guarantee

Marks [2]

d - There is no dividend guarantee in common stocks

10 **Which of the following is not true for a Double Bottom?**

- a It occurs in a downtrend
- b Momentum (as defined by the RSI) continues to drift lower during the formation of the pattern
- c A buy signal is given by an upside breakout
- d A confirmed Double Bottom is a bullish pattern

Marks [2]

b – The oscillator should increase in value as the pattern develops

11 **Which important comparative financial ratio is used for stock market valuation (using units of years)?**

- a Earnings yield
- b Market capitalization
- c Price earnings ratio
- d Stock price

Marks [2]

c – P/E ratio

12 In candlestick analysis, what does a “Piercing Pattern” indicate?

- a Potential continuation of a downtrend
- b Potential continuation of an uptrend
- c Potential reversal of a downtrend
- d Potential reversal of an uptrend

Marks [2]

c – It is a reversal pattern signaling the potential end of a downtrend

13 Over the recent period of turmoil, world stock indexes have fallen. What has happened to overall dividend yields?

- a Fallen
- b Stayed the same
- c Dividend yield is not related to stock index levels
- d Risen

Marks [2]

d – Lower stock prices implies higher dividend yields

14 In volume analysis, which situation is potentially bearish?

- a Price falling & volume falling
- b Price rising & volume rising
- c Price going sideways & volume falling
- d None of the above

Marks [2]

d – Price falling/volume rising or price rising/volume falling would be potentially bearish

15 As a buyer of 3-month Eurodollar Futures contracts, which is the least significant risk??

- a Basis Risk
- b Market Risk
- c Credit Risk

Marks [2]

c – Credit Risk

16 Which of the following is true of Moving Averages (MA)?

- a A 10-day MA is smoother and flatter than a 100-day MA
- b Moving averages make good profits in sideways markets
- c Moving averages work best in directional trends
- d Moving averages give early trading signals

Marks [2]

c – Moving averages need trending markets to perform well

17 A client is concerned that US interest rates will fall in the near future. The 3-month Eurodollar contract is currently quoted as 98.90. What is the current implied level of interest rate and what can you recommend to mitigate the risk of falling interest rates?

- a Implied interest rate of 1.1%; client should buy the June Eurodollar futures contract
- b Implied interest rate of 1.1%; client should sell the June Eurodollar futures contract
- c Implied interest rate of 98.9%; client should buy the June Eurodollar futures contract
- d Implied interest rate of 98.9%; client should sell the June Eurodollar futures contract

Marks [2]

a – $100 - 98.90 = 1.1\%$ implied rate. If the interest rate falls, the Eurodollar future price will rise, so buy futures

18 Which of these statements is not true of the Relative Strength Index (RSI) oscillator?

- a RSI divergence gives advanced warning of potential market turns
- b RSI is plotted around a “zero” line
- c RSI is a secondary indicator
- d RSI assigns a numerical value to the strength of the market

Marks [2]

b – RSI is plotted on a scale between zero and 100%

19 In the case of the winding up of a company, which investors are last in the rank to receive assets?

- a Unsecured creditors
- b Collateralised creditors
- c Ordinary shareholders
- d Tax authorities

Marks [2]

c – Ordinary shareholders

20 The Slow Stochastic oscillator is used to:

- a Confirm the existence of a directional trend
- b Indicate if the market volume is increasing or decreasing
- c Calculate the volatility of a security
- d Indicate potential trend reversals by displaying divergence

Marks [2]

d – Divergence is the most popular use of Slow Stochastics

Total Marks for Section 1 [40]

SECTION 2

Answer **ALL** of the questions in this section with short answers.

1. Name three types of market analysis and briefly describe each type. [3]
A Fundamental analysis – analyses news, events and company profits.
Behavioural analysis – analyses crowd behaviour.
Quantitative analysis – black box trading / number crunching
Technical analysis – studies past price action to predict futures moves
2. The CFO of a major bank said in 2008 'we have experienced 25 standard deviation moves several days in a row'. Has portfolio diversification mitigated the risks for global financial institutions? [3]
A No. Panic and fear has brought about flight to safety causing investors to flee many asset classes simultaneously and resulted in parabolic fall in almost all asset prices, exceptionally high volatility and in many cases illiquidity, regardless of diversification.
3. Briefly describe three ways in which the RSI can be analysed [3]
A Overbought/oversold – potential consolidation/correction
Trading signals – buy/sell when exiting oversold/overbought zones
Bullish/bearish divergence – to warn of potential reversals
4. International regulators have regularly spoken about 'moral hazard' referring the major firms' fiduciary responsibilities. What is the effect on shareholders & tax payers? [3]
A Shareholders have has massive losses in mark to market valuations, dilution in many cases (RBS) and in some cases have seen their equity wiped out (FNMA, GNMA). Current & future taxpayers have great long term liability for fiscal bailouts.
5. Describe any three tenets of Dow Theory. [3]
A
 1. The averages discount everything except acts of God
 2. There are 3 types of trend – Major, Intermediate, Minor
 3. Major trends have 3 phases – Accumulation, Trending, Distribution
 4. The averages must confirm each other
 5. Volume must confirm the trend
 6. Trends continue until there is a definite signal of a reversal

6. Many economists, journalists and politicians have become much more concerned about EU sovereign risks, distrust for established institutions, nationalism and protectionism. Is this a real concern? [3]
- A As economies decline, fiscal spending rises and pushes debt as % of GDP above EU ceilings. Risk premium on government bond markets have risen, as have CDS spreads. Single short term EUR repo rate one size fits all comes under criticism. Politicians become uncomfortable with domestic employment prospects & declining company prospects have begun to attack their neighbors & feel pressure to protect local industry & workers and get accused of protectionist rhetoric. Beggar thy neighbor words, bills & policies are fired for domestic consumption. Many southern European states have history of currency devaluation which is no longer an alternative unless they withdraw from the single currency.
7. Name three candlestick patterns and illustrate each with a diagram. [3]
- A Bullish/bearish Engulfing, Dark Cloud Cover, Piercing Pattern, Hammer, Inverted Hammer, Doji, Shooting Star, Hanging Man, etc.
8. Some talking heads claim the deleveraging process may take a long time. What does the process entail? [3]
- A Financial Institutions, Alternative Investment, private equity and hedge fund industry must reduce borrowing, as must business and households. This entails asset sales at today's depressed valuations.
9. Explain with a diagram how the Minimum Price Objective is calculated from a Symmetrical Triangle pattern breakout. [3]
- A The Minimum Price Objective is the height of the pattern at the widest point (i.e. at the base) projected from the breakout point in the direction of the break.
10. Where have you seen examples of contagion flowing into emerging market economies? [3]
- A As energy, metals and agro commodity producers see rapid and substantial fall in prices, rating agency downgrades, growing business failures, rising unemployment, investors demand much higher risk premium spreads and CDS premiums. Falling central bank reserves coupled with large foreign currency debt are fearing repeat of LATAM, ASIAN & Russian sovereign crisis of 1990's & Argentina in 2001.

Total Marks for Section 2 [30]

SECTION 3

Answer just **ONE** of the following questions with a short essay.

Your essay should be written neatly, not exceeding 800 words (about 1½ sides of A4).

1. You have just been appointed by Alastair Darling as a representative of University of Greenwich to research and make recommendations on how the academic community can contribute to the future of the financial services industry.

Can the industry better forecast & potentially sound warning bells about impending risks of market bubbles? Using empirical evidence, explain what might be implemented to insure more rigorous and robust risk management.

Discuss three major asset bubbles that developed in the last 5 years.

Marks [30]

- A
- BIS capital adequacy rules
 - Regulation allowing independence and board access for senior risk management officer
 - Harmonization of compensation to take into account deterioration of structured products beyond year of sale.
 - Harmonization of international accounting standards
 - Removal of the Enron loophole on off balance sheet debt camouflage.
 - Bubbles - Real estate, commodities, credit, emerging markets, gov't bonds

2. Explain the concepts of “support” and “resistance” in terms of investor behaviour and how support and resistance levels can be recognised.

Describe trading strategies based around support/resistance levels and illustrate these with diagrams. What other indicators might you use to confirm potential support/resistance levels?

Finally, when a support/resistance level breaks, describe what filters can be used to confirm the breakout as “impulsive” to ensure (as best as possible) that the breakout will not subsequently fail.

Marks [30]

- A
- “Support” is a price at which buyers absorb all selling pressure with more buying to spare – the price stops falling and rebounds upwards. “Resistance” is the exact opposite – sellers satisfy all buying demand with more supply to sell.

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- S/R levels can be recognised by previous lows/highs or “big figures”
- Strategies – buy on a dip towards a potential support level or sell on a break below a support level – sell on a rebound towards a potential resistance level or buy on a breakout above a resistance level.
- Other indicators would be oscillator overbought/oversold, trading signals or divergence. Also candlestick analysis may confirm an S/R level.
- Time or price filters – long bar/candle, close at the extreme, high volume or gap... any 2 of these should ensure a reliable breakout.

Total Marks for Section 3 [30]