

## PCIAM and IMC (level 3) gap-fill reading for Securities

Demonstrate an ability to assess the factors that influence market behaviour relevant to investment advice:

- Factors that influence market and individual security movements:
  - Derivatives market, interactivity of timed events, relationship with cash market
  - Research and ratings
  - Market Abuse regime

## Relationship Between Cash and Derivatives Markets

Some of the most actively traded derivative instruments are stock index futures. The contract for the S&P 500, which has two versions – a fully blown contract and what is called the e-mini version (see below) – are probably the most traded index future in the world. The cash index which underlies this derivative – the Standard & Poor's 500 Index consists of many of the largest capitalisation issues which trade on US exchanges – NYSE, Amex and NASDAQ. Fund managers and traders will want exposure to this index for numerous purposes, both as an indirect investment through purchase of an index proxy such as the popular exchange-traded fund, SPY, or through a position in the futures contracts.

The motivation could be to gain long exposure to this broad-based index of multi-national equities and/or as a hedging instrument for a portfolio of direct holdings in equities (ie, cash instruments). In the UK, there is a futures contract which tracks the FTSE 100 and there are also similar instruments which trade globally on the CME Globex electronic trading platform, and which track amongst others, the Nikkei 225 Index in Japan and the Xetra Dax Index in Germany.

Stock index futures, including the S&P futures, are popular because they trade 24-hours a day and allow traders and brokers to gauge the futures level before the actual stock markets open for trading which gives a sense of where the market is likely trend at the start of trading.

The common characteristic of stock index futures contracts is that they have quarterly expirations. For example, if one wants to purchase the Mini S&P 500 contract (ie, take a long position) one could purchase the September 2010 futures contract. This contract has the following specification. The larger full version of the S&P 500 contract is five times the size of the e-Mini contract described below.

### Mini S&P 500 Futures

Mini S&P 500 futures are legally binding agreements to buy or sell the cash value of the S&P 500 Index at a specific future date. The contracts are valued at \$50 x the futures price. For example, if the Mini S&P 500 futures price is at 920.00, the value of the contract is \$46,000 (\$50 x 920.00).

The minimum price movement of the futures or options contracts is called a 'tick'. The tick value is 0.25 index points, or \$12.50 per contract. This means that if the futures contract moves the minimum price increment (one tick), say, from 920.00 to 920.25, a long (buying) position would be credited \$12.50; a short (selling) position would be debited \$12.50. All futures positions (and all short option positions) require posting of a performance bond (or margin). Positions are marked-to-the-market daily. Additional deposits into the margin account may be required beyond the initial amount if your position moves against you.

Mini S&P 500 contracts are cash settled, just like the standard S&P 500 futures; there is no delivery of the individual stocks. Mini S&P 500 daily settlements and quarterly expirations will use the exact same price as the S&P 500. The same daily settlement prices allow Mini contracts to benefit from the liquidity of the S&P 500 futures.

Like the S&P 500, which is settled using a Special Opening Quotation (SOQ), all Mini S&P 500 positions are settled in cash to the same Special Opening Quotation on the third Friday of the quarterly contract month.

## **Interaction Between Futures and Cash**

Arbitrage opportunities would arise if mis-alignments or discrepancies between the futures prices and the cash prices on the S&P 500 arose. Indeed, program trading is an arbitrage strategy which exists to exploit these opportunities which tend to be fairly small discrepancies and which require very fast executions to deliver profits.

The possibility of arbitrage and the fact that the futures contracts are very convenient for many speculative purposes means that there is a real sense in which the action in the futures market will (often) tend to drive the price behaviour of the cash market. While this may seem like an aberration, in the very complex and algorithmic nature of most cash market transactions today, the notion of the tail (derivative) wagging the dog (underlying) is not so hard to contemplate.

The expirations of futures contracts can sometimes provide short-term volatility in the cash markets as many large speculators and commercials (ie, investment banks) which are ‘rolling over’ futures positions will sometimes create whipsaw and turbulent market conditions. This situation is described by some in the market as ‘witching’ and when contracts on futures, options on individual stocks, and options on stock index futures occur (once each quarter) this phenomenon is referred to as ‘triple witching’.

For long-term investors these kinds of activities might be considered as examples of ‘noise’ in the equity markets, however, the impact of the derivatives markets upon the cash market is often not as unidirectional as some commentators and text books imply. Rather than the derivative ‘deriving’ its value from the behaviour of the underlying cash instrument the situation can often be better understood from the converse perspective.

## **Market Consensus**

Because it is unquantifiable and generally misunderstood by most traders and investors, psychology is the often overlooked intangible aspect of trading. In relation to trading and investing, we can consider two very different approaches to psychology in the markets: individual psychology and group psychology. Attempting to draw conclusions based on the actions of crowd psychology (sometimes disparagingly referred to as ‘herd behaviour’) examines how the behaviour of investors en masse exerts an effect on stock prices.

The foundations of how crowd behaviour relates to investing have a long history which includes such ‘bubbles’ as the South Sea Bubble, the Dutch tulip mania and the ‘dot com’ mania of the 1990s. When most investors are in consensus and are driving the market in a particular direction, one naturally thinks that the consensus will continue ad infinitum and that the best trading decision is to follow the crowd.

But, it has been suggested that historical examples prove this to be a paradox. When driven strongly by consensus, crowd behaviour is actually a contrary indicator. When the consensus of the

majority of investors or traders is strongest, the individual trader should do exactly the opposite of what the crowd is doing. When the market is strongly bullish, according to the contrarian view, it is more prudent to short the market. When the consensus is bearish, it is time to get ready to buy.

Mass psychology may continue to drive the trend for a longer period of time. And the question that is asked by investors who subscribe to the notion that the consensus is wrong at important market turning points – ‘How can one expect to identify the moment when the consensus indicator is strongest and which is the best moment to make a contrary investment decision?’

The answer is, of course, that there is no way of determining the timing or, for that matter, of empirically verifying that treating consensus as a contrarian indicator actually results in profitable investment. Market consensus can be used as one clue that a trading/investment opportunity may be available. It may simply indicate that it is a good time to apply more detailed analyses to particular stocks or currencies.

How does one know about the market consensus? Several tools are used to help investors roughly identify the consensus of the market. Most of these tools tabulate a numerical consensus indicator on the basis of advisory opinions, signals from the press or even polling that is done amongst investment managers.

## **The Commitments of Traders Report**

The Commitments of Traders Report was first published by the CFTC in 1962 for 13 agricultural commodities to inform the public about the current conditions in futures market operations (you can find the report on the CFTC website [here](#)). The data was originally released just once a month, but moved to once every week by 2000. Along with reporting more often, the COT report has become more extensive and has expanded to include information on most futures contracts.

Amongst the information published are the positions of so-called ‘commercials’ which is ‘an entity involved in the production, processing, or merchandising of a commodity, using futures contracts primarily for ‘hedging’ and the ‘non-commercials’ or speculators who are traders, such as individual traders and large institutions, who use the futures market for speculative purposes and meet the reportable requirements set forth by the CFTC.

## **Advisory Opinion**

Advisors can often take the form of newsletter writers or bloggers and web commentators who provide opinions on the future direction of markets or individual stocks. Sources such as Investor’s Intelligence and Market Vane, both active in the US, poll these newsletters to track the bullishness or bearishness of market commentators and advisers. These polling opinion research services have developed special numerical figures to analyse these newsletters/blogs and will assign either a bullish or bearish value to each of the opinion letters. These services then tabulate the overall bullishness or bearishness of their entire universe of advisors. When this numerical value crosses a certain threshold, either a buy or a sell signal is issued. The signal is issued contrary to the balance of advisory opinion.

Share prices can change as a result of information becoming available to investors about various matters, including:

- the earnings prospects and asset values of individual companies;
- the membership of the board;
- adverse factors affecting companies, such as legal action against it, or action by a bank to call in loans;
- industry and economy surveys, for example about levels of retail sales, or productivity;

- macro-economic developments, for example: the expected level of interest rates, or where an economy appears to be located in the business cycle;
- changes in government policy, for example fiscal and monetary policy;
- movements in other stock markets around the world, such as the USA, China and Japan;
- geo-political developments including wars, and threats from terrorist groups, etc.

Many companies aim to present a stable and steadily rising pattern of dividend payments from year to year. Sharp changes from the usual pattern may be taken by investors as a signal of a change in the company's fortunes, which may cause a shift in the share price.

One of the consequences of the global banking crisis of 2008 and the ensuing economic downturn has been that many large organisations, especially in the financial services industry, have either cut their dividends or suspended them entirely. One further consequence of this development is that many institutional investors such as pension funds will then sell the shares of companies which suspend dividends creating a downward cycle in share prices. The large US bank Citigroup is an example of a company which has suspended payment of a dividend and seen its share price move into low single digits with a corresponding 90% fall in its market capitalisation.

Market capitalisation refers to the value that is placed on a company by multiplying the outstanding equity of a company by its current share price. In some ways it is a flawed notion since it places a value on the entire company from the value of the marginal shares traded during a particular session, which may have been particularly troubled by the overall market. This gives rise to the rather perverse way in which the market capitalization of equity markets has moved up and down during the 2008/9 banking crisis and subsequent market recovery by many trillions of dollars or pounds.

Investors will look for evidence of the quality of a company's management, although such evidence can be difficult to obtain in practice.

Changes in board membership can affect investors' assessment of a company's prospects and the share price may move as a result. If a director resigns, investors will be interested in the reason for the resignation. If new directors are appointed, their experience and past track record will be of interest.

The prices of some companies' shares are affected more by the state of the economy than others. For example, because house purchase decisions are influenced by mortgage rates, house building companies will be particularly sensitive to interest rate changes. If people are moving house less as a result of interest rate increases, businesses such as DIY ('do it yourself') and carpeting may also face a downturn in demand and therefore earnings.

Given the increasing interdependence of national economies through globalisation of trade and capital flows, share prices will be heavily affected by economic conditions around the world, particularly the state of the economy in the world's largest debtor nation, the USA.

Some recent studies have suggested that the inter-linkage between global stock markets is becoming much more pronounced than it used to be. Correlation analysis shows that there is a much greater degree of co-movement between indices in the US, UK, western Europe and Japan. Emerging markets are less correlated with the more mature market economies and this has given rise to the 'de-coupling' thesis, which suggests that the fortunes of the newly emerging dynamic economies – sometimes called the BRIC countries (ie, Brazil, Russia, India and China) – are less coupled with the fortunes of say the US economy than in previous eras. The evidence on this hypothesis is far from convincing however, as evidenced by the dramatic declines seen in all global stock markets in late 2008 and early 2009.

On a related theme there is a strong influence between the state of the world economy and final demand and the price levels of major commodities such as oil, copper, and other industrial metals. The emerging markets are greatly influenced by the prices of commodities both as major consumers (in the case of China) and as producers (in the case of Russia and Brazil).

Speculative motives will also be a major factor influencing share prices and indeed the prices of commodities and other assets. Speculative investors will often buy particular shares, or even shares in general, in the hope of taking advantage of a rising trend in prices. As more investors buy, prices are driven higher still and this may encourage still further buying. The process cannot continue indefinitely and eventually the ‘bubble’ may burst when prices fall back and there is a sudden change in sentiment. The fall in prices can then be as steep as the original rise and those who bought at the highest prices will suffer losses.

In 2010 there has been a notable increase in the manner in which the ratings for sovereigns have had a very large impact on the behaviour of asset markets and investor sentiment. The downgrading of the debt of Greece to ‘junk’ status – which was finally confirmed by the major agencies in June 2010, although anticipated by money market participants well before that – had a major impact on the European credit markets, the value of the euro currency and also, for a time, brought a sharp correction in equity markets.

The ratings reports of the three major credit ratings agencies and the inter-connected activities which take place in the market for credit default swaps (CDS’) are discussed elsewhere in this book, but it is fair to say that the manner in which sovereign downgrades as well as downgrades to major corporations (eg, the debt of BP has been downgraded in June 2010 to BB from AA as a result of the costs associated with the major oil spill in the Gulf of Mexico) are becoming one of the principal movers of markets.

## Regulatory Environment Including Market Abuse Regime

Market abuse, defined in section 118 of the Financial Services and Markets Act 2000 and in the Market Abuse Directive, consists primarily of Insider Information and Market Manipulation. The Market Abuse Directive provides an EU-wide market abuse regime aimed at reducing the incidence of market abuse.

The MAD is one of the main measures in the EU Financial Services Action Plan, which is designed to help complete a single market in financial services for the EU. The implementation of the MAD resulted in an EU-wide market abuse regime and a framework for establishing a proper flow of information to the market. It is designed to improve confidence in the integrity of the integrated European market and greater cross-border cooperation. The MAD (implemented in the UK), has resulted in an EU-wide market abuse regime and a framework for establishing a proper flow of information to the market.

MAD contains provisions on:

- **Inside information**

The MAD defines inside information as information that is precise, non-public and likely to have a significant impact on the price of a financial instrument. This last limb is further elaborated by Level 2 implementing measures, which define it as information a reasonable investor would be likely to use in making investment decisions. HM Treasury included in its implementation the offence of misuse of relevant information not generally available, to avoid any narrowing of the pre-existing market abuse regime.

- **Market manipulation**

Market manipulation comprises three forms. These are:

- Transactions and orders to trade that give false or misleading signals or secure the price of a financial instrument at an artificial level;
- Transactions or orders to trade that employ fictitious devices;
- Distribution of information likely to give false or misleading signals.

**• Disclosure of inside information**

MAD imposes an obligation on issuers to disclose inside information as soon as possible, with further Level 2 measures setting out the circumstances where issuers can delay disclosure. Although such disclosures were not required under the previous UK market abuse regime, they were required for listed issuers under the continuing obligations imposed by chapter 9 of the UK Listing Rules. The Disclosure Rules, which came into force on 1 July 2005, implement the requirements of MAD relating to the disclosure of inside information, for issuers whose financial instruments are admitted to trading on a regulated market in the United Kingdom.

**• Insiders' lists**

Issuers and their advisers are required to keep lists of persons who have access to inside information. This is a new requirement for UK issuers.

**• Disclosure of managers' deals**

Persons discharging managerial responsibility on behalf of an issuer will be required to disclose details of their personal deals in the shares of the issuer and any related derivatives. This is an extension of the previous UK regime, which focused only on the disclosure of directors' deals.

**• Suspicious transaction reporting**

The MAD requires firms arranging transactions to report those transactions to us where there is a reasonable suspicion that market abuse might have taken place. This is a new requirement for the UK regime.

**• Share buy-backs and stabilisation**

The Commission chose to implement the MAD safe harbours through Regulations. Accordingly, the existing UK rules have been replaced by detailed regulations. This has resulted in some significant changes to the regime, particularly in the case of stabilisation.

**• Research disclosure**

The MAD includes requirements for the disclosure of information about research sources and methods and also conflicts of interest that may impact on the impartiality of the research.