



## A Guide to the Traded Options Market



### Introduction

Options are derivative contracts which can be used by investors in a diverse set of contexts - to insure their portfolios, purchase shares at a lower level than the prevailing market price, enhance the yield of their equity portfolios or take leveraged positions whilst carrying a limited amount of risk. Options trading is a highly specialised field and is often out of the reach of retail investors. GAM has written this guide as an introduction focussing on our approach to this market.

### Definition of an Option

An option is a contract between two parties in which the option buyer (holder) purchases the right, but not the obligation, to buy (known as a “call” option) or sell (known as a “put” option) a specified quantity of a security at a predetermined price (the “strike” price) from or to the option seller (writer) during a certain period of time or on a specific date (exercise date).

### Buying and Selling Options

Options can be bought and sold (“written”). You can buy a call (buy the right to buy), sell a call (“sell the right to buy from you), buy a put (buy the right to sell) or sell a put (sell the right to sell to you).

#### 1.a Buying a Call

Investors buy calls for the gearing (they can obtain control of a greater amount of stock than the premium they must pay for the option) whilst benefiting from the fact that their loss is limited to the premium paid.

In this case the investor is bullish. If the underlying is above the strike price at expiration the investor will make money.

For option buyers, we generally recommend that investors buy at-the-money calls with a minimum of six months to expiry.



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### 1.b Selling a Call

Investors sell calls on shares they hold either to set a price at which they are prepared to sell or to bring in a premium, which is akin to an additional dividend.

In this case, the investor does not believe the underlying will rise to the strike price. If it remains below the strike price the seller will retain the premium.

Calls that are not covered by the underlying stock are known as “naked calls” and are prohibited by GAM due to the theoretical infinite risk.

### 2.a Buying a Put

Investors buy puts for the gearing, whilst benefiting from the fact that their loss is limited to the premium paid, or to protect the value of an existing position (without having to sell).

In this case the investor is bearish. If the underlying is below the strike price at expiry, the investor will make money. We recommend investors buy at-the-money puts with a minimum of six months to expiry.

### 2.b Selling a Put

Investors sell puts either to set a price at which they are prepared to buy a stock, and thus buy the shares at a lower price or receive a premium, with the intention of never taking delivery.

In this case, the investor is bullish on the underlying. If the underlying price remains above the strike price the seller will retain the premium.

## Traded Options

Options are known as “traded options” for a reason. They do not have to be held to expiry and can be bought and sold at any time. Thus, if an option becomes “in-the-money”, a short (sold) option can be bought back and rolled to a further “out-of-the-money” option. Likewise, an option buyer can sell an option back to the market if the price goes against him and retrieve some remaining time value.

### What does an option’s value consist of?

An option is principally made up of “intrinsic” and “time value”.

#### Intrinsic Value

This is the amount the option is “in-the-money”.

#### Time Value

The time value of an option decreases as its expiration date approaches and becomes worthless after that date. This is known as time decay, which occurs most during the last 30 days of the options life.

Other factors affecting the value of an option include volatility (higher volatility gives rise to a higher price), dividends and prevailing interest rates.



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### Risks

When buying an option, the maximum loss is limited to the premium paid.

When selling an option, the maximum loss is infinite for a call (unless the security is already held i.e. “covered”) or equal to the strike price less the premium received for a put.

Thus, selling options is a high risk strategy which can result in losses that exceed your initial deposit. Trading options may not be suitable for everyone, so ensure that you fully understand the risks involved.

### Managing Positions

Option positions must be constantly monitored so that they can be either adjusted or exited should the need arise. The risks can be minimised by rolling up or down using the same or another expiration date should the option become “in-the-money”. This implies buying back the existing position and simultaneously selling a new option. Alternatively, the position can just be closed if market conditions dictate (such as an extreme market event).

### GAM’s Approach to Options

GAM has successfully traded the options market for its clients over many years and has been able to consistently make money in all types of markets. GAM advises to generally allocate no more than 10% of a portfolio to options.

Although involving limited risk we rarely buy options. Options buyers think they have a great deal - unlimited profits with limited risk - but the odds are simply not in their favour. The Chicago Mercantile Exchange estimates that approximately 80% of options held to expiration expire worthless. As an option buyer, you can only make money if you correctly determine the movement of the stock and the magnitude of the move. If the market moves in the opposite direction or if it does not move at all, you lose money. The option buyer must not only correctly foretell market direction but their prediction must be accompanied by a major move in the market. A less than significant move can still result in a loss.

On the other hand, the option seller takes maximum advantage of the decaying characteristic of options. As an option seller, you merely wait for the option to lose value on a daily basis to the point of being worthless on expiration day. If you sell puts, you make money if the stock stays flat as well as if the underlying goes up. You can only lose if the underlying drops far enough to hit past your strike price position.

Thus with options selling, you’re trading with the odds in your favour. This does not mean that one is immune from large drawdowns. It does mean that, statistically, the majority of your trades should be winners. Managing the risk on the losers, then, becomes of paramount importance. There’s a high amount of risk for a low reward, but over time, these small profits can turn into a large sum.

It is important to be patient when trading options - remember, the markets will be there tomorrow. And with option selling, every month is a new game, so if you miss this month, just wait a few days.



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If this type of trading sounds interesting, then the strategy of selling options might be for you. In selling options, one simply has to decide where the market is not going to go and select a strike price above or below the level that one believes the underlying price will not reach within a certain time period (for our purposes, generally 30-90 days). One then sells an option at this price level and collects a premium for doing so the day after. If the time period elapses and the market has not reached this price, the option expires and the investor who sold it keeps the premium he collected as a profit.

GAM utilises the following trading strategies:

### 1) Covered Calls

Selling out-of-the-money covered calls (where the option writer owns the obligated quantity of the underlying security) is a popular strategy that enables the stockowner to generate additional income which is similar to receiving an additional dividend. It does cap the potential gain, particularly painful in the case of a takeover bid, so calls on potential takeover targets are avoided. However in most other circumstances the option can be rolled forward.

### 2) Naked Puts

GAM recommends writing puts on key stocks it recommends, selecting strike prices based upon a combination of fundamental and technical analysis, which fall into the following categories:

#### Core Defensive

These comprise ten defensive shares from ten sectors of the economy that tend to perform well throughout the economic cycle (early cycle, mid cycle and late cycle) as well as during a recession. Notable stocks include BAE Systems (Aerospace & Defence), Diageo (Beverages), Scottish & Southern Energy (Utilities) and Tesco (Food & Drug Retailers). These stocks tend to be less volatile in nature and thus we write them for expiry each calendar quarter (March, June, September & December).

#### Cyclical

These comprise five companies that are forecast to perform well during the next stage of the economic cycle. Our current selection includes BHP Biliton (Mining-late cycle), Aviva (Life Insurance-late cycle) and Standard Chartered (Banks-late cycle). As these stocks tend to be more volatile, we recommend keeping the exercise date as short as possible – two months or even one month, depending upon the level of volatility at the time of writing.

We recommend further cyclical options on a different timescale as opportunities present themselves.

### 3) FTSE 100 Short Strangle

An options strategy known as a “Short Strangle” takes advantage of the time decay of “out-of-the-money” options as the market stays between the two selected strike price levels.

The Short Strangle strategy allows investors to trade the range of the FTSE 100 rather than the direction using options contracts by selling high strike price call options whilst simultaneously selling low strike price put options. If the market stays within the range, the entire option premium is retained. Most of the time, indices are trading in a range, moving less than 5% from one month to the next 70% of the time.



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### Time Decay

A short term out-of-the-money short strangle benefits the most from time decay where the entire premium is considered time value. Sellers of options collect the premium and every additional day that goes by contributes to more time decay in those options, which benefits the option seller. The time value of an option does not fall in a straight line, but rather falls most in the last month before expiration. Thus, options are sold with just one month to expiry.

### Expiration

Positions expire monthly (the third Friday of each month). The next trading range is then established and a further call and put option is written. Index options are European style.

### How the Strike Prices are Selected

The starting point for calculating the strike prices is establishing where the market itself thinks the market could finish in the next month. This is done through reference to the VIX, the ticker symbol for the Chicago Board Options Exchange Volatility Index, a popular measure of the implied volatility of S&P 500 index options. It is quoted in terms of percentage points and translates, roughly, to the expected movement in the S&P 500 index over the next 12 months. For example, if the VIX is at 15, this represents an expected annual change of 15%. By dividing this by the square root of 12, we can establish the expected move over the next 30 days.

$$\frac{15\%}{\sqrt{12 \text{ months}}} = 4.33\% \text{ over the next 30-day period.}$$

So if the S&P 500 is currently at 1,000 points, index options are priced with the assumption of a 68% likelihood (one standard deviation) that the 30-day change in the S&P 500 will be within 43 points up or down. As the correlation of the S&P 500 to the FTSE 100 is 0.71, the index can still be used as an effective yardstick of market volatility for the UK market.

The strike prices are then extended to take into account known support and resistance levels using technical analysis indicators (such as moving averages and bollinger bands).

The advantage of selling a strangle, in contrast to day trading or swing trading, is that the daily market noise does not necessarily scare you out of the market. This is because you are not trying to predict the market's direction on a daily basis. The other advantage in selling strangles is that the market cannot be in two places at one time at the expiration date. Therefore, any loss on one side of the trade will normally be offset somewhat by a gain on the other.

### Risks

Selling a strangle involves unlimited risk and therefore this strategy is not suitable for all investors. However as the underlying security is an index of 100 blue-chip companies, there is a realistic limit as to how far it



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can rise or fall in a small time period of one month.

### Capping the Risk

More risk adverse investors can limit their risk by buying a further out-of-the-money put (a strategy known as a “condor”). This protects the investor to the downside from a “black swan” event such as a “flash crash” or a terrorist attack. You receive less premium overall than selling just the naked put option (because you have to buy a hedge) but you also limit your risk to a defined level. The trade-off is well worth it if you are uncomfortable with a naked position. We find it unnecessary to buy further out-of-the money calls as well (a strategy known as an “iron condor”), as the market tends to gap further on the downside than on the upside.

### Summary of Dealing Charges

#### Buying options

£20 plus £2.50 per contract

#### Selling options

£40 plus £2.50 per contract (reduced to no more than 10% of proceeds, subject to a minimum of £20 plus £2.50 per contract)

#### Strategies (e.g. condors, spreads) & Rolling

£20 plus £2.50 per contract, each side

#### Assignments & Exercise

0.825% on first £10,000, 0.25% on remainder, subject to a minimum of £45

### Getting Started

To start trading options, you will need to set up an options trading account, which we facilitate via an Introducing Broker Agreement with Berkeley Futures Limited. Once you have set up your account, you can then place trades via GAM. We advise depositing £10,000 to £20,000 initial margin to get you started.

As a full-service advisory broker, GAM is able to provide value-added advice to our clients, providing them with trading recommendations on a regular basis, details of relevant stocks going ex-dividend, potential early assignments and proactive advice on problematic positions.

We guarantee best execution, taking time to obtain the best possible price by working orders direct on the order book and are able to work complex trading strategies in the market.

To establish whether options trading is appropriate for you and, if so, which strategies are suitable to your circumstances, please contact us on +350 200 75181.



## Glossary

### Assignment

An assignment takes place when the written option is exercised by the options holder. The options writer is said to be assigned the obligation to deliver the terms of the options contract. If a call option is assigned, the options writer will have to sell the obligated quantity of the underlying security at the strike price. If a put option is assigned, the options writer will have to buy the obligated quantity of the underlying security at the strike price.

To ensure a fair distribution of assignments, the “Clearing House” (which guarantees the performance of option contracts through the process of “novation”) uses a random procedure to assign exercise notices to the accounts maintained by each “Clearing Member” (the options broker). In turn, the assigned firm must use an exchange approved way to allocate those notices to individual accounts which have the short positions on those options.

One can never tell when an assignment will take place, though they are generally assigned automatically on the exercise date unless the option has no more time value. The reason it does not make much sense to exercise an option when there is still time value left is because it's more profitable to sell the option to the market instead. At any point in time, the deeper in-the-money the short options are, the more likely they are to be exercised.

### Contract Size

The standard contract size for UK equity options is 1,000 shares, 100 shares for European and US options and £10 a point for the FTSE 100 index.

### Exercise

To exercise an option is to execute the right of the holder of an option to buy (for call options) or sell (for put options) the underlying security at the strike price.

When an option is exercised by the option holder, the option writer will be assigned the obligation to deliver the terms of the options contract.

### Expiration Dates

Options expire on the third Friday of each month, after which the option expires and the right to exercise no longer exists. The expiration month is specified for each option contract. Index options are available every month. The less liquid equity options expire every calendar quarter (March, June, September & December) with more liquid equity options also having the front three months as expiry dates.

### Margin

For buyers of options, no margin is required by the options exchange as the loss is limited to the premium paid. For options sellers however, two types of margin are required to be maintained on the account.

“Initial” margin is required to be deposited to cover potential losses, which is designed to theoretically cover one day's worst possible scenario. The initial margin calculations are complicated and are not the same for each type of underlying security and take into account strategies that reduce overall risk.

“Variation” margin is also required to be maintained, which equals the buyback value of the options and is marked to market each day.

We recommend that options sellers use no more than 50% of their account value as margin (with the exception of covered calls) to ensure they have a large cushion should the market turn against them.

### Moneyness

Moneyness is a term describing the relationship between the strike price of an option and the current trading price of its underlying security.

An “at-the-money” option is a call or put option whose underlying market price is approximately equal to the strike price.



## GIBRALTAR ASSET MANAGEMENT

STOCKBROKERS & INVESTMENT MANAGERS

# Glossary

An option contract is “in-the-money” if the underlying market price is above the strike price (for a call) or below the strike price (for a put). In-the-money options are generally more expensive as their premiums consist of intrinsic value on top of their time value.

An option is said to be “out-of-the-money” if the underlying market price is below the strike price (for a call) or above the strike price (for a put). Out-of-the-money options have zero intrinsic value, their entire premium is composed of only time value and are thus cheaper than in-the-money options.

### Option Style

An option contract can be either “American” style or “European” style. These do not refer to the geographical continents but rather to the time when they can be exercised.

“American” style options can be exercised anytime up to and including the expiration date. These tend to be equity-based options.

“European” style options can only be exercised on expiration date itself. These tend to be “cash settled” options where it is not possible to deliver the underlying asset – such as index options.

### Premium

In exchange for the rights conferred by the option, the option buyer has to pay the option seller a premium for carrying the risk that comes with the obligation. Money is received by the seller the day following the trade.

### Strike Price

The strike price is the predetermined price at which the holder of an option can buy (in the case of a call option) or sell (in the case of a put option) when the option is exercised, hence is also known as the “exercise price”.

The intervals between each strike price vary depending on the market price, ranging from 4p for lower priced stocks to 400p for higher priced stocks.

### Underlying

Option contracts are available on most securities – equities (mostly FTSE 100 stocks in the UK), indices, commodities and FX.

### Research Disclaimer

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GIBRALTAR ASSET MANAGEMENT  
STOCKBROKERS & INVESTMENT MANAGERS

## Core Defensive Options

The objective is to sell quarterly out-of-the-money calls/puts on core defensive blue chip stocks with good earnings visibility, reasonable p/e ratios and decent dividend yields that will support the share price. Any option that is in-the-money at any time will be rolled forward to a suitable series. Risk rating = High. Timescale = 3 months.

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**BAE Systems Aerospace & Defence** **318p** **Dividend to factor in: 20/04/11 10.5p**

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BAE Systems is a premier global defence, security and aerospace company delivering a full range of products and services for land, sea and air.

*Recommended option series:* June 340 calls 3p strike price above 200 day moving average  
June 280 puts 4p strike price below five year low

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**British American Tobacco Tobacco** **2352p** **Dividend to factor in: None**

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Global tobacco company with a rock solid dividend. Defensive sector with additional benefit of exposure to emerging markets.

*Recommended option series:* June 2500 calls 28p strike price at all time high  
June 2200 puts 29p strike price below 200 day moving average

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**Diageo Beverages** **1144p** **Dividend to factor in: None**

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Global drinks company producing such premier brands as Smirnoff, Johnnie Walker, Baileys, Jose Cuervo and Guinness.

*Recommended option series:* Calls not recommended - stock at a technical low  
June 1100 puts 23p strike price below 200 day moving average

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**GlaxoSmithKline Pharmaceuticals** **1152p** **Dividend to factor in: 04/05/11 ~20p**

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GlaxoSmithKline is one of the world's leading pharmaceutical research companies. A highly defensive company in an ageing population.

*Recommended option series:* Calls not recommended - stock at a technical low  
June 1100 puts 24p strike price below lower bollinger band

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**Royal Dutch Shell B Oil & Gas Producers** **2189p** **Dividend to factor in: 11/05/11 ~42cts**

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Global oil giant with a diversified business including upstream exploration and downstream production. Well covered dividend and low p/e ratio.

*Recommended option series:* June 2300 calls 29p strike price above two year high  
June 2000 puts 24p strike price below lower bollinger band



## Core Defensive Options - Continued

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**Scottish & Southern Energy Electricity** **1201p** **Dividend to factor in: None**

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Scottish & Southern Energy is the UK's second largest generation business, with an ownership interest in over 100 thermal and renewable power stations.

*Recommended option series:* Calls not recommended - takeover target  
June 1100 puts 8p strike price at bottom of trading range

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**Tesco Food & Drug Retailers** **374p** **Dividend to factor in: 27/04/11 ~10p**

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Defensive growth story with 30% of the UK grocery market along with significant exposure to emerging markets.

*Recommended option series:* Calls not recommended - stock at a technical low  
June 340 puts 5p strike price below lower bollinger band

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**Unilever Food Producers** **1814p** **Dividend to factor in: 28/04/11 ~18p**

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Supplier of fast moving consumer goods across Foods, Home and Personal Care categories. Large exposure to emerging markets.

*Recommended option series:* June 1900 calls 22p strike price above upper bollinger band  
June 1700 puts 21p strike price below lower bollinger band

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**United Utilities Gas, Water & Multiutilities** **576p** **Dividend to factor in: 22/06/11 ~24p**

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Utility company involved in the supply of water and the treatment and disposal of sewage. Good earnings visibility following recent regulatory review.

*Recommended option series:* June 600 calls 9p strike price at upper bollinger band  
June 540 puts 5p strike price below lower bollinger band

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**Vodafone Mobile Telecommunications** **173p** **Dividend to factor in: 01/06/11 ~6p**

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Vodafone is the largest mobile tele-communications network company in the world by turnover and has operations in thirty one countries.

*Recommended option series:* June 180 calls 3.5p strike price at two year high  
June 160 puts 4.5p strike price below 200 day moving average



## Cyclical Options

The objective is to sell front month (where possible) out-of-the-money calls/puts on cyclical stocks with good earnings visibility and trading on reasonable p/e ratios. Any option that is in-the-money at any time will be rolled forward to a suitable series. Risk rating = High. Timescale = 2 months.

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**BG Group** Oil & Gas Producers **1469p** Dividend to factor in: None

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BG is a gas and oil exploration company with phenomenal prospects in Brazil, a world leading LNG business and is a prime takeover target to boot.

*Recommended option series:* Calls not recommended - takeover target  
June 1300 puts 12p J.P.M. Cazenove has a 1600p price target

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**BHP Biliton** Mining **2460p** Dividend to factor in: None

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A global mining giant, BHP produces iron ore, copper, diamonds, aluminium, oil and natural gas though it is base metals that remain the core of the business.

*Recommended option series:* June 2800 calls 21p strike price above all time high  
June 2100 puts 20p strike price below 200 day moving average

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**Prudential** Life Insurance **711p** Dividend to factor in: None

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One of the UK's largest life insurers, Prudential has operations around the world including the US and the fast growing Asian markets.

*Recommended option series:* June 760 calls 10p strike price above upper bollinger band  
June 640 puts 7p strike price below 200 day moving average

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**Standard Chartered** Banks **1607p** Dividend to factor in: None

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An international bank predominantly operating in the fast growing emerging markets of Asia. Trades at a discount to its rival HSBC.

*Recommended option series:* June 1734 calls 18p at 200 day moving average  
June 1500 puts 23p strike price below recent low

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**Xstrata** Mining **1438p** Dividend to factor in: 20/04 20 cents

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Xstrata operates extensively in Australia, but also mines for coal in South Africa and for zinc in Spain and Germany. The group also operates copper mines in Argentina and Peru.

*Recommended option series:* June 1600 calls 20p strike price above 2-year high  
June 1200 puts 11p strike price below 200 day moving average



## FTSE 100 Short Strangle Strategy

The objective is to sell front month out-of-the-money calls and puts on the FTSE 100, taking maximum advantage of “time decay” which falls the most during the last 30 days of trading. Strike prices are calculated using a combination of technical analysis and mathematical reference to the VIX, which indicates where the market thinks the S&P could finish based upon current volatility. Any option that is within 25 points of the strike will be rolled higher or lower for the same month. Risk rating = High. Timescale = 1 month.

**FTSE 100**      5947

**VIX**            15.83

### FTSE 100 Call

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Recommended Option Series      June 6300 calls

Price                                      5 points

*Rationale:*

This is 353 points (5.9%) above the current level and has the following resistance levels to break:

5978    20 day moving average

6085    two year high

6102    upper bollinger band

### FTSE 100 Put

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Recommended Option Series      June 5400 puts

Price                                      10 points

*Rationale:*

This is 547 points (9.2%) below the current level and has the following support levels to break:

5927    50 day moving average

5851    lower bollinger band

5782    200 day moving average

5718    recent low