

# SG currency warrants

www.sglistedproducts.com  
 0800 328 1199  
 sglistedproducts@sgcib.com

## The Market that Never Sleeps...The Currency Market

The foreign exchange market (currency, forex, FX) is the largest, most liquid and most active financial market in the world. The average daily trade in the global forex and related markets is constantly growing and was last reported to be over \$3 trillion last year, a figure well above any equity, index or commodity.

Traditionally, FX markets were only accessible to currency speculators in large multinationals and investment banks, where entry was difficult due to high minimum trading sizes and strict financial regulations. All this changed, however, with the ever expanding range of SG currency warrants which give all investors, large or small, access to this major market.

With the addition of new currency warrants trading on the: **EUR/USD**, **GBP/EUR**, **GBP/JPY**, **GBP/USD** and **USD/JPY** exchange rates, Société Générale now allows you to participate to an even greater extent in this arena.

## Did You Know?

London is an FX power house which accounts for more than 30% of global daily turnover.

Currency markets are extremely transparent and instantly reflect changing international economic, political and domestic news.

Factors ranging from the United States current account deficit, to The Bank of England's interest rate movements to China's policy in terms of foreign currency reserves are among the numerous factors that affect exchange rates.

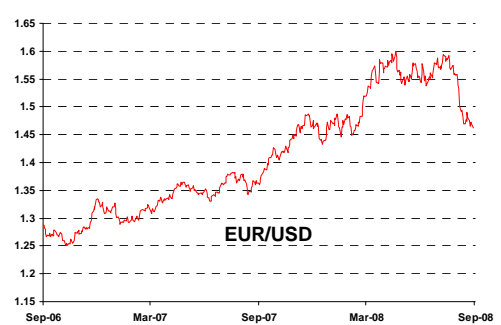
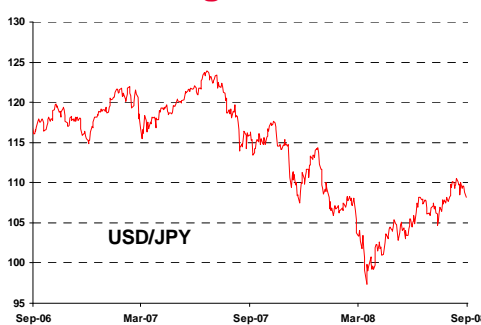
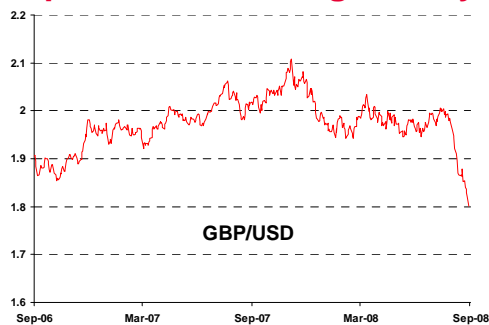
## Why use SG currency warrants

- Trade in all major currencies
- Unlimited upside potential, but strictly limited downside risk
- Tight spreads and high liquidity maintained by SG
- Speculative trading on exchange rates easily executed
- Hedging trading strategies for portfolio protection
- The ability to take positions against strengthening or weakening currencies
- London Stock Exchange listed as fully tradable securities
- Range of online tools available on [www.sglistedproducts.com](http://www.sglistedproducts.com) to see how different variables can effect your position

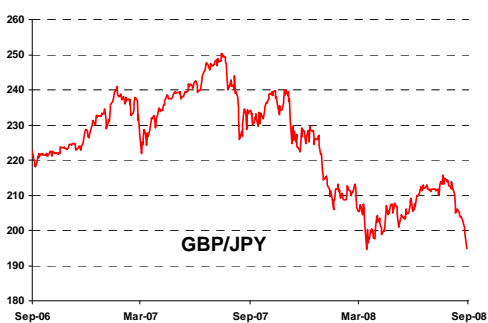
## Quoting Convention

Currency A/Currency B is the number of units of Currency B equal to 1 unit of Currency A. For example if the GBP/USD is trading at 2 then GBP 1 = USD 2, if the exchange rate moves to 2.01, Sterling has risen (appreciated) versus the Dollar, and the new exchange rate is GBP 1 = USD 2.01

## Speculate and hedge in any of the following Currencies



To hedge a	USD asset	EUR asset	USD liability	EUR liability
Buy	GBP/USD Call	GBP/EUR Call	GBP/USD Put	GBP/EUR Put
Protection against	Weaker USD/GBP	Weaker EUR/GBP	Stronger USD/GBP	Stronger EUR/GBP



Source: Bloomberg as of 1<sup>st</sup> Sept 2008

## Protecting your portfolio - Hedging an asset with a currency warrant

Consider a UK investor who owns a €10,000 portfolio of European underlyings (which remains constant throughout this example). With a current exchange rate of GBP/EUR = 1.2587 (i.e. 1.2587EUR to 1GBP), the investor's portfolio is worth £7,944.70 (€10,000/1.2587).

If the Pound strengthens by 10% (equivalent to the Euro weakening by 10%) the GBP/EUR moves to 1.38457 (1.2587 x 1.10), the €10,000 portfolio would now be worth £7,222.46 (€10,000/1.38457), a loss of £722.24 or 9% of the portfolio value.

**This risk can be hedged with a GBP/EUR currency Call warrant**

### 1. Choose a warrant

Consider the SG Call 1.30 GBP/EUR Mar 09.

Underlying	Type	Strike	Expiry	Parity*	Price	Delta
GBP/EUR	Call	1.3	20/03/09	1/10	13.6p	29%

\*Parity = 1 warrant gives you exposure to 10 units of GBP/EUR

This provides a hedge against a stronger Pound/weaker Euro until expiry.

### 2. Calculate how many warrants you will need

The number of warrants required to hedge an increase in GBP against EUR:

$$\text{Number of warrants to buy} = \frac{\text{GBP value of portfolio} \times \text{Parity}}{\text{Delta}}$$

$$2,740 = \frac{7,944.70 \times 0.1}{29\%}$$

i.e. an investment of £372.64 (2,740 x 13.6p) which can be thought of as an insurance premium on the current £7,944.70 value of the portfolio.

### 3. Monitor your investment

Follow the price of your warrant on [www.sglisterproducts.co.uk](http://www.sglisterproducts.co.uk)

**Consider the following three scenarios from our example at maturity:**

GBP strengthens 10% to 1.38457	GBP/EUR remains the same	GBP falls 10% to 1.14427
<b>Value of Portfolio (GBP)</b> = €10,000/1.38457 = £7,222.46 → Loss £722.24  61.08p = Warrant Price at maturity = ((Spot-Strike)/(Spot x Parity)) <b>Value of Warrants = £1,673.59</b> (2,740 x 0.6108)	<b>Value of Portfolio = €10,000</b> = £7,944.70 → No change  Warrant Price = 0p <b>Value of Warrants = £0</b> (2,740 x 0)	<b>Value of Portfolio (GBP) =</b> €10,000/1.14427 = £8,739.20 → Gain of £794.50  Warrant Price = 0p <b>Value of Warrants = £0</b> (2,740 x 0)
<b>TOTAL GAIN = £578.71</b> (gain/loss on portfolio + value of warrants – initial investment)	<b>TOTAL LOSS = £372.64</b> (gain/loss on portfolio + value of warrants – initial investment)	<b>TOTAL GAIN = £421.86</b> (gain/loss on portfolio + value of warrants – initial investment)

This example is for illustrative purposes only and if the percentage increase or decrease in the GBP/EUR exchange rate was different then a TOTAL LOSS/GAIN could be made in different scenarios.

- The loss in the scenario where the GBP/EUR remained the same can be seen as an insurance policy
- SG warrants can be unwound at any point before maturity so as to not lose the time value of the warrant
- By selling warrants that are in the money before maturity you can potentially make a total gain which is larger than keeping them until expiry.

Warrants are not suitable for everyone. You should not deal in Warrants unless you understand their nature and the extent of your exposure to risk. You should be satisfied that they are suitable for you in the light of your circumstances and financial position. If you are in any doubt you should consult an appropriately qualified financial advisor. The value of Warrants may be exposed to fluctuations in exchange rates, and these may have an adverse effect on the value or price of the Warrants. The value of Warrants can go down as well as up. Where any Warrant is based on an index, the index provider will have no liability to you in respect of its activities in respect of that index.

## Definitions

### The Delta

The sensitivity of the warrant price to a change in the price of the underlying.

The higher the delta, the higher the probability to be in the money (have intrinsic value) and therefore the higher the premium.

Generally, a covered warrant with a low delta is riskier than one with a higher delta.

It is expressed in percentage and ranges between 0% to 100% for Call Warrants and -100% to 0% for Put Warrants.

### The Time Value

This represents the time remaining until maturity in the price of the covered warrant.

The time value decreases progressively the closer the warrant gets to its maturity date. This is because the closer you get to the maturity date the less time there is to reach your expected scenario.