



# “A Guide to The Basics of Bullion Trading”

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- Records trace bullion transactions in London back to the 17<sup>th</sup> century with the formation of Mocatta & Goldsmid in 1684
- The introduction of the London Silver Fixing in 1897 and the London Gold Fixing in 1919 marked the beginning of the market's structure and of the co-operation between members that has created the marketplace as it is today.
- The London Gold Fixing dominated the UK marketplace until 1980 when, fuelled by oil price inflation and spiralling international tension, gold reached \$850 (then an all time high) and silver \$50 (still an all time high). The level of activity and profitability in the market drew increasing global attention, sparking an influx of international players to set London on course to become the centre of the international arena.
- The London Bullion Market is a wholesale market with minimum size trades larger than futures contracts.
- Members of the London Bullion Market trade with each other and with their clients on a principal-to-principal basis, which means that all risks, including those of credit, are between the two counterparts to a transaction. This is known as an 'Over the Counter' (OTC) market, as opposed to an exchange traded environment.
- Unlike a futures exchange, where trading is based around standard contract units, settlement dates and delivery specifications, the OTC market allows flexibility. It also provides confidentiality, as transactions are conducted between the two principals involved. Moves are underway to combine OTC flexibility with greater market oversight afforded by a regulated exchange such as the DGCX Spot Gold Contract
- London's dominant role is currently under pressure from global competition and regulatory pressures with the latter resulting in changes in 2015 with both the Gold and Silver Fixing traditional methodology being replaced by electronically managed auctions or benchmarks
- While London has been the focus of the international bullion market since the 18th century, the world is changing with physical gold trading moving East with Asia accounting for almost 70% to total fabrication demand for gold.

- Loco London is a concept that is perhaps the most important aspect of the London bullion market as it represents the basis for international trading and settlement in gold and silver. Most global over-the-counter gold and silver trading is cleared through the London Bullion Market clearing system, with deals between parties throughout the world settled and cleared in London.
- This concept has evolved over time. In the second half of the nineteenth century, London developed as the centre through which gold from the mines of California, South Africa and Australia was refined and then sold.
- With this business as a base, and supported by the London Good Delivery List, London bullion dealing houses established global client relationships. These clients opened bullion accounts with individual London trading houses. It soon became evident that these “loco London” accounts, while used to settle transactions between bullion dealer and client, could also be used to settle transactions with other parties by transfers of bullion in London. Today, all such third party transfers on behalf of clients of the London market are effected through the London bullion clearing system.
- A credit balance on a loco London account represents a holding of gold or silver in the same way that a credit balance in the relevant currency represents a holding of dollars on account with a New York bank or AED with a UAE bank.
- There is no reason today why Loco Shanghai, Loco Mumbai, or Loco Dubai should not provide a credible, alternative bullion banking and clearing environment to compete with Loco London. It simply requires acceptance of gold as money, in the same way as dollars, euros, sterling or dirhams by the major regional Commercial and Central Banks.

Clearing in the London Bullion Market is provided by the not-for-profit company, London Precious Metal Clearing Limited (LPMCL) – which is owned and operated by the five clearing LBMA members: ICBC Standard Bank, HSBC, JPMorgan, Scotiabank and UBS. They utilise the unallocated gold and silver, in accounts they maintain between each other, to make ‘paper transfers’ to settle mutual trades. They also settle third party loco London bullion transfers, conducted on behalf of clients and other members of the London Bullion Market. This system of ‘paper transfers’ avoids the security risks, costs and impracticality of physically moving metal bars.

Each client provides a list of bullion settlements, resulting from transactions with their own group of counterparties, for the next business day. These instructions - to receive or deliver bullion - will be forwarded to their London bullion clearing member, usually via an internet system, telex, fax or Swift message. In many cases, each settlement will be the ‘net’ of several purchases and sales with their counterparties. Netting of same-day value trades by counterparty is advocated by the bullion market, as it not only reduces the number of settlements but, more importantly, it reduces the amount of credit risk while the trades are live and at the actual point of settlement.

Netting is particularly important given that the vast majority of bullion trades are against US dollars. Although the metal leg is settled in London by 16:00, the party due to receive the dollar counter-value in New York will typically not know if the dollars have been received in their account until the US dollar clearing closes at the end of the New York business day. For most European entities, this means they are unable to confirm receipt of US dollars until the following business day.

Transfer instructions for clearing members’ own purposes and for client transfers can be made up to 16:00, London time, on the day of settlement. Clearing members then have until 16:30 to enact transfers or call for allocation for credit purposes.

Historically the volume of precious metals cleared by the members of the LBMA was kept confidential, but in January 1997 the LBMA released turnover figures for the first time and latest reports show that on average more than 20 million ounces of gold is cleared daily in the London market and in excess of 200 million ounces of silver.

**Trading Unit** - For gold, this is one fine troy ounce, and for silver, one troy ounce. In the case of gold, the unit represents pure gold irrespective of the purity of a particular bar, whereas for silver it represents one ounce of material of which a minimum of 999 parts in every 1,000 will be silver.

**Troy Ounce** - The traditional unit of weight used for precious metals. The term derives from the French town of Troyes, where this unit was first used in the Middle Ages. One troy ounce is equal to 1.0971428 ounces avoirdupois.

**The Loco London Spot Price** - This is the basis for virtually all transactions in gold and silver in London. It is a quotation made by dealers based on US dollars per fine ounce for gold and US dollars per ounce for silver. Settlement and delivery for both metals is two business days in London after the day of the deal. From this basis price, dealers can offer material of varying fineness, bar size or form - for example, grain - at premiums to cover the costs of producing smaller, exact weight bars, or bars of a fineness above the minimum 995 fine.

**Unit for Delivery of Loco London Gold** - This is the London Good Delivery gold bar. It must have a minimum fineness of 995.0 and a gold content of between 350 and 430 fine ounces with the bar weight expressed in multiples of 0.025 of an ounce - the smallest weight used in the market. Bars are generally close to 400 ounces or 12.5 kilograms.

**Unit for Delivery of Loco London Silver** - This is the London Good Delivery silver bar. It must have a minimum fineness of 999 and a recommended weight between 750 and 1,100 ounces, although bars between 500 and 1,250 ounces will be accepted. Bars generally weigh around 1,000 ounces. Both gold and silver bars must conform to the specifications for Good Delivery set by the LBMA.

**Other Bullion Bars** - A variety of smaller exact weight bars is available to wholesale clients in addition to Good Delivery bars. The fine gold content of exact weight bars is determined by their fineness. A client pays only for the fine gold content. Silver kilo bars are purchased and sold as one kilo of 999 fine silver. Different types of bars and weights are shown on the next slide.

A gold bar is defined as any gold item, regardless of shape, which is made by a bar manufacturer, records the name of the manufacturer, the precise weight and the precise purity, and is sold at a low premium above the gold price. The most popular bars are:

**12.5 kg bars (400 oz.) London Good Delivery bars** are permitted to weigh between 350 oz.. and 430 oz.. Minimum gold purity: 99.5%. Around 150,000 are made each year. Central banks normally hold gold in the form of these bars and are believed to hold 2.5 million of them.

**Kilo Bars** - The kilo bar (1000 g) is the world's most widely traded small gold bar. It is popular among investors and fabricators as it is normally traded at an extremely low premium above the prevailing value of its gold content.

**Tael Bars** - A tael is a Chinese unit of weight. One tael is equivalent to 1.2 oz. or 37.4 g.

Tael bars, ranging from tael to 10 taels, are widely traded in Chinese-speaking countries, mainly Hong Kong and Taiwan. Cast tael bars are manufactured in 3 shapes: 'biscuits', 'doughnuts' and 'boats'

**Tola Bars** - The tola is an Indian unit of weight. The most popular weight is the 10 tola cast bar, equivalent to 3.746 oz. or 116.64 g.

Tola bars are widely traded in the Middle East, India, Pakistan and Singapore.

One troy ounce = 31.1034768 grams. Thus if gold were at US\$1,300 per ounce, a gold gram would be worth about US\$42. Note where gold is measured in ounces, these are troy ounces, not the much more common avoirdupois ounce which is used for measuring weights in food etc.

An avoirdupois ounce is lighter than a troy ounce. One avoirdupois ounce = 28.349523125 grams

One tonne = 1000 kilograms = 32,150.746 troy ounces (value US\$54.65 Mio. using \$1,700 per toz.)

One kilogram = 1000 grams = 32.15074656 troy ounces (value US\$54,655 using \$1,700 per toz)

One tola = 11.6638038 grams (value US\$641 using \$55 per gram).

Tola is an traditional Indian measure for the weight of gold and prevalent to this day. Many international gold manufacturers supply tola bars of 999.96 purity. The most popular is the ten tola bar = 3.746 troy ounces.

One tael = 50 grams (value US\$2,750 using \$55 per gram. This is the official rate of taels in mainland China since the country went metric.

In Taiwan and Hong Kong today a tael is equivalent to 37.429g worth \$2,059

Gold is very dense, (19.3 g/cm<sup>3</sup>), to the extent that ten million U.S. dollars' worth occupies less than one cubic foot.



***Unallocated Accounts***

Most traded and settled bullion in London is on an unallocated account basis. This is an account where the customer does not own specific bars, but has a general entitlement to an amount of metal. This is similar to the way that a bank account operates: in that a customer may not necessarily back receive the same notes they originally deposited. Similarly, a customer with an unallocated account who physically withdraws their metal will not necessarily receive the same gold bars back they deposited. It is the most convenient, cheapest and most commonly used method of holding metal.

The units of these accounts are one fine ounce of gold and one ounce of silver, based upon a 995 LGD gold bar and a 999 fine LGD silver bar respectively. Transactions may be settled by credits or debits to the account, with the balance representing the indebtedness between the two parties. Credit balances on the account do not entitle the creditor to specific bars of gold or silver. Instead the balance is backed by the bullion stock of the dealer with whom the account is held. The client is an unsecured creditor.

If a client wants to have actual metal, specific bars or equivalent bullion products are 'allocated', the fine gold content of which is then debited from the unallocated account. The market convention is that bullion may be allocated on the day it is called for, with physical metal generally available for collection on the next business day.

***Allocated Accounts***

These accounts are opened when a customer requires title or ownership of specific bars. The client has full title to the metal in the account, with the dealer holding it on the client's behalf. Clients' holdings are identified in a weight list of bars, showing the unique bar number, gross weight, the assay or fineness of each bar and its fine weight. Credits or debits to the holding are linked to the physical movements of bars, to or from the client's physical holding.

The LBMA was established in 1987 by the Bank of England (the bullion market's regulator at the time), to take over the roles of the London Gold Market and London Silver Market, whose origins go back to the mid-nineteenth century.

### ***Regulation of Institutions***

The LBMA has no regulatory responsibilities for the bullion market. Regulation used to be the responsibility of the Bank of England which was subsequently handed to the Financial Services Authority. However, following regulatory changes introduced on 1 April 2013, the Prudential Regulation Authority (PRA) at the Bank of England, now has overall responsibility for the prudential regulation of banks, building societies, credit unions, insurers and major investment firms, many of whom are active in the bullion market.

The conduct of financial institutions is now overseen by the Financial Conduct Authority (FCA), which was formed from the FSA and is separate from the Bank. The FCA promotes competition but also operates the prudential regulation of those financial services not supervised by the PRA, such as asset managers and independent financial advisers. The LBMA maintains a close working relationship with the PRA and the FCA.

### ***Global Precious Metals Code***

The Global Precious Metals Code published in May 2017 sets out the standards and best practice expected from market participants in the global over-the-counter (OTC) wholesale precious metals market. Full details are available on <https://www.lbma.org.uk/publications/foreword>

### ***In the United Arab Emirates***

Companies engaged in physical commodity trading activities may be licenced by the relevant Economic Department of the Emirate in which they are based, or if they are located in the Dubai Multi Commodity Free Zone the company is licenced and regulated by the Dubai Multi Commodity Centre Authority. Banks and Financial Institutions are regulated by the UAE Central Bank, while brokers are covered by the Emirates Securities and Commodities Authority. The wholesale bullion sector is subject to the UAE's strict AML/CFT law, published in 2018.

While London is the global hub for OTC paper trading, the real world of physical gold is located in a geographic area that contains the Middle East and North Africa (MENA), the Indian sub-Continent, East Asia and Turkey.

### ***MENA***

UAE (Dubai), Saudi Arabia, Kuwait, Iran, Egypt, Morocco, Turkey

### ***INDIAN SUB-CONTINENT***

India (the World's number two consumer), Pakistan, Bangladesh, Sri Lanka

### ***EAST ASIA***

China (the world's number one producer and consumer of gold), Hong Kong, Indonesia, Japan, Malaysia, Singapore, South Korea, Taiwan, Thailand, Vietnam

### ***AFRICA***

The African continent has historically been a source of supply of gold with the main gold producing countries being:

South Africa (formerly the world's biggest producer but lost the crown to China in 2008), Ghana, Mali, Tanzania, Guinea, Zimbabwe and others....

With growing populations and prosperity we could see the larger African economies becoming important players in both the physical and investment (paper) gold trading markets

There are a large number of exchanges around the world that offer futures contracts in gold and silver including:

COMEX, a division of the Chicago Mercantile Exchange, which is the worlds leading futures exchange for gold and silver trading.

Dubai Gold and Commodities Exchange  
Exchange (TOCOM)

Tokyo Commodity

Multi Commodity Exchange of India

Istanbul Gold Exchange (IGE)

Shanghai Gold Exchange

Any many more.....

When using futures markets always remember that:

All futures trades require an initial margin paid into the margin account and subsequent variation margins when the price of the commodity changes. Changes are margined on a “One-to-One” basis.

Trading futures and managing the position is an intensive process.

Tight internal controls have to be in place.

Trading futures in a volatile market carries a high risk

A high level of technical knowledge and trading experience is essential

Follow strict take profit/stop loss policies

## PROS

Price transparency

Well regulated

Low credit risk

Low original margin

Small size tickets

Price volatility

## CONS

Liquidity can be poor

Transaction costs

Inflexible maturities

Price volatility

Fixed size tickets

Most OTC gold trading around the world takes place "loco London", meaning the gold is sold for "notional physical settlement" in London, although in practice less than 5% of the daily trading volume is physically delivered.

Price quotations in the spot market are expressed in U.S. dollars, and quoted as a price per fine troy ounce, such as \$1710.00 - \$1711.00/oz..

Here the bid or buying price is \$1710.00 per fine troy ounce, and the asked or selling price is \$1711.00 per fine troy ounce. Spot delivery will take place in terms of Loco London on the spot date, which is the second working day after the trade date, or T+2.

Most gold trading is settled by paper transfers between unallocated accounts. Bookkeeping entries avoid the transactions costs and security risks of moving the actual metal. Traders clear their trades with each other through book entry transfers in or out of accounts at one or more clearing members, while clearing members clear their net trades with one another through their gold accounts at the Bank of England, as well as by physical gold transfers.

OTC trading is effected in a number of ways:

- ✓ Electronically through Brokerage systems, or Proprietary on-line electronic trading platforms, such as 24G, with the latter methodology becoming the most popular form of trading with clients.
- ✓ By telephone directly between counterparties or via a broker
- ✓ Futures Trading can be electronically via on-line access provided or by telephone with an Exchange approved broker.

In addition to spot Loco London trading, there are a number of other OTC forms of trading that include forwards, options, and EFP's, or Exchange for Physical, which is a hybrid of OTC spot and futures.

**Swaps**

A gold swap is a spot sale or purchase of metal with a simultaneous purchase or sale of metal at a specified date in the future. The interest cost associated with this method of financing is reflected in the forward price. The swap rate is derived from US\$ LIBOR minus the gold lease rate. Swaps are the most common gold forward product and are quoted from a tenor of overnight to five years.

**Fixed or Outright Forwards**

All gold forwards are calculated using gold swap rates. These are a function of supply / demand for the underlying metal and the matching money market interest rates. If there is excess demand for gold, the yellow metal's interest rate will increase and swap rates will be lower. This means that the spread between gold swap rate and the money market rate will widen.

**THE GOLD LEASE RATE = US\$ LIBOR MINUS THE GOLD SWAP RATE**

Fixed or outright forwards are used by both producers and consumers.

Producers can hedge their future physical production from the mines by matching the production schedule to a strip of fixed forward sales. This hedging offers producers two important operational advantages: By selling future gold production at a locked in (guaranteed) price, often several years ahead, producers realize a significant premium over the spot price. Because the gold interest rate is typically much lower than USD LIBOR, the gold swap rate is almost always in a steep contango, i.e. the forward price is higher than the spot price. It allows better cash flow and investment planning, stabilizes income flow and can improve budgeted revenue

Gold consumers or fabricators, principally the gold jewellery industry, try to match their purchases of physical gold with their fabrication schedule. Their requirements tend to be seasonal, peaking at certain times of the year, such as prior to Diwali and the Indian wedding season, Christmas and the Chinese New Year. Instead of waiting until the metal is needed and risking having to pay higher gold prices, the jeweller can buy for fixed forward dates that match their fabrication plans if the spot price falls to what is considered to be an attractively cheap level.

***Floating Forwards***

This variant allows the producer to sell gold for a forward date, fixing both the spot gold price and the US \$ interest rate but floating the gold lease rate. For example a producer who believes that gold lease rates will be lower on a three month rolling basis than locking in the lease rate for the life of the hedging transaction will use the floating forward contract. It is a fact that a three months gold lease is cheaper than a three year deal. One very important reason for this is that Central Banks, who provide the liquidity in the gold lending market, are very happy to place gold on deposit for three months but it is rare to find a Central Bank willing to commit their reserves beyond 12 months. Let us, say use 1.50% as the lease rate basis for the three months. As I have said the floating forward or lease rate swap allows the customer to lock in the US dollar interest rate for the desired period and borrow gold on a short term basis, usually three months, which is where the liquidity is. Every three months during the period of the transaction the “rate set” is agreed basis 3 months \$ LIBOR minus 3 months GOFO. If that calculation equals 2% the producer will receive 0.50% and a new rate for the next quarter will be agreed. If the rate was 1% the producer will have to pay out 0.50% pa to the bullion bank. This can be cash settled or paid in the form of gold.

***Spot Deferred Contracts***

A spot deferred contract is a forward contract without a pre-defined delivery date. While the pricing of a fixed forward deal is based on the known gold swap rate to maturity, the deferred contract will be calculated on a rolling basis using shorter dated rates as requested by the client. These rates can be for varying tenors from overnight to one year or longer. As each short dated forward matures it is rolled for a further period. No settlement takes place until the customer’s chosen maturity date. Usually the difference in price between the forward maturity and the prevailing spot price is cash settled. Using deferred forwards introduces an extra element of market risk. Since the final maturity date is unknown, it is not possible to fix the interest components until maturity, which gives rise to an exposure to floating dollar and gold interest rates. This type of instrument is used by producers who believe that dollar rates are expected to rise in the future and gold lease rates are expected to fall. The producer will roll spot sales on a deferred basis dollar rates have risen and gold rates fallen to target levels. The producer will then use the improved contango, or swap rate to lock in sales until maturity.



### ***Exchange For Physical Transactions***

While forward gold is traded in the form of swaps, which combines a spot trade (buy or sell) with the reverse forward trade (sell or buy), gold futures can be traded in the form of EFPs (exchange for physicals), which combine a futures trade with the reverse spot trade. EFPs are traded for the same months as gold futures.

The EFP price represents the difference between the futures price and the spot price for the combined trade.

For example, a market-maker may quote the December EFP at the COMEX as \$1.10-\$1.40 in 100 lots. This means the market-maker's prices are good for a standard trade involving 100 futures contracts (10,000 oz. of gold). The market-maker will "buy" the EFP at \$1.10/oz., or "sell" the EFP for \$1.40/oz..

This quotation implies that for \$1.10/oz.. the market-maker offers to buy from you 100 gold futures contracts, while simultaneously selling to you 10,000 oz. of spot gold. For \$1.40/oz.. the market-maker will sell to you 100 gold futures contracts, while simultaneously purchasing 10,000 oz. of spot gold.

To summarize: the market-maker's bid price is the price he will buy futures versus selling spot, while the market-maker's asked price is the price he will sell futures versus buying spot.

The EFP price is thus simply a different way of looking at the basis or the swap rate.

The EFP market provides a vital source of liquidity to futures markets and gives a depth to the Exchange that encourages the growth of their contracts. As much as 50% of a contracts volumes can come from EFP's.

A Futures Exchange contract without an active EFP market mechanism cannot be successful.

***WHAT IS HEDGING?***

Hedging is the process of substituting certain, or known, outcome for an uncertain one. A gold producer, for example, does not know what the spot price of gold will be a year from now but that Producer can hedge future gold revenues by selling gold forward at the known one-year forward price. This will enable him to determine his cash flow in advance - at least that part of it that depends on the fluctuating price of spot gold. It will simplify financial planning.

***BENEFITS AND PITFALLS OF HEDGING***

The actual spot price of gold a year from now may be higher than the pre-agreed forward rate, or it may be lower. Thus, by hedging and substituting a known price for an unknown one, the gold producer could just as easily suffer an opportunity loss as an opportunity gain. However many in the gold market are looking not for a fixed forward price, but rather for a boundary guarantee.

A future seller of gold might want a guarantee that the sales price will not fall below a minimum price level below which the business will incur losses, but otherwise would prefer to remain un-hedged in hopes the market price will rise. Similarly, a future gold buyer might look for a guarantee that the purchase price will not rise above a tolerable maximum level, but otherwise prefer to remain un-hedged in hopes the market price will fall.

***WHAT ARE OPTIONS***

- ✓ The gold market creates and sells such guarantees or insurance contracts. In financial literature (and in the market), these same contracts are also called options. Naturally the market does not provide such insurance contracts for free. Just like anything else, they are available for a price. The price or amount paid for an option (or guarantee or insurance) is called the premium.
- ✓ Options are traded over-the-counter and at organized securities and futures exchanges.

Options can be traded in the “Over The Counter” market where maturity or expiry dates can be tailor made to suit individual requirements for periods as far forward as 10 years. OTC options are typically European style, which means that the option can only be settled on the expiry date of the option. Buyers of OTC options pay a premium for the option but have no further risk; sellers of OTC options received a premium but have unlimited risk

Or they can be traded on a Futures exchange such as the COMEX. These options are for fixed dates and if exercised become an underlying futures contract. The maturity of a COMEX gold option is typically on the 2<sup>nd</sup> Friday of the month prior to the underlying COMEX futures month. Buyers of an exchange traded option do not pay margin but simply the up front premium. Sellers have to deposit original margin before trading and will be subject to variation to support their positions.

COMEX options are American style, that means that they can be exercised into the underlying futures contract at any time prior to expiration date. American style options are more expensive than European style options

Options are regarded in some circles as speculative instruments that help to cause unnecessary and unwanted price volatility. However the truth is that an option is actually a form of price insurance which is an important tool in managing price risk and exposure.

What are the main elements of an option?

*Underlying Price | Strike Price | Expiration Date | Contango or Swap Rate | Interest Rates | Implied*

*Volatility*

The first five elements are known factors while Implied Volatility is the secret ingredient and often options traders will take those first five elements as read and simply quote each other the VOL.

***Underlying Price***

When pricing an option, the current underlying price will determine the degree by which the option is in- or out-of-the-money, and thereby one element of the option price. The more out-of-the-money an option is, the lower the option's premium. In precious metals, contango rates are an important element in this calculation. The level of the underlying price at expiration determines the final profitability of the trade .

***The Strike Price***

The strike price is the agreed upon price at which the option buyer has the right to buy (in the case of a call) or sell (in the case of a put) the underlying asset. The lower the put strike (or higher the call strike) the lower the option premium. A higher put strike (or lower call strike) results in a higher option premium.

***Expiration Date***

The option expiration date is the agreed upon date at which the option buyers rights are cancelled. The later the expiration, the more expensive the option premium

***Interest Rates***

The current interest on money is used to determine the cost of financing the option premium for the duration of the option's life, higher interest rates on money result in lower option premiums

***Implied Volatility***

This is the measure of anticipated market activity through the life of the option

Higher volatility results in higher option premium, Out-of-the-money options carry a higher implied "VOL"

A lot of people will say that options are all Greek to them. Well in some way that’s quite true.....

**Delta**

The option delta reflects the spot/forward equivalent position resulting from an option position. Buying calls results in a delta long position, Buying puts results in a delta short position.

**Gamma**

Gamma is the rate at which the delta changes with a move in the underlying price. Near term options have a greater gamma than longer dated options, At-the-money options have a greater gamma than out-of-the-money options.

**Kappa/Vega**

Kappa or Vega is the measure of the option premium change from one volatility point to the next. Near term options have smaller kappa values than longer term options. At-the-money options have larger kappa values than out-of-the-money options.

**Theta**

Theta is the measure of daily time erosion. Near term options have more theta than longer term options (on a daily basis). At-the-money options have more theta than out-of-the-money options

**Rho**

Rho is the measure of interest rate risk associated with an option position. It can relate to only the option premium, or the effect money rates have on forward underlying prices as well

ALLOCATED A/C	These accounts are opened when a customer requires metal to be physically segregated and needs a detailed list of weights and assays
ARBITRAGE	Simultaneous buying and selling a commodity in different markets to take advantage of price differentials
ASSAY precious which the direct	The determination of the precious metal content of an alloy, either using a direct method (where the actual metal content is measured) or an indirect, instrumental method (usually based on spectrographic analysis) in levels of impurities are measured and the precious metal content is calculated by difference. For gold, the main method is fire assay, also known as cupellation or gravimetric analysis.
ASSAYER	A tester of precious metals.
ASSAY MARK	The stamp by an assayer on a bar or piece of precious metal to guarantee its fineness.
ASSAY OFFICE	An official or statutory organization controlling the testing of precious metals within a country
AVOIRDUPOIS	A system of weights for commodities except precious metals, stones, and drugs. One avoirdupois ounce equals 28.35 grams or 437.50 grains
BACKWARDATION	A situation in which prices for future deliveries are lower than the spot price
BULLION French	The generic word for gold and silver in bar or ingot form. Originally meant 'mint' or 'melting place' from the old word bouillon, which means boiling
CARAT of the gm. 2) A e.g.	Derived from the word for "carob" in various languages, it was originally equivalent to the weight of the seed carob tree. It has two meanings in modern usage. 1) A measure of the weight of precious stones, 1 carat = 0.2053 gm. 2) A measure of the proportion of gold in a gold alloy, on the basis that 24 carat is pure gold, often expressed as K or k, e.g. 18k is 75% gold.

CHOP	Assay mark of Chinese origin. The term is now widely applied to a manufacturer's mark on bullion bars
CIF the	Cost, insurance and freight. A CIF price includes the cost of material together with transport and insurance costs to the final specified destination.
CONSIGNMENT	These are gold or silver bars which are placed by an organization with a client against a guarantee of payment at the prevailing price as the metal is taken out of the stock.
CONTANGO	The market situation where the price for future (forward) delivery is greater than the spot price.
DORÉ is produced at a	An unrefined alloy of gold with variable quantities of silver and smaller quantities of base metals, which is produced at a mine before passing on to a refinery for upgrading to London Good Delivery standard.
DOUBLE EAGLE	Gold coin with a face value of US\$20 issued as legal tender in the United States during the period 1850-1932. It is 900 fine with a fine gold content of 0.9675 troy ounces.
EAGLE	The earliest legal tender US gold coin first minted in 1795. It is 900 fine.
EFP	Exchange for Physical. Actual exchange between an OTC contract and a futures contract which takes place off exchange between parties.
ETF/ETC by major	Exchange Traded Commodities (or Exchange Traded Funds) are open-ended, listed securities which are arbitrage-able with the underlying markets. ETCs trade on stock exchanges and have multiple market makers. ETCs are either backed by the physical commodity, thereby providing retail and institutional equity investors with the opportunity to gain exposure to commodities through existing equity accounts

- FIAT MONEY** Paper money made legal tender by law, although not backed by gold or silver
- FINENESS** The proportion of precious metal in an alloy expressed as parts in 1,000.
- FINE WEIGHT** The weight of gold contained in a bar, coin or bullion as determined by multiplying the gross weight by the fineness.
- FIRE ASSAY** A method of determining the content of a metal (most commonly gold) in an alloy involving the removal of other metals by what is in effect a combination of fire-refining (for the removal of base metals) and chemical refining (for the removal of silver) and then determining the gold content by comparing the initial and final weights of the sample. Fire assay can determine the gold content of Good Delivery-type alloys to an accuracy of better than 1 part in 10,000. Fire assay is also known as cupellation or gravimetric analysis.
- FOB** Free on Board. A FOB price usually includes cost of transport, insurance loading onto a vessel at the port of departure.
- FOOL'S GOLD** Pyrites of iron sulphide, which is gold-like in appearance and can delude amateur prospectors.
- FORWARD PREMIUM** The difference between spot and forward quotations which will be determined by money and precious metal interest rates and storage charges.
- FORWARD DEAL** Purchase or sale for delivery and payment at an agreed date in the future.
- FUTURES CONTRACT** An agreement made on an organized exchange to buy or sell a specific commodity or financial instrument on a set date in the future at a set price. In practice, most futures positions are 'squared off' before maturity with delivery, if it takes place, in the form of a warehouse receipt.



GOFO	Gold Forward Offered Rate. The gold equivalent to LIBOR. The rates at which dealers will lend gold on swap against US dollars.
GOLD	Latin name Aurum. Chemical symbol Au. Its specific gravity is 19.32 and melting point is 1063°C.
GOLD BENCHMARK	Held twice each working day at 10.30 am and 3.00 pm in the City of London.
GOLD LOAN	The provision of finance in gold for a gold-related project or business, typically in mining or jewellery inventory finance, which provides a combination of generally inexpensive funding together with built-in hedging.
GOLD PARITY	Legally fixed quantity of gold to which a monetary unit is pegged.
GOLD POOL	The gold pool was an alliance between the central banks of Britain, Belgium, France, Italy, the Netherlands, Switzerland, United States and West Germany from 1961 to 1968 which endeavored to maintain the gold price at US\$35 dollars per troy ounce.
GOLD/SILVER RATIO	The number of ounces of silver that can be bought with one ounce of gold.
GOLD STANDARD within	A monetary system with a fixed price for gold, and with gold coin either forming the whole circulation of currency a country or with notes representing and redeemable in gold.
GOLD WARRANT often issued by	Either a warrant giving the buyer the right to buy gold at a specific price on a specified value date, for which the buyer pays a premium. While similar in structure to options, warrants are securitized instruments. OR a certificate exchanges indicating ownership of physical metal.

GOOD DELIVERY acceptable	The specification which a gold or silver bar or a platinum or palladium ingot or plate must meet in order to be for delivery in a particular terminal market or futures exchange.
GRAIN	One of the earliest units of weight for gold, one grain being the equivalent of one grain of wheat taken from the middle of the ear. 1 grain = 0.0648 grams or 0.002083 troy ounces. 15.43 grains = 1 gram; 480.6 grains = 1 troy ounce; 24 grains = 1 pennyweight. (See also Granules).
GRANULES	Bullion, including its various alloys presented for sale in granulated form, often referred to as grain.
GUINEA	British gold coin with a nominal value of £1 first issued in 1663 and named after gold from Guinea in West Africa. It was unofficially revalued at 21 shillings at The Great Re-coinage of 1696, a value confirmed in 1717. It has a fineness of 916.6 and a fine gold content of approximately ¼ troy ounce.
HALLMARK	A mark or number of marks made on gold, silver or platinum jewellery and other fabricated products to confirm that the quality is of the fineness marked on the item. See website: <a href="http://www.thegoldsmiths.co.uk">www.thegoldsmiths.co.uk</a>
HEDGE market exposure from	A transaction initiated with the specific intent of protecting an existing or anticipated physical unexpected or adverse price fluctuations.
KILO BAR ounces.	A popular small gold bar. A one kg bar .995 fine = 31.990 troy ounces, and a 1 kg bar 999.9 fine = 32.148 troy ounces.
LAKH	Indian term for 100,000. Frequently used to describe silver or gold orders.
LOCO	The place – location – at which a commodity, e.g. loco London gold, is physically held.
LBMA GOOD DELIVERY LIST	List of acceptable refiners of gold and silver whose bars meet the required standard (of fineness, weight, marks and appearance) of the London Bullion Market Association <sup>26</sup>

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ORE other	Originally from the Old English for crude or unwrought metal. It refers to any economic mineral deposit of precious or metals.
PALLADIUM	Chemical symbol Pd. Its specific gravity is 12.00 and its melting point is 1555 °C.
PAPER GOLD	A term used to describe gold contracts such as loco London deals and futures contracts which do not necessarily involve the delivery of physical gold
PENNYWEIGHT of	Originally the weight of a silver penny in Britain in the Middle Ages which is still widely used in North America as the unit weight in the jewellery trade. 20 pennyweights = 1 troy ounce.
PLATINUM	Chemical symbol Pt. Its specific gravity is 21.45 and melting point is 1773 °C.
PGM's	PLATINUM GROUP METALS include platinum, palladium, iridium, osmium, rhodium and ruthenium.
PRECIOUS METALS	Metals of great value being gold, silver, platinum, palladium and other platinum group metals
QUARTATION	The process in which silver is separated from gold by dissolving it out with nitric acid, more commonly referred to as nitric acid parting.
REFINING	The separating and purifying of precious metals from other metals.
RHODIUM	Chemical symbol Rh. Its specific gravity is 12.44 and its melting point is 1966 °C.
ROLLED GOLD	The process in which a layer of carat gold alloy is mechanically bonded to another metal.

ROSE GOLD	A gold alloy containing copper to create a pinkish gold colour, typically 18 carat, more copper means a stronger rose
RUTHENIUM	Chemical symbol Ru. Its specific gravity is 12.20 and its melting point is 2500 °C.
SCRAP GOLD	The broad term for any gold which is sent back to a refiner or processor for recycling.
SILVER	Latin name Argentum. The chemical symbol is Ag, specific gravity is 10.49 and the melting point is 960°C.
SMELTING	The process of melting ores or concentrates to separate out the metal content from impurities.
SOVEREIGN	British gold coin with face value of one pound sterling, a fineness of 916.6 and a fine gold content of 0.2354 troy ounces.
SPOT SETTLEMENT	Delivery of metal and payment of money, which takes place two business days after the transaction date.
STANDARD BAR	Gold bar weighing approximately 400 ounces or 12.5 kilograms with a minimum fineness of 995 parts per 1,000 pure gold. Silver bar weighing approximately 1,000 ounces with a minimum fineness of 999 Platinum or palladium plate or ingot between 1 and 6 kilos with a minimum fineness of 999.5.
STOP LOSS	An order placed to liquidate an open position when the price reaches a specified level in order to prevent further losses. These orders are only handled on a 'best efforts' basis, as there is no guarantee that an order can be executed at the specified price if the market is highly volatile and prices move so fast, or 'gap', that the order cannot be carried out at the price requested.
SWAP	1. Simultaneous purchase and sale of spot against forward. 2. An exchange between different location 3. A swap or exchange of different size of quality of bullion bars or platinum / palladium ingots or plate. 4. An agreement whereby a floating price is exchanged for a fixed price over a specified period

Tael	Traditional Chinese unit of weight for gold. 1 tael = 1.20337 troy ounces = 37.4290 grams. The nominal fineness of a Hong Kong tael bar is 990, but in Taiwan 5 and 10 tael bars can be 999.9 fine.
TOLA	Traditional Indian unit of weight for gold. 1 tola = 0.375 troy ounces = 11.6638 grams. The most popular sized bar is 10 tola = 3.75 troy ounces. Weights are for 999.9 gold purity
TOM/NEXT	Refers to the time period commencing one business day forward from the present and ending one business day later (usually spot). In precious metals, generally refers to the swap rate for borrowing or lending metal vs. US\$ for this time period, which is typically used to manage short-term liquidity flows.
TROY OUNCE medieval	The traditional unit of weight used for precious metals, which was attributed to a weight used in Troyes, France, in times. 1 troy ounce is equal to 1.0971428 ounces avoirdupois.
UNALLOCATED A/C most	An account where specific bars are not set aside and the customer has a general entitlement to the metal. This is the most convenient, cheapest and most commonly used method of holding metal. The holder is an unsecured creditor.
WHITE GOLD	A gold alloy containing whitening agents such as silver, palladium or nickel as well as other base metals. Often used as a setting for diamond jewellery.
XRF materials	X-ray fluorescence is a non-destructive analytical technique used to determine the elemental composition of materials