

# *Precious Metals*

## *Education Module: 3*

**Dated**     *July 2002*



## 1 - Introduction

The trading of precious metals in London has been documented as far back as the mid-seventeenth century. Gold and silver are the traditionally accepted 'precious metals'. Nowadays, platinum and palladium are grouped into the precious metals label, but are in reality platinum group metals (PGMs). Other metals traded in the PGMs are rhodium, ruthenium and iridium, although these are not traded inter-bank and are not labelled precious metals. Other names referring to the precious metals markets are bullion market, industrial metals (silver, platinum and palladium) and white metals (silver, platinum and palladium).

## 2 - Spot Markets

### Quotes

Worldwide market making prices in metals are expressed in USD per troy ounce. However prices can be obtained upon request in any currency.

### Location

The interbank market quotes gold and silver for location London; for platinum and palladium the location is Zurich. However, other locations can be quoted attracting a premium or discount depending on availability and cost.

### Spreads

The spread quoted for inter-bank markets in normal market conditions is:

<b>Gold -</b>	50 US cents/oz
<b>Silver -</b>	2 US cents/oz
<b>Platinum -</b>	15 US dollars/oz (changes dramatically)
<b>Palladium -</b>	15 US dollars/oz (changes dramatically)

The spread quoted varies, depending on the size required.

## **Market Parcel**

The size that normal inter-bank quotes are for in ozs varies:

<b>Gold -</b>	5,000 - 10,000 ozs
<b>Silver -</b>	100,000 - 200,000 ozs
<b>Platinum -</b>	1,000 - 2,000 ozs
<b>Palladium -</b>	1,000 - 2,000 ozs

However, any larger or smaller amounts can be accommodated for customers.

The location and individual companies dictate what the amounts are. The market norm is that the lower amount in all the preceding cases is the minimum amount, unless there is a prior agreement with each company – generally, a verbal agreement.

Physical business is generally identified as end user business (i.e. jewellery, bar investment, dentistry and all business where there is actual usage of the metal).

## **Fixings**

The fixings in gold, silver, platinum and palladium are the official price settings. They are published internationally, and used by industries and producers.

**Gold** – In the London market, there are two gold fixings each working day: at 10:30 am and 3:00 pm (except Christmas Eve and New Year's Eve, where there is just an am fix).

There are five fixing members: Deutsche bank, Republic National bank, Scotia Mocatta, HSBC Midland and the chairman NMRothschild.

Each member has a representative in the fixing room located at NMRothschild's office in London. The chairman announces a starting price and, via telephone contact with his or her respective dealing rooms, each member reports the price.

Each company relays the information to their customers and declares their interest - buyer, seller (in multiples of 2,000 ozs) or no interest. Provided there are both buyers and sellers, the members then declare their amounts. If there is no buying or no selling, or the amount declared does not match, the chairman declares another price until a balance is achieved.

On the condition the fixing is not on the highest or lowest price of that fixing, the chairman has discretion to declare a fixed price if the amounts are within 25 bars (10,000 ozs).



The gold fixing is an 'open fix', meaning customers can hold on line hearing the information as it happens, and change their interests at any time. So that a member can alter any declaration, each one in the room has a flag that can be raised; with any flags raised the chairman cannot declare a fix.

The gold market in London closes at 10:20 am in preparation for the fixing, and there is no inter-bank market until the fixing has finished.

The commission charges for all five members are:

If the customer is buying - fixing price + pays 25 US cents.

If the customer is selling - fixing price + receives five US cents.

The pm fixing takes place during New York trading hours, and there is normal inter-bank and COMEX trading whilst the fixing is in process.

The customer and fixing member is obliged to deliver bars from the official Good Delivery List.

**Silver** - The silver fixing has three members: HSBC Midland, Scotia Mocatta and Deutsche bank. The location and chairman is rotated between the three members. Each member has a representative present at 12.00 noon that takes orders via a telephone link to their corresponding dealing rooms.

All orders have to be placed in the fixing room by 12:15 when the fixing starts. The silver fix, unlike the gold fix, is a closed session, meaning once the fix has started customers cannot alter their orders and the three members in the fixing room cannot see any movement in price on the inter-bank market. The chairman announces an opening price, and each member declares their interest, buyer, seller or no interest. In turn, the members then declare their volumes (in ounces). The process continues until a balance is found and the price fixed. The results are then declared to their respective dealing rooms and on to the customers for order execution.

The fixing prices are published worldwide.

The commission charges for the three members in the silver fix are:

If the customer is buying - fixing price + pays 3/16%.

If the customer is selling - fixing price + receives 1/16%.

Silver was re-introduced to the LME as a contract on May 10<sup>th</sup> 1999 after more than 10 years absence.



**Platinum and Palladium** - There are four members of both the platinum and palladium fixes: Standard bank (chairman), Republic National bank, Engelhard and UBS. The PGM fixings are conducted from within the dealing rooms on a conference call line. They work along the same process as the gold fixing, whereas the chairman calls an opening price and each member declares their interest, followed by amounts.

The commission charges on the platinum and palladium fix are:

If the customer is buying - fixing price + pays 35 US cents.

If the customer is selling - fixing price + receives 15 US cents.

## ***Ratio/Spread Trading***

There are a few variables that are regularly traded in the precious metals markets.

**Gold/Silver ratio trade-** The gold price divided by the silver price.

The two-way quote is:

**Bid** - Gold bid divided by silver offer.

**Offer** - Gold offer divided by the silver bid.

### **Example:**

Spot Gold 286.10/286.40 and Spot Silver 5.40/5.41

Ratio quote is 52.88/53.04



**Platinum/Gold spread trade** - This is the platinum price divided by the gold price.

**Example:**

Spot Platinum 450.00/452.00 and Spot Gold 286.10/40

Platinum/Gold spread is 163.60/165.90

These two ratio/spread trades are the two major traditional trades; however, any other variable can be traded. For example, a platinum/palladium spread and platinum/silver ratio are available.

### 3 - Forward Markets

#### *Pricing*

The forwards market in precious metals is traded in a percentage (%) term.

Contango/forward rate - the percentage (%) rate quoted by inter-bank market makers as gold against USD interest rate (e.g. one month gold 3.95/4.25%).

The contango is calculated by USD interest rate - gold interest rate.

**Example: Contango**

One month USD 5.0% - 1.05% gold interest rate = 3.95% contango.

It is possible for a contango/forward rate to trade in a backwardation (negative interest rate) if the lease/gold interest rate is greater than the USD interest rate.

**Example: Backwardation**

USD one month 5.0% - Gold lease 6.0% = Gold fwd of -1.0%



Outright forwards are calculated by spot x contango x no.days/360

**Example:      Outright Forward**

$$\text{One month} = 286.00 \times 3.95\% \times 30/360 = 286.941$$

*\*When quoting GBP/AUD/NZD no of days applies to 365.*

**Lease/gold interest rate** - The pure gold interest rate in percentage (%) terms (e.g. one month gold 0.75/1.05%).

When trading on a lease basis, gold is traded as any other interest rate product.

When trading in a contango basis, gold has two components: gold interest and USD interest.

The 12 official London gold market makers all contribute to the London inter-bank Gold Forward Rates page on Reuters 'GOFO'.

The forward markets calculations are the same for all four metals.

## **Terms**

Normal inter-bank forward trading periods are:

- Gold** - One, two, three, six and 12 months, with two to five-year gold regularly traded depending on credit.
- Silver** - One, two, three, six and 12 months.
- Platinum** - One, two, three, six and 12 months.
- Palladium** - Negotiable.

Longer dated gold transactions are more regularly traded as a fixed money and floating gold contract (e.g. where the customer fixes its US\$ for seven years and floats its gold on a shorter basis at approximately three monthly intervals).

## **Market Parcels**

Normal inter-bank amounts in forward trading are:

- Gold** - 32,000 ozs.
- Silver** - 1,000,000 ozs.
- Platinum** - 5,000 ozs.
- Palladium** - Upon request.



It is commonplace for larger amounts to be traded.

### **Location**

Inter-bank forward quotes for gold and silver are located in London; platinum and palladium are located in Zurich. However, direct forward quotes are available for other locations, or a customer may trade location London forward, and then deal a location swap.

### **Quotes**

Normal inter-bank spread in forward trading is:

**Gold -** 0.30%.

**Silver -** 1.00%.

## **4 - Futures**

There are two major futures markets globally in precious metals.

### **a) NYMEX/COMEX - the New York Commodity Exchange**

#### **Hours of Trading**

**Gold -** 8.20 am to 2.30 pm New York time.

**Silver -** 8.25 am to 2.25 pm New York time.

**Platinum -** 8.20 am to 2.15 pm New York time.

**Palladium -** 8.25 am to 2.20 pm New York time.

#### **Market Parcel**

**Gold -** One lot = 100 ozs.

**Silver -** One lot = 5,000 ozs.

**Platinum -** One lot = 100 ozs.

**Palladium -** One lot = 50 ozs.

All quoted in USD/oz.



### ***Location***

All metals are located in an official New York warehouse.

### ***Contract Dates***

**Gold -** Feb/Apr/June/Aug/Oct/Dec (Oct inactive month).

**Silver -** Mar/May/Jul/Sep/Dec.

**Platinum -** Jan/Apr/Jul/Oct.

**Palladium -** Mar/Jun/Sep/Dec.

## **b) Tokyo Commodity Exchange (TOCOM)**

### ***Hours of Trading***

**Gold -** 9.00 to 11.00 am and 1.00 to 3.30 pm.

**Silver -** 9.00 to 11.00 am and 1.00 to 3.30 pm.

**Platinum -** 9.00 to 11.00 am and 1.00 to 3.30 pm.

**Palladium -** 9.00 to 11.00 am and 1.00 to 3.30 pm.

### ***Market Parcel***

**Gold -** One kilo.

**Silver -** 60 kilos.

**Platinum -** 500 grms.

**Palladium -** 1500 grms.

All quoted in JPY/lot.

### ***Contract Dates***

All metals - next odd month and all even months within a year. The normal active month is just under one year.

### ***Location***

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All metals located at TOCOM.

For both futures exchanges, the main item traded is the Exchange for Physical (EFP), which is the difference between the spot price and the commodity exchange price. The EFP creates a location position and a forward position.



## 5 - Table of Weight Conversion

Gross Weight	Troy Ounces	
	<i>.995 purity</i>	<i>.9999 purity</i>
<i>One ounce</i>	<i>0.995</i>	<i>1.000</i>
<i>100 grammes</i>	<i>3.199</i>	<i>3.215</i>
<i>One kilo</i>	<i>31.990</i>	<i>32.148</i>
<i>10 tolas</i>	<i>3.731</i>	<i>3.75</i>
<i>One tael</i>	<i>1.1974</i>	<i>1.2034</i>

## 6 - Good Delivery Specification (as described by LBMA)

### Gold

- Weight -** Minimum gold content 350 fine ounces.  
Maximum gold content 450 fine ounces.
- Fineness -** Minimum 995 parts per 1000 fine gold.
- Marks -** Serial number.

Stamps of an acceptable refiner. Since 1988, applicants have been required to stamp their bars with the year of manufacture.



## *Silver*

**Weight -** Minimum 500 ounces.  
Maximum 1250 ounces.

**Fineness -** Minimum 999 parts per 1000 fine silver.

**Marks -** Serial number.

Stamps of acceptable refiner. Weight in ounces troy or kilograms.

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