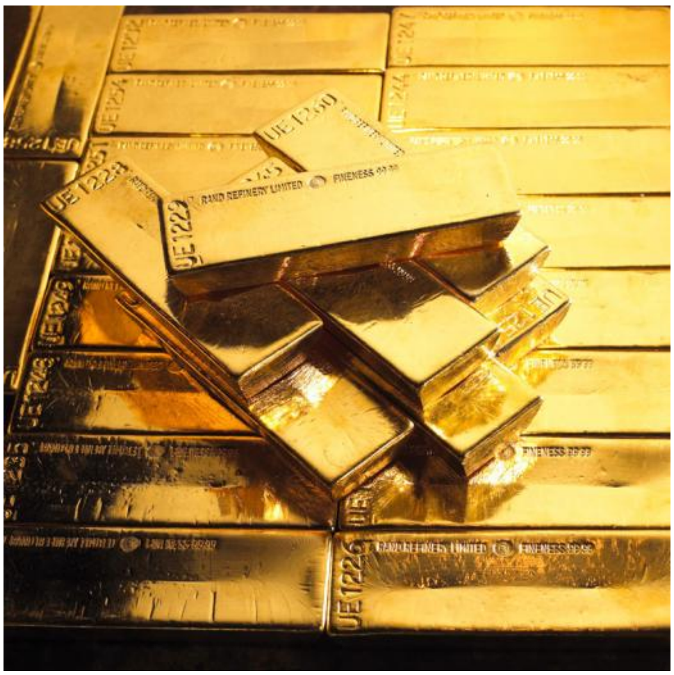
HANDBOOK H2/2006

THE PRECIOUS METALS TRADE - GENERAL INFORMATION HANDBOOK

DIRECTORATE: MINERAL ECONOMICS



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Department:
Minerals and Energy
REPUBLIC OF SOUTH AFRICA

THE PRECIOUS METALS TRADE -

GENERAL INFORMATION HANDBOOK

DIRECTORATE: MINERAL ECONOMICS

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- Silver Institute
- SA Reserve Bank

PICTURE ON THE FRONT COVER BY COURTESY OF RAND REFINERY

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PRECIOUS METALS: INTRODUCTION

WHAT ARE PRECIOUS METALS, AND WHY "PRECIOUS"?

The term **"precious metal"** refers to the metals gold, silver, platinum and the other **platinum-group metals (PGMs)**, namely: palladium, rhodium, iridium, ruthenium and osmium. They are **noble metals**, in that they resist attack by acids and other reagents and do not corrode easily (although silver does tarnish).

The word "precious" derives from the latin *pretium*, meaning price, through French word "précieux" (Rhona O'Connel, 2005). The term "precious" implies that they are by definition, high unit-value and rare metals. They tend to be attractive, durable and workable (malleable and ductile) metals.

Precious metals (except for the PGMs: rhodium, iridium, ruthenium and osmium) are best known for their use in jewellery and silverware. In 2005, about 10 580 tonnes of gold, platinum, silver and palladium valued at an estimated $42.60 billion were used in this application (see Table below).

TABLE: USE OF PRECIOUS METALS IN JEWELLERY, 2005

PRECIOUS METAL	USE IN JEWELLERY MASS (tonnes) (% OF TOTAL FABRICATION)	USE IN JEWELLERY VALUE[e] ($ billion)	TOTAL FABRICATION (tonnes)
Gold	2 712 (83)	$38.75	3 280
Platinum	61 (26)	$1.76	231.8
Silver	7 763 (29)	$1.80	26 883
Palladium	44 (20)	$0.29	219
TOTAL	10 580 (35)	$42.60	30 614

Sources: *Gold Survey 2006*, GFMS Ltd.
Platinum 2006, Johnson Matthey
Silver Survey 2006, GFMS Ltd.

GOLD[1]

PHYSICAL CHARACTERISTICS

Gold is a unique precious metal. Its rich yellow – golden colour, and its mental-imagery association with the Sun is an integral part of its beauty and mystique.

Possessing a density of 19.3g/cm^3, it is one of the densest metals known to man. As the World Gold Council (WGC) illustrates: If the estimated 155 500 tonnes of gold mined over history were melted into an equilateral cube, the length of a side of that cube would be a mere 19.7 metres!

Gold is, for all practical purposes, virtually indestructible. At 1 064°C, its melting point is also notably high. It does not corrode (except when treated with aqua regia), and besides some minimal industrial and other losses, almost all the gold that has ever been mined is still in existence in some form or other (World Gold Council, 2003).

It is ranked third behind silver and copper in terms of its electrical conductivity, and among the metals it is the most resistant to tarnishing (World Gold Council, 2003).

Gold is the most malleable metal (it can be hammered into very thin sheets without structural damage).

GOLD'S INCORPOREAL CHARACTERISTICS

1. It is a monetary asset (can be monetised).
2. It is a store of value (a hedge against inflation).
3. It is a commodity and a **fungible**[2] one at that (interchangeable, exchangeable and standardised).
4. Displays counter-cyclical behaviour (zero correlated with stock markets and negatively correlated with the most powerful financial instrument, the US dollar).

GOLD MINE PRODUCTION

The Egyptians, it is believed, mined gold, as long ago as pre-2000 BC. As stated above, over history some 155 500 tonnes of gold have been mined. Currently, World production of gold is about 2 500 tonnes a year and is expected to decline from 2007. Gold is mined in over 60

[1] Sourced largely from: The World Gold Council's *Introducing Gold*, May 2003
[2] Allocated gold is regarded as non-fungible

countries, the largest producing countries in 2005, according to *Gold Survey 2005* compiled by GFMS Ltd., were:

1. South Africa (296 tonnes or 11.8%),
2. Australia (263 tonnes or 10.4%)
3. USA (262 tonnes or 10.4%), and
4. China (224 tonnes or 8.9%).

The top four mining companies in 2004, according to GFMS, were:

1. Newmont of the USA (200 tonnes or 7.9%),
2. AngloGold Ashanti of South Africa (192 tonnes or 7.6%),
3. Barrick Gold of Canada (170 tonnes or 6.7%) and
4. Gold Fields Limited of South Africa (131 tonnes or 5.2%).

Another South African company in the top ten (6^{th}) in 2004 was:

6. Harmony (81 tonnes or 3.2%).

Gold mining grades are generally very low. In South Africa, gold grades range between 4 and 10 grams per tonne, i.e., gold occurs in a concentration of 4 to 10 parts per million. At a grade of 4 grams per tonne, it would take about 8 tonnes of ore to produce one ounce of gold.

SOUTH AFRICA – PAVED WITH GOLD

In the modern era, South Africa has dominated production of gold (largest producer from 1898 to present). The country's history and development is inextricably linked with gold mining. Johannesburg, its largest city, owes its existence to gold. Johannesburg, which turned 120 this year, is in fact the second largest city (after Birmingham in the UK), not to have been built near a port, river or lake.

In the early 1970s, South Africa was producing up to 1 000 tonnes of the metal per year, or about 70% of World mine production. Currently the Republic produces about 296 tonnes, but is still the World's largest producer. South Africa also has the deepest and some of the largest gold mines in the World.

Despite this unrivalled golden heritage, general South Africa citizens are not allowed to own unwrought or semi-fabricated gold, including bullion in all forms, except legal tender gold bullion coins, which include the famous *Krugerrand* (discussed later).

Gold exports were South Africa's predominant source of foreign exchange in the 1970s and 1980s (contributed more than 50% to foreign exchange revenue until 1983). Gold mining also contributed significantly to the macro economy during this period; in 1980 it contributed 17% to South Africa's GDP. However, South Africa's economy is much more diversified now, so much so that the entire mining sector contributed only 7.0% to GDP and about 30% to South Africa's export revenue (from goods) in 2005. The gold mining industry has contracted significantly, but this has been outweighed by growth in the secondary and tertiary sectors of the economy, which is characteristic of a progressing economy. Nevertheless, gold still contributes about 9% to export earnings (from goods) and a little under 2% to GDP. It currently makes up about a fifth of South Africa's gross reserves.

GOLD ORE BENEFICIATION[3] AND THE PROCESSES OF SMELTING AND REFINING

After gold-bearing ore has been extracted from surface or underground operations it undergoes beneficiation. Beneficiation involves the following processes in sequence:

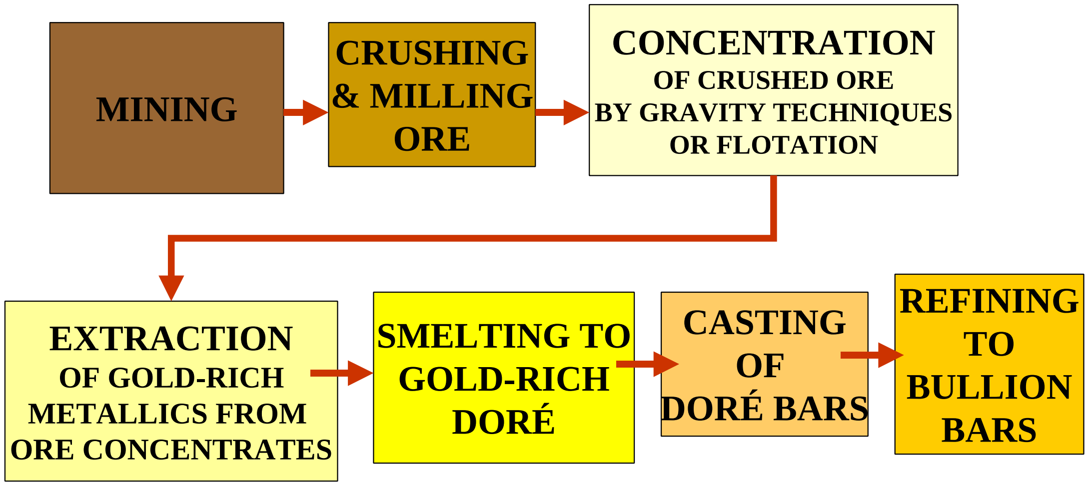
1. Crushing and milling (Comminuition),
2. Concentration of crushed ore by gravity techniques and flotation,
3. Extraction of gold from the ore concentrates.

After beneficiation of the ore, the processes of smelting and refining follow:

4. Smelting to a gold-rich doré (containing typically about 60-70% gold, and silver),
5. Casting of bars,
6. Refining of doré into gold bars containing 99.5% gold or more.

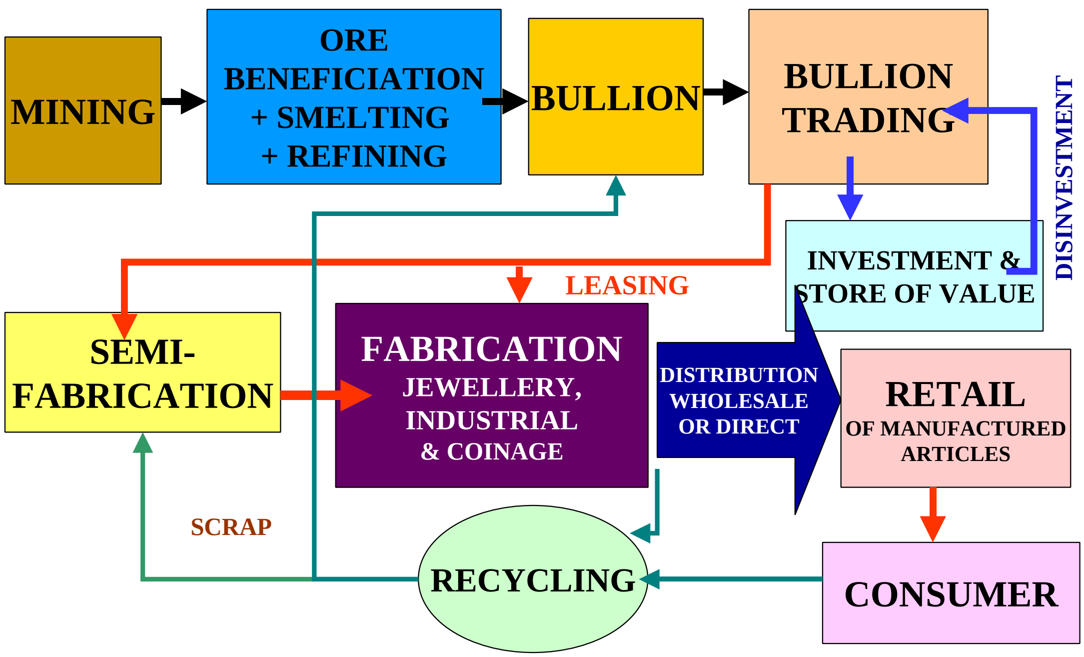
[3] **Ore Beneficiation** means the various processes, that involve upgrading, improvement, processing or treatment of a primary ore by the removal or separation of impurities from the economic mineral/s or metal/s. Strictly speaking, beneficiation means the treatment of ore to improve physical and chemical properties in preparation for further processing, especially smelting.

FIGURE 1: SCHEMATIC REPRESENTATION OF GOLD ORE BENEFICIATION, FOLLOWED BY SMELTING AND REFINING



GOLD ORE BENEFICIATION

FIGURE 2: SCHEMATIC REPRESENTATION OF THE GENERIC PRECIOUS METALS VALUE CHAIN



PRECIOUS METAL VALUE CHAIN

GOLD VALUE CHAIN

These refined bars or **bullion**[4] bars are then usually sold to bullion dealers, although direct marketing by mining companies does occur. The bullion dealers trade with jewellery or electronics manufacturers, who **fabricate**[5] final consumer goods. In some countries, bullion dealers will also lease gold out to manufacturers.

CONSUMPTION OF GOLD

(Source: mainly from Gold Fields Mineral Services' Gold Survey 2006 and World Gold Council)

The physical demand for gold is made up of three main sectors, namely:

1. Jewellery (about 2 712 tonnes or 82.7%),
2. Industrial (about 420 tonnes or 12.8%) and
3. Investment (about 148 tonnes or 4.5%).

Jewellery Sector

Gold jewellery fabrication demand is dominated by

1. India (633 tonnes or 23.3%),
2. Italy (275 tonnes or 10.1%),
3. Turkey (251 tonnes or 9.3%), and
4. China (239 tonnes or 8.8%)

The largest gold jewellery consuming countries are:

1. India (587 tonnes),
2. United States (349 tonnes)
3. China (241 tonnes), and
4. Turkey (195 tonnes).

It is interesting to note that the major jewellery fabricating countries are also the major jewellery consuming countries.

Industrial Sector

The industrial uses of gold are accounted for by Electronics (272 tonnes or 64.8%), Dentistry (62 tonnes or 14.8%) and other industrial uses (85 tonnes or 20.2%).

Gold's physical and chemical properties, including high electrical conductivity, high thermal conductivity and resistance to corrosion, make it indispensable in industrial applications. Gold

[4] Bullion refers to gold, silver and platinum in bulk trading form, e.g., bars, ingots & plate, rather than in grain or sponge

[5] Fabrication refers to the manufacturing of semi-finished or final products

can be found in computer keyboard circuits, electrical contacts and mobile phones. Catalytic applications are also attracting increasing interest.

Gold's non-allergenic properties see it being used widely in dentistry. In medical applications, its biocompatibility is becoming increasingly important.

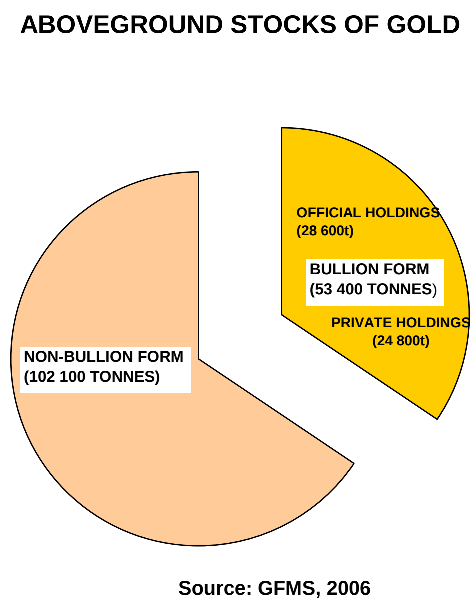
Retail physical investment

Retail physical investment is made up of demand for coins and bars. In most countries this represents an avenue for private individuals to buy gold. See the section on bullion coins, later in this publication, for a more detailed discussion.

ABOVEGROUND STOCKS OF GOLD

According to GFMS Ltd. the aboveground stocks of gold totalled an estimated 155 500 tonnes at the end of 2005, which is 62 times current annual mine production. GFMS estimate that 53 400 tonnes of the aboveground stock (21 times current annual mine production) is in bullion form, the bulk of which, about 28 600 tonnes, is held by Central Banks and the balance (24 800 tonnes) is held by the private sector. According to the WGC, if one includes the IMF, BIS and European Central Bank, the total in the official sector is over 32 000 tonnes.

FIGURE: 3 GOLD STOCKS



GOLD AS A FORM OF MONEY

(Source: mainly from *Introducing Gold,* World Gold Council, 2003*)*

Gold is unique in that it is both a monetary asset and a commodity. As a commodity it is also fungible, i.e., it is exchangeable, interchangeable, standardised and with a unit price set by the market.

Central Bank reserve asset

Central banks have been substantial holders of gold for more than a century and are still expected to maintain significant stocks in the foreseeable future. They account for some 20% of aboveground stocks (WGC, 2003).

Over the last decade, the rebalancing of reserve portfolios and diversification has led to a reduction in the amount of gold held by some central banks. This trend is expected to continue for many years, but central banks have indicated that gold will remain an important reserve asset.

Central banks began building up their stocks of gold from the 1880s, during the era of the **Gold Standard**. Under this monetary system, in countries on the Gold Standard, the amount of money in circulation was linked to the country's gold stock, and paper money was convertible into gold at a fixed price. This is different from the modern **Fiat Money** (such as the Rand), which is inconvertible paper money established by government fiat (authorisation).

The World Gold Council outlined the following main reasons (heavily abridged and modified), as to why central banks still hold gold (at least on their books):

- **Economic security**: The value of currencies held in reserve, depend on the economic policies of the issuing government. Gold does not suffer from defects in policy in centres where it is held as a reserve.
- **Physical security**: If gold is located appropriately, it is much less vulnerable to exchange controls affecting free transfer of currencies or total asset freezes.
- **Unexpected needs**: Gold provides a form of insurance against some unexpected events such as war, surge in inflation, trade blocks and international isolation.
- **Confidence:** Gold affords some measure of comfort because it is an indestructible, "hard" asset. It is something solid and valuable, although now not directly convertible, that underlies the paper money used for everyday transactions.

- **Diversification:** The fact that returns on gold tend to be negatively correlated with other financial assets provides gold-containing portfolios with significant benefits.
- **Income:** Gold lending allows central banks to earn a return on gold.
- **Store of value**: Historically, gold has maintained its purchasing power in real terms.
- **Reserve mobilisation:** Gold plays a role in central bank reserve mobilisation in times of need, usually by lending and swapping. GFMS estimated that about 3 000 tonnes was out on loan in 2005. Gold is often used as a collateral for external borrowing. Central Banks conduct many of their gold transactions discreetly and even secretly.

GOLD TRADING AND HOW THE MARKET WORKS

(Source: *Introducing Gold,* World Gold Council, 2003)

Mine production of gold currently amounts to about 2 500 tonnes per year. In 2005, primary refined production was valued at $36 billion. This makes gold the third largest physical (primary) metal market after copper ($61.4 billion) and aluminium ($60.5 billion). If recycled scrap is added, then conventional gold supply was worth some $48.3 billion last year (2005).

The global trade in gold consists of **over the counter** (OTC) trades, which are direct, principal-to-principal transactions in spot, forward, options and other derivative products, and **exchange-traded** futures and options (defined and discussed below).

The OTC market is flexible in contrast to the rigidity of exchange transactions, hence OTC trading accounts for the much greater share of the global trade in gold.

Over the Counter (OTC)

The OTC market operates 24 hours a day around the World. The main centres for OTC dealings are London, New York, and Zurich. Generally, mining companies and central banks tend to transact their business through London and New York. The New York market also services fabricators of jewellery and industrial products, and investment and speculative business. Zurich specialises in supplying physical gold to fabricators of jewellery and industrial products. However, bullion dealers tend to have offices around the World. The major bullion dealers around the World are members of the London Bullion Market Association (LBMA).

Most of the OTC trades are cleared through London, although the physical market itself is distributed worldwide. **"Loco London"**, a term often used, refers to gold physically held in London. The LBMA makes stringent specification for "**good delivery"** bars, especially in terms of mass, **fineness** (gold content in parts per 1000) and **mark** (stamp of the official melter or assayer).

The gold spot price always refers to the price of a London Good Delivery bar.

Price discovery: the London Fix

The price of gold is 'fixed' twice daily at 10.30 am and 3.00 pm (BST) in London. As of 5 May 2004, the morning and afternoon gold price fixing no longer takes place at the office of NM Rothschild & Sons Ltd., and is now conducted over the telephone. The current members of the fix are Deutsche Bank AG, Barclay's Capital, HSBC, Sociėtė Gėnėrale Corporate & Investment Banking and ScotiaMocatta which now head the gold price-fixing committee. Any other market participant wishing to trade must do so through one of these five dealers. The fix is based on the original 1919 principle: *"The principle to be maintained with regard to the sale of gold in the free market in London is that everyone attending the gold fixing is entitled to buy or sell gold on equal terms with everyone else present… It is also agreed that only one price shall be quoted and shall represent the price at which all supplies can be absorbed"*.

Clients place orders with their counter-parties, who are either the five fixing members, or another bullion dealer who will be in touch with a fixing member and the client himself while the fixing proceeds. The fixing members net-off all orders before communicating their individual net interest at the fixing. The fix begins with a suggested "trying price", reflecting the market price prevailing at the opening of the fix. This price is relayed by the fixing members to their dealing rooms who are themselves in touch with all interested parties who instruct their representatives to declare themselves as buyers or sellers at that price. Any market participant may enter the fixing process at any time, or adjust or withdraw his order according to his/her view of the price relayed. Provided that there are both buyers and sellers at the price, members are asked to state the number of bars they wish to trade. If at the opening price there are only buyers or only sellers, or if the numbers of bars to be bought or sold does not balance, the price is moved and the same procedure is followed until a balance is achieved (Goldfixing.com, 2006). The Chairman then declares that the price is fixed. However, it should be noted that the Fix is said to balance if the buy amount and the sell amount are within 25 bars of each other. Sometimes, if it is impossible to strike a balance, the price will be fixed at the discretion of the Chairman, an event called "fixing on discretion". All fixing orders are transacted on the basis of this fixed price. These fixing prices are quoted immediately through the various news and business information wires or channels as well as the many gold information websites. The fix is therefore regarded as a full and fair representation of all market interest at the time.

Settlement

The basis of settlement is delivery of a standard London Good Delivery bar, at the London vault nominated by the dealer that made the sale. Currency settlement for gold transactions will usually be in US dollars over a US dollar account held in New York.

Delivery of Physical Gold

Delivery may be made in several ways, including delivery to the dealer's vault, or a credit to an **allocated account,** or through the London Bullion Clearing to an **unallocated account** of the third party. In addition to delivery at its own vault, a dealer may, by prior agreement, arrange delivery to any destination around the world and in any form or any fineness. To enable this service, most bullion dealers have **consignment stocks** in strategic centres around the world.

An allocated account refers to an account held in a client's name, where gold is exclusively held separately from other gold in a vault. This gold does not form part of the bullion bank's assets, but is titled over to the allocated holder. The gold in an allocated account cannot be lent out or used by the vault owner.

An unallocated account is basically a debit and credit arrangement, which is backed by the general stock of the bullion dealer where the account is held. If the client wishes to receive physical metal by allocating specific bars or equivalent bullion product, the fine metal content of this is debited from the unallocated account. The physical delivery period is normally two business days after the trade is transacted.

The Clearing process

The clearing process is simply a system of paper transfers whereby members offering clearing services use the unallocated gold accounts that they maintain between each other, not only for settlement of mutually agreed trades but also for third party transfers.

Available OTC Statistics show that volume cleared through London itself was about 198 million ounces valued at $88.6 billion in 2005 (aggregate of daily averages from LBMA, 2005). Worldwide OTC trades are much greater.

London Bullion Market Association (LBMA)

The LBMA established in 1987, is the representative body for all sectors of the gold market involved in trading in London or clearing their trades through the London market. Its Members include banks, brokers, fabricators, refiners, and shippers. The LBMA's important role is ensuring that the market adheres to a Code of Conduct, which covers, *inter alia*, confidentiality, market ethics, inducements and conflicts of interest. It is also responsible for maintaining good delivery lists and for the governance of market practices such as clearing and settlement.

The Bank of England

The Bank of England has been the focal point of global gold (since 1694) and silver trading for more than three centuries. It is undoubtedly one of the most active central banks in the gold market. It is also a recognised IMF gold depository and holds gold for, and will often trade on behalf of, other central banks.

Futures Exchanges

The most important exchanges are the COMEX division of the New York Mercantile Exchange and the Tokyo Commodity Exchange (TOCOM). Trading on these exchanges is less flexible than the OTC market, and much more rigid in terms of delivery dates and transaction size for the futures and options contracts traded. In addition, the Commodity Futures Trading Commission (CFTC) requires that a large-scale trader on COMEX declare himself and the nature of his business (hedging, speculative, etc). These markets are more geared to the speculator than the physical market and, a case in point is COMEX where usually less than 1% of the market turnover actually results in eventual physical delivery.

TRIVIA: The FIFA World Cup™ Trophy

Source: FIFA.COM

The FIFA World Cup™ Trophy is made of solid 18-carat gold; is 36 cm in height with a mass of 4.97Kg. The base has two layers of the green semi-precious gemstone: malachite.

PLATINUM

The section below focuses mainly on platinum, but the market for palladium is similar. It is worth noting, however, that a smaller but growing amount of palladium (44.5 tonnes in 2005) is used in jewellery compared with 61 tonnes consumed in platinum jewellery fabrication (Johnson Matthey, 2005 figures).

Palladium is often alloyed with gold to produce white gold jewellery. However, because of record high platinum prices and the higher margins of palladium jewellery, there was a rapid development of palladium jewellery manufacturing in China in 2004/5. As a result, use of palladium in jewellery increased from 250 000 ounces in 2003 to 1 430 000 ounces in 2005, according to Johnson Matthey (2006).

Palladium jewellery will grow in popularity because the platinum price is expected to stay at record levels in the short-term. Nevertheless, it suffices for the purposes of this publication to mention that according to Johnson Matthey world mine supply of palladium amounted to about 261 tonnes, which at an average price of $201.47/ozt, was valued at $1.75 billion in 2004. Palladium is used mainly in autocatalysts (118.5 tonnes in 2004 according to Johnson Matthey).

The other PGMs are not discussed in detail, but brief comments are made towards the end of the section.

PLATINUM'S UNIQUE PROPERTIES[6]

1. Platinum is rare (about 35 times more rare than gold). About 10 tonnes of ore must be mined to produce an ounce of platinum.
2. It is the densest known metal (at 21.45 g/cm^3 it is 11% more dense than gold).
3. It has a silvery-grey white colour (which makes it popular for so called **"white-metal"** jewellery). This white lustre complements diamonds and other precious stones while its neutral colour enhances a stone's brilliance and depth (Jewelers of America, 2003).
4. Its melting point (1 769ºC) is higher than that of gold, and it has high temperature stability.
5. Its main advantage for use in platinum jewellery fabrication is its strength and resistance to tarnish. Platinum can be repeatedly heated and cooled without hardening

[6] Sourced from Platinuminfo.net, 2003 and Johnson Matthey, 2004

and oxidation effects. Platinum is a favoured choice for holding diamonds, because of its density and strength.

6. It is malleable and extremely ductile. The latter is illustrated by the fact that one gram of platinum can be drawn out into a fine wire thread over a mile long (Professional Jeweler, 2003).
7. It is an efficient catalyst, and thus finds use as an autocatalyst in motorcars to reduce air pollution.
8. It is a noble metal, hence, oxidation and corrosion resistant (non-reactive, does not tarnish and is resistant to heat and acids).
9. Very high recyclability (over 96%).
10. It is hypoallergenic, so it is the jewellery choice for people who are allergic to other metals.
11. It is biologically compatible, so it is important in many medical applications.

PLATINUM ORE BENEFICIATION[7], SMELTING AND REFINING

After platinum-bearing ore is excavated from the earth, it undergoes beneficiation, which includes the following in sequence:

1. Comminuition: Crushing and milling to maximise efficiency of the concentration process,
2. Concentration: separating milled ore into concentrate and waste by filtration and floatation.

After beneficiation of the ore, the processes of smelting and refining follow:

3. Smelting: Extraction of metallics from the concentrate by pyrometallurgical processes to form a matte containing base metal/precious metal alloy,
4. Refining: Refining of the matte includes extraction of base metals and recovery of precious metals, and finally, the
5. Casting of platinum bars.

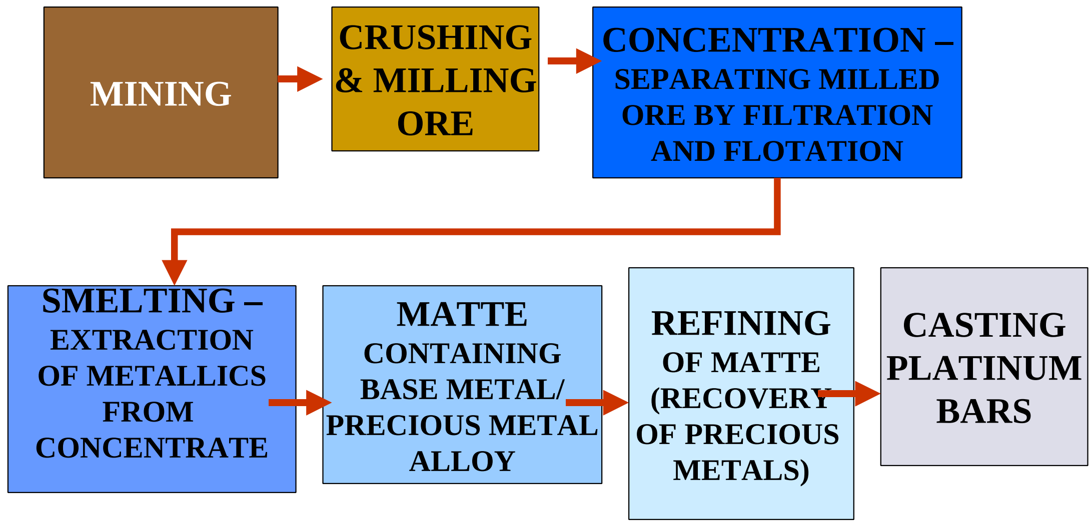
PLATINUM SUPPLY: SOUTH AFRICA – PLATINIZING THE WORLD

Supply of platinum is dominated by **South Africa**, which supplied about 5.11 Moz (158.9 tonnes) or 77% of World supply in 2005 (Johnson Matthey, 2006). Other producing countries are **Russia** (supplied 0.89 Moz in 2005) and the North American countries, the **USA** and

[7] **Ore Beneficiation** means the various processes, that involve upgrading, improvement, processing or treatment of a primary ore by the removal or separation of impurities from the economic mineral/s or metal/s. Strictly speaking, beneficiation means the treatment of ore to improve physical and chemical properties in preparation for further processing, especially smelting.

Canada, which supplied a combined total of 360 000 ounces in 2005. Zimbabwe and Australia are minor producers of platinum.

FIGURE 4: PLATINUM ORE BENEFICIATION, FOLLOWED BY SMELTING AND REFINING



PLATINUM ORE BENEFICIATION

Platinum-group metals contribute about 9.5% to South Africa's export earnings (from goods) and a little over 2 % to GDP.

PLATINUM USES[8]

Autocatalysts

Platinum is a precious metal and an industrial metal. The main use for platinum, however, is in autocatalysts, which according to Johnson Matthey consumed 3.82 Moz (118.8 tonnes) in 2005. Platinum usage in autocatalysts is linked to the introduction and evolution of emission regulations and standards (Johnson Matthey, 2003). These are currently in force in many developed countries, but standards vary from country to country.

[8] Johnson Matthey, 2003

Jewellery

The second biggest demand sector is in jewellery, a sector that consumed 1.96 Moz (61 tonnes) in 2005, according to Johnson Matthey (2006). The main jewellery fabricating countries are Asian countries, in particular China (875 Koz in 2005) and Japan (510 Koz in 2005), where people have a particular fondness for white metals.

Industrial

Industrial demand for platinum, the third biggest demand component, consumed some 1.675 Moz in 2005 (Johnson Matthey, 2006). Industrial uses for platinum include platinum-based catalysts in the chemical industry and the petroleum refining industry, electrical applications (e.g., in computer hard disks & fuel cells) and platinum-containing equipment for the glass industry.

Investment

Demand for platinum in investment products, at 15 000 ounces in 2005, was weak, due to the higher price of the metal. Investment products include platinum coins (such as the famous **US platinum American Eagle** proof coins), small and large platinum bullion bars. Sales of platinum coins and investment bars are price-sensitive.

South Africa, the World's largest producer of platinum, has never minted platinum coins. However, the SA Mint has plans to introduce South Africa's first platinum coin, shortly.

PLATINUM TRADING

Size of the market

In comparison with gold, the platinum market is small and illiquid. Market commentator, Market Predict (2003), quoted dealers as suggesting that purchases or sales of only 10 000 ounces can swing the price by about $10/ozt.

At an average price of $897.02/ozt the platinum supply of 6.63 Moz (206 tonnes) in 2005, was valued at approximately $5.95 billion, which was a sixth of the value of primary refined gold production ($36 billion).

Platinum supply has lagged behind demand growth, resulting in rising prices. According to Johnson Matthey, demand in 2005 amounted to 6.7 Moz. Similarly, if one applied an average price of $897.02/ozt, this consumption was valued at about $6.01 billion. Movement of stocks to balance the deficit was a net 70 000 ounces (Johnson Matthey, 2006) in 2005 (worth an estimated $63 million).

Lack of above-ground stocks and minor spot market

Platinum's limited supply and the lack of aboveground stocks are essential differences relative to gold. These and irregular shipments from Russia have been responsible for the volatility of the platinum price.

The size of the Russian stockpile was a very important price-influencing factor in the 1990s, but it has dwindled in significance recently. Presently, the factors influencing mining in South Africa and Russia, economic conditions in the main consuming countries such as Japan, USA, China and the price of gold have a greater influence on the platinum price.

Also noteworthy is the fact that most of the World's supply of platinum is sold through long-term contracts to industrial consumers and thus not available on the spot market. These industrial consumers include Johnson Matthey and large motor manufacturers such as General Motors.

The main physical market for spot delivery is the **London Platinum and Palladium Market**. The market also maintains the London/Zurich Good Delivery List, which is a list of acceptable Melters and Assayers. Forward prices are also quoted for stipulated maturity dates, thus allowing producers and industrial consumers to hedge in volatile market conditions.

Price Discovery Mechanism

The London Platinum & Palladium Market (LPPM) Fixings, also referred to as the **London Fix**, is considered the international benchmark for platinum and palladium prices and is transmitted by newswires. The quotation is done twice a day at 09H45 and 14H00 (GMT). The fix is a bid price **loco Zurich** i.e., a price that LPPM members would have been prepared to pay for platinum and palladium in the form of plate or ingot, deposited in a Zurich vault (Platinum.Matthey.com, 2003). The fixing procedure is similar to the London Gold Fix, in that it is a balancing exercise of buying and selling orders received from members or their clients, who respond to price announcements and subsequent adjustments. The fixing price is the one at which all orders are cleared. Settlement is made within two days after the date of contract.

The reference price for all platinum-group metals, including platinum, is the **Johnson Matthey Base Price**[9]. It is Johnson Matthey's quoted selling price for platinum-group metals set by the company's trading desks in the USA, Hong Kong and London, based on market offer prices (Platinum.Matthey.com, 2003). The price is for metal in sponge form, ex-Johnson Matthey refinery. The JM Base Price is set at 09H00 and 15H00 EST in the US, at 15H00 in Tokyo and 09H00 in Zurich every weekday. The prices are also published in *Platt's Metals Week* and *American Metals Market*.

Storage and delivery

The London and Zurich markets have facilities for storage of platinum and palladium in high security vaults. The metals can be held on unallocated or allocated accounts. Many clients do not take delivery of their metal and request the members of the market to open metal accounts in their name. In such unallocated accounts, the specific bars are not set aside and clients have a general entitlement to the metal. This practice is popular because it is convenient and cheap. Allocated accounts are opened for clients who prefer their metal to be physically segregated and need a detailed list of weights and assays.

Futures Markets and Contracts

Exchanges offer the facility for trading futures and options on behalf of clients. Platinum futures and options are primarily traded on the New York Mercantile Exchange (NYMEX) and Tokyo Commodity Exchange (TOCOM). The trading of platinum contracts is conducted electronically at TOCOM but by open outcry at NYMEX.

Forward Contracts

Forward contracts are more flexible than futures contracts and are conducted principal-to-principal usually by mining companies to sell their platinum at an agreed price for delivery on a fixed future date. These are not transacted on an exchange, and usually always result in physical delivery of platinum.

OTHER PGMs – BRIEF COMMENTS

Information on the other PGMs can be found on the Johnson Matthey website (www.platinum.matthey.com) and in the publication *Platinum 2006*, published by the same company. A few facts are listed below:

1. All the PGMs can be used as catalysts and in the electronics industry.

[9] Johnson Matthey, 2003

2. Palladium often substitutes for platinum in autocatalysts and jewellery, because it is currently much cheaper.
3. Rhodium and iridium are difficult to work; they are nevertheless popular in alloys and chemical compounds.
4. Ruthenium and osmium are hard and brittle and thus unworkable in the metallic state, but are used in combination with other metals.
5. Palladium is alloyed with gold to produce **white gold** jewellery.
6. Iridium is the rarest of the precious metals. In fact, anomalously high concentrations of iridium in the Earth's crust can be indicative of extraterrestrial (meteorite or asteroid) contamination.

SILVER

Silver has a history that stretches as far back as 6 000 years. It was used as a form of exchange as early as 700 BC. It is the people's precious metal, steeped in history and celebrated in literature.

Today, silver is used for a great variety of uses. It is still regarded as a precious metal, but in the modern day it is more of an industrial metal, as about two-thirds of silver is used for non-jewellery/silverware/coinage applications.

SILVER'S PROPERTIES AND CREDENTIALS

1. Silver is the cheapest precious metal. In 2005, the silver price averaged $7.31/ozt.
2. It is the most abundant of the precious metals. It is about 25 times more abundant than gold in the Earth's crust. Its affordability and abundance makes silver the most ubiquitous jewellery metal.
3. Silver has the highest conductivity.
4. It is a soft and malleable precious metal and it has the lowest melting point among the precious metals, so it is workable into any form.
5. It has high reflectivity and sensitivity to light.
6. It is a silvery-white metal – popular for white jewellery and silverware.
7. Although high in lustre, silver tarnishes when exposed to the elements.
8. Silver also has bactericidal properties, which are employed to sanitise water and wounds.
9. Silver is a store of value – a hedge against inflation.

SILVER SUPPLY[10] - SA's GOLD HAS A SILVER LINING

According to the **Silver Institute**, World silver mine production totalled 19 954 tonnes in 2005. The main silver producing countries in 2005 were:

1. Peru (3 191 tonnes or 16%),
2. Mexico (2 871 tonnes or 14.4%), and
3. Australia (2 407 tonnes or 12.1%).

South Africa produced about 87.9 tonnes of silver (ranked 17th) in different forms in 2005. Its refined production, however, was some 19 tonnes.

[10] Source: *World Silver Survey* 2005; Silver Institute 2003-5

Total silver supply (mine production, official sector sales, scrap recovery and producer hedging) totalled 28 366 tonnes in 2005. In the silver market, aboveground stocks (bullion stocks held by governments and investors) are significant. In 2005, **Government sales** totalled 2 114 tonnes and **scrap recycling** contributed 5 826 tonnes to supply (GFMS, 2005).

Aboveground stocks

According to GFMS[11], some 43 000 Moz or 1.3 million tonnes of silver has been mined over history. However, GFMS (2004) estimated identifiable bullion stocks at about 670 Moz or 20 840 tonnes.

The Silver Institute estimates that in the period between 1990 and 2000, bullion inventories declined by more than 1.2 billion ounces.

SILVER DEMAND

According to the Silver Institute, fabrication demand amounted to 28 833 tonnes in 2005. About 96 percent of the utilisation of silver was again accounted for by three sectors, i.e. industrial/decorative uses, photography and jewellery and silverware. The **industrial/decorative sector** was still the largest consumer of silver, absorbing 12 731 tonnes, or 47.4 percent of fabrication demand; it was followed by the **jewellery and silverware** (28.9 percent or 7 763 t), **photography** (19.1 percent or 5 126 t), and **coinage** (4.7 percent or 1 263 t) sectors.

The top four silver fabricating are the USA, Japan, India and Italy South Africa's silver fabrication amounts to about 3-5 tonnes a year.

According to GFMS, the major silver jewellery & silverware manufacturing countries in 2004 were:

1. India (77.7 Moz),
2. Italy (44.5 Moz), and
3. Thailand (40.0 Moz).

South Africa's silver jewellery and silverware fabrication is not known but is tentatively estimated at between 2 and 3 tonnes/year (Recently, Art Clay Silver has been introduced and

[11] GFMS and Silver Institute

is expected to grow in popularity. Dragon Glass of Johannesburg is currently the sole importer of this product[12]. See contact details under Useful Contacts on page 51).

Silver jewellery and silverware usually has a fineness of 925 and is marked "**sterling silver**".

Silver salts have been used as an image capturing and image forming material in photography since 1839 (Silver Institute, 2003).

SIZE OF THE SILVER MARKET

Despite the volume of silver mine production being 8 times that of gold, its value, at $4.7 billion was about 8 times less. Total conventional **supply of silver** (mine production plus scrap) in 2005 was valued at an estimated $6.06 billion, which was **only marginally higher than the value of platinum supply**, but an eighth of the value of conventional supply of gold in that year.

Silver fabrication demand in 2005 was valued at about $6.32 billion, which was marginally higher than the value of platinum demand.

SILVER TRADING

*(*Source: mainly from the *Silver Institute, 2003)*

Silver, like gold, is traded 24 hours a day, across the times zones in the major centres, viz., London, Zurich, New York, Chicago and Hong Kong.

The Shanghai White Platinum & Silver Exchange was also opened in July 2003, and is now China's only officially designated silver transaction market. Platinum trading has also begun recently.

Silver's fundamentals are currently in good shape, as **fabrication demand has outstripped mine production in recent years**, leading to a drawdown in bullion stocks to meet demand. However, like most products that are a corporeal store of value, its price is also influenced by inflation, interest rates, currency rates and changes in trade deficits. The majority of silver is mined as a by-product of gold, lead-zinc and copper mining, and therefore its price is also dependent on the vagaries of these metal markets. As a precious metal, silver does ride on "gold's coat-tails"[13] from time to time.

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[12] Disclaimer: This handbook is for general information only. Nothing in this Handbook should be construed as a solicitation to buy or sell any precious metal product.

[13] Gold Fields Mineral Services (now GFMS)

London bullion market and the London Fix

The London market is the oldest, having started trading in the 17th century. The London bullion market is an over the counter (OTC) market rather than an exchange-trading environment, members thus trade on a principal-to-principal basis.

Like most markets, it provides a platform for trade in physical silver on a spot, or on a forward basis for hedging purposes. London is regarded as the World's main centre for the physical silver trade. The London Bullion Market is a wholesale market, where minimum traded amounts are generally 50 000 ounces of silver.

The Rand Refinery of South Africa has accreditation or "good delivery" status for silver bars in the London Market, which it obtained from the LBMA.

The **London** market has a "**fix**" which allows for the buying or selling of silver at a single price. The fixing process begins at 12h15 each trading day, and culminates in a price fix – the price at which all the members of the Fixing can balance their own and their clients buying and selling orders.

Futures Trading

To be traded in a futures market, a commodity must be standardised and its price must fluctuate sufficiently to create uncertainty that warrants price risk and profit/loss management. Silver, gold, platinum and palladium are such commodities.

The most important silver futures trading market is again the COMEX division of the New York Mercantile Exchange, which is a platform for futures contracts and options.

The London Metals Exchange (LME) suspended its silver contract again in 2002. The contract for silver futures was for silver of 99.9% purity, trading in lot sizes of 5 000 ounces in bars (ingots) and granules (grains). The LME stated that it would continue to keep the silver contract under review, either in its current form or in a modified form.

Silver – the affordable investment

Currently the possession of unwrought and semi-fabricated silver, including silver bullion bars is restricted in South Africa. In other countries, **silver bullion bars** can be purchased from bullion dealers and brokers. However, see the next section (SA legislation) for a discussion on the imminent deregulation of silver possession and dealing in South Africa.

Currently, South African citizens can invest in **silver coins**, fabricated by the South African Mint. The *Protea*, R2, 50c, 20c, 10c and 5c series legal tender coins are available to the public. Note that there is a difference between the **face value** of a bullion coin (marked on the coin) such as the R2 coin and the **market value** (not marked on the coin as it changes daily). Bullion coins sell at a premium of 3 to 10% over the spot silver price. The market value of a bullion coin is thus related to the silver purity or fineness, silver mass in ounces, and the prevailing silver price.

The World's most popular silver bullion coin is the US Mint's **Silver Eagle**, a 1-ounce bullion coin with a face value of $1 and 999-fineness. More than 76 million of these coins have been sold since 1986.

It is worth noting that Mexico, up till recently the world's largest silver producer, is the only country in the World currently using silver in its circulation coinage[14].

[14] Silver Institute, 2003

SOUTH AFRICAN PRECIOUS METALS LEGISLATION[15]

INTRODUCTION

The intention of legislators of the pre-1990s was to restrict the precious metals trade in South Africa. The main reason for this was that precious metals, in particular gold, were the most important means of foreign exchange, and a crucial reserve asset. Gold exports contributed about 60% to South Africa's foreign exchange earnings in the 1970s. During the isolation period (sanctions), gold trading and the anonymity that went with it was a lifeline for South Africa.

The Witwatersrand Basin, the World's richest gold deposit and the Bushveld Complex the World's richest platinum deposit were and still are South Africa's deepest treasure chests, which the country has drawn on and supplied to the world, in return for foreign exchange. For this reason all mined gold production in the country was, until 1998, sold to the South African Reserve Bank, within 30 days of production.

The restrictions on the precious metal trade are also borne out by the bureaucracy involved - no less than six government departments or institutions are currently involved in regulating the trade These are listed below:

1. The Department of Minerals & Energy (DME) is the designated department for granting precious metal prospecting and mining rights and mining permits and for regulating the prospecting for, and mining, of precious metals.
2. The South African Police Service (Gold & Diamond Branch) conducts the clearance and approval procedures for precious metal licences and permits and issues special permits (for industry, a trade, a profession or scientific purposes), special certificates and transport permits.
3. The South African Revenue Service (Local Receiver of Revenue) currently issues and renews recovery works licences and jeweller's permits.
4. The Customs and Excise division of SARS is involved with the documentation, declaration and clearance of precious metal imports and exports. VAT and customs duty are also the jurisdiction of this division of SARS.
5. The Department of Trade and Industry (in particular, the International Trade Administration Commission or ITAC) controls the import and export of precious metals (except unwrought gold) and issues import permits for the import of secondary precious metals (except unwrought gold).

[15] Legislation as at May 2006. The *Mining Rights act, 1967* is to be repealed by the *Precious Metals Act, 2005*

6. The Reserve Bank is currently responsible for exchange control in relation to the export of precious metals, and for approving import permits and export exemptions relating to unwrought gold.

NB: Much of this chapter will change when the *Precious Metals Act, 2005* comes into effect. To make the reader aware of forthcoming changes, the new provisions hereinafter referred to as "amendments" are mentioned (in italics and in quotes) and/or commented on (in italics only) under the relevant topics below. The reader is cautioned that until the Regulations under this Act are promulgated and the Act implemented, the interpretations below are subject to change without notice.

Proposed amendments

1. *When the Precious Metals Act, 2005 comes into effect, the South African Diamond and Precious Metals Regulator, or Regulator for short, will be responsible for administration of the Precious Metals Act, 2005.*
2. *Applications for licences, permits and certificates will be made to the Regulator.*
3. *The South African Police Service's Gold and Diamond Branch will still be responsible for clearance procedures in respect of applications, through consultation by the Regulator.*
4. *National Treasury (in particular the Reserve Bank's Exchange Control Department) will still be consulted before certificates, permits and licences for unwrought gold are issued. This is for exchange control purposes.*
5. *The Regulator will also issue licences, permits and certificates.*

PROSPECTING AND MINING – THE MINERAL & PETROLEUM RESOURCES DEVELOPMENT ACT

The legislation controlling all prospecting and mining is the *Mineral and Petroleum Resources Development Act, 2002*, which came into effect in May 2004.

Before one can apply for a prospecting right, mining right or mining permit the following procedures can be followed:

1. Identify the piece of land on which the proposed activity is to take place. Details such as the farm/plot/portion number of the property can be obtained from the Survey General's Office in that province.
2. If the applicant is not the surface rights owner, the surface rights ownership relating to that property/land can be obtained at the Deeds Office.

3. The first point of contact should be the Department of Minerals & Energy's Regional Office (in the province in which the land, that is the subject of the proposed application to prospect or mine, is situated). Contact details of Regional Offices are given at the back of this publication.
4. It is important to ascertain at the Regional Office if no other person holds a prospecting right, mining right, mining permit or retention permit for the same mineral and land (Note that the transitional period for the processing of unused old order rights lapsed in May 2005. In addition, the MPRDA provides that "old order prospecting rights" must have been converted to new order prospecting rights (by 30 April 2006) and that "old order mining rights" must be converted to new order mining rights (by 30 April 2009).
5. Further guidance with regard to application for prospecting and mining rights (or mining permit) will be given by the Regional Office of the Department of Minerals and Energy.
6. Application forms can be downloaded from the DME's website: www.dme.gov.za/minerals/documents.stm, to obtain an understanding of the detailed requirements for an application.

THE POSSESSION AND TRADE IN PRECIOUS METALS[16]

Exchange control regulation relating to the purchase and sale of gold

As discussed above, there are special exchange control regulations applicable to gold. The Reserve Bank's Exchange Control Manual states the following:

1. *Exchange Control Regulations* 2 and 5 prohibit the purchase and sale, both domestically and abroad, of unwrought gold (ingots, amalgam, concentrates or salts of gold, buttons, trade scrap and so called tola bars) by South African residents without the specific authority of Exchange Control.
2. The acquisition of (unwrought) gold for legitimate trade purposes by manufacturing jewellers, dentists, etc. is subject to the approval of the Gold and Diamond Branch of the South African Police Services (SAPS). After receiving such approval, a permit must be obtained from the South African Revenue Service, which will entitle the permit holder to approach the Rand Refinery Limited for an allocation of gold.

   The holders of (unwrought) gold, having received the approvals outlined above, are exempted from the provisions of Exchange Control regulation 5(1), which states the following:

[16] DISCLAIMER: This handbook does not purport to provide advice or legal analysis of the Mining Rights Act of 1967 or Exchange Control regulations, nor can it substitute for the careful reading of said legislation. It must also be noted that the *Mining Rights Act* will be repealed by the *Precious Metals Act, 2005*, when effective.

"Every person resident in the Republic who becomes entitled to sell or to procure the sale of any (unwrought) gold shall, within thirty days after becoming so entitled, offer that gold or cause it to be offered, for sale to the Treasury…"

Point 2 above is discussed further below as it falls under the provisions of the *Mining Rights Act of 1967*, which will be repealed by the *Precious Metals Act, 2005*. This is expected to happen within the next 6 months.

MINING RIGHTS ACT OF 1967[17]

Chapter 16 of the *Mining Rights Act, 1967* (the only remaining chapter in the Act) currently controls the possession, the purchase and sale and the processing of the precious metals: gold, silver and the platinum-group metals. This Act, now 39 years old, is to be repealed and replaced by the *Precious Metals Act, 2005* which was signed by the President in April 2006.

FREQUENTLY ASKED QUESTIONS

What is unwrought precious metal according to the Mining Rights Act?

"Unwrought precious metal" means the following:

- any un-manufactured precious metal in the form of bars, ingots, buttons, wire, plate, granules or in solution, or in any other form,
- any other article or substance containing un-manufactured precious metal in the forms listed above, or
- any article consisting of or containing precious metal which although manufactured is not an article of commerce, or a work of art or an article of archaeological interest.

Note that this definition in the *Mining Rights Act* also includes what is internationally termed semi-fabricated (semi-manufactured) precious metal, which is defined separately in the *Precious Metals Act, 2005*.

Amendment

1. *In the Precious Metals Act: "unwrought precious metal" means—*

    (a) precious metal that—

        (i) is unrefined (including concentrate and matte); or has been refined to a purity less than 99.9% and has not undergone any

[17] DISCLAIMER: This handbook does not purport to provide advice or legal analysis of the *Mining Rights Act* of 1967 or Exchange Control regulations, nor can it substitute for the careful reading of said legislation. It must also

manufacturing process other than being refined or formed into a bar (but not a minted bar), an ingot, a button, plate, sponge, powder, granules (excluding, granules made from precious metal that has been refined to or beyond 99.9% purity, and carat gold alloys), solution; or

(ii) is prescribed as any substance, material or product of similar form to any such substance, material or product listed in paragraph (a)(i).

or

(b) any article or substance containing or consisting of precious metal contemplated in paragraph (a),

but does not include any article that is of archaeological interest or that has been processed or manufactured for one or more specific industrial, professional or artistic uses."

Comments on amendment

1. *The definition above is similar to the US definition of the term, which refers to precious metal whether or not refined and in the forms listed, but excludes rolled, drawn, forged or extruded products, tubular products or casts forms which have been machined or processed otherwise than by simple trimming, scalping or de-scaling.*
2. *Note, however, that sponge is included in the US definition of unwrought but excluded from the definition of semi-manufactured (semi-fabricated).*

Amendment

In the Precious Metals Act: semi-fabricated precious metal'' means—

"refined precious metal that is in the form of sheet, tube, wire, granule, plate, strip, rod, or sponge (including carat gold alloys as prescribed); or such other refined precious metal as the Minister may prescribe."

be noted that the *Mining Rights Act* will be repealed by the *Precious Metals Act, 2005*, when the latter is promulgated

Comments on amendments

1. *Note that plate and sponge are included in the definitions of both "unwrought" and "semi-fabricated" in the Act and the refining purity is used as the distinguishing criterion between the two classifications – i.e., if the purity of the sponge or plate is greater than 99.9% then it is semi-fabricated and if it is less that 99.9% then it is unwrought.*
2. *The term semi-fabricated is used internationally to refer to semi-manufactured forms of precious metal, i.e., refined precious metal that has been further worked into intermediate products or partly-fabricated forms such as sheet, wire, tubes, pipes - which are used to fabricate finished products.*
3. *The Act does not refer to waste and scrap specifically, leading to the interpretation that waste and scrap derived from unwrought precious metal could be classified as unwrought; whereas waste and scrap derived from semi-fabricated precious metal could be classified as semi-fabricated; and second-hand or used fabricated precious metal could still be classified as fabricated precious metal if its form has not been changed. It should be noted, though, that the Second Hand Goods Bill would provide further clarity on issues relating to waste and scrap metals.*
4. ***Carat gold alloys** and other precious metal jewellery alloys will be prescribed by regulation. The ISO 9202:1991 standard (Jewellery – Fineness of precious metal alloys) and the SABS Standard [(SANS 29:2004: Articles of precious metals) specifying the range of fineness of gold alloys (375 or 9 carat, 585 or 14 carat, 750 or 18 carat, and 916 or 22 carat), platinum alloys {850, 900, 950 fineness) and palladium alloys (500, 950 fineness)] will be used as a basis for specifications to be prescribed in the Regulations under the Act.*

What is wrought precious metal in terms of the *Mining Rights Act*?

Note that although the term "wrought" precious metal is used once in the *Mining Rights Act,* (section 145) it is not defined in the Act. In legislation, if a term is not defined but its antithesis ("unwrought" in this case) is, then the term can be interpreted as meaning the opposite of its antithesis. "Wrought" is therefore precious metal that is not unwrought.

Hence, "wrought" precious metal can be described as a fully or finally manufactured precious metal product consisting of or containing precious metal, which is recognised as an article of commerce. It is usually a consumer good in a wearable form such as jewellery, or in decorative applications in <u>finished</u> articles, although legal tender bullion or commemorative coins are also exempt.

Amendment

Although the term is not specifically used, the equivalent of "wrought" precious metal as implied in the Mining Rights Act would be fabricated precious metal and not semi-fabricated precious metal. However, the term "fabricated" precious metal is not used in either Act.

Who can possess and deal[18] in unwrought precious metal in terms of the Mining Rights Act?

1. A **recovery works licensee** *(In the Precious Metals Act: refining licensee),*
2. Holder of a **jeweller's permit** *(In the Precious Metals Act: the jeweller's permit holder is restricted to semi-fabricated precious metal and cannot possess unwrought precious metal except under the authority of a special permit),*
3. A **banker** *(In the Precious Metals Act this term has been changed to "authorised dealer"),*
4. Holder of a **prospecting or mining authorisation** (**producer),** who has won or recovered that unwrought precious metal in accordance with that authorisation (NB: a producer can only be in possession and dispose of precious metal that he has mined in accordance with, that prospecting right, mining right or mining permit. The prospecting or mining right or permit allows him to remove and dispose of precious metal mined. It does not entitle the producer to buy precious metal (*This is still the case in the Precious Metals Act, i.e., a producer cannot buy unwrought or semi-fabricated precious metal*),
5. The holder of a **certificate** obtained from SAPS, after clearance from the Gold and Diamond Branch of SAPS *(In the Precious Metals Act: the certificate will be issued by the Regulator after consultation with National Treasury, in the case of unwrought gold, and the South African Police Service),*
6. The holder of a special **permit**, obtained from the Gold and Diamond Branch of SAPS, who has been granted such permission because such unwrought precious metal is required by him or her for scientific purposes or in connection with any trade, industry or profession *(In the Precious Metals Act, the permit will be issued by the Regulator after consultation with National Treasury, in the case of gold, and the South African Police Service. See discussion later for other amendments relating to this permit.),*
7. The SA Reserve Bank and its subsidiary the SA Mint, and
8. Employees of the exempted persons listed in 1-7 above, in fulfilment of a contract of service.

[18] Buy and/or sell in accordance with the authorisation

The *Mining Rights Act* (*and the Precious Metals Act*) place restrictions on these authorisation holders in terms of whom they can buy from and/or sell to. In other words, they have to buy and/or sell in accordance with the authorisation they hold and the Act.

What authorisation is needed to refine precious metal in terms of the Mining Rights Act?

Answer: a recovery works licence *(Refining Licence in the Precious Metals Act*).

What authorisation is needed to manufacture precious metal jewellery in terms of the Mining Rights Act?

Answer: A jeweller's permit. *(It will be the same in the Precious Metals Act; however, the jeweller's permit holder will be restricted to semi-fabricated precious metal. Note also that there is currently nothing specified in the Act that prevents a precious metal beneficiation licensee from manufacturing jewellery. Such operational detail will be specified in the Regulations, in particular the terms and conditions of the licence.*

What authorisation is needed to conduct a trade as an engraver in terms of the Mining Rights Act?

Answer: A jeweller's permit according to SAPS (because of the associated filings). *(In the Precious Metals Bill, it would be a jeweller's permit if the engraver works with semi-fabricated precious metal only. Otherwise it could be a special permit or a precious metal beneficiation licence. Once again, the application of the Act will depend on operational detail that will be provided in the Regulations.*

What authorisation is needed for a dentist to use precious-metal dental alloys or for a scientist to conduct scientific research using unwrought precious metal in terms of the Mining Rights Act?

Answer: a permit issued by SAPS, for a trade, industry, profession or for scientific purposes (also known as SAP 247 or Industrial Permit). *(The special permit has been retained in the Precious Metals Act. Note, however, dental alloys are classified i as semi-fabricated precious metal, thus a jeweller's permit could suffice for purchase and use of dental alloys.*

What is the precious metal licence in the *Mining Rights Act*?

Answer: Recovery Works Licence[19] *(Refining licence in the Precious Metals Act. See amendments below)*

A recovery works licence issued by the local receiver of revenue (SARS) entitles the holder to do all or any of the following as specified in the licence:

(1) Buy unwrought precious metal from the SA Mint, Banker, producer, jeweller, dentist, or other exempted persons,
(2) Refine or change the form of unwrought precious metal and dispose of such metal,
(3) Extract precious metal from any material or solution,
(4) Extract silver from any solution,
(5) Extract precious metal from mine residues,
(6) Buy from exempted persons material or solution containing precious metal and extract and dispose of such metal.

The licence is currently valid only in the Magisterial District specified thereon.

The amendment reads as follows:

"Issue and renewal of refining licences

7. (1) The Regulator may, after consultation with the National Treasury, in the case of gold, and the National Commissioner, issue to any person, in the prescribed form and for a period not exceeding 30 years, a refining licence entitling the holder to do such of the following, as may be specified in the licence, namely—

(a) to buy or receive unwrought precious metal in any form from the South African Mint or any person contemplated in section 2[20]*(1);*

(b) to buy or receive semi-fabricated precious metal from the South African Mint or any person contemplated in section 3[21]*(1);*

(c) to smelt, refine or change the form of unwrought precious metal in his or her lawful possession and thereafter to dispose of such precious metal—

(i) in accordance with the terms and conditions of his or her licence and the provisions of this Act to the South African Mint or any person contemplated in section 4(1)(a), (b), (d), (e) or (f); or

(ii) in semi-fabricated form to any person contemplated in section 5(1) (a), (b), (d), (e), (f) or (g);

(d) to extract precious metal from any material, substance or solution in his or her lawful possession and to dispose of such precious metal in accordance with the terms and conditions of his or her licence and the provisions of this Act;

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[19] Please note that the *Mining Rights Act* will be repealed. This section will therefore change.
[20] This is a cross-referencing error in the Act and should read section 4(1)
[21] This is a cross-referencing error in the Act and should read section 5(1)

(e) *to buy or receive from the holder of a refining licence or a precious metal beneficiation licence, an authorised dealer or a producer, any material, substance or solution in the lawful possession of that holder, authorised dealer or producer containing precious metal and to extract from such material, substance or solution precious metal and to dispose of the precious metal in accordance with the terms and conditions of his or her licence and the provisions of this Act; .or*

(f) *to import any unwrought or semi-fabricated precious metal into the Republic subject to the terms and conditions of his or her licence."*

Comments on amendment

1. *While the recovery works licence was valid only for the magisterial district specified, there is no such restriction specified in the Precious Metals Act.*
2. *The refining licence is similar in many respects to the current Recovery Works Licence, except now there are references to semi-fabricated precious metal dealings, and no references to silver which has been excluded from the definition of "precious metal".*
3. *The most important difference is that import powers (subject to terms and conditions of the refining licence) has been incorporated. This means that the holder of a refining licence can import unwrought and semi-fabricated precious metal by the authority of the refining licence. All other licensees (i.e., precious metal beneficiation licensees) and permit holders would have to obtain an import permit from the Regulator.*
4. *See value chain depicted on page 40, which illustrates the central role a refiner plays in the precious metals value chain.*

Amendment:

A new licence, viz., ***precious metal beneficiation licence****, has been introduced in the Precious Metals Act (see depiction of main players in the value chain on page 41). The licence is chiefly for fabrication of precious metal. The provision is self-explanatory and reads as follows:*

"Issue and renewal of precious metal beneficiation licence

"6. (1) The Regulator may issue to any person, in the prescribed form and for a period not exceeding 10 years, a precious metal beneficiation licence entitling the holder to do such of the following, as may be specified in the licence, namely—

(a) to buy or receive unwrought or semi-fabricated precious metal in any form from any person authorised under this Act to sell, deal in or dispose of unwrought or semi-fabricated precious metal;

(b) to make up, change the form or add value in any other manner to any unwrought or semi-fabricated precious metal in his or her lawful possession; or

(c) to dispose of any unwrought or semi-fabricated precious metal in his or her lawful possession."

Application

1. The first step is to get clearance and approval from the South African Police Service (Gold and Diamond Branch), by making an application on the prescribed from SAPS 225. This involves providing personal and business information (a Business Plan is also required) and satisfying inter alia security and premises criteria. For example, SAPS will inspect the premises and ensure that a suitable safe is present.
2. If the prescribed criteria and conditions are met, approval for the issue of a recovery works licence is granted on the prescribed form SAPD 242.
3. The Local Receiver of Revenue in the relevant Magisterial District (usually at the Stamp Duty Section) handles the issuance of the licence.
4. The Licence will be issued when the prescribed fee (currently R50, but subject to change) is paid.

Comments on proposed amendments

1. *In terms of the Precious Metals Act, applications would be made to the Regulator.*
2. *The Regulator will also handle Granting and Issuance of the permit after consultation with the SAPS. and National Treasury (in the case of gold).*
3. *Application forms and prescribed form of the refining licence and the precious metal beneficiation licence will be provided for in the Regulations under this Act.*

What are the precious-metal permits?

Jeweller's permit[22]

A jeweller's permit is also issued by the local receiver of revenue (SARS) It authorises the holder to make up, smelt or change the form of wrought and unwrought precious metal. In a sense, the jeweller's permit is not appropriately named, as it is a permit to manufacture jewellery, thus "jewellery manufacturer's permit" would have been self-explanatory.

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[22] This section will change when the Precious Metals Act comes into effect.

The holder of a jeweller's permit may currently buy from:

- a licensed refinery,
- a banker,
- the SA Mint,
- another jeweller with a jeweller's permit, or
- other authorised persons.

The jeweller's permit is currently valid only in the Magisterial District specified thereon.

Most holders of jeweller's permits and other approved purchasers of gold and silver buy from the Rand Refinery and other licensed refiners. Application is required for a supply from a refinery. A certified copy of the permit must accompany the application.

Approved purchasers may buy platinum (or other PGMs) from approved retailers such as Cape Precious Metals, Metal Concentrators, Johnson Matthey and Heraeus. Permits must be exhibited for verification.

Amendments

The jeweller's permit has been retained in the Precious Metals Act, but the provisions have been amended:

> *"9. (1) The Regulator may issue to any person, in the prescribed form and for a period not exceeding five years, a jeweller's permit entitling the holder to do such of the following, as may be specified in the permit, namely—*
>
> *(a) to buy or receive semi-fabricated precious metal in any form from any person authorised under this Act to sell, deal in or dispose of semi-fabricated precious metals;*
>
> *(b) to change the form of, or in any other manner add value to, semi-fabricated precious metal in his or her lawful possession; and.*
>
> *(c) to dispose of any semi-fabricated precious metal in his or her possession."*

Comments on amendment:

1. *The most important difference from the jeweller's permit provided for in the Mining Rights Act is the fact that in the Precious Metals Act, the holder of a jeweller's permit is restricted to semi-fabricated precious metal.*
2. *The reason for this restriction to semi-fabricated precious metal is to allow for the removal of the provision for the keeping of prescribed registers. This partial deregulation is attributed to the fact that stolen precious metals are usually in unwrought form. There is therefore less risk with semi-fabricated precious metal, which are usually manufactured by large refineries like the Rand Refinery. These*

suppliers of semi-fabricated precious metal will submit registers to the Regulator wherein transaction with jeweller's permit holders will be recorded. The Regulator, in particular its Inspectorate, will (cross) check these transactions.

3. *Nevertheless, the holder of a jeweller's permit must keep proper books of account in accordance with generally accepted accounting practice (GAAP) and must submit such information as "may be prescribed" to the Regulator annually.*
4. *A jeweller's permit does not entitle the holder thereof to acquire unwrought precious metal except under the authority of a special permit issued by the Regulator for "beneficiation purposes or to make jewellery".*

Application

1. The first step is to get clearance and approval from the South African Police Service (Gold and Diamond Branch), by making an application on the prescribed form SAP 220. This involves providing personal and business information (a Business Plan is also required) and satisfying inter alia security, premises and supplier criteria. For example, SAPS will inspect the premises and ensure that a suitable safe is present.
2. If the prescribed criteria and conditions are met, approval for the issue of a jeweller's permit and a quota of precious metal is granted on the prescribed form.
3. The Local Receiver of Revenue in the relevant Magisterial District (usually at the Stamp Duty Section) handles the issuance of the jeweller's permit.
4. The prescribed fee for the issue of a jeweller's permit is currently R10 (subject to change).

Proposed amendments

1. *In terms of the Precious Metals Act, applications would be made to the Regulator.*
2. *The Regulator will also handle Granting and Issuance of the permit after consultation with the SAPS.*
3. *Application forms and prescribed form of the jeweller's permit will be provided for in the Regulations.*

Permit to purchase unwrought precious metal (for scientific purposes, a trade, an industry or profession)[23].

1. The application for and the issuance of this permit are currently handled by SAPS' Gold and Diamond Branch.

[23] Please note that when the new Act is in effect, this section will change.

Comments on proposed amendments

1. *In the Precious Metals Act, this permit has been changed. The permit is now meant only for scientific purposes, beneficiation or jewellery manufacturing purposes. Other activities (in connection with any trade, industry or profession) covered by this permit in the Mining Rights Act will be covered by the precious metal beneficiation licence, and to a limited extent, by the jeweller's permit (for semi-fabricated precious metal only),*
2. *In terms of the Precious Metals Act, the Regulator will handle the application process and issuance of this permit.*

What are the records to be kept by the jeweller and the holder of a SAPS-issued permit (for scientific purposes, a trade, an industry or profession)?

The jeweller and the above permit holder must keep a record or all purchases & sales of unwrought precious metal (except silver), and articles of any precious metal (except silver), manufactured or smelted.

The holders of these permits must produce and exhibit such register whenever requested to do so by any member of the South African Police Service.

Comments on amendments

1. *The provision requiring holders of jeweller's permits to keep prescribed registers has not been retained in the Precious Metals Act. In its place is a requirement that the holder of a jeweller's permit keep proper books of account in accordance with generally accepted accounting practice (GAAP) and must submit such information as "may be prescribed" to the Regulator annually.*
2. *However, the holder of a special permit (in terms of section 4(1)(e)) for scientific or beneficiation purposes or to make jewellery must still submit the prescribed register to the Regulator on a quarterly basis. This is because the holder of this permit will be working with unwrought precious metal, unlike the jeweller's permit holder who is restricted to semi-fabricated precious metal.*

What is the permit to transport precious metals? Answer: Transport permit

Possession of unwrought precious metal is restricted to the premises or place described or endorsed on the licence.

No person except the holder of a jeweller's permit, SAPS-issued special permit or certificate may transport any unwrought precious metal outside the boundaries of any mine, works or property except under the authority of a **Transport Permit** issued by SAPS.

Comments on proposed amendments

1. *The permit to transport or convey precious metals has been removed. In its place is a provision that requires that a person transporting or conveying precious metal must be in possession of prescribed documents.*
2. *It is envisaged that one of these documents would be similar to a waybill in a prescribed form.*

Where are activities authorised by a licence restricted to?

Answer: Business Premises described on the licence or in any endorsement of that licence

A licensee cannot conduct any activity authorised by the licence outside the premises, or place described on the licence or described in any endorsement of that licence.

Comment on amendment

The Precious Metals Act extends the above provision to the holder of a jeweller's permit as well.

What is a Banker entitled to buy?

Banks are entitled to buy unwrought precious metal from any person - on production by that person of a SAPS-issued permit or certificate authorising the sale.

To sell to a banker, a producer, or recovery works licensee entitled to extract precious metals from mine residues, must obtain a permit from the DME.

Other lawful possessors of unwrought precious metal must obtain a permit from SAPS.
However, these above-mentioned producers need not obtain a permit or certificate to sell unwrought precious metal in bar, ingot, button or other form if it has a specifically registered trade mark (of that producer).

Comment on amendment

1. *A banker is referred to as an "authorised dealer" in the Precious Metals Act (see depiction of main players in the value chain on page 40).*

2. *Authorised dealers are authorised by Treasury to deal in gold and foreign exchange.*
3. *Authorised dealers may buy precious metal in any form from any person authorised to dispose of semi-fabricated or unwrought precious metal.*
4. *The Act has done away with the requirement for producers to obtain an additional permit to sell to an authorised dealer. If the unwrought or semi-fabricated precious metal in question was mined or extracted by the producer in accordance with his mining right, mining permit or prospecting permit, such producer may sell such precious metal to an authorised dealer.*

Which persons must keep and submit a Register of dealings in unwrought?

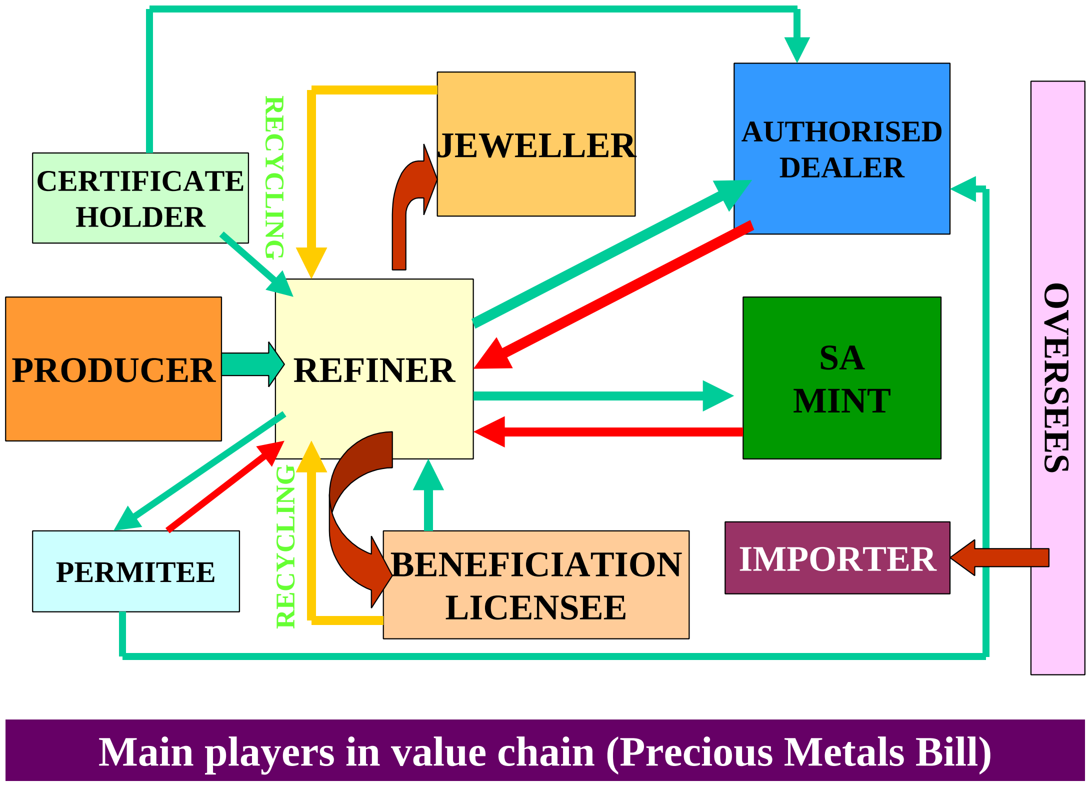
Every holder of a recovery works licence, banker, and any person who receives or dispatches unwrought precious metal is required to keep records of unwrought precious metal transactions in a prescribed register.

The register must be submitted each month to the Gold & Diamond Branch of SAPS.

Comments on proposed amendments

1. *In terms of the Precious Metals Act, the holder of a refining licence or a precious metal beneficiation licence, authorised dealer, and a producer must keep registers of transactions relating to unwrought and semi-fabricated precious metal.*
2. *These registers must be submitted each quarter to the Regulator.*

FIGURE 5: VARIOUS LICENSEES, PERMIT & OTHER AUTHORISATION HOLDERS ACCORDING TO PRECIOUS METALS BILL, 2005



IMPORT OF PRECIOUS METALS

1. *Exchange Control Regulations* 2 and 5 restrict the import of gold into the country.
2. To import unwrought precious metal one would first have to be a licensee, permit holder or other authorisation holder entitled to possess and buy/receive unwrought precious metal.
3. According to the International Trade Administration Commission (ITAC), the import of all used and second-hand precious metal, waste and scrap is subject to import control measures in terms of the provision of the *International Trade Administration Act (71 of 2002)*. As such, secondary, waste and scrap precious metal that fall under tariff numbers 71.06, 71.08, 71.10, 71.12, 71.13 and 71.15 (see table below) will be subject to import control measures (import permit is required).

TABLE: TARIFF CODES RELATING TO PRECIOUS METALS

TARIFF CODE	DESCRIPTION
71.06	SILVER: unwrought or in semi-manufactured forms, or in powder form
71.06.10	powder
71.06.9	Other
71.06.91	Other: Unwrought
71.06.92	Other: Semi-manufactured
71.08	GOLD: unwrought or in semi-manufactured forms, or in powder form
71.08.1	Non-monetary
71.08.11	Non-monetary: powder
71.08.12	Non-monetary: other unwrought forms
71.08.12	Non-monetary: other semi-manufactured forms
71.08.20	Monetary
71.1	PLATINUM: unwrought or in semi-manufactured forms, or in powder form
71.10.1	PLATINUM
71.10.11	Platinum: Unwrought or in powder form
71.10.19	Platinum: Other
71.10.2	PALLADIUM
71.10.21	Palladium: Unwrought or in powder form
71.10.29	Palladium: Other
71.12	Waste and scrap of precious metal
71.12.10	Waste and scrap of gold
71.12.20	Waste and scrap of platinum
71.12.90	Waste and scrap of other precious metals
71.13	Articles of jewellery and parts thereof, of precious metal, or clad with
71.13.1	_// of precious metal
71.13.11	_// of silver
71.13.19	_// of other precious metal
71.13.20	of base metal clad with precious metal
71.15	Other articles of precious metal

4. If imported as "new" or virgin material, only goods of tariff heading 71.08 (Gold: unwrought or in semi-manufactured forms, or in powder form) are subject to import control measures and a permit is needed.
5. If an import permit is required for items listed in point 3 above, application must be made to ITAC (Contact numbers: 012 394-3608 or 012 394-3616; website: http://www.itac.org.za/import_measures.htm).
6. If goods under tariff heading 71.08 (Gold: unwrought or in semi-manufactured forms, or in powder form) are to be imported then application for an import permit must be made at the South African Reserve Bank (Exchange Control: contact number: 012 313 3911/3522).
7. The import of medals, medallions and non-currency items must also be dealt with through ITAC.
8. Customs and Excise require that Imports arrive at approved Entry Points (see www.sars.gov.za for the brochure titled: *An Overview of South African Customs Procedures* for more detail).

9. Customs and Excise also require that the importer/agent complete a Bill of Entry declaration as prescribed (see www.sars.gov.za for the brochure titled: *An Overview of South African Customs Procedures*).
10. The import must then be cleared according to the prescribed procedure of Customs and Excise (see www.sars.gov.za for the brochure titled: *An Overview of South African Customs Procedures*).
11. Unwrought precious metal imports are subject to 14% VAT.
12. Imports of precious metal jewellery or parts thereof are subject to 20% customs duty in addition to 14% VAT.

Comments on amendments

1. *The Precious Metals Act makes provision for an import permit to import unwrought or semi-fabricated precious metal into South Africa.*
2. *The holder of a refining licence or a precious metal beneficiation licence, producer, authorised dealer, a certificate holder or a special permit holder, may apply for an import permit to import any unwrought or semi-fabricated precious metal.*
3. *Similarly, the holder of a precious metal beneficiation licence an authorised dealer, certificate holder, special permit holder or jeweller's permit holder may apply for an import permit to import any semi-fabricated precious metal into the Republic.*
4. *No distinction is made between "new" or virgin precious metal and used and second-hand precious metal waste and scrap.*

EXPORT OF PRECIOUS METALS

1. *Exchange Control Regulations* 2, 3 and 5 are applicable to gold.
2. *Exchange Control Regulations* 2 and 5 prohibit the purchase and sale, both domestically and abroad, of unwrought gold (ingots, amalgam, concentrates or salts of gold, buttons, trade scrap and so called tola bars) by South African residents without the specific authority of Exchange Control.
3. *Exchange Control Regulation* 3 provides that except with the permission of National Treasury or any person authorised by the Treasury, no person may export gold from South Africa.
4. The Reserve Bank must be approached for the application for export permits relating to unwrought gold (contact number: 012 313-3911/3522).
5. The export of fully manufactured gold jewellery from South Africa for sale abroad is treated as a normal export provided the gold content of each article does not exceed 85% of the ultimate selling price and provided periodic returns are furnished by the exporter to

the Authorised Dealer[24]. See also ITAC (http://www.itac.org.za/export_measures.htm) for export control measures.

6. The export of gold coins, currency coins and numismatic items from South Africa by non-residents must be referred to Exchange Control, except in instances where the export comprises up to 15 Krugerrand coins, or the equivalent in fractional Krugerrand coins, which requests may be permitted by the Authorised Dealer who has been approached to attest the Forms F 178.
7. Precious metal producers can export independently provided that the Reserve Bank has given the necessary exemption from the relevant Exchange Control Regulations. Most gold and silver producers, however, use the Rand Refinery as their export-marketing agent.
8. The *Exchange Control Regulations* pertaining to the repatriation of export proceeds remain applicable to precious metal exports.
9. The *Exchange Control Manual* and updates can be found at www.reservebank.co.za .
10. Customs and Excise are involved with the processing of export declarations. Most documents, including DA550, F178 and the Bill of Entry can be downloaded from www.sars.gov.za
11. The procedure for export declaration and clearance can be found in the brochure titled: *An Overview of South African Customs Procedures*, downloadable at www.sars.gov.za (Tel: 012 422 4000).
12. According to Customs and Excise, no export duty is payable. As far as VAT is concerned, rebates apply in some cases and 0-rates apply to certain jewellery exports. Contact Customs and Excise for advice (012 422 4000) on a case-by-case basis.

Amendments

1. *The Precious Metals Act makes provision for approval of export of unwrought or semi-fabricated precious metal. The provision reads as follows:*

   "12. (1) No person may export any unwrought or semi-fabricated gold except with the approval of the National Treasury in terms of the Exchange Control Regulations made under the Currency and Exchanges Act, 1933 (Act No. 9 of 1933), granted with the concurrence of the Minister.

   (2) No person may export any unwrought or semi-fabricated metals of the platinum group except with the written approval of the Minister which shall be granted subject to the promotion of equitable access to, and the orderly local beneficiation of such metals."

[24] Authorised by Treasury to deal in gold or foreign exchange

Comment on amendment

1. *For gold, exchange control approval, is required prior to export. Currently an exemption from Exchange Control Regulations is required. Concurrence of the Minister is also needed in terms of the Precious Metals Act, and the procedure therefore will be specified in Regulations.*
2. *For the export of platinum-group metals, approval will be granted if the exporter has promoted "equitable access to, and local beneficiation" of platinum-group metals.*

GOLD REGULATION IN OTHER COUNTRIES

The gold market and the diamond market (the latter due to the implementation of the *Kimberley Process* in 2003) are the most highly regulated mineral-commodity markets in the World. However because of the monetary role that gold plays and the sheer size, complexity, history and breadth of the gold market, it is in a class of its own. This complexity is due largely to the derivative products in the gold market, which are still a few years off for the diamond market.

Gold possession and gold trading are subject to regulations, controls and taxes in many countries (see table below).

The deregulation of gold ownership by citizens was widespread in the 1970s and 1980s. Singapore was the first to open its gold market, which it did in 1969. Hong Kong followed in 1974, the US in 1975, Tokyo in 1982, Taiwan in 1986 and Turkey in 1989.

In India, the model for deregulation was based on the following policy:

- Removal of restrictions on import and export of gold, in order to curb smuggling and hoarding;
- Development of gold-related financial instruments (forward trading and other gold derivatives);
- Development of markets for physical and financial gold; and
- Encouragement of banks and non-banks to operate freely in the domestic and international gold markets (offering gold-related savings and loan products and interest-bearing physical gold deposit schemes).

As far as legislative controls are concerned, Gold market deregulation began in 1990 with the abolition of the *Gold Control Act*, which had prohibited the holding of bar gold, except by authorised dealers and goldsmiths, and sought to limit the jewellery holdings of families. In

1997, *Open General Licences* was introduced, which allowed substantial direct imports by local banks from the international market.

TABLE: RESTRICTIONS ON GOLD POSSESSION AND BUYING IN VARIOUS COUNTRIES

COUNTRY	POSSESSION	BUYING
Australia	No restrictions	Consumers can buy gold in bar, coin, wafer or other tradable form. Gold ETF launched in 2003.
Canada	No restrictions	Consumers can buy bullion bars, bullion coins and wafers. Investment options include gold futures/options contracts
China	Final stages of complete deregulation	The Shanghai Gold Exchange was set up in 2002. A retail gold investment market has opened recently. Platinum futures trading began in late 2003. Some companies were allowed to import gold jewellery since May 2004.
India	Allowed	Gold bars and coins can be imported under *Open General Licence* by government approved Banks and Agencies. India's Multi-commodity Exchange was established for the trading of gold and silver in October 2003.
Japan	No restrictions	There are gold bullion shops and banks and direct marketing by gold mining companies. TOCOM offers a physical market and futures.
South Africa	Possession and trading of unwrought and semi-fabricated gold is restricted.	Only licensees, permit holders and other relevant authorisation holders may buy and/or sell unwrought gold. South Africans can purchase legal tender bullion and proof coins made of gold and silver. Platinum coins are not available yet.
Turkey	Allowed	Istanbul Gold Exchange offers bullion bars. Dealers and jewellers sell coins.
UAE	No restrictions	Available at jewellery outlets and bullion dealers. Dubai Metals and Commodities Centre was established recently. A physical market and futures are offered.
UK	No restrictions	Bars, wafers and coins are available to consumers. Gold ETF launched in December 2003.
USA	No restrictions	Bullion bars and coins available. Gold oriented Mutual Funds also available. Gold ETFs launched in 2004/5.

Sources: *World Gold Council* and Minerals Bureau

Manufacturers located in Special Export Zones can import gold tax-free through various registered banks under an Export Replenishment scheme.

In 2003, India's Multi-commodity Exchange was established for the trading of gold and silver amongst other commodities.

In Turkey, a number of innovative changes to the status quo were introduced. The aim was to convert the existing idle gold savings into an active resource for the economy by channelling them into investments:

- In 1995, the Istanbul Gold Exchange was opened for the purpose of liberalising the Gold Sector in Turkey, integrating it with international markets, rationalising gold imports and introducing gold-based financial instruments.
- In 1997, the Istanbul Gold Exchange Futures and Options Market was launched to meet the demand for gold futures.
- In 1999, silver and platinum trading began on the Istanbul Gold Exchange.
- In 2000, the Precious Metals Lending market was started on the Exchange with the objective of bringing supply and demand into an organised market, lowering the jewellery sector's production cost and facilitating the securitisation of gold.

Until recently, the Chinese gold market was tightly controlled by the Chinese Government. The World Gold Council assisted the government to devise a 3-step programme of deregulation, which is being implemented:

- The gold supply system was released through the establishment of the Shanghai Gold Exchange (which opened in 2002);
- The gold usage system was improved by abolishing the gold licensing system for jewellery market participants and by liberalising the gold investment market by allowing gold bars and bullion coins to be sold to consumers and traded by both institutional and individual investors; and
- The liberalisation of gold imports and exports to link freely with the international market.

As part of China's entry to the WTO, the 40% duty on imported jewellery was scrapped. The licensing system for local retail, wholesale and manufacture of gold products was abolished and replaced by a registration system in 2001. Most of the barriers to gold trade have been removed. Foreign companies may now invest in gold jewellery manufacturing, wholesaling and retailing in China, provided the gold, if it is to be sold locally as jewellery, is bought from the local market.

If the deregulation of the gold market in China goes according to plan, we could be placed in a bizarre situation as South Africa, the Worlds largest gold and platinum producer would be the only country prohibiting investment in (gold and platinum) bullion form.

THE PROPOSED DEREGULATION OF SILVER IN SOUTH AFRICA

Although the *Precious Metals Act, 2005* was reportedly a disappointment for those campaigning for the deregulation of precious metals markets in South Africa, it does have a silver lining. The Act proposes the deregulation of the possession of, and dealing in silver (silver has been excluded from the definition of "precious metals" in the *Precious Metals Act, 2005.*

Those unfamiliar with reading legislation incorrectly interpreted this to mean that silver is not a precious metal anymore – that it had suddenly lost its value or something to that effect. This is not the case. Silver is still regarded the world over as a precious metal. In fact the silver price was recently at a multi-year high. The deletion of silver from the definition of "precious metal" in the *Precious Metals Act* is a legislative way of deregulating silver. It simply means that silver would not be regarded as a "precious metal" <u>for the purposes of the Act when enacted</u> – which in turn means that the provisions that apply to gold and the platinum-group metals would not apply to silver. Similarly, if the need arises (say to control copper theft), by including a non-precious metal like copper in the definition of "precious metal" the provisions controlling the possession, processing, trade, and fabrication of gold and the platinum-group metals could be applied to copper.

Silver deregulation is long overdue because there are no silver mines in South Africa. Silver is a by-product of gold, lead-zinc, copper and platinum mining, and its production has also declined significantly, recently. Therefore, unlike gold there is a very small security-risk (theft from mines) consideration and exchange control is not an issue as silver is not a monetary asset in the modern day.

Moreover, silver has only a residual precious metal status, as more than two-thirds of the metal is used in industrial applications.

Deregulating the possession of, and dealing in silver will be beneficial to South Africa. Deregulation would promote the secondary industry – the recycling of silver, especially from used photographic material and electrical/electronic components. It could also attract recycling of silver-bearing material from the rest of Africa and lead to the expansion of silver refining in South Africa, including third-party or toll-refining.

Deregulation could also result in an increase in retail investment in South Africa, if players exploit the opportunity to create instruments to that effect. A Silver Exchange Traded Fund (ETF) was launched in the USA in 2006, and if it proves to be successful, a silver ETF would be possible in South Africa[25] as well, when deregulation is effected.

If the affordable precious metal also becomes the available precious metal, we could see hobbyists and other non-professionals making their own jewellery in garages and workshops. This could also be a boost for rural craft jewellers and other craft fabricators, who could increase the intrinsic value of their crafts with the easily workable precious metal. Art Clay Silver, introduced recently, could also grow in popularity and use, especially amongst these SMMEs.

[25] Disclaimer: This handbook is for general information only. Nothing in this Handbook should be construed as a solicitation to buy or sell any precious metal or any precious-metal-related instrument.

MAIN PLAYERS (SOUTH AFRICA), PRODUCTS & RELATED TOPICS

THE SOUTH AFRICAN RESERVE BANK

The South African Reserve Bank (SARB), is South Africa's Central Bank and until December 1997, it was also South Africa's only bullion bank as it was the sole marketer of South Africa's gold.

The ***South African Reserve Bank Act, 1989***, provides for the powers and functions of the South African Reserve Bank. In relation to precious metals, the following extracts from the Act are worthy of note:

1. SARB can coin coins or cause coins to be coined (by its subsidiary, the South African Mint).
2. It can issue banknotes and coins or cause them to be issued (by its subsidiaries the SA Bank Note Company & the South African Mint).
3. SARB can buy, sell or deal in financial instruments.
4. It can buy, sell, or deal in precious metals and hold for other persons, in safe custody, gold, securities or other articles of value.
5. It may make or cause to be made coins of prescribed denominations and mass, and which are made of gold, platinum, silver, nickel, copper, tin, zinc or steel, including their alloys.
6. It can specify which coins made of precious metal will be considered legal tender.
7. The Act also provides for the Minister of Finance to determine the dimensions of, and design of any coin, as well as the compilation of any series of coins (this is thereafter undertaken by the SA Mint).
8. The Act also provides for the Minister of Finance in consultation with SARB to determine a statutory price of gold, at which gold held by the Bank is valued (the removal of this provision was under debate).
9. Gold of the bank is traded for the profit or loss of the Government.
10. Preservation of secrecy: Any information relating to the affairs of the Bank shall not be disclosed by SARB, except to the Minister of Finance and the Director-General of the Department of Finance.

Management of gold reserves: Prior to December 1997, gold producers in South Africa were obliged to sell the bulk of their gold production to the South African Reserve Bank

(SARB) and were paid in US dollars. The SARB would decide whether to hold such production-gold in its reserves or whether it would be more appropriate to dispose of the gold to acquire foreign exchange. The SARB could dispose of the gold, if so desired, in the various gold markets.

In December 1997, the Minister of Finance announced, in a further measure to liberalise exchange controls gradually, that gold producers could apply for exemption from the relevant Exchange Control Regulations if they wished to sell their own gold output themselves. The gold producers have used this opportunity and consequently sell much of their output using the Rand Refinery as their agent. The SARB still, however, purchases some production-gold and still has to take decisions about reserve composition.

The SARB may, depending on the prevailing level of the gold interest rate, from time to time place up to 320 000 fine ounces of gold on deposit.

According to GoldAvenue (2002), by 1990 SARB was making increasing use of the forward and option market to hedge its sales and traded bullion in the wholesale market. The bank's role is now relatively minor, mainly through lending in limited volumes (GoldAvenue, 2002).

In 2001, an official reply by the Minister of Finance (Miningweb, 2001) to a parliamentary question revealed the following:

1. As from 1992, gold was swapped for foreign currency from time to time for liquidity purposes in preference to selling gold.
2. The SARB has infrequently made gold deposits with banks, chiefly to offset the cost of borrowing. In August 2001, the SARB had no gold on deposit, but was then a borrower of gold from the market.
3. By virtue of section 33 of the *South African Reserve Bank Act, 1989,* **Preservation of secrecy**, detailed information on such transactions are regarded as confidential. The Minister also stated that disclosure of detailed information on such transactions is contrary to generally accepted international banking practice.

CENTRAL BANKS AND THE BANK OF INTERNATIONAL SETTLEMENTS

Central Banks are one of the greatest influences in the gold market. Their main role in the market is the management of gold reserves, which entails their involvement with **leasing, swaps**[26] and trading. They usually have their own vaults for physical reserves, but also hold

[26] Defined under the definitions section

gold in major trading centres like London, which allows them to mobilise it as collateral in the time of need. The lending by central banks (which totalled a little over 2 970 tonnes in 2005 according to GFMS) is crucial for the liquidity of the market for forward sales, gold loans and the working inventory of fabricators. Central banks lend to the market and write options against their reserves to earn a return from an otherwise non-interest bearing asset (Green, 1993).

The **Bank of International Settlements (BIS)** located in Switzerland is the Central Bank to the various national Central Banks. BIS also holds some gold and acts as an intermediary. It discreetly handles many central bank gold transactions, by scouting potential buyers and selling to those selected.

Central Bank Gold Agreement

The **Central Bank Gold Agreement**, involving European central banks was signed in September 1999. The agreement limited its signatories' (13 European central banks and that of the UK) gold sales to a maximum of 400 tonnes (12.9 million oz) annually, over the five-year period from September 1999 to September 2004. It has brought some stability to the gold market and is believed to be the reason for the recent upward trend in the gold price. Since September 1999, gold has risen by an impressive 115% in US dollar terms.

In March 2004, the Central Bank Gold Agreement was renewed for a further five years, but the agreed limit to gold sales was increased to a maximum of 500 tonnes annually, over the next five year period from September 2004 to September 2009.

THE RAND REFINERY

The Rand Refinery, situated in Germiston is the World's largest gold refinery by capacity (Johnson Matthey refinery in the USA is the largest in terms of output). The Refinery has refined over 40 000 tonnes of newly-mined gold to date, which represents more than 32% of all gold mined worldwide.

The refinery's laboratory is accredited to supply "Good Delivery" gold and silver bullion bars to the London Bullion Market (LBMA), COMEX Bars to COMEX Division of the New York Mercantile Exchange and 1kg bars to the Tokyo Commodity Exchange (TOCOM).

Since the year gold miners were allowed to market their production independently (1998), the Rand Refinery has become the agent for the marketing of the bulk of South Africa's gold and silver production.

These days the Rand Refinery is an integrated precious metals management company that provides the following services in addition to refining, sales and marketing:

1. An assay service.
2. It also offers secure storage, freight forwarding services and trans-shipments of gold, silver, platinum-group metals and diamonds through its own high-security vault at Johannesburg International Airport, for onward delivery to global bullion consumers.
3. It manufactures value-added products such as minted bars.
4. It produces a range of carat gold alloys and sterling silver grain for the jewellery industry and a range of dental alloys.
5. It also provides a stamping service.

In January 2004, the **Rand Refinery was awarded London Bullion Market Association Good Delivery referee status** – an honour for the company and South Africa. The Rand refinery is the only LMBA referee in the Southern Hemisphere.

THE SA MINT

The South African Mint located in Centurion, is a wholly owned subsidiary of the South African Reserve Bank. Its main function is to mint coins (specie), which the Reserve Bank is empowered to do through the *Reserve Bank Act, 1989*.

It mints circulation and commemorative coins. The procedure is simple, once approval is obtained from Cabinet and the coin descriptions are published in the *Government Gazette*, the coins are minted and are then available for sale to the public.

Legal tender coins are declared as such by the Reserve Bank by *Notice* in the *Government Gazette*. They can be used as medium of exchange, i.e., to purchase goods and services to the value indicated on the coin (face value). However since this value is just a nominal value, usually a very small fraction of its intrinsic (metal content) value, this almost never happens.
All the SA Mint's commemorative coins are legal tender, silver or gold coins. The following coin series have silver coins and/or gold coins:

1. *Protea* Series (gold and silver),
2. *Natura* Series (gold),
3. R2 (gold and silver) and R1 (gold),
4. *Krugerrand* (Gold only) bullion and proof.

There are no platinum coins currently, as Government has not approved their minting. It is a very costly and difficult process to produce platinum blanks.

However, a newspaper report in 2004 stated that the SA Mint had obtained approval for minting the **country's first platinum coin**. It was previously planned that the first Platinum Coin should depict former President Nelson Mandela, but South Africa has a Rule that Presidents may not be depicted on coins during the currency of their presidency. This, of-course, is not a hindrance now. The platinum coin may also be introduced in anticipation of the tourist influx expected during the Football World Cup being hosted by South Africa in 2010.

BULLION BANKS

*(*Source: mainly *GoldAvenue, 2002)*

Bullion Banks are buyers of precious metal (in bullion form) and clearers and distributors of precious metal in the market. They are traders and market makers, in other words they deal two ways – both buyers and sellers. They may also act as intermediaries in the mobilisation of central bank reserves, either for leasing swaps or sales.

Usually these commercial banks, as opposed to central banks, are the main participants in the OTC market. They also play an important role in the circulation of precious metal (the entire pipeline). The facilities provided by international bullion banks, especially in gold leasing, have been central to the development of markets in Hong Kong, Singapore, Japan and India (GoldAvenue, 2002).

Bullion banks also provide precious metal miners with financing, marketing and hedging facilities.

It is believed that all four major banks in South Africa, viz., Standard Bank, Absa Bank, First National Bank and Nedbank are involved to some extent in the bullion trade and can thus be considered as bullion banks. In terms of the *Precious Metals Act*, they are "authorised dealers".

GOLD LOANS

Besides the gold loan facility used by miners as a means of raising capital for project financing, gold loans to fabricators such as jewellery manufacturers are also provided by bullion banks. The principle here is that it is cheaper to borrow precious metal for a working inventory than to borrow money to buy precious metal, because precious metal lease rates are usually much lower than interest rates.

In Italy, for example, gold can also be supplied to the jewellery manufacturer by a local bank on working account on behalf of a foreign wholesaler, a practice referred to as "*conto lavorazione*" (GoldAvenue, 2002), which translates to "working account". Basically, in this practice, a local or foreign wholesaler "gives" gold to a manufacturer to fabricate for him, for which privilege he will pay only the manufacturing costs.

In South Africa, Standard Bank launched a pilot 1 000kg Gold Advance Scheme in partnership with BAE Systems-SAAB, AngloGold Ashanti and Gold Fields. The scheme, launched in November 2005, is designed to reduce the cost of financing gold working inventory. More details can be obtained from Michael Botes (Tel: 011 636 6543).

JEWELLERY AND HOW IT IS VALUED

Excluding silver, South Africa supplies an estimated 19.9% by value of the mine production of the main raw materials for jewellery fabrication (gold, platinum, diamonds and palladium). Including silver, South Africa supplies 18.4% of the mine production of the main raw materials for jewellery fabrication (gold, platinum, diamonds, palladium and silver), but contributes a tentatively estimated 0.3% ($350 million) to World jewellery output, which latter has been estimated at $115 billion. South African precious-metal jewellery exports were about $82 million in 2005.

South Africa produces mainly 9 and 18 carat gold jewellery and platinum jewellery. According to the Jewellery Council of South Africa (2003) there are more than 3 000 retail jewellery stores in the country.

Precious metal jewellery is usually valued according to the following formula:

(PRECIOUS METAL MASS IN GRAMS) X (RAND PRECIOUS METAL PRICE PER GRAM) + LABOUR COST (USUALLY 10%) = BASE PRICE OF JEWELLERY

Retailers will also apply a mark-up and/or brand premium (for the design etc.). The above basic formula excludes embellishments such as gemstones and diamonds.

It must be noted that pure precious metal is not used in jewellery; rather precious metal alloys of different purities are used. Precious metal purity must be expressed as a fraction for e.g. 18 carat gold jewellery has 18/24 parts gold - or 75% of the mass of the jewellery is actually gold. This actual mass in grams must be multiplied by the Rand precious metal price per gram.

The Rand Refinery provides **jewellery fixings** in Rand/gram for gold and silver on its web site: www.gold.co.za. This is a very useful daily service.

The **price of precious metals in South Africa** is the London spot price in US dollars multiplied by the Rand/dollar exchange rate plus VAT.

($ Price/ozt X R/$ EXCHANGE RATE) ÷ 31.1 plus VAT= R Price/g of pure metal

TABLE: SOUTH AFRICA'S CONTRIBUTION TO JEWELLERY RAW MATERIAL[NB] PRODUCTION[e,], 2005

METAL/GEM	WORLD MINE PRODUCTION ($)	SOUTH AFRICAN MINE PRODUCTION ($)	SA AS % OF WORLD
GOLD	35 995 280 602	4 215 406 025	11.7%
PLATINUM	5 947 242 600	4 721 122 736	79.4%
DIAMONDS	12 400 000 000	1 670 000 000	13.5%
PALLADIUM	1 690 333 300	535 686 105	31.7%
SUB-TOTAL	56 032 856 502	11 142 214 866	19.9%
SILVER	4 632 352 000	20 822 081	0.4%
TOTAL	**60 665 208 502**	**11 163 036 947**	**18.4%**

NB: Mine production by value (estimated)

SOUTH AFRICAN CURRENCY

South Africa moved off the gold standard in 1932, but the South African currency, the Rand was redeemable in gold ("I promise to pay the bearer…in gold" was printed on paper currency) until 1971, the year in which US President, Nixon, closed the "gold window" by suspending the convertibility of dollar balances into gold. Gold then became one of many reserve assets.

The Rand, like all modern currencies is fiat currency, which is inconvertible paper money established by government fiat (government authority).

BULLION COINS AND NUMISMATIC COINS: KRUGERRANDS

The most famous coin minted in the modern era is the **Krugerrand**. The Krugerrand is a 22-carat fine legal tender gold coin first struck in July 1967. It was a 1 ounce gold coin until 1980, when the fractional Krugerrands (1/2 ozt, ¼ ozt and 1/10 ozt) were added. The Krugerrand is available as the un-circulated (bullion) coin from Intergold and its price is linked to the daily spot gold price. The proof Krugerrand (numismatic coin for collectors) is sold at a fixed price by the SA Mint.

Currently, there are no South African platinum coins. The World's biggest selling platinum coin is the *Platinum Eagle* minted by the US Mint.

MINTED BARS

Depending on the way they are manufactured, precious metal bars are classified into two types: cast and minted. Cast bars refer to those made by the pouring of molten precious metal into a mould of specified dimensions. Thereafter, markings are applied manually or by a press. Minted bars are made from precious metal blanks that have been stamped out to the required dimensions from a flat strip of precious metal. Markings are usually then applied by minting presses (as in the case of gold coins).

Minted bars range in size from as small as 0.3g to as large as 500g and range in purity from 99.5% to 99.99%. Minted precious metal bars are sold at a low premium above the bullion price and are bought mainly for investment purposes, although they are also used in jewellery. They are popular because they are more attractive (decorative) and affordable.

Minted bar: picture by courtesy of Rand Refinery

In South Africa, currently the sole manufacturers of minted bars are the Rand Refinery, the SA Mint and Harmony Gold, although there are jewellery manufacturers that also have the capability of manufacturing minted bars. The most popular sizes supplied are the 10g, 50g and 100g bars of 99.99% purity, which incorporate branding as in the case of the *Springbok Brand* of the Rand Refinery.

Currently, minted bars are regarded as unwrought precious metal and hence cannot be sold to the general public.

Comment on amendment

The Precious Metals Act, 2005 proposes the deregulation of the possession of minted bars. It is envisaged that Regulations under this Act will effect deregulation. South African citizens would then be allowed to buy minted bars in South Africa. There will be special conditions attached to the holding of and trading of minted bars and documentation relating thereto.

Foreign tourists, however, are currently allowed to purchase minted bars from duty-free shops at the Johannesburg and Cape Town International Airports, and through the Internet from approved vendors.

GOLD AND SILVER EXCHANGE TRADED FUNDS (ETF)

A Gold ETF is an exchange-traded fund that allows an investor to buy and sell securities (shares) in small allotments (usually 1/10th or 1/100th of an ounce) of physical gold (bullion).

Gold ETFs are backed by gold held by the custodian of the fund and the securities (shares) are traded on a Stock Exchange like other exchange-listed securities. It is a cost-effective, secure and convenient way to invest in gold bullion because there are no storage and insurance costs associated with traditional bullion accounts, and no company risk associated with gold-mining company shares. In addition it is an instrument that is backed on a one-to-one basis by gold – and not through some derivative formula.

Such gold ETFs (supported by the World Gold Council[27]) have been available in Australia (ASX) and London (LSE) since 2003. On 2 November 2004, South Africa became only the third country in the World to launch the WGC-backed Gold Bullion securities. Called NewGold Gold Bullion Debentures, the South African Gold ETF is administered by Absa Bank[25] with the Rand Refinery performing the function of Custodian (Business Report, 2004). Each debenture is valued at 1/100th of one fine ounce of gold issued by NewGold Issuer Limited, a public company. The approximate price of each debenture is the ZAR price of 1/100th of one fine ounce of gold. There is an annual cost of 0.4 percent payable on the NewGold Debentures (accrued daily and debited in gold).

The South African Reserve Bank has allocated only 500 000 ounces annually to NewGold, however, an extension can be applied for when this limit is close to being reached (Mineweb, 2004).

NewGold Gold Bullion Debenture is listed on the JSE Securities Exchange and trades under the JSE code "GLD".[28] It is designed to track the spot gold price less fees (see Call Centre details under Useful Contacts on page 52).

Pre-listing subscriptions totalled about R230 million, which equated to about 2.7 tons of gold bullion, or about R26/debenture. Although historic for South Africa, the success of the ETF will depend on generating and sustaining liquidity.

In 2006, a US silver ETF was also launched. With South Africa proposing the deregulation of its silver market , this development was watched with keen interest.

GOLD ACCUMULATION PLANS

Gold Accumulation Plans are savings plans, whereby a sum of money is invested monthly in gold. Basically it entails an investor committing to investing a fixed amount of money every month, usually for a minimum period of one year (World Gold Council, 2002-4). When the

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[27] Please take note of the WGC and Absa Bank disclaimers in relation to this product.

[28] Disclaimer: Nothing in this Handbook should be construed as a solicitation to buy or sell precious metal or any precious-metal-related instrument.

Plan is set up, instalments are withdrawn from the investor's bank account every month and then used to purchase gold every trading day in a month. The advantage of this is that more gold is bought when the price is low and less when the price is high, because the daily amount of money invested is fixed (World Gold Council, 2002-4).

When the account is closed, the investor can obtain the gold in the form of bullion bars, coins, and sometimes in the form of jewellery. The investor could also choose to get the cash equivalent, should he wish to sell the gold accumulated in his account. Gold (and platinum) Accumulation Plans, as described, are available in Japan, but are starting to become popular in other countries as well.

In South Africa, current legislation restricts the possession of, and dealing in unwrought gold to precious metal licensees, permit holders and other authorised persons. General citizens can only "possess" precious metal in the fabricated ("wrought") form as jewellery, or in the legal tender form as Krugerrands and other legal tender precious metal coins. Therefore, Gold Accumulation or Savings Plans would contravene South African legislation (*Mining Rights Act, 1967* and *Exchange Control Regulations*) relating to the possession of and trading in unwrought gold by general consumers.

Such an initiative would therefore need some tweaking and innovation to suit South African conditions, before it could provide a novel gold ownership scheme for the country.

DEFINITIONS[29] OF TERMS USED

ORE BENEFICIATION: means the various processes, that involve upgrading, improvement, processing or treatment of a primary ore by the removal or separation of impurities from the economic mineral/s or metal/s. Strictly speaking beneficiation means the treatment of ore to improve physical and chemical properties in preparation for further processing, especially smelting.

DERIVATIVE: A highly leveraged financial instrument or paper product, the value of which is based on the underlying precious metal, e.g., futures contracts, gold-backed bonds and options.

FORWARD CONTRACT: Refers to a principal-to-principal contract usually entered into by a mining company to sell its precious metal at a future price for future delivery. The essential difference from a futures contract is that a forward contract is much more flexible and usually results in physical delivery.

FUTURES CONTRACT A legally binding standard contract offered by Exchanges, which allow for the purchase or sale of a specified quantity of precious metal at a pre-agreed price for future delivery at a pre-agreed date.

HEDGE: Price risk management action using the various derivative products available. The intention is to try to even out prices by entering into contracts that balance each other out or provide protection from sudden price fluctuations. Use is made of forward sales, futures and options to afford such protection. For example, hedging may be undertaken by a mining company selling output forward or writing put options to protect against a price fall, or by a fabricator who will need precious metal for working inventory in the near future buying a futures contract or call option to insure against a price rise.

LEASING/LENDING: Refers to the process by which holders of physical precious metal can earn a return on what would otherwise remain a non-interest bearing asset by lending precious metal to fabricators. This lent gold provides the necessary liquidity for day-to-day transactions.

[29] Sources: GoldAvenue, 2002; Johnson Matthey, 2003 and Virtual Metals, 2003.

OPTION: An option gives the holder the right, but not the obligation, to buy or sell precious metal at a pre-determined price by a pre-agreed date, for which right the buyer must pay a premium.

This premium is the cost of the option, paid to the writer or grantor of the option. The right to buy is referred to as a call option and the right to sell, a put option. The predetermined price is referred to as the strike price. The premium is calculated based on a combination of the current price of the precious metal in question, the strike price, current interest rates, time to expiry and the anticipated volatility of the gold price.

Options are of two types: options offered on an exchange and over-the-counter (OTC) options granted by an individual bank or bullion dealer, which are flexible and tailored for the client's needs. Exchange Options, on the other hand, offer a standard contract, which can be traded on the exchange many times before it expires.

OPTION CONTRACT: Is different from an OTC as it is an Exchange product offering the holder the right but not the obligation to buy or sell gold at a pre-agreed price by an agreed date.

OTC: Over-the-counter is a term used to describe an option that is written and traded through principals rather than an Exchange, i.e., directly between buyer and seller.

PUT OPTION: Is an option giving the purchaser the right but not the obligation to sell precious metal at a predetermined strike price. A **CALL OPTION** on the other hand gives the purchaser the right but not the obligation to buy precious metal at a predetermined strike price.

SWAP: Refers to a spot sale of precious metal usually gold, with a simultaneous equal forward purchase of equal tonnage.

USEFUL CONTACTS

Cape Precious Metals

Tel: (021) 551 2066

Fax: (021) 552 1598

Dragon Glass (Importers of Art Clay Silver)

Tel/Fax: 011 849-6430

E-mail: dragon@dragonglass.cc

Department of Minerals & Energy – Provincial Offices

The Director: Mineral Development –

Eastern Cape:	Tel: (041) 585 3862/4/6;	Fax: (041) 585 3881
Free State:	Tel: (057) 352 8235;	Fax: (057) 352 2270
Gauteng:	Tel: (011) 358 9700;	Fax: (011) 339 1858
Kwa Zulu Natal	Tel: (034) 212 2111;	Fax: (034) 212 2721
Mpumalanga:	Tel: (013) 656 1448;	Fax: (013) 690 3288
Northern Cape:	Tel: (053) 830 0800;	Fax: (053) 832 5631
Limpopo:	Tel: (015) 287 4700;	Fax: (015) 287 4729
North-West:	Tel: (018) 464 1631;	Fax: (018) 462 9036/9
Western Cape:	Tel: (021) 419 6105;	Fax: (011) 419 6260

URL: www.dme.gov.za

Gold & Diamond Branch of SAPS

Inspector: Rosie Resandt

Tel: (011) 497 7544/7286 or (011) 871-5632

Fax: (011) 834 7416 or (011) 872-0212

or Superintendent Ben Fourie: Tel: (012) 393 1899

Jewellery Council of South Africa

Tel: (011) 334-1930

Fax: (011) 334-1933

Website: www.jewellery.org.za

Johnson Matthey

Tel: (011) 345-8500 or (011) 873 0820

Fax: (011) 873-2834 or (011) 873 0821

E-mail: eliott@mattheyafrica.com or chapms@mattheyafrica.com

Harmony PureGold (for minted bars etc.)

Tel: (011) 411 2240

Fax: (011) 411 2266

URL: www.harmonypuregold.com/

International Trade Administration Commission (ITAC) – Import/Export Control

Tel: (012) 394-3608/3616/3617

Or downloaded from:: http://www.itac.org.za/

Krugerrand

Tel: (011) 418-9000
Fax: (011) 418-9233
URL: www.krugerrand.org

Metal Concentrators

Tel: (012) 305 3562

Fax: (012) 305-3574

E-mail: metcon@mweb.co.za

NewGold Gold Bullion Debenture ("GLD") – the recently launched Gold ETF

NewGold Call Centre: 0860 122 122
Web page: http://www.absa.co.za/Individual/0,2999,2763,00.html

Precious Metal Recoveries

Tel: (011) 824 4393

Fax: (011) 824 4366

E-mail: pmrgroup@icon.co.za

Rand Refinery

Tel: 011 418 9000/9163

Fax: 011 418 9234

URL: www.randref.co.za

Reserve Bank
Tel: (012) 313 3911/3522
Fax: (012) 313 3969/3929/3197
URL: www.resbank.co.za

SA Gold Coin Exchange
www.sagoldcoin.com
Tel.: (011) 784-8551
Fax: (011) 784-8524

SA Mint Company
Tel: (012) 677 2777
Fax: (012) 677 2690
URL: www.samint.co.za

SARS
Receiver of Revenue: Johannesburg:
Tel: 011 374 8543/8000
Fax: 011 374 8245/8348

Receiver of Revenue: Head Office:
Tel: (012) 422-4000
Fax: (012) 422-5180

SARS
Customs & Excise: Pretoria
Tel: (012) 334-6400
Fax: (012) 328-6478
URL: www.sars.gov.za

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GETTING IT RIGHT

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