



## CHAPTER 6: COINS, INDUSTRIAL END USES & INVESTMENT

### 6.1. KEY FINDINGS

- Gold is used in the fabrication of gold coins, dental products and industrial components. Total usage in coin, dental and industrial applications is small (see Table 20).

	2005 Volume of fine gold (mt)	2006 Volume of fine gold (mt)
Coins, medal fabrication (incl. Krugerrands)	2.03	2.16
Dental products	0.57	0.60
Industrial products	0.01	0.08
<b>Totals</b>	<b>2.68</b>	<b>2,84</b>

**Table 20: Use of fine gold in non-jewellery applications for 2005 and 2006**

Source: Rand Refinery, recyclers, interviews

- The coin manufacturing and retailing industry employed an estimated 101 people in 2006 and an estimated 100 people in 2005, representing 0.06% of all those employed in the gold value chain.



### 6.2. THE COIN INDUSTRY

There are five main producers of gold coin: the Rand Refinery Limited, the South African Mint Company (Pty) Ltd (Coin World), the Gold Reef City Mint (Pty) Ltd, Universal Mint (Pty) Ltd and the Cape Mint (Pty) Ltd.



Rand Refinery is described in the chapter on refining. The South African Mint Company is a wholly-owned subsidiary of the South African Reserve Bank. Its function is to mint coinage of all description in terms of the Reserve Bank Act of 1989. It produces both legal tender and commemorative gold coins. Coin World is the retail outlet of the South African Mint Company and is located on the same premises. The Universal Mint and the Cape Mint, both located in Cape Town, strike gold commemorative coins to order for other countries. The Gold Reef City Mint in Johannesburg also strikes gold medals, medallions and commemorative coins.

In 2006, fabrication of gold coins and medals in South Africa used 2.16mt of fine gold, and in 2005, 2.03mt of fine gold. Overall, about 13% of the local coin output is exported, with the main export markets being Germany, USA, Scandinavia and the Ukraine. 87% of output is distributed locally for sale via Coin World, the Rand Refinery, Gold Reef City Mint and ten or so local dealers. Buyers tend to be either investors or collectors.

Coin manufacturers source 100% of their fine gold requirements from the Rand Refinery in the form of coin blanks.

Mark-ups on coins vary depending on the product. Bullion Krugerrands attract a net mark-up of around 3% for a one ounce coin to about 9% for one tenth of an ounce coin. Proof one ounce Krugerrands attract a net mark-up of 8% to 12% net mark-up over cost. Commemorative coins attract an average net mark-up of 8% to 12% net over cost. The *retailing* of proof Krugerrands and commemorative coins attracts an average net mark-up of about 25%.

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## The Krugerrand : A South African Bestseller

Brainchild of the Chamber of Mines of South Africa, the Krugerrand was the world's first mass-produced gold bullion coin and remains one of a handful of South African brands which can be said to have attained recognition worldwide.

The Krugerrand was first introduced in 1967 as a vehicle to promote gold as an investment vehicle in international markets. The gold standard, under pressure in the 1960's and eventually scrapped in 1971, had ensured that central banks would readily absorb the large quantities of newly-mined gold produced in South Africa. With the gold standard under threat and a steady process of deregulation of the gold market underway, the Chamber of Mines recognised the need to build gold investment opportunities for the 'man on the street'.

The concept behind the Krugerrand was to introduce a coin which was specifically designed for gold investors, which contained exactly one ounce of gold or a fraction thereof, which was legal tender in its country of issue and which was mass produced, ensuring that it was accessible and could be sold at a relatively low premium over the gold price. The coin was a phenomenal success. In 1978, sales peaked at 187mt per annum. The Krugerrand remains the world's most widely distributed gold bullion coin by a significant margin, with sales of over 46 million coins worldwide to date.

For the first nine years of issue, the Krugerrand was the only gold bullion coin available worldwide. However, its success soon induced mints elsewhere to issue their own bullion coins, particularly when sanctions against the South African government were applied from the mid 1980's. Canada introduced the Gold Maple Leaf in 1979, Mexico followed suit with the Gold Libertad in 1981 and China launched the Gold Panda in 1982. Thereafter followed the Gold American Eagle, the Kangaroo Nugget, the Gold Britannia, the Vienna Philharmoniker and the Singapore Lion. Some of these coins were launched in 24 carat (the Krugerrand is a 22 carat coin) but all shared with the Krugerrand the concept of being legal tender and being sold in one ounce units or fractions thereof in order to ensure that investors could accurately track their performance and value.



The imposition of sanctions on South Africa and the introduction of these competitive products in major markets saw Krugerrand sales overseas falter. A brief resurgence in sales volumes took place in 1993 and 1994, but this was largely driven by domestic buying. Sales volumes today are just over 2mt per annum, and demand remains highly dependent on the gold price and on the Rand/US Dollar exchange rate.

Worldwide, gold coins have lost ground as a retail investment product both to gold bars, which have become the favoured vehicle for retail investment in most major markets, and to the recently-established Exchange Traded Funds (ETFs) which provide a means for investors to gain exposure to gold in a cost-effective manner and without incurring the security risk that goes with holding physical gold products.

Management fees for ABSA's GoldPlus Exchange Traded Fund, for example, are approximately 0.04% per annum. This compares to a minimum premium of around 3% for purchases of gold coins or bars. In South Africa, more than 11mt of gold has been invested in the ABSA GoldPlus ETF since its inception in 2004. At the end of 2006, there were seven such funds in operation, listed across nine stock exchanges worldwide, with the largest such fund, the New York Stock Exchange-listed StreetTRACKS Gold Shares product, holding over 450mt of gold by the end of 2006.



### 6.3. DENTAL USES

There are 4,937 registered dentists in South Africa,<sup>31</sup> some of whom use gold in dentistry work. They do not source gold themselves and are not required to hold a gold jewellery permit. They generally obtain their gold from independent dental laboratories.

Interviews suggested that the use of gold in dental work is minimal, and that no more than 0.6mt (or 0.14% of total fine gold output) goes into dental use each year.

The modest use can be explained by the fact that only small amounts of gold are used in dentistry, that the use of gold in dentistry is less fashionable than it once was, and because medical aid schemes no longer pay for the use of gold in dentistry. Owing to the downturn worldwide in the usage of gold in dentistry, dental treatment cannot be said to be a growth sector for gold use.

### 6.4. INDUSTRIAL USES

Gold is used in small quantities in a variety of industrial applications like catalytic processes, satellite technology and advanced computer circuit boards. However, in South Africa, the use of gold in industry is minimal. This review estimates that no more than 0.08mt of gold was used in 2006 in industrial products, representing only 0.02% of total fine gold output for the year. Printed circuit boards (PCBs) are manufactured in South Africa but discussions with the industry revealed that these PCBs do not contain gold (but probably copper). Where high performance PCBs which do require gold are needed, they are imported.

An initiative has been undertaken by mining research body Mintek and three mining houses, AngloGold Ashanti, Gold Fields and Harmony to increase the use of gold in industrial applications. Project AuTEK has as its main aim the development of gold usage in novel industrial applications such as in catalysis, materials and biochemical uses (e.g. pacemakers, drug delivery microchips, and cancer treatment).

<sup>31</sup> Health Professionals Council of South Africa, 2006



## 6.5. INVESTMENT USES

Investors favour gold as a low-risk investment that offers long-term inflation protection. The return on gold is also three to four times less volatile than the return on gold equities. Historically, owing to laws restricting the holding of unwrought gold, South Africans could not invest in gold except by purchasing gold company equities or holding Krugerrands. The options for investing in gold have increased with the introduction of exchange traded gold funds and the JSE Krugerrand futures contract.

A gold exchange traded fund (ETF) is a fund whose sole asset is physical gold and whose value is fully backed by physical gold. ETFs provide a means for investors to “own” gold without actually holding it. ABSA Bank, together with the World Gold Council, obtained special dispensation in terms of the South African gold laws to develop the NewGold Gold Bullion Fund. This vehicle issues securities to investors backed by actual physical gold bullion held in the custody of Rand Refinery. According to ABSA, the uptake of the NewGold fund in South Africa has been positive, with 11.35mt underlying gold being held by the fund at the time of writing. In 2006, 3.87mt of fine gold was allocated to the fund. The fund is mainly accessed by institutional investors and those with a long-term investment horizon.

The JSE offers a rand-denominated futures contract based on the Krugerrand through which the public and institutions can take an investment exposure to gold. However, the contract has not been actively traded. The reason for this is not clear, but it may be that investors simply prefer to hold Krugerrands.

