Gold—the ultimate metal

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The Honourable Mr Molefe, Premier of the North-West Province; Dr Scott-Russell, Chairman of the CMMI's XV Congress; Mr Loton, Chairman of the CMMI; distinguished guests, ladies and gentlemen.

At the outset may I express my sincere appreciation to the organisers of this Congress for their kind invitation to me to participate in the plenary session. May I also thank the CMMI for inviting me to be their fifth distinguished lecturer. This is a signal honour and one which is sincerely appreciated by my Group and myself.

The subject of gold is a very emotive one. It conjures up different images in the minds of a wide variety of people. For many of us it is very simply the ultimate metal. In ancient times gold was sought after and treasured; it was the chosen metal for adornment and many of the best preserved artefacts of that time were hand-fashioned from gold which had been won by primitive mining techniques. Gold's rarity and its value was recognised by those who fashioned the earliest gold coins thus underlining gold's special place as a store of value.

While there have been some changes of emphasis over the centuries, gold's fundamental characteristics remain as clear today as they were in ancient times. The metal is desired by rich and poor alike for its beauty and allure. It is a metal which does not tarnish and its malleability makes it the preferred metal of the modern jeweller who thus follows in the footsteps of his ancient counterpart. Gold's role as a store of value has withstood the test of time. Central banks and other financial agencies continue to hold a substantial part of the global reserves in gold, while ordinary men and women see gold as an important investment product. Conservative people in the developed countries join with a wide cross-section of people in developing countries in regarding gold in a very special light.

I do not wish to delve deeply into the history of gold but I would like to analyse the gold business against the background of comments such as 'gold is a barbarous relic' and the thinking of politicians and economists in the 1960s who saw the gold mining industry as a dying industry which would no longer be able to produce the metal required to supply the necessary increases in international liquidity. Indeed those experts were determined to see gold eliminated from the monetary system. We all know they failed not only to eliminate gold from the monetary system, but also to break down the great mystique that the metal has for mankind.

Before analysing the structure of the gold markets in recent years, I would like to pay tribute to the research conducted by the gold commodity research group of Gold Fields Mineral Services into the global gold markets since the late 1960s. Without the product of their labours, our understanding of the fundamentals of the gold market would be minimal and this lecture would be stillborn. The detailed analysis of consumption trends which is made by the World Gold Council as part of their promotional activities on behalf of the world gold mining industry also plays a crucial part in increasing our understanding of the market. The part played by the Council as an agent of change or catalyst in opening up developing individual and markets is exceptional (Table I).

Table I

Global gold supply and demand (1990–1993). Production and fabrication

	1990	1991	1992	1993	Total
Mine production, t	2 133	2 161	2 237	2 281	8 812
Scrap, t	524	461	463	535	1 983
Total primary supply, t	2 657	2 622	2 700	2 816	10 795
Fabrication, t	2 516	2 665	3 052	2 867	11 100
Surplus/(shortfall), t	141	(43)	(352)	(51)	(305)
Gold price, $/oz	384	362	344	360	Ave. 362

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The fundamental strength of gold has stood in sharp contrast to the weakness of the price which prevailed from 1990 to March 1993. The hard core supply of metal to the markets from mine production and the recycling of scrap has been inadequate to satisfy the demand arising from fabrication. Indeed there has been a cumulative shortfall in primary supply amounting to some 305 tons since the beginning of the 1990s (Table II). Fabrication is as we know dominated by jewellery but I would mention the importance of gold as a conductor and the critical role which it plays in the computer industry. We should also remember that gold's very special characteristics make it an ideal metal for the dentistry profession.

Table II

Global gold supply and demand (1990–1993)
Bar hoarding and investment

	1990	1991	1992	1993	Total
Surplus/(shortfall) after fabrication, t	141	(43)	(352)	(51)	(305)
Bar hoarding, t	224	252	273	137	886
Official coins, t	123	151	91	122	487
Investment, t	218	(263)	69	348	372
Total investment	565	140	433	607	1 745
Surplus/(shortfall) after investment, t	(424)	(183)	(785)	(658)	(2 050)
Gold price, $/oz	384	362	344	360	Ave. 362

Given the shortfall in the supply of primary metal for the fabrication industry, one can well ask whether gold has ceased to have any relevance as a physical investment. Nothing could be further from the truth. Bar hoarding in the east continues to be an important factor in the gold equation. Official coins remain in demand in more sophisticated societies and speculative/investment demand, while volatile, continues to play an important part in the gold market. Cumulative investment demand in the 1990s of 1745 tons has accentuated the shortfall in the primary physical supplies so that the combined shortfall after supplying fabrication and investment demand has been 2050 tons over the period (Table III).

Anybody who does not know anything about the gold market might be forgiven for being puzzled by the fact that the gold price has been relatively weak over the period. The answer to this conundrum lies in the direct and indirect activities of central banks and other official agencies. The modern gold derivative markets rely, to a very large extent, on the liquidity which is created by Central Banks lending gold at a low interest rate to the participants. The important markets which have grown in recent years in gold loans, forward selling and option hedging and their inter-related derivatives owe their attraction and sophistication to that liquidity. In this decade alone some 620 tons of gold, which have been borrowed from Central Banks, have been sold into the market to underpin these activities. In addition Central Banks have sold 1430 tons, most of which came onto the market in 1992 and 1993 when the gold price was at the bottom of its current price cycle. Cynically, some of us would suggest that that selling signalled the end of the long-term bear market which has been in place since the early 1980s. The three periods when Central Banks have sold significant quantities of gold on world markets have all triggered subsequent rises in the gold price. The first was in the late 1960s when the gold pool led by the United States tried to maintain the gold price at its then fixed level. This preceded the creation of the free market as we know it today and the subsequent rise in the price to its 1974 peak. The second event was the selling of substantial quantities of gold by the United States Treasury and the International Monetary Fund. Those sales started in 1976 and contributed to the collapse of the price in that year before rising to its 1980 peak (Table IV).

Table III

Global gold supply and demand (1990–1993)
Official sector induced

	1990	1991	1992	1993	Total
Surplus/(shortfall) after investment, t	(424)	(183)	(785)	(658)	(2 050)
Official sales, t	187	119	602	522	1 430
Forward sales	225	94	165	199	683
Gold loans	5	(45)	(85)	(65)	(190)
Option hedging	7	15	103	2	127
Total, t	424	183	785	658	2 050
Gold price, $/oz	384	362	344	360	Ave. 362

Table IV

Global gold supply and demand (Jan–June 1994)
Production and fabrication

	Jan–June 1994	Jan–June 1993
Mine production, t	1 115	1 093
Scrap, t	271	259
Total primary supply,t	1 386	1 352
Fabrication, t	1 360	1 541
Surplus/(shortfall), t	26	(189)
Gold price, $/oz	383	345

I would now like to shorten my focus to look at the behaviour of the gold market over the first six months of 1994 and compare it with the statistical position for the first six months of 1993. The primary supply to the market has continued to increase on a small scale but the level of fabrication has declined from the peak which was stimulated in 1993 by the exceptionally low price which prevailed in the first quarter of 1993 when gold jewellery was bought on a phenomenal scale by people in the developing world. Thus the previous shortage of primary supply for fabrication purposes turned into a small surplus in the first half of this year (Table V).

Table V

Global gold supply and demand (Jan–June 1994)
Bar hoarding and investment

	Jan–June 1994	Jan–June 1993
Surplus/(shortfall) after fabrication, t	26	(189)
Bar hoarding, t	109	109
Official coins, t	31	35
Investment, t	(159)	184
Total investment, t	(19)	328
Surplus/(shortfall) after investment, t	45	(517)
Gold price, $/oz	383	345

Nevertheless the fundamentals remained extremely strong and supported a steady and stronger gold price. As the volatility of the gold market in 1993 gave way to a more stable market in 1994, the investment picture changed. The offtake of gold into bar hoarding remained static and official coins remained more or less unchanged from a year ago. The investment community, on the other hand, unwound some of their positions with the result that investment as a whole had a very small impact over the six month period. There was, therefore, a 45 ton surplus in the market after allowing for fabrication and investment (Table VI).

Table VI

Global supply and demand (Jan–June 1994) Official sector induced

	Jan–June 1994	Jan–June 1993
Surplus/(shortfall) after investment, t	45	(517)
Offical sales, t	36	275
Forward sales, t	(66)	218
Gold loans, t	(25)	(37)
Option hedging, t	10	61
Total, t	(45)	517
Gold price, $/oz	383	345

This surplus was absorbed as producers reduced their forward sales positions and gold loans. At the same time the level of official sales was dramatically reduced to a level which is little more than the ongoing sales by the Canadian Central Bank which, at the current rate, will complete its sales programme within two years. The last six months has seen stability returning to the gold market and a market which has been driven to a considerable extent by the primary supply and demand considerations. While the activities of investors and speculators have created some volatility this has been moderate compared to that which prevailed a year ago. The gold market, therefore, is in a strong position and poised to reflect any changes which may occur in the fundamentals in the current six months (Table VII).

Table VII

Principal western world gold producing countries

	1990		1993	
	Tons	%	Tons	%
South Africa	675	70	620	33
USA	30		336	
Canada	52		151	
Australia	17		247	
	99	10	734	30
Papua New Guinea	14		62	
Indonesia	neg		46	
Ghana	11		41	
	25		149	8
Other	166	17	388	20
Total western world production	965		1 891	

Given the view which was espoused in the late 1960s that the gold mining industry was a dying industry, and the decline in western world mine production from about 1250 tons per annum to 965 tons in 1980, it is instructive to examine the remarkable recovery of the industry. This recovery was undoubtedly sparked by the rapid improvement in the gold price over the 1970s and the exceptional price which prevailed in 1980. The stimulus which the higher gold price provided to successful international exploration is clearly demonstrated by the marked increase in production in a number of countries. The shift was due in part to the important developments in mining and metallurgical technology which enabled low grade deposits to be mined by highly efficient open pit techniques and, in many instances, mineralization to be treated by the relatively inexpensive heap leaching technique. The main beneficiaries in the western world of this paradigm shift were the United States, Australia and Canada. While South Africa's production declined by a small quantity in absolute terms its share of the western world production dropped from 70 per cent to 33 per cent. The combined production of the three major English-speaking countries on the other hand increased from 10 per cent to 39 per cent. The more recent phenomenon has been the increasing importance of mining in the developing world and in particular in Papua-New Guinea, Indonesia and Ghana whose share of western world production had increased from 3 per cent to 8 per cent by 1993. Further small increases in production were also apparent in a wide variety of countries in the developing world (Table VIII).

Global statistics of mine production are still not available for the years prior to 1990. In fact one wonders whether we will ever know what really happened in the C.I.S. Statistics from 1990 onwards, while not completely reliable, do give a clear impression of what has happened during the early part of this decade. While mine production was increasing by over 6 per cent per annum during the 1980s, this has slowed down to a rate of between 2 and 3 per cent. The major contributor amongst western mining countries was the United States due to

Table VIII

Principal global gold producing countries

	1990		1993	
	Tons	%	Tons	%
South Africa	605	28	620	27
USA	294		336	
Canada	167		151	
Australia	244		247	
	705	33	734	32
Papua New Guinea	34		62	
Indonesia	13		46	
Ghana	17		41	
	64	3	149	7
C.I.S.	270		244	
China	95		127	
	365	17	371	16
Other	394	19	407	18
Total global production	2 133		2 281	

gold production in Nevada coming to maturity. The most notable change in the production picture arises in the developing world where Papua-New Guinea, Indonesia and Ghana are becoming increasingly important players. China is also indicating significant increases in its production.

I would now like to review the consumption side of the gold business and to highlight different characteristics which exist in different parts of the world.

I would like to begin with India which is a country which has been steadily deregulating its gold markets. Historically India has been a high consumer of gold and a leading country in parallel market activities. Its cultural affinity for gold is closely associated with its matrimonial traditions. In addition the leading participants in the market have a keen sense of the value of gold at any point in time. There is no doubt that they took advantage of the low gold price which prevailed during the period when Central Banks were significant sellers. An important feature is the fact that they have subsequently adjusted to the higher gold prices which are now prevailing (Figure 1).

For many people the term Greater China may be unfamiliar but it is a term which is used to cover China, Taiwan and Hong Kong. Here again one sees the rapid increase in demand which took place during the period when the gold price was declining. Of course this was fuelled by prevailing local economic conditions in China but nevertheless the demand has stabilised at a higher than expected level over the last three quarters (Figure 2).

In south-east Asia and South Korea, which share similar characteristics, the gold markets are being progressively liberalised as the World Gold Council engages the various governments in debate on the advantages accruing to them from the stimulation of the gold industry in their countries. Unlike many other regions, the gold demand in the first half of the year has remained at a high level (Figure 3).

If one turns to the Gulf, and here one is talking essentially about Saudi Arabia and Dubai, one can again see the impact of lower prices on demand and the decline in consumption as the price moved upwards. Iran, which was an important gold consumer prior to the explosion of Islamic fundamentalism, is showing signs of re-emerging as an important market (Figure 4).

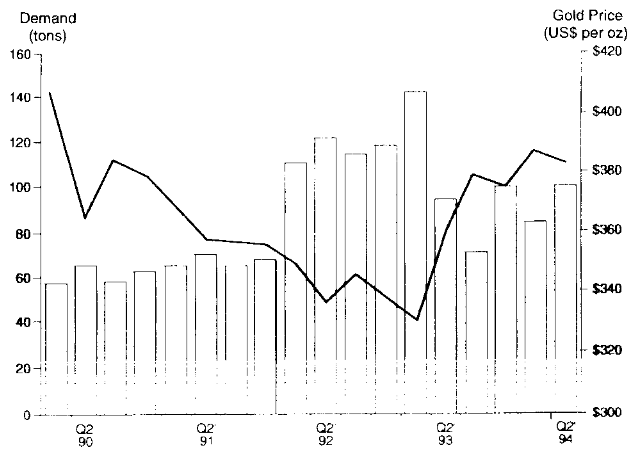

Figure 1—India: Demand and $ Gold Price

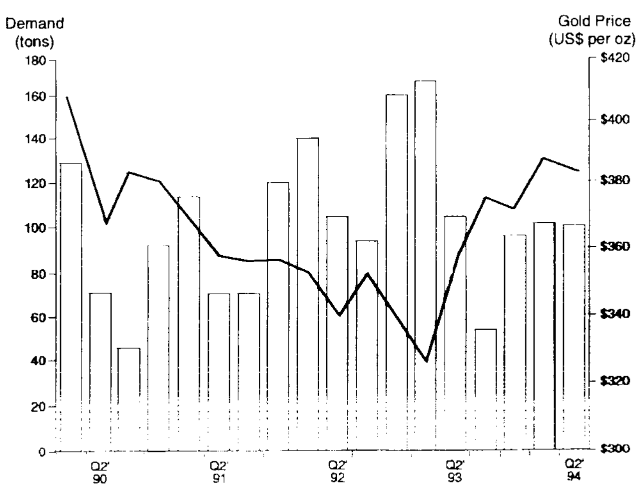

Figure 2—Greater China: Demand and $ Gold Price

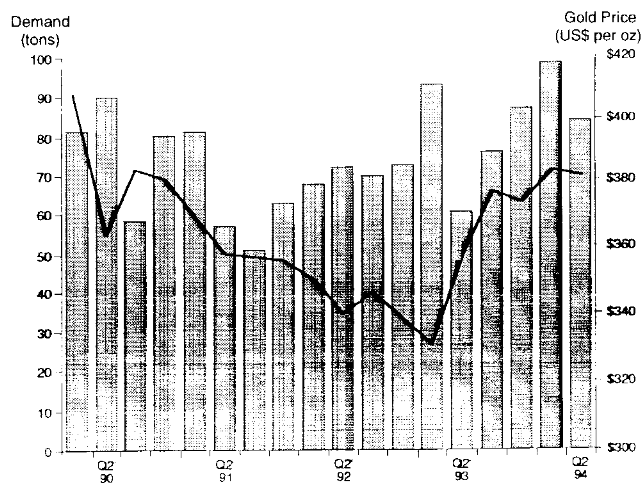

Figure 3—SE Asia and Korea: Demand and $ Gold Price

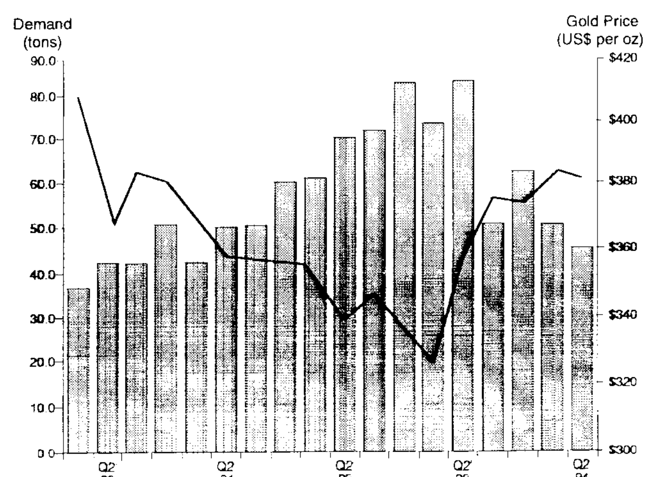

Figure 4—The Gulf: Demand and $ Gold Price

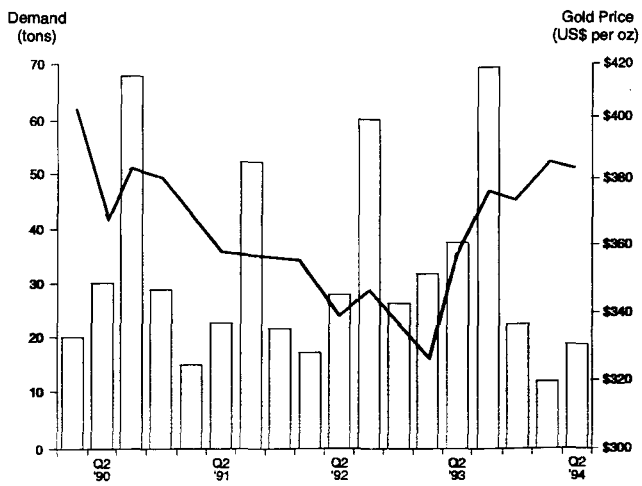

Figure 5—Turkey: Demand and $ Gold Price

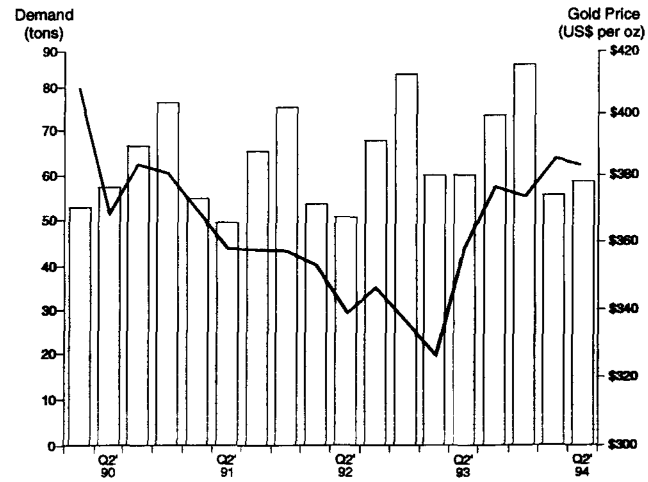

Figure 7—USA: Demand and $ Gold Price

Turkey is a special case where the country has been through a period of extreme austerity as a result of the major problems which the Turkish economy has encountered in recent months. A striking feature about Turkey is the seasonal demand which arises in the third quarter of each year. This has a strong relationship with Turkey's position as a major tourist attraction. After the low level of net offtake in the first half of the year there are signs that the traditionally strong third quarter will eventuate although it is unlikely to be as marked as in recent years (Figure 5).

If one now turns to the developed world we find a totally different consumption pattern. In Europe the market has been under pressure as a consequence of the erosion of funds available for discretionary spending as a result of the serious economic recession which prevailed during the early part of the 1990s. Notwithstanding the recession, the most significant feature of the market remains the traditional fourth quarter rise in consumption which is related to gift buying for Christmas. This tend to be a one quarter phenomenon and could well be more significant this year than for a number of years due to improving economic conditions (Figure 6).

The United States presents a similar pattern with the consumption rising in both the last two quarters of the year in recognition of the rather more extended gift-giving season. In general, consumption has been rising modestly over the last eighteen months as a result of the improvement in that economy (Figure 7).

Finally, I would like to look at Japan where extreme economic pressure has moderated its propensity to consume more gold in the fourth quarter of the year (Figure 8). With improving economic circumstances starting to emerge in Japan there is reason to believe a recovery in the gold market is starting to take place and we may well see an increase in offtake over the balance of this year. A further important feature of the Japanese market is the success which financial institutions have had in selling the concept of gold accumulation plans. In this way investors set aside a sum of money every month which is invested in gold on their behalf. Although the price of gold has declined over a prolonged period in Yen terms, these plans have been expanding and will perform well when the local gold price improves.

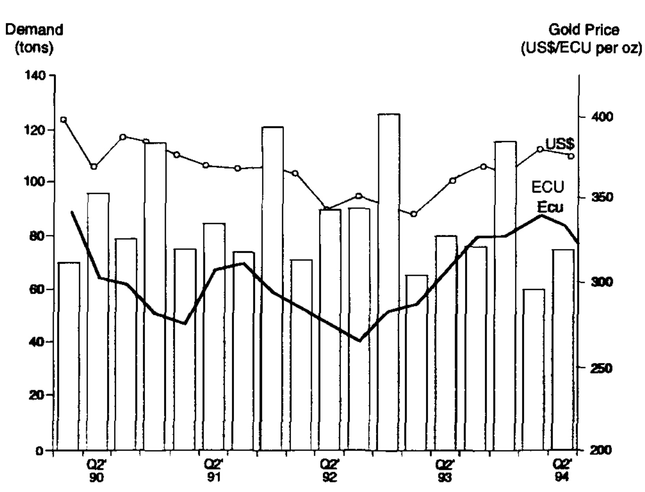

Figure 6—Europe: Demand and $/ECU Gold Price

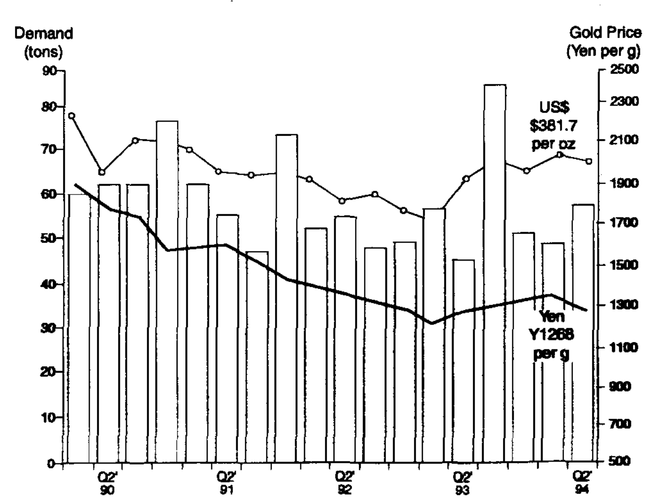

Figure 8—Japan: Demand and $/Yen Gold Price

Gold—the ultimate metal

If one stands back and looks at the development of the gold market over the last twenty-five years, one is forced to the conclusion that the developments which led to the establishment of the free market have been most beneficial for all participants in the gold business. The fixed price which prevailed twenty-five years ago as gold was constrained to being primarily a monetary metal, clearly was not in our interests. It was accompanied by a world-wide plethora of restrictions on private ownership of the metal both for investment and, in many instances, jewellery purposes. Progressively those restrictions have been curtailed and/or eliminated. This has enabled the market for gold to expand with positive results for the gold mining industry world-wide; not only for investors but also employees and other stakeholders.

The mining industry has had to adapt and can be proud of its many new technological developments and work ethics. There are parts of the industry, such as South Africa, which are being compelled to bring about major changes in their *modus operandi* in order to catch up with those who have moved ahead. While some emerging countries have taken a very positive view on the development of their gold mining industries there are others which have some way to go to create the sort of conditions which will encourage the international mining community to conduct exploration and, above all, invest in new projects. Countries such as China and the newly independent republics within the C.I.S. have considerable potential to increase their gold production. Formidable barriers remain before western mining countries will make the sort of long-term investments which are necessary for the establishment of long-life mines. However, special situations do exist in these countries which do lead to western involvement at this time.

The developments in the gold business provide a classic example of how the free enterprise system can grow and prosper. When free market conditions are encouraged, enormous energy is released and innovative thinking prevails to the benefit of all concerned. The gold industry, as a whole, can be proud of the way it has developed over the last twenty-five years. The mining side of the industry has once again demonstrated its technical prowess and resilience within its traditional area of discovering and producing metals. Many companies have reached out to recognise the importance of promoting gold. I hope that their initiative will be followed by others who will recognise an internationally accepted fact that no product will be successful in the long term unless it is vigorously promoted no matter how unique its properties. Gold's claim to be the ultimate metal rests on its dominant role in jewellery; its pre-eminent investment position; and its long standing presence as the premier monetary asset. Promotion of all three facets is crucial to gold maintaining its position as the ultimate metal in the long term. ◆

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The SAIMM on behalf of the ferro-alloy industries in southern Africa, make available bursaries and grants for post-graduate research, leading to publications and contributions to the international ferro-alloys conferences. To date four awards have been made.

The first was to Mr H.G. Oltmann working in the Department of Materials Science and Metallurgical Engineering (University of Pretoria) under Prof. R.J. Dippenaar on the 'Nitride capacity of slags.'

Further bursaries have been awarded to Suzanne Vismer, working in Cape Town under Prof. A. Ball; to Harro von Blottnitz working under Dr Petrie in the Department of Chemical Engineering; and, to Dr. G. Akdogan, a post-doctorate worker in the Department of Metallurgy at the University of the Witwatersrand.

Applications are invited for awards in 1995. The funds are being made available for study at South African universities or technikons on projects related to ferro-alloys, and leading to top-level papers for presentation as a South African contribution to future INFACON conferences.

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