

# GLOBAL HEDGE BOOK ANALYSIS Q3-2005

**G F M S**

 Investec

 BRADY



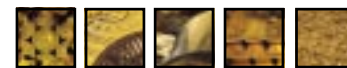
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## Key Points

- **Fresh hedging and an increase in the delta-adjusted options book partly offset a decline in forward contracts that left Q3 de-hedging at a modest 0.99 Moz (30.8 t).**
- **Total outstanding producer positions at end-September stood at a provisional 54.04 Moz (1,681 t), equivalent to 68% of annual mine production.**

### Composition of the Delta-Adjusted Global Hedge Book

(Moz)	05Q2	05Q3	qoq
Forwards/Loans	44.15	42.53	-4%
Vanilla Options	10.31	10.97	6%
Non-Vanilla Products	0.57	0.54	-6%
<b>Total</b>	<b>55.03</b>	<b>54.04</b>	<b>-2%</b>

Note: Totals may not add due to independent rounding. Numbers are provisional and may be revised. At the time of going to press some companies had not reported their hedge positions whilst in some cases data is only available on a six monthly or annual basis. In these cases GFMS have made estimates.

Source: GFMS

## Summary and Overview

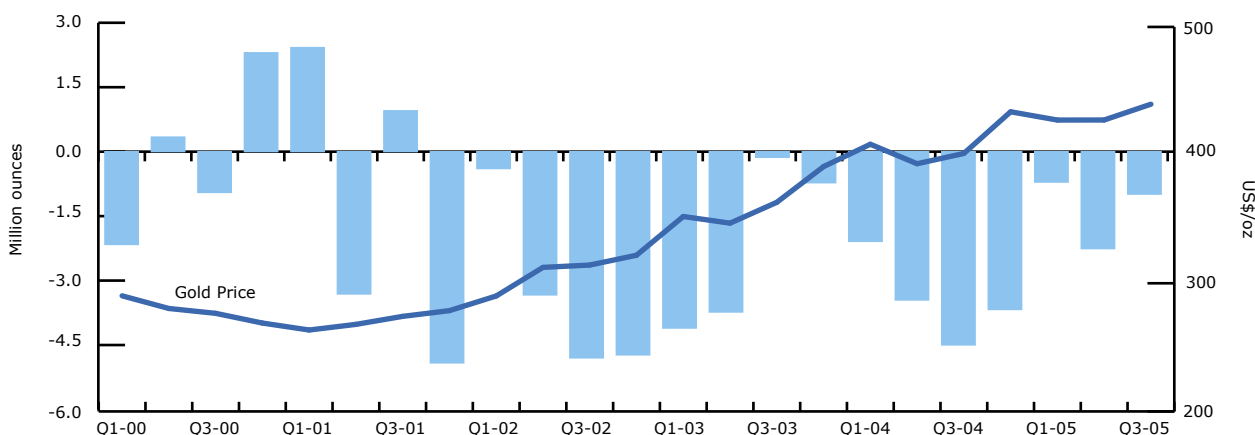
De-hedging waned in Q3 with a provisional 0.99 Moz (30.8 t) decrease in the outstanding delta-adjusted global hedge book. Although not an all time low, the cut was much reduced from the (revised) 2.26 Moz (70.1 t) drop measured in Q2, and only a fraction higher than the 0.71 Moz (22.1 t) decline in Q1. The cumulative reduction in the hedge book for the nine months to September stood at 3.96 Moz (123.0 t) compared to the 10.04 Moz (312.3 t) decline in the corresponding period in 2004.

An important factor behind the muted Q3 decline in the hedge book was an increase in the net nominal volume of vanilla options. The rise, which was against trend, was chiefly due to a combination of a modest book restructure completed by AngloGold Ashanti and fresh hedging. New options hedging was both project related and more defensive in nature with roughly 0.38 Moz (11.9 t) of nominal option contracts added to the global hedge book in Q3.

The impact of the higher quarter-end spot price (up 8% or \$36.15/oz) also played a part in the slow down in de-hedging. Despite the fact that the net vanilla options book only increased a fraction, up by 0.03% qoq, the higher valuation price resulted in a more pronounced rise in the net delta volume, which registered a 6% increase qoq.

The above-mentioned growth in the net delta options volume was offset by a decline in forward sales, which contracted by a measured 1.62 Moz (50.4 t). Assuming a base case scenario with producers delivering into scheduled positions, this decline was broadly in line with expectations. Fresh hedging countered a part of the drop with additional simple forward sales in Q3 amounting to roughly 0.30 Moz (9.3 t).

### Net Impact of Producer Hedging





## Market Commentary

Gold averaged \$439.72 in Q3, a 3% increase qoq and a 10% rise compared to the corresponding period in 2004. Despite stumbling in mid-August at or near the \$450 mark (having previously done so in December of last year and March and June of this), in early September this level of resistance was breached and the ensuing rally took gold to a 17-year high at \$473.25. The timing of the price action meant that the end-period spot price used to value the options book was significantly higher qoq (\$473.25 at end-Q3 versus \$437.10 at end-Q2). This had a noticeable impact on the combined marked-to-market of the gold hedge books, which deteriorated by 31% from its end-June position to a negative \$6.2 billion.

Investor activity was, once again, a key driver behind the direction of the gold price in Q3. The period started with funds liquidating part of the net long position that they had accumulated on the Comex. The sell off, chiefly motivated by a strengthening US dollar, saw the metal trade down from its end-June position of \$437.10 to its low for the period of \$418.35 on the 15th July. News of the yuan revaluation on the 22nd July gave a fresh boost to gold investment and later the after effects of hurricane Katrina added further momentum to the rally. In the wake of Katrina the gold price was initially driven by a dive in the US currency and later fuelled by rising inflationary expectations.

There was modest positive investment in the gold ETF market with overall holdings of the five currently active gold ETFs, as well as the two Canadian closed-ended funds, at 9.77 Moz (304 t), up by 1.22 Moz (38 t) from their end-June level. Retail investment demand,

Average Prices (pm fix)			
	05Q2	05Q3	% Change qoq
US\$/oz spot	427.39	439.72	3%
US\$ 12-mth	442.62	457.21	3%
Rand/kg	88,229	91,947	4%
Euro/kg	10,926	11,593	6%
A\$/oz	556.08	578.45	4%
Yen/g	1,478	1,572	6%
Rps/10g	6,101	6,285	3%
Rph/g	131,334	141,768	8%

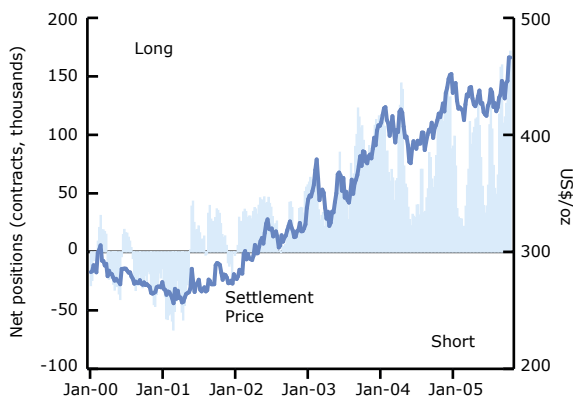
in contrast, disappointed, with another lacklustre performance in both Europe and North America.

Official sector sales in Q3 stood at a provisional 2.25 Moz (70 t), less than half the level recorded in the June quarter. The low level of sales was chiefly due to reduced sales from within the Central Bank Gold Agreement (CBGA) signatories, as the group approached (or breached – see below) its annual quota. Regarding the possible breach of the sales limit, if the 0.55 Moz (17 t) sold by the Banque de France in Q4 2004 to the Bank of International Settlements (BIS) in an “off-market transaction” is included, collective CBGA sales exceeded the 16.08 Moz (500 t) annual limit.

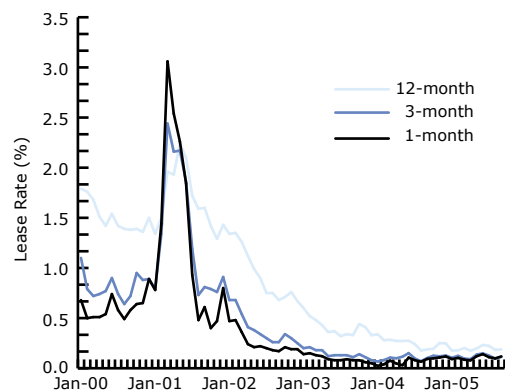
The biggest sellers during the quarter were Belgium with 0.96 Moz (30 t) of sales, Portugal and Spain, both selling 0.32 Moz (10 t) of their gold reserves and lastly France, which by end-August had sold 0.19 Moz (6 t) of its gold holdings. Germany reported a modest change with a less than 16,000 ounces (0.5 t) of sales in July.

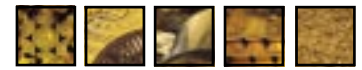
Central banks continued to withdraw from the lending market in Q3 due to the persistence of very low leasing

Comex/Nymex: Non-commercial Net Positions



Leasing Rates (monthly average)





rates. Despite the reduction of liquidity, however, leasing rates continued to slide. The 3-month rate, for instance averaged 0.11%, down from 0.13% in the June quarter and the 6-month rate 0.14%, down from 0.15%.

Physical offtake appeared to falter in the latter stages of the quarter with bullion imports in a number of key markets down qoq. Net Indian bullion imports, in Q3, for example, look to have fallen at least 70 tonnes in comparison in Q2, while imports into Saudi Arabia and Dubai are also thought to have declined. News was little better for western jewellery fabrication centres, where consumption is thought to have deteriorated; in part due to the dent that consumer confidence has taken from rising energy prices.

Mine production in Q3 was estimated at 21.47 Moz (667.7 t) a 3% or 0.64 Moz (20 t) increase compared to the corresponding period in 2004. Most of the growth was delivered by new mines with additional support from China where provisional data suggests an increase of around 9% yoy. Production in Russia, in contrast, was essentially flat year-on-year and South African mine production continued to contract.

New mines contributing to the better Q3 results included Barrick's Lagunas Norte that generated 0.21 Moz (6.6 t) of gold in the three months to September, Newcrest's Telfer, 0.13 Moz (4.2 t) and Glamis Gold's El Sauzal mine, 42,185 ounces (1.3 t). In recent developments it is worth highlighting the start-up of Barrick's Veladero mine in Argentina, which made its first pour on the 15th September and Glamis Gold's Marlin mine in Guatemala where commercial production got under way on the 1st November.

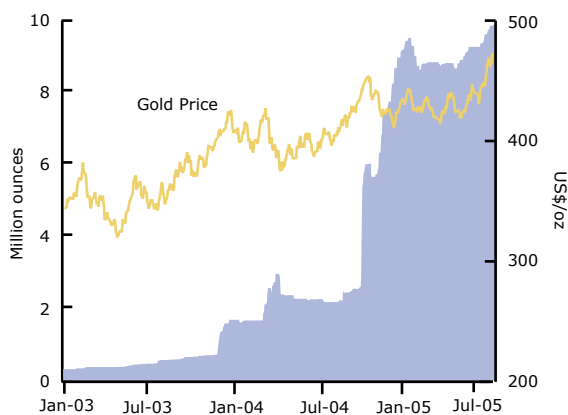
## Composition and Sensitivity of the Global Hedge Book

A provisional 0.99 Moz (30.8 t) was cut from the delta-adjusted hedge book in Q3 2005. The net decline was the result of a 1.62 Moz (50.4 t) drop in forwards (including gold loans) being partially offset by a 0.63 Moz (19.6 t) increase in the options portion of the book. The Q3 decline fell far short of the average quarterly reduction in 2004 (3.43 Moz, 107 tonnes) and represented a 78% decrease from the levels recorded yoy.

Breaking down the net decline in the forwards and gold loans category, the former was scaled back by 2.01 Moz (64.3 t) qoq, while gold loans (due to a restructure completed by Lihir Gold) increased by 0.45 Moz (13.9 t). The net result left outstanding forward sales and gold loan contracts at 42.5 Moz (1,322 t), a decline of 1.6 Moz (50.4 t) qoq. On the options side the nominal vanilla options book increased a fraction to reach 16.6 Moz (517.9 t), while the non-vanilla products were trimmed back by 0.11 Moz (3.4 t).

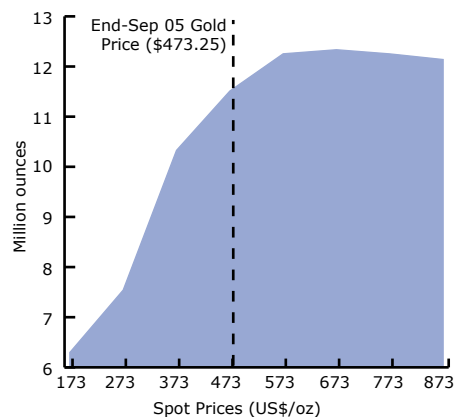
The slight increase in the vanilla options position was significant, not in its magnitude, but in its direction. This was the first increase in nominal contracts for more than 10 quarters; a stretch that on average has seen the nominal position decline by 1.87 Moz (58.1 t) per quarter. In terms of instruments, the overall increase in the Q3 nominal vanilla options book was explained by an increase in the net call position, which rose roughly 56,000 ounces (1.8 t), partly offset against an approximate 51,000 oz (1.6 t) cut in the net put position.

**Gold ETFs & Other Similar Products**



Source: GBS; CFC; CGT; Absa; State Street; BGI

**Q3 Options Delta Adjusted Position**





On a delta basis, and with the significant increase in the end period spot price used to value the options in mind, the increase in the net delta hedge position, up by 0.67 Moz (20.7 t) qoq, was not a surprise. On a product basis the described net increase was the result of a significant 0.85 Moz (26.3 t) rise in the net delta call position partly offset by a 0.18 Moz (5.6 t) decline in the net delta put position.

As alluded to above, a key driver in the steep rise in the net delta hedge vanilla options position was the sharp increase in the gold price at the end of the period used to value the contracts. The price (pm fix) at end-Q3 stood at \$473.25 versus \$437.10 at end-Q2, some \$36.15, or 8%, higher qoq.

The impact of the higher gold price on the valuation of the contracts can be part illustrated by the change in the implied delta's calculated against the option positions, which increased against the net vanilla options book by 5% qoq. In absolute volumes the most important factor behind the stated increase was a 6% rise in the delta hedge sold call position. To further illustrate the sensitivity of the net delta options position to shifts in the gold price, the global options book at end-Q3 (including the non-vanilla products) has been modelled against changes in the spot gold price in the chart on page 5.

### Company Activity

Leading the group of de-hedgers for the second consecutive quarter, Placer Dome continued to deliver into its maturing contracts and in so doing achieved a significant 0.21 Moz (6.4 t) reduction in its forward sales, a 35,000 oz (1.1 t) drop in its sold call contracts

Sensitivity of Q3 Options Book					
Move in Volatility (%)	Move in Gold Price				
	-200	-100	0	+100	+200
+4	-7.99	-10.27	-11.29	-12.06	-12.23
+2	-7.78	-10.29	-11.39	-12.15	-12.28
+1	-7.67	-10.30	-11.45	-12.20	-12.31
0	-7.54	-10.33	<b>-11.51</b>	-12.25	-12.33
-1	-7.40	-10.36	-11.58	-12.30	-12.36
-2	-7.26	-10.40	-11.64	-12.35	-12.37
-4	-6.92	-10.53	-11.79	-12.43	-12.39

Source: GFMS

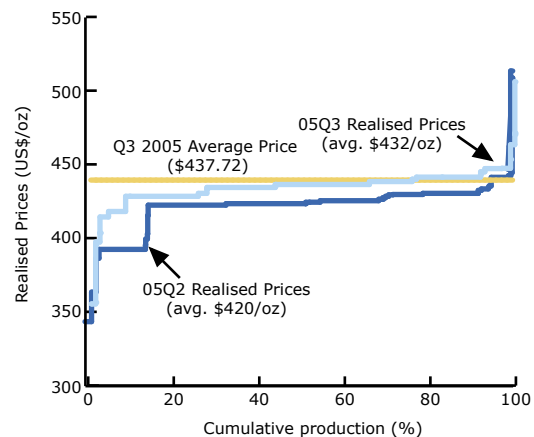
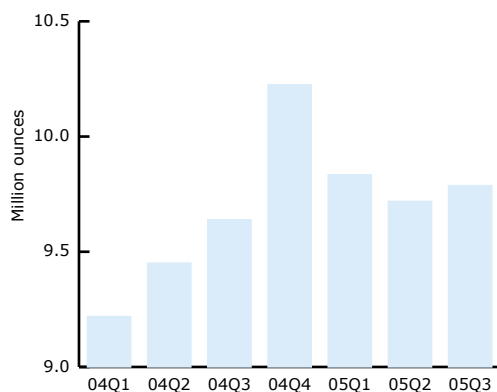
**Note:** the delta-adjusted options book at end-Q3 was calculated at 11.51 Moz. The matrix above shows changes in the delta-adjusted volume under different gold prices and volatilities.

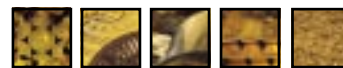
and a 49,000 oz (1.5 t) cut in its sold barrier call contracts. Including the company's put options and bought barrier call contracts the nominal book at end-Q3 totalled 9.49 Moz (295.1 t), a 4% decline qoq. This corresponded to a net delta hedge position of 8.15 Moz (253.3 t), a 5% decrease from the end-Q2 position.

Newcrest, meanwhile, made 0.35 Moz (10.9 tonnes) of scheduled deliveries against their forward sales as well as a 0.03 (1.1 t) cut to their gold loans. Barrick scaled back their book by a similar volume with a 0.30 Moz reduction consisting of 0.20 Moz (6.2 t) of "fixed-price corporate gold sales" commitments and 0.10 Moz (3.1 t) of "floating spot-price gold sales" contracts, leaving their total outstanding contract commitments at 13.60 Moz (423.0 tonnes).

AngloGold Ashanti, the final member of the group of the industry's four largest hedgers (Placer, Newcrest, Barrick and AngloGold Ashanti account for roughly two thirds of the nominal global hedge book) was the only

### Top Twenty Gold Mine Producers Realised Prices in Q3





## Barrick Sets Sights on World's Number Five

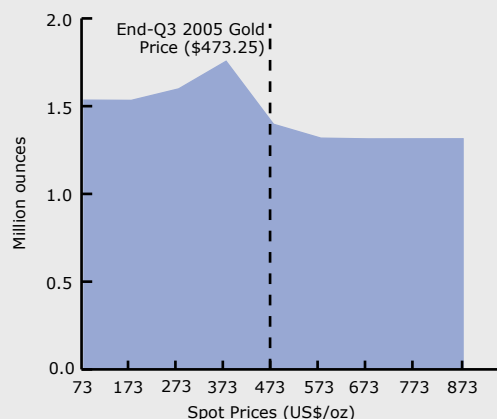
Barrick made an unsolicited offer to acquire all outstanding shares of Placer Dome on the 31st October for approximately \$9.2 billion. The deal is still waiting for regulatory and shareholder approval but if it should go ahead, under an agreement with Goldcorp, Barrick announced they would sell Placer's equity share of their Ontario properties (Campbell, Musselwhite and Porcupine), as well as La Coipa and a 40% stake in the Pueblo Viejo project.

In nominal terms at end-Q3, Barrick and Placer Dome possessed the largest and third largest hedge books in the industry at 13.60 and 9.49 Moz (423.0 and 295.1 tonnes) respectively. Consequently, should the consolidation of the two companies occur, not only will the new company be the largest gold producer (in 2004 Barrick was ranked as the world's third largest while Placer came in as fifth), but will also own the largest hedge with close to 40% of the nominal global book.

Key statistics for the two majors and the combined position of the possible company that could emerge from this deal are shown in the table below. To enable analysis on a full year basis 2004 data has been used. Similarly, the hedging data used was for end-2004 rather than 05Q3 data so as to ensure a like-for-like comparison. Since the end of last year, Placer Dome has reduced their nominal hedge position by 1.43 Moz (44.5 tonnes) and Barrick by 0.4 Moz (12.4 tonnes).

Regarding the combined hedge position of the two producers, the integrated book would be dominated

### Placer Dome Options Book, end-Q3



by simple forward sales, which in nominal terms would account for roughly 88% of the total hedge. The nominal options book at end-Q3 (which entirely relates to Placer Dome's book as Barrick's book is composed of 100% forwards) would amount to 2.74 Moz (85.3 t) or 12% of the total nominal combined hedge book.

The high proportion of forwards in the integrated book means that the hedge book is relatively insensitive to both price and volatility movements, with a \$100 spot price decline leading to a modest 1.7% increase in the outstanding hedge book, while a \$100 rise in the gold price leads to a 0.4% decline in the position. Stripping out the forward sales, the options-only hedge book is more sensitive to movements in the spot gold price as illustrated in the graph above that charts Placer Dome's net delta hedge against \$100 shifts in the gold price. At end-Q3 (spot price \$473.25/oz) the net delta volume totalled 1.40 Moz (43.5 t). With a \$100 spot price decline the position increases by a substantial 26%, while a \$100 price rise leads to a 6% decrease in the net delta options position.

### Mine Production, Reserves and Outstanding Hedge Position

(Moz)	Mine production <sup>i</sup>	Reserves <sup>ii,iii</sup>	Nominal position <sup>ii</sup>	Years of production hedged	Reserves hedged (%)	Cash costs <sup>i</sup> (\$/oz)	Realised price <sup>i</sup> (\$/oz)
Barrick	4.96	89.06	14.00	2.8	15.7	212	391
Placer Dome	3.65	59.92	10.92	3.0	18.2	240	391
Proposed company <sup>iv</sup>	7.94	143.94	24.92	3.1	17.3	-	-

i Full-year, 2004

ii End-2004

iii Based on CIM 43-101 standards

iv Mine production and reserves data excludes contributions from Campbell, Musselwhite (68%), Porcupine (51%) and La Coipa (50%)



major to report an increase in its hedge position. The company stated that the total net delta volume of the hedge book at end-Q3 amounted to 10.68 Moz (332.2 t) compared to 10.32 Moz (321.1 t) at end-June, a 3% or 0.36 Moz (11.1t) rise qoq.

The increase was explained by a rise in the net volume of nominal open options that increased from 5.36 Moz (166.6 t) as reported at end-Q2 to 5.82 Moz (181.2 t) at end-Q3. In terms of instruments the noted growth in AngloGold Ashanti's position was chiefly due to a reduction in the volume of sold put options (US dollar denominated positions due to mature in the current year were slashed by 0.15 Moz, 4.7 t) and purchased call options (the balance of Australian dollar denominated contracts scheduled for 2005 were eliminated and those dated in 2006 were reduced by 50%). In addition to the rise in the book in nominal terms the net delta end-Q3 position was further impacted by the higher end spot price used to value the options. The increase in the option portion of the book was partially offset by a 0.25 Moz (8.0 t) reduction in forward sales.

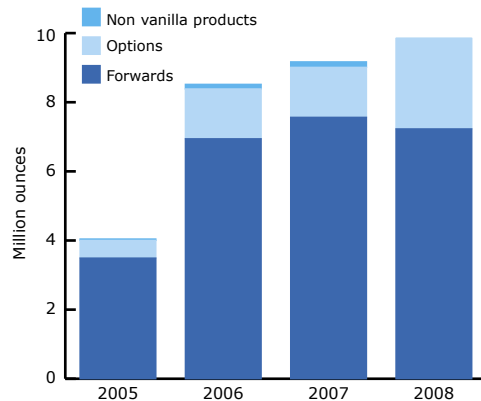
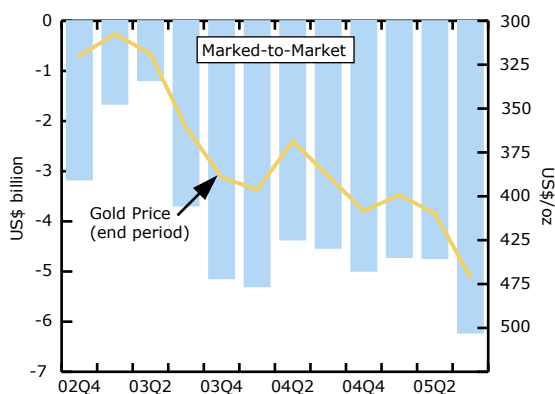
Outside of the big four, positions were broadly run down as producers continued to deliver into scheduled commitments; Buenaventura, Oxus Gold, Western Areas, Emperor, and Inmet all made modest reductions to their hedge cover. Lihir's book also registered a slight decline, but of more interest was a major book restructure completed in September involving a reduction in near-term committed ounces through to 2008. The new delivery profile has been extended out to 2013 rather than to 2010 in the old profile, with peak deliveries now scheduled for 2009 as opposed to 2007. Overall, Lihir's forward sales and gold loan obligations were reduced by 0.05 Moz (1.6 tonnes), while their

Top De-hedgers 2005		
(delta-adjusted, spot basis)		
Company	% of gross decline	decline in Moz
Placer Dome	21%	0.43
Newcrest	19%	0.39
Barrick Gold	15%	0.30
Buenaventura	5%	0.09
Xstrata*	3%	0.06
Lihir Gold	3%	0.06
Oxus Gold*	2%	0.04
Kingsgate Consolidated	2%	0.03
Inmet	2%	0.03
Western Areas	2%	0.03
*estimate		
Note: Delta-adjusted volumes are calculated on the basis of published company data. As such disclosures are not exhaustive, the GFMS calculated position may not exactly correspond to the delta position reported by the company. In addition, GFMS values the contracts on a spot delta basis, whereas some companies report positions on a forward delta basis. This can lead to minor discrepancies between the calculated and reported delta-adjusted volumes.		

delta-adjusted options position declined by 0.01 Moz (0.2 tonnes). The company explained that the changes were implemented to align the delivery profile more closely to forecast production.

There were a number of hedges put in place during the quarter, the most significant being Sino Gold's project related hedge at Jinfeng, which is anticipated to enter production in 2006. Sino undertook two new hedging commitments during the quarter. Firstly, the company extended their spot deferred contract position from 0.04 Moz (1.1 tonne) to 0.18 Moz (5.4 tonnes). In addition to the forwards, Sino purchased 0.20 Moz (6.3 tonnes) of nominal puts with expiries between 2007 and 2009.

**Marked-to-Market Gold Hedge Books**      **Delivery Profile End Q3\* (base case)**



\*potential de-hedging based on contract year of delivery/expiry



Fresh hedging was also completed by Oceana Gold, which added 0.05 Moz (1.4 tonnes) of forward sales in Q3 following their announcement in Q2 that it was company policy to hedge approximately 80% of production. Lastly, there was fresh hedging by Resolute and St. Barbara. The latter, previously unhedged, purchased put options for 40,000 oz (1.2 t) of gold to “provide gold price protection on the downside” while Resolute added 0.10 Moz (3.2 t) to its forward book and 0.14 Moz (4.4 t) to its nominal vanilla option book.

In Q3, producers’ realised prices ranged from \$354 to \$505/oz, with a weighted average of \$432/oz, a shortfall of roughly \$8/oz against the average Q3 spot price. The realised price was \$12/oz higher qoq, representing a 3% increase, in line with the higher gold spot price. The mark-to-market value of the global hedge book (for the companies that report the data) was calculated at negative \$6.2 billion, a substantial deepening of \$1.49 billion or 31% against the end-June position.

<b>Total Nominal Positions, Percentage Change qoq</b>				
<b>Region</b>	<b>Forwards &amp; Gold Loans</b>	<b>Calls Sold</b>	<b>Puts Bought</b>	<b>Net Vanilla Options</b>
North America	-3%	-7%	-12%	-9%
Australia	-4%	29%	26%	27%
South Africa	-4%	-3%	-8%	3%
Other	-9%	-10%	-9%	-10%
<b>Total</b>	<b>-4%</b>	<b>-3%</b>	<b>-5%</b>	<b>0%</b>
Source: GFMS				



## Technical Annex

GFMS has carried out a rigorous analysis of 93 mining companies' hedge positions. These companies incorporate the vast majority of those enterprises that carry out some type of hedging activity.

The GFMS analysis utilises the Brady Trinity™ Risk Management and Trading system. Each mining company's individual trades have been input into the Brady Trinity system.

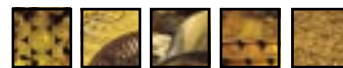
The use of the Brady Trinity system is particularly relevant for the analysis of mining companies' options positions. We have entered each option trade by mid-year of expiry. Moreover, non-vanilla products such as convertible forwards have been broken down into their constituent options. This analysis enables us to accurately obtain key parameters and valuations for each instrument used by each company and subsequently for the global hedge book as a whole. This methodology also allows us to model the delivery profile of the hedge book.

All forward contracts, including spot deferred, floating rate forwards and fixed rate forwards, are input as forward sales. Options contracts, including cap and floor agreements, are entered as their constituent vanilla put and call contracts. Convertible and contingent options are unbundled into their constituent barrier options contracts. Trigger levels for barrier options are taken as the mid-point of published ranges, where available. Convertible forward contracts are modelled as a barrier call option combined with a vanilla put option.

In terms of the GFMS analysis, the key parameter of interest is the **delta-adjusted** position. As explained in the glossary, the delta of an option (or indeed of a forward) is the rate of change in the value of the derivative for a change in the price of the underlying. In the case of a gold forward sale (or purchase), the forward delta is 1, whilst in the case of an option, this delta is derived from the Black-Scholes option pricing formula.

The counterparties to mining companies' hedging activity (typically banks) will dynamically hedge their exposure through delta hedging. For example, suppose a mining company purchases a put option. The writer of the option (a bank) will be long the delta volume. In other words, if the delta of the option is +0.5 and the nominal volume of the trade is 100,000 ounces, the delta volume will be 50,000 ounces (of which the bank will be long). To hedge this exposure, the bank must therefore undertake a transaction that yields an equal and opposite position (i.e. short). This will typically be achieved by the bank borrowing gold (normally from a central bank) and selling this into the spot market. Through this mechanism, mining companies' hedging activities impact directly on the spot gold market.

It should be borne in mind that the value of an option, as well as the delta, will change in response to movements in key parameters, particularly the spot gold price, but also market volatility, interest rates and time to expiry. In response to this, banks will continuously or dynamically adjust their delta hedge position.



## Glossary

**Option** - An option contract gives the holder the right, but not the obligation, to buy or sell gold at a predetermined price on or by an agreed date.

**European Option** - An option that can only be exercised at the expiry date.

**American Option** - An option that can be exercised at any time prior to the expiry date.

**Put Option** - An option contract which gives the buyer the right, but not the obligation, to sell a specified amount of gold (or other asset) at a predetermined price (the strike price) on or before a specified date (expiry date).

**Call Option** - An option contract which gives the buyer the right but not the obligation to buy a specified amount of gold (or other asset) at a predetermined price on or before the expiry date.

**Barrier Option** - An option whose outcome depends on the performance of the price of the underlying during the life of the option and whether that price breaches a predetermined barrier.

**Forward** - A transaction in which two parties agree to the purchase and sale of gold at a future date.

**Gold Lease Rate** - The cost of borrowing or return from lending gold, the daily level of which reflects the supply and demand for metal in the lending market.

**Writer** - The writer or grantor is the party who sells the option and receives that premium income.

**Long** - A position in an asset (e.g. gold) for which the value will rise should the price of that asset rise.

**Short** - A position in an asset (e.g. gold) for which the value will fall should the price of that asset rise.

**Delta** - The rate of change of the price of a derivative with the price of the underlying asset.

**Gamma** - The rate of change of delta with respect to the asset price.

**Theta** - The rate of change of the price of a derivative with the passage of time.

**Vega** - The rate of change of the price of a derivative with volatility.

**Rho** - The rate of change of the price of a derivative with the interest rate.

**Greeks** - The basket term for the above hedge parameters (delta, theta, vega, gamma, rho).

**Underlying** - Shortened term for the underlying commodity on which forwards and options are traded (i.e. in this case gold).

**Delta Hedging** - A hedging scheme that is designed to make the value of a derivatives portfolio insensitive to small changes in the price of the underlying.

**Black-Scholes Model** - A model for pricing European options. Developed by Fischer Black, Myron Scholes and Robert Merton. See F. Black and M. Scholes "The Pricing of Options and Corporate Liabilities" *Journal of Political Economy* 81, 1973 and R.C. Merton "Theory of Rational Pricing" *Bell Journal of Economics and Management Science* 4, 1973.

**Vanilla/Non-Vanilla** - Vanilla options are simple put and call options, whilst non-vanilla options are more complex, with pay-offs dependant on a variety of market factors, such as price paths or the price of alternative assets.

**Volatility** - A measure of the uncertainty or rate of change of an asset price.



## About Investec

[www.investec.com/UnitedKingdom/](http://www.investec.com/UnitedKingdom/)

Investec is an international, specialist banking group that provides a diverse range of financial products and services to a niche client base, primarily in the United Kingdom and South Africa, as well as other countries including Australia, the United States and Israel. Investec has four principal business divisions, namely Treasury and Specialised Finance, Investment Banking, Private Client Activities and Asset Management.

Investec Commodities trades in precious and base metals and provides hedging and structured trades for clients in both the physical and derivatives markets. Based in both the UK and South Africa, they are members of the London Metals Exchange, the London Bullion Market Association and the London Platinum and Palladium Market. They also operate an energy business focussing on structured transactions.

## About GFMS

[www.gfms.co.uk](http://www.gfms.co.uk)

GFMS Ltd, the world's foremost precious metals consultancy, specialising in research into the global gold, silver, platinum and palladium markets. GFMS is based in London, UK, but has representation in Australia, India, Russia, Germany and China, and a vast range of contacts and associates across the world.

GFMS is credited with producing the most authoritative surveys of the gold and silver markets, the annual Gold Survey and World Silver Survey, and produces a range of other publications dealing with all aspects of the precious metals markets. GFMS also provides consultancy services in the form of tailor-made research into selected areas of the precious metals markets. GFMS' research team of fifteen full-time analysts comprise experienced economists and three geologists.

## About Brady plc

[www.bradytrinity.com](http://www.bradytrinity.com)

Brady is a Software Solution provider whose main product, Trinity, is targeted towards Corporate Treasury in the Metals and Mining Industry. Trinity specialises in Physical Material Management, Financial Transaction Management, Treasury, Risk & Contract Management. Brady is acknowledged as the leading provider of Trading and Risk Management Software for the global metals marketplace, installed with producers, fabricators, merchants, banks and brokers around the globe. Headquarters are based on Cambridge Science Park in the UK. Brady floated on AIM in 2004.



**GFMS Limited**

Hedges House

153-155 Regent Street

London, W1B 4JE

United Kingdom

Tel: +44 (0)20 7478 1777

Fax: +44 (0)20 7478 1779

E-mail: [gold@gfms.co.uk](mailto:gold@gfms.co.uk)

**[www.gfms.co.uk](http://www.gfms.co.uk)**