FUTURE OF GOLD:

A ROUNDTABLE

Loews Miami Beach Hotel

June 18, 2002

INTERNATIONAL PRECIOUS METALS INSTITUTE

&

CPM GROUP

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Welcome to the Future of Gold Roundtable

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President, International Precious Metals Institute

Welcome to the IPMI Roundtable Conference on the Future of Gold. This is something of a new format for us. Today, IPMI has carved out one day of its Annual Conference to focus on one subject. It is a broad subject, the very future of the gold market.

Our intention in arranging this meeting has been to bring together in one room all of the groups that have an interest in the gold market to discuss the problems and opportunities facing the market. To do this, we invited groups, companies, and individuals to be here that have not been frequent attendees of IPMI events, allowing us to have as broad a representation of the gold industry and market as possible.

We originally conceived the idea of a Future of Gold Roundtable in April 2001. At that time, the gold market was on its back. The price was low and going nowhere. There were the usual clarion calls that gold was dead as an investment. Some of our well-known Cassandras were dusting of their forecasts that gold would fall to $210, $150, or even $80 per ounce. Investors did not want gold and never would. Central Banks would be large sellers of gold forever. Mines would produce ever-larger volumes of ever-cheaper gold and should the price ever show signs of rising, all of the jewelry sold over the last 5,000 years would come flooding back as scrap.

There were real problems for gold. Let’s not fool ourselves. Let’s not be so naive as to suggest that they all have disappeared, simply because the daily price of gold has rallied from $270 to as high as $328 per ounce.

Among the real problems still facing the market is that the banking and trading services being provided to all but the largest gold miners are contracting. The market is shrinking. It remains murky and cloudy for users and producers alike.

As difficult as it is for medium-sized mining companies to find a bank to trade gold with them, it is that much more difficult for refiners, jewelers, and the thousands of small users of precious metals worldwide to find banks or dealers that will trade with them at reasonable levels.

In that environment, various groups have circulated any number of proposals as to what is needed to revive the gold market. One group proposed that producers give $45 million over three years in cash or gold to promote gold jewelry. Another is touting complex, gold-linked derivative products that banks would offer small and large investors to allow them to buy gold, overlooking the fact that banks were getting out of the business. Meanwhile, most of the few banks remaining in that line of gold banking were raising the minimum levels for gold notes from $10 million to $20 million. Other voices were calling for a return to an international gold monetary system. Still others were calling for a private-sector gold monetary system based on the Internet that would supercede government monetary systems.

The list of ideas went on and on.

So, in the true spirit of IPMI, we thought, let’s try to get everyone in the same room and talk about this for a full day, just to bounce ideas around and get some valuable feedback. We would not expect to reach any specific conclusions or to reach a consensus that would solve all the world's gold market problems.

Our original plan was to hold the Future of Gold Roundtable in New York last November on the day before the annual COMEX dinner. The COMEX dinner, the Roundtable, and all the other events planned for New York that week were cancelled following destruction of the World Trade Center on September 11.

For those of you who do not know, the World Trade Center was a former home of the COMEX/NYMEX. They moved across the street to the World Financial Center a few years ago. If they had not moved, perhaps we would now have even more problems about the future of gold.

We then decided to take the last day of our usual three-day Annual Conference and dedicate it to the Future of Gold. The IPMI is the right place for this forum. IPMI is perhaps the only industry organization that does not promote a market position. Our organization is dedicated to providing a forum to all sectors of the precious metals community, allowing open discussion of all issues related to these metals from the technical aspects to marketing to financial trends.

We are not a group of producers seeking to stimulate jewelry or investment demand. We are not a group of consumers seeking to keep prices as low as possible. We are not a group of bankers seeking to focus on trading activity in our particular market.

We are instead a group of producers, refiners, dealers, users, bankers, and others that have come together regularly for more than a quarter of a century to discuss in an honest and open forum the pertinent issues facing our industry and markets.

That is why we are here today.

Panel 1: Future of Gold – Markets, Trends, and Conditions

Robert Guy, Moderator

Robert Guy:

The gold market, as you know, has had a very encouraging rally in recent weeks and months. A question for our panel today is whether there has been a fundamental change in the market or simply a temporary reversal in a long-term bear market?

For more than four years, gold suffered, the dollar was strong, and gold as a hedge against inflation was out of favor. Inflation fell and is still low. Gold, the ultimate reserve asset, saw its status diminished. Some Central Banks reduced their gold reserves or even sold them in their entirety, something that previously would never have crossed their minds.

I remember listening to the Director of a well-known Central Bank who said, "We could not possibly sell our gold reserves. There would be rioting in the streets. I promise you we will never do so." He was the Director of the Central Bank of Argentina, and we know what happened after that.

Meanwhile, the gold-mining industry went through a very difficult time. There was an intense effort to lower the costs of production to offset the decline in price. New technology was developed. I have the greatest respect for the way the mining companies reacted to this new challenge. But no matter how efficient they became, they had to continue to write down the value of their assets. It was a tough time for them.

As far as the banks were concerned, it is well known that many banks trimmed back their gold-related activities, and some of them actually withdrew from the business.

Today, inflation remains low, but the dollar is weakening. The market is more sanguine about its ability to absorb Central Bank sales. A second Washington agreement, I think, will cap their sales at a reasonable level.

So things are changing. More immediately, gold is drawing strength from geopolitical tensions and stock market weakness.

But, has a fundamental change taken place?

It is the job of this distinguished panel to provide an answer.

Will the current investor enthusiasm for the unhedged mining companies result in a further reduction in hedge books, thereby offering further support to the gold price? Or will this un-winding, because it is only temporary, have no long-term impact?

Will the bullion banker of the future be concentrating on financing demand, rather than supply?

Finally, will the recovery of the gold price cause a re-think by the Central Banks about the role of gold as a reserve asset? Or will the higher price actually encourage an increase in official sales?

Dale Henderson:

(Mr. Henderson qualified his participation by noting that he would be offering his own opinions and not those of the Federal Reserve System.)

Today, I am going to focus on the possible implications of large government gold stocks for the gold market. My presentation is based on studies done in the late 1990s, when the gold price was around $350 per ounce. At that time we used $250 per ounce as a notion of the cost of extraction. We estimated the cost and benefits of the sale of all government gold stocks of all countries immediately or at various times in the future. Here I will focus on the benefits of an immediate sale as opposed to no sale.

At the time we did the work, we estimated that the sale of all government gold would cause the price to drop from $350 to $275 per ounce. We also estimated that there would be large net gains to the world as a whole on the order of $340 billion in 1997 dollars.

However, we found that even though there were large net gains, there were both gainers and losers. Gainers included depletion users like electronics and dentistry and service users, such as people who enjoy and wear jewelry. Losers would include private stock owners, jewelry owners, and particularly mine owners.

Jewelry wearers are usually the same people as jewelry owners, i.e. the people who get service from the stock are the people who own it. And it turned out from our analysis that the gains of the wearers almost exactly offset the losses of the owners. The big losers were the mine owners. They lost on the order of $133 billion (1997 dollars). However their loss was less than half the governments' gain, which we estimated to be $297 billion. So the gold miners could have been compensated for their losses.

People sometimes find it difficult to understand why the government would gain if the price falls. The reason, of course, is that the government would be exchanging an asset that does not earn interest for one that does. In time, the earnings gain would overtake the loss of value.

Central Bankers often ask why would we ever sell gold if such sales would cause the value of our reserves to decline? But they miss the point that they will be earning interest on the proceeds.

A possible problem with implementing a sale of gold would be that the government would have to pay compensation to the mine owners if everybody was going to be better off. As the World Gold Council has pointed out, some of those miners are located in poor countries, and in some cases this would involve transfers of proceeds from an industrial country to a poor country.

Now, economists are used to assuming things, so they just assume the compensation would be paid and go blithely on. And of course, compensation is almost never paid to people who suffer from changes in government policy, though it might be in this case.

How has the situation changed since the late 1990s and our analysis? First, the price fell to around $270 per ounce, maybe even a little lower. There were very significant sales by industrial countries. One reason for the decline in price might have been that the market thought it was going to get most or all of the official gold, and that could cause the price to drop.

Of course if the governments do intend to sell, and the markets think they will, driving the price down, governments should sell and benefit from getting the interest income. Most of the private gains or losses have already occurred.

One important development was the 1999 Washington Agreement, in which governments announced exactly what their policies were going to be over the next four years. It goes without saying that it is very helpful when governments are as clear as they can be about what their policies are going to be.

Another influential decision was the IMF decision not to sell its gold.

Kelvin Williams:

I want to talk about trends, not specifically about hedging, but that is one of them. The most powerful trend in the gold market today is that the price cycle appears to have bottomed, and the price has moved off that bottom. There is no doubt in our mind, and I would be surprised if there is much doubt in most people's minds, that the past 24 months have seen the bottoming of the long bear market in gold and most recently an upturn from the oversold situation of the late 1990s. Most of the circumstances that have influenced this move have been external to the gold market, and it is important to recognize that the gold producers have only had a small part in influencing the factors that have changed this situation, or the trend in our market.

There are two or three aspects influenced by gold miners. I'll touch on those at the end.

Amongst the major external factors are both economic fundamentals and market changes. Touching on the fundamentals, we could see from late 2000-early 2001 (and AngloGold was repeatedly saying in its quarterly results) that the price of gold had bottomed and was not going down any more. We simply could not see what would take it up.

We had seen by then the end of the boom years of the 1990s. NASDAQ had taken a hit. The equity markets in general started to take hits in 2001. You could see the U.S. economy moving slower and slower and finally into recession. Later in the year, high-profile corporate failures further dented the U.S. confidence that this great equity bull market could go on forever. The terrorist attack of September 11, the most awful of events, really dented the belief that the equity markets were impervious to any impact from the world or the economy.

That change in confidence and economic circumstances encouraged investors to move away from the equity boom of the 1990s and look at other areas, including the traditional safe haven of gold. And in 2002, those circumstances have seen the shift of a limited amount of investment money into gold.

The weakening of the dollar is probably the most critical factor in the market today, although weakness in the equity markets and international tensions have done their bit to interest people in buying into gold.

But, the steadiest of the indicators has been the weakness of the dollar.

Elements within the mining sector that have contributed to this swing toward gold obviously include the change in the attitude toward hedging and the process whereby certain gold producers, though not all of them, who have previously hedged future production have elected to deliver into those forward price contracts and not replace them. This has the direct effect of removing new sales of gold from the market. There has been some buying back, but the buying back has been much smaller on the whole. We have done some buying back, but the major process has been delivering into existing contracts. That in effect eliminates current gold from the market, and it means that those buying for speculative or investment reasons have a much easier ride because there is no lien against them. There is actually a lien in their favor.

As a result, the impact of new buying interest has been much more effective.

It is important to bear in mind that the de-hedging process will not go on forever. But it does happen to be an enormously favorably circumstance for now.

The second and longer-term element in the gold-mining sector that will contribute to the upward trend in the market is that of consolidation. We know from our own experience that this exceptionally fragmented industry lends itself to irrational behavior in many respects because it is so fragmented.

AngloGold's size has given it a willingness to cut marginal production. We think that was responsible behavior, with, I think, virtuous financial results. We are a profitable company. We pay dividends. We think this is the correct way to go, and we think that with consolidation and larger mining groups, we might see the same process going forward.

Phyllis Casey:

Today, I am going to discuss current conditions and trends affecting the gold market.

First, let me identify Fleet's role in the precious metals business. We act as a lender of metals — gold, silver, platinum and palladium, and copper — to users primarily in the United States. Also, in conjunction with Fleet's brokerage and wealth management network, such as trust services and Quick & Reilly and through our retail franchise, we offer various investment products to bank clients.

My role as a senior trader is to fund the metals portfolio and manage the risk from an interest-rate perspective as well as participating in managing the price risk of the commodities we trade. This involves borrowing metal from Central Banks as well as hedging metals through transactions with other bullion dealers and on futures exchanges. Our physical traders handle deliveries to customers in the United States as well as sourcing metals around the world for those who have products manufactured elsewhere.

Regarding the current conditions and trends in the gold market, the price of gold has been reacting positively to the negative news and events in the world. September 11th seemed to be a turning point for gold, and since then, there has been a return to the safe-haven role that gold once held. The market has been increasingly sensitive to world tensions, especially the Israeli/Palestinian situation and the controversy over the Kashmir region between India and Pakistan.

In addition, we have seen a flight to quality in Japan and Argentina, with their banking and currency crises. In the United States, equities are not yielding the same gains realized in previous years, and the Enron collapse has caused investors and speculators to question the value of equities in general. Interest rates are low; therefore interest-bearing instruments are not overly attractive.

Coupled with low interest rates has been a reduction of mine hedging, as there is less revenue enhancement to be gained by forward sales and perhaps a philosophical change in their outlook and activities. We have seen gold very responsive to moves in U.S. equities and the U.S. dollar, as good or bad economic news seems to drive investors in and out of those markets.

On the fundamental side, in 2001, we saw a drop of about 7% in U.S. demand for gold for jewelry, which is still the number one use of gold in the world.

What is the future of gold? If we assume that a higher price is best for the market, then is it sustainable? A higher price benefits investors, Central Banks, and mines that are already in an ownership position. It would be in their interest to consider how to best support this market and even capitalize on the current movement.

Past behaviors undertaken by Central Banks and mines may have been self-defeating to a certain point. Lending gold to the user market helps to create demand by making jewelry and other consumer products more available and affordable. However, some lending results in gold ending up in the hands of funds that sell it. This condition helped to drive prices down in the past decade. Mines were aggressive hedgers of future production, also with the net effect of driving the price down. There obviously is a point of diminishing returns for these activities, and the long-term effects should be taken into consideration.

There is an opportunity for the market to offer better investment vehicles for gold. For example, gold would be an ideal investment for insurance companies, as a hedge against potential crisis events.

Currently, gold jewelry has been suffering from platinum and silver competition. There may be an opportunity for the market to increase jewelry sales through more advertising and better product development.

A two-way market similar to the one available to consumers in India might also stimulate a new type of demand for higher karatage gold in both the United States and the United Kingdom.

An increase in R&D may find new uses for gold and should be supported by those with a vested interest.

However, overhanging the market is the specter of increased Central Bank sales. The United States and the Bundesbank are rumored to be considering “mobilizing” their bullion reserves. The Washington Agreement is also due to be renewed in 2004. We have yet to see if the participants will renew and what levels of sales will be tolerated within the confines of the new agreement.

Also, India is still a major buyer of gold. India is primarily an agrarian society, with somewhat repressed rights for women. Should there be changes in the socioeconomic status of women in India and many other countries, would they still choose to carry their assets around in the form of baubles, bangles, and beads?

In summary, the future of gold may be up to the participants in the marketplace and how they support their own market.

George Gero:

I just wanted to add that yesterday NYMEX launched the new mini contracts, which are cash settlement contracts, and we traded some 500 contracts at an average margin of $800.

Robert Guy:

And this is a new way to tap into small investor participation.

George Gero:

Very much so, and it is a very important thing for asset allocation and for that constituency that seems concerned about being involved in margin calls.

Steve Abbriano:

One of the issues I'd like to raise is the promoting of jewelry. Is that really good for the price of gold? Does not promotion of jewelry equate with promotion of a decline in the price of gold?

Kelvin Williams:

I don't think sales of jewelry have anything to do with setting the price of metal. The truth of the matter is that those of us producers who do support the promotion of gold jewelry do so because it provides a floor for the physical market. During 1998 and 1999, whenever the price drifted down to a certain point, who saved the price? The physical takers. India. Dubai. You support physical off-take for no reason other than that, to maintain a healthy floor.

Bruce Hansen:

I would agree. Jewelry demand does provide support for the market. However, investment demand has the opportunity to cause rapid appreciation in the price, and we are seeing more interest in the investment market and people working on alternative investment products. I think there is a degree of support producers can provide for jewelry demand, but it would also be useful at this point in time to work very aggressively to stimulate investment demand.

Ted Leach:

I am a fabricator. I think I can speak with some impunity. I am not trying to push up the price of gold. But as we saw in the long drought period of the 1990s of promotion and advertising of gold jewelry, there was a significant move away from gold. It has been very difficult for those of us who have been trying to build over many, many years a steady support base of off-take.

In the United States, we tripled the amount of off-take from 1980 or so to its peak. I believe that when an ounce of gold is sold to a consumer, it is gone for 50 or 60 years. It is out of the market for a very long time. Fortunately, the World Gold Council has started to promote jewelry again. But you just can't stop. You can't turn it on and off. If you do, you suffer a loss of jewelry customers as we are now in the United States.

Kelvin Williams:

I would like to make one point. I wish when we speak of the producers we in fact meant all the producers. In fact, only 30% of world production is actually contributing anything to the promotion of gold jewelry. Would that the other 70% would do the same.

John Hathaway:

I have a question for Dale. What sort of assumptions do you make in terms of return on capital? If the price of gold were to rise to $500 or more, as some people including myself think it will, would not any return on capital be negated by appreciation in the gold price, whatever return you could get? I just point out that the Bank of England has come under tremendous criticism, at least with

20/20 hindsight, for having sold their gold for what appears a lower price than they could have got if they disposed of it in a more intelligent manner?

Dale Henderson:

Regarding return, our calculation were based on a 2.5% real return. The price of gold might rise to higher levels, but the fact is, it might not. And the Bank of England announced its sales. Whenever you announce sales and then you have them, you then expect the price to rise. Investors have reason to hope. There is the possibility of rental return and then there is appreciation. So the normal expectation is that once you know the stock overhang is not coming, or you know it has already come, the gold price will rise.

Robert Guy:

You are talking about the reinvestment of proceeds to achieve returns. But is that the main reason for holding reserves? It has only been in the last 10 or 15 years that there has been a perceived need on the part of Central Banks to get a return on reserves. They have become something like executive portfolio managers. But is that the role of Central Banks, just to manage a return on reserves?

Dale Henderson:

Well, I also think there is a need for Central Banks to diversify holdings. Studies suggest that in terms of diversification, banks are still too long gold.

Robert Gottlieb:

My experience dealing with Central Banks around the world is that most are not motivated to sell gold by price. Instead, they sell for political reasons. Mostly, it is a response to a political situation. Take for example the Swiss, that situation had nothing to do with price. And many of the Central Banks, as Dale suggested, are selling down gold reserves to manage them as a percentage of total reserves.

George Milling-Stanley:

I'd like to respond to Steve Abbriano's suggestion that promotion of gold jewelry equates with promotion of a decline in the price of gold. We would like to nail that misconception for good.

Faced with criticism that goes to the very heart of what the World Gold Council is set up to do and the way in which we are doing it, we did what all sensible organizations do. We commissioned outside research. We could have done it ourselves, but nobody would believe what we said, so we commissioned reputable outside research, which we ultimately published. It was done by an independent thinker, who sometimes agrees with WGC policy and sometimes takes an entirely opposite view.

He looked at the impact of changes in the gold price on gold demand levels, and specifically local currency prices not just the U.S. dollar price. He looked at all 23 countries where we operate. He also looked at GDP changes in the individual countries as a proxy for economic growth. He found that the link between levels of gold demand and economic growth is more than twice as strong as any discernable link to what was going on in the price.

In other words, if people feel more prosperous, they buy more gold jewelry. It is as simple as that.

Another point, when producers of the 30% of world gold production that does contribute to the World Gold Council were going through hard times indeed in 1997 and 1998, they found themselves constrained to halve the dues that they paid to the World Gold Council. That meant there was a palpable reduction in our spending on the promotion of gold jewelry. And there were consequent declines very specifically in those countries where we had to cut back the most, particularly in the United States.

Now that dues have been restored to former levels, we are running hot and heavy to catch up on the ground that we lost. There was a very obvious impact on gold jewelry consumption.

Phyllis Casey:

I agree with George. We deal with a wide variety of jewelers in the United States. In recent times when gold jewelry was suffering, it had nothing to do with the price of gold. Platinum jewelry costs a lot more. A lot of our manufacturers make platinum jewelry. They tell me that consumers like to buy platinum jewelry because it so much more expensive. They think they are getting something of more value.

I think there is an opportunity for the gold market to promote higher karatage gold jewelry so the consumer gets something of greater real value.

Speaker from the audience:

I would like to say that I believe that the end of sales by the Bank of England and the continued sales by the Swiss Central Bank have been to an extent handled very wisely.

The reason that I wanted to express myself is because I would like to hear some comment on gold coins, gold bullion coins. Is that an area where gold demand has increased?

Steve Abbriano:

There is new investment coming into that area. Where you do see some very interesting investment coming in is from large-net-worth individuals, asking for, perhaps, $5 million worth of coins to be delivered in Aruba, or the Cayman Islands, or where-ever.

Ayman Shahin:

I would just like to throw in my hat for support of the World Gold Council. As a physical taker of gold in Dubai, we really don't see the pickup in the price of gold influencing the take-up in jewelry. Actually, what we notice is that if you promote the jewelry according to the natural seasonal buying of gold, during the wedding season or whatever, regardless of the price, the take-up in jewelry increases.

I think it is important to try to time promotional campaigns with the natural cultural buying cycle to have the greatest effect. But the price, from what we see, is irrelevant. I know promoting gold can in fact also increase demand for platinum or diamond jewelry. But most of the people in the gold business are also supplying platinum jewelry or diamond jewelry.

John Hathaway:

I think all of this conversation about jewelry and physical off-take is very interesting, but I think it is very important to keep in perspective that if you took one-tenth of one percent of the world financial assets of $35 trillion, it would equal about 3,500 tons of incremental demand.

So, I am very supportive of the Gold Council for promoting jewelry, but I think much more could be done about the difficulty of borrowing physical metal for the average investor. If a way could be found for the guy who has an account at Merrill Lynch or Schwab to call his broker and say I want to buy "x" amount of gold, that would tremendously change the picture. I believe that sort of thing is on its way and that it will be quite an eye opener for people in the market. I think we could bid the United States out of its gold in two years.

Jeff Christian:

I would like to draw attention to another concern, and that is what we at CPM group feel is liquidity contraction in the gold market, the loss of depth and breadth. The number of large players is shrinking. The number of players on Wall Street is shrinking. Volumes are shrinking. One of the concerns that we have is that the gold market will become and will continue to be under-served by the banking industry.

Bruce Hansen:

I think that the bullion banking industry, in order to expand itself and grow healthily going forward, needs to see the light in terms of where the market is and where it is going. Market growth will come through stimulation of investment demand, not from bullion banks fighting over the scrap heap of the remaining producers that are hedging or rolling-over hedges.

We are not seeing people buy exotic derivatives any more. Central Bank flows are minimal in terms of margins. The physical business is a fairly low-margin business. The bullion banking industry has to see growth opportunity in helping to stimulate investment demand. That is where their growth is going to be if they are going to survive.

Kelvin Williams:

The danger is that the bullion banks are not geared to handle the retail industry. I don't think its going to be a question of bullion banks changing from their traditional business of lending to jewelers and hedging with producers to becoming a retailing bank. A new paradigm and new counter-parties would be needed.

James Turk:

Returning to an earlier subject, Robert Gottlieb mentioned that it was not price but political decisions that caused Central Banks to sell. I would just like to emphasize that from an interest-rate point of view.

There is this theme that if the Central Banks sell and diversify, they are going to be better off. However, the market understands that there are risks to the various national currencies, over and above the risk of gold as money. To assume that you can get a higher interest rate by selling gold and buying currencies is to assume that you can out-judge the market's perception of interest-rate risk. I think that it is unreasonable to assume that Central Bankers can out-judge the market.

John Hathaway:

I want to comment on that point. The dollar is probably the most over-owned Central Bank reserve asset. If the central banks want to diversify, they should think about divesting their dollars, which represent 76% of Central Bank reserves. In that process, I think gold will find some appeal, which seems to have escaped a lot of Central Bankers.

Jonathan Potts:

There have been a couple of comments about distribution to the retail investor. And while probably most bullion banks have reduced their activity or got out of the business, there is still a pretty good distribution network out there. Our company sells services through a network of banks and brokerage houses across the country. However, if you go to one of the major wire houses and ask a broker “As a small investor can I buy gold?” nine times out of ten that broker will say, “No, we don’t do that.” When in fact they do have a program in place. But it is so buried in their system that the broker may not be aware of it.

So the broker will promote gold stocks instead, which pay better as well, in terms of compensating the broker. The distribution system does exist. The problem is the lack of awareness on the part of the banks and brokers that they have this capability and on the part of the public that they can find a place to buy gold.

Panel 2: Future of Gold – Gold Mine Production and Total Supply

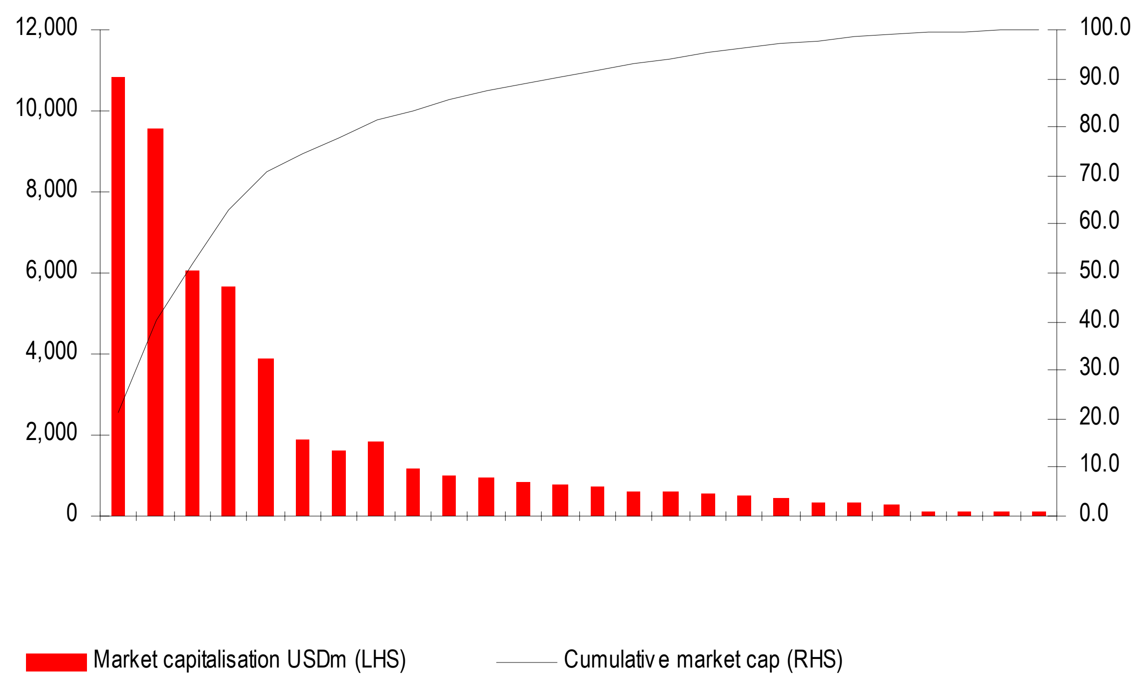
Robert Gottlieb, Moderator

Robert Gottlieb:

Before we get started on the subject of mine production and supply, I would like to make one last comment about bullion banks. Although we are not responsible for fostering demand, the retail side in the United States is not the side where we are seeing growth. Most recently, we have issued gold notes to pension funds and mutual funds, and we have also sold physical gold to gold funds. That is where I think new investment demand is coming from.

Now, on to gold mine production and total supply. Hopefully, we will look at where production is headed, especially the future of institutional gold production.

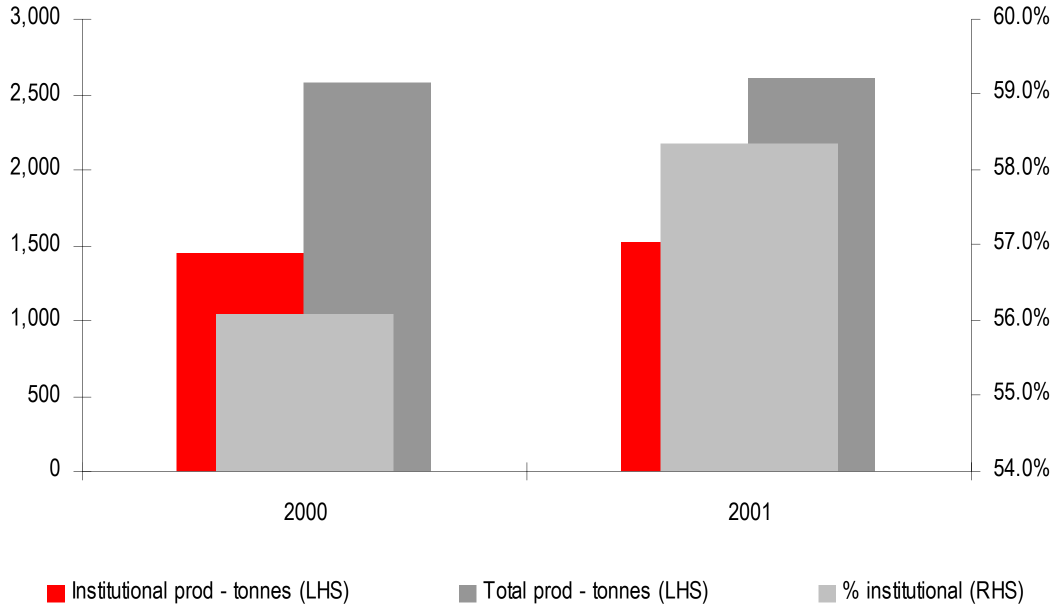
HSBC Global Gold Index



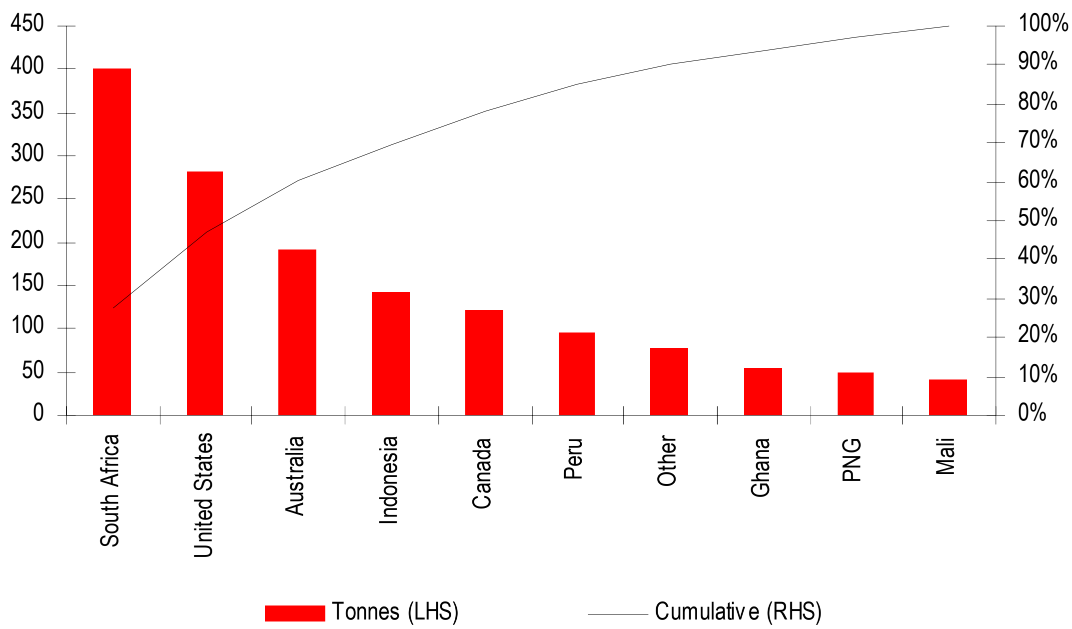
HSBC covers 26 gold mining companies in its HSBC gold index (slide 2). The companies had a market capitalization of $50.8 billion as of April 20, 2002. The companies that we cover account for 97.2% of the total capitalization of the index and supply about 58% of total world gold mine production. We are fortunate to have three of these companies represented at this roundtable.

Slide 3 shows that consolidation is making its mark . . . slowly. The next slide shows the top 10 institutional producers (listed public companies). These companies have a large percentage of their production concentrated in South Africa and the United States. The next slide shows the top 10 producing countries, including such countries as China and Russia, where the institutional market has little presence.

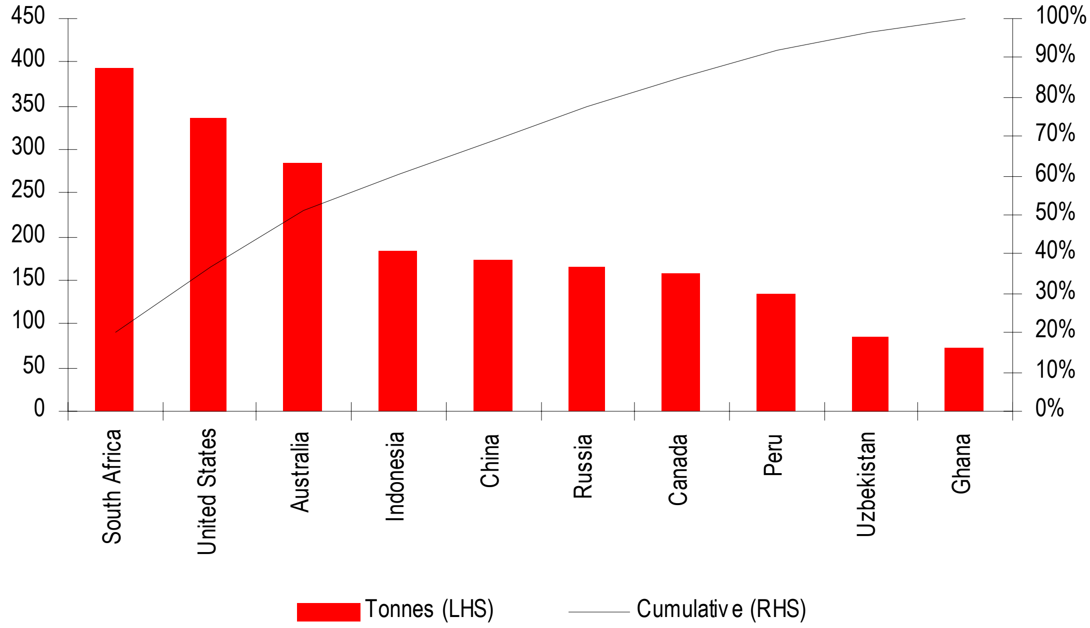
Institutional production vs total production



Institutional Top 10

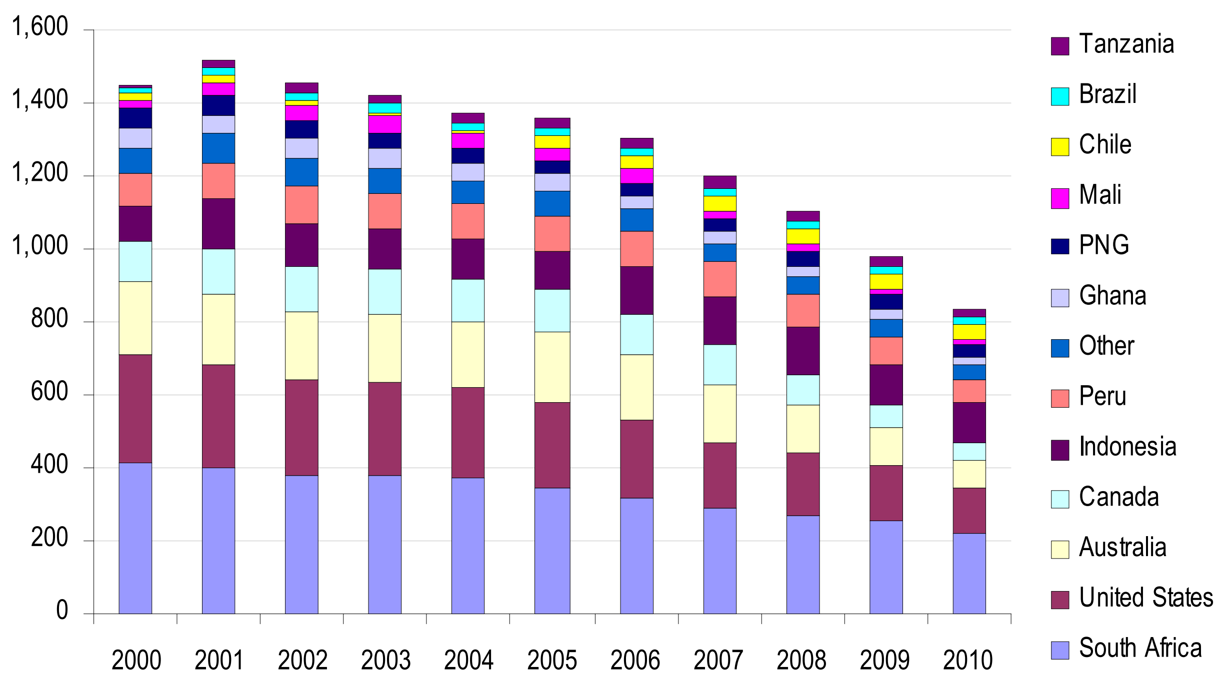


Global Top 10



You may be familiar with the Beacon Group Study, which, based on a $275 gold price, forecasts a 29% fall in production from the major producers between 2000 and 2010. At $325 gold, the forecast is for a 15% fall over the same period. At HSBC, we are forecasting a 40% decrease in institutional gold production (final slide) from 2000 to 2010 based on a $275 gold price.

Institutional gold production 2000-2010



Two things would certainly help us toward higher gold production. One would be a higher price. The second would be a willingness on the part of the majors to go into countries such as China and Russia.

With that, I would like to go to our panelists.

Bruce Hansen:

We had a very vigorous dialog earlier this morning with regard to such issues as jewelry demand, investment demand, and Central Bank actions. These are key near-term and intermediate-term price drivers that other panelists will address.

The key issues that producers can most directly impact are mine supply and producer market discipline. There are several factors that in aggregate indicate that mine supply will decline through the end of the decade (we are very supportive of the Beacon Group findings) and that producers have become more disciplined in regard to both capital investment and hedging.

Key underlying factors supporting these trends include:

A. Declining global gold exploration spending, which, in the face of declining prices, has been reduced from $3.3 billion in 1997 to $700 million in 2001. And most mines take from 5 to 10 years from discovery to go into production.

B. Reduced capital investment in the sector. Producers were spending over $140 per ounce of annual production on capital projects between 1994 and 1996. Between 1998 and 2000, the average spending dropped to $80 per ounce. The pipeline of projects has dramatically shrunk.

C. Increased environmental regulation, NGO activity, and societal scrutiny have limited the capacity for junior exploration companies to become producers. A number of projects have been essentially killed over the last few years. This trend will continue, resulting in further movement to a smaller number of larger producers.

D. Increased consolidation has focused the major producers on enhancing returns and increasing margins rather than expanding production. The current emphasis is on incremental projects near infrastructure, district rationalization, and consolidation rather than new step-out project development. The industry must generate adequate returns to attract capital. Since 1995, the general equity markets have outperformed the gold equities by 2.7 times.

E. Shareholders, especially generalist portfolio managers, are seeking large, liquid gold producers that provide maximum flow-through gold price leverage. This attitude is continuing to stimulate consolidation, and it is also combined with low contangos, forcing producers to re-examine their hedging programs. Non-hedgers year-to-date have significantly outperformed hedgers. We believe this trend will continue as equity investors demand flow-through leverage to the gold price.

Consolidation has also created companies with stronger balance sheets and has significantly reduced the number of stand-alone Australian producers. With larger, stronger gold companies, the need for project financing has significantly diminished. Project financing typically requires a significant degree of hedging to support those financings. Australians, who typically hedge up to 100% of their reserves, are being absorbed. Lest we forget, producer hedging was born with the advent of gold project financing and with the Australian gold producers in the 1980s.

All these factors indicate less production and less hedging from producers. Again, taking from The Beacon Group Study, we see a comprehensive decline in gold production — 29% based on a \$275 price, 20% based on a \$300 price, and 15% based on a \$325 price. After consistent net hedging by producers from 1982 through 2000, the industry showed net reduction in hedging of 147 tonnes in 2001, with projections of a net reduction of over 300 tonnes in 2002. We think this trend will continue as well.

Robert Gottlieb:

We would be interested in knowing what plans Newmont has, if any, to enter into China or Russia and what fits your geographic profile in Latin America?

Bruce Hansen:

Let me address that. We were in China. We had an office in Beijing at one point. We looked for opportunities within China about four or five years ago. The problem we had with the Chinese, quite frankly, was that they were trying to sluff off the worst of their projects onto Western companies. And they were looking for technology, rather than providing actual opportunities. It is a very fragmented business in China, a lot of small producers. There will be a time for China, but it will take time.

Another problem with China, when you look at GDP and GDP growth, the gold sector is such a small percentage of their industry that it is hard to work the bureaucracy and get any attention on doing a project.

Regarding Russia, we put \$250 million into Uzbekistan to build a project. We think that we have skill sets that can apply in Russia. We do have an active effort in terms of looking at projects. But it takes a lot of time. It is not a traditional exploration effort to find the gold. We know where the gold is. It is a matter of getting legal tenure, legal rights, and making sure the political environment is correct.

Chris Bradbrook:

I am going to take a slightly different tack in this presentation. Today, I would like to take the viewpoint of the long-suffering Barrick Gold shareholder. Gold producers are public companies, so we work for our shareholders. So the importance of this question of declining mine production lies in its impact on each individual gold company, and therefore its shareholders.

I would like to start by stating GoldCorp's belief that gold is money, and it is gold's role as money that determines its price at any given point in time. I suspect in stating this viewpoint that I will be deviating from a substantial population that believes that gold is just another commodity. But that is why we have these forums, so we can argue.

My personal belief is that at some point the primary supply and demand equation could have an effect on the gold price.

I would like to ask, why is the future of mine production important or relevant? Perhaps I should ask the additional question, is mine production important for the gold price, individual gold companies, or gold investors? This may seem like a rather bizarre question, but we have all witnessed over the last 12 to 18 months an ever-expanding commentary telling us why the decline in production is going to increase the gold price and why this is good for everyone in the gold sector. But does this declining production effect all companies equally and what are the producers doing about this declining production?

Intuitively, one would assume that anything that is positive for the direction of the gold price should align with the interests of the gold companies and gold investors. But does it? One of my principal observations this morning is that for at least the last six years, many of the world's senior gold companies have conducted their business with little recognition of the forces that determine the gold price and in many cases have developed practices that undermine the gold price, i.e. hedging.

Many of these companies are faced with declining output, and miraculously they have discovered religion. Now the most important thing that investors are supposed to focus on is that mine production is decreasing. Investors are now supposed to regard this as their cue to buy shares in gold companies since it will mean a rising gold price and therefore rising gold shares.

But is this true? Is this simplistic approach helping or hindering investors. Not all gold companies are created equal. Declining mine output may hurt individual companies and their shareholders. At the end of the day, changes in mine production and movements in the gold price mean nothing to investors unless they translate into investment returns. And I do not mean investment returns that provide comfort to gold bugs or long-term industry participants, but rather investment returns that compare favorably day in and day out with all other investment alternatives.

When the leaders in the industry tell you that declining mine production is important, what should you make of it? Perhaps one way to look at this is to look at their past behavior. When the gold price fell from over $400 per ounce in 1996 to record lows in 1999, what did the senior producers do? Well let's look at the North American gold producers. One of the first things many did was to bet against a rising gold price. They did not believe the gold price was ever going up. Now they do.

What is an investor to believe?

Since the end of 1996, Barrick's hedge book has grown by 80%, with the largest increase, think about this, the largest increase of 22% year over year occurring in the last year. Now we can always say there are less reserves hedged as a percentage of total reserves. But the truth of the matter on an absolute basis is that the amount has gone up.

Since the end of 1998, Placer's hedge book has grown by about 60% at the same time that certain senior officers have stated their belief that the gold price will not go up. Why would an investor buy a gold stock?

High grading. If you can't make money mining reserve grade, why not mine high grade? This has an impact on future production, profits, and long-term viability, effectively selling the best gold in the worst market, with never any thought given to maybe saving production for better gold prices, and perhaps in the process actually assisting higher gold prices.

Among the largest North American gold producers, more than half of production is being mined at a grade above the reserve grade. Ironically, that may actually help the gold price go up over time, through declining future production.

Cutting back on exploration is a favorite whipping boy. Exploration is the research and development of the mining industry. If you do not explore, you do not find anything. If production is declining, then obviously the need for new discoveries is very important. However, the senior producers actions do not reflect this. Since 1996, Barrick's exploration spending has declined by 38% and Placer Dome's by 55%.

So what did the industry do? It said, let's merge. What does this do for the gold mining industry? Let's consider some of these mergers. In recent times, we have seen Barrick complete a merger with Homestake Mining, Newmont complete its three-way merger with Franco-Nevada and Normandy Mining, and most recently Placer Dome making a bid for AurionGold of Australia. Does this do anything to solve the decline in mine production? The answer is no.

A look at the senior North American producers reveals that as many as 75% of their operations have a reserve life of seven years or less. These mergers have simply concentrated shareholder exposure to decreasing gold mine production.

In addition, in many cases, these mergers have concentrated hedging exposure.

In conclusion, I would like to say that available evidence suggests that global mine production may be decreasing, and this may have a positive effect on the gold price. However, this is unlikely to effect all companies equally, even though the implication of declining production is that everything will be made up by a rising gold price. Maybe that is true, but that is lazy thinking.

I believe that it is more important for individual companies to ensure that they serve their shareholder interests by maintaining a full, unfettered exposure to a rising gold price (being unhedged), maintaining a commitment to research and development (exploration) to insure organic growth and therefore share price appreciation independent of the gold price, and running their companies as a business for profit in any gold price environment.

I am happy to say in conclusion, that if declining mine production helps the gold price, GoldCorp will be very happy.

Chris Fleming:

Major changes in gold production over the last 100 or so years have been driven by technological developments rather than market demand. There have been two major changes in the production trend during this period. The first came on the heels of the introduction of the cyanidation process in the late 19th century. The second came with the development of heap leaching, pressure leaching, and activated carbon-based extraction processes in the 1960s and 1970s. Each resulted in the industry being able to:

• Recover gold more efficiently

• Recover gold at lower cost

• Access lower-grade or refractory resources

These developments resulted in a significant increase in gold production from the primary sector.

The first surge in production was mostly absorbed by Central Bank "hoarding." The most recent surge has been taken up by significant increases in off-take by the industrial sector, primarily for jewelry.

The only real technological challenge remaining for the gold industry is to develop a process to economically recover gold from low-grade refractory ores, of which there are tens of millions of ounces in the ground around the world. Even if such a method is ever found, however, it is unlikely that technology will ever again influence gold production trends as it has done in the past. Gold production and pricing will need to respond to the reality that production from the primary sector has probably peaked at current levels.

Jonathan Potts:

Could we have additional discussion on recent hedging by gold mining companies?

Bruce Hansen:

If you look historically, the biggest hedging position occurred in 1997 and 1999, when the price was going down. My view is that institutional investors don't want to hedge. They want flow-through exposure to the gold price.

If you get 8% contangos and a $400 gold price, I am sure there will be some producers that want to capture that going forward. But I can tell you, that institutions, our shareholder, our owners, don't want us to sell forward.

Kelvin Williams:

It is an interesting debate, this debate on hedging, because it is conducted in many ways at a sub-rational level. Everybody says Hallelujah when a mining company has got a new mine, but hedging is criticized. Between 1980 and 2001, when hedging peaked, by publicly reported figures, hedging added an incremental 3,500 tonnes to supply. New mine production added 17,100 tonnes. What capped the gold price? Are we rational or are we irrational? Why is a company that makes no money and does not hedge a better bet than one that does hedge and does make money?

As an industry, are we unique, or should we conform to conventional corporate practices of making a profit, declaring to our shareholders every quarter what return we made on their capital investment? And when we have finished and we have done capital expenditure, the money we have left is paid to the shareholders as dividends. AngloGold does not hold cash reserves of $800 million, $1,000 million, as though we know better than our shareholders what should be done with it. We have paid an average of 5.8% dividends for four years. If we need money for a project, we go back to the shareholders.

I am sorry to sound impassioned about this, but this is really a debate that is taking place on a sub-rational level.

We hedge, and we have hedged because we are a company that tells our shareholders we will pay them dividends, a return on capital. All of our hedges tend to be relatively short term. We are un-hedging now for two reasons. One because we see a restructuring in our sales, and two, because of acquisitions in the last two to three years we have dropped our costs, so we have the highest margins of all the major gold producers in the world. These factors will allow us to meet conventional corporate financial targets, we think, and therefore we have less need for revenue certainty.

So we are stripping the hedges off.

At what price would hedging come back into the market? That's not how one thinks about it. If the price goes to $400, the certainty on one's financial performance is even better.

Jeff Christian:

An investor's attitude toward hedging will be influenced by his goals. If I am interested primarily in long-term investment, I will likely want a company that focuses on financial health and possibly a company that hedges. If in contrast I am what you might call a speculator seeking capital appreciation, and the gold price is rising, I might want an unhedged company.

Unfortunately, the gold price has fallen over an extended period.

Since January 2001, the Newmont share price has outpaced Barrick and Placer. Anglo has outpaced Newmont. Taking a longer view, going back to 1993, Newmont is back where it was 1 to 1. Looking at Barrick and Placer, they are at 1.3 and 1.5. Over the longer term, you cannot say that hedged companies have taken a pasting relative to unhedged companies. And even over the shorter term, Newmont has only outpaced Placer and Barrick by about 1.7 to 1.5.

Matt Callahan:

I performed an empirical study of the securities of 20 North American gold mining companies from 1996 to 2000. I looked at hedging practices. My goal was to find a statistically significant correlation between hedging and stock price returns.

What I found was a regression equation that says the more I hedge, the worse I do. I think one of the things to think about to explain that effect is that if I own a gold mine, I have real options. If the gold price happens to be low, I have the option of not taking my gold out of the ground and selling it. Of course, if it is high I probably will mine and sell it. That optionality is inherent to every gold-mining company and is valuable. And that component of value is built into the stock price.

The value of any option is determined in large part by volatility. So the more volatile the gold price the better for the option. If I hedge, I am reducing volatility of cash flows, which can be a good thing for a company, but at the same time that reduction in volatility flows through to reduce the value of my company.

The other thing is that if I am in the forward and futures markets, the optionality to deliver gold to the market is reduced.

Chris Bradbrook:

Just a couple of comments relating to hedging, profitability, and shareholder returns. By market capitalization, GoldCorp is North America's largest un-hedged gold company and the second largest in the world. Last year we were North America's most profitable gold company on a per share basis. $100 invested in GoldCorp in 1993 is worth more than $2,200 today. So being unhedged and profitable are not mutually exclusive.

Another thing I think we have to recognize is that you can't lecture shareholders. When they tell you they want unhedged exposure to the gold price, you can't tell them "No, you don't understand." Because they do. What they are telling us right now is that they want unhedged shares.

Kelvin Williams:

In fact, not all shareholders have the same goals.

John Fairley:

Another point, until recently a high proportion of mining companies were making less than their cost of capital. At $325 gold, a high proportion of gold miners are forecast to make more than their cost of capital.

Finally, about China and Russia, I believe over the next 10 years, they have significant potential for increased production. Conditions are improving, legal issues are improving, the political risk is going down all the time, and they will become a significant source of supply.

George Gero:

On another point, I think that public companies in the United States are going to have to take a close look at shareholder derivative law suits as they pertain to hedging. We live in a very litigious society. Some of these lawsuits may allege that had you not hedged, or had you hedged, you would have either helped or hindered the shareholder. So the way we run public companies may be impacted. The business culture in which we operate in the United States has changed, and it is going to change even more.

John Hathaway:

A number of points: Matt's study was very impressive to me, because it studied the impact of hedging during a period of declining gold prices. So in many ways it is more powerful for that reason. The conclusion being that from a shareholder-value point of view, hedging is a net negative.

I know Kelvin feels strongly that there is a different constituency for him because they are paying dividends. And AngloGold did generate a lot of cash flow and has changed its production base, and they were going through a period of transition. So, I would not be willing to say in every case that hedging does not make sense. But at least to me as a rule of thumb, net net, it does not add to value. There are certainly exceptions.

As far as Jeff's points about Newmont being 1:1 from 1993 to current, and Placer being 1.3:1, I guess that could be explained to some extent by things besides hedging. During a period of low gold prices, hedging allowed Barrick to create cash flows to make acquisitions. So in a vulture-like way, hedging can serve corporate purposes during a prolonged period of declining prices.

I would ask the question, how many projects were put into existence from 1990 to 2000 when hedging had its golden age, so to speak, that would not be justifiable based on return on capital? The industry has been notorious for destroying capital. I would say that in many cases, hedging was used to justify projects that were marginal.

I would also ask the question, what is going to be the cost of un-winding these hedge positions. I know the mining companies can deliver into their hedge books, which is the best way to cover a hedge. But I wonder about the bullion dealers, who I think are caught in the squeeze. If you had a very serious mark to market, I think the conversations between bullion dealers and Central Bankers would be quite hostile.

Finally, in terms of shareholder interest, if you look at the companies that are the most committed to having complete exposure to the gold price, management is most often also large shareholders. The whole rational behind the merger of Newmont, Franco, and Normandy was for Seymour and Pierre, who were big stakeholders, to get exposure to the gold price. So there was a philosophical basis for that transaction.

Let's take the other example of Barrick, where the CEO owns 10,000 shares, which I think is disgraceful. Where does he stand? He is getting a lot of compensation, but where is his interest in relation to the shareholders?

Bruce Hansen.

Let me respond. Different producers have different attributes in terms of the quality of their assets. GoldCorp has a wonderful asset in Canada, and they have done a wonderful job. We have a different portfolio than they do and a different portfolio than AngloGold. AngloGold has shareholders that want dividends. Newmont's shareholders want optionality on gold.

But there are three basic drivers to value. We provide basic fundamental value, and we need to focus on more discipline in capital investment, generating adequate fundamental returns. We also offer a call option on gold, and Newmont would like to provide maximum flow-through to its shareholders in terms of maximum exposure to the gold price. And there is also a call option on exploration, or organic growth. We all focus on those three primary levers to create value.

There are different views on how you approach the market, and what your different constituencies are. But I think the market now is indicating to us that they want that optionality and that flow-through leverage to the gold price.

James Turk:

The interesting aspect of this debate about hedging and non-hedging is that if you were sitting here 40 or 50 years ago it would never take place. The reason of course is that back then gold was considered to be money. When we performed that calculation, we would know what that result was in terms of gold.

Back in the 1950s, a barrel of crude oil was worth 2.2 grams of gold. Today, a barrel of crude oil is still worth 2.2 grams of gold. We are losing sight of the big picture here that gold is money, and it is useful in economic calculations.

The hedging/non-hedging debate is really betting for or against national currencies. So it is not surprising to me, given governments' historical record of mismanaging their currencies, that Matt's result shows that the company that hedges the most does the worst, because hedgers are actually betting on a national currency, and the odds suggest that that is not going to work in your favor.

So from my perspective, I think we have to keep sight of the big picture of what the nature of this debate is about. It is about whether you are for the dollar or against the dollar or any other national currency.

Dale Henderson:

Risk and return should be associated in such a way that if your firm is riskier, then it had better earn a higher return over a period of time.

Robert Guy:

There are mining companies existing today that only exist because hedging got them off the ground.

Kelvin Williams:

Regarding the number of mines that have been brought on because of hedging, the majority of new production that has been brought on over the past 20 years appears to have been un-hedged. More important are the number of projects that were brought on because of overly optimistic expectations for the gold price.

Jeff Christian:

The topic of the session is mine production and total supply, and we have got off onto hedging, which is OK because hedging is a critical issue.

I would like to focus briefly on Central Banks. Central Banks over the last 20 years have provided the market with an average of 5 million ounces of gold per year. Over the last 10 years it has been 8.7 million ounces. Over the last six years it has been 14.4 million on average. The market has been absorbing that.

We will continue along these lines until 2004, at which time the Washington agreement expires and will have to be replaced. I think the market has to focus on what Washington Agreement II will look like.

There are various scenarios. One is that there is no Washington Agreement. I think the Central Banks at this point are very determined to have a second Washington Agreement. They don't want to go back to the old days when everybody was guessing what the Central Banks were doing.

If we are going to have a Washington Agreement, it is going to be laid out in one of three ways. (There is an effort underway to include additional countries in the agreement – the United States, Canada, Australia, possibly Japan.) The Central Banks could say they will continue to sell up to but not more than 14.4 million ounces per year. The problem is that most of the Central Banks that want to sell have already sold. In February, the Bundesbank suggested, don't worry, somebody will be there to sell gold.

Scenario two is the other extreme. The Central Banks say, "Everyone who wanted to sell gold has sold gold. It's over. Goodbye." There might be an agreement to sell, perhaps, 2-3 million ounces. That would be extremely bullish for gold, because you have a gold market that has come to expect 14 million ounces per year. I don't think the Central Banks are going to do that.

The third scenario is something in between. The problem with the in-between is the same problem as with the first scenario. Most of the banks that have publicly stated that they want to sell gold have sold it.

It comes down to three Central Banks - in Germany, France, and Italy. My personal opinion is that the Bank of France would never sell. Bundesbank has said that maybe it will sell, which I think is setting the stage for Washington Agreement II.

So when we look at total supply, I think we have to look at other sources of supply besides mine production.

Panel 3: Future of Gold – Gold Fabrication Demand

George Milling-Stanley, Moderator

George Milling-Stanley:

Issues to address during this session of the Future of Gold forum:

• The outlook for jewelry fabrication demand.

• The outlook for fabrication demand for industrial and technological applications.

• The outlook for the immediate future – say 2002 and 2003.

• The outlook for the longer-term future – say to the year 2010.

• External factors influencing fabrication demand – especially the economic outlook, both globally and in the key consuming countries.

• The influence of anticipated demographic changes.

• The likely impact of changes in the price of gold on all of these anticipated changes.

• And, conversely, the likely impact of all of these anticipated changes on the price of gold.

Ayman Shahin:

Since we have already touched on so many topics, I have decided to focus on the Dubai market, since that has not come up, and maybe add some value regarding the nature of the physical market in Dubai. This is of particular interest, because the Dubai market has been going through two or three major changes.

The first change that hit us in Dubai was Indian deregulation. With the Indian market becoming open to the banks, the Dubai companies had to shift from being dealers and clearers to actually becoming fabricators. We had to do that because that was the only way we could survive.

When India deregulated, the volume of gold passing through Dubai dropped from 600 tonnes plus annually to below 200 tonnes. That was a huge wakeup call for us. Something had to change, and we had to look for ways to add value for the consumer. A.R.Y. is a bit fortunate in that we are involved both on the bullion side and the retail side. That gave us a bit more of an insight. So, the company aggressively decided to open a refinery and started to source out gold to lower our costs.

With India deregulating, we found many of our suppliers becoming our competitors in the Indian market. With no pricing power at all, as we all know, we really had to vertically integrate in the market place. That has actually worked well. Now we are seeing the volume of gold handled in Dubai rising above 350 tonnes annually.

Looking a bit forward on the Dubai market and on fabrication in Dubai, we feel very positive, mainly for certain external factors, not from the gold trade. One factor is that we have a pro-business government in Dubai. The government is going to launch The Dubai Metals and

Commodities Centre, which will bring transparency and a regulatory framework to the gold trade in Dubai.

The rules and regulations for investment are similar to more Western types of rules and regulations. 100% foreign ownership, for example, will be allowed.

For a company like A.R.Y., our principles are ex-pats. That really gives us a reason to commit capital investment to the project. We have committed to a refinery in Dubai with a capacity of 70 tonnes per year. I know of two other companies that have made similar commitments. I think that should lead to the centralization of the fabrication of consumer products.

Another thing that I think will help Dubai going forward is the airline. It is expanding its network, with gold in mind. We already see direct flights from three different cities in Australia. We are seeing direct flights from Johannesburg, South Africa and other African countries.

Looking forward, I think we will see Dubai becoming more of a major gold center, especially on the fabrication and refining side. Especially with some of the countries in the region, in my opinion, putting in more restrictive regulations; especially in Saudi Arabia. We are already seeing fabricators from Saudi making their move into Dubai for regulatory reasons.

Going forward, we feel very positive about Dubai, and I think we will be able to take advantage of our geographical location in a consuming part of the world.

George Milling-Stanley:

Dubai has been one of the most exciting stories in the gold business for a great number of years. I was not alone in being concerned that Dubai might lose its role when it lost its shipments to India. So I am very interested to see some of things that have started to happen.

Ted Leach:

I will take this opportunity to speak for just a minute about the structure of gold jewelry industry in the world. Our company, Leach and Garner, is a manufacturer largely of findings and materials but also of some high-volume finished jewelry such as ear rings and beads in the United States.

The industry tends to be fairly fragmented all around the world. There are a few large producers, particularly in Italy, and there are some very large producers of diamond-set products, particularly in India. Also in Hong Kong to a certain extent, and in China and in Thailand.

But in almost every country in the world, there are thousands, literally, of jewelry manufacturers. The U.S. market is our largest market, but our company does participate in markets all around the world.

The U.S. market has been fairly parallel to other world markets. Over the last couple of decades, there has been marvelous growth in the U.S. market. And there has been a movement from traditional retailers dominating the market – mom and pop jewelry stores on main street – to large mass-market companies. These include Walmart and K-Mart. Such companies now sell just over 50% of all gold jewelry sold in the United states – that is jewelry that is primarily gold in value, and not the stone that it might be holding. This shifting pattern in retailing has brought a lot changes not just in the amount of jewelry we have the opportunity to sell but in the way gold jewelry is viewed.

Over the last two decades, gold jewelry in the United States and gold jewelry in the world have both about tripled in volumes sold. Over the last couple of years, there has been some contraction both in the U.S. and the world markets, although it depends on how you look at the numbers.

What is interesting is that retailers do not hedge their inventory. Larger manufacturers of jewelry do hedge their inventory. Seasonal sales in gold jewelry are so great that you have to produce your gold jewelry product in the Spring to have it on the shelves in the Fall. The turnover is about once a year at retail and two to five times a year for fairly large manufacturers, though there are a few that have exceptionally high rates. So if you manufacture your product in the Spring for sale in the Fall, a fall in price could be enough to wipe out your margins.

The first year we started to experiment with hedging was 1974, the year that President Nixon freed up gold ownership for American citizens. The price had floated up to about $105 by early that Spring, when I had to make my decisions about my production for the year, so we hedged about 10,000 oz. Then the price promptly fell to about $64-$65, and I had calculated that a $7 fall in the price of gold would wipe out my entire margin. Margins are very tight at the manufacturing level, so it is very appropriate for those in our sector of the industry to hedge.

One issue is that advertising by the platinum and diamond people over the last few years really cut into gold jewelry sales, as did the fashion trend toward all black and gray clothing, which looked better with white metal. That was bad for gold. That trend is coming to an end, and things should be getting better. But I think that we have to make up for the fact that the gold brand is 14 karat or 18 karat gold. If we are going to have $500 per ounce gold, we have to make gold an aspirational item.

Mabel Accurso:

Demand has increased in India since 1997, up from about 570 to 736 tonnes. Seasonal factors are important. The wedding season sees the most demand, but India is a big country, and the wedding season takes place at different times of year in different parts of the country. Sometimes, old jewelry will be traded in for something new to give as a wedding gift. Demand does not really depend on price, but the market tends to slow down at times of price volatility.

Ayman Shahin:

I have only been in Dubai for three years, and this is the first time where I see the physical guys have not really been caught by the price move. There has been some damage. Some people got hurt, but this time around is the least damaging by far that I have seen in the past three years.

The previous spike up to $340 was much more damaging. If anything, we noticed this time that as the price moved up gradually up to $310-$312, demand kept up with it . . . absolutely no problem. It was when we had the spike from $314 to $330 that things tended to dry up. Now, back around $318, it is starting to come back.

Chris Fleming:

Is there any concerted effort being made through the World Gold Council to improve the advertising and marketing of jewelry? I think that is where the greatest impact can be made. From my perspective, the price of gold should be determined by the jewelry market. Skillful marketing is important.

George Milling-Stanley:

Thank you Chris. I would recommend that anyone who is interested in that aspect of WGC activity go to our web site, www.gold.org. There you will find a lot of information about the interesting things my colleagues on the jewelry side are working at.

John Hathaway:

We all seem to think we have a handle on how many tonnes are being hedged by the mining industry, but what is the figure that is generally recognized for the jewelry industry?

Ayman Shahin:

We do use hedging quite actively, but the turnover time is much shorter than the producers. We have consignment agreements, so my hedge will be on sometimes only two to three days, no more than a week. That is a very long hedge. We are not hedging anything two to three years forward. So it is very high turnover. I think George can testify to our turnover on the COMEX.

Jeff Christian:

More than 90 million ounces of gold is used in jewelry each year worldwide. The key to understanding your question is the definition of a jeweler. There are the finding manufacturers. They may buy gold from a different company - the manufacturers of grain, or sheet, or wire. Those companies might have some percentage of their inventory or annual turnover hedged. Then there are the jewelry manufacturers, and then there are the retail jewelers. The retail jewelers tend not to hedge.

John Fairley:

We have seen especially in Asia high-karatage, high-volume sales, but that doesn't seem to translate into the Western Hemisphere. I wonder why?

Ted Leach:

There has been a survey done in India that found that the average product found in the market averaged about 16 karats. While they appeared to have low margins on high-karat products, in fact they were just lying about what they sell. In fact, they have bigger margins in India than we do here in the United States, where the margins are quite thin. It is not unusual to see manufacturers selling to the large retailers at single-digit markup. The large retailers, on the other hand, may have 50% to 60% margins.

John Fairley:

I am aware of the hallmarking problems in India. But I have been in Dubai, Singapore, Hong Kong, where that high-value, low-margin material does exist.

Ted Leach:

There is a cultural factor at work here in the United States. People are not buying jewelry as a store of value.

Ayman Shahin:

Tastes in the Middle East are actually becoming more Western. 18 karats are about as high as you go. In Dubai, the karat is defined by law. It is illegal for a store to misrepresent the karat. Checks are made on a regular basis. You can be easily shut down. That credibility of gold content is what makes the high-volume, low-margin formula work.

George Milling-Stanley:

You are right. Credibility is obviously the key. India is very gradually introducing a system of hallmarking. It is still in its infancy. I think there are something like 150,000 jewelers in India and so far barely 100 or so are actually involved. It will take time because of the fragmented nature of the industry.

Phyllis Casey:

I would like to add to the comments on India. It is my understanding that people in India buy jewelry because they see it as an investment. Regarding margins, the last time I looked at an Indian web site, they were buying back at about $280 per ounce and selling at $400 per ounce.

India is an interesting market, and I think it could have an interesting impact on the world. India is 70% agrarian. They only own one car for every 272 people. Women have very few job opportunities. No 401Ks. Would we still see the kind of gold consumption we see now, if they had other employment and investment opportunities?

Mabel Accurso:

I think you are right. If they had some type of 401K plan; if they had some kind of savings plan; we would not see so much gold sold in India. For now, gold is their savings account.

George Milling-Stanley:

Gold, in fact, is something that is empowering for women in India. It is the only real asset that they are allowed to own. If a husband gets into financial difficulty, with a poor harvest or whatever, he has to borrow the gold from his wife. And at some point he has to give it back.

John Hathaway:

I know that the Gold Council has done a lot of work toward liberalizing the laws in China, in terms of gold ownership, price structure, tariffs, etc. How is that going and how is it likely to impact physical demand?

George Milling-Stanley:

As with most change in China, it is glacially slow. Nevertheless, it is starting to ease up. They are starting to allow a few investment products, which were against the law until about a year ago. They are planning a gold exchange.

The good news is that after something like ten years of effort, we have it on the agenda. The liberalization of the gold market in China is in the current five-year plan. That is a huge victory. It has not done anything for consumption yet, because it is not yet a reality. With luck, it might happen within the current five-year plan.

As to its impact on physical demand, I would point out that 10 years ago India and China, with rather similar size populations and not drastically different per capita income were both consuming about 200 tonnes of gold per year in gold jewelry. India has to a large extent liberalized and now consumes in excess of 800 tonnes per year. China is still consuming about 200.

But we have seen rapid growth in platinum jewelry in China, from a very low base. That is because platinum jewelry is entirely unregulated. I think we will see a very significant increase in gold when we get that gold liberalization through.

Ayman Shahin:

Touching on what Phyllis said, I think to some extent the shift away from gold is already happening in India. Now, for example, you hear that as part of a dowry young people may want a fridge, or they want to have a small apartment. So as the standard of living is rising, they are definitely shifting away from gold.

I sometimes wonder what will happen if they lift the foreign exchange control, and you can open a dollar-exchange account in India. At the moment it is illegal to own foreign currency in India.

George Milling-Stanley:

My colleagues in India are addressing the issue of shifting consumer interests by targeting advertising toward relatively wealthy, urban young women to try to address their needs, while maintaining the traditional base among the 70% who live out in the country.

Robert Guy:

On this question of promoting jewelry, every five years or so there seems to be a new program, and a new logo, and a new adviser. I understand the industry's concern with promoting jewelry. But isn't the point being made that in India at least the biggest boost has not come from joint marketing efforts but from market liberalization? Isn't that what it is really about? Do these expensive marketing exercises pay?

Ted Leach:

I can testify that the gold jewelry business in America was very small until the World Gold Council started advertising that "Nothing else feels like real gold." It was suddenly uncool to own anything that looked like gold and wasn't gold. It really worked. The market absolutely took off. There is no question that the campaign had a vast influence on the buying habits of American women.

I believe that these kinds of advertising campaigns need to be sustained. You can't turn it off and turn it on. I also believe that people in countries such as India will not for long be buying gold because they have no alternative investments. We need to inculcate the desire for gold jewelry. We are seeing this in China now in the case of platinum jewelry.

We are seeing a move toward a standard karatage around the world. In Germany, most jewelry used to be 8 karat; now it is coming up to 14. In Japan, it was 18 karat; now it is coming down to 14. In Canada, it was all 10 karat, and it is coming up to 14. In America we are staying at 14, although there is an attempt by Walmart to trade down to 10.

George Milling-Stanley:

Part of the problem with our marketing campaigns is the level of spend. The wool industry globally spends 6% of its revenues on promotion. The diamond business spends something between 2% and 2.5%. Platinum between 1 and 1.5%. And the gold business spends slightly less than 1/10 of 1% on marketing.

Bruce Hansen:

If you look at the empirical evidence, when World Gold Council dues were slashed from $2.50 per ounce to $1.00 per ounce back in 1997, we saw gold jewelry fabrication demand essentially go flat.

I think the industry recognizes that it needs to do its fair share of marketing of its product. It has to be consistent. It has to find the right blend of marketing channels between image-type marketing campaigns, joint efforts with the jewelers, and point-of-sale type programs. I think we are still trying to find that right blend.

James Turk:

The 1/10 of 1% that the World Gold Council is spending seems to me to be doing the job very effectively. The question that I would have is not necessarily increasing the demand for jewelry but the question of trying to raise the price of gold.

George Milling-Stanley:

The mission of the World Gold Council, as stated, is to increase gold consumption and to improve gold's image. In addition to jewelry, we have also for a long time been involved in the industrial side, looking for new industrial applications for gold. None of this work is going to revolutionize the supply/demand balance, but as an increment these new applications can help establish the floor price for gold going forward.

Panel 4: Future of Gold – Gold Investment Demand

Albert J. Getz, Moderator

Albert J. Getz:

They tell me there is an old Chinese proverb, "May you live in interesting times." I feel that the confluence of events that have taken place on a global basis over the last six months certainly make these interesting times.

The basic question – Have these events renewed investor interest in gold? – is still valid.

Jonathan Potts:

We are basically a second-tier or secondary dealer in precious metal investment products. We have a small retail business, but our primary business is supporting banks and brokerage houses across the country. In doing that, we don't have any kind of marketing or sales campaigns. We are more reactive than proactive in marketing metals.

Our experience is reflective, I think, of general public opinion. We don't have sales people pushing a particular product. We react if the general public is interested.

I don't believe that investment demand is dead. On the contrary, I think that investors still perceive gold as they did, and are still motivated by the same factors as the were, 10 or 20 years ago. It is primarily a safe-haven hedge against political and economic uncertainty and secondarily of interest for speculative reasons.

My experience over the last 20 years and continuing into the present is that people are still motivated by these factors. Y2K, the 911 disaster, and some of the recent financial problems are motivating people to come back into the market. Whenever we see these types of events, or a series of events, we see our transaction volume double or triple. At the same time, we also see our transaction value double. What that is telling us is that people are still interested in gold. The people who are most interested and most motivated are generally higher-net-worth individuals.

Having said that, you might ask, if people are motivated, why are sales about the same as they were 20 years ago? I think there are a couple of reasons. One is that most investors now are relatively young – baby boomers or younger. And most of the people who have been actively investing have been doing so for less than 15 years. They have seen a raging bull market in equities and have had no need to look at other assets or other investments.

Second, those investors who have actually experienced tough times are older now and in a liquidation phase of their life – passing it on, at least here in the United States. So, while they may have an appreciation for gold, they are not acquiring it at this phase in their life.

Third, and perhaps most important, is that people who *are* interested in investing in gold are really looking for a reliable source, and that is becoming more difficult to find.

There is a network of banks and brokers, and there are distribution channels. People can enter into the market fairly easily, but awareness of the distribution channels is very low.

There are perhaps 500 or 600 major banks and brokerage houses across the country. However, if you were to go into any one of the banks or brokerages as an investor and ask for precious metals, or gold in particular, those people would probably say, “We don’t do it here.” Some brokers have gotten out of the business. But there are others that still have the infrastructure in place, and their brokers are not even aware that the service is available.

The other problem is the attitude and willingness to sell the product. Until recently, brokers have been motivated by commissions. Precious metals yield very low commissions. Selling mutual funds generates a higher commission. That has changed somewhat in cases where charges are based on a percentage of total assets.

The next thing is bank awareness, which is low. There is an attitude of, “If it doesn’t make $20 million, why bother?” even though it is part of their product mix.

From our experience, those banks and brokers that do get involved are doing it from a defensive point of view. They are not offering gold as a product that they expect to make money on. They offer gold because they don’t want a customer to take money out of their bank or brokerage and go to someone who does. That is probably the biggest motivation for offering gold.

John Hathaway:

I want to make four points about the investment case for gold and why we started our gold fund four years ago.

First, microeconomics: Essentially, the replacement cost for gold is above the current price. Even $320 is not a high enough price to justify enough new investment to maintain annual production of 2,500 tonnes. This is not to say that you could not find a gold mine that would make a lot of sense at $320, but if you are looking for 80 million new ounces, on average you are not going to be able to do it at $320.

For brownfield expansion at existing mine sites, the number is probably $350-$375. For totally new, greenfield ventures, you are talking over $400, maybe $450. Until we get to that sort of level, there will not be an equilibrium in terms of the annual flow of new mine production.

Second, market structure. Market structure is very favorable. Today, we have talked a lot about a change of heart on the part of the mining companies, which have decided to deliver into their hedges because of investor preferences. So instead of having a flow of up to 500 tonnes per year from forward selling you have a 300-tonne repayment this year. That is an 800-tonne swing factor in the space of a couple of years in a market that is already dependent on official-sector supply to stay in equilibrium. That is a very favorable aspect.

And you have a stale short position. A lot of these hedge books are no longer defended by proponents, many of whom have left the scene within the bullion dealing community. So you have a new mentality, which is basically to clean up the mess, and you have a slow-motion short squeeze taking place on the gold price.

Third, the U.S. dollar: The U.S. dollar is over-owned and over-valued. To me it is like Intel or the dot.com stocks at the top. It represents 76% of world Central Bank reserves. A comment was made earlier that the Central Banks have too much gold. Well, if they have too much of anything, they have too much of the dollar. I believe that is in the process of changing. The external position of the United States is quite dependent on the friendliness of strangers. 40%-

48% of the treasury market is held by non-U.S. entities. The net foreign holdings of U.S. assets is 26% of U.S. GDP, which is a very high number.

This country has lived, and its prosperity has been based on, the export of capital. If that were to change, we would see higher inflation and higher interest rates. The valuation of securities and the stock market would reflect that.

Fourth, market psychology: We have just come through one of the biggest investment manias in history. We had a secular bull market brought about by a number of factors, not the least of which was very aggressive credit expansion. And that has come to an end.

We are now in a secular bear market. These things don't get over with in a short period of time. Look at the bust in Japan. They are still climbing out of it. It took 10 years.

So I don't see why a huge, manic bull market in stocks, and all the mal-investment that went with it, can be over just because we have had a bear market for a couple of years. To me, it is an eight- to ten-year kind of investment horizon.

If you look at the ratio of the Dow Jones average to the gold price, it is still over 30. Three times in the last century it approached a figure of one.

To me, the pendulum is swinging from one extreme to the other. From the suspension of all disbelief and the willingness to believe anything, where you could have an Enron, to total scrutiny and disbelief in everything, which is where you were in the 1970s.

I believe we are going to travel over that path, and that is why I think we are going to have an 8-10 year upward cycle in the gold price. It has a lot less to do with what is going on in the gold market itself, and probably 95% to do with what is happening in the broad financial markets.

My conclusion is that when we see a four-digit handle on the gold price, it won't be because people love gold. It will be because they can't stand the alternatives.

Steve Abbriano:

The question is, "Under what circumstances will investment demand for gold surface?" When you look at the attributes of the U.S. dollar and gold, gold has the advantage of being a tangible asset as well as a hedge against inflation. On that basis, it should be attractive relative to conventional currencies. In fact, gold has outperformed currencies other than the U.S. dollar.

The U.S. dollar of late has been under significant pressure against other major currencies. I believe that pressure has been brought about by several factors.

• The U.S. equity market reeling from the bursting of the technology bubble.

• Concerns about creative accounting practices on the part of corporate America.

• Total money supply continues to climb to historically high levels.

• Further fuel is added by political unrest and national security issues.

Why hasn't the price of gold responded to these issues? Until recently, it has been outstripped by the U.S. dollar. Sales of gold by Central Banks brought additional psychological and economic pressure to bear.

Obviously, it is in the best interest of the U.S. to prove itself stable. However, dollars have begun to flow into non-U.S.-based assets, real estate, and even gold.

Having said all that, what shall we do to promote future investment in gold?

In my opinion, it can be furthered by providing the international market with a banking system that allows easy payment and receipt, using gold as medium of exchange. I think gold will come to be recognized as the international currency that it is.

Phyllis Casey:

I would like to add comment on provision of retail gold investment services by banks. We have provided such investment services for about 25 years. When we were about the 62nd largest bank in the country, it was very easy to provide the service to the 200 or so branches we had at that time. It was easy to get communication out. Now that we are the 8th largest bank in the country, with 50,000 employees, and we are at page 2,075 in the employee manual, it is very difficult to get the word out.

Robert Gottlieb: We also sell gold to the retail market, and we find it very expensive. One out of 10 phone calls gives us a sale of four gold coins. Basically we lose money on every transactions we do, and we lose money on transactions we don't do on a retail basis.

I think we have to focus not on retail sales but on new areas such as securitization of gold. For instance, why can't we have actual some kind of stock backed by actual physical gold? North American investors are used to buying stock. This would be another way of buying gold, through securitization. I think there is a good future in it. I think the market has changed dramatically. People want hard assets.

In the past year, we have had good success, working through the World Gold Council and through our own customer base, selling gold to mutual funds, both on a physical basis and on a note basis. Also to pension funds.

Those are the areas I think we really have to expand upon. I think if we make it easier to for the retail public to buy gold, we will have some success.

Bruce Hansen:

I think we are in a secular bull market for gold as an asset class. The challenge for the industry, as Robert said, is to find the channels that make sense. I think some kind of securitized gold product would have liquidity, would have reliability, would have trust. I also think the market is on the upper end – pension funds, mutual funds, and high-net-worth individuals.

Jonathan Potts:

One of the problems for a relatively small bank is competing products. There are almost too many investment products out there. As a practical matter, the sales person at the branch is almost overwhelmed by thousands of possible products. That is an obstacle.

We sell, predominantly, bullion that ends up in storage. For most of our customers, it is handled right on the brokerage statement and treated just like a securities transaction. Recently, we have seen the average transaction size come up, especially among high-net-worth individuals.

There are now a number of brokerage houses that have integrated gold transactions into their statements.

Ted Leach:

If the pendulum is swinging back to hard assets, as opposed to paper assets, I don't think we have to worry about gold as an investment. Outlets will develop.

John Hathaway:

There is a distribution system already. The distribution system is the brokers, the financial planners, who make it very easy to buy a mutual fund. What the gold industry needs to do is plug itself into that system. So if you are going to sell your mutual fund – whatever you have been losing money in lately – to buy some treasuries and a little gold to be a little more aggressive, it should be the same phone call. I agree that if the pendulum is swinging, it does not matter that much. But why should we make it so hard for the guy without a lot of resources to buy gold?

Secondly, I think it is very important to let people know that what is being offered is physical metal, and not the credit of an institution. I see too many of these offerings of structured notes, where there are all kinds of hidden margins and fees, and you are essentially buying the credit of some financial institution. The whole idea of gold is that you are trying to get outside that dependency on what could be an implosion in the derivatives market. That's the whole point of being in gold in the first place. It is insurance against that kind of thing.

Mabel Accurso:

We have to consider how young people think about gold. My son, he's in college now, knows very well how to trade stock. He doesn't know anything about gold except what I talk about around the house. If we don't have someone out there educating young people about gold, it is not going to do us any good. They think gold is jewelry. They don't think of it as an investment.

Comment from the audience:

I'm Matt Garfield, Garfield Refining: I certainly agree that the pendulum is swinging. And I agree with Ted that psychology can turn on a dime. What we do know is that over the last couple of years $5 trillion has been lost in the equity markets. And investors are just beginning to realize that this money is not going to be recouped. They will never see it again.

I think the percentage of wealth that has been lost is on the order of 26%.

I remember in 1979 and 1980 when silver was approaching $50 an ounce and gold was approaching $850 an ounce. People were lined up around the block at our refinery in Philadelphia, and they could not wait to buy silver at $50 an ounce. We were pouring the bars, stamping them, and selling them. Interestingly enough, not one of those bars has come back in the last 20 years. So they have been retained. The point is that gold prices have not even begun to percolate into investors' consciousness. But they will.

I think that the conventional wisdom of two years ago that gold was an archaic relic and that the only place to be invested was in high-flying technology stocks has proven how wrong conventional wisdom can be. I think there are tectonic changes taking place in the market. It is like a ship that is turning around in the ocean. It takes eight miles to turn around. You might not perceive it as it happens. Sooner or later it is turned around, and no one recognized it.

For ten years we had raging equity markets, low interest rates, hedging by the Central Banks, a high dollar. That has turned around. The planets have realigned in favor of gold. Investor demand will be out there. The investors just don't know it yet.

Steve Abbriano:

Are the vehicles in place for the market to supply materials to meet increased investor demand? There are coins, there are bars, there are other products, but they are difficult for the public to deal with. There are storage charges and cossts related to pulling bars out of a vault. The public gets into all sorts of difficulties on that level.

On the issue of funds, is there enough liquidity? Are we going to be able to quote 50,000 ounces, 100,000 ounces, without driving the price up phenomenally on three or four quotes?

George Gero:

I just want to add that, in terms of gold, there is a small contract, I think at Mid-America, of 16 ounces that trades as much as 30 contracts a month. We have talked about e-mini contracts. If we have an e-mini cash settlement gold contract or an e-mini cash settlement platinum contract someday, you will get a new audience. I think we will have a tremendous influx of customers if we decide to go that route.

James Turk:

If you think about gold, it is a great money but a lousy currency. It is expensive to move around. If we look toward the future of gold, I think we have to look at what the technology has to offer and what digitalizing gold actually represents. It overcomes a lot of impediments.

Imagine that we were sitting here in 1971, gold was $35 and the Dow was 800 and we said in ten years gold will be 800 and the Dow will be 800, we would be shaking our heads in disbelief.

A lot of environmental factors now are the same as they were in 1971. Let's assume there is going to be a 1:1 ratio (gold to the Dow) again in the future. The question I pose is, is it going to be $10,000 gold and a 10,000 Dow? Is that any more outrageous than the perspective from 1971? And is it going to be gold in a digital form, whether it be a securitized digital form, which seems likely, or in some kind of monetary form?

Additional Comment from the Participants

John Fairley:

Please see below my views and ideas on the subjects to be discussed:

Gold Market Trends and Conditions

Major issues:

Will there be a significant reduction in primary gold production over the next ten years?

A number of commentators have forecast declining production; I have doubts, especially if the gold price remains above $320. Also, the development of major, low-cost resources in South America, Central Africa, and the CIS (where there is great potential).

Will the official sector continue to sell gold in an orderly fashion?

The conflicting issues here are – Central Banks appear to be queuing up to sell more after the current agreement expires, will they increase significantly or will they take the view that gold is after all worth holding as an asset of the last resort? The latter seems unlikely.

Will demand (principally jewelry) decline significantly over the next decade?

Much needs to be done to keep jewelry demand on an upward trend. Demand in the shape of investment and new applications needs considerable resources applied to stimulate these sectors.

The Future of Gold Mine Production

Will consolidation of the industry continue and create a small number of big producers?

A high level of concentration is generally seen as a good thing for the industry. Will it bring output control and higher prices? – It hasn't in base metals.

The CIS, China, South America, and Central Africa have significant potential to increase output by developing low-cost resources. Will this cause closures elsewhere?

Expensive mines have been slow to close in the past.

Gold Fabrication Demand

The issues are:

Regaining the fashion initiative from platinum.

Financing working stocks – credit – security.

Creating customer confidence in product e.g. effective hallmarking and high purity-jewelry at fair margins.

Creating new applications.

Gold Investment Demand

The issues are:

Create a marketplace in the Western Hemisphere where it is as easy, quick, and inexpensive to invest in gold as it is to invest in equities.

Capitalize on the current economic uncertainties and persuade the general public that it is prudent to have gold in your investment portfolio.

James Turk:

Outline of Key Points for Future of Gold Roundtable

The key points that I would like to identify and/or to have answered during the course of the discussion relate to gold's role as money and the current bull market in gold.

Session 1 – Market Trends & Conditions

- The trend toward reduced hedging will continue, which is bullish for gold.
- A weak dollar will also keep gold in a bullish mode.

Session 2 – Mine Production & Total Supply

- Will new mine production will remain stagnant?

Session 3 – Fabrication Demand

No specific questions.

Session 4 – Investment Demand

Gold is not "an investment"; it is money. For example, in the 1950's crude oil cost 2.2 goldgrams per barrel. Recently (though the price has bounced over the past couple of weeks) crude oil cost 2.2 goldgrams per barrel. In other words, the price of crude oil is the same as 50 years ago. But during this period gold has risen from $35 to $320. That $285 gain does not arise from any kind of investment (i.e., a creation of new wealth that would one expect from an investment). Rather it just measures how poorly one currency - dollars - is doing compared to gold.

- There are no investment vehicles that enable gold to be traded as a security.
- What would be the impact on demand if a securitized and exchange-listed proxy for gold was developed?

Summary of my point of view:

Gold is money, but it hasn't circulated as currency for decades – until now. My company, GoldMoney, is the inventor and U.S. patent holder of digital gold currency (DGC). Gold has a unique advantage over other currencies, and as a consequence:

- DGC creates a new demand for gold
- DGC advances gold's image by putting gold at the cutting-edge of 21st century technology

DGC enables gold to fulfill its traditional role as international money

Matthew Callahan:

**<u>To Hedge or Not to Hedge . . . That is the Question —
Empirical Evidence from the North American Gold Industry 1996 – 2000</u>**

This paper searches for quantitative evidence that risk management leads to sustainable benefits for firm owners by examining the hedging practices of the North American gold-mining industry from 1996 through 2000. The study examines the hedging practices of twenty gold mining firms, and their respective stock regression alphas. The results indicate a statistically significant negative correlation between hedging and alpha. The proposed explanation for this result is that investors view the gold mining firms as real options. Therefore, as hedging reduces volatility (either in cash flows or stock returns), the firm actually becomes less valuable. The results also suggest that aggressive risk management on the part of gold mining firms fails to maximize shareholder value.

http://www.stern.nyu.edu/salomon/glucksman/callahan.pdf

John Hathaway:

O Brother Homestake, Where Art Thou?

"If I buy a gold stock, it's because I expect the gold price to go up. Why then would I buy shares of a company that hedges the gold price?" Such concerns are the subject of frequent e-mails to the Tocqueville web page (www.tocquevillefunds.com) asking what exposure The Tocqueville Gold Fund portfolio (TGLDX) has to hedged producers.

Do investor preferences make any difference to the performance and valuation of gold equities? It has seemed indisputable to me for years that exposure to a rising gold price creates value while hedging detracts. It is clear that the top performing shares of the last two years have been the unhedged producers, while the laggards have generally been lugging a hedge book. Over the past two years, the Amex Gold Bugs Index (HUI) rose 137% versus 49% for the Philadelphia Gold & Silver Index (XAU). The HUI index consists of unhedged gold equities, while the XAU is dominated by Barrick Gold, Placer Dome, and AngloGold, three of the leading hedgers.

A recent prize-winning (International Precious Metals Institute) thesis written by Matthew Callahan, a second-year business school student at the Leonard Stern School of Business, substantiates these views. Titled "To Hedge or Not to Hedge", (http://www.stern.nyu.edu/salomon/glucksman/callahan.pdf) Callahan states, "*gold mining firms that aggressively hedge gold price risk are not maximizing shareholder value. These results provide empirical ammunition to the argument against hedging in the gold mining industry*." He goes on to say that "*the reduction of the volatility in cash flows (from hedging) may not translate into a reduction in volatility of the stock price. In any case, it appears that while Barrick's hedging efforts make the firm's revenues more predictable and may lower risk, this is counter to any shareholder wealth maximization strategy…*"

In Callahan's paper, which is published this month in the NYU Salomon Stern Center Working Papers, a firm's alpha is the proxy for value creation. Alpha, a measure of a firm's excess returns relative to the market, is the intercept of the linear regression of a stock's returns against the market's returns. The fact that the period studied was 1996-2000, a time when gold was locked in a twenty-year downtrend, renders these findings even more compelling. Callahan also noted a positive correlation between volatility and alpha in the gold sector. Conversely, there was a negative correlation between hedging and volatility, as one might expect.

It is fair to say that gold mining shares in this respect differ from other market sectors, where the predictability of outcomes has historically been highly valued. It suggests that the attempt by gold hedgers to introduce predictability, while well intentioned, has failed because it ignores the bedrock principal of all gold investors, stated at the outset: "I buy a gold stock because I expect gold to go up". The desire is for exposure to a rising gold price, **whether or not** that turns out to be the case.

In a February 1, 2002 research study, Barry Cooper, a veteran gold mining analyst at CIBC World Markets, asserts "*the market appears to ascribe a bullion option value to gold equities in addition to their NAV (net asset value). Our methodology has predicted share prices to within 10% of market values 78% of the time within the last six months…*" He goes on to say "*that the largest component of the option value is the right to participate in future gold price swings. In congruence with option fundamentals, these are long-dated, in-the-money options that carry significant option value in excess of the NAV*."

Value investors often have difficulty coming to terms with gold shares because they usually seem expensive based on the traditional metrics of P/E multiples, price to cash flow, price to sales, etc. The valuation method most widely used by many gold research analysts is the discount or premium to NAV, which in turn is calculated as the present value of cash flows from reported mine reserves at some specific gold price assumption and some specific discount rate. More often than not, shares trade at a premium to NAV and the premium itself implies some level of expectation as to future gold prices. The NAV methodology and its variations have value in that they incorporate published financial information, inputs which cannot be ignored. However, they do not directly address the option component of valuation, which is the central explanation of where the shares are trading. Regardless of methodology, gold equity valuation metrics have light years to travel before they approach the absurdity best captured in the notion of "clicks per eyeball" at the height of the dot com craze. Gold shares will trade where they will based on investor expectations of future gold prices. Right now, those expectations are for significantly higher prices. Hedging, at the very least, detracts from that exposure. At the very worst, it threatens corporate viability, as exemplified by Cambior and Ashanti in 1999.

For a cogent explanation of the rationale for hedging, look no further than the 2001 Barrick Gold annual report. Within the footnote on derivative instruments (page 81), it states: "The Company's risk-management program focuses on the unpredictability of commodity and financial markets and seeks to reduce the potentially adverse effects that the volatility of these markets may have on its operating results." In other words, Barrick management prefers to be agnostic on the subject of gold prices. Fine, but that's not what investors want.

For an explanation of this apparent divergence between management actions and shareholder interests, refer to the Barrick 2001 proxy statement. It shows that corporate management has a very small personal financial commitment and stake in the performance of the shares. Commitment is evidenced in shares held outright. An option position, which costs the manager nothing but entails potential dilution risk for the shareholders, invites opportunism. For example, the Barrick CEO owns outright only 10,200 shares, worth approximately $200,000 at today's market price. For an executive earning US $1.4 million a year, this miniscule share position does not pass muster as an incentive. Barrick is not the only example of a divergence between management and shareholder interests. A similar pattern can be discerned in the proxies of other hedgers.

One could infer as a possible and charitable explanation for this disconnect that the managers equate stable, predictable cash flows, which might translate into the financial strength necessary to build a bigger enterprise from which all stakeholders might benefit, including shareholders. An important reason for the rise of gold hedging during the 1990's was the generational transition in senior management. Hard-core gold bugs, who failed to generate returns on capital within a declining gold price environment, were replaced by no-nonsense apparatchiks who saw gold as just another commodity. The 1990's culture in which both financial engineering and stock option packages thrived goes a long way to explaining both why the new breed of management cared little about gold as money and their willingness to pursue dilutive acquisitions (Homestake-Acacia, AngloGold- Normandy, and now, Placer Dome-Aurion, for example).

Contrast the Barrick example to the manager-shareholders of Franco Nevada who hold a substantial personal stake in the enterprise. Having tried once only to fall short of achieving a merger with Gold Fields of South Africa, Seymour Schulich and Pierre Lassonde engineered the three-way merger between Newmont, Normandy, and Franco. The stated objective was to convert their personal wealth in Franco into an unhedged entity with full upside exposure to gold. This strategy and vision was, in my opinion, an important reason why Normandy shareholders preferred the Newmont proposal to that of AngloGold, a prominent hedger. Other examples of pro gold, staunch anti-hedging managements with significant equity commitments are Harmony, Gold Fields, Iamgold, GoldCorp and Agnico Eagle. (This is not an all-inclusive list and I apologize to the many I failed to include.)

At the end of the day, hedging was nothing more than a devious and complicated way to finance a declining business. Complexity in monetary matters," in the words of John Kenneth Galbraith, "is used to disguise truth or to evade truth, not to reveal it." The truth about gold hedging is that it is a short sale, which can be covered in only two ways. First, it can be covered as gold produced by mines is repaid to the bullion dealers, who in turn repay the original central bank lenders. However, this method of repayment takes time, often years. Such a delay might be excruciating in a rapidly rising price trend. What is also interesting about this method of repayment is that it actually reduces the supply of gold because gold earmarked for repayment never hits the market. The second method of repayment is outright purchase of physical gold on the open market. If done in an orderly, measured fashion, open market purchases are probably feasible. However, if all the shorts get the idea at the same time, it would be very difficult to cover because the amount of this short interest is at the very least 4,000 tonnes, or more than 1.5 years of new mine supply.

What is happening in the gold market currently is that the hedged mining companies, after having taken a pasting in the form of share underperformance and vocal criticism from the investment community, are beginning to capitulate. Recently, Durban Roodeport, a South African mining company, raised cash through a new share issue. The use of proceeds was to purchase gold on the open market in order to close out its hedge book. Other miners have been quietly writing puts at strike prices below the market, in the hopes that they will become long gold on pullbacks. However, the proliferation of puts only serves to put a floor beneath the market. Several prominent hedgers, including AngloGold, have reduced their hedge books, and numerous others have stated that, at the very least, they will not increase their hedge books and are in the process of reviewing their hedge exposure. The intellectual case for hedging appears to be in tatters and there appear to be very few who would advocate it vociferously. The recent rise in the gold price has all the appearance of a slow motion short squeeze, which could well get out of hand if too many rush for the exits.

To say that hedging has become a bad word is hardly news, even to those who had never heard about the 1999 tribulations of Ashanti and Cambior. The very existence of these two companies was jeopardized by the spike in gold prices caused by the announcement of the Washington Agreement in 1999. At the recent Berkshire Hathaway annual meeting, Warren Buffet predicted that derivatives, "a major business for Enron, would also trip up other firms. There's no place with as much potential for phony numbers as derivatives." Buffet probably did not have the gold market in mind when making this dire forecast, as the profile is far more obscure to the general public than Enron. Nevertheless, the heavy use of derivatives, off balance sheet financial commitments, and poor disclosure characteristic of the Enron debacle are also present in the gold market.

In Barrick's first quarter financial release, footnote # 5 on derivative instruments takes up 6 pages of a 34-page document. This sort of extensive disclosure, while admirable in many ways, reflects the influence of the post Enron financial markets as well as investor concerns on the matter. I have no doubt that the Barrick management is as professional and competent as any in the matter of hedging. There is nothing to suggest that Barrick's exposure is of the same risk magnitude as the 1999 version of Ashanti and Cambior, or the 2001 version of Centaur, or the current version of some of the heavily hedged Australian mines. Clearly, Barrick's considerable percentage of unhedged ounces will provide substantial upside to a higher gold price and strengthen their already strong credit position. Still, as an investor these days, I yearn for simplicity. Why try to decipher what is nearly indecipherable?

On May 8, Barrick issued an interesting postscript to its first quarter press release, just seven days earlier. The company stated that it would be "simplifying" its "Premium Gold Sales Program", i.e. hedging operation. First, it would not renew certain call and variable price sales contracts, and expected this position to decline by 3 million ounces in '02. Second, "the company will no longer invest a portion of its spot deferred contracts in corporate bond funds, and will instead **leave all proceeds invested with its average AA-rated bank counterparties"** (emphasis obviously added). What is this all about? What are the counterparties nervous about? Is this a sort of margin call or just a tighter leash? There are undoubtedly many good answers and explanations, but as an investor, I am not interested.

In the fourth quarter Office of Comptroller & Currency's (OCC) report on derivatives, it is interesting to note that the JP Morgan Chase gold derivatives exposure rose slightly over the previous quarter. The increase is curious in light of the fact that gold producer hedge books declined by 75-100 tonnes in 2001, the first such decline since 1982 based on GFMS data (Gold Fields Mineral Service). This is not to single out JP Morgan Chase. However there is no public information on two other major gold derivatives players, J. Aron (Goldman Sachs) and Morgan Stanley. In addition, a number of non-U.S. institutions retain gold derivative exposure. In a previous report, The Investment Case For Gold, I commented on the shrinking number of institutional players within the bullion dealer community, a reflection of the increasingly unappealing economic and risk profile of facilitating new or servicing existing hedge positions for the gold mining industry. I speculated that the remaining bullion dealer gold derivative positions were like toxic waste dumps, a stale short position, with a dwindling number of proponents or members of management willing to take responsibility.

Without mentioning names, some of the most prominent architects of the gold derivatives trade, in which financial institutions act as intermediaries between central banks and mining companies to effect a short sale of gold, are no longer in a position to act as cheerleaders. As with all corporate write offs, disappearance of original sponsors for any cause clears the way for successors to reclassify a sacred cow as the white elephant it always was. Usually this transition leads quickly to a "let the chips fall where they may" mode, which allows full loss recognition. There is, however, one big difference between a corporate write off and covering a short position. The first instance involves an immediate accounting write down, with physical transactions such as layoffs, shutdowns, or asset dispositions to follow at an orderly pace. The second instance allows for no such interlude. In fact, the simultaneous recognition of being significantly offside in financial markets is probably the single most powerful force underlying volatility. I believe that the gold market is approaching this juncture.

What about the central banks who in the past were famous for their willingness to stuff any significant price rally with an "injection of liquidity?" Central bankers are only human. Once, they were only too happy to pile on to the downtrend in the dollar gold price by outright selling and lending of gold reserves in order to accumulate more paper assets. Now, they find themselves in the position where their principal reserve asset, the U.S. dollar (representing 76% of world central bank reserves) is declining in value against the gold they were dumping as well as their holdings of other paper currencies. What they are loaded with is their worst asset. Since they are only human, it would be most surprising if they decided to sell what little (proportionately) remains of their best asset into a rising market. It would not be surprising if net sales of central bank gold have already seen their high water mark. The discussions between bullion dealers and central bankers on rollover of existing loans should become extremely interesting following a sharp rise in the gold price.

It has been about a year since Homestake management agreed to be taken over by Barrick Gold. Since then, much has happened in the gold world, most of it good. As candidate Ronald Reagan once asked rhetorically, are the shareholders better or worse off today given what has happened? Homestake, once a household name in the gold sector, was the purist's gold stock. It was a refuge for assorted curmudgeons such as myself who had no desire to view the world through the rose colored lens of CNBC. Staunchly conservative accounting, a strong balance sheet, and a perceived antipathy to hedging created the sort of mystique appealing to gold investors. It is ironic that Barrick, the gold stock for agnostics, became its merger partner. According to Barry Cooper's analysis, Homestake shareholders are about as well off as part of Barrick as they might have been had the company remained independent. However, that is not the real issue. How will they fare once gold exceeds $400? In that instance, it seems fair to say that they will have lost out.

Running the shorts is only a small aspect of the investment case for gold. Much more important are the overvaluation of the over-owned U.S. dollar and the prospect for a continuation of poor returns on financial assets. Wherever the gold price settles after this current squeeze remains to be seen. In my estimate, however, it will be at levels high enough to make the remaining shorts uncomfortable. It will not retreat to a level where they can make good on their bad bets. Undoubtedly, there will be bone-rattling corrections designed to shake out latecomers, momentum investors, and other weak holders. The gold sector is notorious for volatility and huge swings in sentiment. On the other hand, will mining companies attempt to rebuild their hedge books and once again try to outsmart the gold market? I suspect that such a prospect will require a new generation of management.

John Hathway

May 29, 2002

Personal Information about the Participants

Steve Abbriano

Stephen F. Abbriano has a BS Degree in Finance is the Director of Marketing for ScotiaMocatta NY. ScotiaMocatta is a global leader in metals trading, brokerage and finance with roots dating back to 1671. ScotiaMocatta is a division of the the Bank of Novia Scotia, a leading Canadian Bank.

Mabel R. Accurso

Chris Bradbrook

Chris is currently Vice President of Corporate Development for Goldcorp Inc., North America's largest unhedged gold company. His career encompasses a 22 year association with the mining industry, including 16 years working directly in it and 6 years as a mining analyst specializing in the research of precious metal companies. He has performed a variety of roles with a number of major mining companies and has participated in several significant gold discoveries, acquisitions and corporate developments globally.

Matthew Callahan

Matt Callahan graduated with an MBA from the Leonard N. Stern School of Business at New York University in 2002 and has a degree in Mechanical Engineering from Virginia Tech. He is currently a consultant with IBM Global Services, where he advises financial services clients on ways to apply their information assets for competitive advantage.

He lives in Connecticut with his wife, Margret, and two children, Sarah and John.

Phyllis Casey

Phyllis Casey is a Senior Metals Trader at Fleet Precious Metals. She is a member of the New England chapter of IPMI, National IPMI, Women's Jewelry Association and the Providence Jewelers Club. Phyllis has a bachelor's degree in Economics and Mathematics from Providence College.

Jeffrey M. Christian

Jeffrey M. Christian is Managing Director of CPM Group, a precious metals research, consulting, and investment banking company based in New York City.

Mr. Christian has written extensively about the precious metals markets, commodities, and world financial and economic conditions since the late 1970s. In 1981 he authored one of the first market reports on the platinum group of metals. He has been involved in much of the pioneering work applying economic analysis and econometric studies to the gold, silver, copper, and platinum group metals markets, as well as efforts to improve and extend the quality of precious metals and commodities market statistics and research overall.

Additionally, Mr. Christian and the staff of CPM Group have been involved in the development of programs related to the financial management of precious metals and commodities. Included has been a great deal of seminal work on the use of options for hedging by commodites producers, exporters, users, refiners, processors, and others. Mr. Christian has worked on such commodity price risk management projects since the early 1980s, has co-authored a paper on the subject for the World Bank, has advised the United Nations, World Bank, International Finance Corp. and governments around the world on these issues, and has spoken and written extensively on the subject in numerous public forums.

John Fairley

John Fairley has spent 29 years working for Johnson Matthey PLC in various senior marketing and general management roles; mostly in gold, silver, and the platinum group metals, refining, manufacturing, and marketing.

Mr. Fairley now has his own business providing independent consulting services on business development, financing, marketing, and commercial issues with companies involved in mining, refining, manufacturing, and marketing of gold, silver and platinum group metals. He also trades in physical refined and unrefined precious materials.

He is a former member of the London Bullion Market Association Management Committee and was Chairman of its Public Affairs Committee.

Christopher Fleming

Chris Fleming is the Executive Vice President, Technology and Business Development, of Lakefield Research. He graduated with a Ph.D. in Chemistry from the University of Cape Town in 1973 and then worked for 16 years at Mintek in South Africa, where he developed much of his expertise in gold technology and hydrometallurgy in general.He has spent much of his 27 year career in research and research management. He has authored or co-authored over seventy technical publications in journals and conference proceedings, developed a number of patents, and has contributed to several technical books on various aspects of extractive metallurgy.

He left South Africa to join Lakefield Research in Canada in 1990. Chris has directed research teams and consulted to industry for a great many hydrometallurgical projects and operations, particularly relating to gold leaching and recovery. Many industrial flowsheets and gold operations have benefited from his research and development work, and that of his associates at Lakefield Research.

Anthony George Gero

Anthony George Gero is a Senior Vice President of Investments, First Vice President of the Futures Division and a President Council Member of Prudential Securities. Mr. Gero is also a First Vice President of Prudential Securities Incorporated.

Mr. Gero is a Director and has been a member of NYMEX since 1966 and has served on the Board of Directors for 22 years. He now chairs Government Relations, Stock and Index Futures, the European Advisory, Asia Pacific and Latin America Committees. Currently he serves on the Membership and Metals Committees.

Mr. Gero is also a member of all the CEC Commodity Exchanges and the AMEX and serves on the Finance, Admissions and Nominating Committees for other CEC exchanges. For over 10 years, he was an Allied Member of the New York Stock Exchange and a member of the Hearing Board. He now serves on their Arbitration Panel. He also authored a text called “Precious Metals.”

Mr. Gero is presently Chairman of the Commodity Floor Brokers and Traders Association, which includes members of all the CEC Exchanges.

Mr. Gero graduated from the New York University School of Commerce. He received his Investment Banking Certificate from the Investment Bankers Association at the Wharton School in 1965.

Albert J. Getz

Albert J. Getz is Senior Director of Metals Research at the New York Mercantile Exchange, Inc., where he is responsible for new contract development and contract maintenance issues related to the currently traded aluminum, copper, silver, gold, platinum and palladium futures, and option contracts.

Mr. Getz holds a professional engineering degree in Metallurgy from the Colorado School of Mines and an MBA degree from Rutgers University and has over thirty-five years experience in the copper and precious metals industries with AMAX, Inc., Copper Range Company, Johnson Matthey Commodities, and Mase Westpac, Inc.

Robert Gottlieb

Mr. Gottlieb has over 20 years experience in the precious metals market. He is currently Head of Trading and Sales for HSBC Metals in New York.

Mr. Gottlieb is a member of NYMEX and sits on the Gold Steering and Precious Metals Advisory Committees for the COMEX Exchange.

He has a BBA in accounting from Bernard Baruch College and an MBA in Finance from St Johns University and is a CPA.

He is married with 2 children.

Robert Guy

Robert Guy was a Member of the Board of N.M. Rothschild & Sons Limited from 1975 to 2001. He retains an office at Rothschilds and continues to advise it on its activities in the gold market.

Mr. Guy was the Chairman of the London Gold Fixing for many years and was the founder Chairman of the London Bullion Market Association.

He was educated at Balliol College, Oxford University and holds an M.A. in Modern History.

Bruce Hansen

Bruce D. Hansen currently serves as Senior Vice President and Chief Financial Officer for Newmont Mining Corporation. He is responsible for financial management of the corporation, including tax, accounting, finance, investor relations, materials management and information systems.

He joined Newmont from Santa Fe Pacific Gold in June 1997 following a merger of the two companies, and he was initially Vice President, Project Development for Newmont. He began his tenure with Santa Fe in 1982 as a mining engineer and progressed to the position of Senior Vice President, Corporate Development prior to joining Newmont.

During his 16 years with Santa Fe, his responsibilities included corporate development, strategic planning, finance, precious metals trading, investor relations and engineering. He received a BS-Mining Engineering with Honors from the Colorado School of Mines in 1980 and attended the Santa Fe Southern Pacific Institute of Business, Economics and Management at the University of Southern California in 1987. He received an MBA-Finance with Honors from the University of New Mexico in 1991.

John Hathaway

Mr. Hathaway is a Managing Director, a Portfolio Manager, and a member of both the Investment Committee and the Executive Committee, where he participates in the management of the firm as well as in our investment process.

Mr. Hathaway manages discretionary "concentrated" portfolios for individual and institutional clients, and is the Portfolio Manager of The Tocqueville Gold Fund.

As an analyst, he is responsible for researching the natural recourses sector and special situations, with an emphasis on domestic companies.

Prior to joining Tocqueville, Mr. Hathaway spent 8 years with the investment advisory firm David J. Greene, where he became a Partner, then founded and managed Hudson Capital Advisors, followed by 9 years with Oak hall Advisors as the Chief Investment Officer.
Mr. Hathaway has 26 years of experience in the investment business, the last 5 with Tocqueville.
Mr. Hathaway has a B.A. degree from Harvard College, and an M.B.A. from the University of Virginia.

Dale Henderson

Dale Henderson was educated at Wesleyan University, the London School of Economics, and Yale University. Currently, he is an Associate Director in the Division of International Finance at the Federal Reserve Board and a visiting professor at Georgetown University.

Previously, he held regular positions at the University of Pennsylvania and Georgetown University and visiting positions at the University of Virginia, Georgetown University, and Yale University.

His research work includes books on pollution control and on monetary policy in open economies and articles on the gold market and on several topics in macroeconomics, including stabilization policy and foreign exchange market intervention.

Ted Leach

Edwin F Leach II (Ted) graduated from Deerfield Academy in Deerfield, MA and Dartmouth College in Hanover, NH. He is the President and CEO of Leach & Garner, manufacturer of precious metal products for the jewelry and writing instrument industries worldwide.

He is a board member of the Rhode Island Philharmonic Orchestra, Rhode Island Festival Ballet, Sturdy Memorial Hospital Foundation, New Hampton School, Attleboro Land Trust, the Lake Morey Foundation, MJSA Government Affairs Committee and the Massachusetts Audubon Society

Council. He is chairman of the ZPG and the Massachusetts Audubon Society Capital Fund Campaign for Oak Knoll Sanctuary.

Jonathan E. Potts

Mr. Potts, a graduate of California State University, has been a precious metals professional since 1981. He has held various trading, marketing, sales, and management positions within the refining, manufacturing, brokerage, and banking sectors of the industry. Jon currently serves as a Director of the International Precious Metals Institute, Silver Users Association and the Silver Institute. Also, Jon is registered as an Associated Person with the National Futures Association. Jon's opinions and commentary are regularly solicited for publication and he is often requested to speak at industry gatherings.

George Milling-Stanley

George Milling-Stanley is Director, Official Sector Americas, with the World Gold Council. The Council is an international association of gold producers with offices in major markets around the world. Mr. Milling-Stanley is based in the Council's New York office.

Before joining the World Gold Council in August 1996, Mr. Milling-Stanley spent six years with Lehman Brothers, the New York investment bank. Previously he worked for Consolidated Gold Fields in London, where his duties as Chief Precious Metals Analyst included responsibility for the authoritative annual survey of the world gold industry.

Mr. Milling-Stanley's early career was spent as a journalist, including 10 years with the *Financial Times* in London, where he wrote about the international mining industry. He was born in England in 1947 and studied modern languages at the University of Reading and the University of Saarbruecken, Germany.

Ayman Shahin

James Turk

James Turk has specialized in international banking, finance and investments since graduating in 1969 from George Washington University with a B.A. degree in International Economics. His business career began at The Chase Manhattan Bank, which included assignments in Thailand, the Philippines and Hong Kong. He subsequently joined the investment and trading company of a prominent precious metals trader based in Greenwich, Connecticut. He moved to the United Arab Emirates in December 1983 to be appointed Manager of the Commodity Department of the Abu Dhabi Investment Authority, a position he held until resigning in 1987.

Since 1987 James Turk has written The Freemarket Gold & Money Report, an investment newsletter that publishes twenty issues annually. He is the author of "The Illusions of Prosperity" (1985), "SOCIAL SECURITY Lies, Myths and Reality" (1992), and several monographs and articles on money and banking.

Mr. Turk founded GoldMoney.com based on two U.S. patents awarded to him for digital gold currency, which enables gold to circulate efficiently as currency.

Kelvin Hugh Williams

Kelvin Williams is Executive Director: Marketing, of AngloGold Limited.

Born in Durban in 1948, he was raised in South Africa. He was educated at Rhodes University in Grahamstown, Dalhousie University in Canada and finally at Oxford in 1972, where he read history.

Mr. Williams joined Anglo American Corporation as a member of the Industrial Relations Department in 1976. Between 1978 and 1985 he worked in the Coal Division with responsibility for Amcoal's anthracite collieries, and in September 1985 he joined the Anglo American Corporation's Gold and Uranium Division.

Mr. Williams currently sits on the boards of Anglo American Corporation of South Africa Limited and AngloGold Limited. He is the Chairman of Nuclear Fuels Corporation of South Africa and Rand Refinery Limited. He is also a Member of the World Gold Council's Executive Committee.