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Q-Series®: Gold

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What is next for gold?

Where could prices go?

We believe that the current environment is one which can best be characterised as having a 'low margin of error' for central bankers; with the prospects for deflation/inflation as becoming more extreme. The high potential for policy error is generating considerable interest in certain assets which are perceived as 'stores of value' including gold.

Our econometric model indicates upside risk

Using a proprietary econometric model we have generated a probability cone for the future possible price path for gold. Using different environments for the level of inflation volatility, US dollar and absolute level of inflation we have determined that future returns on gold are likely to be positively asymmetric, with potential upside to US$2,500/oz.

Exposure to gold recommended

Our asset allocation team has moved gold to overweight from neutral. Given the broad uncertainties in the current macro climate we believe that investors should look to gold given its historic tendency to act as a hedge against these risks.

Equity performance

Our assessment of equity performance from 1900 suggests that gold equities are strong performers versus the market during periods of financial risk. During the 1929 crash, for example, Homestake Mining strongly outperformed the S&P. Preferred gold mining equities include Goldcorp, Anglogold and Lihir.

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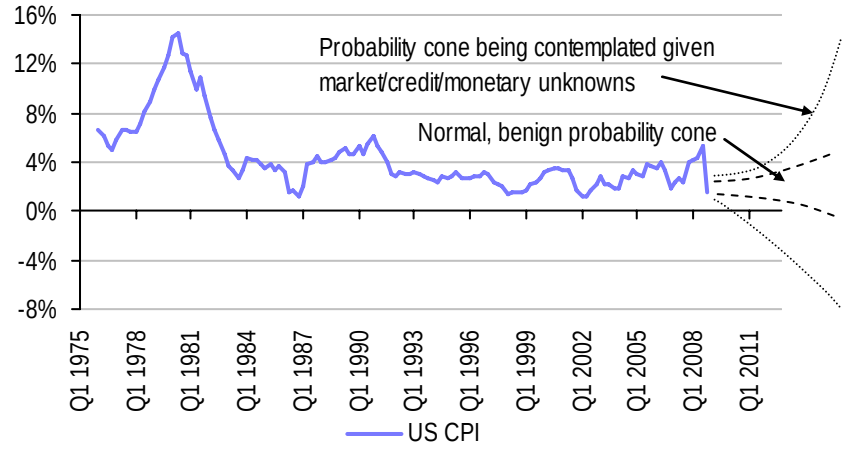
Summary

"There are no such things as absolute values, independent of the subjective preferences of erring men. Judgments of values are the outcome of human arbitrariness. They reflect all the shortcomings and weaknesses of their authors."
– Ludwig von Mises, *Bureaucracy*

We believe that the current environment is one which can best be characterised as having a 'low margin of error' for central bankers. We would characterise the prospects for deflation/inflation as becoming more extreme, and have illustrated this concept as a wider than usual probability cone for inflationary outcomes. The high potential for policy error is generating considerable interest in certain assets that are perceived as 'stores of value', including gold.

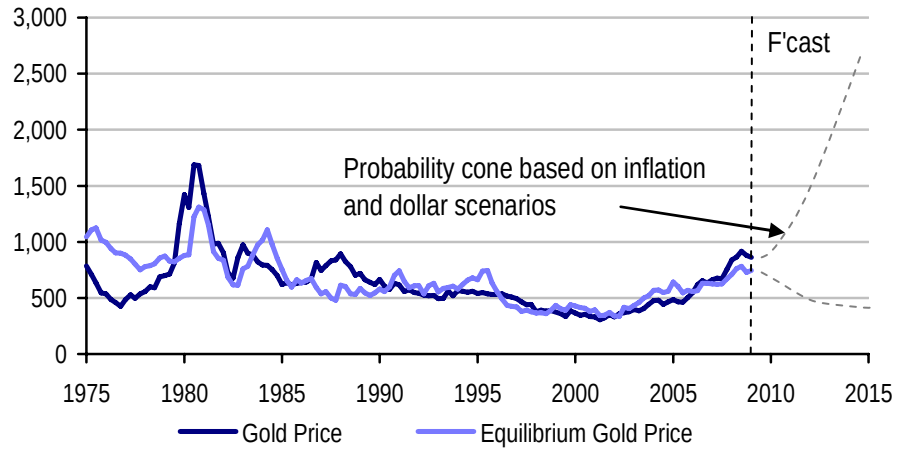
Chart 1: US CPI (from 1975)



Source: Thomson Financial, UBS estimates

We have constructed an econometric model using inflation volatility, a major currencies US dollar index and inflation itself (US CPI). Utilising this tool we have attempted to quantify potential pricing paths for gold going forward.

Chart 2: Estimated probability cone of gold price outcomes (real)



Source: UBS estimates

The chart above illustrates a cone of probability for gold prices in future, based on our regression model. **We see downside risks limited to cUS$500/oz (down c50% from current levels) vs. upside risks of cUS$2,500/oz (c160%).**

Furthermore, we note that the opportunity cost of holding gold bullion has declined significantly over the past several years. We expect that this is facilitating capital inflows to the commodity; furthermore, given the current deflationary pressures it is possible that this cost could continue to decline over the near term.

How to invest?

Our analysis shows that gold mining equities have underperformed gold bullion over the past several years. In our view, this has been a function of operating, political and earnings risk combined with the availability of investment alternatives such as gold ETF instruments.

Nevertheless, we note that gold mining equities have historically been strong performers in periods of heightened financial risk, with gold equities demonstrating a very low beta over time.

The table below outlines the valuation metrics for the senior UBS gold equities.

Table 1: UBS global gold equity valuations*

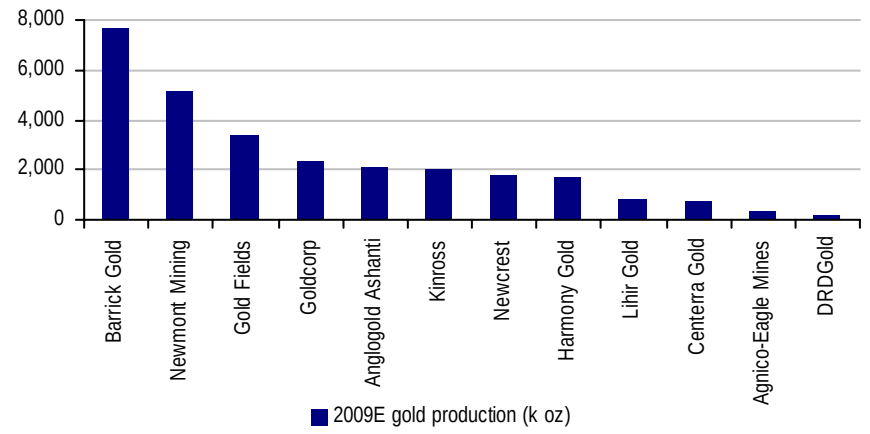
	Ticker	Share price	Target price	UBS rating	Market cap.	EBIT Margin %	P/E	EV/EBITDA	EBITDA Growth %	Primary Analyst
					(US$bn)	2009E	2009E	2009E	2009E	
Australasia										
Lihir	LGL.AX	2.0	2.5	Neutral	4.4	38.7	14.6	8.6	84%	Lawcock
Newcrest	NCM.AX	20.0	22.3	Neutral	9.6	35.5	22.0	11.1	-7%	Lawcock
North Am.										
Agnico-Eagle	AEM.N	50.0	62.0	Buy	7.7	40.6	43.5	21.9	161%	Macarthur
Barrick	ABX.N	28.8	44.0	Buy	25.1	39.2	11.2	5.6	24%	Macarthur
Centerra	CG.TO	3.5	5.0	Neutral	0.8	28.2	5.7	2.5	4%	Macarthur
Goldcorp	GG.N	29.5	36.0	Buy	21.5	32.5	35.4	16.4	25%	Macarthur
Kinross	KGC.N	16.7	22.5	Buy	11.0	34.5	20.3	8.8	90%	Macarthur
Newmont	NEM.N	38.9	48.0	Buy	17.2	37.4	15.7	5.9	64%	Macarthur
South Africa										
AngloGold Ashanti	ANGJ.J	29.9	38.4	Buy	10.6	37.0	9.9	4.8	428%	Kendall
DRDGOLD	DRDJ.J	0.9	1.0	Buy	0.3	31.1	7.4	3.5	66%	Kendall
Gold Fields	GFIJ.J	10.9	15.2	Buy	7.1	31.7	11.9	4.7	10%	Kendall
Harmony	HARJ.J	11.4	13.3	Neutral	4.8	31.9	14.3	7.8	25%	Kendall
Europe										
Hochschild	HOCM.L	3.2	3.8	Neutral	1.0	38.7	9.6	6.5	62%	Sporre

Source: UBS estimates. * Priced as of 6 March 2009

Preferred senior gold equities include: Goldcorp, Anglogold and Lihir.

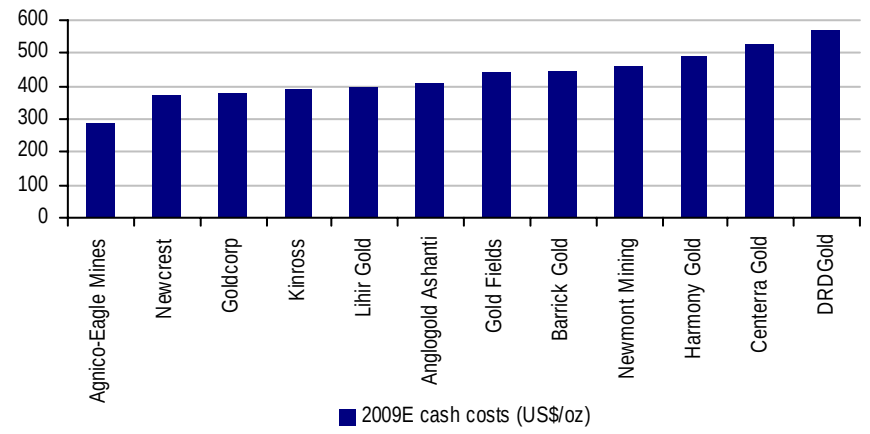
The charts below illustrate further operating details for the highlighted equities.

Chart 3: 2009E gold production profile for selected senior mining companies



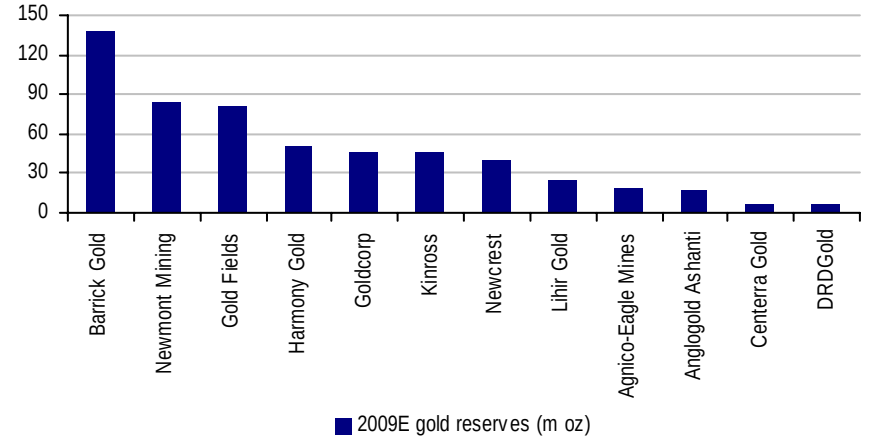
Source: UBS estimates

Chart 4: 2009E gold cash cost profile for selected senior mining companies



Source: UBS estimates

Chart 5: 2009E gold reserves profile for selected senior mining companies



Source: UBS estimates

How does gold work?

In a commodity context, gold is almost unique. It is unique (and from an investor perspective often maligned) because over the past several decades there has been no clear societal need for the metal. It could be (and often is) argued that while other commodities are required to directly support the inner workings and advancement of human civilisation, gold is not. Gold's primary applications have, throughout history, been consigned to two primary (and often interlinked) uses: as a medium of exchange or currency, and jewellery.

Is gold money?

It is only rather recently, with the advance of modern monetary policy, that the function of gold as a currency been questioned. The proliferation of fiat currency (fiat effectively meaning that it is backed by the authority of government – in other words you go to jail if you don't pay your taxes with it) and its success and universal acceptance over the past several decades has accelerated the relegation of gold to the backwaters of the currency world.

In our view, gold can best be characterised as being 'mostly' money. This is not a perverse way of saying that it both is and is not money; we would instead describe gold as having the most important characteristics of money without having the explicit authority to be money.

Gold's role as a form of money is largely a function of its physical and geological properties; the more important of these are described below:

- **Scarcity:** Gold is reasonably scarce, so there is not likely to be a loss of confidence from supply growth; and mine-supply growth over time is reasonably predictable.
- **Utility:** Gold is divisible, indestructible and transportable; furthermore, it can be stored indefinitely, all of which makes it unique as a convenient agent of exchange.
- **Acceptability:** Gold has been a widely accepted and used form of currency for much of human history (civilised history that is).

Given gold's financial links, the usual supply/demand dynamic often does not apply for the metal. Gold prices generally respond quite peripherally and temporarily to the waxing/waning of jewellery demand, or oscillations in mine output or central bank selling. If selling or buying surges, then of course prices will respond; however, this is usually short-lived. The evidence does suggest, however, that gold meaningfully responds as a financial instrument that competes with other stores of value, i.e. other currencies and other asset classes.

Our view: Over time, gold trades like another form of money

As such, over the past several decades, as confidence in paper money (the US dollar in particular, as this is the default global reserve currency) has fluctuated, largely as a response to changing inflationary and deflationary expectations, so too has the performance of gold responded.

This leads to our first discussion, which through subsequent analysis we expect to substantiate, and that is to explain how gold should perform during periods of

deflation and periods of inflation; both of which can have meaningful repercussions on how currencies are valued.

Gold and deflation

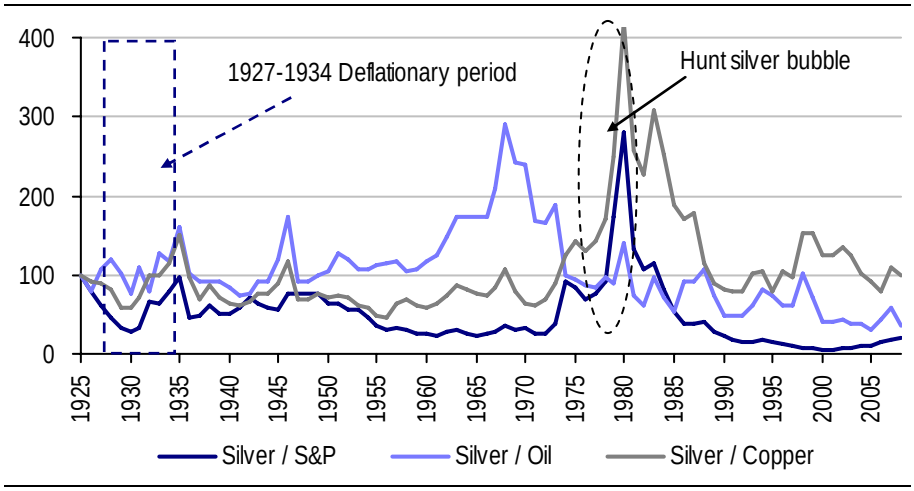
To be exceptionally simplistic about it, we would define deflation in its most basic form as an environment where currency gains in value relative to goods and services. Effectively, your money buys more stuff over time.

Deflation erodes the value of most assets, as it usually occurs during periods of de-leveraging, when capital is being taken out of the system/economy and used for non-productive purposes.

We believe that gold, given our contention that it acts as a currency, will usually outperform other assets in this type of environment. Gold acts as an effective hedge against deflation.

The chart below illustrates the performance of silver from 1925, highlighting the 1927-34 deflationary period, a period of out-performance of silver versus other important asset classes. In this instance we use silver as a proxy for gold given the price controls and restrictions on gold from 1933.

Chart 6: Silver (proxy for gold) performance relative to other assets (from 1900)



Source: USGS, UBS estimates

Gold and inflation

Inflation is of course the opposite of deflation, i.e. currencies fall in value relative to goods and services. Effectively your money buys less stuff over time.

Inflation also erodes the value of key asset classes, particularly equities and debt, given that it also generally coincides with greater volatility of inflation, which leads to greater uncertainty and increased risk perceptions.

But before making further comments on how gold performs in periods of inflation, it is necessary to clarify that we also believe that one needs to consider the *source* of inflation, as this may have a bearing as to how gold could perform.

For example, inflation during the 1970-80s was due to a combination of two things: (1) stimulative monetary policy during the 1960s; and (2) a spike in oil prices which occurred as a consequence of supply restraint. These two factors

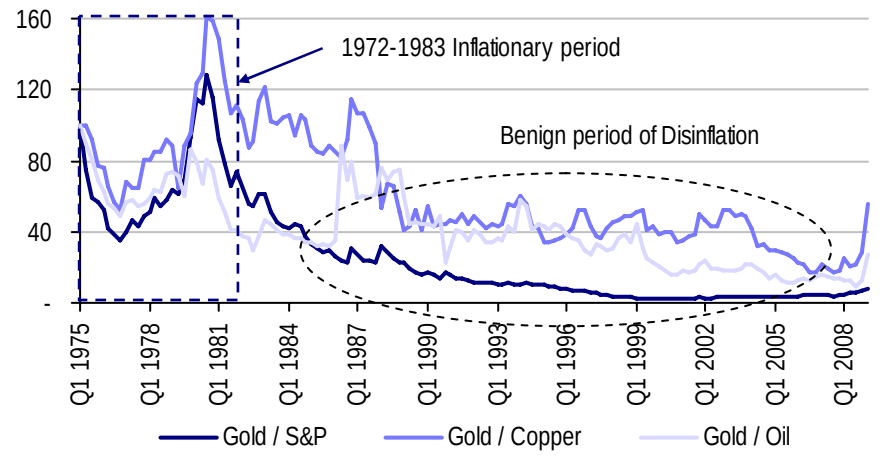
led to strong performance in commodities as an asset class, and a mixed performance by gold versus some other commodities.

It is also possible, in our view, for inflation to emerge in another manner, and one which may be more applicable to the current financial environment; that is the potential for currency debasement as governments spend vast quantities of money, and potentially start the printing presses to produce more currency and avoid deflation. In this environment we would argue that prices rise as a direct consequence of growing availability of money (the velocity of money is a key factor here). Given the non-fiat characteristics of gold, we would expect that in this environment gold could perform in-line with inflation.

In summary, gold can act as a hedge against inflation particularly if the source of that inflation is loose monetary policy.

The chart below illustrates the performance of gold from 1975, highlighting the 1972-83 inflationary period, and the period of inconsistent performance of gold versus other important asset classes. We would note that there was some distortion in the gold market from 1975 to 1980, as the US Treasury and IMF had selling programmes during this time.

Chart 7: Gold performance relative to other assets (from 1975)



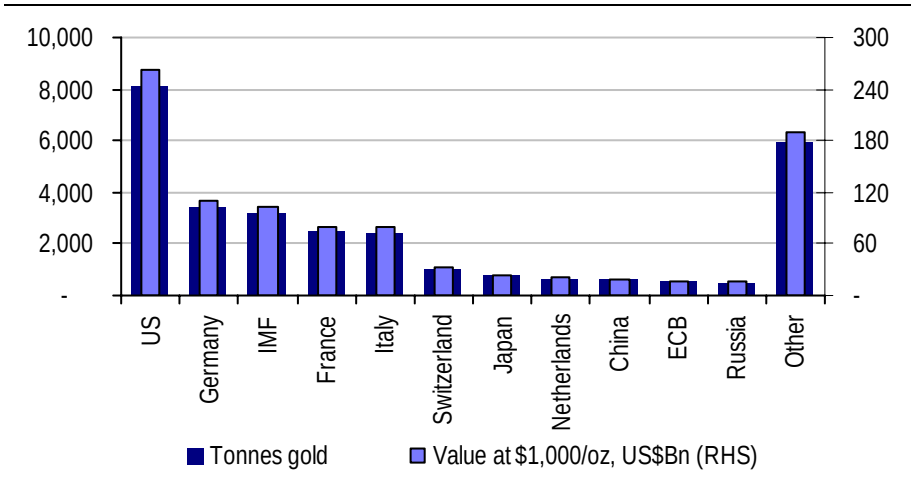
Source: Thomson Financial, UBS estimates

Central banks

For much of the modern era (since 1500), currencies have been – officially or unofficially – priced off a gold standard, that is to say currencies were backed by and/or convertible into gold (interestingly enough, China was on a silver standard). This resulted in the growth of large inventories or holdings of gold in the central bank vaults of many Western countries.

The chart below illustrates current official gold holdings, with the US by far the largest holder of gold, with 8,134 tonnes (c260m oz) valued at US$262 billion at US$1,000/oz; total global central bank holdings are worth nearly US$1 trillion at that price level.

Chart 8: World official gold holdings (December 2008)



Source: World gold council, UBS

Will central banks sell?

The Central Bank Gold Agreement (more commonly known as the Washington Agreement) was announced on September 1999, when there was considerable concern that uncoordinated selling of gold from central banks had the potential to destabilise the gold market. In response, 15 European central banks signed an agreement indicating that gold would remain an important element of global monetary reserves, limiting sales to 2,000 tonnes within the following five years, and halting further lending over the same time-frame.

On March 2004 the agreement was extended for a further five years (although this time the UK was not included), with maximum selling pegged at a higher 2,500 tonnes.

The second Washington Agreement is due to expire in September 2009; there is a strong possibility that it will be extended a further five years, with an announcement expected this month.

What about other central banks?

At the risk of sounding facetious, one could argue that a billion dollars just isn't what it was. With the cost of fixing the global financial system likely to run into the multi-trillions of dollars, the utility of gold in fixing this gaping hole needs

to be seriously questioned, at least in the sense that selling reserves would not bring sufficient revenues to make a difference.

Furthermore, if a central bank were to sell gold in large quantities there would potentially be the risk that, despite the recognition that its currency was not backed by gold, confidence could deteriorate further.

Even more dangerous for a central bank being a large seller would be the appearance of a large buyer. If, for instance, an Asian or Middle Eastern central bank were to bid for a large tonnage of gold, the implications would potentially be: (1) highly supportive for the gold price; and (2) a potential political powder keg for the seller.

What about the IMF?

The IMF is the third-largest holder of gold, with 3,200 tonnes, and there is the possibility that it could sell gold to fund bailouts (400 tonnes has been rumoured). Back in 2007 the IMF had a problem in that it could not lend any money because its client base did not need it, so it proposed the sale of gold to generate more funds to invest. This sale was to be done in 'a manner that would not destabilise the gold market', which we take to mean that it would comply with the Washington Agreement.

Currently the IMF has a different problem: too many clients now need funding, therefore the old proposal remains pending.

In order for this to proceed, the IMF would need approval from 85% of its shareholders. The US has a 17% stake and thus must give approval for it to take place; furthermore, an act of Congress is required.

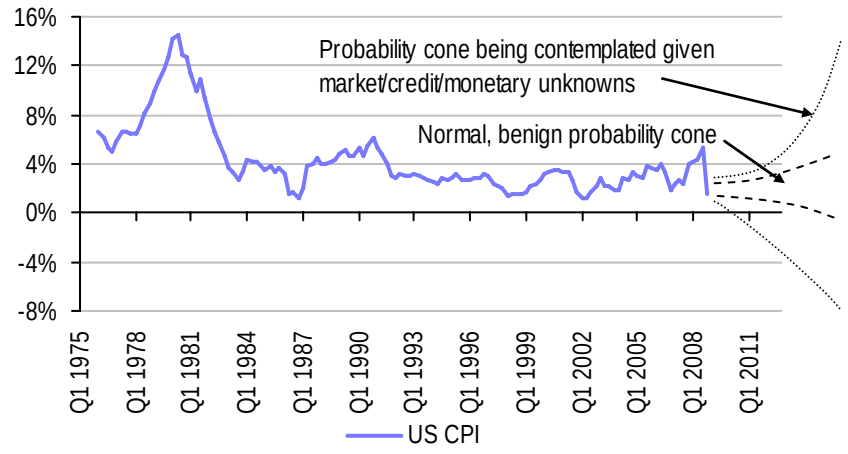
In our view, this could in fact occur, but not quickly; therefore a potential sale is likely to be well flagged to the market, thus not significantly impacting the gold market.

Quantifying upside

Attempting to forecast upside risk to any commodity is fraught with challenges. While historical precedent is useful and often highly relied upon, the exact conditions and timing of capital flows into a particular asset (particularly asset classes of which gold is particularly unique) combined with the psychology of the market and how it reacts to various changing and often contradictory indicators can be exceedingly difficult to judge from a qualitative perspective, let alone measure quantitatively.

We believe that the current environment is one that can best be characterised as having a 'low margin of error' for central bankers. There is a not inconsiderable threat that an underestimation of the risks to global growth and the impact of poor financial liquidity, combined with the toxicity of credit-linked assets, could result in a continuation of the deflationary pressures already growing in the global economy. At the same time an overestimation of, or perhaps more accurately an over-compensation for the current deflationary threat, could potentially result in high levels of inflation, or even the contemplation of hyper-inflation. This concept can be illustrated in the form of probability cones which indicate possible future outcomes; given the stresses in the financial system and the extremes to which monetary and fiscal policy is being utilised, we could characterise the cone of probable future outcomes as widening considerably over the past year.

Chart 9: US CPI (from 1975)



Source: Thomson Financial, UBS estimates

The increase and impact of the 'known unknowns' and potential for nasty surprises in the form of 'unknown unknowns' (to borrow from Donald Rumsfeld), creates implicitly a higher-risk investment environment, which clearly impacts the performance of all asset classes.

Excessive debt and the erosion of value

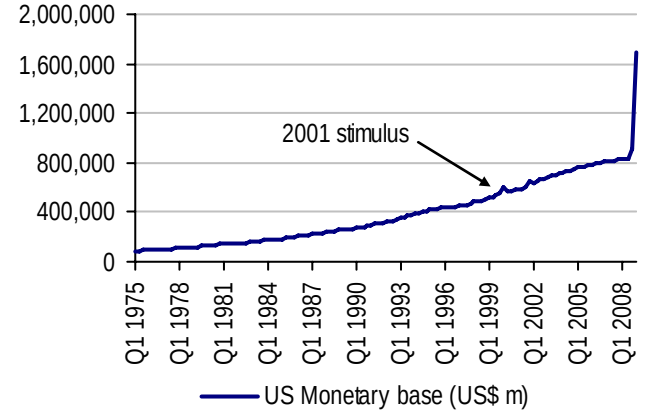
Borrowing is effectively the allocation of future cash flows to the present; in moderation it allows a person, company or state to theoretically allocate value over time more efficiently. Borrowing is neither bad nor good; it is a financing tool for more effective asset allocation.

There is a tendency over extended credit cycles, however, for credit or borrowings to be mistaken, through their impact on asset values, for true value-creation. This occurs when credit becomes easily available and the risks for future cash flows are perceived to be low (resulting in credit being priced at unsustainably low levels). Extended periods of low asset price volatility, political stability, and technological innovation tend to distort perceptions of risk, which can result in excessive build in borrowing within various parts of an economy.

This has clearly occurred in much of the Western world over the past 20 years or so, and the repercussions of the excessive debt levels which have built up over this period are now resulting in a painful re-adjustment period. With asset values generally in retreat as borrowing costs rise and credit availability declines, the 'value' that had been associated with the credit conditions of the past now appears as an illusion. Institutions, states and individuals which had significant levels of debt relative to assets are finding the 'equity' portion of their balance sheet rapidly deteriorating. This of course tends to create a negative feed-back loop as counter-party risk grows, putting further pressure on 'assets at risk'.

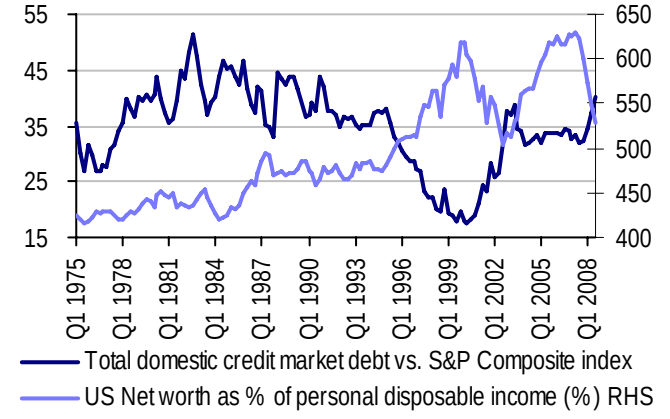
So what is the solution? There two very obvious solutions: (1) cut costs and expectations, using excess cash flows to slowly reduce debt levels over time and lower balance sheet risk; and (2) grow the underlying assets over time (add value) such that the relative size of the debt burden falls. The central banker, however, has other options, options which may be politically more palatable. The US Federal Reserve in particular has the option of expanding its balance sheet by purchasing various assets, including government bonds, to reduce interest rates and allow households to re-finance at lower rates. That policy would cushion the process of de-leveraging, but not eliminate the need to reduce debt burdens. Of course, the Fed also has the option of increasing the money supply rapidly and thereby creating—eventually—sufficient inflation to erode away the real value of the debt. However, it is not clear, with a failed banking system incapable of transmitting the Fed's 'high-powered money' into new loans, how well or quickly such a 'reflation' policy might work.

Chart 10: US monetary base (from 1975)



Source: Thomson Financial, UBS

Chart 11: US credit vs. 'equity' and US personal net worth



Source: Haver, Thomson Financial, UBS

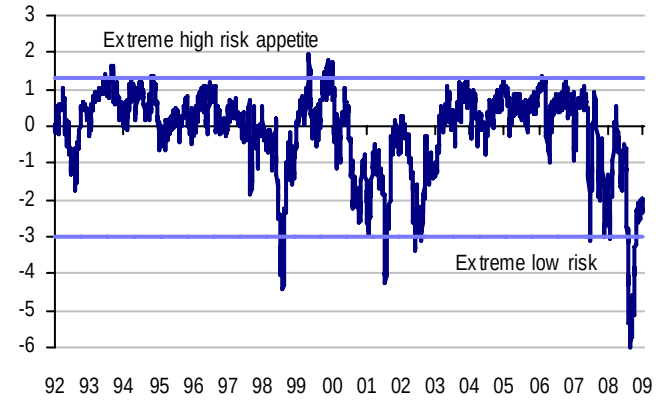
The charts above illustrate the initial indications on how the debt problem is being fixed and perceived. The US monetary base has grown dramatically as the

US government bails out its banking system (+50% y/y). Our simplistic proxy for the US balance sheet, a simple ratio of domestic credit market debt versus the equity market, shows deterioration as US net worth falls.

Risk perceptions

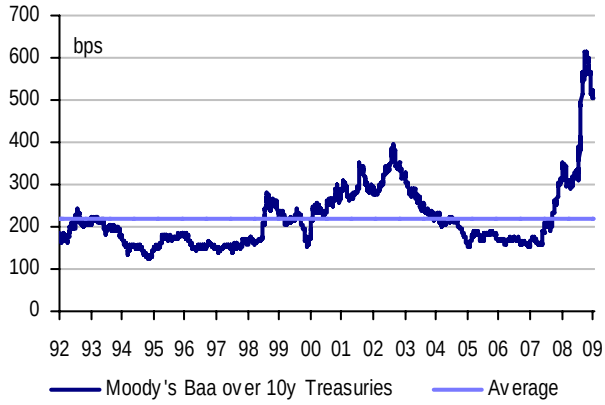
It is difficult to overemphasize the repercussions that the above asset erosion and credit reversal have had on risk perception. The chart below illustrates the extremes in volatility and the absolute levels of risk that are being reflected in a number of metrics that our asset allocation team monitors.

Chart 12: UBS global equity strategy risk indicator



Source: UBS estimates

Chart 13: Historical credit spreads



Source: Thomson Financial, UBS estimates

Given the increased risk perceptions, wealth preservation has become a dominant investor theme versus wealth creation, which characterised the objectives of most investors over the past 20 years or so. In this context, gold's status as a store of value has become a much sought-after characteristic.

Gold drivers – Analysis

The creation of a statistical model to explain the price path for gold has involved the examination of many different possible drivers for the commodity; however, our bias has been towards those variables that can be grouped roughly into three categories.

(1) Investor perception regarding risk and its implication for asset allocation;

(2) Competing stores of value; and

(3) Economic conditions.

Furthermore, we have elected to examine gold's performance from 1978 to the present, on a frequency which is quarterly.

The reason we elected to start the analysis at 1978 rather than 1975 is two-fold. (1) In anticipation of the US market opening in 1975, the London bullion market rose significantly, reaching its highest fixing price of US$197.50/oz. The market dropped in the succeeding years as the US Treasury and then the IMF began sales into the market; we believe this created some distortions independent of other longer-term drivers. (2) Our co-integration of key gold price drivers (Equity Risk Premium and Inflation Volatility) improves dramatically if we omit

the first three years of free trading; this clearly creates a bias within our analysis which we are content to acknowledge.

Statistical output

We have elected to use statistical tools to try to assist in generating scenarios for potential gold price trends over the next several years. In our analysis we have elected to use input data series which empirically seem to have a strong influence on gold prices over time. Our focus on the motivators for the gold price path has been oriented largely on factors which would influence investment decisions: asset allocation, economic conditions, risk perceptions and the like.

After examining many different options and removing data series which seemed to overlap or describe the same thing, we elected to use the following data series in our analysis: inflation volatility; major currencies dollar index; oil; and the equity risk premium.

We find that each of these inputs has value in describing gold statistically.

Analytical basis

By finding a 'fundamental economic relationship', we can often forecast the long-run driver on the price of a good or commodity. However, what is the fundamental relationship underlying the price of gold? Gold is always described as a safe haven from both inflation and a falling dollar. Therefore, it is not that surprising that over the last 20 years the ratio of the real gold price to inflation risk (as measured by the volatility of the inflation rate) adjusted for the dollar exchange rate (measured relative to a basket of currencies) has remained relatively constant over the long run.

One way of interpreting this result is in terms of risk premiums. Assume that the real return to cash is equal to the real rate of return on capital plus the expected inflation. Therefore, the risk of holding cash is just the volatility of the inflation rate. If, as we have argued, gold is an alternative store of value but in fixed supply, then in periods of high inflation uncertainty, gold will be in greater demand as a hedge, and this demand pushes up its price. The exchange rate in the equation could be justified on the grounds that this demand should be measured in world prices and not US dollars.

We shall call the real price of gold, as defined by this ratio, the 'fundamental price of gold'. Around this fundamental price, the spot price of gold appears to be driven by cyclical considerations. How can we explain these dynamics? Well, these dynamics could be caused by investors slowly adapting their expectations to the new inflation environment; or maybe investors simply over- or under-reacting to inflation risks. We find that we can capture these dynamics by lagged changes in the inflation rate, exchange rate and price of gold. By putting these two pieces together, we derive a forecasting model; this model has the dynamic or cyclical forecasting equation built around a fundamental structural one. Incidentally, the development of this type of structure for a forecasting equation won Clive Granger and Robert Engle a Nobel Prize in Economics.

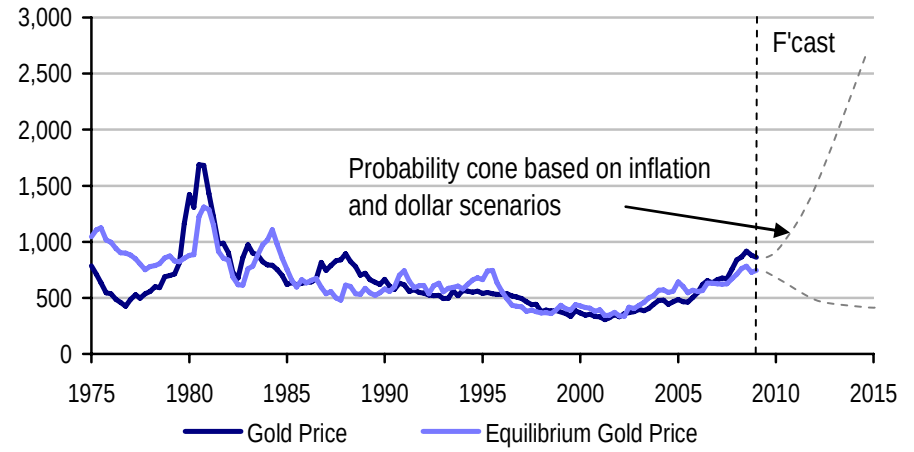
The technical details behind our analysis are found in the Appendix.

Scenarios

We have adjusted the inputs of our regression model to determine the potential outcomes for gold pricing out to 2015. We have looked at a combination of economic environments from scenarios where inflation volatility remains static to increasing to 1970s levels; and where the US dollar is weak or strengthens. This process allows us to create a probability cone capturing all of our scenarios for different economic conditions, and how this drives the price path for gold. Interestingly, the probability cone indicates an asymmetric return profile for gold over the time period considered, something which we believe could be valuable for investors.

The chart below illustrates a cone of probability for gold prices in future based on our regression model. **We see downside risks limited to cUS$500/oz (down c50% from current levels) vs. upside risks of cUS$2,500/oz (c160%).**

Chart 14: Estimated probability cone of gold price outcomes (real)

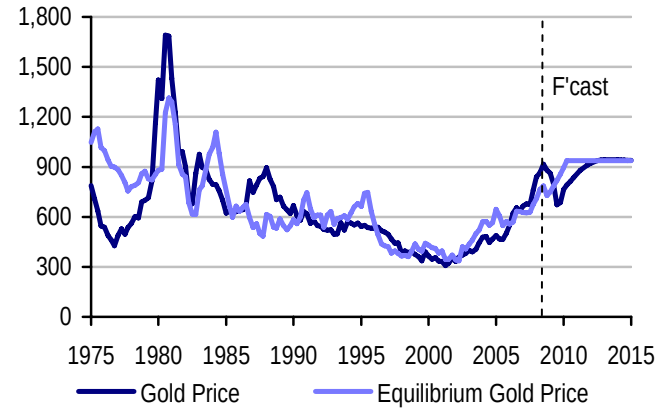


Source: UBS estimates

The series of charts below outlines the various scenarios we have considered in our analysis. It should be noted that in our analysis we do not consider an environment where inflation volatility falls to historical lows in a strong dollar environment (which would be the worst possible environment for gold); if this were to occur, our equilibrium gold price falls to cUS$400/oz.

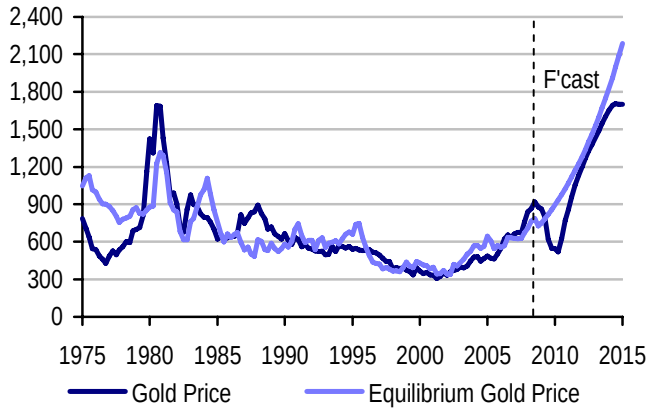
With our econometric model we find that we can explain roughly 20-25% (the R^2) of the short term changes in the gold price. This might at first appear to somewhat low. However, it should be considered to be rather high. Firstly because this is the explanatory power within sample, and out of sample fits are generally lower (though we have made every attempt not to over-fit the data). Secondly, if the market was perfectly efficient, one would expect and R^2 of zero. Any positive R^2 implies a profit opportunity and R^2 of 20% suggest a very significant profit opportunity.

Chart 15: Scenario 1: Inflation at mean, dollar static



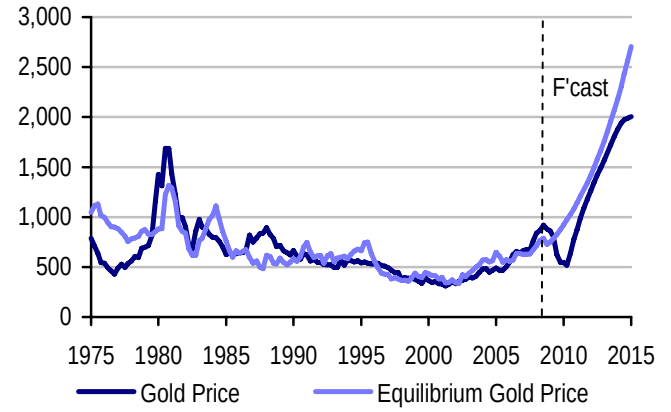
Source: UBS estimates

Chart 16: Scenario 2: Inflation at 1970s levels, dollar static



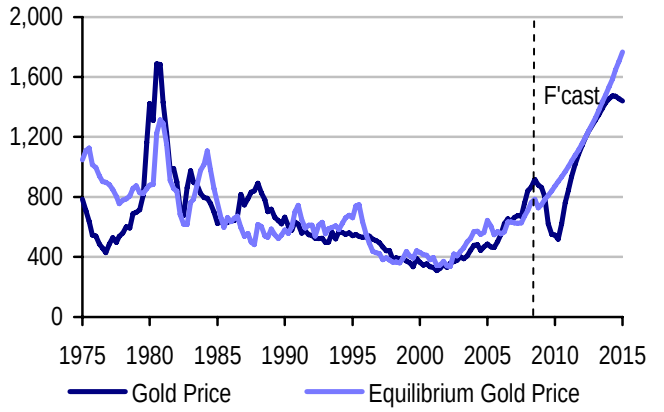
Source: UBS estimates

Chart 17: Scenario 3: Inflation at 1970s levels, dollar weak



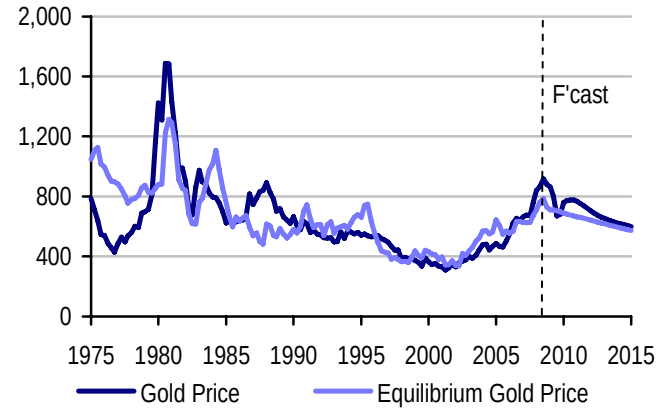
Source: UBS estimates

Chart 18: Scenario 4: Inflation at 1970s levels, dollar strong



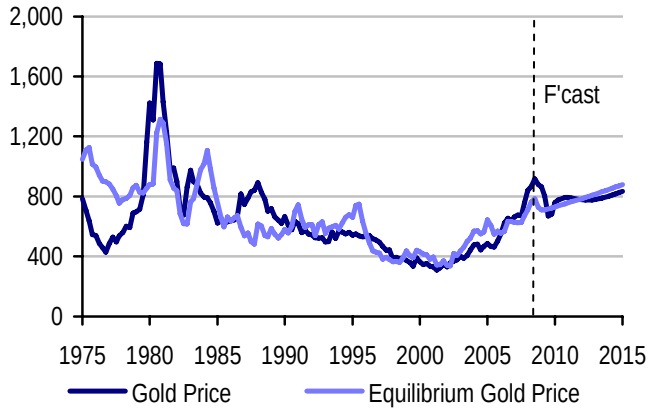
Source: UBS estimates

Chart 19: Scenario 5: Inflation static, dollar strong



Source: UBS estimates

Chart 20: Scenario 6: Inflation static, dollar weak



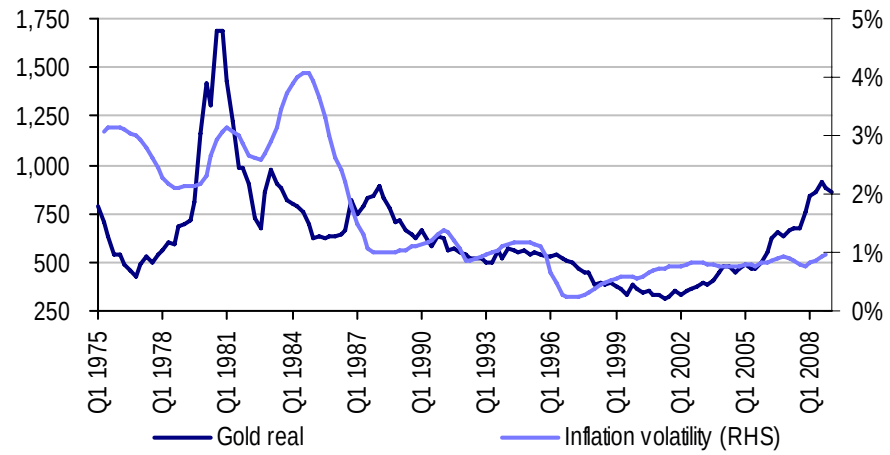
Source: UBS estimates

- **Scenario 1:** Inflation volatility rises to the mean average experienced over the past 30 years (about 50% higher than current levels) and the dollar remains static.
- **Scenario 2:** Inflation volatility rises to 1970s levels (about 4x higher) and the dollar remains static.
- **Scenario 3:** Inflation volatility at 1970s levels, dollar weakens by c15%.
- **Scenario 4:** Inflation volatility at 1970s levels, dollar strengthens by c15%.
- **Scenario 5:** Inflation volatility remains static, dollar strengthens by c15%.
- **Scenario 6:** Inflation volatility remains static, dollar weakens by c15%.

Inflation volatility

The chart below illustrates the price path for gold and inflation volatility since 1975. In our regression, we look for a relationship between the volatility of inflation and the real gold price. We focus on inflation volatility as it is our preferred measure of the risk of holding cash relative to gold. More precisely, we investigate whether the ratio of the log of the real gold price to the inflation volatility has remained constant over our sample period. As the graph illustrates, the gold price appears to rise during periods of higher inflation volatility and fall in periods of low volatility.

Chart 21: Gold and inflation volatility (US CPI)

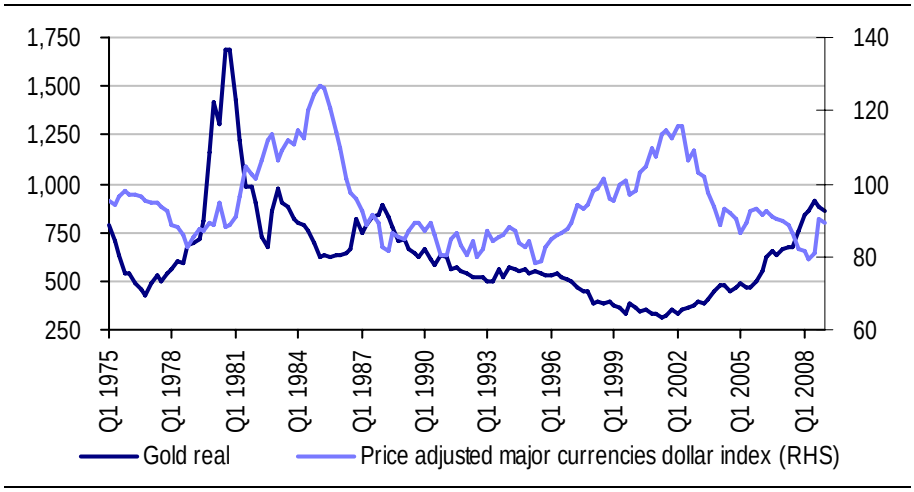


Source: UBS

US dollar

The equilibrium ratio of the gold price to inflation volatility appears to depend on the dollar exchange rate. If the dollar is strong the ratio is lower. Thus we are able to explain the peak in the gold price in early eighties, as high inflation volatility and a weak dollar.

Chart 22: Gold and price adjusted major currencies dollar index



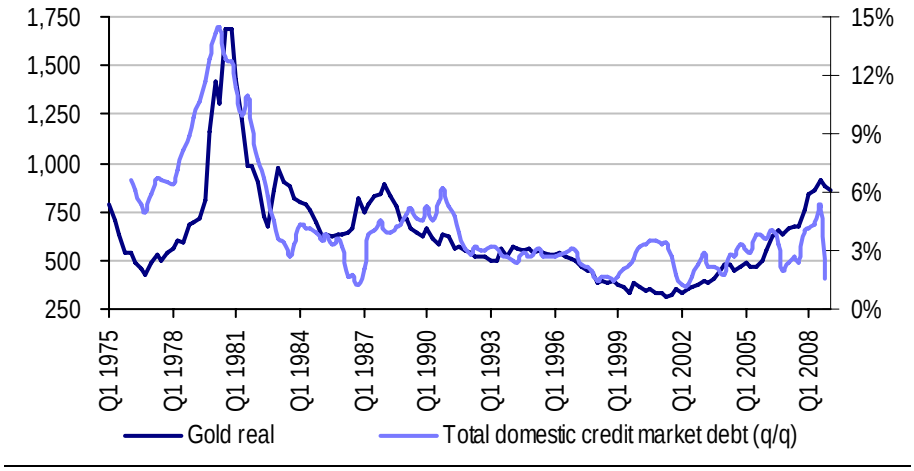
Source: US Federal Reserve, UBS

During the 80s the dollar strengthened so the gold price fell even though inflation volatility remained high. Currently, we have rising inflation volatility and a weakening dollar driving the rise in gold price.

Inflation

The chart below illustrates the price path for gold and the absolute level of inflation. There appears to be a strong relationship between inflation and the real gold price as well. Though clearly there is a positive relation between inflation volatility and the level of inflation, we theoretically prefer inflation volatility in our regression because it a better measure of risk (ideally, though, it should be a forward looking measure). Another reason for preferring inflation volatility is that in the current environment, inflation volatility fits the data better - the level of inflation is currently very low. Yet, we accept that there will continue to be some debate about the best measure.

Chart 23: Gold and Inflation rate (US CPI)



Source: UBS

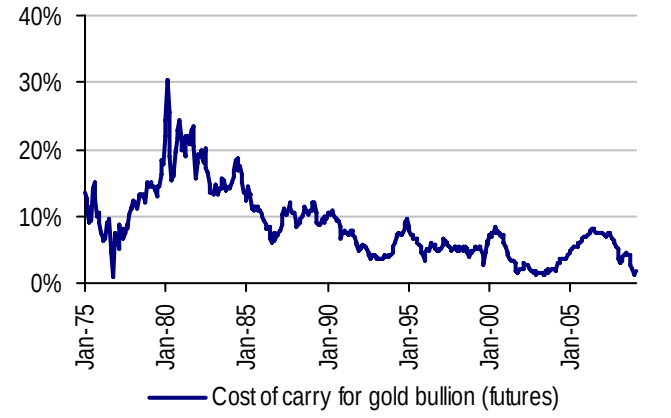
Opportunity cost of holding gold

In addition to the above analysis we believe it is worth pointing out the decline in the opportunity cost that investors experience in holding gold bullion.

In Chart 24 below we illustrate the cost of holding gold bullion as described by the inclination (contango) of the forward curve. The overall decline in the cost of carry since 1980 is a function of the flattening of the forward curve over this time-frame.

Chart 25 is simply a combination of the cost of holding gold and the benefit of holding cash, i.e. the opportunity cost to an investor who chooses to hold gold and pay for it rather than the benefit of holding cash. Given the dramatic decline in yield for US 3-month treasuries (now at about 0.25%) combined with the decline in the cost of carry (now about 1.8%), the opportunity cost for the investor is only just above 2%.

Chart 24: Cost of carry for gold bullion (neg roll yield))



Source: Bloomberg, UBS

Chart 25: Opportunity cost: Holding gold + US 3m treasuries

Source: Bloomberg, UBS

We expect that the decline in the opportunity cost of gold is resulting in some capital inflows to the commodity; furthermore, given the current deflationary pressures it is possible that this cost could continue to decline over the near term.

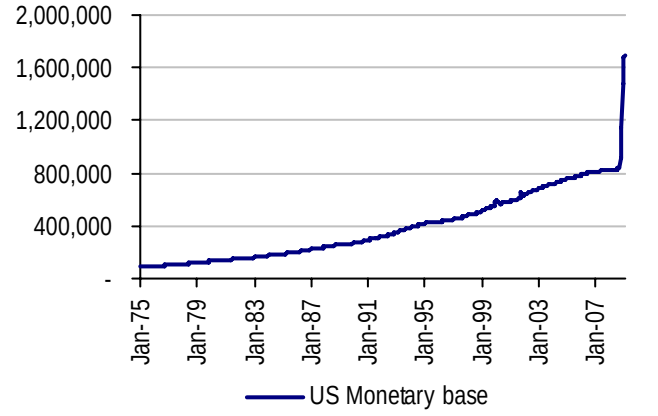
What if there was a new gold standard?

One question, once unthinkable, is increasingly being asked by investors: where could gold go if a new gold standard was adopted to support currencies, but most pressingly the world's reserve currency, the US dollar.

The answer is reasonably simple if one assumes that the only currency in circulation needs to be backed directly and completely by gold.

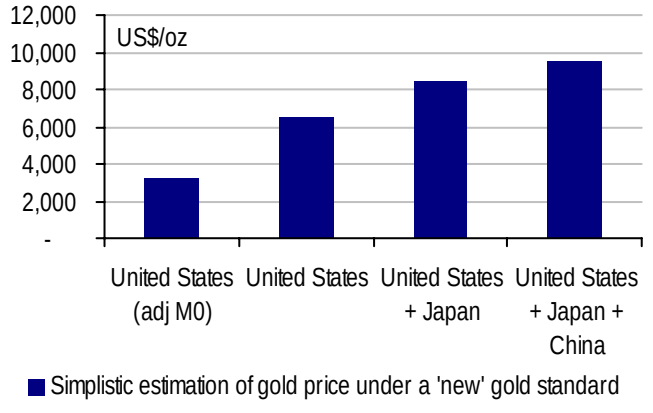
- If one uses the current value of the US monetary base, which has risen at an unprecedented rate recently, and compares this with official US holdings data, which suggest the government holds 8,134 tonnes, a value of US$6,498/oz is derived for gold. That is, gold would need to be valued at this level to support the value of the dollar, given the supply of dollars in circulation. We have also calculated the implied gold price using the monetary base level before the recent spike; this corresponds to US$3,250/oz.

Chart 26: US monetary base (M0)



Source: Haver, UBS

Chart 27: Implied price at a 'new' gold standard, scenarios



Source: UBS

- If one includes Japan, as the world's second-biggest economy (given its gold holdings are significantly lower at 765 tonnes), a value of US$8,459/oz is calculated.
- Finally, if one also includes China (using the base money supply for all three countries and combined holdings of gold), a value of US$9,562/oz is calculated.

Is a gold standard realistic?

Part of the problem with the gold standard historically is that it has been inflexible, preventing governments from adjusting policy to accommodate fluctuations in economic activity and trade conditions (whether governments should be involved at all is another 'Austrian' topic entirely, and peripheral to our discussion).

One of the positive aspects of course is that if confidence in fiat currencies wanes or collapses, the backing of gold would theoretically allow the return of confidence and stabilise currencies. This would doubtless coincide with the implementation of restrictions on the private ownership of gold; going even further, it would be possible (if in fact gold was seen as the only way to ensure stability and fiscal discipline longer term) that nationalisation of gold mines and regulation of gold production could occur.

Could a gold standard work?

A gold standard has worked before, and for a long period of time. The most recent and celebrated period was from 1717 to 1931, although it should be made clear that gold was never officially declared as the standard.

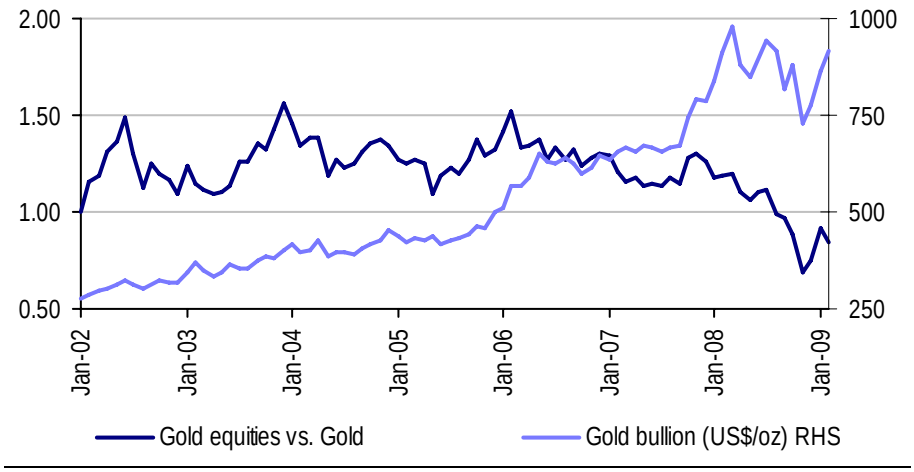
Gold and gold-exchange standards have their critics. If the supply of gold grows too slowly, deflation can result as money growth is insufficient to meet the needs of the economy. Moreover, in the event of financial panics, it is not clear what role central banks can play as 'lenders of last resort', if the supply of liquidity is determined by the supply of gold. Finally, like all 'fixed exchange rate regimes', the gold standard forces adjustments to shocks via changes in prices. With no flexible exchange rate, countries with overvalued real exchange rates must endure deflation, and those with undervalued real exchange rates, inflation. Overall, for institutional, economic and political reasons, proponents of a return to the gold standard have not made much headway.

Equity impact

Gold equities have experienced roughly five years where the sector has in fact underperformed the underlying commodity, gold. This is despite the fact that the gold price has continued to steadily appreciate over the past seven years. What has changed? Has there been a fundamental change in the way that gold equities are perceived? We believe that the answer lies in no small measure in the alternatives that are available to the investor – alternatives which allow investors to take a direct equity stake in the underlying commodity without gaining exposure to some of the more negative aspects associated with a mining equity.

The chart below highlights the relative performance of gold in nominal terms and the performance of gold equities (FTSE gold mines index) relative to bullion. Note that the underperformance gained momentum in late 2005, a period in which gold prices began to appreciate more significantly and at a time when gold ETFs were becoming more common and accepted.

Chart 28: Gold mining equities vs. gold bullion and gold bullion (from 2002)

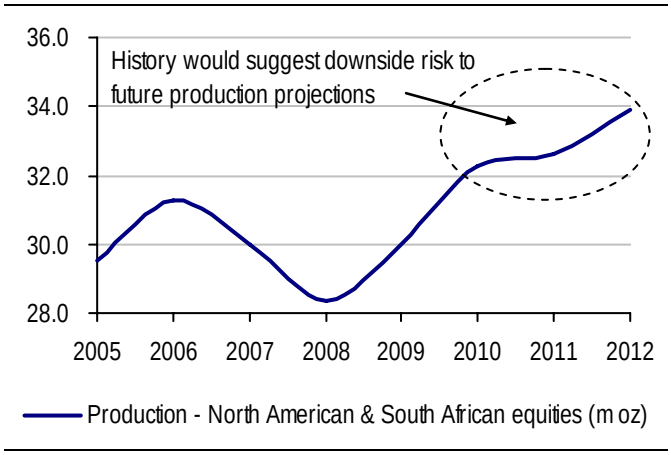


Source: Thompson Financial, UBS

We believe that gold equities have suffered underperformance as a function of five important factors, which have meaningfully truncated equity performance and may continue to do so in future.

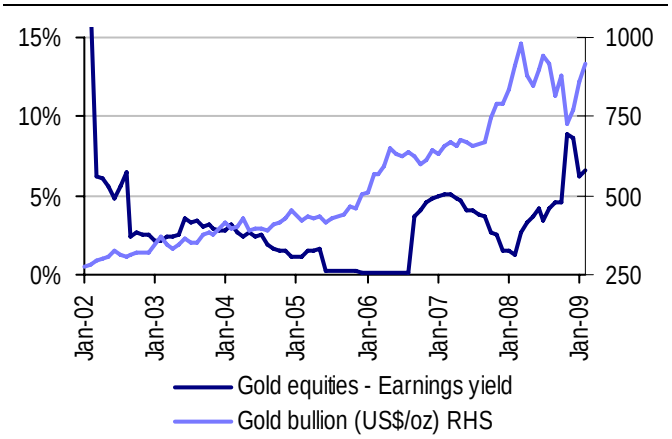
- **(1) Poor volume growth:** One of the key reasons for owning mining equities is that they theoretically offer the investor greater leverage to gold than would normally be available through the metal. Much of this leverage comes through the conversion of ounces in the ground to sales. Over the past four years in particular, this leverage has been disappointing. Senior gold miners have relied on acquisitions to bolster faltering organic production volumes. Poor volume growth has been a function of rising capital intensity, aging mines and a small number of quality deposits to choose from. We believe that it is also a function of affordability: the gold sector is not very cash generative and hedging is frowned upon (clearly this diminishes the leverage aspect of owning a gold equity in the first place); thus financing large gold projects is a challenge.

Chart 29: Gold production – N. Am & S. African gold equities



Source: UBS estimates

Chart 30: Gold equities earnings yield and the gold price



Source: Thompson Financial, UBS

- **(2) Earnings variability:** As illustrated in the above chart, the earnings associated with the global gold industry hasn't exactly been consistent with the gold price. From 2002 to 2007, earnings remained under pressure as cost inflation kept pace with the gold price; furthermore, disappointments on volumes put more pressure on unit costs. Cost inflation was a function of currencies and energy, but also of falling grades as mines have aged. We believe that considerable high-grading of gold mining operations occurred during the difficult years of the late 1990s.

- **(3) Valuation:** Many investors remain uncomfortable with the premium valuations at which gold equities trade relative to other mining companies. While there is a theoretical justification for this valuation, in our view, investors generally remain averse to paying a high multiple for a company which produces a commodity, the value of which is in itself questionable (what is in fact the value of money?... and furthermore what is the value of a hitherto obsolete form of money, that being gold?).

- **(4) Other risks:** Various gold mining companies have other risks which investors tend to wish to avoid. Some gold mining companies continue to hold hedge positions in gold, which removes some of the leverage which investors seek; other companies have assets located in risky countries or are exposed to potential environmental liabilities.

- **(5) Alternatives:** One of the most serious challenges to gold equity performance, in our view, is the development of a relatively new instrument, the gold exchange-traded fund (ETF). These vehicles allow investors to gain exposure to gold without the risks which come with owning a gold mine.

Given the performance challenges facing gold equities and the availability of attractive alternatives, we expect that gold mining equities may at best, perform in line with the gold price over the next several years.

What are ETFs and how do they work?

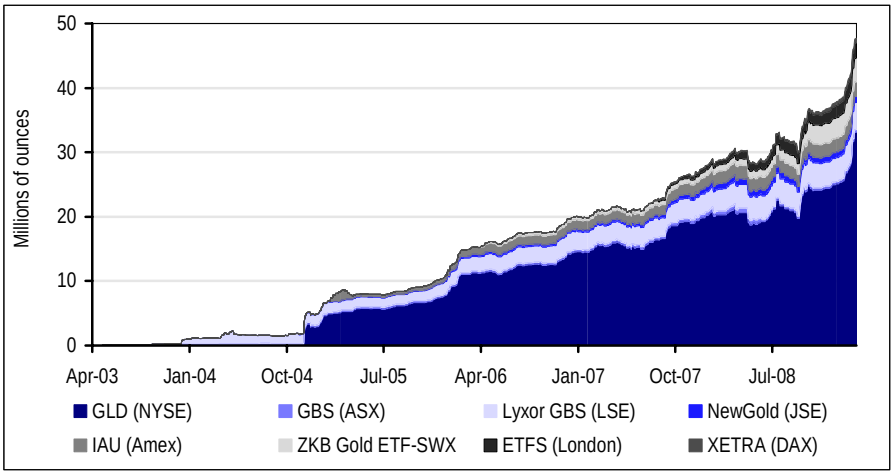
Gold ETFs are special types of exchange-traded funds which are backed by physical gold and therefore track the gold price with very little tracking error. As capital is invested in a gold ETF, it is used to buy physical gold which is then stored in a vault.

Typically, each share of a gold ETF is equivalent to a unit of gold (normally 1/10 of an ounce of gold). Normally a small commission is charged for trading gold ETFs. Furthermore, an annual expense, to fund storage, insurance and management costs, is charged by selling a small amount of gold represented by each certificate, such that the amount of gold represented by each certificate will gradually decline over time.

In the US, sales of gold ETFs are treated as sales of the underlying commodity and therefore taxed at the 28% capital gains rate rather than the 15% long-term capital gains rate for non-collectibles.

Inflows of capital into gold ETFs have been a key component of the overall investment demand picture for gold. The chart below shows inflows in terms of total gold holdings since the first gold ETF was launched in Australia in 2003. The current size of ETF holdings is nearly 50m oz or 1.5mt of bullion; this now exceeds the size of Swiss central bank holdings.

Chart 31: Total global gold ETF holdings



Source: UBS

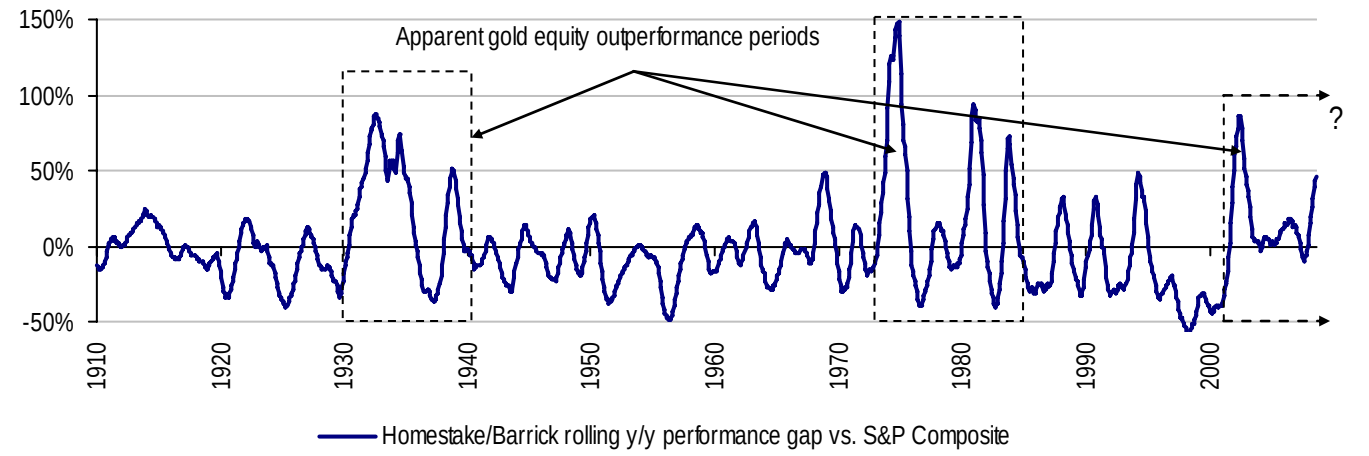
One of the fastest-growing gold ETFs has been the ZKB ETF in Switzerland. One of the reasons for the rapid increase in investment in this particular ETF is because the gold is physically held in Switzerland, and is therefore thought to be protected in the event that gold once again becomes a restricted commodity, as occurred in the US in 1933.

The US gold ETF, GLD, represents bullion which is physically held in vaults in London; this is of some concern to investors.

Gold equities: performance characteristics

One of the historic attractions of gold equities has been the group's diversification advantages. The chart below illustrates the performance of Homestake Mining (Barrick is used more recently, post its acquisition of Homestake in late 2001) vs. the S&P Composite index from 1905. We have elected to look at the data showing rolling 12-month monthly returns for each data series and then compare the gap in performance between the two.

Chart 32: Performance of gold equities* vs. the market (from 1910)



Source: UBS *Note: Homestake share price taken as a proxy for the gold sector, Barrick used from 2001

The chart illustrates reasonably well the historic performance advantages of gold equities during periods of economic/financial stress. Interestingly enough, the period of the 1930s could be characterised as deflationary, whereas the period of the 1970s and early 1980s could be characterised as inflationary; thus out-performance seems to have been apparent during two very different periods of economic threat.

The recent outperformance period may be the most puzzling, given it has ostensibly come during a period of quite benign disinflation – although clearly this was a period of considerable strength in commodities markets, with various materials reaching all-time highs. Nevertheless, a key issue is that the equity market has had to contend with a series of bubbles, which has resulted in a considerable impairment in performance: first the IT bubble, now the credit bubble.

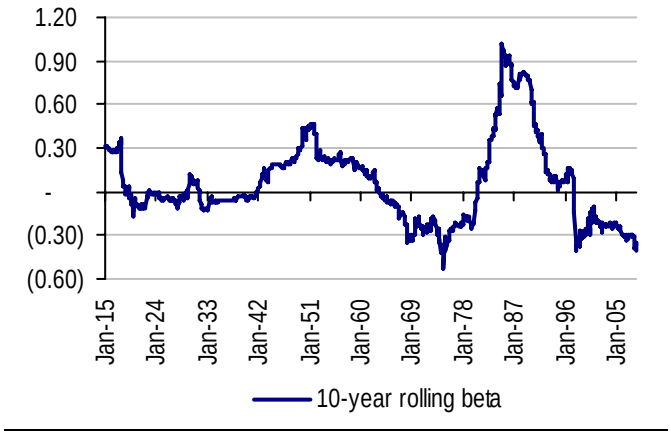
Beta

It will come as little surprise to most investors that gold equities have a very low beta; effectively, movement in gold equities has no relation to movements in the market over the long term. Our calculation of the long-run performance of our Homestake/Barrick (HM/ABX) equity price series suggests that beta is about 0.01, or effectively nil.

Interestingly, however, there are considerable periods when it appears that the beta for gold equities can be negative. As shown in the chart below, illustrating a running 10-year beta for HM/ABX, the beta for the equity was mildly negative for much of the 1920s/30s, and then more convincingly during the 1970s and since 1998.

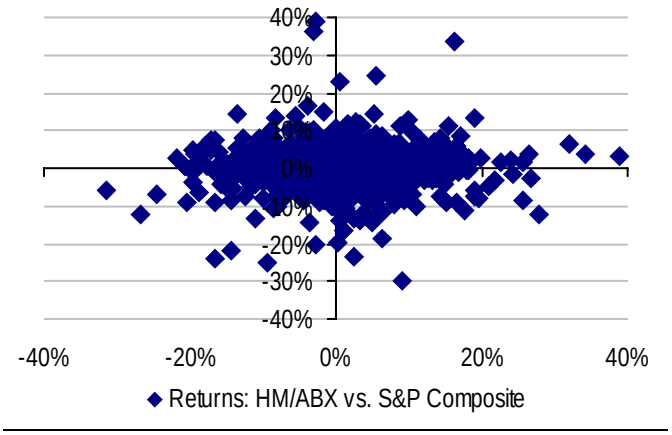
The beta for HM/ABX over the past 10 years appears to be stabilising at about negative 0.25.

Chart 33: Running 10-year beta for HM/ABX



Source: UBS

Chart 34: Return comparison, from 1905; Beta = 0.01



Source: UBS

Beta, of course, is important in the sense that it gives investors a sense as to how risky an equity is, but it is also important in that it helps to determine a company's cost of capital.

Using the capital asset pricing model (CAPM):

$Rr = (Re \cdot \beta) + Rf$

Where Rr = Required return, Re = Equity return, β = Beta, Rf = Risk-free rate

- **Long-run cost of capital:** On the above observations, we would estimate that, over the long term, the cost of capital for a gold company is equal to the risk-free rate, which would be roughly 3%. The null beta effectively eliminates the cost of equity from the equation.
- **Current cost of capital:** On the above observations, we would estimate that the cost of equity is about 8.5% (using a simple equity risk premium calculation). Furthermore, using a beta of negative 0.25 and a risk-free-rate that is effectively zero gives a cost of capital which is, bizarrely, a negative 2%.

Based on CAPM, the impact on gold equity valuation is significant. With a negative cost of capital one must consider the odd concept of future cash flows being more valuable than present cash flows. Effectively, one could imagine the cash flow profile for a gold company as quite similar to the gold forward curve in contango, with future values higher than the present.

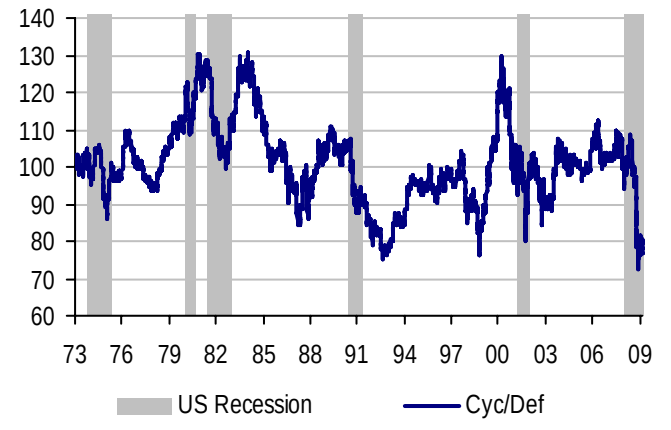
On this basis it is no surprise that the market values gold equity earnings on a higher multiple than those of other companies, nor that gold mining equities tend to trade at oddly high P/NPV multiples when incorrect discount rates are applied to the NPV calculation.

Nevertheless, despite our explanation for high valuations, which we believe are justified for gold companies, we acknowledge that market scepticism will likely remain.

Gold equities and market perceptions

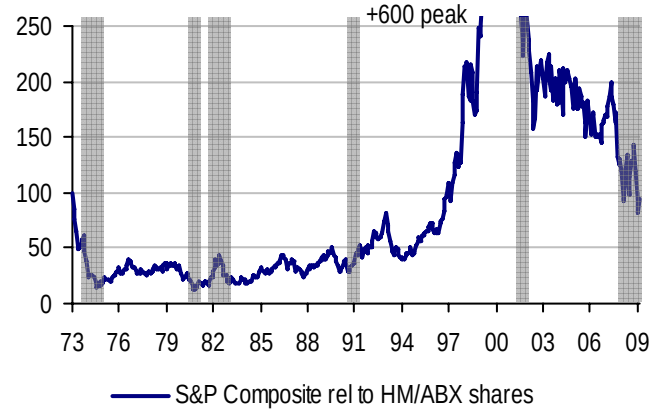
Chart 35 below illustrates the performance of defensive stocks versus the more cyclical. Not surprisingly, defensives perform well during recessionary periods, and interestingly have a better performance track record over the entire period (although cyclicals performed well between 1992 and 2007). Chart 36 on the other hand shows the relative performance of our Homestake/Barrick equity series and the S&P Composite. While gold equities appear to perform relatively well during recessionary periods, the long-run performance does not appear particularly compelling.

Chart 35: Cyclical vs. defensive stocks (from 1973)



Source: UBS

Chart 36: S&P Composite vs. HM/ABX (from 1973)



Source: UBS

One could reach the conclusion that gold equities, perhaps, are not true defensive vehicles in an equity or business cycle context. This runs counter to a widespread assumption that gold equities are in fact defensive.

Nevertheless, as previously discussed, it would appear that over long, structural monetary periods, gold equities are in fact defensive. The performance of the series relative to the S&P from 2001 illustrates this well, in our view.

Asset allocation: The current view

Despite the worst global recession in 70 years, the UBS investment strategy team have opted to upgrade commodities from underweight to a small overweight. Their argument: prices have stabilized since late 2008, partly as inventories have been liquidated and as supply-demand imbalances have begun to adjust. Some stabilization of the Chinese economy also offers support. A neutral holding for cyclical commodities is recommended.

Furthermore, the team now recommends a smaller overweight to corporate bonds, with some reallocation to the sterling market; has closed underweight recommendations in energy and industrial metals, and has adopted a small overweight in precious metals. Small overweight recommendations to government bonds and defensive equities have been retained, as well as underweight recommendations to real estate and cash.

Gold equities and the operating environment

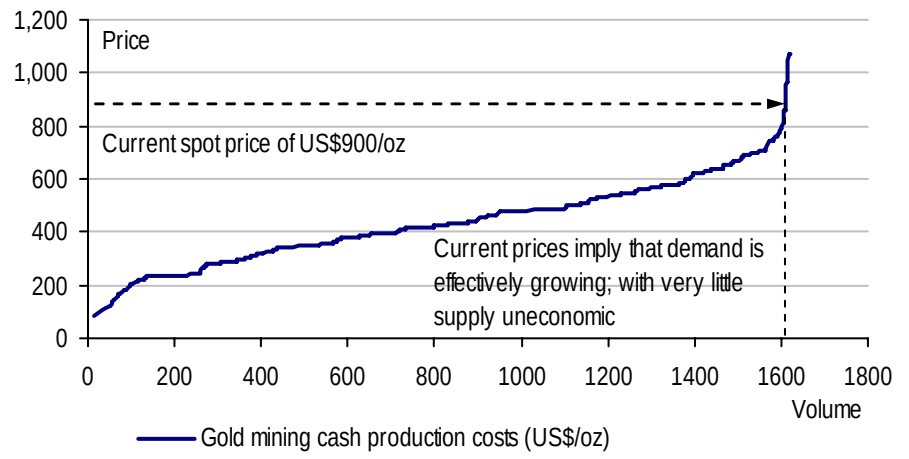
Gold prices remain buoyant in the current environment, supported by continued risk aversion on the part of investors, uncertainty with respect to future trends in currencies (in particular the US dollar), and potentially the future transition from the existing deflationary climate to one which is inflationary, given the massive monetary and fiscal stimuli which are being injected into the global economy.

Gold has been on the rise since mid-2001

The gold price has been rising from its bottom of roughly US$260/oz (nominal) in mid-2001.We believe that the market bottom at this time was supported by declines in gold production as producers were squeezed (notwithstanding the prevalence of gold hedging by mining companies, which prevented the supply contraction that would have ordinarily occurred, thus worsening the situation). We also believe that high-grading[1] of gold ores at various mining operations occurred at the time, alleviating the squeeze on cash flows at the expense of future profitability.

- We believe that, for most of the past seven years, as the gold price has appreciated, cash production costs have by and large been appreciating as well. This has been a function of several factors: (1) the reduction in hedge positions by the gold mining industry; (2) falling grades experienced post high-grading during the difficult years of 2000-01; (3) falling grades experienced as mines age; (4) low mine-supply growth; (5) higher energy and consumables costs; and finally (6) a lower US dollar (the trade-weighted US dollar has declined by about 25% over the past seven years).
- While some gold mines produce by-product credits such as silver or copper, most mines in the industry produce only gold. Over the past several quarters we believe that gold mines have generally experienced only a modest degree of cost deflation, largely a function of currency moves and energy costs.

Chart 37: Estimated 2009 cash-cost curve – gold (US$/oz); average = US$432/oz



Source: Brook Hunt, UBS estimates

[1] High-grading is the preferential mining of material/ore with a higher percentage of payable metal vs. the average for the deposit. This generally results in degradation or future economic impairment of the deposit as lower grade material must be mined thereafter.

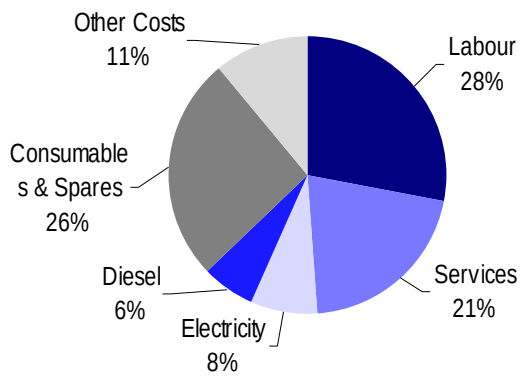
- Referencing the chart above, the current spot price for gold is about US$900/oz, which implies that less than 1% of global gold supply is uneconomic. In our view, this implies that that gold demand is in fact growing and there is an increasing incentive in this market to expand production.

Gold production is highly fragmented. Generally, however, the largest gold-producing regions are South Africa, Australia, the US and Canada.

Cost structure and historical pricing

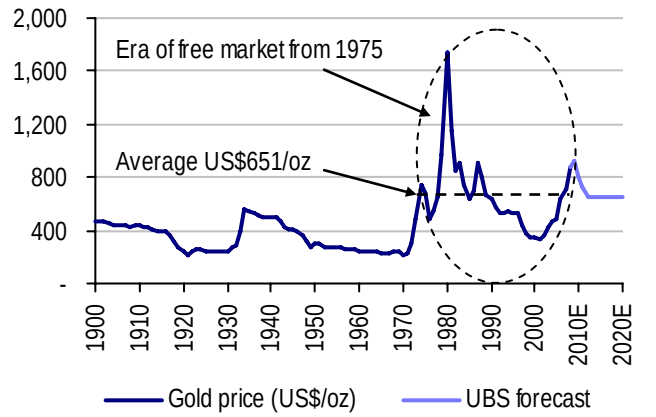
As shown in Chart 39 below, gold prices have been highly volatile over the past 30 years or so, but generally showing a sharp real decline from the early 1980s to 2000-01. While this appears to be reversing, we believe that price dynamics are driven more convincingly by financial markets (inflation, risk etc.) than by industry supply/demand, cost issues. **We calculate that the 'normalised' price for gold is probably about US$651/oz; thus the spot price is at a c38% *premium* to this level.**

Chart 38: 2009E cash cost breakdown – gold



Source: Brook Hunt, UBS estimates

Chart 39: Gold prices – real (US$/oz.)



Source: UBS estimates

Valuation summary

The table below outlines the key valuation metrics for the senior UBS gold equities. This is followed by valuation and operating details for each of these companies.

Table 2: UBS global gold equity valuations*

	Ticker	Share price	Target price	UBS rating	Market cap.	EBIT Margin %	P/E	EV/EBITDA	EBITDA Growth %	Primary Analyst
					(US$bn)	2009E	2009E	2009E	2009E	
Australasia										
Lihir	LGL.AX	2.0	2.5	Neutral	4.4	38.7	14.6	8.6	84%	Lawcock
Newcrest	NCM.AX	20.0	22.3	Neutral	9.6	35.5	22.0	11.1	-7%	Lawcock
North Am.										
Agnico-Eagle	AEM.N	50.0	62.0	Buy	7.7	40.6	43.5	21.9	161%	MacArthur
Barrick	ABX.N	28.8	44.0	Buy	25.1	39.2	11.2	5.6	24%	MacArthur
Centerra	CG.TO	3.5	5.0	Neutral	0.8	28.2	5.7	2.5	4%	MacArthur
Goldcorp	GG.N	29.5	36.0	Buy	21.5	32.5	35.4	16.4	25%	MacArthur
Kinross	KGC.N	16.7	22.5	Buy	11.0	34.5	20.3	8.8	90%	MacArthur
Newmont	NEM.N	38.9	48.0	Buy	17.2	37.4	15.7	5.9	64%	MacArthur
South Africa										
AngloGold Ashanti	ANGJ.J	29.9	38.4	Buy	10.6	37.0	9.9	4.8	428%	Kendall
DRDGOLD	DRDJ.J	0.9	1.0	Buy	0.3	31.1	7.4	3.5	66%	Kendall
Gold Fields	GFIJ.J	10.9	15.2	Buy	7.1	31.7	11.9	4.7	10%	Kendall
Harmony	HARJ.J	11.4	13.3	Neutral	4.8	31.9	14.3	7.8	25%	Kendall
Europe										
Hochschild	HOCM.L	3.2	3.8	Neutral	1.0	38.7	9.6	6.5	62%	Sporre

Source: UBS estimates * priced as of 6 March 2009

In the following pages, we present the financial and operating details for selected senior gold equities

Companies

UBS Investment Research

Agnico-Eagle Mines Ltd.

High quality producer

■ Low cost, high growth intermediate producer

Agnico-Eagle Mines (AEM) is an intermediate gold producer with low cash costs, advanced stage projects, and opportunities in Canada, Mexico, and the US. Its historical operating asset is its LaRonde polymetallic underground mine – one of the largest identified gold deposits in Canada. Agnico has a substantial growth profile with production expected to double in 2009 and again in 2010, while remaining in the lowest quartile in terms of cash costs.

■ Goldex and Kittila have started production

Two of Agnico's projects have recently started production. Goldex, a low-grade underground mine in Canada with 1.6Mozs of reserves, began production in second quarter 2008. The Kittila mine in Finland, with reserves of 3.2Mozs, began commercial production in early 2009.

■ Four development projects remain

AEM still affords significant potential gold production growth via its remaining four development projects: LaRonde Extension, Pinos Altos, Meadowbank and Lapa. If all projects are constructed, gold production could increase by almost four-fold by the end of the decade, with cash costs below US$275/oz. Gold as a percentage of net revenues would increase from 45% in 2005 to 75% by 2010E .

■ Valuation

We apply a P/NAV multiple of 1.30x to the operating component of our NAV estimate (using US$1,000/oz gold) of US$45.76/share and add non-gold assets of US$2.51/share to derive our price target of US$62. Based on the implied return, we rate the shares Buy.

Highlights (US$m)	12/07	12/08	12/09E	12/10E	12/11E
Revenues	457.35	406.29	699.64	1,230.98	1,226.50
EBIT (UBS)	199.81	101.40	284.34	561.34	492.95
Net Income (UBS)	146.47	53.17	177.85	389.39	358.31
EPS (UBS, US$)	1.06	0.36	1.09	2.39	2.20
Net DPS (UBS, US$)	0.10	0.19	0.17	0.17	0.17

Profitability & Valuation	5-yr hist av.	12/08	12/09E	12/10E	12/11E
EBIT margin %	28.0	25.0	40.6	45.6	40.2
ROIC (EBIT) %	13.7	4.1	9.4	17.5	15.7
EV/EBITDA (core) x	18.3	58.3	21.9	10.7	10.8
PE (UBS) x	17.2	NM	45.8	20.9	22.7
Net dividend yield %	0.2	0.3	0.3	0.3	0.3

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill-related charges and other adjustments for abnormal and economic items at the analysts' judgement.
Valuations: based on an average share price that year, (E): based on a share price of US$49.96 on 06 Mar 2009 19:39 GMT

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Global Equity Research

Americas

Precious Metals

12-month rating	**Buy *** ***Unchanged***
12m price target	**US$62.00** ***Unchanged***
Price	**US$49.96**

RIC: AEM.N BBG: AEM US

Trading data	
52-wk range	US$80.05-21.70
Market cap.	US$7.73bn
Shares o/s	155m (COM)
Free float	100%
Avg. daily volume ('000)	1,022
Avg. daily value (US$m)	49.9

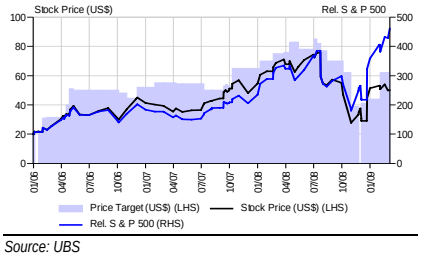
Balance sheet data 12/09E	
Shareholders' equity	US$2.59bn
P/BV (UBS)	3.0x
Net Cash (debt)	(US$0.07bn)

Forecast returns	
Forecast price appreciation	+24.1%
Forecast dividend yield	0.3%
Forecast stock return	+24.4%
Market return assumption	6.0%
Forecast excess return	+18.4%

EPS (UBS, US$)

	12/09E		12/08
	UBS	Cons.	Actual
Q1E	0.22	0.08	0.23
Q2E	0.21	0.15	0.09
Q3E	0.29	0.23	0.06
Q4E	0.37	0.30	(.00)
12/09E	1.09	*0.79*	
12/10E	2.39	*2.03*	

Performance (US$)



Source: UBS

*** Exception to core rating bands; See page65**

Agnico-Eagle

Key production, cost and NPV information is outlined below:

Table 3: Agnico-Eagles' production and cash cost profile

		2005A	2006A	2007A	2008A	2009E	2010E	2011E	2012E
AEM	**Moz**	0.242	0.246	0.231	0.283	0.582	1.202	1.297	1.385
	$/oz	(14)	(626)	(447)	139	286	261	273	259

Source: UBS estimates, company reports

Agnico-Eagle's production resides entirely within Canada.

Table 4: Reserves and production by country

Country	Reserves (Moz)	2008 production (koz)
Canada	11.244	283
Finland	3.224	-
Mexico	3.593	-
Total	**18.061**	**283**

Source: Company reports, UBS.
Note: Reserves based on a gold price of US$725/oz

Hedging

Agnico-Eagle has no gold hedges.

Reserves

Agnico's reserves are located in relatively low political risk countries: Canada, Finland and Mexico.

Table 5: NPV summary for Agnico-Eagle

	NAV (US$1,000 gold)	NAV (base case)	NAV (base case, 0%)
Operating	$45.76	25.22	33.50
Non-operating	$2.51	1.88	1.88
Total NAV	**$48.27**	**27.20**	**35.38**

Source: UBS estimates

UBS Investment Research

AngloGold Ashanti

Undervalued opportunities

■ Where quality attracts a discount rating

We believe AngloGold (ANG) is the quality gold company in the sector, given its geographical/operational diversity and interesting greenfield development opportunities, and the fact that it has the lowest cash operating costs. Its discount to other gold stocks (ostensibly because of lower gearing to the gold price, due to hedging and lower costs) is thus unfair, in our view. We consider ANG an attractive investment opportunity, both for earnings outperformance and a possible re-rating.

■ Well positioned to benefit from robust gold price

We believe that AngloGold offers significant earnings gearing to the gold price (because of, rather than in spite of, hedging). And while we acknowledge that the hedge is a cost that will need to be dealt with on a medium-term basis, we believe this is fully discounted in the share price (effectively, the market places a larger negative multiple on the hedge liability than positive multiple on the asset NPV, even though the hedge is easier to value).

■ Systematically addressing issues and realising opportunities

The issues that have been systematically addressed over the past year are the Anglo American overhang (12% left), hedging (reduced by c33%) and debt refinancing (US$1bn 12-18-month facility). Operationally, safety improvements in South Africa have been significant; production improvements in Ghana and Tanzania are awaited.

■ Valuation

We value ANG on 12x 2009E earnings.

Highlights (Rm)	12/06	12/07	12/08E	12/09E	12/10E
Revenues	20,137.00	23,053.00	30,362.00	48,911.61	39,138.66
EBIT (UBS)	3,312.00	2,446.00	(10,252.00)	18,079.62	10,017.11
Net Income (UBS)	2,800.06	1,974.78	(7,201.97)	11,362.45	5,283.11
EPS (UBS, RCnt)	1,024.07	703.00	(2,262.20)	3,180.94	1,477.77
Net DPS (UBS, RCnt)	451.09	144.04	102.65	1,071.46	747.14

Profitability & Valuation	5-yr hist av.	12/07	12/08E	12/09E	12/10E
EBIT margin %	16.5	10.6	-33.8	37.0	25.6
ROIC (EBIT) %	14.0	11.0	(41.0)	59.2	30.9
EV/EBITDA (core) x	12.8	14.1	-21.5	4.8	6.9
PE (UBS) x	32.5	43.7	-13.9	9.9	21.2
Net dividend yield %	2.3	0.5	0.3	3.4	2.4

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Valuations: based on an average share price that year, (E): based on a share price of RCnt31,350 on 06 Mar 2009 21:38 GMT

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Global Equity Research

South Africa

Precious Metals

12-month rating	**Buy** *Unchanged*
12m price target	**RCnt38,000/US$38.38** *Unchanged*
Price	**RCnt31,350/US$30.37 (ADR)**

RIC: ANGJ.J BBG: ANG SJ

Trading data (local/US$)

52-wk range	RCnt32,600-15,200/US$40.53-13.83
Market cap.	RCnt111bn/US$10.7bn
Shares o/s	353m (ORD)/353m (ADR)
ADR ratio	1 ADR:1 ORD
Free float	84%
Avg. daily volume ('000)	1,452/641
Avg. daily value (RCntm)	402.6/17.6

Balance sheet data 12/08E

Shareholders' equity	R23.0bn
P/BV (UBS)	4.8x
Net Cash (debt)	(R12.8bn)

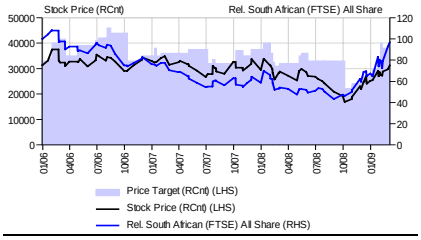
Forecast returns

Forecast price appreciation	+21.2%
Forecast dividend yield	0.3%
Forecast stock return	+21.5%
Market return assumption	13.3%
Forecast excess return	+8.2%

EPS (UBS, RCnt)

	12/08E		12/07
	UBS	Cons.	Actual
Q1E	288.00	(1,349.00)	251.00
Q2E	(2,434.00)	(479.30)	206.00
Q3E	(275.00)	(72.90)	204.00
Q4E	(50.00)	145.00	42.00
12/08E	(2,262.20)	*(1,379.20)*	
12/09E	3,180.94	*2,108.60*	

Performance (RCnt)



Source: UBS

AngloGold Ashanti

Key production, cost and NPV information is outlined below:

Table 6: AngloGold production and cost summary

		2005	2006	2007	2008	2009E	2010E	2011E	2012E
Production	moz	6.166	5.641	5.477	4.982	4.960	4.924	4.964	5.302
Cash costs	US$/oz	277	302	348	437	408	410	435	446

Source: UBS estimates

The bulk of Anglo's production and reserves reside in Africa.

Table 7: AngloGold geographical split

	Reserves (m oz)	2008 Production (k oz)
South Africa	33.66	2099
Ghana	12.22	557
Tanzania	5.11	264
Other	17.22	2062

Source: UBS estimates

Hedging

As at December 2008, ANG had total hedge commitments of 5.99moz (5.22moz net delta position), valued at negative US$2.28bn (at a gold price of US$872/oz).

Table 8: NPV summary for AngloGold Ashanti

		Base case	Spot $925/oz, R10.4/$	Zero real discount rate
Operations	VaalRiver	R 23,580	R 45,746	R 32,049
	WestWits	R 19,153	R 39,364	R 30,272
	Africa	R 15,450	R 39,229	R 21,513
	N.America	R 8,228	R 14,164	R 11,266
	S.America	R 11,321	R 30,393	R 23,352
	Australia	R 3,586	R 11,183	R 6,306
Sub-total		**R 81,317**	**R 180,079**	**R 124,758**
Non-operating		R -29,904	R -37,998	R -39,819
Net cash		R -10,350	R -10,350	R -10,350
Net WC		R 2,793	R 2,793	R 2,793
Portfolio	Boddington	R 9,900	R 9,900	R 9,900
TOTAL		**R 53,756**	**R 144,424**	**R 87,283**
NPV/share		**R 153.13**	**R 411.40**	**R 248.63**
P/NPV		**1.99**	**0.74**	**1.23**

Source: UBS estimates

UBS Investment Research

Barrick Gold Corporation

The world's largest gold company

■ World's largest gold company should be a core holding in portfolios

Barrick is the world's largest gold company in terms of market capitalization, at US$26 billion. The company's competitive advantages include the industry's only 'A'-rated balance sheet, high cash margins, long-term growth potential, low geopolitical risk and strong free cash flows. We believe Barrick should be a core holding in portfolios, as it benefits from the successful start-up of its new mines. In addition, Barrick is the largest gold producer, which could possibly open the door for further growth opportunities.

■ Properties

Barrick's major properties are the Goldstrike and Cortez mines in Nevada, the Pierina and Alto Chicama mines in Peru, the Bulyanhulu and North Mara mines in Tanzania, the Veladero mine in Argentina, and the Kalgoorlie and Yilgarn operations in Australia. Furthermore, the company's Zaldivar copper mine is a significant cash generator. The company also has a pipeline of projects that provides leverage to a rising gold price.

■ Projects on track

ABX's three major projects – Buzwagi, Cortex Hills and Pueblo Viejo – continue to track within budgeted timelines and capex.

■ Valuation

We apply a NAV multiple of 1.4x to the operating component of our NAV of US$30.10/share (using US$1000/oz gold) and add non-gold assets of US$2.17/share to derive our price target of US$44. Based on the implied return, we rate the shares Buy.

Highlights (US$m)	12/07	12/08	12/09E	12/10E	12/11E
Revenues	6,332.00	7,960.98	8,760.41	7,920.06	6,897.24
EBIT (UBS)	1,746.71	2,513.68	3,432.39	2,777.12	2,401.02
Net Income (UBS)	1,112.53	869.00	2,240.39	1,876.34	1,557.03
EPS (UBS, US$)	1.27	1.00	2.57	2.15	1.79
Net DPS (UBS, US$)	0.30	0.40	0.40	0.40	0.40

Profitability & Valuation	5-yr hist av.	12/08	12/09E	12/10E	12/11E
EBIT margin %	18.5	31.6	39.2	35.1	34.8
ROIC (EBIT) %	-	16.1	19.6	14.6	11.5
EV/EBITDA (core) x	12.1	9.2	5.6	6.5	7.4
PE (UBS) x	47.7	39.0	11.2	13.4	16.1
Net dividend yield %	-	1.0	1.4	1.4	1.4

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill-related charges and other adjustments for abnormal and economic items at the analysts' judgement.
Valuations: based on an average share price that year, (E): based on a share price of US$28.76 on 06 Mar 2009 19:39 GMT

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Global Equity Research

Americas

Precious Metals

12-month rating	**Buy *** ***Unchanged***
12m price target	**US$44.00** ***Unchanged***
Price	**US$28.76**

RIC: ABX.N BBG: ABX US

Trading data

52-wk range	US$53.24-18.14
Market cap.	US$25.1bn
Shares o/s	873m (COM)
Free float	100%
Avg. daily volume ('000)	2,884
Avg. daily value (US$m)	98.0

Balance sheet data 12/09E

Shareholders' equity	US$17.2bn
P/BV (UBS)	1.5x
Net Cash (debt)	(US$2.14bn)

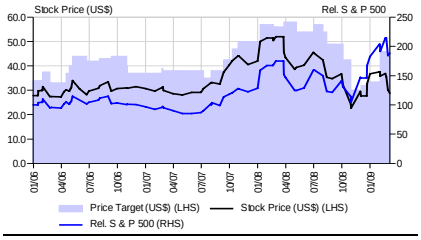
Forecast returns

Forecast price appreciation	+53.0%
Forecast dividend yield	1.4%
Forecast stock return	+54.4%
Market return assumption	6.0%
Forecast excess return	+48.4%

EPS (UBS, US$)

	12/09E		12/08
	UBS	Cons.	Actual
Q1E	0.51	0.35	0.62
Q2E	0.59	0.40	0.51
Q3E	0.69	0.47	0.40
Q4E	0.77	0.51	(0.52)
12/09E	2.57	*1.74*	
12/10E	2.15	*1.82*	

Performance (US$)



Source: UBS

*** Exception to core rating bands; See page65**

Barrick Gold

Key production, cost and NPV information is outlined below:

Table 9: Barrick's production and cash cost profile

		2005A	2006A	2007A	2008A	2009E	2010E	2011E	2012E
ABX	**Moz**	5.431	8.612	8.058	7.657	7.582	8.129	7.939	8.069
	$/oz	226	299	368	429	449	410	361	353

Source: UBS estimates, company reports

Most of Barrick's gold production is based in the US, Peru and Australia.

Table 10: Reserves and production by country

Country	Reserves (Moz)	2008 Production (koz)
Canada	0.564	143
Dominican Republic	13.440	-
United States	36.557	2,885
Peru	9.632	1,575
Chile*	19.734	-
Argentina*	21.136	536
Australia	10.991	1,315
Papau New Guinea	7.828	627
Tanzania	18.372	545
Other	0.252	31
Total	**138.506**	**7,657**

Source: Company reports.
* Pascua-Lama reserves split equally between Chile and Argentina
Note: Reserves based on a gold price of US$725/oz

Hedging

Barrick had 9.5Moz of existing gold sales contracts with a mark-to-market value of -US$4.8bn, as of 31 December 2008. Of note, about 4.5M of these ounces have been covered via an off-balance sheet transaction. At year-end, the company has 17 counterparties that consisted primarily of large commercial banks. Subsequent to 31 December 2008, one counterparty represented 13% of the mark-to-market and total ounce position. The company also indicated that three of the counterparties have elected not to roll their contracts forward one year, so two now have nine years remaining and one has 14 years.

Table 11: NPV summary

	NAV (US$1000 gold)	NAV (base case)	NAV (base case, 0%)
Operating	$30.10	14.81	22.03
Non-operating	$2.17	2.17	4.50
Total NAV	**$32.27**	**16.99**	**26.53**

Source: UBS estimates

UBS Investment Research

Centerra Gold Inc.

Asian growth

■ Focused on developing assets in emerging markets

Centerra is an intermediate gold producer formed from the former gold assets of Cameco Corporation. Cameco and the Kyrgyz Republic still own about 68% of the company, so liquidity is relatively small. The company is focused on developing assets in emerging markets, like the former Soviet Union, China, and Mongolia.

■ Potential for production and reserve growth

Centerra's Kumtor open pit gold mine is the largest gold mine in Central Asia operated by a western-based producer. The company's Boroo mine in Mongolia has declining reserves that are now sufficient for about five years of production. In addition to these two producing assets, Centerra has an interest in the 1Moz reserve on the Gatsuurt property, near Boroo, which could extend the life of the Boroo mill.

■ Significant political risk remains at Kumtor

Centerra faces significant political uncertainty with respect to its Kumtor mine in the Kyrgyz Republic. The company continues to hold discussions with Cameco and a Kyrgyz Republic Government working group, to resolve outstanding matters related to the Kumtor project. Mining operations within the concession area, however, are continuing.

■ Valuation

We apply a P/NAV multiple of 0.35x to the operating component of our NAV of US$8.31/share and add non-gold assets of US$2.30/share to derive our price target of C$6.50. Given the implied return, we rate the shares Neutral. We note that share performance is likely to be influenced by political issues.

Highlights (C$m)	12/07	12/08	12/09E	12/10E	12/11E
Revenues	373.50	635.90	749.20	747.84	651.28
EBIT (UBS)	55.88	154.53	210.99	214.69	273.96
Net Income (UBS)	39.04	115.89	173.79	166.44	223.45
EPS (UBS, C$)	0.18	0.54	0.80	0.77	1.03
Net DPS (UBS, C$)	0.00	0.00	0.00	0.00	0.00

Profitability & Valuation	5-yr hist av.	12/08	12/09E	12/10E	12/11E
EBIT margin %	-	24.3	28.2	28.7	42.1
ROIC (EBIT) %	-	23.2	30.3	30.4	40.1
EV/EBITDA (core) x	-	6.5	2.5	2.0	1.7
PE (UBS) x	-	14.0	5.7	5.9	4.4
Net dividend yield %	-	0.0	0.0	0.0	0.0

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill-related charges and other adjustments for abnormal and economic items at the analysts' judgement.
Valuations: based on an average share price that year, (E): based on a share price of C$4.57 on 06 Mar 2009 19:39 GMT

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Global Equity Research

Americas

Precious Metals

12-month rating	**Neutral *** *Unchanged*
12m price target	**C$6.50/US$5.12** *Unchanged*
Price	**C$4.57/US$3.60**

RIC: CG.TO BBG: CG CN

Trading data (local/US$)

52-wk range	C$14.78-0.95/US$14.92-0.78
Market cap.	C$0.99bn/US$0.78bn
Shares o/s	216m (COM)
Free float	32%
Avg. daily volume ('000)	413
Avg. daily value (C$m)	1.8

Balance sheet data 12/09E

Shareholders' equity	C$1.03bn
P/BV (UBS)	1.0x
Net Cash (debt)	C$0.33bn

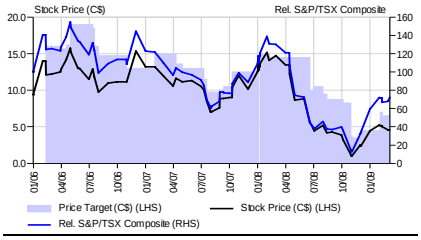
Forecast returns

Forecast price appreciation	+42.2%
Forecast dividend yield	0.0%
Forecast stock return	+42.2%
Market return assumption	5.6%
Forecast excess return	+36.6%

EPS (UBS, C$)

	12/09E		12/08
	UBS	Cons.	Actual
Q1E	0.06	0.05	0.11
Q2E	0.18	0.12	0.06
Q3E	0.21	0.15	0.08
Q4E	0.36	0.33	0.28
12/09E	0.80	*0.79*	
12/10E	0.77	*1.06*	

Performance (C$)



Source: UBS

*** Exception to core rating bands; See page65**

Centerra Gold

Key production, cost and NPV information is outlined below:

Table 12: Centerra's production and cash cost profile

		2005A	2006A	2007A	2008A	2009E	2010E	2011E	2012E
CG	**Moz**	775	587	560	749	749	831	814	796
	$/oz	241	386	439	468	524	486	356	401

Source: UBS estimates, company reports

Centerra's production resides entirely within Kyrgyzstan and Mongolia.

Table 13: Reserves and production by country

Country	Reserves (Moz)	2008 production (koz)
Kyrgyz Republic	4.025	556
Mongolia	1.783	193
Total	**5.808**	**749**

Source: Company reports
Note: Reserves are based on a gold price of US$675/oz

Hedging

Centerra does not hedge its gold production.

Political risk

Centerra has higher political risk than some of its peers given all of its assets are in emerging markets.

Table 14: NPV summary

	NAV (US$1,000 gold)	NAV (base case)	NAV (base case, 0%)
Operating	$8.31	4.16	4.99
Non-operating	$2.30	2.30	2.30
Total NAV	**$10.61**	**6.47**	**7.29**

Source: UBS estimates

UBS Investment Research

DRDGOLD Ltd

Cheap option on rising gold price

■ Closure of ERPM underground

Given that mine closure (ERPM) can be a disruptive and costly process, we are somewhat cautious on DRD in the near-term. This is despite the likely medium-term positive impact on earnings of closing the high cost operation, and despite DRD being the cheapest South African gold stock (in our coverage) on near-term earnings and cash flow metrics. We also await updates on the expected December quarter ramp-up of the ERGO slimes recycling operation.

■ Consolidating surface re-treatment footprint

DRD-SA is to acquire the remaining 35% of the Elsburg joint venture. After this transaction and the closure of ERPM UG, we estimate that 72% of CY 09 gold production will be from surface re-treatment operations (versus 54% in 2008). This reduced operational risk follows its exiting from Australasia and de-risking of the balance sheet in FY 07/08.

■ ERPM underground mine placed on care and maintenance

The consultation process is underway with the DME, DWAF and labour unions about retrenchments (1,300 job cuts). The sale of the UG operation is a possibility (potential positive from the perspective of adding cash/cutting liabilities/risk – estimated cost of R2-3m/month). The ERPM surface re-treatment and possible value realisation from property assets will likely continue, in our view.

■ Valuation

We value DRD on 6x 12-month forward earnings (re-rating potential on delivery of ERGO and closure at ERPM UG). DRD's stabilising operation base and low capex commitments potentially position the company to benefit from near-term metal price strength – something it has failed to achieve historically.

Highlights (Rm)	06/07	06/08	06/09E	06/10E	06/11E
Revenues	2,155.10	1,843.90	2,544.73	3,841.71	3,274.21
EBIT (UBS)	(134.90)	192.60	696.74	1,288.29	650.77
Net Income (UBS)	(299.90)	(73.40)	394.68	564.13	181.17
EPS (UBS, RCnt)	(87.97)	(19.52)	104.80	149.80	48.11
Net DPS (UBS, RCnt)	0.00	8.72	25.94	17.61	16.04

Profitability & Valuation	5-yr hist av.	06/08	06/09E	06/10E	06/11E
EBIT margin %	-3.7	10.4	27.4	33.5	19.9
ROIC (EBIT) %	(13.7)	35.7	149.7	180.0	66.4
EV/EBITDA (core) x	49.0	11.5	4.9	2.7	4.8
PE (UBS) x	-0.6	-31.7	9.0	6.3	19.5
Net dividend yield %	0.0	1.4	2.8	1.9	1.7

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Valuations: based on an average share price that year, (E): based on a share price of RCnt940 on 06 Mar 2009 21:38 GMT

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South Africa

Precious Metals

12-month rating	**Buy** *Unchanged*
12m price target	**RCnt1,000/US$10.10** *Unchanged*
Price	**RCnt940/US$9.05 (ADR)**

RIC: DRDJ.J BBG: DRD SJ

Trading data (local/US$)

52-wk range	RCnt944-337/US$11.73-3.04
Market cap.	RCnt3.54bn/US$0.34bn
Shares o/s	377m (ORD)/37.7m (ADR)
ADR ratio	1 ADR:10 ORD
Free float	97%
Avg. daily volume ('000)	974/160
Avg. daily value (RCntm)	6.9/1.2

Balance sheet data 06/09E

Shareholders' equity	R1.43bn
P/BV (UBS)	2.5x
Net Cash (debt)	R0.66bn

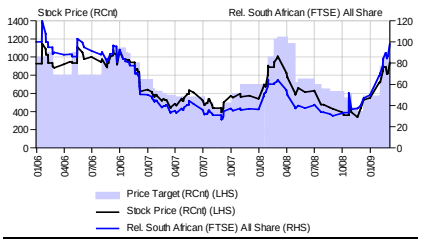
Forecast returns

Forecast price appreciation	+6.4%
Forecast dividend yield	2.8%
Forecast stock return	+9.2%
Market return assumption	13.3%
Forecast excess return	-4.1%

EPS (UBS, RCnt)

	06/09E		06/08
	UBS	Cons.	Actual
Q1E	13.89	10.50	(70.00)
Q2E	13.09	14.50	5.13
Q3E	27.22	24.60	20.39
Q4E	50.60	38.30	24.94
06/09E	104.80	*80.10*	
06/10E	149.80	*130.80*	

Performance (RCnt)



Source: UBS

DRDGOLD

Key production, cost and NPV information is outlined below:

Table 15: DRDGOLD production and cost summary

		2005	2006	2007	2008	2009	2010	2011	2012
Production	moz	0.491	0.344	0.198	0.132	0.231	0.284	0.289	0.289
Cash costs	$/oz	375	535	686	697	568	612	678	695

Source: UBS estimates

DRDGOLD's production is entirely in South Africa.

Table 16: DRDGOLD geographical split

	Reserves (m oz)	2008 production (k oz)
South Africa	5.68	201

Source: UBS estimates

Hedging

DRDGOLD has no gold hedges.

Reserves

We estimate that current reserves are 5.347moz (stated at R208,000/kg), following the closure of the ERPM underground mine and doubling of the stake in ERGO Phase I since the reserves were last stated.

Table 17: NPV summary for DRDGOLD

		Base case	Spot $925/oz, R10.4/$	Zero real discount rate
Operations	Blyvoor	-R 890	R 3,045	-R 2,076
	Crown/ERPM	R 719	R 1,563	R 657
	ERGO	R 769	R 3,481	R 875
	Minorities	R -156	-R 2,103	R 142
Sub-total		**R -326**	**R 2,505**	**R -1,278**
Non-operating		R -910	-R 1,317	R -1,221
Net cash		R 579	R 584	R 584
Net WC		R 59	R 59	R 59
TOTAL		**R -599**	**R 1,831**	**R -1,857**
NPV/share		**R -1.59**	**R 4.87**	**R -4.94**
P/NPV		**-5.09**	**1.66**	**-1.64**

Source: UBS estimates

UBS Investment Research

Goldcorp Inc.

Low-cost un-hedged growth

■ Low-cost producer with unhedged growth

Goldcorp is a senior gold producer with low cash costs, no debt, and the largest five-year production growth estimate among the senior golds. The company also offers unhedged growth in gold, lower political risk and significant exploration upside potential. Goldcorp also has exposure to copper and zinc through Alumbrera and Pueblo Viejo, and silver exposure through Luisman, Marlin and Penasquito.

■ Operations in low political risk countries

Goldcorp's principle producing asset has historically been its 100% interest in Canada's largest gold mine: the Red Lake mine in Ontario. Current operating assets also include the Porcupine and Musselwhite gold mines in Canada, the Los Filos, El Sauzal and San Dimas gold and silver mines in Mexico, the Wharf and Marigold (67%) mines in the US, the Marlin mine in Guatamaula and the Alumbrera mine (37.5%) in Argentina.

■ Three projects are key to growth

We believe the main issue facing Goldcorp in 2009 is delivering on its operational plan. Goldcorp's largest development project, Penasquito in Mexico, is expected to begin commercial production in January 2010, and we believe a successful ramp-up to production would be a catalyst for the stock. Specifically in 2009, we will be looking for positive updates on Penasquito, Red Lake and Pueblo Viejo, to drive future gold production growth for the company.

■ Valuation

We apply a P/NAV multiple of 1.30x to the operating component of our NAV estimate of US$26.37/share (using US$1,000/oz gold) and add non-gold assets of US$1.80/share to derive our price target of US$36. Based on the implied return, we rate the shares Buy.

Highlights (US$k)	12/07	12/08	12/09E	12/10E	12/11E
Revenues	2,278,351.84	2,419,600.00	2,572,401.15	3,034,063.97	3,207,214.44
EBIT (UBS)	668,900.00	553,141.62	837,000.16	759,915.71	832,819.97
Net Income (UBS)	459,400.00	355,400.00	603,853.26	516,755.35	560,658.42
EPS (UBS, US$)	0.63	0.50	0.82	0.71	0.77
Net DPS (UBS, US$)	0.18	0.18	0.18	0.18	0.18

Profitability & Valuation	5-yr hist av.	12/08	12/09E	12/10E	12/11E
EBIT margin %	41.6	22.9	32.5	25.0	26.0
ROIC (EBIT) %	8.3	3.1	3.8	3.3	3.6
EV/EBITDA (core) x	14.2	23.7	16.4	16.6	15.5
PE (UBS) x	33.1	69.9	35.8	41.8	38.5
Net dividend yield %	1.5	0.5	0.6	0.6	0.6

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill-related charges and other adjustments for abnormal and economic items at the analysts' judgement.
Valuations: based on an average share price that year, (E): based on a share price of US$29.47 on 06 Mar 2009 19:39 GMT

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Americas

Precious Metals

12-month rating	**Buy *** ***Unchanged***
12m price target	**US$36.00** ***Unchanged***
Price	**US$29.47**

RIC: GG.N BBG: GG US

Trading data

52-wk range	US$51.06-15.06
Market cap.	US$21.5bn
Shares o/s	730m (COM)
Free float	100%
Avg. daily volume ('000)	2,377
Avg. daily value (US$m)	68.0

Balance sheet data 12/09E

Shareholders' equity	US$15.4bn
P/BV (UBS)	1.4x
Net Cash (debt)	US$0.28bn

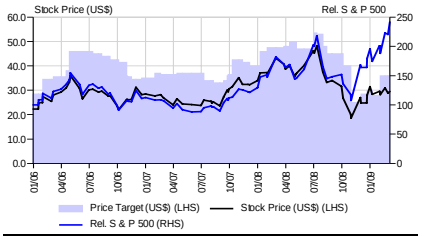
Forecast returns

Forecast price appreciation	+22.2%
Forecast dividend yield	2.4%
Forecast stock return	+24.6%
Market return assumption	6.0%
Forecast excess return	+18.6%

EPS (UBS, US$)

	12/09E		12/08
	UBS	Cons.	Actual
Q1E	0.20	0.12	0.23
Q2E	0.19	0.13	0.12
Q3E	0.20	0.14	0.09
Q4E	0.24	0.17	0.06
12/09E	0.82	*0.58*	
12/10E	0.71	*0.86*	

Performance (US$)



Source: UBS

*** Exception to core rating bands; See page65**

Goldcorp

Key production, cost and NPV information is outlined below:

Table 18: Goldcorp's production and cash cost profile

		2005A	2006A	2007A	2008A	2009E	2010E	2011E	2012E
G	Moz	1,101	1,693	2,285	2,325	2,325	2,618	2,859	3,268
	$/oz	(7)	36	176	311	377	334	317	271

Source: UBS estimates, company reports

Most of Goldcorp's gold production is based in Canada and Mexico.

Table 19: Reserves and production by country

Country	Reserves (Moz)	2008 production (koz)
Canada	8.300	1,131
Dominican Republic	8.960	-
United States	1.320	157
Mexico	23.850	595
Argentina	1.73	189
Guatemala	2.120	241
Honduras	-	12
Total	**46.280**	**2,324**

Source: Company reports
Note: Reserves are generally based on a gold price of US$725/oz. Alumbera and Marigold use US$700/oz and US$350-725/oz, respectively

Hedging

Goldcorp does not hedge its gold production.

Political risk

Goldcorp offers relatively low political risk. In 2008, more than 80% of the company's production and 72% of the company's reserves were in North America.

Table 20: NPV summary

	NAV ($1000 gold)	NAV (base case)	NAV (base case, 0%)
Operating	$26.37	14.13	20.94
Non-operating	$1.80	1.82	1.82
Total NAV	**$28.17**	**15.95**	**22.77**

Source: UBS estimates

UBS Investment Research

Gold Fields Ltd

Challenged to deliver

■ Challenged to deliver in 2009 off a low base

Our base case forecasts assume Gold Fields will deliver the sharpest improvement in gold production and the sharpest correction in unit cost trends of the domestic peer group in 2009. The low base of 2008 should facilitate this improvement, but precedent suggests one should be wary of such aggressive assumptions.

■ Delivery not fully discounted

The improvement at Gold Fields (GFI) is broad based: operational recoveries at each of the South African operations, following a year of operational and safety slippage, and deliberate safety and infrastructure interventions in 2008; and internationally, with projects at Tarkwa (Ghana) and St Ives (Australia), and the ramp-up of the greenfield Cerro Corona operation in Peru.

■ Cautious – looking for better entry point

The valuation of Gold Fields suggests that the market does not fully buy into the level of recovery that we deem possible. Given a track record of consistently disappointing over the past few years, both operationally and at the corporate level (significant senior management changes), a delivery discount looks justifiable.

■ Valuation

Nevertheless, our base case is for GFI to offer the best cash flow yield in 2009 of the larger domestic gold and platinum equities – with its relatively clean business model, and capex projects coming to an end. The higher risk/return proposition demands extra vigilance, but may offer an attractive investment opportunity, in our view. An additional near-term risk that we see is the potential unwinding of the Black Economic Empowerment (BEE) partner (MVL) and the overhang of its 50m shares from March 2009. Consequently, and we would like to see mining rights conversion at South Deep before this.

Highlights (Rm)	06/07	06/08	06/09E	06/10E	06/11E
Revenues	19,693.10	23,110.20	33,852.78	39,750.85	34,092.91
EBIT (UBS)	4,319.40	5,554.00	10,313.99	13,009.01	7,505.96
Net Income (UBS)	2,118.80	2,943.10	5,445.69	7,630.75	5,495.12
EPS (UBS, RCnt)	370.90	450.99	833.82	1,085.42	789.63
Net DPS (UBS, RCnt)	174.45	185.12	357.38	542.71	390.82

Profitability & Valuation	5-yr hist av.	06/08	06/09E	06/10E	06/11E
EBIT margin %	14.6	24.0	30.5	32.7	22.0
ROIC (EBIT) %	12.8	12.4	20.1	23.2	13.5
EV/EBITDA (core) x	12.9	9.1	5.3	4.2	5.9
PE (UBS) x	38.3	24.7	13.7	10.5	14.4
Net dividend yield %	1.4	1.7	3.1	4.8	3.4

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Valuations: based on an average share price that year, (E): based on a share price of RCnt11,401 on 06 Mar 2009 21:38 GMT

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Global Equity Research

South Africa

Precious Metals

12-month rating	**Buy** *Unchanged*
12m price target	**RCnt15,000/US$15.15** *Unchanged*
Price	**RCnt11,401/US$11.10 (ADR)**

RIC: GFIJ.J BBG: GFI SJ

Trading data (local/US$)

52-wk range	RCnt13,500-5,400/US$41.03-4.90
Market cap.	RCnt74.5bn/US$7.25bn
Shares o/s	653m (ORD)/653m (ADR)
ADR ratio	1 ADR:1 ORD
Free float	100%
Avg. daily volume ('000)	2,824/1,241
Avg. daily value (RCntm)	277.9/12.3

Balance sheet data 06/09E

Shareholders' equity	R51.5bn
P/BV (UBS)	1.4x
Net Cash (debt)	(R8.27bn)

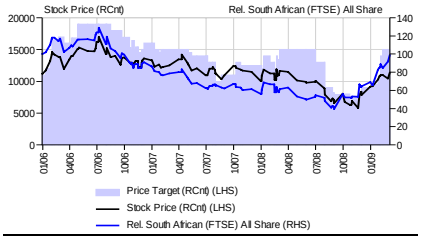
Forecast returns

Forecast price appreciation	+31.6%
Forecast dividend yield	3.1%
Forecast stock return	+34.7%
Market return assumption	13.3%
Forecast excess return	+21.4%

EPS (UBS, RCnt)

	06/09E		06/08
	UBS	Cons.	Actual
Q1E	(11.52)	6.00	61.22
Q2E	74.71	74.10	61.62
Q3E	302.93	243.00	197.58
Q4E	467.76	220.00	143.59
06/09E	833.82	*558.90*	
06/10E	1,085.42	*1,042.90*	

Performance (RCnt)



Source: UBS

Gold Fields

Key production, cost and NPV information is outlined below:

Table 21: Gold Fields production and cost summary

		2005	2006	2007	2008	2009	2010	2011	2012
Production	moz	4.457	4.343	4.226	3.596	4.091	4.202	4.321	4.411
Cash costs	$/oz	340	358	419	530	441	474	503	508

Source: UBS estimates

The bulk of Gold Fields' production and reserves reside in Africa.

Table 22: Gold Field's geographical split

	Reserves (m oz)	2008 production (k oz)
South Africa	66.60	2080
Ghana	9.00	587
Australia	2.49	616
Peru	2.72	74
Total	**80.80**	**3356**

Source: Company

Hedging

GFI has no gold hedges.

Table 23: NPV summary for Gold Fields

		Base case	Spot US$925/oz, R10.4/$	Zero real discount rate
Operations	Driefontein	R 7,455	R 28,546	R 9,124
	Kloof	R 5,404	R 20,182	R 6,271
	South Deep	R 3,181	R 23,862	R 5,331
	Beatrix	R 3,091	R 11,358	R 4,519
	Ghana	R 11,001	R 26,937	R 14,406
	Australia	R 3,233	R 6,955	R 3,475
	Cerro Corona	R 6,561	R 10,467	R 10,202
	Minorities	R -3,835	R -8,832	R -5,184
Sub-total		**R 36,090**	**R 119,476**	**R 48,144**
Non-operating		R -6,753	R -14,263	R -9,963
Net cash		R -8,686	R -8,636	R -8,636
Net WC		R 1,458	R 1,458	R 1,458
Portfolio	Investments	R 4,360	R 4,360	R 4,360
TOTAL		**R 26,469**	**R 102,395**	**R 35,363**
NPV/share		**R 37.65**	**R 145.65**	**R 50.30**
P/NPV		**2.66**	**0.69**	**1.99**

Source: UBS estimates

UBS Investment Research

Harmony Gold Mining Co Ltd

De-risking has been key

■ Rewarded for de-risking

We believe that Harmony Gold Mining's (HAR's) outperformance has been driven by the de-risking of the balance sheet, rather than imminent operational/project delivery. That this has occurred through asset sales somewhat negates the real advantage, but it was nevertheless necessary, given the precarious position the company found itself in 18 months ago (high capex, weak balance sheet, non-delivering operations, CEO/CFO departure).

■ Relatively low near-term operating risks

We expect volume recovery for HAR from a low base, but continued cost pressures (no specific opportunities in 2009 to reduce the unit cost base, other than from domestic currency weakness). Beyond 2009, project delivery offers an opportunity to improve portfolio quality, but we believe this to be discounted, with downside risk on delivery. We also question whether they will bring HAR into line with its larger peers.

■ Not a good cash flow generator – unless gold price spikes

Given that 50% of current production is from remnant mining areas, we suspect that the imperative to maintain production levels rather than face the challenges of closure will demand re-investment (capex) and rising unit costs (low-grading) that will undermine returns to shareholders. HAR has been a non dividend payer since 2004, and we expect it to remain so in 2009.

■ Valuation

We value HAR on 12x 2009E earnings.

Highlights (Rm)	06/07	06/08	06/09E	06/10E	06/11E
Revenues	10,715.00	9,545.00	13,923.91	16,367.47	14,780.62
EBIT (UBS)	952.00	1,373.00	4,203.88	5,444.09	4,126.34
Net Income (UBS)	294.00	424.00	2,896.89	4,022.43	2,724.37
EPS (UBS, RCnt)	73.89	105.75	705.96	963.06	652.28
Net DPS (UBS, RCnt)	0.00	0.00	0.00	366.79	254.57

Profitability & Valuation	5-yr hist av.	06/08	06/09E	06/10E	06/11E
EBIT margin %	2.3	14.4	30.2	33.3	27.9
ROIC (EBIT) %	1.6	6.3	16.9	21.0	15.6
EV/EBITDA (core) x	22.5	16.7	9.2	6.7	8.1
PE (UBS) x	>100	79.0	16.9	12.4	18.3
Net dividend yield %	0.6	0.0	0.0	3.1	2.1

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Valuations: based on an average share price that year, (E): based on a share price of RCnt11,950 on 06 Mar 2009 21:38 GMT

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Global Equity Research

South Africa

Precious Metals

12-month rating	**Neutral** *Unchanged*
12m price target	**RCnt13,200/US$13.33** *Unchanged*
Price	**RCnt11,950/US$11.36 (ADR)**

RIC: HARJ.J BBG: HAR SJ

Trading data (local/US$)

52-wk range	RCnt12,950-5,499/US$14.43-5.66
Market cap.	RCnt49.9bn/US$4.74bn
Shares o/s	418m (ORD)/418m (ADR)
ADR ratio	1 ADR:1 ORD
Free float	84%
Avg. daily volume ('000)	2,185/634
Avg. daily value (RCntm)	242.9/7.1

Balance sheet data 06/09E

Shareholders' equity	R28.0bn
P/BV (UBS)	1.8x
Net Cash (debt)	R2.20bn

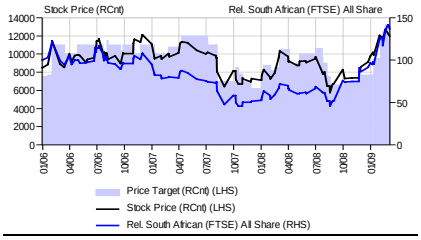
Forecast returns

Forecast price appreciation	+10.5%
Forecast dividend yield	0.0%
Forecast stock return	+10.5%
Market return assumption	13.3%
Forecast excess return	-2.8%

EPS (UBS, RCnt)

	06/09E		06/08
	UBS	Cons.	Actual
Q1E	145.19	118.00	(29.04)
Q2E	82.35	81.60	11.50
Q3E	148.11	168.00	62.03
Q4E	325.91	194.50	60.81
06/09E	705.96	*537.40*	
06/10E	963.06	*867.90*	

Performance (RCnt)



Source: UBS

Harmony Gold

Key production, cost and NPV information is outlined below:

Table 24: Harmony's production and cost summary

		2005	2006	2007	2008	2009	2010	2011	2012
Production	moz	2.590	2.341	2.228	1.659	1.630	1.804	1.971	2.124
Cash costs	$/oz	420	449	575	587	489	513	521	512

Source: UBS estimates

Harmony's production is located entirely within South Africa.

Table 25: Harmony's geographical split

	Reserves (m oz)	2008 production (k oz)
South Africa	47.48	1659
PNG	2.99	
Total	**50.47**	**1659**

Source: Company

Hedging

Harmony has no gold hedges.

Reserves

HAR has stated gold reserves of 50.47moz (estimated at US$750/oz), 30.7moz of silver, 1,234mlb of copper and 13mlb of molybdenum.

Table 26: NPV summary for Harmony

		Base case	Spot US$925/oz, R10.4/$	Zero real discount rate
Operations	FreeState	R 14,914	R 41,048	R 22,078
	Surface	R -1,245	R -723	R -2,443
	Evander	R 706	R 3,149	R 350
	Randfontein	R 424	R 1,117	R 477
	Doornkop	R 1,784	R 6,358	R 2,927
	Elandsrand	R 4,663	R 16,289	R 7,209
	Hidden Valley	R 2,146	R 4,267	R 2,778
	Other capex	R -7,486	R -7,105	R -11,580
Sub-total		**R 15,908**	**R 64,399**	**R 21,797**
Non-operating		R -2,343	R -3,730	R -3,436
Net cash		R -1,103	R -1,024	R -1,024
Net WC		R 1,931	R 1,901	R 1,901
Portfolio	Randfontein	R 1,000	R 1,000	R 1,000
TOTAL		**R 15,393**	**R 62,546**	**R 20,238**
NPV/share		**R 38.19**	**R 155.19**	**R 50.22**
P/NPV		**3.14**	**0.77**	**2.39**

Source: UBS estimates

UBS Investment Research

Hochschild Mining

High leverage to precious metals

■ Super leverage to precious metals

Hochschild is both operationally geared (due to its relatively high administration and exploration expenses) and financially geared, which means that a recovery in precious metal prices, particularly silver, is likely to lead to a significant out-performance of the equity, as the company's earnings outlook improves.

■ San Felipe project is a key value driver

We are forecasting the San Felipe silver/zinc project to start contributing in 2012. This project has the potential to be company transforming, increasing the silver equivalent ounces by 56%. This project is a key value driver, and more certainty about the start-up date will be positive for the stock. The company's recent acquisitions have been gold-centric, but we would need to see further exploration upside potential at Lake Shore Gold to see significant value in the transaction.

■ We downgraded the stock to Neutral on 25 February 2009

We downgraded Hochschild to Neutral on 25 February, given the stock's 85% appreciation from the beginning of February. We believe the risks are now balanced, with upside risks on continued momentum in the silver price and attractive PE and EV/EBITDA valuations relative to peers offset by less compelling NAV valuations.

■ Valuation

Our price target of £2.85 is based on a 1.7x NPV multiple on the asset NPV less the company's net debt. This is a 10% discount to the 1.9x NAV multiple we apply to UK listed peer Fresnillo, given Hochschild's less stable earnings profile.

Highlights (US$m)	12/06	12/07	12/08E	12/09E	12/10E
Revenues	211.25	305.00	460.87	553.76	519.49
EBIT (UBS)	75.06	103.60	118.29	214.19	181.88
Net Income (UBS)	46.63	85.40	45.12	101.76	96.22
EPS (UBS, US$)	0.19	0.28	0.15	0.33	0.31
Net DPS (UBS, US$)	0.01	0.09	0.03	0.04	0.04

Profitability & Valuation	5-yr hist av.	12/07	12/08E	12/09E	12/10E
EBIT margin %	-	34.0	25.7	38.7	35.0
ROIC (EBIT) %	-	42.1	22.3	31.5	26.5
EV/EBITDA (core) x	-	17.8	7.9	6.5	6.7
PE (UBS) x	-	26.7	22.2	9.7	10.3
Net dividend yield %	-	1.2	0.9	1.2	1.2

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Valuations: based on an average share price that year, (E): based on a share price of 224p on 06 Mar 2009 21:38 GMT

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Mining

12-month rating	**Neutral** *Unchanged*
12m price target	**270p/US$3.87** *Unchanged*
Price	**224p/US$3.21**

RIC: HOCM.L BBG: HOC LN

Trading data (local/US$)

52-wk range	438p-66/US$8.78-0.97
Market cap.	£0.69bn/US$0.99bn
Shares o/s	307m (ORD)
Free float	30%
Avg. daily volume ('000)	584
Avg. daily value (£m)	0.9

Balance sheet data 12/08E

Shareholders' equity	US$0.56bn
P/BV (UBS)	1.8x
Net Cash (debt)	(US$0.22bn)

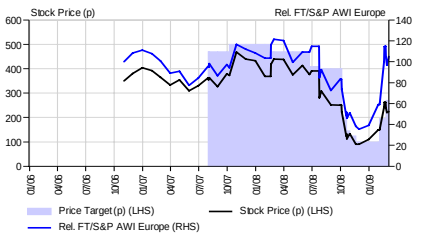
Forecast returns

Forecast price appreciation	+20.4%
Forecast dividend yield	0.9%
Forecast stock return	+21.3%
Market return assumption	5.8%
Forecast excess return	+15.5%

EPS (UBS, US$)

	12/08E		12/07
	UBS	Cons.	Actual
H1E	0.13	-	0.10
H2E	0.02	-	0.18
12/08E	0.15	*0.14*	
12/09E	0.33	*0.12*	

Performance (p)



Source: UBS

Hochschild Mining

Hochschild has recently announced some hedging – 4.5Moz of silver at US$11.10/oz, and the company has indicated it would consider further hedging. We estimate that 61% of revenue will come from silver, and 38% from gold in 2008.

Table 27: Hochschild Mining's key operating statistics

Hochschild Mining	Units	2005	2006	2007	2008	2009E	2010E	2011E	2012E
Attributable Silver	Koz	10550	10550	13587	16942	19144	19012	17115	16824
Attributable Gold	Koz	233	233	201	153	148	149	113	95
Lake Shore Gold (40%)	Koz					12	52	60	65
Zinc	Kt					0	0	9	62
Lead	Kt					0	0	4	28
Attributable silver equiv. production	**Moz**	**26.9**	**26.9**	**27.7**	**27.6**	**30.4**	**33.1**	**31.4**	**43.1**
Attributable gold equivalent production	**Koz**	**384**	**384**	**395**	**395**	**434**	**472**	**448**	**615**
Production cash cost (Co-product basis)	**US$/oz Ag**	**2.77**	**3.57**	**3.70**	**6.12**	**5.52**	**5.37**	**5.23**	**3.20**

Source: Hochschild, UBS estimates. Silver is converted at 70 ozs of Ag to 1 oz of Au

Table 28: Hochschild's reserve and resource summary

H	Quantity (Mt)	Silver (Moz)	Gold (Moz)
Reserves (P&P)	8.8	77.9	0.7
Resources (M, I & I)	15.5	150.1	1.05

Source: UBS estimates

Table 29: Hochschild's NAV breakdown by asset – end 2009

US$m	5% d.r.	0% d.r.
Ares	36	39
Arcata	300	369
Selene	11	14
Pallancata	120	146
San Jose	183	234
Mina Moris	20	23
San Felipe	336	566
Exploration prospects	141	185
LSG stake	90	142
Corporate & exploration costs	-431	-581
Sub-total	**807**	**1,138**
Net (debt) / cash	-92	-92
Sub-total	**715**	**1,046**
No of shares in issue	307	307
NPV/share	2.33	3.40

Source: UBS estimates

UBS Investment Research

Kinross Gold Corporation

34% production growth for 2009E

■ Liquid senior gold producer with growth

Kinross is a liquid, senior gold producer with significant opportunities for production and reserve growth without base metals exposure. The company is expecting 34% production growth in 2009 based on its three new projects – Paracutu, Kupol and Buckhorn. The majority of the capital expenditure on these projects has been spent, leaving Kinross with a strong balance sheet and cash position.

■ Production growth in 2009E

Kinross has mines and projects in the US, Brazil, Chile, Ecuador and Russia. Production is expected to grow by over 30% as the Kupol and Paracutu mines ramp up to full production. We note the company has higher relative political risk given its exposure to Russia and Ecuador.

■ Re-rating potential ahead

Re-rating potential exists with the successful completion of the Paracatu ramp-up in Q2/09, ore production and mine development at Buckhorn, the completion of a full feasibility study for Cerro Casale in Q3 09, and progress on the drilling programme at Fruta del Norte in Ecuador.

■ Valuation

We apply a P/NAV multiple of 1.3x to our operating NAV of US$15.40/share and add non-gold assets of US$2.26/share to derive our price target of US$22.50. Based on the implied return, we rate the shares Buy.

Highlights (US$m)	12/07	12/08	12/09E	12/10E	12/11E
Revenues	1,102.59	1,617.00	2,490.50	2,282.08	2,079.69
EBIT (UBS)	236.49	382.50	859.13	778.26	632.63
Net Income (UBS)	152.80	248.82	560.59	510.04	411.42
EPS (UBS, US$)	0.27	0.40	0.81	0.74	0.58
Net DPS (UBS, US$)	0.00	0.08	0.08	0.08	0.08

Profitability & Valuation	5-yr hist av.	12/08	12/09E	12/10E	12/11E
EBIT margin %	6.4	23.7	34.5	34.1	30.4
ROIC (EBIT) %	4.3	7.6	17.5	15.5	11.9
EV/EBITDA (core) x	15.5	17.7	8.8	9.0	10.4
PE (UBS) x	NM	47.3	20.5	22.6	28.9
Net dividend yield %	0.0	0.4	0.5	0.5	0.5

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill-related charges and other adjustments for abnormal and economic items at the analysts' judgement.
Valuations: based on an average share price that year, (E): based on a share price of US$16.68 on 06 Mar 2009 19:39 GMT

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Precious Metals

12-month rating	**Buy *** ***Unchanged***
12m price target	**US$22.50** ***Unchanged***
Price	**US$16.68**

RIC: KGC.N BBG: KGC US

Trading data

52-wk range	US$26.84-7.66
Market cap.	US$11.0bn
Shares o/s	659m (COM)
Free float	100%
Avg. daily volume ('000)	1,778
Avg. daily value (US$m)	30.7

Balance sheet data 12/09E

Shareholders' equity	US$4.97bn
P/BV (UBS)	2.3x
Net Cash (debt)	US$0.47bn

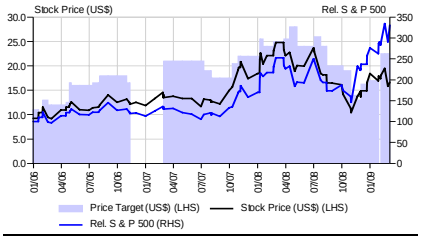
Forecast returns

Forecast price appreciation	+34.9%
Forecast dividend yield	0.5%
Forecast stock return	+35.4%
Market return assumption	6.0%
Forecast excess return	+29.4%

EPS (UBS, US$)

	12/09E		12/08
	UBS	Cons.	Actual
Q1E	0.08	0.12	0.09
Q2E	0.16	0.16	0.08
Q3E	0.24	0.19	0.13
Q4E	0.33	0.21	0.09
12/09E	0.81	*0.67*	
12/10E	0.74	*0.73*	

Performance (US$)



Source: UBS

*** Exception to core rating bands; See page65**

Kinross

Key production, cost and NPV information is outlined below:

Table 30: Kinross' production and cash cost profile

		2005A	2006A	2007A	2008A	2009E	2010E	2011E	2012E
K	**Moz**	1.603	1.476	1.428	1.805	2.400	2.445	2.511	2.441
	$/oz	269	317	373	403	392	369	348	365

Source: UBS estimates, company reports

Kinross's production is spread over four key regions.

Table 31: Reserves and production by country

Country	Reserves (Moz)	2008 production (koz)
United States	6.447	603
Chile	17.550	537
Brazil	18.524	188
Russia*	3.107	666
Total	**45.628**	**1,995**

Source: Company reports
* Russia production includes 39.585kozs from the Julietta mine that was sold during 2008
Note: Reserves are generally based on a gold price of US$725/oz

Hedging

Kinross does not hedge its gold production. However, the company may use spot deferred contracts and fixed forward contracts to hedge against the risk of falling prices for a portion of its forecasted metal sales. The company may sell call options as part of its overall strategy of managing the risk of changing gold and silver prices or purchase put options to protect against the risk of falling prices. Kinross may also assume derivative contracts as part of a business acquisition, or they may be required under financing arrangements. As a result of the acquisition of Bema in February 2007, Kinross assumed gold and silver forward sales contracts, call options, and put options, primarily due to requirements related to the Kupol project financing.

Political risk

Kinross has relatively higher political risk than its senior peers, given its Kupol project in Russia and FDN project in Ecuador, which account for ~17% and ~4% of the company's operating net asset value, respectively.

Table 32: NPV summary

	NAV (US$1,000 gold)	NAV (base case)	NAV (base case, 0%)
Operating	$15.40	8.59	14.09
Non-operating	$2.26	2.25	2.25
Total NAV	**$17.66**	**10.84**	**16.34**

Source: UBS estimates

UBS Investment Research

Lihir Gold Limited

Lihir Island expansion key

■ Leverage

Lihir Gold remains the most leveraged large-cap gold stock in the Australian market, with its operations providing exposure to pure gold without the embedded copper exposure held by Newcrest. The company is debt free and has only minor gold hedging in place (103koz). Lihir Gold operates one world-class mine at Lihir Island with reserves of 21.8Moz, and three smaller operations, in Australia and Cote d'Ivoire. We believe the 19,000km^2 of under-explored Birimian Greenstone Belt in Cote d'Ivoire will provide significant exploration upside over time.

■ Diversification and production growth being delivered

After two company acquisitions since 2007, gold output has increased from 0.6Mozpa to 0.88Moz in 2008. Additional production is anticipated in 2009 with the first full year of operations from Bonikro in Cote d'Ivoire and the commissioning of the Ballarat mine in Australia. The Lihir Island project is currently undergoing an expansion that will lift output from 0.8Moz to more than 1Mozpa, with commissioning due in late 2011.

■ Undervalued relative to global peers

Based on historical market capitalisation per reserve ounce comparables, Lihir has always traded at a significant discount to the global average. We believe this is because Lihir was historically a single-mine, PNG-based gold producer. Over the last two years, geographical and operational diversification has been delivered, so as reserves and production from the Australian and African assets increase, we expect the stock to re-rate compared to the global peer group.

■ Valuation

Our base-case valuation, assuming a 7% discount rate, is A$1.94/share.

Highlights (US$m)	12/07	12/08	12/09E	12/10E	12/11E
Revenues	393.20	679.80	1,111.38	1,078.22	1,031.18
EBIT (UBS)	80.40	190.30	429.65	382.08	367.94
Net Income (UBS)	23.06	121.82	304.96	277.03	274.10
EPS (UBS, A$)	0.01	0.07	0.22	0.20	0.20
Net DPS (UBS, A$)	0.00	0.00	0.00	0.00	0.00

Profitability & Valuation	5-yr hist av.	12/08	12/09E	12/10E	12/11E
EBIT margin %	-	28.0	38.7	35.4	35.7
ROIC (EBIT) %	-	6.9	12.0	9.9	9.3
EV/EBITDA (core) x	-	18.2	8.6	9.4	9.7
PE (UBS) x	-	44.1	14.6	15.9	16.1
Net dividend yield %	-	0.0	0.0	0.0	0.0

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Valuations: based on an average share price that year, (E): based on a share price of A$3.15 on 06 Mar 2009 23:38 GMT

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Global Equity Research

Australia

Precious Metals

12-month rating	**Neutral *** ***Unchanged***
12m price target	**A$3.90/US$25.12** ***Unchanged***
Price	**A$3.15/US$19.93 (ADR)**

RIC: LGL.AX BBG: LGL AU

Trading data (local/US$)

52-wk range	A$4.37-1.53/US$39.74-9.81
Market cap.	A$6.89bn/US$4.36bn
Shares o/s	2,188m (ORD)/219m (ADR)
ADR ratio	1 ADR:10 ORD
Free float	100%
Avg. daily volume ('000)	18,518/0
Avg. daily value (A$m)	55.2/0.0

Balance sheet data 12/08E

Shareholders' equity	US$3.41bn
P/BV (UBS)	1.3x
Net Cash (debt)	US$0.23bn

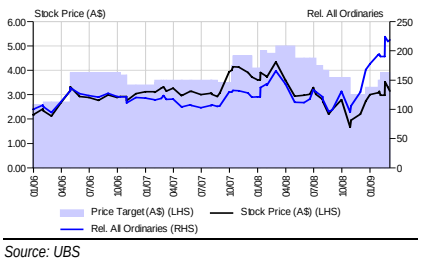
Forecast returns

Forecast price appreciation	+23.8%
Forecast dividend yield	0.0%
Forecast stock return	+23.8%
Market return assumption	7.6%
Forecast excess return	+16.2%

EPS (UBS, A$)

	12/09E		12/08
	UBS	Cons.	Actual
H1E	0.11	-	0.03
H2E	0.11	-	0.04
12/09E	0.22	*0.17*	
12/10E	0.20	*0.20*	

Performance (A$)



Source: UBS

*** Exception to core rating bands; See page65**

Lihir Gold

Key production, cost and NPV information is outlined below:

Table 33: Lihir production profile

		FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Gold	koz	596	651	700	880	1093	1147	1212	1428
Cash costs	US$/oz	296	313	319	403	395	391	357	386

Source: Company documents, UBS estimates

The bulk of Lihir's assets reside in Papua New Guinea (PNG).

Table 34: Geographical split of reserves and production

	Reserves (m oz)	FY 08 output (m oz)
PNG	21.8	0.77
Australia	1.0	0.05
Cote d'Ivoire	1.0	0

Source: UBS estimates

Hedging

The company has 0.1Moz of forward sales at a price of US$390/oz. The delivery schedule is 15koz per quarter until September 2010.

Table 35: NPV summary for Lihir

	Base (A$m)	Spot (A$m)	0% DR (A$m)
Operations			
Lihir (PNG)	3046	6083	5341
Ballarat (Australia)	212	482	356
Mt Rawdon (Australia)	262	409	312
Bonikro (Ivory Coast)	382	524	489
Portfolio	656	656	656
Financial			
Cash & short-term investments	100	100	100
Corporate costs	-342	-340	-594
Debt	-1	-1	-1
Hedging			
Hedging (mark to UBS forecasts)	-79	-75	-87
Total	**4237**	**7838**	**6573**
Per share	**1.94**	**3.58**	**3.01**

Source: UBS estimates

UBS Investment Research

Newcrest Mining Limited

Development and exploration upside

■ World-class asset base

Newcrest provides investors with exposure to world-class resources (70.6Moz) and reserves (40Moz) across six operations – in Australia (4), Indonesia (1) and Papua New Guinea (1). High gold grades in Indonesia and significant copper by-product credits at the Australian mines have ensured that Newcrest has remained one of the lowest-cost global gold producers over the last three to four years. After restructuring the balance sheet in late 2007, the company is unhedged with minimal debt and provides significant exposure and leverage to the gold price.

■ Well positioned to benefit from robust gold prices

We believe Newcrest's unhedged production profile, low geared balance sheet and strong management put it in a strong position to benefit from any further upward gold price moves. While the copper credits are seen by some as a risk to losing the gold premium, we believe management is on top of the issue. Revenue from copper peaked at ~30% when copper rose to US$4.00/lb, but since retreating back to below US$2/lb the revenue split is approximately 80% gold and 20% copper.

■ Strong exploration track record

Until the joint venture with Harmony on the Hidden Valley asset in PNG, completed in 2008, NCM had the distinction that all its mining operations were at deposits discovered by the company. Its exploration track record is unsurpassed, in our view, with over 98Moz of gold equivalent ounces discovered between 1992 and 2005. The company's projects, especially Cadia Valley and Hidden Valley, are anticipated to add a significant volume of economic ounces over the next five years.

■ Valuation

Our base-case valuation, assuming a 6% discount rate, is A$19.21/share. The target price is based on 1.8x NPV.

Highlights (A$m)	06/07	06/08	06/09E	06/10E	06/11E
Revenues	1,706.10	2,363.10	2,677.51	3,145.58	3,136.85
EBIT (UBS)	370.60	738.20	924.31	1,140.94	1,100.67
Net Income (UBS)	194.50	493.90	585.71	753.46	746.21
EPS (UBS, A$)	0.57	1.13	1.25	1.56	1.55
Net DPS (UBS, A$)	0.08	0.10	0.00	0.00	0.00

Profitability & Valuation	5-yr hist av.	06/08	06/09E	06/10E	06/11E
EBIT margin %	-	31.2	34.5	36.3	35.1
ROIC (EBIT) %	-	15.0	18.8	20.3	18.2
EV/EBITDA (core) x	-	13.7	12.7	9.8	9.7
PE (UBS) x	-	27.2	24.8	19.9	20.0
Net dividend yield %	-	0.3	0.0	0.0	0.0

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill, exceptionals and other special items. Valuations: based on an average share price that year, (E): based on a share price of A$31.07 on 06 Mar 2009 23:38 GMT

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Global Equity Research

Australia

Precious Metals

12-month rating	**Neutral** *Unchanged*
12m price target	**A$34.60/US$22.29** *Unchanged*
Price	**A$31.07/US$20.60 (ADR)**

RIC: NCM.AX BBG: NCM AU

Trading data (local/US$)

52-wk range	A$40.09-17.01/US$37.00-10.70
Market cap.	A$14.9bn/US$9.90bn
Shares o/s	481m (ORD)/481m (ADR)
ADR ratio	1 ADR:1 ORD
Free float	100%
Avg. daily volume ('000)	2,837/78
Avg. daily value (A$m)	88.9/1.6

Balance sheet data 06/09E

Shareholders' equity	A$4.55bn
P/BV (UBS)	3.3x
Net Cash (debt)	A$0.10bn

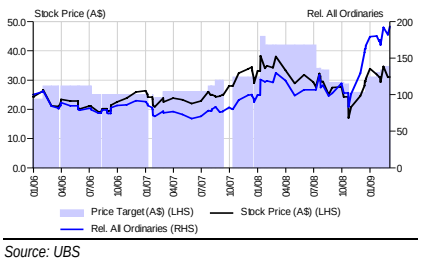
Forecast returns

Forecast price appreciation	+11.4%
Forecast dividend yield	0.0%
Forecast stock return	+11.4%
Market return assumption	7.6%
Forecast excess return	+3.8%

EPS (UBS, A$)

	06/09E		06/08
	UBS	Cons.	Actual
H1	0.52	-	0.51
H2E	0.75	-	0.67
06/09E	1.25	*1.05*	
06/10E	1.56	*1.44*	

Performance (A$)



Source: UBS

Newcrest

Key production, cost and NPV information is outlined below:

Table 36: Newcrest production profile

		FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12
Gold	koz	1087	1504	1556	1711	1563	1725	1812	1882
Cash costs	US$/oz	82	37	109	239	375	374	326	307

Source: UBS estimates

The bulk of Newcrest's production resides in Australia.

Table 37: Geographical split of reserves and production

	Reserves (m oz)	FY 08 output (m oz)
Australia	35.4	1.38
Indonesia	2.3	0.4
PNG	2.1	0

Source: UBS estimates

Hedging

The company has 1.75Moz of bought put options providing a floor price of A$800/oz on 125koz per quarter until June 2012.

Table 38: NPV summary for Newcrest

	Base (A$m)	Spot (A$m)	0% DR (A$m)
Operations			
Cadia Hill (Australia)	3062	6181	4232
Ridgeway (Australia)	879	1270	1268
Gosowong / Toguraci (Indonesia)	1206	1777	1607
Telfer (Australia)	2336	4119	3759
Hidden Valley (PNG)	558	864	844
Cracow (Australia)	165	259	165
Portfolio	800	800	800
Financial			
Cash & short-term investments	170	170	170
Corporate costs	-480	-480	-830
Debt	-66	-132	-66
Working capital	78	78	78
Hedging			
Hedging (mark to UBS forecasts)	0	0	0
Total	**8708**	**14905**	**12028**
Per share	**19.21**	**32.88**	**26.53**

Source: UBS estimates

UBS Investment Research

Newmont Mining Corp.

Global Equity Research

Americas

Precious Metals

12-month rating	**Buy** *Unchanged*
12m price target	**US$48.00** *Unchanged*
Price	**US$38.90**

RIC: NEM.N BBG: NEM US

The leading US producer

■ Leading gold producer with operations on five continents

Newmont has interests in numerous mines throughout North America, South America, Australia, Europe and Asia. Newmont's key operating assets are the Nevada operations, its 51.35% interest in Minera Yanacocha in Peru, its 50% interest in the Kalgoorlie mine in Australia, its 45% current interest in the copper-gold mine Batu Hijau in Indonesia, and the Tanami operations in Australia.

■ Steady production growth forecast

Newmont plans to increase annual production primarily through the start-up of its Boddington project. Boddington is the largest gold project in Australia, with 20.1Moz in reserves and a mine life in excess of 20 years. Newmont recently purchased the remaining 33.3% interest in the project from AngloGold Ashanti. Successful completion of the project, with start-up in mid-2009, could be a catalyst for the stock.

■ Maintaining its record of operating performance is key

We continue to believe the key issues facing the company in 2009 will be maintaining its record of delivering on operating performance and delivering a successful start-up at Boddington. We will also be looking for clarity with respect to NEM's Batu Hijau divestiture, with arbitration results expected by mid-year.

■ Valuation

We apply a P/NAV multiple of 1.30x the operating component of our revised NAV (using $1000/oz gold) of $37.30/share and add non-gold assets of -$0.51/share to derive our target of $48. NEM offers good leverage to the gold price, but we remind investors that uncertainty remains over NEM's obligation to divest a portion of Batu to the Indonesian government (currently in arbitration).

Highlights (US$m)	12/07	12/08	12/09E	12/10E	12/11E
Revenues	5,525.96	6,198.99	6,764.20	6,808.06	6,106.95
EBIT (UBS)	1,312.00	1,255.01	2,527.88	2,598.63	2,706.71
Net Income (UBS)	630.95	890.91	1,207.95	1,344.24	1,277.25
EPS (UBS, US$)	1.40	1.96	2.47	2.75	2.61
Net DPS (UBS, US$)	0.40	0.40	0.40	0.40	0.40

Profitability & Valuation	5-yr hist av.	12/08	12/09E	12/10E	12/11E
EBIT margin %	23.1	20.2	37.4	38.2	44.3
ROIC (EBIT) %	13.6	11.7	20.3	19.9	21.3
EV/EBITDA (core) x	10.8	10.6	5.9	5.8	5.7
PE (UBS) x	34.7	22.2	15.8	14.2	14.9
Net dividend yield %	-	0.9	1.0	1.0	1.0

Source: Company accounts, Thomson Financial, UBS estimates. (UBS) valuations are stated before goodwill-related charges and other adjustments for abnormal and economic items at the analysts' judgement.

Valuations: based on an average share price that year, (E): based on a share price of US$38.90 on 06 Mar 2009 19:39 GMT

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Trading data

52-wk range	US$53.78-21.54
Market cap.	US$17.2bn
Shares o/s	443m (COM)
Free float	100%
Avg. daily volume ('000)	3,088
Avg. daily value (US$m)	121.1

Balance sheet data 12/09E

Shareholders' equity	US$9.39bn
P/BV (UBS)	1.9x
Net Cash (debt)	(US$2.06bn)

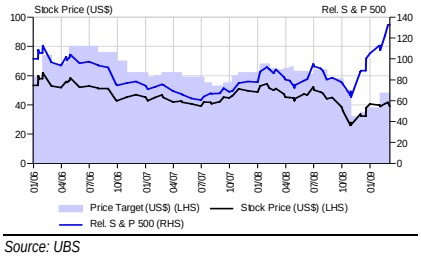
Forecast returns

Forecast price appreciation	+23.4%
Forecast dividend yield	1.0%
Forecast stock return	+24.4%
Market return assumption	6.0%
Forecast excess return	+18.4%

EPS (UBS, US$)

	12/09E		12/08
	UBS	Cons.	Actual
Q1E	0.33	0.38	0.81
Q2E	0.58	0.44	0.51
Q3E	0.70	0.53	0.39
Q4E	0.87	0.59	0.26
12/09E	2.47	*1.95*	
12/10E	2.75	*2.42*	

Performance (US$)



Source: UBS

Newmont

Key production, cost and NPV information is outlined below:

Table 39: Newmont's production and cash cost profile

		2005A	2006A	2007A	2008A	2009E	2010E	2011E	2012E
NEM	**Moz**	6.647	5.996	5.321	5.187	5.418	5.878	5.686	5.563
	$/oz	272	332	418	458	460	416	383	373

Source: UBS estimates, company reports

Most of Newmont's gold production is based in the US, Australia and Peru.

Table 40: Reserves and production by country

Country	Reserves (Moz)	2008 production (koz)
United States	28.090	2,260
Mexico	1.890	95
Indonesia	4.090	121
Peru	12.760	946
Bolivia	0.190	76
Ghana	17.040	521
Australia	20.540	1,049
New Zealand	0.360	144
Total	**84.960**	**5,212**

Source: Company reports
Note: Reserves are based on a gold price of US$725/oz

Hedging

Newmont does not hedge its gold production.

Political risk

Newmont has relatively higher political risk than some of its senior peers, due to its Batu Hijau operation in Indonesia. Batu Hijau is one of Newmont's most important assets, and we note that NEM is required to sell down its ownership in Batu Hijau over time – this sell-down is currently in dispute, creating uncertainty.

Table 41: NPV summary

	NAV ($1000 gold)	NAV (base case)	NAV (base case, 0%)
Operating	$37.30	20.64	28.02
Non-operating	-$0.51	-0.51	-0.51
Total NAV	**$36.79**	**20.13**	**27.51**

Source: UBS estimates

Technical appendix

The idea behind this econometric technique is to show that even though individual series may appear to move randomly over time, their ratio remains approximately constant. If this turns out to be true, we can deduce that the variables share a common (stochastic) trend, which cancels out when we form the ratio.

The estimation process therefore goes as follows:

- Show that each series individually does not mean revert or equivalently that each series 'stochastically' trends over time.
- Then show that the ratio of these variables does mean revert over time, or equivalently does not have a stochastic trend. We can then identify this ratio as having a long run the structural relationship.

Once we have identified this fundamental economic relationship, the dynamics around this ratio can be estimated using standard regression techniques.

Testing for a stochastic trend

There are a variety of statistical tests for a stochastic trend (or non-stationarity). We focus on the two most popular: the KPSS and the augmented Dicky-Fuller (ADF) test. The KPSS tests against a null of stationarity (no stochastic trend), whereas the ADF tests against a null of non-stationarity. The test is performed on quarterly data from Q1 78 to Q1 09 for the following variables:

- Log(GP) – the log of the real gold price defined as the log of the price of gold bullion LBM in $/troy oz. divided by the US CPI non-seasonally adjusted.
- Infl – the quarterly inflation rate defined as the % change in US CPI non-seasonally adjusted over the previous quarter.
- Vol(Infl) – the volatility of inflation defined as the standard deviation of the monthly CPI inflation rate over the previous five years.
- FX – is the broad trade-weighted index of the foreign exchange values of the US dollar against the currencies of a large group of major US trading partners as published by the Board of Governors of the Federal Reserve System.

The test statistics for these variables are given in Table 42. Both types of test are performed without allowing for a deterministic trend; however, the picture is identical if we do allow for a deterministic trend. The evidence is clear-cut and suggests that all the variables do have a stochastic trend[2]. We can therefore continue to the next stage and test whether they share the same common stochastic trend.

[2] The KPSS test statistic tests for stationarity. At all standard confidence we can reject the hypothesis that the variables are stationary. However, the same hypothesis can not be rejected at the level of differences. Therefore the variables appear integrated of order 1. In contrast in the ADF statistic which, has a null of non-stationarity, can not be rejected on the level of the variables but can be rejected at the level of differences. So again, the variables appear integrated of order 1.

Table 42: Test statistics for regression variables

	KPSS		ADF	
	Statistic		Statistic	
Log(Gold Price)	1.265	***	-1.538	
Δ Log(Gold Price)	0.153		-4.754	***
Vol(Inflation)	1.645	***	-1.984	
Δ Vol(Inflation)	0.094		-3.954	***
FX	0.919	**	-1.265	
Δ FX	0.082		-5.007	***
Inflation	1.191	***	-2.390	
Inflation	0.044		-10.671	***

Source: UBS

Table 42 shows the KPSS and ADF statistics for all variables considered in the regression analysis. We use the symbol Δ to denote first differences of the variables. The KPSS has a null of stationarity. Critical values for the KPSS stationarity test without a trend are: 0.739, 0.463 and 0.347 at the 1%, 5% and 10% significance levels, respectively. In contrast, the ADF has a null of non-stationarity. The critical values for the ADF test without a trend are: -3.481, -2.884 and -2.574 at the 1%, 5% and 10% significance levels, respectively.

Testing for a common stochastic trend

There are a number of ways to test for a common stochastic trend in a number of variables. Perhaps the easiest to understand is the two-stage Engle-Granger test. The first stage is to regress the variables on each other. If the variables do share a common trend, the regression will fit the trend. We can test for this, by testing whether the residuals of the regression still has a stochastic trend. If it does not, we can deduce that the regression has fitted a common stochastic trend or, in econometric parlance, the variables cointegrate.

The results of the first stage OLS regression were

$$Log(\mathrm{GP}_t) = \underset{(2.656)}{44.65} \times \mathrm{Vol(Infl)}_t - \underset{(0.0017)}{0.019} \times \mathrm{FX}_t + \underset{(0.156)}{7.76} + e_t \qquad \textbf{(Equation 1)}$$

where ε_t is the residual and the standard errors are given in brackets. Despite the variables having a stochastic trend, the OLS regression estimates are consistent. However, any inferences based on the standard errors can be misleading.

We now test whether the residuals ε_t have a stochastic trend or equivalently are non-stationary. Table 44 records the results. Both tests support the hypothesis that the residuals are stationary. We therefore deduce that these variables do share a common trend.

Table 43: Residual test results

	KPSS	ADF
	Statistic	Statistic
Residuals, εt	0.283	-3.82 **

Source: UBS

Table 43 records the KPSS and ADF statistics for the residuals from equation 1. The KPSS has a null of stationarity. A lower bound for the critical values for the KPSS stationarity test without a trend are: 0.739, 0.463 and 0.347 at the 1%, 5% and 10% significance levels, respectively. In contrast, the ADF has a null of non-stationarity. Critical values for the Engle-Grange ADF test without a trend are: -4.36, -3.8 and -3.52 at the 1%, 5% and 10% significance levels, respectively. Note that the critical values are slightly larger than in Table 42. This is because of errors in the first-stage estimation.

We shall use equation 1 to define the fundamental real price of gold, FGP, as

$$Log(FGP_t) = 44.65 \times Vol(Infl)_t - 0.019 \times FX_t + 7.76 \qquad \textbf{(Equation 2)}$$

This is our long-term structural relationship. The real price of gold is increasing in the inflation risk as measured by the volatility of inflation and decreasing in the dollar exchange rate.

To check this relationship, we also performed a Johansen multivariate co-integration test. These results are recorded in Table 44 and support our earlier finding of a common trend.

Table 44: Johansen trace statistics

		Confidence Level		
Hypothesis	Statistic	10%	5%	1%
No Common Trends	40.45	32	34.91	41.07
At Most 1 common trend	9.52	17.85	19.96	24.6
At most 2 common trends	2.78	7.52	9.24	12.97

Source: UBS

Table 44 Johansen Trace Statistics for the number of common stochastic trends (or cointegrating vectors). The Vector Autoregression included 4 lags of the variables.

This approach estimated a slightly larger set of coefficients than equation 2.

$$Log(FGP_t) = 61.54 \times Vol(Infl)_t - 0.025 \times FX_t + 8.49$$

We, however, chose to stick with the estimates in equation 2, as they gave a better fit in the next stage.

Estimating the dynamics

Given a well-defined long-run structural relationship, estimating the dynamics is a relatively straightforward task. It amounts to a search through the possible variables to maximise the explanatory power (as measured by the adjusted R^2) of the equation. We adopted a stepwise search, effectively including all possible variables and eliminating one by one any variables with a t-stat below 1.5 in the equation.

Now, before we continue, just a precautionary note. The structural relations we found in equation 2 could be consistent with an efficient market. If the volatility of inflation and the exchange rate are both unforecastable, then this relationship simply describes a time-varying risk premium. As one cannot forecast these variables, it is not possible to make excess profits from this identity. When we go on to estimating the dynamics around this relationship, one cannot make the same claim. The dynamic equation is no longer consistent with a strict definition of an efficient market. We must therefore appeal to models where investors need to learn about the environment, and this learning drives momentum in prices; or a behavioural-type argument where some investors over- or under-react to economic news.

Our estimated forecasting equation is given below:

(Equation 3)

$$\Delta Log(GP_t) = \underset{(0.038)}{-0.122}\, ECV_{t-4} + \underset{(0.087)}{0.115}\,\Delta Log(GP_{t-1}) + \underset{(1.174)}{2.654}\,(Infl_{t-1} - Infl_{t-5}) + \underset{(1.194)}{2.417}\,\Delta Infl_{t-3} - \underset{(0.0017)}{0.0045}\,\Delta FX_{t-3}\ \underset{(0.007)}{0.0014} + e_t$$

where

$$ECV_t = Log(GP_t) - 44.65 \times Vol(Infl)_t + 0.019 \times FX_t + 7.76 \qquad \textbf{(Equation 4)}$$

and Δ denotes the difference (i.e. $\Delta x_t = x_t - x_{t-1}$). Standard errors of the estimates are in brackets below the estimated coefficients. This equation was able to explain roughly 20% of the movements in the real gold price.

Despite the apparent complexity, the equation is relatively parsimonious and is intuitively pleasing. Firstly the variable, ECV_t is the error correction term and embeds the long-run structural relationship within the dynamic equation. Given our earlier definition, it is defined as the difference between the real gold spot price and the fundamental price of gold (as defined by equation 2).

$$ECV_t = Log(GP_t) - Log(FGP_t) \qquad \textbf{(Equation 5)}$$

Hence, if the gold price is above its fundamental long-run level, the price has a tendency to fall (the coefficient on this term is negative) and if it is above, it has a tendency to rise. Thus when we use this equation to forecast, this term will bring the gold price back to its fundamental level over a number of periods. The speed of reversion is determined by the size of the estimated coefficient on this term. The value of 0.12 suggests that it takes roughly 2.5 years to mean revert (i.e. 1/0.12 ≈10 periods, which is 2.5 years as a period is a quarter). It is pleasing that the t-stat (the coefficient divided by the standard error) on this term is greater than 3. This is further statistical evidence of a common stochastic trend.

The other terms describe the short-term dynamics. They are effectively momentum terms. Thus the lag $\Delta\log(GP_{t-1})$ is momentum term in the gold price. If the price went up in the previous period, it is more likely to rise in the next. Similarly, if inflation is rising over the previous year, the gold price is more likely to rise, and if the dollar exchange rate was weakening the gold price is

more likely to strengthen. Thus the equation tends to predict over-shooting in the gold price. If the fundamental changes, the dynamic terms will drive the price of gold away from its fundamental level, before the structural error correction term brings it back over the long run.

Finally, a quick observation on how to use this equation to forecast the gold price. We have described the dynamics of the gold price in terms of three variables: the volatility of inflation, the dollar exchange rate and inflation itself (one might prefer to see this as a proxy for uncertainty about the volatility of inflation over the short term). If we assume that these variables are exogenous to the gold price, or equivalently there is no feedback from the gold price to these variables – a seemingly reasonable assumption – then all we need to forecast the gold price is a forecast of these variables. In the main text, we discuss various economic scenarios or forecasts of these variables and their implications for the gold price.

■ Statement of Risk

We point out to investors the potential risks inherent in commodities markets, including but not limited to, their volatile nature, which may differ materially from expectations. Furthermore, this asset class is exposed to political, financial, operational and liquidity risks, each of which has the potential to significantly impact returns.

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UBS Investment Research: Global Equity Rating Allocations

UBS 12-Month Rating	Rating Category	Coverage[1]	IB Services[2]
Buy	**Buy**	53%	36%
Neutral	**Hold/Neutral**	36%	34%
Sell	**Sell**	10%	20%
UBS Short-Term Rating	**Rating Category**	**Coverage[3]**	**IB Services[4]**
Buy	**Buy**	less than 1%	43%
Sell	**Sell**	less than 1%	22%

1:Percentage of companies under coverage globally within the 12-month rating category.
2:Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.
3:Percentage of companies under coverage globally within the Short-Term rating category.
4:Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS. Rating allocations are as of 31 December 2008.

UBS Investment Research: Global Equity Rating Definitions

UBS 12-Month Rating	Definition
Buy	FSR is > 6% above the MRA.
Neutral	FSR is between -6% and 6% of the MRA.
Sell	FSR is > 6% below the MRA.
UBS Short-Term Rating	**Definition**
Buy	Buy: Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.
Sell	Sell: Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.

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Forecast Stock Return (FSR) is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months.
Market Return Assumption (MRA) is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium).
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UBS Limited: Daniel Brebner, CFA; John Reade; Larry Hatheway; James Luke.

Company Disclosures

Company Name	Reuters	12-mo rating	Short-term rating	Price	Price date
Agnico-Eagle Mines Ltd.[2d, 4b, 16, 20]	AEM.N	Buy (CBE)	N/A	US$49.96	06 Mar 2009
AngloGold Ashanti[2b, 3, 4a, 6a, 14, 16, 18]	ANGJ.J	Buy	N/A	RCnt31,350	06 Mar 2009
Barrick Gold Corporation[2b, 4a, 4b, 6a, 15, 16, 20]	ABX.N	Buy (CBE)	N/A	US$28.76	06 Mar 2009
Centerra Gold Inc.[20]	CG.TO	Neutral (CBE)	N/A	C$4.57	06 Mar 2009
DRDGOLD Ltd[16]	DRDJ.J	Buy	N/A	RCnt940	06 Mar 2009
Gold Fields Ltd[16]	GFIJ.J	Buy	N/A	RCnt11,401	06 Mar 2009
Goldcorp Inc.[5c, 16, 20]	GG.N	Buy (CBE)	N/A	US$29.47	06 Mar 2009
Harmony Gold Mining Co Ltd[16]	HARJ.J	Neutral	N/A	RCnt11,950	06 Mar 2009
Hochschild Mining	HOCM.L	Neutral	N/A	224p	06 Mar 2009
Kinross Gold Corporation[2d, 4b, 5c, 6a, 16, 20]	KGC.N	Buy (CBE)	N/A	US$16.68	06 Mar 2009
Lihir Gold Limited[16, 20]	LGL.AX	Neutral (CBE)	N/A	A$3.15	09 Mar 2009
Newcrest Mining Limited[1, 2a, 2b, 4a, 5a, 6a, 16]	NCM.AX	Neutral	N/A	A$31.40	09 Mar 2009
Newmont Mining Corp.[2c, 3, 5b, 6b, 6c, 7, 15, 16]	NEM.N	Buy	N/A	US$38.90	06 Mar 2009

Source: UBS. All prices as of local market close.
Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

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