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Mining & Precious Metals (Citi)
Europe | United Kingdom

Gold and Silver Miners

Downgrading Fresnillo, Randgold and POG

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- **Downgrades** — We are today downgrading Fresnillo from Neutral to Sell, Randgold from Neutral to Sell and Petropavlovsk from Buy to Neutral. We now no longer have any Buy-Rated UK Gold or UK Silver Stocks and we now have three Sell-Rated gold and silver stocks, including African Barrick.

- **Concern about metal prices** — We have been concerned about gold and silver prices for some time and the recent further loss of momentum has concerned us even more. Our Monday Mining Minutes (Monday Mining Minutes - Switch from Precious to Industrial) report of 10th December advocated caution on gold and silver shares and our downgrades today continue with that theme.

- **Concern about valuations** — In our report of 25th October (UK Precious Metals Equities - Losing Momentum as QE3-Effect Fades), we noted that "We remain wary of the excessive valuations of the larger-cap high-quality miners". We rated Fresnillo and Randgold Neutral at that time, and were unwilling downgrade them to Sell despite our valuation concerns. We have been waiting for gold to lose further momentum before doing that and we feel that the time has now arrived.

- **P/NPV ratios follow metal prices** — We show in our report that P/NPV ratings tend to follow metal prices. When prices fall, there is the double-whammy of the market no longer being willing to attach premium valuation ratings.

- **Fresnillo** — We have reduced our P/NPV target-rating from 2.0x to 1.6x for two reasons. Firstly, we think that the earlier 2.0x is now too high in relation to the 1.3x that we are using on most other gold and silver stocks. We tolerated it in the silver bull market but no longer feel that it is appropriate. We see no reason why Fresnillo should trade on a 23x consensus PE for 2013 when the consensus for Diversified Miners is 10.4x, unless there is a further silver bull market ahead of us.

- **Randgold** — We have reduced our P/NPV rating from 1.6x to 1.4x. If the RRS assets were in Mexico, as is the case with FRES, then we could use a 1.6x rating. However, the RRS assets are located in African countries, which all have a fairly recent history of political instability. Despite that, we still rate Randgold at 1.4x vs. the 1.3x of most of our other gold stocks, because of the top quality of its assets.

- **Petropavlovsk** — POG has been downgraded for a stock-specific reason. Peer group Polymetal (Neutral; TP £11.31) recently announced that it was having troubles with its POX technology, the same technology that POG will be using in future. As a precaution, we have downgraded our assumptions on the effectiveness of the technology in our model and this has led to a lower NPV and to the downgrade in our rating from Buy to Neutral and our TP downgrade from £5.01 to £3.77.

		Rating		Target Price		Current Year Earnings Estimates	
Company	Ticker	Old	New	Old	New	Old	New
Fresnillo	FRES.L	2	3	£19.56	£15.20	US$1.18	US$1.04
Petropavlovsk	POG.L	1	2	£5.01	£3.77	US$0.77	US$0.72
Randgold Resourc	RRS.L	2	3	£66.00	£55.40	US$5.54	US$5.54

Still Losing Momentum

We have for some time been expressing caution both about the future trend of precious metals prices and about the premium valuations on gold and silver stocks, but have been unwilling to downgrade them to Sell ratings prior to further evidence of a loss of momentum in gold and silver prices. We now believe that we are seeing that loss of momentum and do not believe that the 'hothouse' valuation effect of UK buyers chasing limited top-quality UK gold and silver stocks will prevail for much longer.

Metal Prices Impact Valuation Ratings

The decisions that we have made to arrive at the downgrades in this note were not sudden. They have been an evolving and well-documented concern about both precious metal prices and the high valuation ratings accorded some gold and silver equities.

In order to understand how we arrived at the position we are taking today, we outline the chronology of our thinking on the matter:

In our report of 25th October (UK Precious Metals Equities - Losing Momentum as QE3-Effect Fades), we noted that "We remain wary of the excessive valuations of the larger-cap high-quality miners" and that "We believe that UK gold and silver valuations are being distorted by the limited availability of large-cap, high liquidity stocks."

Our Monday Mining Minutes (Monday Mining Minutes - Switch from Precious to Industrial) report of 10th December advocated caution on gold and silver shares with the following comment "If we are correct in assuming that the 'insurance-metals' (gold and silver) will fade relative to industrial metals (e.g. 'base metals' and platinum, the latter very much an 'auto sector' metal), the long-running outperformance of the precious metals equities may be in the process of peaking."

In our Monday Mining Minutes of 7th December (Monday Mining Minutes), we noted that "We titled our MMM last week "Switch from Precious to Industrial". This is because we believe that the world has passed its worst point of systemic risk to the global financial risk and that the 'insurance metals' (gold and silver) have had their day in the sun. We believe that the insurance metals will be surpassed by the industrial metals in 2013 as global growth slowly returns."

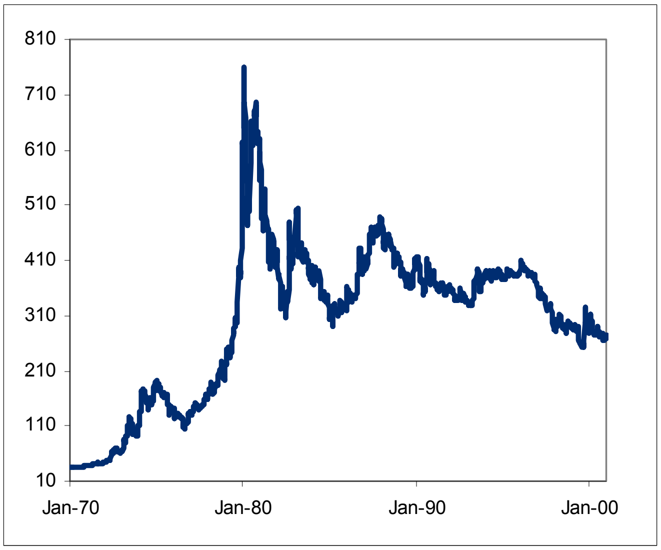
In our Monday Mining Minutes of 7th January 2013 (Monday Mining Minutes - Keep Switching from Precious to Industrial Miners), we noted that "Our key sub-sector call remains to switch out of UK gold and silver equities and into industrial metal miners such as the diversified groups. We maintain our commodity view that 'insurance metals' gold and silver have likely peaked relative to industrial metals now that the market is less concerned about systemic financial risk".

The problem with gold is that it is a very 'long cycle' metal and if it IS in the process of peaking now, then history suggests that it could go into hibernation for a long, long time. Figure 1 below tracks the seventies bull market in gold and its eighties and nineties bear market. If history were to repeat itself, then we should not look for gold to exceed $1950/oz for the next twenty years, if indeed it is peaking at the moment.

If gold is currently peaking, then Figure 2 below suggests that it may have a long way to go down in terms of dollars per ounce as well as in the matter of the extended time frame mentioned above. Of course, it may not be peaking, but our view is that we would need a global systemic risk level HIGHER than 2011 and

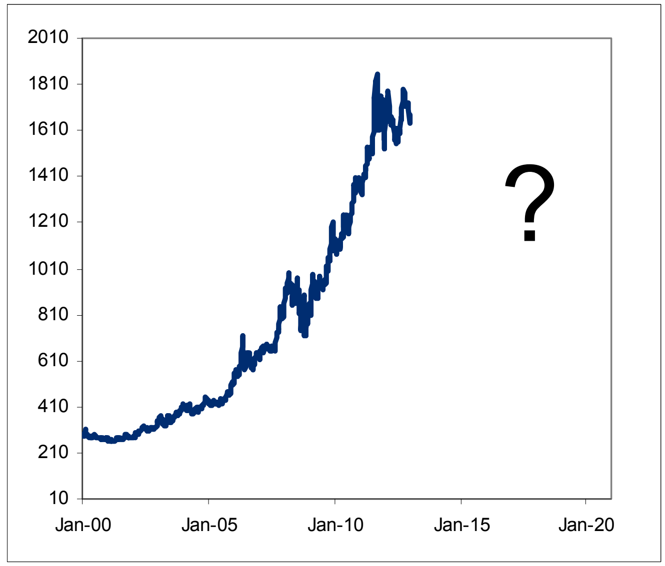
2012 to warrant an argument that gold's bull market is not over. Alternatively, if these general systemic risks (i.e. across all currencies) are not to be gold's driver, then we need the dollar to collapse in order for gold not to be peaking now. However, since the days of 2004 and 2005, when the Euro was king and the dollar was supposedly 'finished' as the world's reserve currency, the dollar's status relative to the Euro has improved enormously with each new revelation of the cracks in the multi-country Euro mechanism. Indeed, with fracking etc in the USA leading that country towards energy independence in the near future, the entire long-term-bearish argument on the dollar relative to the Euro may have changed.

Figure 1. . Gold : 1970 - 2000



Source: Datastream

Figure 2. Gold 2000-2020



Source: Datastream

Our 'fundamental' argument therefore is that the key drivers that took gold to $1950/oz are weakening, while the key drivers for industrial metals are slowly (albeit painfully slowly) improving.

The problem with a view that gold and silver may be peaking is that investors have been excusing the superior PE and P/NPV ratings on gold and silver stocks for a long time on the basis that the $1600/oz - $1950/oz range is the 'new normal', or indeed that gold may be on its way to exceed $2000/oz.

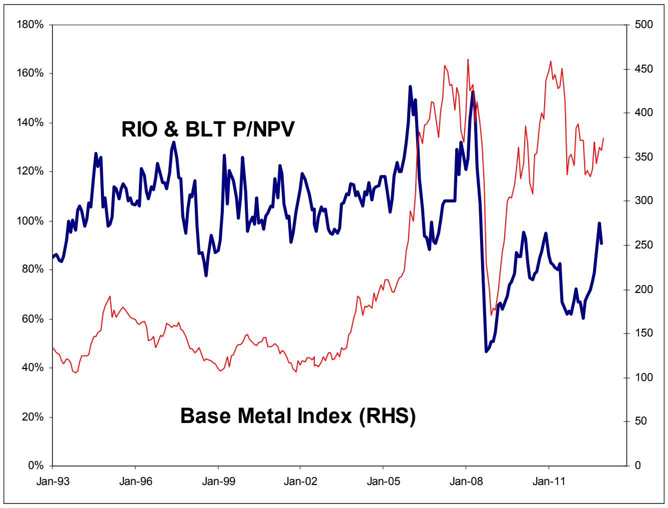
A fall in gold and silver therefore not only threatens EPS but threatens the excessive valuation rating (some gold and silver stocks on double the PE of diversified miners) that the market has been willing to grant this sector. If gold and silver are going into a 20-year hibernation, then those valuation ratings are well off reasonable levels.

FRES is on double the 2013E PE of the diversified mining groups. The market tolerates this during a flight away from risk, but it is doubtful that the market will tolerate the gap during any future 'Risk-On' phase in the equity market. When people were rioting on the streets of Athens, the appetite for gold, silver and Fresnillo was very high, but the entry price to Fresnillo was also very high.

If 2013 does progress as a year when we see no more riots on the streets and see ongoing economic recovery (even if modest), then it is our view that the market will seek increased operational gearing, will seek exposure to industrial commodities rather than 'insurance metals', and will be unwilling to pay a 100% PE premium on quality 'insurance metal' groups like Fresnillo.

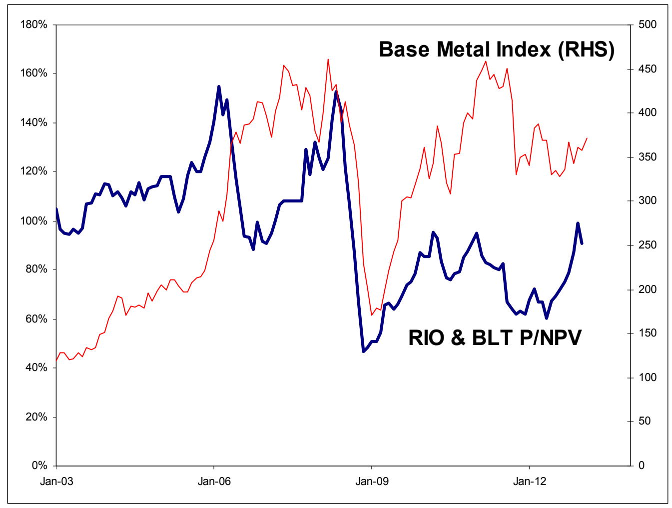
In Figure 3 below we look at the historic average P/NPV ratio of BHP Billiton and Rio Tinto between 1993 and 2006 and compare it to the trend in base metal prices. In Figure 4 we repeat the exercise for the period 2002-2016. We split the two periods up because the sharp base metal price rises in 2003-2008 distort the chart and make it difficult to observe the correlations before the Supercycle.

Figure 3. P/NPV of BLT & RIO vs Base Metal Prices (1993-2006)



Source: Datastream and Citi Research

Figure 4. P/NPV of BLT & RIO vs Base Metal Prices (1993-2006)



Source: Datastream and Citi Research

It is difficult not to come to the conclusion that the market's opinion on the appropriate P/NPV value is impacted by the trend in metal prices. The P/NPV ratio tends to fall when metal prices are falling and rise when metal prices are rising.

If the gold price is peaking, therefore, this would impact BOTH the EPS trends in the sector as well as the market's opinion on what the appropriate P/NPV ratio is. It is our view that, because of this historic relationship, the market will no longer be willing to tolerate a P/NPV ratio above 2.0x for FRES, as it has done for most of the past two years.

We accept that gold companies have always traded at valuation premiums to diversified miners and base metal companies. We do, however, find these more acceptable when gold and silver prices are trading 20% above their 10-year average. When gold and silver prices look very vulnerable to mean reversion, these types of valuations on precious metal shares can be called into question. As it is, we are already using a very favourable 8% discount rate to arrive at the NPV of e.g. Randgold. This is a group whose assets are located in African countries which all have a fairly recent history of political instability. We find it difficult to accept that RIO should trade at a 0.8x P/NPV multiple but Randgold trades at a 1.45x P/NPV when RIO's political risk is so well diversified.

We apply a 1.3x P/NPV ratio on gold stocks, African Barrick, Nordgold and Polymetal, and 1.4x for silver producer Hochschild.

We believe that UK gold and silver valuations have been being distorted by the limited availability of large-cap, high-liquidity gold stocks. North American regional funds are able to choose from large-caps like Barrick Gold and Newmont or from the host of mid-cap and small-cap golds in Canada. Emerging market investors are able to turn to South African gold stocks for high liquidity. In the UK space, Fresnillo and Randgold stand out as the only two stocks that large funds can turn to if they

are not to be concerned about market cap and share liquidity. This means that, at a time of high interest in gold and silver as commodities, European regional funds are cramming investment into a very small space and distorting valuations. The situation is even more acute in the case of Fresnillo, which is a quality large-cap stock, but which only has a 23% free float, making it a very crowded entry into silver and gold for investors.

This is all very well when gold and silver are trading at double their 10-year price average and there is high interest in the sector. The situation could change very quickly if gold and silver prices began a decline, causing an exit from an overly crowded equity area and, at the same time, flooding the market with physical metal from ETF sales. A double whammy.

Fresnillo

We have reduced our P/NPV target-rating from 2.0x to 1.6x for two reasons. Firstly, we think that the earlier 2.0x is now too high in relation to the 1.3x that we are using on most other gold and silver stocks. We tolerated it in the silver bull market but no longer feel that it is appropriate. We see no reason why Fresnillo should trade on a 23x consensus PE for 2013E when the consensus for Diversified Miners is 10.4x, unless there is a further silver bull market ahead of us.

Randgold

We have reduced our P/NPV rating from 1.6x to 1.4x. If the RRS assets were in Mexico, as is the case with FRES, then we could use a 1.6x rating. However, the RRS assets are located in African countries that all have a fairly recent history of political instability. Despite that, we still rate Randgold at 1.4x vs. the 1.3x of most of our other gold stocks, because of the top quality of its assets.

Petropavlovsk

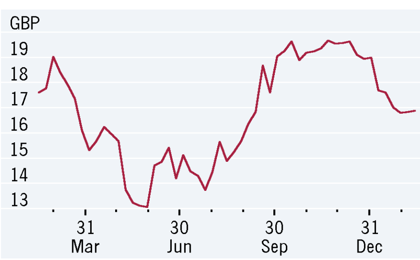
POG has been downgraded for a stock-specific reason. Peer group Polymetal (Neutral; TP £11.31) recently announced that it was having troubles with its POX technology, the same technology that POG will be using in future. As a precaution, we have downgraded our assumptions on the effectiveness of the technology in our model and this has led to a lower NPV and to the downgrade in our rating from Buy to Neutral and our TP downgrade from £5.01 to £3.77.

Company Focus

- Company Update
- Rating Change
- Target Price Change
- Estimate Change

Sell	**3**
from Neutral	
Price (14 Feb 13)	£16.60
Target price	£15.20
from £19.56	
Expected share price return	-8.4%
Expected dividend yield	1.1%
Expected total return	**-7.3%**
Market Cap	£11,905M
	US$18,504M

Price Performance
(RIC: FRES.L, BB: FRES LN)



Fresnillo Plc (FRES.L)

Cutting Rating From Neutral to Sell

- **Reducing P/NPV target** — We have reduced our P/NPV target-rating from 2.0x to 1.6x for two reasons. Firstly, we think that the earlier 2.0x is now too high in relation to the 1.3x that we are using on most other gold and silver stocks. We tolerated it in the silver bull market but no longer feel that it is appropriate. We see no reason why Fresnillo should trade on a 23x consensus PE for 2013 when the consensus for Diversified Miners is 10.4x, unless there is a further silver bull market ahead of us

- **New Valuation** — We set our target price of £15.20 by applying a 1.6x P/NPV ratio to our NPV estimate of £9.50 (derived using a discount rate of 7%, given our assessment of lower country risk in LatAm vs. Africa and Russia, where we use 8%). The result is that we downgrade FRES from Neutral to Sell.

- **Recent Production Results** — FRES delivered 41M oz attributable silver production in FY 12 and gold production of 473k oz. FRES affirmed that it is on track to produce 65M oz silver and is targeting 500k oz gold p.a. by 2018 but the guidance of another 41M oz silver in 2013 was 3.5% below our model expectations. The gold uplift was from the first year of operations at Noche Buena and the continuous ramp-up at Saucito. For silver production the ramp-up at Saucito offset the ongoing decrease in silver ore grade at the Fresnillo mine. In 2013 the ramp-up to approximately 8.5Moz at Saucito will offset the expected decrease in silver ore grade at Fresnillo. In 2013 attributable gold production is expected to reach 490k oz (2.5% below Citi) due to ramp-up at Noche Buena.

- **EPS Changes** — We have reduced our 2012E EPS from $1.18 to $1.04 following the recent FY 12 production report and have reduced our 2013E EPS from $1.41 to $1.14 and our 2014E EPS from $1.25 to $1.04 on the basis of the updated guidance given in the recent production report.

- **Flat 2013** — We see FRES as having good growth out to 2018 but it is our view that the flat 2013 silver production will be accompanied by slipping silver and gold prices. We think the FRES valuation is rich and this has contributed to our new Sell rating.

Fresnillo Plc (USD)

Year to 31 Dec	2010A	2011A	2012E	2013E	2014E
Sales ($M)	1,421.4	2,120.2	2,090.3	2,142.9	2,138.9
Net Income ($M)	540.7	901.4	745.7	814.0	747.2
Diluted EPS ($)	0.75	1.26	1.04	1.14	1.04
Diluted EPS (Old) ($)	0.75	1.26	1.18	1.41	1.25
PE (x)	34.2	20.5	24.8	22.7	24.8
EV/EBITDA (x)	18.8	11.5	12.8	11.8	12.0
DPS ($)	0.44	1.03	0.55	0.70	0.41
Net Div Yield (%)	1.7	4.0	2.1	2.7	1.6

Company Focus

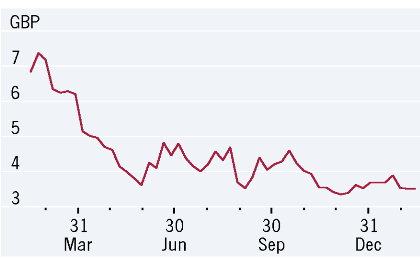
Petropavlovsk PLC (POG.L)

New Concerns about POX

- Company Update
- Rating Change
- Target Price Change
- Estimate Change

Neutral	**2**
from Buy	
Price (14 Feb 13)	£3.42
Target price	£3.77
from £5.01	
Expected share price return	10.3%
Expected dividend yield	0.0%
Expected total return	**10.3%**
Market Cap	£642M
	US$998M

Price Performance
(RIC: POG.L, BB: POG LN)



- **POX concerns** — POG has been downgraded for a stock-specific reason. Peer group Polymetal (Neutral; TP £11.31) recently announced that it was having troubles with its Pressure Oxidisation technology, the same technology that POG will be using in future. As a precaution, we have downgraded our assumptions on the effectiveness of the technology in our model and this has led to a lower NPV and to the downgrade in our rating from Buy to Neutral and our TP downgrade from £5.01 to £3.77.

- **Iron Ore** — POG's IRC iron ore subsidiary recently brought in its Chinese partners to fund the long-term development of IRC. It will involve a fund raising in two tranches, $103m in H1 2013 and $135m in H1 14, which would result in POG diluting down from 66% to 40.4%, with the Chinese at 31.4% and a free float of c28%. The key negative is the dlution, but POG shareholders were never too excited about IRC in any event and saw it as a potential drain on the POG balance sheet. This funding should allay those fears and, with IRC no longer being a subsidiary, we think POG will be seen to be focusing on its core business, gold.

- **EPS Changes** — We have reduced our 2012E EPS from $0.77 to $0.72 following a review of likely FY12 cost trends ahead of FY 12 financial results. We have reduced our 2013E EPS from $0.96 to $1.03 on a cost review and assessment of recent updated guidance, and 2014E EPS from $1.30 to $1.13 on a re-assessment of the trends leading up to introduction of the POX process.

Petropavlovsk PLC (USD)

Year to 31 Dec	2010A	2011A	2012E	2013E	2014E
Sales ($M)	612.2	1,261.5	1,423.5	1,618.6	1,611.4
Profit Before Tax ($M)	95.0	356.9	233.0	269.9	316.4
Diluted EPS ($)	0.23	1.23	0.72	0.96	1.13
Diluted EPS (Old) ($)	0.23	1.23	0.77	1.03	1.30
PE (x)	23.6	4.3	7.3	5.5	4.7
EV/EBITDA (x)	6.1	3.4	4.0	3.8	3.2
DPS ($)	0.08	0.08	0.08	0.08	0.08
Net Div Yield (%)	1.5	1.5	1.5	1.5	1.5

Company Focus

Randgold Resources Ltd (RRS.L)

Reduced to Sell

- Company Update
- Rating Change
- Target Price Change
- Estimate Change

Sell	**3**
from Neutral	
Price (14 Feb 13)	£57.83
Target price	£55.40
from £66.00	
Expected share price return	-4.2%
Expected dividend yield	0.3%
Expected total return	**-3.9%**
Market Cap	£5,327M
	US$8,280M

Price Performance
(RIC: RRS.L, BB: RRS LN)

- **Updated valuation approach** — We have reduced our P/NPV rating from 1.6x to 1.4x. If the RRS assets were in Mexico, as is the case with FRES, then we could use a 1.6x rating. However, the RRS assets are located in African countries which all have a fairly recent history of political instability. Despite that, we still rate Randgold at 1.4x vs. the 1.3x of most of our other gold stocks, because of the top quality of its assets

- **New Valuation** — We derive our target price of £55.40 by applying a 1.4x P/NPV ratio to our NPV estimate of £39.56 (derived using a discount rate of 8%).

- **Recent Results** — RRS produced 795 k oz in FY 12 after guiding to a range of between 825k oz and 865k oz six months ago. Most of this shortfall was beyond management control and was focused on the State-power problems at Tongon. Costs at Loulo were up 12% up in Q4 compared to Q3 (up 21% on a year ago) but costs at Gounkoto declined by 5% in Q4 vs. Group total cash costs were $735/oz in FY 12 vs $688/oz in FY 11.

- **Kibali** — Kibali's two ball mills were installed on their foundations ahead of schedule in January 2013 and open pit mining has produced the first ore for the feed stockpiles. Development has started on both underground declines and the parallel development of the vertical shaft is also under way. The project remains on track to deliver first gold in the fourth quarter of this year.

- **Kibali Priced in** — Kibali is very exciting and the area promises to be a substantial gold field in future. This is all in our valuation, however, and we still fail to see attractive enough upside in RRS to maintain a Neutral rating. We therefore downgrade Randgold to Sell.

Randgold Resources Ltd (USD)

Year to 31 Dec	2011A	2012A	2013E	2014E	2015E
Sales ($M)	1,128.3	1,311.2	1,500.5	2,369.5	2,431.3
Net Income ($M)	375.9	429.4	511.3	744.6	702.9
Diluted EPS ($)	4.07	4.65	5.54	8.06	7.61
Diluted EPS (Old) ($)	4.07	4.65	5.54	8.06	7.60
PE (x)	22.1	19.3	16.2	11.1	11.8
EV/EBITDA (x)	14.0	11.6	10.0	5.7	5.2
DPS ($)	0.40	0.50	0.57	0.80	0.78
Net Div Yield (%)	0.4	0.6	0.6	0.9	0.9

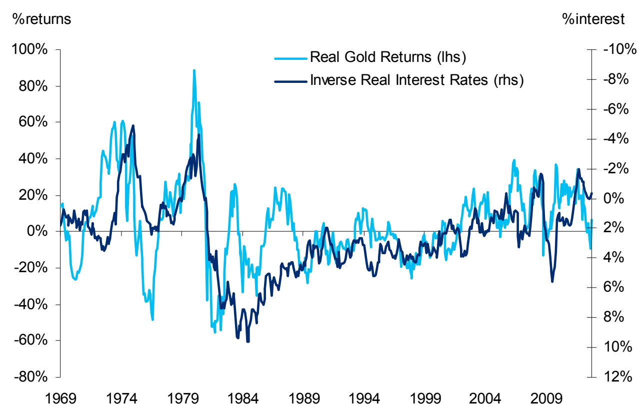
The Gold Market

Gold's recent struggle to sustain itself beyond the $1800 technical resistance level despite seemingly conducive conditions such as record low interest rates and fiscal uncertainty is casting doubt onto the bullish case for gold to surpass the $2000 mark in the near future.

'Insurance Assets' No Longer Needed

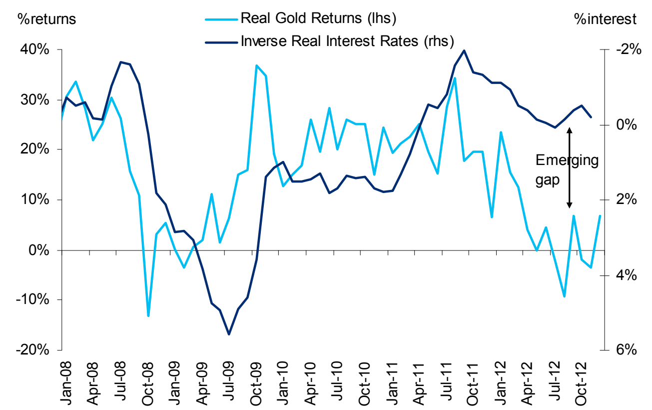
Gold's key problem is that the key role it had during the credit crisis, that of an insurance-asset, may be fading. If that persists, then there is the added threat of physical gold being sold out of the ETF baskets. This is not a threat that existed in previous bear markets, as gold ETFs had not yet been constructed.

Figure 5. Real gold returns vs. inverse real US interest rates, 1969 to present



Source: US BLS, Bloomberg, Citi Research

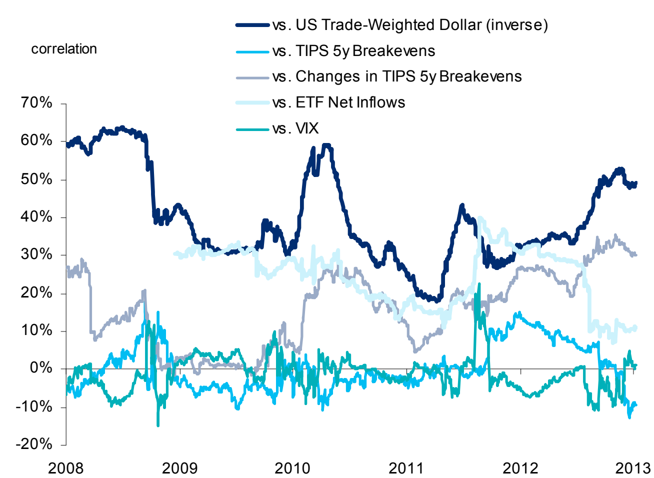
Figure 6. Real gold returns vs. inverse real US interest rates, close-up from 2008 to present



Source: US BLS, Bloomberg, Citi Research

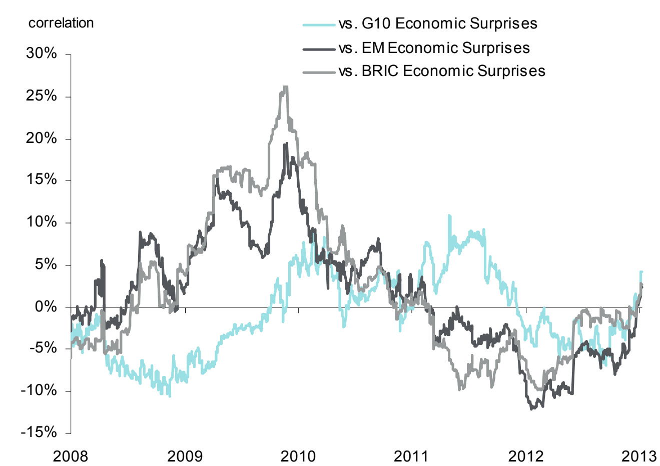
Figure 5 shows the overall historically tight relationship between real gold returns and real interest rates in the US. However, Figure 6 shows that in the last few months gold returns have diverged little despite real interest rates being low.

Figure 7. Rolling 12m correlations of daily gold returns with selected "macro-financial" indicators, 2008 to present



Source: Bloomberg, Citi Research

Figure 8. Rolling 12m correlations of daily gold returns with selected Citi economic surprise indicators, 2008 to present

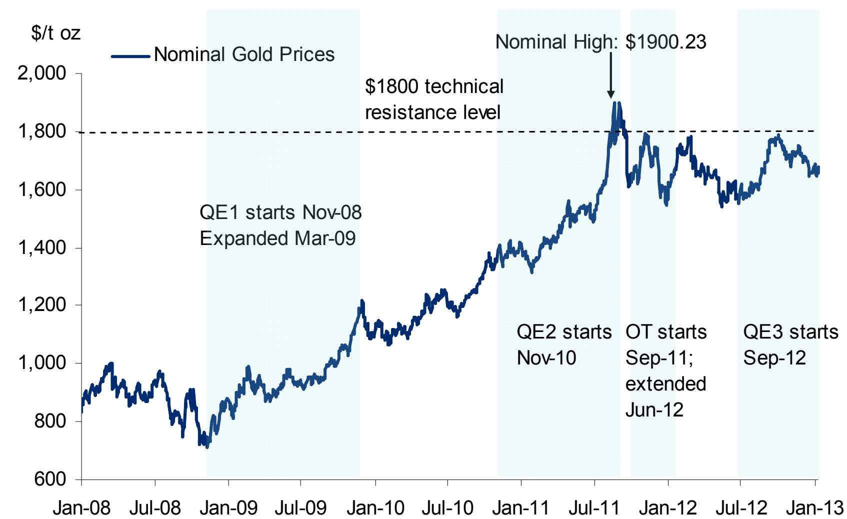


Source: Bloomberg, Citi Research

Figures 7 and 8 look at correlations of gold returns to various “macro-financial” factors, including the US dollar, TIPS breakevens, ETF net investment, measures of market fear such as the VIX index (though the VIX’s non-reaction throughout for example the fiscal cliff impasse makes its value questionable), and measures of economic bullish and bearish surprises both in developed and in EM economies.

Among these, one stands out in consistency and magnitude: the US dollar. TIPS breakevens have relatively poor relationship (though changes in TIPS breakevens are better). Perhaps surprisingly, VIX shows hardly any systematic relationship with gold at all, while the economic surprise indicators show if anything a *positive* relationship for sustained periods of time, straining credulity of the oft-repeated depiction of gold as a “risk-off” safe haven to purchase in times of macroeconomic and financial distress.

Figure 9. The gold price and US Federal Reserve balance sheet programs, Jan-08 to present



Source: Bloomberg, Citi Research

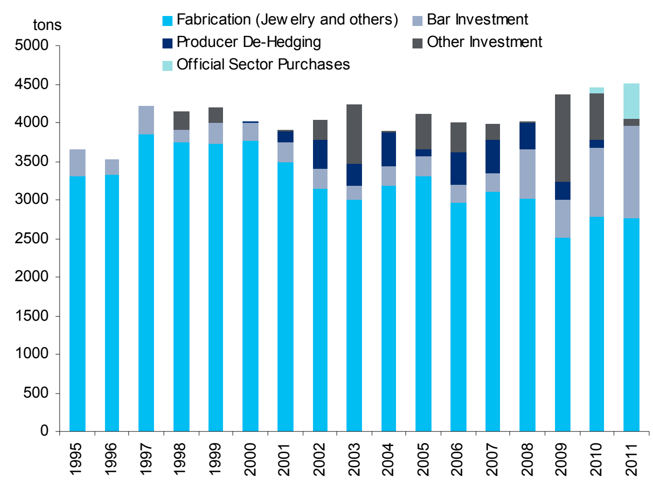
Measures of ETF net investment do show some relationship, though it is left unsaid which way the causality is flowing (i.e. ETF flows may be driven by gold returns rather than the other way around, something confirmed in previous research).

Nevertheless, purchases of gold for investment reasons by both private and public actors are a significant contributor to marginal gold demand even as fabrication demand for jewelry continues to decline (Figure 10). Central banks have continued to be net purchasers of gold, buying 274 tons in 2012. After the peak of 515 net tons in 2009, net gold purchases have stabilized at a lower level (Figure 11).

The emergence of commodity indices and exchange-traded products with exposure to gold has also given access to a wider set of investors who wish to eschew the inconvenience of physically holding gold. Even despite a large outflow from gold due to index rebalancing at the beginning of 2012, private investors poured a record $6.5bn into indices and ETPs throughout 2012, with inflows remaining robust in 4Q12 despite the post-QE3 selloff.

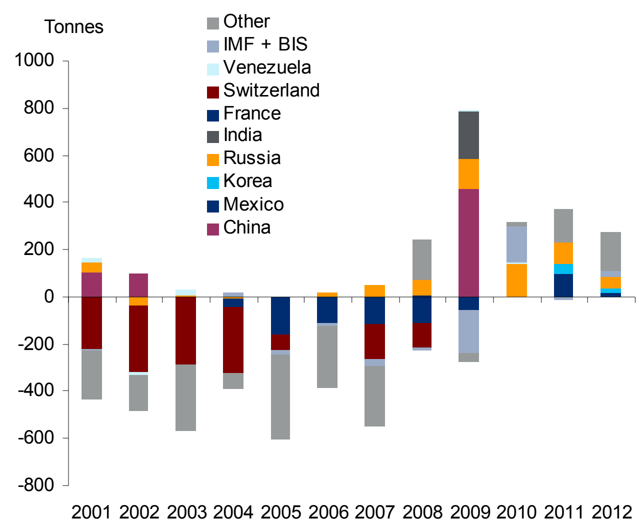
Nevertheless, these net investment inflows are not expected to last forever. A recent informal survey of central bankers at a Citi conference last summer suggested that while hardly any central bankers were planning on reducing gold holdings, only 15% now actively sought to increase their gold holdings. It is also important to remember that large central bank gold purchases during a period of high real gold prices are not only myopic but a historical anomaly. It is likely that central banks should become more opportunistic in their gold prices than previous steady purchases for diversification purposes.

Figure 10. Sources of physical gold demand, 1995 to present



Source: GFSM, Citi Research

Figure 11. Central bank gold purchases, 2011 to 2012



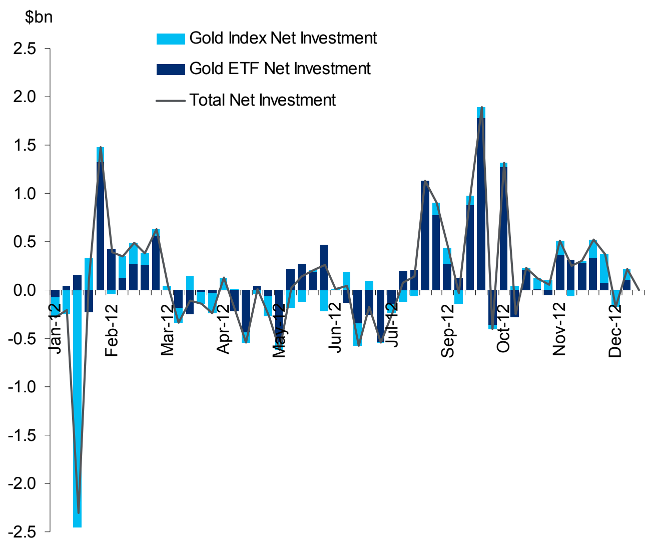
Source: IMF, Citi Research

The emergence of commodity indices and exchange-traded products with exposure to gold has also given access to a wider set of investors who wish to eschew the inconvenience of physically holding gold. Even despite a large outflow from gold due to index rebalancing at the beginning of 2012, private investors poured a record $6.5bn into indices and ETPs throughout 2012, with inflows remaining robust in 4Q12 despite the post-QE3 selloff (Figure 12).

Nevertheless, these net investment inflows are not expected to last forever. A recent informal survey of central bankers at a Citi conference last summer suggested that while hardly any central bankers were planning on reducing gold holdings, only 15% now actively sought to increase their gold holdings. It is also important to remember that large central bank gold purchases during a period of high real gold prices are not only myopic but a historical anomaly. It is likely that central banks should become more opportunistic in their gold prices than previous steady purchases for diversification purposes.

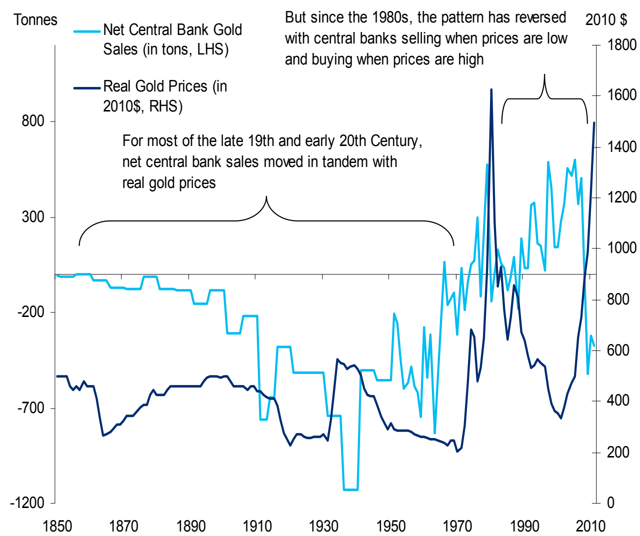
Furthermore, ETF flows have a tendency to track past movements in prices. With gold now expected to be range-bound, it is possible that momentum-chasing private investors may seek to cash in gains as opposed to further purchases. Already, net positioning by money managers in gold have fallen precipitously from a peak of 198k contract length in October 2012, to a trough of 92k contract net length in January 8, though other reportables are still at highs. If on aggregate another 70k contracts of liquidation occur, this would net ETF length back to Q2 2012 levels.

Figure 12. Gold index and ETF net investment, Jan-12 to present



Source: CFTC, Bloomberg, Citi Research

Figure 13. Net Central Bank Gold Sales and Real Gold Prices, 1850 to present



Source: WGC, IMF, US BLS, Citi Research

Turning to gold market fundamentals, the picture is mixed, with both supportive and unsupportive issues holding investors' attention. On the positive side, a notable pick-up in physical Chinese gold buying has been seen the since Chinese markets reopened on January 4th, as illustrated by the jump in turnover in physical contracts on the Shanghai Gold Exchange which GFMS report as average 16.6 tons/d in early January compared to 11.6 tons/day in December. However, an element this may well be seasonal activity ahead of the Lunar New Year.

The other major physical market — India — is expected to have seen a modest recovery in gold demand during the wedding season in 4Q12, though the effect should fade in January. The Indian government's talk of raising import duties to try and stem growth in the country's current account deficit has spurred some trader buying ahead of the introduction of any measures. However, the biggest limiting factor to any sustained Indian demand recovery is currency weakness and record high gold prices in rupee terms.

Figure 14. Valuations & Target Prices

Company	Ticker	Listing Currency	Rating	Prices as at 13-Feb-13	Target price	Upside	Div. yield	ETR
African Barrick Gold	ABGL.L	GBP	3	3.01	2.67	-11.4%	0.0%	-11.4%
Aquarius Platinum Ltd	AQP.L	GBP	1	0.68	0.92	34.9%	0.0%	34.9%
Centamin	CEY.L	GBP	2	0.60		NA		NA
Lonmin PLC	LMI.L	GBP	1	3.70	4.11	11.2%	0.0%	11.2%
Fresnillo PLC	FRES.L	GBP	2	16.60	19.56	17.8%	1.1%	18.9%
Gem Diamonds	GEMD.L	GBP	1	1.70	1.95	14.7%	0.0%	14.7%
Hochschild Mining PLC	HOCM.L	GBP	2	4.49	5.16	15.0%	0.9%	15.9%
Nordgold	NORDNq.L	USD	2	4.15	4.62	11.3%	4.6%	15.9%
Petropavlovsk	POG.L	GBP	1	3.42	5.01	46.6%	0.0%	46.6%
Polymetal	POLYP.L	GBP	2	10.37	11.31	9.1%	2.9%	12.0%
Randgold Resources Ltd	RRS.L	GBP	2	57.83	66.00	14.1%	0.3%	14.4%

Source: Citi Research

Fresnillo Plc

Company description

FRES was spun out of the Penoles group in May 2008. FRES houses the precious metals assets that were previously part of the Penoles group. FRES has three core operating assets (the Fresnillo, Cienega and Herradura mines, all based in Mexico) as well as owning a silver-stream style royalty from Penoles's Sabinas mine. The Soledad & Dipolos expansion project at Herradura came on stream in 1Q 2010. The next major development project is the Saucito operation, currently in ramp up.

Investment strategy

We rate Fresnillo Sell. FRES's core silver asset are the Fresnillo and Saucito mines in Mexico. Fresnillo also has four gold mines. Production in 2012 was 40.97m oz of silver (including 4m oz from a contractual arrangement with the polymetallic Penolesmines, known as the Slverstream contract) and 473k oz (attributable) gold production. We see FRES as having good growth out to 2018, but it is our view that the flat 2013 silver production will be accompanied by slipping silver and gold prices. We think the FRES valuation is rich and this has contributed to our Sell rating.

Valuation

We prefer to use longer-term P/NPV ratios to value this subsector and set our target price of £15.20 by applying a 1.6x P/NPV ratio to our NPV estimate of £9.50 (derived using a discount rate of 7%, given our assessment of lower country risk in LatAm vs. Africa and Russia, where we use 8%)

We set our target P/NPV multiples with reference to absolute and relative historical average levels, taking into account our views on the current stage of the cycle and on the quality of each company's assets and management.

Risks

The main risks to our investment thesis and target price revolve around either positive or negative moves in the following key areas:

Silver and metal prices: We expect silver to hold recent levels but see only limited upside risk as global financial risk is easing and silver will have to rely on industrial and jewellery demand alone. Silver has displayed a greater degree of volatility than other precious metals over recent years. The volatility and oversupply potential could see silver prices fluctuate away from our forecasts, leading to a risk to our earnings estimates. We also expect lead and zinc prices to remain volatile over the next several years.

Currency: All of FRES's operations are in Mexico. The revenue stream is denominated in US$ and upwards of 70% of the cost base denominated in Mexican pesos, thus any significant shift in the US$:peso exchange rate could impact profitability. We estimate that a ±10% move in the US$:peso exchange rate would influence profitability by c±3%.

Cost pressures: One of the key challenges facing the mining industry is rising cost pressures. Cyclical costs are under pressure from inflationary issues driven by the upswing in the commodities cycle. If we continue to see cost escalation against the backdrop of stable commodity prices, we could see margin erosion and reduced profitability for the mining industry.

Political risk: FRES's assets are predominantly based in Mexico. Consequently, while its revenue will be driven by the global demand for silver and gold, its cost base will be influenced by local currency rates, as well as country-specific economic issues such as labour availability, wages and inflation.

If the impact from any of these factors proves to be more negative than we anticipate, the stock will likely have difficulty achieving our financial and price targets. However, if any of these factors proves to have less of an effect than we anticipate, the stock could materially outperform our target.

Petropavlovsk PLC

Company description

POG is a UK-listed gold mining company with gold and iron ore assets in Russia.

Investment strategy

We rate Petropavlovsk as Neutral. POG has near-term production upside but questions remain over the challenges of pressure oxidisation.

Valuation

We set our target price of £3.77 by applying a 1.3x P/NPV multiple to POG's gold assets (NAV of £2.19 per share; derived using a discount rate of 8%), while we apply 85% of the market capitalisation of the IRC subsidiary

We set our target P/NPV multiples with reference to absolute and relative historical average levels, taking into account our views on the current stage of the cycle and on the quality of each company's assets and management.

Risks

We would highlight in particular that it is a single commodity play with the bulk of its earnings being derived from gold. Adverse movement in the gold price away from our forecasts could see a significant delta in our forecasts from actual profits, both positively and negatively. POG also faces technical risk in relation to its POX technology. Finally the company conducts the bulk of its business in Russia which has higher risk than developed countries.

If the impact of these risk factors is more or less negative than we currently anticipate, then the share price could fail to reach or exceed our target price.

Randgold Resources Ltd

Company description

RRS is an African-based gold mining company listed on the LSE since 1997 and Nasdaq since 2002. RRS has three operational mines in Mali: Morila, Loulo and Gounkoto. The Tongon mine is based in Cote D'Ivoire. The Kibali project in DRC is expected to begin production in Q4 2013. Massawa in Senegal could begin production in 2014. Randgold also has a portfolio of exploration projects in West Africa.

Investment strategy

We rate Randgold Resources as Sell. We see production growth as superior to many peers, but RRS still carries more political risk than most other mid and large-cap global gold companies.

Valuation

We derive our target price of £55.40 by applying a 1.4x P/NPV ratio to our NPV estimate of £39.56 (derived using a discount rate of 8%). We set our target P/NPV multiples with reference to absolute and relative historical average levels, taking into account our views on the current stage of the cycle and on the quality of each company's assets and management.

Risks

The key risks that could prevent the achievement of our target price are gold price, currency risk, political risk and cost base. The political risk is a function of Randgold's operation in African countries.

Gold Price: Any material deviation from our price forecasts, either from ‘stronger for longer' prices or a sharper and sooner decline, would impact on our earnings forecasts.

Currency Risk: Randgold reports in US$, and the revenue stream is priced in US$. However, operating costs are split 40:60 between the Communaute Financiere Africaine franc (CFA) and US$. The CFA is fixed against the euro, therefore, depreciation of the US$ against the euro would cause the cost base to rise and negatively impact earnings.

Appendix A-1

Analyst Certification

The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

Randgold Resources Ltd (RRS.L)

Ratings and Target Price History
Fundamental Research

Analyst: Jon H Bergtheil

	Date	Rating	Target Price	Closing Price
1	1-Jun-10	2M	*60.90	61.95
2	6-Jul-10	2M	*67.30	61.85
3	6-Aug-10	2M	*62.60	54.10
4	10-Nov-10	2M	*64.20	61.60
5	5-Jan-11	*1M	*62.20	50.90
6	25-Mar-11	1M	*54.88	47.36
7	20-May-11	1M	*61.35	47.55
8	22-Aug-11	1M	*86.78	68.70
9	7-Oct-11	Stock rating system changed		
10	7-Oct-11	*1	86.78	64.00
11	21-Oct-11	1	*88.46	62.80
12	4-Nov-11	1	*88.59	73.10
13	30-Nov-11	1	*83.49	67.15
14	9-Jan-12	1	*84.16	69.00
15	31-Jan-12	1	*90.90	71.65
16	31-Jan-12	1	*90.83	71.65
17	8-Feb-12	1	*88.84	72.45
18	23-Mar-12	*2	*65.27	56.50
19	16-Apr-12	2	*60.27	55.50
20	4-May-12	2	*55.00	51.20
21	16-Jul-12	*3	*49.19	58.05
22	15-Aug-12	3	*50.30	61.30
23	17-Sep-12	*2	*76.84	74.55
24	24-Sep-12	2	*80.41	74.85
25	25-Oct-12	2	*85.80	74.25
26	9-Nov-12	2	*80.00	70.45
27	21-Jan-13	2	*68.30	59.10
28	7-Feb-13	2	*66.00	61.20

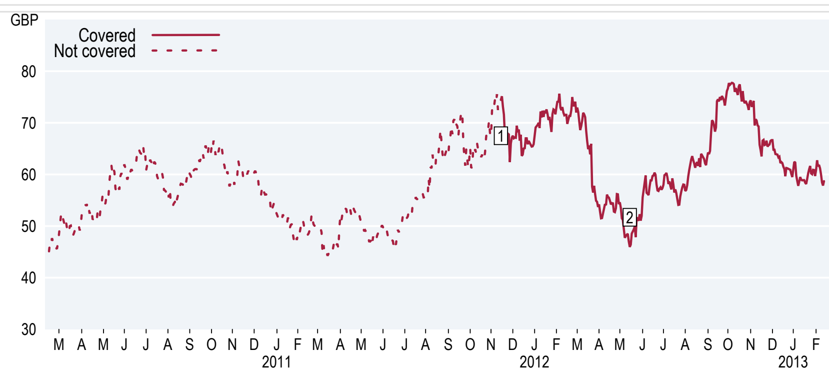
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Randgold Resources Ltd (RRS.L)

Ratings and Target Price History
Best Ideas Research
Relative Call (3 Month)

Analyst: Jon H Bergtheil



	Date	Rating	Target Price	Closing Price
1	15-Nov-11	*ADD MP	-	74.50
2	15-May-12	*REM MP	-	45.96

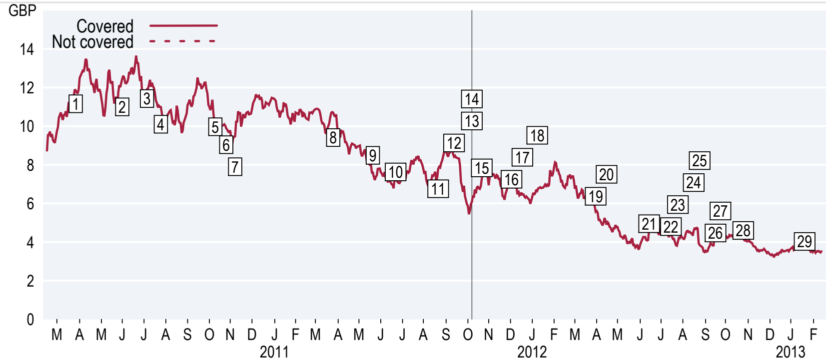
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Petropavlovsk PLC (POG.L)

Ratings and Target Price History
Fundamental Research

Analyst: Jon H Bergtheil



	Date	Rating	Target Price	Closing Price
1	26-Mar-10	2H	*12.20	11.85
2	1-Jun-10	*1M	*14.05	12.46
3	6-Jul-10	1M	*14.90	11.92
4	26-Jul-10	1M	*14.10	10.99
5	11-Oct-10	1M	*13.70	10.00
6	26-Oct-10	1M	*13.50	9.89
7	7-Nov-10	1M	*12.90	9.44
8	25-Mar-11	*2M	*11.00	10.70
9	20-May-11	2M	*9.11	7.60
10	22-Jun-11	2M	*8.32	7.40

	Date	Rating	Target Price	Closing Price
11	22-Aug-11	*1M	*9.90	7.79
12	13-Sep-11	1M	*10.47	8.42
13	7-Oct-11	Stock rating system changed		
14	7-Oct-11	*1	10.47	6.07
15	21-Oct-11	1	*11.31	7.28
16	2-Dec-11	1	*10.91	7.00
17	19-Dec-11	1	*10.10	6.43
18	9-Jan-12	1	*8.34	6.65
19	30-Mar-12	1	*7.62	5.57
20	16-Apr-12	1	*6.24	4.90

	Date	Rating	Target Price	Closing Price
21	14-Jun-12	1	*6.36	4.70
22	16-Jul-12	*2	*4.86	4.40
23	25-Jul-12	2	*4.60	4.01
24	16-Aug-12	2	*4.62	4.59
25	24-Aug-12	2	*4.42	3.84
26	17-Sep-12	*1	*5.00	4.47
27	24-Sep-12	1	*5.40	4.24
28	25-Oct-12	1	*5.79	4.17
29	21-Jan-13	1	*5.01	4.02

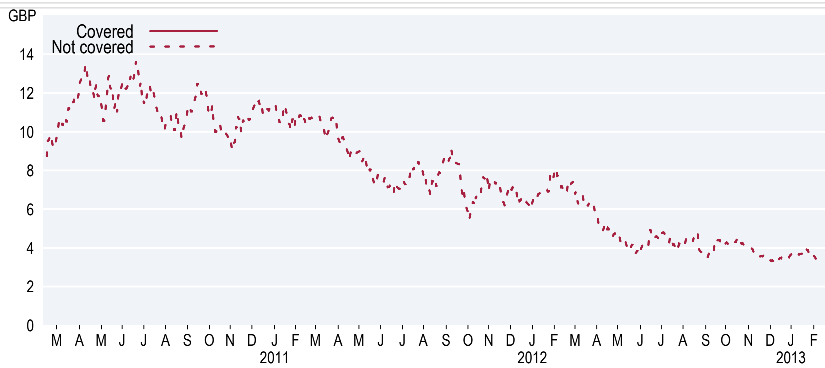
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Petropavlovsk PLC (POG.L)

Ratings and Target Price History
Best Ideas Research
Relative Call (3 Month)

Analyst: Jon H Bergtheil



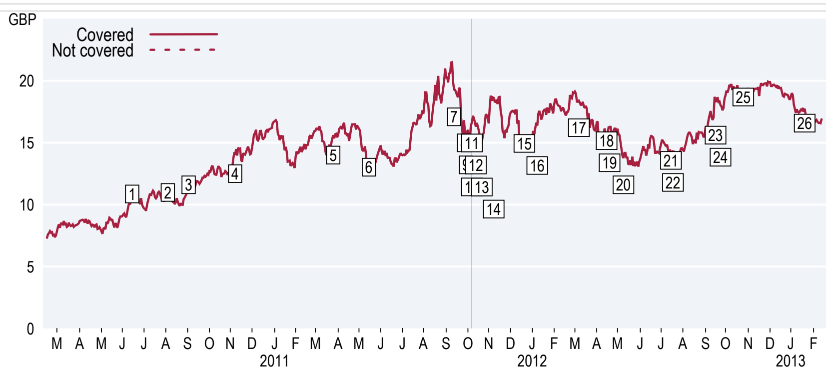
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Fresnillo Plc (FRES.L)

Ratings and Target Price History
Fundamental Research

Analyst: Jon H Bergtheil



	Date	Rating	Target Price	Closing Price
1	15-Jun-10	1M	*12.25	10.70
2	4-Aug-10	*2M	*11.90	10.98
3	2-Sep-10	2M	*11.35	10.97
4	7-Nov-10	2M	*13.75	14.13
5	25-Mar-11	2M	*15.22	15.60
6	15-May-11	2M	*15.00	13.24
7	13-Sep-11	*3M	*18.64	19.30
8	27-Sep-11	*2M	*17.15	16.81
9	29-Sep-11	2M	*16.73	15.14

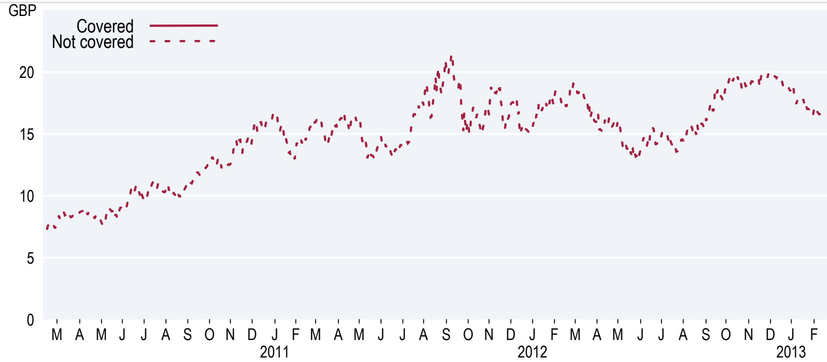
	Date	Rating	Target Price	Closing Price
10	7-Oct-11	Stock rating system changed		
11	7-Oct-11	*2	16.73	16.63
12	13-Oct-11	2	*17.30	16.29
13	21-Oct-11	2	*16.66	15.05
14	8-Nov-11	2	*18.15	18.62
15	21-Dec-11	2	*16.98	15.28
16	9-Jan-12	2	*16.68	16.38
17	7-Mar-12	2	*18.74	18.39
18	16-Apr-12	2	*17.16	15.60

	Date	Rating	Target Price	Closing Price
19	19-Apr-12	2	*16.53	16.26
20	9-May-12	*3	*13.05	13.76
21	16-Jul-12	3	*12.98	14.23
22	18-Jul-12	3	*12.95	14.30
23	17-Sep-12	3	*17.26	18.46
24	24-Sep-12	3	*17.92	18.03
25	25-Oct-12	*2	*20.08	19.30
26	21-Jan-13	2	*19.56	17.75

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Fresnillo Plc (FRES.L)
Ratings and Target Price History
Best Ideas Research
Relative Call (3 Month)
Analyst: Jon H Bergtheil



* Indicates change

Rating/target price changes above reflect Eastern Standard Time

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Citigroup Global Markets Limited acted as Joint Bookrunner and Joint Broker in relation to the recent Rights Issue by Lonmin Plc.

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of African Barrick Gold Plc, Fresnillo Plc, Lonmin PLC.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from African Barrick Gold Plc, Lonmin PLC.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Randgold Resources Ltd, Nordgold, African Barrick Gold Plc, Fresnillo Plc, Gem Diamonds, Lonmin PLC, Hochschild Mining Plc in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): African Barrick Gold Plc, Lonmin PLC.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: Randgold Resources Ltd, Nordgold, African Barrick Gold Plc, Fresnillo Plc, Lonmin PLC, Hochschild Mining Plc.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: Randgold Resources Ltd, Nordgold, African Barrick Gold Plc, Fresnillo Plc, Gem Diamonds, Lonmin PLC, Hochschild Mining Plc.

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The Firm is a market maker in the publicly traded equity securities of Randgold Resources Ltd.

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Citi Research Equity Ratings Distribution

	12 Month Rating			*Relative Rating*		
Data current as of 31 Dec 2012	**Buy**	**Hold**	**Sell**	**Buy**	**Hold**	**Sell**
Citi Research Global Fundamental Coverage	49%	38%	12%	7%	86%	7%
% of companies in each rating category that are investment banking clients	53%	49%	45%	60%	49%	55%

Guide to Citi Research Fundamental Research Investment Ratings:
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Risk rating takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.
Investment Ratings: Citi Research investment ratings are Buy, Neutral and Sell. Our ratings are a function of analyst expectations of expected total return ("ETR") and risk. ETR is the sum of the forecast price appreciation (or depreciation) plus the dividend yield for a stock within the next 12 months. The Investment rating definitions are: Buy (1) ETR of 15% or more or 25% or more for High risk stocks; and Sell (3) for negative ETR. Any covered stock not assigned a Buy or a Sell is a Neutral (2). For stocks rated Neutral (2), if an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of Citi Research management not to assign a target price and, thus, not derive an ETR. Analysts may place covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and / or trading in the company's securities (e.g. trading suspension). As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis. To satisfy regulatory requirements, we correspond Under Review and Neutral to Hold in our ratings distribution table for our 12-month fundamental rating system. However, we reiterate that we do not consider Under Review to be a recommendation.
Relative three-month ratings: Citi Research may also assign a three-month relative call (or rating) to a stock to highlight expected out-performance (most preferred) or under-performance (least preferred) versus the geographic and industry sector over a 3 month period. The relative call may highlight a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the

company. Absent any specific catalyst the analyst(s) will indicate the most and least preferred stocks in the universe of stocks under consideration, explaining the basis for this short-term view. This three-month view may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of NASD/NYSE ratings-distribution-disclosure rules, most preferred calls correspond to a buy recommendation and least preferred calls correspond to a sell recommendation. Any stock not assigned to a most preferred or least preferred call is considered non-relative-rated (NRR). For purposes of NASD/NYSE ratings-distribution-disclosure rules we correspond NRR to Hold in our ratings distribution table for our 3-month relative rating system. However, we reiterate that we do not consider NRR to be a recommendation.

Prior to October 8, 2011, the firm's stock recommendation system included a risk rating and an investment rating. **Risk ratings,** which took into account both price volatility and fundamental criteria, were: Low (L), Medium (M), High (H), and Speculative (S). **Investment Ratings** of Buy, Hold and Sell were a function of the Citi Research expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating. Additionally, analysts could have placed covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and/or trading in the company's securities (e.g. trading suspension). Stocks placed "Under Review" were monitored daily by management and as practically possible, the analyst published a note re-establishing a rating and investment thesis. For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings were:Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return). For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings were:Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

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