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MORGAN STANLEY RESEARCH
ASIA/PACIFIC

Morgan Stanley Australia Limited+

Peter G Richardson
Peter.Richardson@morganstanley.com
+61 3 9256 8943

Joel B Crane
Joel.Crane@morganstanley.com
+61 3 9256 8961

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Metal Sparks

Gold: Crumbling Pillars

In our view, the dramatic sell-off in the gold market since 12 April has all the hallmarks of panic-driven, stale long liquidation, stop-loss and capitulation selling in the face of a concerted short sale that began in New York on Friday April 12. We trace the origins of the short sale assault to the 10% reduction in CME margins for gold futures contracts that took place in November 2012. The subsequent the erosion of some of the major pillars supporting the gold bull market that occurred in the interim provided fertile ground for such a successful and attractively priced assault on the long skew to investor positioning in the market. As a result of the magnitude of the mark-to-market effect of this move on YTD average prices, and the subsequent reset to the pricing basis of the forward curve, **we have downgraded our gold price forecasts to US$1,487/oz in CY2013 (-16% from our previous forecast) and to US$1,563/oz in CY2014 (-15%).**

The erosion of the long-running bull trend we attribute to a number of factors, of which we would highlight the following three as the most important:

1. ETF liquidation: Fund selling is probably the most important single influence, with persistent liquidation from these funds evident since early February.

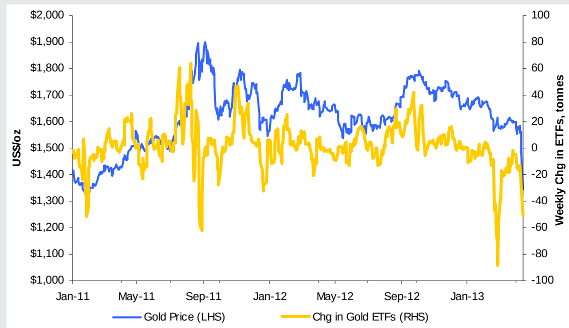
2. Speculation over European central bank selling: The spectre of a return of central bank net selling is clearly of great concern to the market, particularly if it would neutralise the current trend of buying from the emerging market central banks.

3. Nervousness over the possibility of the Fed pulling QE early: The latest Fed minutes suggested a growing consensus from Federal Reserve Board members to slow down federal purchases of MBS and other assets.

Morgan Stanley Gold Price Forecast

		1Q 13	2Q 13e	3Q 13e	4Q 13e	2013e	2014e	2015e
Base	**New**	**1,632**	**1,391**	**1,450**	**1,475**	**1,487**	**1,563**	**1,450**
	Old		*1,745*	*1,800*	*1,830*	*1,773*	*1,845*	*1,750*
	Chg		*-20%*	*-19%*	*-19%*	*-16%*	*-15%*	*-17%*
Bear	New		1,252	1,305	1,328	1,371	1,406	1,305
Bull	New		1,600	1,668	1,696	1,752	1,797	1,595

Exhibit 1
Gold Price vs Weekly Chg in ETF Volume



Source: Bloomberg, Morgan Stanley Research

The Four Pillars of the Gold Bull Market Appear to be Crumbling

We have previously identified four pillars that have underpinned the gold bull market evident since 1999:

1. The persistent rise of gold investment demand expressed through the physically backed exchange traded funds, a phenomenon that emerged in 2003;
2. a controlled environment of central bank selling as a result of the three Central Bank Gold Agreements since 1999 and the emergence of significant buying from emerging market central banks;
3. the unwinding of the global gold hedge book (i.e., gold buy-backs); and
4. anemic mine supply growth.

While the influence of latter two factors have largely played out, the influence of the former two since the end of the global financial crisis have been substantial. In our view, the perception of waning investment demand and European central bank selling could represent the crumbling of the final two pillars supporting the gold bull market.

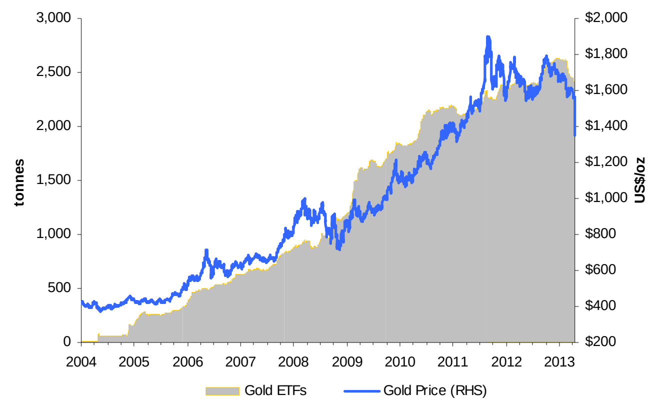
Declining risk aversion, declining safe have demand. Worryingly for the outlook for the gold price, it is increasingly evident that investor conviction about the desirably of this form of investment, along with other safe-haven assets, is declining. Arguably, the single most important of these pillars for the gold bull market has been the rise in investment demand for physical gold. We have long argued that this form of demand for physical gold primarily reflected investor demand for instruments to hedge systemic financial risk during the 2008-09 financial crisis and its aftermath, while providing a long-term hedge against fiat currency debasement risk at a time of sustained financial risk aversion.

In our view, the notable failure of gold to perform in the face of a new chapter in the long-running Eurozone sovereign debt and banking crisis and heightened political tensions on the Korean peninsula have been leading indicators of declining investor appetite for such hedges. Further evidence of the declining demand for safe havens was provided by the negative gold price reaction to market speculation that the recent minutes from the FOMC suggested that the US Federal Reserve might be preparing for an earlier-than-anticipated exit from Quantitative Easing 3 (QE3) or lower bond purchases under the current program. While we do not believe that the Fed is likely to materially change its stance towards QE3, despite the very significant expansion in global liquidity represented by recent changes to Japanese monetary policy, in a market where bearish sentiment is rampant, market perceptions to the contrary have a disproportionate force.

This decline in risk aversion has been physically manifested in the physical gold ETFs. As of the time or writing, the aggregate holdings of gold-backed ETFs has declined by 249t, or just over 8 million ounces of gold since January 1, 2013 – the longest period of continuous long liquidation since 2003.

Exhibit 2

Known gold and silver holdings by exchange traded funds worldwide vs gold price

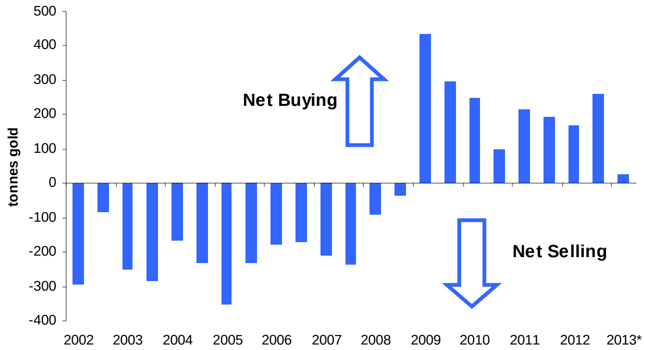


Source: Bloomberg, Morgan Stanley Research

The spectre of European central bank gold sales returns
Furthermore, this decline in investor demand for gold as a safe haven asset is occurring at a time when another pillar of the gold bull market is potentially eroding away. This became evident during a press conference on April 12, 2013 following the EU Finance Ministers' backing of a €10Bn loan for Cyprus in which Cyprus will have to provide €13Bn of its required funds. In that press conference, the president of the ECB indicated that while Cyprus does not have to sell its gold to provide part of this funding obligation, any money raised from the sale must go towards covering any losses incurred from emergency loans to the country's banks.

Exhibit 3

Central banks have been net buyers since the end of the global financial crisis



*Note: 2013 data through February
Source: World Gold Council, Morgan Stanley Research

In our view, this statement underscored a new risk to the gold price from the current phase of the long-running Eurozone financial crisis, namely that the absence of Eurozone central bank selling as a financing option might be about to change. While the size of the potential gold sale from Cyprus is small (possibly10t, or 321,510oz), it is the precedent that any such sale might set which is of far greater concern to the gold market. The combined gold holdings of distressed Eurozone economies, Portugal, Spain, Italy and Greece, is currently 3,228t, or 103,783, 428oz, a level that is only currently surpassed by Germany and the USA.

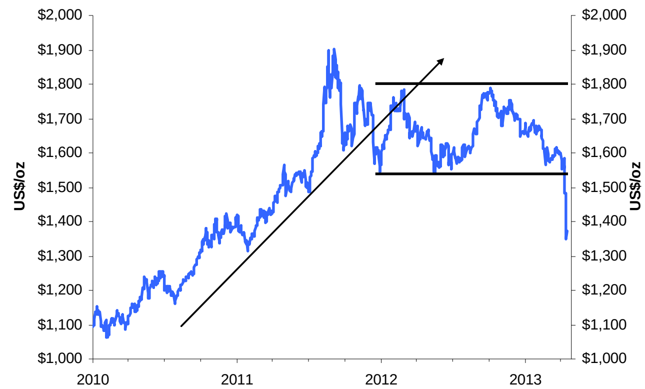
As a result, if the notable absence of Eurozone central bank selling, which also been a key component of the gold bull market, were to progressively reverse at a time of lowered risk aversion, further falls in the gold price from current distressed levels are possible. While we do not subscribe to the likelihood of this development materializing, the fact that the market is beginning to price this outcome is clearly negative for near- to medium-term investor sentiment towards the gold price.

Where is the bottom?

Given the magnitude of the volumes traded in futures markets over the past three days, the dramatic rise in open interest and the heightened volatility of recent days, we are reluctant to try and identify a hard floor in the retracement that we have seen in the spot market. Overshooting is also a well-established feature of these types of sentiment-driven markets, and some very material technical damage to the long-established uptrend in the gold price has been done. We note in this context the psychological impact of the breach of technical support at US$1,525/t, long thought to be demarcation line between a rising or falling long-term price trends.

Exhibit 4

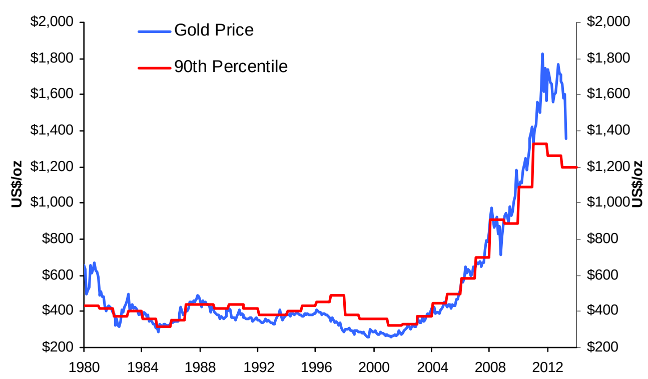
Gold Price: Considerable technical damage done



Source: Bloomberg, Morgan Stanley Research

Interestingly, in this context, and with a longer-term look at the gold price in the context of the changing industry cost structure, the data suggests that over the medium to long term, spot gold prices tend to trade closely with marginal C3 mining costs or the 90th percentile of current industry costs. This definition represents the combined level of cash mining costs, fully allocated corporate costs and mine asset depreciation. Exhibit 5 shows that until April 2011, the spot price for gold traded in a relatively tight range around this changing level of industry costs. Much of the fundamental support for a rising gold price during this period was provided by this phenomenon. However, it is also clear that since 2011, when prices began a strong upward move to a new all-time spot nominal high of US$1,923/oz in late 2011 and subsequently traded at a new annual average nominal high in 2012, this relationship broke down. The recent dramatic events in the gold market suggest that at a C3 marginal cost of US1,200/oz estimated by consultants Wood Mackenzie Brook Hunt for 2013, and a cash spot price at the time of writing of US$1,376.40/oz, we are we are much closer to this relationship being reestablished than at any time in the past two years.

Exhibit 5
Gold price vs C3 marginal cost, 1980-2013



Source: Wood Mackenzie Brook Hunt, Morgan Stanley Research

However, there is a further interesting element to this cost price relationship that has become pronounced in the past few days. Morgan Stanley uses an incentive price methodology to try and identify the price at a given level of total costs that would generate a sufficiently high return to cover industry and company costs of capital on an after-tax basis. Our current estimate is at a US$1,200/oz C3 marginal cost, the incentive gold price is US$1,356/oz, strikingly close to the current spot price. Consequently, as a sharp move below this level would materially endanger returns to new and some existing mining projects and choke off new mine supply, we would conclude that after the exhaustion of the current selling pressure and risk of overshooting subsides, we will find a fundamental floor reasonably close to this pricing level.

Changes to our gold price forecasts

Following this review, and the events of recent days, we have reviewed our gold price forecasts. As a result of the magnitude of the mark-to-market effect of this move on the YTD basis average spot gold price, and the subsequent reset to the pricing basis of the forward curve, we have downgraded our gold price forecasts to US$1,487/oz in CY2013 (-16.1% from our previous forecast of US$1,773/oz) and to US$1,563/oz in CY2014 (-15.4% from our previous forecast of US$1,845). If realized, our price deck would now underline the fact that in annual average terms the peak of the gold bull market in US dollars was achieved in 2012, although on a spot price basis this occurred in 2011.

Exhibit 6
Morgan Stanley Gold Supply / Demand Model

	Unit	2005	2006	2007	2008	2009	2010	2011	2012	2013e	2014e	2015e	2016e	2017e	2018e
Supply															
Total Mine Supply	tonnes	2561	2494	2497	2429	2611	2741	2819	2820	2884	2936	2946	2980	3023	3066
year-over-year chg	%	*2.3*	*-2.6*	*0.1*	*-2.7*	*7.5*	*5.0*	*2.8*	*0.0*	*2.3*	*1.8*	*0.3*	*1.2*	*1.4*	*1.4*
Scrap supply	tonnes	902	1133	982	1316	1672	1645	1605	1580	1410	1320	1180	1100	1100	1033
year-over-year chg	%	*2.4*	*25.5*	*-13.3*	*34.0*	*27.1*	*-1.6*	*-2.4*	*-1.6*	*-10.8*	*-6.4*	*-10.6*	*-6.8*	*0.0*	*-6.1*
Official sector net sales/(purchases)	tonnes	849	289	430	-36	-98	25	-402	-280	-220	-160	-125	-90	-30	-30
year-over-year chg	%	*92.6*	*-66.0*	*48.8*	*-108.5*	*168.7*	*-125.2*	*-1730.7*	*-30.3*	*-21.4*	*-27.3*	*-21.9*	*-28.0*	*-66.7*	*0.0*
Net producer hedging	tonnes	-142	-434	-444	-352	-254	-121	12	20	35	50	70	90	125	125
Total Supply	**%**	**4170**	**3482**	**3464**	**3356**	**3931**	**4290**	**4034**	**4140**	**4109**	**4146**	**4071**	**4080**	**4218**	**4194**
year-over-year chg	%	*22.6*	*-16.5*	*-0.5*	*-3.1*	*17.1*	*9.1*	*-6.0*	*2.6*	*-0.7*	*0.9*	*-1.8*	*0.2*	*3.4*	*-0.6*
Demand															
Jewellery	tonnes	2719	2300	2424	2304	1814	2017	1973	1910	1860	1953	2054	2100	2178	2214
year-over-year chg	%	*3.9*	*-15.4*	*5.4*	*-4.9*	*-21.3*	*11.2*	*-2.2*	*-3.2*	*-2.6*	*5.0*	*5.2*	*2.3*	*3.7*	*1.7*
Electronics	tonnes	286	316	322	311	275	326	330	320	310	320	325	345	370	377
year-over-year chg	%	*7.3*	*10.7*	*1.8*	*-3.4*	*-11.6*	*18.6*	*1.3*	*-3.1*	*-3.1*	*3.2*	*1.6*	*6.2*	*7.2*	*1.9*
Dental	tonnes	62	61	58	56	53	50	53	53	53	55	55	55	55	55
year-over-year chg	%	*-7.7*	*-2.7*	*-4.8*	*-3.6*	*-5.4*	*-4.9*	*4.8*	*0.0*	*0.0*	*4.8*	*0.0*	*0.0*	*0.0*	*0.8*
Official Coins, Medals & Imitation coins	tonnes	149	189	204	262	293	302	333	397	389	375	357	340	325	323
year-over-year chg	%	*2.8*	*26.9*	*7.9*	*28.4*	*11.8*	*2.9*	*10.5*	*19.1*	*-2.0*	*-3.5*	*-4.9*	*-4.7*	*-4.6*	*-0.4*
Total Fabrication Demand	**tonnes**	**3216**	**2866**	**3007**	**2933**	**2434**	**2694**	**2689**	**2679**	**2611**	**2703**	**2791**	**2840**	**2927**	**2970**
year-over-year chg	%	3.9	-10.9	4.9	-2.5	-17.0	10.7	-0.2	-0.4	-2.5	3.5	3.2	1.8	3.1	1.4
Change in ETF Holdings	tonnes	208	260	252	321	617	368	238	285	-200	75	25	-50	-50	-50
Bar Hoarding	tonnes	251	233	240	621	498	882	1209	1364	1397	1355	1314	1248	1186	1127
Implied Investment/(Disinvestment)	tonnes	495	123	-35	-519	382	346	-103	-188	301	13	-59	41	155	147
Total Investment Demand		**954**	**408**	**197**	**171**	**1176**	**978**	**977**	**1223**	**1212**	**1642**	**1205**	**1215**	**1341**	**1274**
Investment as a % of Total Demand	%	*22.9*	*17.7*	*13.2*	*12.6*	*38.1*	*37.2*	*33.3*	*35.3*	*36.4*	*34.8*	*31.4*	*30.4*	*30.6*	*29.2*
Total Demand (Fabrication + Investment)	**tonnes**	**4,170**	**3,274**	**3,204**	**3,104**	**3,610**	**3,673**	**3,666**	**3,901**	**3,824**	**4,346**	**3,996**	**4,055**	**4,268**	**4,244**
Gold Price	**US$/oz**	**$445**	**$605**	**$697**	**$872**	**$976**	**$1,226**	**$1,546**	**$1,669**	**$1,487**	**$1,563**	**$1,450**	**$1,400**	**$1,375**	**$1,375**

Source: GFMS, WGC, CRU, Morgan Stanley Research

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MORGAN STANLEY RESEARCH

The Americas
1585 Broadway
New York, NY 10036-8293
United States
Tel: +1 (1) 212 761 4000

Europe
20 Bank Street, Canary Wharf
London E14 4AD
United Kingdom
Tel: +44 (0) 20 7 425 8000

Japan
4-20-3 Ebisu, Shibuya-ku
Tokyo 150-6008
Japan
Tel: +81 (0) 3 5424 5000

Asia/Pacific
1 Austin Road West
Kowloon
Hong Kong
Tel: +852 2848 5200