THE PERTH MINT AUSTRALIA | TREASURY

Gold Corporation
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Founded in 1899, the Perth Mint is an integrated precious metal operation refining circa 10% of world gold production; servicing investors with legal tender bullion coins and bars and the Perth Mint Depository custodial facility; providing collectors with innovative and high quality numismatic coins; supplying mints with precious metal blanks; and operating a leading Perth tourist attraction.

ETF PRICE SUPPRESSION MECHANICS

Last week the TF Metals Report blog posted an explanation by Andrew Maguire on how bullion banks use the GLD and SLV Exchange Traded Funds (ETFs) to suppress the prices of gold and silver.

There are some mistakes in the article that need to be addressed lest they become more virally accepted "truths" in the precious metal blogosphere. Andrew also uses some terminology/jargon that readers may not be familiar with. I'll cover both of these in the first section titled "Getting the facts straight".

With the facts established I'll then seek to hopefully explain some of Andrew's "mechanics" a bit more clearly. I think it is a combination of jargon, poor wording and the fact that Andrew talks about different transaction mechanics that results in this sort of comment from Ed Steer: *"I haven't a clue as to what he's talking about"* and Ed's a smart guy who can follow an argument. This will be in the second section titled "Transaction mechanics".

Finally, I'll discuss how significant the ETFs and the transaction mechanisms around them are to the market.

GETTING THE FACTS STRAIGHT

DO THE ETFS HAVE THE GOLD?

Andrew: "… there are a number of ways this 'allocated' gold backing the shares in the ETF can be diluted /hypothecated in order for the bullion banks to 'manage' their physical reserves."

The SPDR Gold Trust Prospectus dated April 26, 2012 is very clear that the allocated gold backing the shares is not hypothecated:

> *"Gold held in the Trust's allocated account is the property of the Trust and is not traded, leased or loaned under any circumstances." (page 20)*

The GLD shares themselves may be able to be hypothecated, but the allocated gold sitting behind them is not. For those who are sceptical that the Custodian holds any or all of the gold, I would make the following observations:

- Andrew's whole article rests on the assumption that GLD has the physical. Firstly, he repeatedly refers to the requirement of Authorized Participants (APs) to deliver allocated to the Trustee. If GLD were a fraud, then Andrew would just be talking about the creation of GLD shares without any pressure to find physical gold. Secondly, he refers to bullion banks buying GLD and redeeming them for physical gold. If GLD didn't have the metal, then this wouldn't be possible.

- GLD's physical gold is audited by the respected and independent firm Inspectorate, who specialise in this sort of work. They reconcile the Trust's records to the Custodian's records and then do a **full** physical count (see here). They are so respected that James Turk's GoldMoney uses the very same firm and their audit reports are signed off by the same person who signs off GLD's audit (see here).
- It is very hard to construct and maintain a completely fake bar list and not get tripped up by people like Warren James who are data mining the 34 million data points that come from downloading and recording every bar list produced by the gold ETFs.

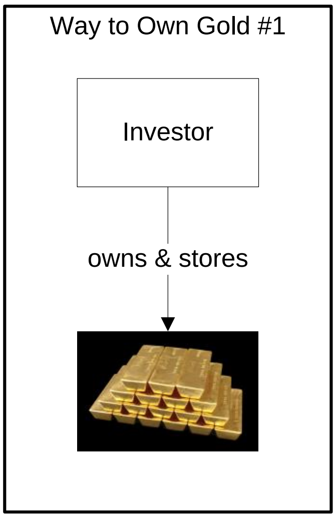
GLD MARKET MAKING PROCESS

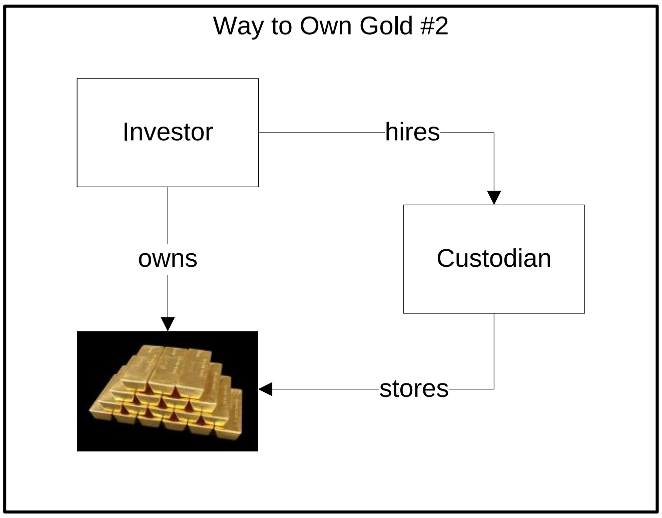
Andrew: "The AP's, transfer ALLOCATED physical gold to the trustee who in turn creates the required number of new baskets of shares and then transfers these newly created shares back to the AP."

Incorrect in respect of Allocated. As per the GLD Prospectus (my emphasis):

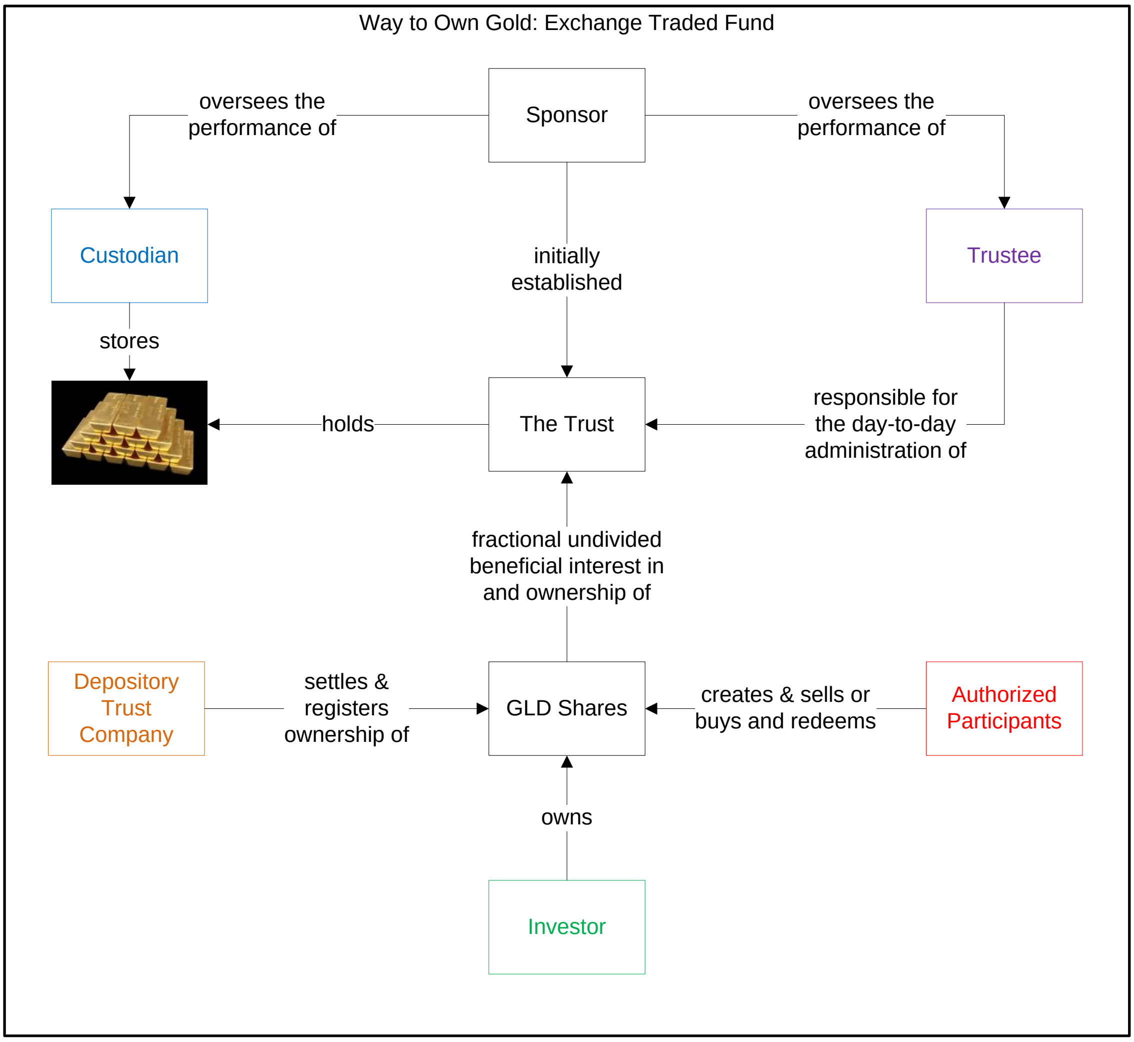
> *"All gold bullion must be delivered to the Trust and distributed by the Trust in **unallocated** form through credits and debits between Authorized Participant **Unallocated** Accounts and the Trust **Unallocated** Account." (page 19)*

With regard to the process described by Andrew it is highly simplified. In the discussion that follows it will be helpful to clarify who is involved in the whole Exchange Traded Fund process. Below are the two most common ways to own gold:





Contrast that with owning gold via an ETF:



Not surprising why some prefer the other simpler ways to own gold. The way GLD shares are created and sold to Investors (called market making) below:

1. Authorized Participant (AP) sells GLD shares to an Investor on day 1.
2. AP buys unallocated gold on day1.
3. AP requests GLD shares from the Trustee on day 1.
4. AP transfers gold to its Unallocated Account with the Custodian by day 3.
5. Custodian transfers gold from the AP's Unallocated Account to the Trust's Unallocated Account on day 4.
6. Custodian allocates specific gold bars from the Trust's Unallocated Account to the Trust's Allocated Account on day 4.
7. Trustee directs Depository Trust Corporation (DTC) to credit GLD shares to the AP's DTC account on day 4.
8. DTC transfers GLD shares from the AP to the Investor on day 4.

I thought about creating a diagram of the eight step process above but that would probably be too confusing. The key takeaways are:

1. Trustee doesn't give GLD shares to the Authorized Participant until the Authorized Participant' unallocated gold is converted to Allocated.
2. A lot of people are involved in the ETF process. More people, more buck passing when something goes wrong.
3. The sixteen Authorized Participants (not eight as Andrew states) perform their market making, or arbitrage, function entirely in paper – paper GLD shares for paper unallocated gold.
4. It is the Custodian who has to find the gold, not the Authorized Participants.

While point four above might seem to provide little constraint upon the Authorized Participants, in practise the delivery of unallocated to the Custodian creates an imbalance within the London Precious Metal Clearing system between the Custodian and the Bullion Bank with whom the Authorized Participant holds their unallocated gold. These imbalances are settled (cleared) by transfers of physical gold (as each clearer wishes to minimise their credit risk exposure to the other clearers). We therefore have two tiers of Authorized Participants:

- London clearing members, who ultimately have to find physical gold to give to the Custodian.
- The rest, who can leave the sourcing of physical gold to the clearing members.

Below is a table of the sixteen GLD Authorized Participants - all of the six London clearers are Authorized Participants.

London Clearers	The Rest
Barclays Capital	Citigroup Global Markets
Deutsche Bank Securities	Credit Suisse Securities
HSBC Securities	Goldman, Sachs & Co
J.P. Morgan Securities	Goldman Sachs Execution & Clearing
Scotia Capital	Merrill Lynch Professional Clearing Corp
UBS Securities	Morgan Stanley & Co.
	Newedge USA
	RBC Capital Markets Corporation
	Virtu Financial Capital Markets
	Virtu Financial BD

While I have never seen anyone in the gold blogosphere define the term "bullion banks", I have generally taken it to mean the six London Clearers. For the purposes of this article I will assume the remaining Authorized Participants are not involved in any suppression and merely perform an arbitrage/market making role of creating and selling, and buying back and redeeming, GLD shares so as to maintain the link between GLD's share price and the spot price of gold.

SHARE BORROWING

Andrew: "… for a bullion bank to borrow short these GLD shares from the ETF…"

Firstly, one does not borrow GLD shares from "the ETF". The Trustee doesn't own any shares. One can only borrow GLD shares from GLD shareholders.

I think it is important to clarify the share borrowing process as there is a lot of confusion around this in the blogosphere. When someone lends shares, the shares are transferred or delivered to the borrower. The lender is no longer registered as the direct owner of the shares. Therefore the lending/borrowing of shares does not create two owners of the same shares, nor in the case of GLD, does it mean there are "unbacked" GLD shares on issue.

Often there is confusion about share borrowing because many investors hold shares in "street name". This means that the shares are held with the Depository Trust Corporation in the name of the broker and not in the name of the investor, but they still appear to the investor as being directly held. As this article notes, brokers often then lend these shares and earn a return.

If GLD shares are often called "paper gold" because the holder does not have direct ownership of the gold, then are GLD shares held in street name with a broker "paper paper gold"?

Many investors are not aware what "street name" means or that "their" shares can be lent without their knowledge when they agreed with their broker to hold their shares in this way. Nor are they aware that this means they are exposed to their broker, which is why Jim Sinclair recommends investors do not hold share in street name.

Nevertheless, when GLD shares are lent, no "unbacked" shares are being created by the GLD Trustee. The Depository Trust Corporation never recognised the "street name" investor as the owner, nor does it now recognise the investor's broker as the owner – it only recognises the person who borrowed them.

Secondly, the phrase "borrow short" is not one I've heard used and assume that Andrew is using shorthand jargon to refer to two separate process:

- Bullion Bank borrowing GLD shares from Person A
- Bullion Bank selling those GLD shares to Person B

When the sale settles, the Depository Trust Corporation transfers GLD shares from the Bullion Bank to Person B. Because the Bullion Bank owes GLD shares to Person A but no longer has them and instead is just holding cash, they are "short" or deficient in GLD shares relative to US dollars.

The end result of the borrow and sell process is that the Depository Trust Corporation only has Person B registered as the owner of GLD shares, with Person A just holding an "I Owe You GLD shares" from the Bullion Bank. See this Securities and Exchange Commission (SEC) webpage on short sales for more information on how "short sales are normally settled by the delivery of a security borrowed".

FRACTIONAL RESERVE BULLION BANKING

Andrew: "The AP claims to be Short GLD while concurrently claiming to be backing it with an equal size long 'UNALLOCATED' spot gold position."

I do not understand this statement by Andrew. While this sentence refers to "AP", he means a bullion bank as two sentences later he says "To unwind this short GLD position, the bullion bank has to…"

Because it makes no sense that a bullion bank holds unallocated against itself (it can't buy gold from itself), he must be meaning the bullion bank bought unallocated from another bullion bank. But the very process of doing that would drive up the spot price of gold, which wouldn't suppress the price. Andrew's next sentence gives us a clue to his thinking.

Andrew: "LBMA unallocated gold accounts are run upon a fractional reserve requirement and leveraged around 100/1 so there is very little need to back this transaction with any real physical at this point."

I suspect Andrew thinks that because bullion bank unallocated accounts are fractional bullion that the purchase of unallocated gold does not impact on the "real" (that is, physical) price of gold because little, if any, physical needs to be reserved against it.

The reality is that the price of physical gold and unallocated gold are the same. Almost all transactions at the wholesale level in the OTC market are for unallocated, with physical being obtained by requesting one's unallocated be "allocated". This means that the real (physical) price and unallocated price are one and the same in reality.

There is no premium for physical, beyond fabrication charges, freight, and other associated costs that the Perth Mint has observed. Therefore a purchase of unallocated gold will move the unallocated gold price and therefore move the cost of acquiring physical gold. The end result is that this paragraph by Andrew about APs or bullion banks holding long unallocated spot gold positions is that it will push up the spot price of gold while selling GLD shares will drive their price down. The end effect on the market is netural.

Also, I cannot leave Andrew's "leveraged around 100/1" statement to stand. This meme comes from a misreading of a statement by Jeff Christian of CPM Group, which he says was about the ratio of derivatives to annual physical demand and not about the reserve ratio of fractional bullion banking.

The actual leverage is probably closer to 10:1 as I discussed in this blog post, but no one knows for sure what the real fractional ratio. However, I doubt that it is near 100:1 as unlike fiat, where most people use cards and electronic transfers, the bullion bank unallocated metal account system supports a much higher rate of physical redemption as there are a lot of physical users in the market.

While bullion banks may have little risk that their hedge fund and institutional clients will convert their unallocated accounts to physical, they can't make the same assumption about the unallocated accounts of their refinery, jewellery, industrial and mint clients. The end result is the bullion banks, in my opinion, hold a much higher ratio of physical reserves than many gold commentators think.

FINANCING INVENTORY

Andrew: "The bullion banks finance their 'physical inventory' by leasing it or selling it to GLD and SLV shareholders/investors …"

Inventory financing is defined by Investopedia as a *"… short-term loan made to a company so it can purchase products for sale. Those products, or inventory, serve as collateral for the loan …"*

That is, to finance one's physical inventory one **borrows** money to buy the inventory. You do not do inventory finance by leasing inventory you already have to someone. It would make more sense to say the "bullion banks finance their physical inventory by borrowing gold" and this is possibly what Andrew meant when he said "by leasing it".

However, this contradicts Andrew's use of the phrase "or selling it to GLD shareholders" as the word "TO" clearly assumes that the bullion bank already has the physical inventory which it "sells" to ETF shareholders (that is, exchanges physical for GLD and sells GLD to investors). You do not do inventory finance by selling inventory you already have. I would therefore suggest ignoring the "selling it to" part.

FLYWHEELING

Andrew: "…then the bullion banks in turn use these ETF's inventories as a 'flywheel' to both manage and leverage their physical reserves" and later in the article *"… thereby 'fly wheeling' this physical demand in order to meet obligations elsewhere …"*

The use of the term "flywheel" without definition does not help. Within the Perth Mint such a term refers to the amount of metal held within a production line to maintain a certain rate of output.

What is meant by using ETF inventories as a flywheel in the context of inventory financing is unclear. If the bullion banks have "sold" their physical inventory to ETF shareholders then how can they use the ETF metal if they don't own it anymore and wouldn't they just keep it in "their physical reserves" and leverage it from there?

Andrew's reference to "fly wheeling" later in his article in the context of suppression of demand for gold/GLD in his article is easier to understand. Fly wheeling may be a US term, but in Australia we would use the word "freewheeling", which means coasting or not engaged in a drivetrain/gear (a car's flywheel in contrast is permanently engaged with the car's engine). What I therefore understand Andrew to mean is that via the transactions mechanisms he discusses, demand for GLD is prevented from engaging with the spot gold market.

ALLOCATING UNALLOCATED

Andrew: "These discounted unallocated long spot index positions are then ALLOCATED at the upcoming fix …"

The only thing that is done on the London Fix is buying or selling of unallocated gold. You cannot place an order to buy a 400oz bar on the Fix. You buy unallocated at the Fix and then request allocation into a 400oz bar. The allocation is a separate instruction to the buying at the Fix (in practice you could combine the orders I suppose but they are still separate actions).

Certainly, there is no such thing as "allocating at the fix" when referring to the situation where one already has unallocated and wants it allocated into physical – allocations can be requested and processed at any time and are not done "on" the London Fix.

TRANSACTION MECHANICS

BORROW & SELL

Andrew: "If … there is insufficient allocated inventory available to the bullion bank … to create the necessary new GLD shares backed by allocated gold, then it is possible for a bullion bank to borrow short these GLD shares from the ETF instead of providing the required Allocated physical to the trustee to meet this obligation thereby 'fly wheeling' this physical demand in order to meet obligations elsewhere …"

The scenario Andrew is painting here is one where the bullion banks have very low physical gold reserves. These reserves are being drawn upon by:

1. over-the-counter (OTC) investors requesting physical and
2. investors buying GLD shares, which will result in the other APs selling GLD shares and buying unallocated and then asking the bullion banks to allocate physical to the GLD Trust.

Because the bullion banks do not have enough reserves to meet both OTC investor and GLD investor demand for physical, Andrew proposes that they instead borrow GLD shares, undercut the other APs' offers on the stock exchange, and get to sell their borrowed GLD shares to investors instead.

This would relieve the drain on their physical reserves, allowing them to be used to "meet obligations elsewhere" in the OTC market. If done in sufficient quantities, it will also prevent the price of GLD from rising and, as long as the bullion bank does not buy gold in the physical market (that is, they go "short"), it will also not result in a rise in the price of spot gold in the OTC market.

Andrew: "This obviously has the effect of manipulating price lower vs. the true immediate supply demand fundamentals as no allocated physical metal has to be bought on the open market at that days fix to meet this new share demand as should be the case."

I agree with this statement, but would just note that there is nothing revelatory about it. It is just a variation on an OTC market transaction. For example, compare the following:

GLD Shares	**OTC Gold Market**
Borrow GLD shares from Person A	Borrow physical gold from central bank
Sell borrowed GLD shares to Person B	Sell borrowed physical gold to investor

In both cases the borrowing means the bullion bank does not have to go into the physical market to buy gold to and thus the price of gold does not move up as much as it would have were the borrowed gold not supplied to the market.

Andrew: "The resulting distortion now created between the real and paper market price is exacerbated through the use of heavy position concentration and leverage in the futures and derivatives markets ..."

As discussed earlier, in the current market there is no difference between the physical and paper prices of gold. It may be that by the word "real", Andrew in this paragraph means the "the price gold would have been if there was no short selling".

Andrew: "... these very same bullion banks then seek to profitably repay the shorted GLD shares at a lower price at the point at or below where the lines cross profitably."

Andrew: "This then puts these bullion banks in a position to finally spot index UNALLOCATED gold against this naked short position only then moving to buy the now discounted unallocated gold into the Comex contrived dips."

The use of the phrase "to spot index unallocated" is unnecessarily confusing. It is not a phrase that we have heard used in the professional market and it would be much simpler to say "in a position to finally **buy** unallocated gold against this naked short position".

What Andrew is referring to here is that the bullion bank at some point in the future needs to buy unallocated gold and give that to the Custodian and get GLD shares from the Trustee in return. These GLD share are then used to repay the person the bullion bank originally borrowed the GLD shares from. So to complete our table:

GLD Shares	**OTC Gold Market**
Borrow GLD shares from Person A	Borrow physical gold from central bank
Sell borrowed GLD shares to Person B	Sell borrowed physical gold to investors
then at some point in the future	
Buy GLD shares from Person C	Buy physical gold from investors
Repay GLD loan to Person A	Repay physical gold to central bank

Whether it is GLD shares or OTC gold, the purpose of this transaction is to get over any shortfall of physical by the bullion banks and also possibly make a profit if the repurchase can be done without moving the price back up to where it was before the "borrow and sell" transaction was entered into.

LONG GLD, SHORT UNALLOCATED

Andrew: "When the Bullion bank needs to make good on the unplanned/unanticipated CB and sovereign physical allocations at the fixes, they have regularly achieved this by going long GLD vs. short/selling UNALLOCATED gold. They then immediately turn around and transfer the required number of baskets of GLD shares to the trustee and receive ALLOCATED gold in return. Instead of settling/covering the short UNALLOCATED leg with this ALLOCATED gold, they are forced to satisfy these CB and Sovereign allocations by providing them this metal instead."

The process described in this paragraph is just a different way for a bullion bank to obtain physical. Whereas Andrew previously talked about bullion banks **borrowing** GLD shares and "fly wheeling", in this process he is talking about bullion banks **buying** GLD shares and then redeeming them for gold.

Just as the creation process discussed on page 3 only involves the Authorized Participant having to supply unallocated gold, when redeeming GLD shares they only get unallocated gold back (see page 20 of the prospectus):

> *"The redemption distribution from the Trust consists of a credit to the redeeming Authorized Participant's Authorized Participant **Unallocated** Account representing the amount of the gold held by the Trust evidenced by the Shares being redeemed plus, or minus, the cash redemption amount."*

The steps of the process are:

1. AP buys GLD shares from an Investor on day 1.
2. AP sells unallocated gold on day1.
3. AP requests unallocated gold from the Trustee on day 1.
4. DTC transfers GLD shares from the Investor to the AP on day 4
5. AP directs DTC to transfer its GLD shares to the Trustee's account on day 4.
6. Trustee directs the Custodian to de-allocate specific gold bars from the Trust's Allocated Account to the Trust's Unallocated Account on day 4.
7. Trustee directs the Custodian to transfer gold from the Trust's Unallocated Account to the AP's Unallocated Account on day 4.
8. AP directs the Custodian to transfer unallocated gold to the person it sold gold to in step 2 on day 4.

The end result is that it is the Custodian who gets the physical gold. However, the Authorized Participant can always request physical allocation from the bullion bank with which it holds its unallocated gold. In the process Andrew describes, step 8 is replaced with the AP **not** transferring unallocated gold to the person it sold it to, but instead converting its unallocated to physical gold to give to others.

The problem with the process as described by Andrew is that the effect of buying GLD shares would be to drive **up** the price of GLD and the effect of selling unallocated gold would be to drive **down** the spot gold price. This would cause GLD's price to go to a **premium** to spot gold.

It is unlikely, however, that this GLD premium would remain for long as it represents an arbitrage profit to the other Authorized Participants who can easily supply GLD shares. The other Authorized Participants would take advantage of the premium by buying the cheaper spot unallocated gold, converting that unallocated gold into GLD shares and selling the GLD shares at the higher price.

The problem is that such action by the other Authorized Participants would result in the bullion banks having to supply physical to the Trust. This would negate the point of the bullion banks buying GLD shares to redeem physical from the Trust in the first place.

In conclusion, I don't see this transaction as doing any price suppression or really giving the bullion bank access to physical if its reserves are low.

Short GLD, Long Unallocated

Andrew: "The AP claims to be Short GLD while concurrently claiming to be backing it with an equal size long 'UNALLOCATED' spot gold position."

Andrew doesn't seem to explain this transaction anywhere else in his article, focusing mostly on the "borrow and sell" or "long GLD, short unallocated" processes. I would note that the effect of selling GLD shares would be to drive **down** the price of GLD and the effect of buying unallocated gold would be to drive **up** the spot gold price. This would cause GLD's price to go to a **discount** to spot gold.

Again, this creates an arbitrage profit to the other Authorized Participants so I see its price effect as being netural.

Summary

Price suppression mechanics was the focus of Andrew's article. In terms of price suppression, I've demonstrated that the "borrow and sell" process can achieve this but the "long GLD, short unallocated" or "short GLD, long unallocated" processes do not.

Andrew also suggested the ETFs were being used as a source of physical metal when the bullion bank's physical reserves ran low. Again, the "borrow and sell" process is the only one which can provide a bullion bank with a supply of physical.

I would also note that in terms of price suppression, the effect of "borrow and sell" on the gold price depends on the volume of gold borrowed versus the demand. It is entirely possible for the gold price to still rise in the face of "borrow and sell" transactions if the amount supplied was less than demand. The price may also just stay flat or it may fall. The effect of "borrow and sell" is suppression of a price that may have been (an exercise in counterfactual thinking), not necessarily resulting in a lower price. This can make manipulations hard to prove, particularly in conjunction with having to establish intent.

In any case, I am not sure the ETFs represent a significant source of physical or price suppression. ShortSqueeze.com reports a total of 22,060,800 GLD shares short as at November 28, which equates to approximately **2.2 million ounces**. Compare this to the following:

1. The Société Générale Gold Hedge Book Analysis Q2-2012 reports that the total mining company short position at **4.89 million ounces** (probably a fair bit of this which is included in the COMEX figures).

2. The COMEX open interest is reported at 494,400 contracts, which equals 49,440,000 ounces. The Commerical net short position has averaged between **20 to 25 million ounces** this year.

3. A recent Sprott article which concludes "*that a large portion of the Western central banks' stated 23,000 tonnes of gold reserves are merely a paper entry on their balance sheets …"* Now I don't entirely agree with the methodology or the conclusion (that is for another article), but for those readers who do, consider that 23,000 tonnes equals **739 million ounces**.

Finally, the short interest in GLD is not entirely bullion banks but also includes speculators betting on a fall in the gold price along with some arbitrage (spread) trades. This is not unusual, as a look at many tickers on ShortSqueeze.com will show - indeed there is short interest in the Sprott Physical Gold and Silver Trusts (very low however).

The result is that the bullion bank's share of the GLD short position is less than 2.2 million ounces, which in itself is close to irrelevant in relation to COMEX commercial shorts or the OTC London market (even if the actual amount of central bank gold leased is a fraction of Sprott's figures).

My view, therefore, is that the relatively small size of the short position in GLD shares attributable to bullion banks is an indicator that bullion banks don't use it as a serious source of borrowing for short selling price manipulations or physical supply, particularly considering that:

- there is no material cost advantage to borrowing GLD versus borrowing gold from other OTC market participants or from central banks; and
- given GLD is an exchange listed product, borrowing transactions would be more visible than those in the OTC market, tipping one's hand to other traders.

I would therefore suggest that if one is looking for price suppression mechanics, COMEX and the OTC London market is still where the action is.

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