Transition of Price Discovery in the Global Gold and Silver Market

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Overview

1. Gold (Big Deal)

2. Gold Price Discovery at the London Bullion Market (LBMA)

3. Gold Price Discovery at the Shanghai Gold Exchange

4. Implications for the Mining Industry

Gold Is...

1) Jewelry
2) Commodity (electronics, dental fillings, ...)
3) 'Alternative' investment

In general, the financial press is indifferent – pet 'rock' (!)

- Gold is ho hum. Yawn. Big deal.

But wait, there are still points 4) and 5) ...

Gold Is...

4) Gold as Money (not currency)

- Gold (and silver) have a 4,000 year history as <u>money</u>
- Gold was money in Canada until 1931 when Canada defaulted on redemption of its paper notes for gold coin at a fixed rate (gold was the money, but everyone left holding paper bank notes that were promises to return the gold coin).

Today:

- We have debt-base <u>currency</u> (not money) system
- Every dollar in circulation starts its life as a bank loan or a loan from the Bank of Canada to the government
- Our fiat debt-currency is simply credited into existence
- Old fashioned gold and silver: looking better and better these days

Gold is...

5) A unit of savings - gold is a competitor to bonds

- Gold can't be printed (diluted or debased)
    - Above-ground gold stock increases by 1.5% p.a.
- Importantly, gold impacts interest rates:

"We show the that the real gold price... ... displays marked negative correlation with the real interest rates" *

"...The <u>negative correlation between real interest rates and the real price of gold</u> that forms the basis for our theory <u>***is a*** *dominant feature of actual gold price fluctuations*</u>...." *

- As real interest rates fall, the real gold price rises
- Gold's spiking price is a braking system on low interest rates

* From: *"Gibson's Paradox and the Gold Standard"*, 1985 NBER paper by <u>**Treasury Secretary Summers**</u> and Barsky

Gold

Takeaway:

1) As real interest rates (i.e. nominal interest rate – inflation rate) go down, real (constant dollar) gold price goes up – is a "dominant feature of gold price fluctuation"

2) If you want to create more money in a debt-based money system, you need lower interest rates. A spiking price of gold is the "tell" of monetary inflation / excessive debt creation (ref. 1970s and early 1980s).

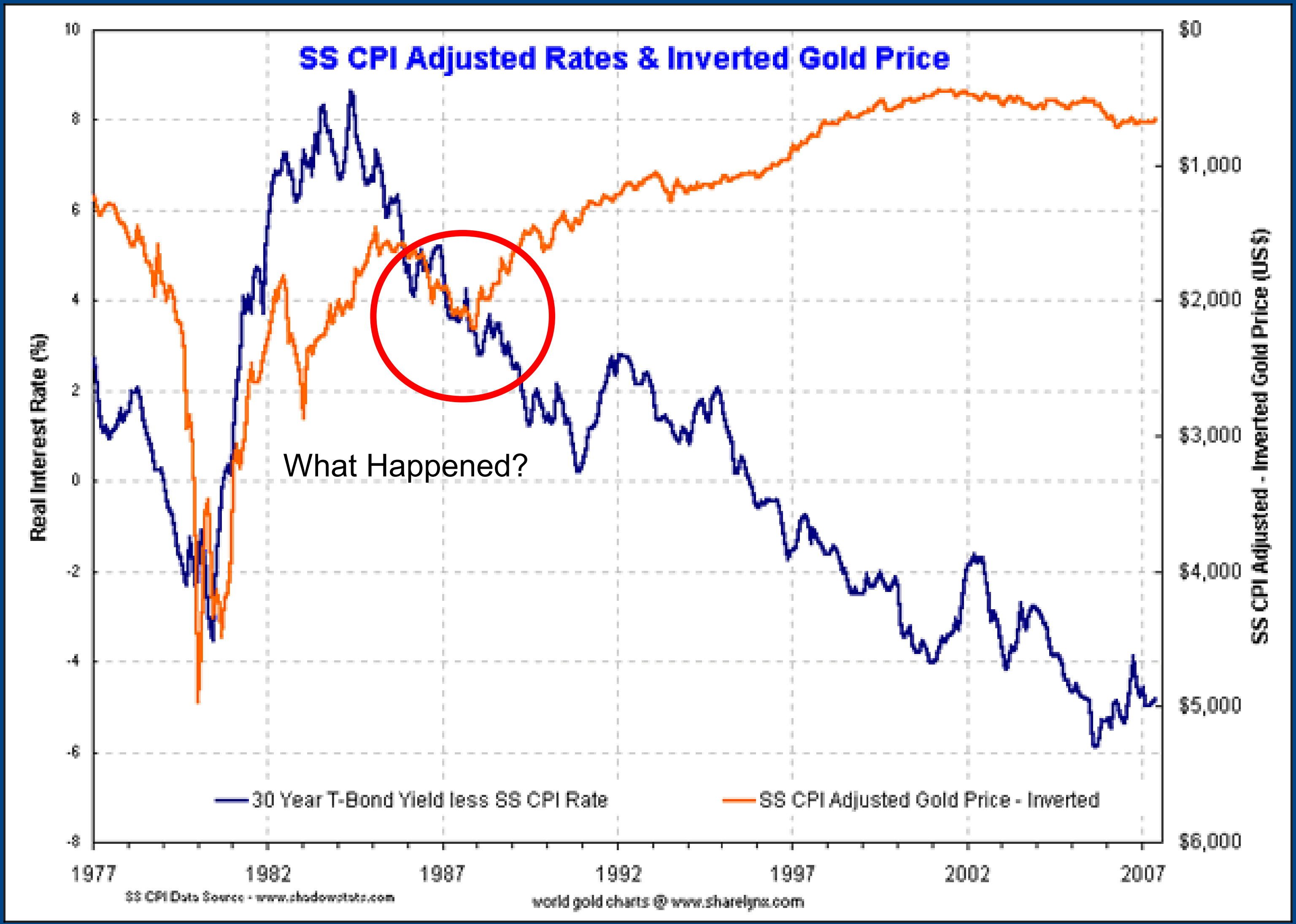
- GOLD limits prolonged excess credit creation. GOLD IS A BIG DEAL !
- Currently $230T of global credit market debt. About $120T excess vs historic norms and will be cleared from the economy

Gold's Been Sleepy

•Source: Reg Howe – GoldenSextant.com

Gold's Been Really Sleepy

Inflation (CPI) calculation method has been changed many times. A look below at the real gold price (inflation adjusted gold price) using the 1980 CPI method held constant (calculation by John Williams at www.shadowstats.com)



What Happened in the late 1980s?

1) Gold money “bug” Alan Greenspan became chairman of the US Federal Reserve central bank in 1987.

2) Advent of 'unallocated gold' contracts at the London Bullion Market Association (LBMA)

2. Gold Price Discovery at the London Bullion Market Association (LBMA)

The LBMA

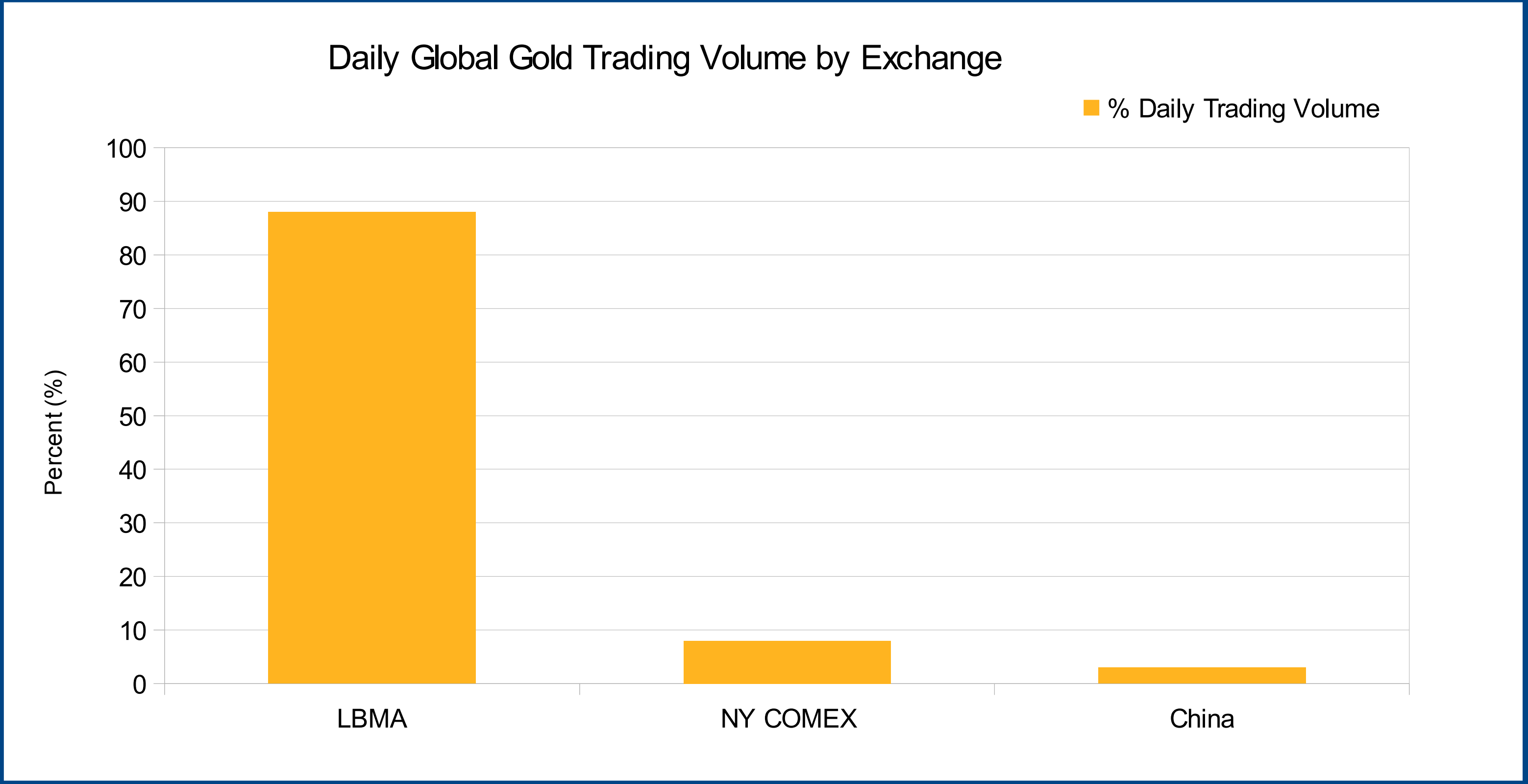
- The LBMA is the world's predominant gold & silver exchange
- LBMA trading determines the gold and silver price for miners via the 2x daily auction (fix) – an opaque process operated by unnamed Chairman and 11 bank participants – **NO MINING COMPANY PARTICIPANTS!**
- **Mining companies are price-takers from bullion banks**

Unallocated gold (and silver) contracts:

- An unallocated account is an account where the customer does not own specific bars, but has a general entitlement to an amount of metal delivered in London
- The client is merely an unsecured creditor holding promises for gold
- **Problem:** physical gold is limited but contract claims for gold can be created without limit.

The LBMA

- 88% of daily global gold trading volume is at the LBMA, 8% is at the NY COMEX, 3% is in China (Shanghai)



- 95% of LBMA daily trading volume is of unallocated contracts (no legal title to gold) and contracts are party-to-party custom contracts (OTC).
- 0.04% of COMEX gold contracts result in physical delivery.

The LBMA

Daily LBMA gross trading volume (July 2016):

- Gold: 195 million oz (2x ann. global mine production)
- Silver: 1.8 billion oz (ditto)

Above based on LBMA's 2011 *Loco London Liquidity Survey* showing daily volume is ~ 10x their posted 'net settled' trading volume.

This results in 2 immediate problems...

The LBMA

Problem # 1: The 10x multiplier is based on only 64% of survey participants who responded.

Takeaway: The multiplier is higher, perhaps much higher giving higher/much higher trading volumes

Problem #2: Large projected 'open interest' (claims for gold standing in the LBMA market).

- Gold claims of 400M to 600M oz with 2x & 3x multiplier of daily volume for commodity exchanges (but in 2014, Bloomberg's Ken Hoffman reported that London vaults were empty. In 2015 Bullionstar calculated gold outside of BoE and ETFs held in London collapsed to 0.2M oz. But Loco London contracts are for gold and silver physically held in London.)
- Silver claims of 4B to 6B oz using 2x & 3x multiplier (global refined silver stockpiles are ~1B oz (held by funds, ETFs, etc.))

The LBMA

- Other issues*:
    - No trade reporting
    - No breakdown of trade types
    - No gold deposit / gold loan data
    - No specific allocated/unallocated contract data
    - No data on physical shipments
    - No fractional reserve data re. unallocated contracts
    - No clarity on gold held at Bank of England
    - No client data
    - No identity of daily price auction Chairman
    - No Gold Forward (GOFO) lease rate data

*Source: BullionStar

Gold Price Discovery at The Shanghai Gold Exchange (SGE)

The Shanghai Gold Exchange

- Primary SGE onshore spot gold contract:

- 1 kilogram contract (vs 400 oz @ LBMA)
- Gold of 99.99% fineness
- To sell a contract, a gold bar must first be delivered from approved refineries to a SGE vault.
- Each bar has a unique laser-etched serial #
- If gold is withdrawn from SGE vault, must be re-refined and issued a new serial # to prevent fraud and "round tripping"
- SGE is actually trading physical gold
- Provides clear quarterly and annual gold withdrawal data

The Shanghai Gold Exchange

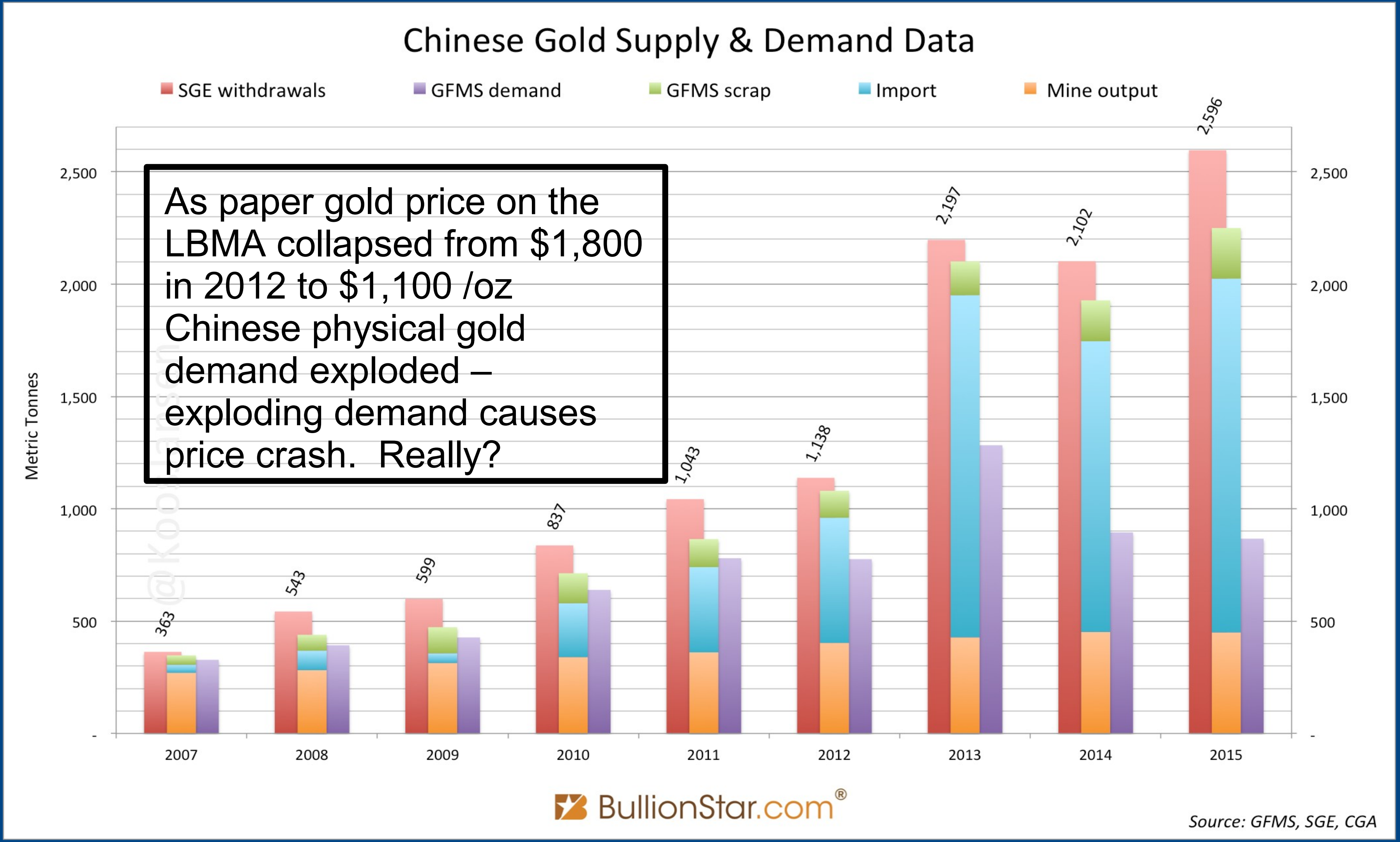
- The SGE has 7 million individual clients and 8,000 institutional clients
- The World Gold Council (WGC) and Reuters GFMS only counts retail gold bar and jewelry consumption thus vastly understating movement of gold to China
- Discount SGE investment bar demand
- Results in massive error for Chinese gold demand estimate
- WGC financed by the mining industry until 2015

The Shanghai Gold Exchange

- Physical gold trading and delivery on SGE vs primarily paper gold 'price discovery' on LBMA.
- <u>Gresham's Law:</u> Bad money drives out good money.
- Gresham's Law derived from Roman times when silver currency was debased, old higher grade currency disappears from circulation (held for higher value).
- Paper contracts trading in London/NY debase gold price while physical gold is swept away by China and astute investors

The Shanghai Gold Exchange

- Global gold mine production: 2,860 T (2015)



The Shanghai Gold Exchange

- <u>Takeaway:</u>
- We are heading for a gold and silver market disruption as physical gold and silver disappear from Western markets
- Metal that does not exist (paper contracts) will be left circulating in the West and our metals markets will malfunction
- Low interest rates will terminate. Bond market, stock market rapid decline - “problems”

Implications for the Mining Industry

- Mining industry delegates gold and silver price discovery for their metal to bullion bank trading that sets daily LBMA market pricing
- Miners have made themselves price-takers for gold and silver and have been harmed by LBMA paper price setting
- Deutsche Bank settled legal claim in April 2016 by admitting prolonged gold and silver price-fixing between bullion banks in London
- An inherent conflict of interest as bank industry has benefited from sequential financial bubbles over 30 years (requiring low interest rates *ergo* low gold and silver prices) while miners have not benefited
- Annual ~100M oz flow of gold from mines give appearance of validity to LBMA – 400M to 600M oz open paper gold claims (spot) held by pensions, sovereign wealth funds, etc. (large investors deflected into holding paper, decreasing physical gold and silver demand & price)
- Officers and Directors of mining companies have a legal duty - to act in the best interests of their corporation. Shareholders watching.

Price Discovery Solution

- Develop a **Miner's Metals Exchange**
- Take price determination out of hands of bullion banks who have proved unreliable
- Trade and sell gold and silver with real contracts where metal backs all spot contracts (as on SGE)
- Visibility of trading and transactions – can maintain confidentiality by trading small contract sizes
- Clearing and settlement through the Miner's exchange with standard contract and procedures

We need much higher gold and silver prices to prevent financial system seizure as interest rates have already started to move up and will go higher. We require a very large asset on the balance sheets to balance declining bonds, equities, and other assets as prolonged bubbles unwind.

Thank You!

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