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Markets in High Resolution

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What's Up with Gold?

Gold has gone "off the rails" on several long-standing historical relationships since the GFC.

The gold price has long been one of my "desert island" indicators. Unfortunately, in the current cycle it hasn't appeared to be an indicator of much of anything. What's up with Gold?

Gold: The Theory

Gold has several characteristics which rendered it the world's preeminent money for centuries, namely that it's an element that is durable, malleable, dense, reasonably ubiquitous and, perhaps most importantly, lacks any significant industrial usage.

By dint of these attributes, Gold has exhibited high efficiency as a "unit of account" over time, maintaining a broadly stable correlation to measured price levels. Since gold has shown itself to be reliably stable in real terms, any movement in the Dollar price of gold should be reflective of changes in the value of the Dollar, *not gold itself*. In other words, **gold provides a pure "mirror" into the value of the Dollar**.

(A broader exposition of this assertion is appended).

Gold: The Empirical Evidence

For centuries Gold served as an efficient barometer of the value of the unit of account, which when kept stable generates price stability over time (notwithstanding some gradual "benign" deflation associated with the Industrial Revolution).

(Source: http://www.lbma.org.uk/assets/alc56_golden_constant.pdf)

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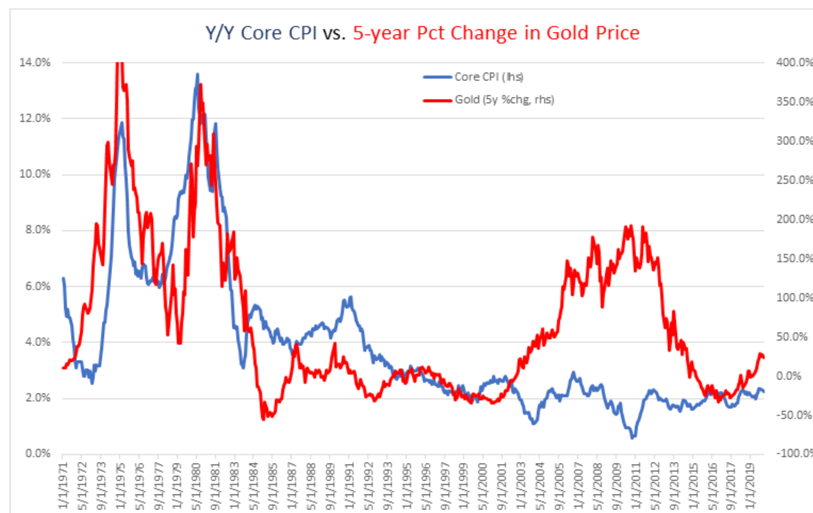
However, in the current cycle, gold's long-established relationships to a number of assets have failed to hold. Since Nixon broke the Dollar's link to gold in 1971 there are <u>three broad regimes</u> of gold price behavior:

- Strongly rising gold prices in the 1970's
- Stability from 1983-2003
- A strong rise in gold from 2003-2013, followed by a correction and what now looks like a renewed up-move

To smooth the pictures a bit I'm using 5-year rolling percentage changes in gold in the next three charts:

As expected, the high-gold regime of the 70's was consistent with high inflation, while the gold-stable regime was consistent with falling and then low/stable inflation. In the recent cycle, gold again rallied sharply but this time with <u>no discernible effect on the inflation rate</u>.



Ditto for Treasury yields:

- High gold prices in the 70's = high 10-year Treasury Yields
- Stable gold prices from '83-'03 = persistently declining 10y yields
- High gold prices since 2003 yet <u>yields have continued to decline</u>

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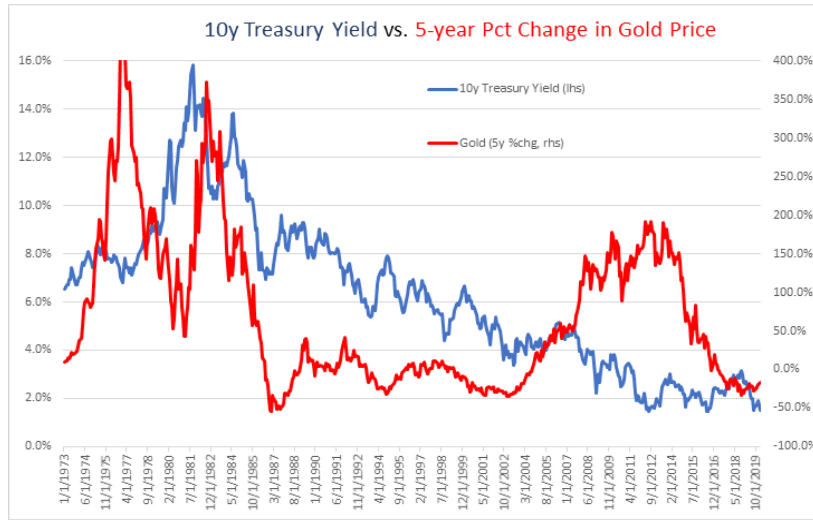
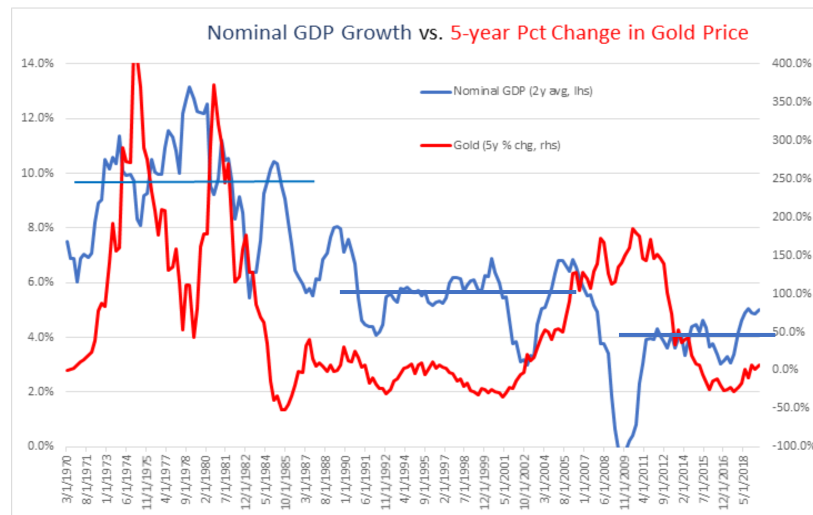


Lastly, nominal GDP growth, or "aggregate demand:"

- High gold in the 1970's = high nominal GDP growth
- Steady Gold from '83-'93 = subdued nGDP growth ~6%
- High gold prices in current economic cycle have been associated with the <u>lowest pace of nominal GDP growth in the post-war period</u>



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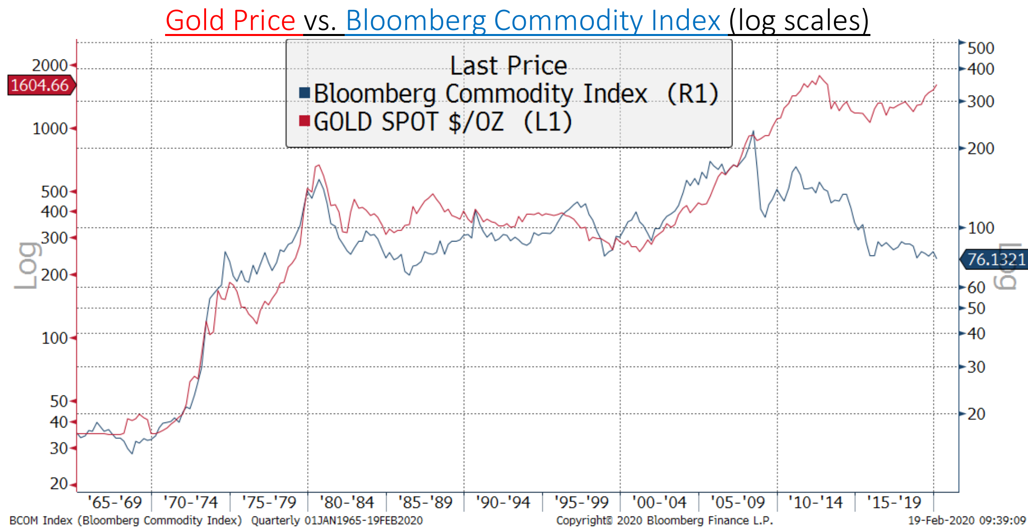
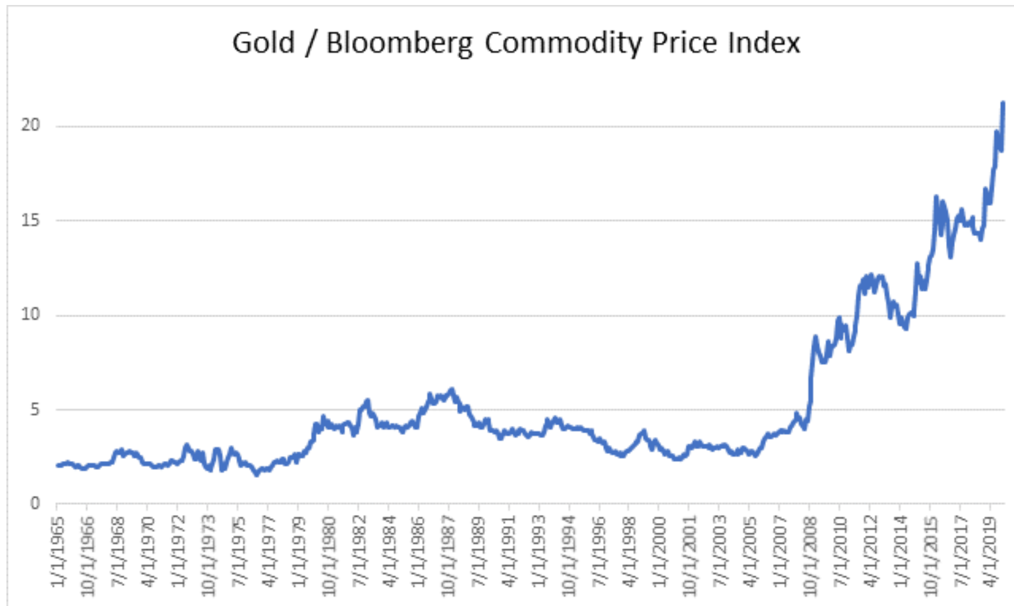
The next chart is the kicker: the gold price vs the Bloomberg Commodity Index back to 1965, log scale:



Viewed as a ratio, the Bloomberg commodity index and the gold price mean reverted for 40 years before **the relationship went haywire after the Global Financial Crisis**.



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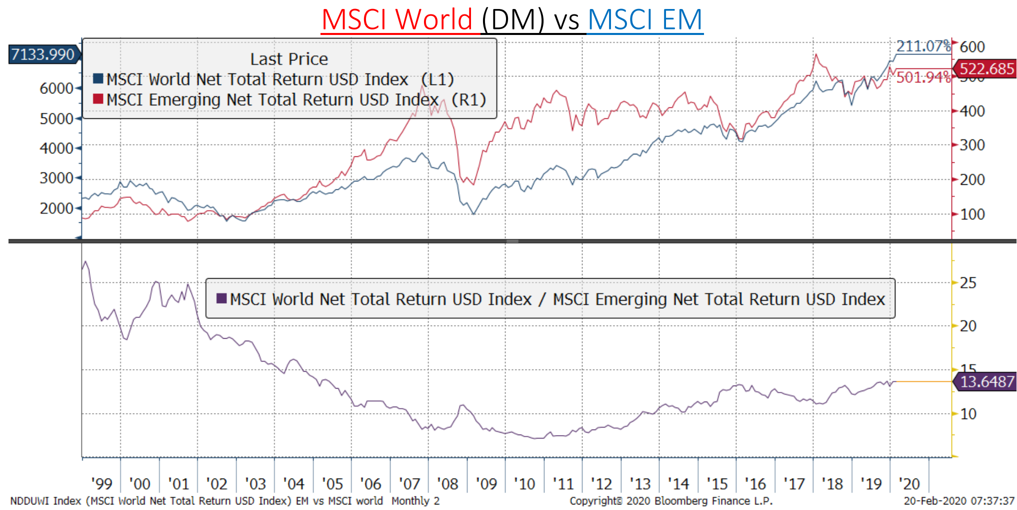
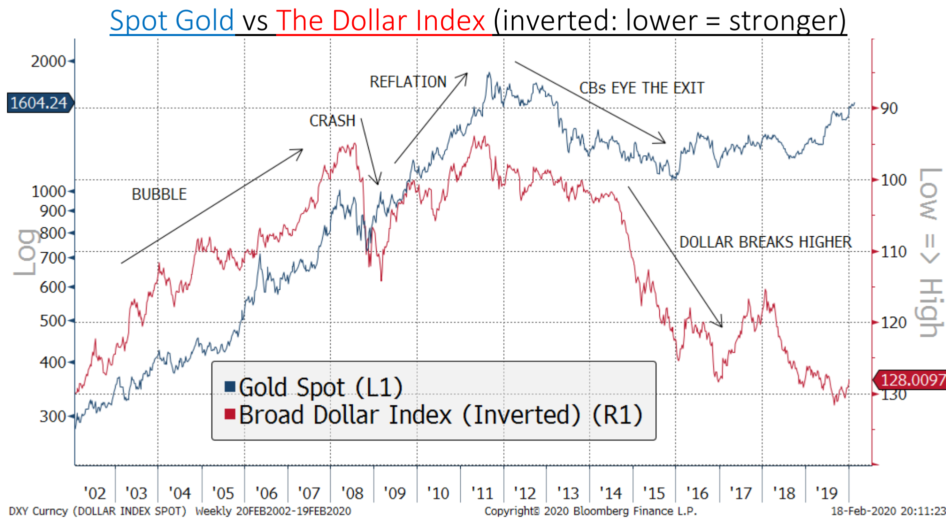
This divergence is also reflected in the persistent underperformance of EM equity throughout this cycle. If gold was continuing to function as liquidity indicator, EM should be outperforming DM. Instead, we see the opposite:

MSCI World (DM) vs MSCI EM



Lastly, we see a marked divergence between the Dollar's value against FX and its value against gold – two indications of the Dollar's external value that tend to correlate:

Spot Gold vs The Dollar Index (inverted: lower = stronger)



In theory, the Dollar could gain against FX while falling against gold if the basket of counterpart currencies were actually depreciating at an even faster rate than the Dollar. But in this event, we would expect to see boom conditions – or the very least an acceleration in nominal growth – in the rest of the world.

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Is Gold "Broken" as an Indicator?

Dollar liquidity is a predominant driver of asset markets, rendering invaluable any accurate indicator of the state of liquidity conditions in the Dollar realm. As reluctant as I am to kick gold – with centuries of performance history - off the "desert island" indicator list, there is no denying that for nearly a decade now gold has been acting in a way that is historically atypical.

So, what happened? Like so many hard-to-wrap-one's-head-around issues in global finance, the unsatisfying answer seems to be that ***something*** **happened in the Great Financial Crisis**.

Obviously, the global banking system was badly impaired during the crisis and has emerged in a different, more highly regulated form. Perhaps the divergence of the gold price from so many indicators of on-the-ground liquidity conditions is a result of "clogged pipes" in the transmission of monetary policy.

As a hypothesis, is it possible that the Dollar now trades in a bifurcated market of sorts, whereby real-world human beings have little appetite for holding Dollars at near-zero interest rates, yet the financial system remains relatively starved of them?

This hypothesis might violate the "law of one price," but if there is any basis to gold's long-established efficacy as a unit of account, then the present set of divergences itself violates the "law of one price:" the Dollar is cheap by one long-standing measure (the gold price) and expensive by most others.

Market Ramifications

- Gold is trading "without moorings." With the Fed finally swearing off its slavish devotion to the Phillips curve, which has led to a continual flirtation with deflationary error this cycle, **the path of least resistance for gold is up**, broadly.

- The Gold price **should not be taken as a signal of incipient inflation** until the financial "pipes" become unclogged, generating a convergence in indicators of on-the-ground liquidity conditions with the elevated gold price.

- Until the broader set of liquidity indicators start "catching up" to the gold price expect continued subdued nominal output and underperformance of liquidity / commodity - sensitive markets.

- Any turn in commodities (higher) and the Dollar (lower) in convergence to the current gold price would unleash the mother of all booms.

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Appendix: Why is Gold Even a Thing?

Here, as I understand it, is the basic theory on why gold "works" as benchmark for the unit of account and ultimately, prices.

In its basic form, the logical argument for the efficacy of the gold standard runs as follows:

- **Inflation is a "monetary phenomenon,"** i.e. resulting from perturbations in the unit of account, not from changes in "overall supply and demand."

- Stabilizing the unit of account will stabilize the price level and limit deadweight losses

- Gold is the most efficient yardstick by which to measure of the value of the unit of account. Ergo, stabilizing the gold price is the optimal approach to monetary policy.

The first point is broadly misunderstood, but should be self-evident upon some reflection. In a barter system, "inflation" would be an alien concept. Only when we introduce money as a transitive accounting unit are we even able to comprehend an "overall price level" which can be inflated or deflated. Relative prices can shift, but "inflation" is, by definition, *a decline in the value of the unit of account* against goods and services.

There is virtually no precedent for accelerating inflation (a decline in the internal value of the currency) absent currency depreciation (a decline in the external value). Rather than the adage "inflation is a monetary phenomenon," it might be clearer to say that "inflation is a *money* phenomenon." (War or crop failure – negative supply shocks - might cause sharp increases in the price level which would be reversed over time if not "accommodated" with depreciation).

While there is wide agreement on the desirability of price-stability, that a gold peg best achieves it by dint of its purity as a measure of the value of the unit account is considerably more controversial. Here's the basic theory…

Like anything else, the value of a currency is determined by "supply and demand." In the case of the U.S. Dollar then, its value could be denoted by the expression:

$$\text{The Value of a USD} = f\left[\frac{\text{Demand for USD}}{\text{Supply of USD}}\right]$$

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The gold, price (like any other price) can be expressed as a function of supply and demand for the commodity itself vs. supply and demand for the unit of account:

$$\text{USD/Gold Price} = f\left[\frac{\text{Demand for Gold}}{\text{Supply of Gold}} \Big/ \frac{\text{Demand for USD}}{\text{Supply of USD}}\right]$$

What makes gold unique among all commodities is that, in theory, its price is largely fixed in real terms. And If gold is itself stable in value in real terms, **any change in the Dollar price of gold is reflective of a change in the value of the Dollar** itself.

Gold, as an element with extremely limited industrial usage, is never “consumed.” Central banks might buy gold but they don’t consume it. Jewelry is a form of ornamental money, hocked or melted down if the need arises or the price is sufficiently attractive. Unlike a commodity such as corn for instance, for which supply is represented by this year’s crop, the effective “supply” of gold is nearly every ounce ever mined. Which is a lot.

That the bulk of all the gold ever produced is available to be brought to market in response to changes in the real price renders temporal “supply and demand” of little relevance to the value of the commodity (enormous volumes written on the subject notwithstanding).

This, in combination with gold’s density, malleability, and general availability across the planet (with some difficulty in accessing it, of course) has rendered gold the historical “money par excellence.”

There must be *something* to all this, else mankind wouldn’t have put gold at the center of global trade and finance for centuries.

Note: for a much more robust discussion, please refer to Jude Wanniski’s seminal 1995 essay “A Gold Polaris,” a source for many of the ideas herein.

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