

Classical Insights

Global Investment Analysis Based on the Classical Economic Model

Classical Insights Morning Bullet Points September 28, 2007

I'm becoming increasingly comfortable with the notion that gold is driven primarily by movement in the real funds rate. Many supply-siders (though not all) have felt certain of this relationship for years. For me, it was only in putting together the September 20 bullets (*A decade of intellectual corruption at the Fed comes to a head*) that I became more-or-less convinced of the validity of the relationship. In writing the 9/20 bullets (excerpted below), I went through the chart of gold vs. real funds back to 1985 on a year-by-year basis. For the first time, I was able to get comfortable with every section of the chart (including 1990-93, which has always bothered me).

Gold is rising again today, up \$9/oz. to \$743/oz. The best explanation for gold's continued rise would appear to be that the Fed's recent 50-bps cut pushed the real funds rate significantly below neutral. Historically, the neutral rate for real funds (defined as fed funds minus CPI) has been about 2.75%. There is a trick in doing the calculation, though, which is that one must settle on some measure of CPI, and they're all flawed. If we were to use 3% (an arbitrary number to a large extent), then the real funds rate would now be 1.75%. One could certainly put in another number for CPI and get a different real funds rate. There's no way to prove this is the right number. (See discussion below.)

Gold's rise is of course massively positive for commodities. In fact, it's so positive for commodities that it's hard to muster the energy to work on anything else *but* commodities. In the overall universe of prices, commodity prices are always the first to adjust to a change in the price of gold, because commodities share many of gold's monetary properties. Like gold, they are fungible, internationally traded, spot traded and lacking in branding power. The one big difference between gold and other commodities is that gold is not consumed. Rather, it just *piles up*, year after year, in homes and vaults. By contrast, other commodities are produced and consumed annually. As a result, the price of gold is impervious to variations in physical supply/demand. A bad year at the gold mines won't move the gold price an iota, because there's so much gold already above-ground. A bad wheat harvest, by contrast, will push the wheat price temporarily above its monetary equilibrium price. This is the main difference between gold and other commodities.

This brings up an interesting point: Gold is being valued now at \$100-200 per ounce in the ground -- yet copper is being valued at just \$0.02 per pound in the ground (or less). This means that gold, even when it's buried under tons of rock in some desert, is valued at about 20% of its spot price -- *yet copper in the same state gets a valuation of less than 1% of its spot price.* Why the huge disconnect? In principle, it shouldn't be nearly this wide. Yes, gold is money. But copper is "near-money," and simple etymology would suggest that *near-money* should be worth nearly as much as *money*.

Based on this concept, one could easily envision a scenario in which a stampede for copper deposits breaks out. If all those junior copper miners now being valued at less than 2 cents a pound in the ground were re-rated and suddenly valued at ten cents a pound (still an entirely reasonable valuation), *all the early-stage copper stocks would quintuple.* This scenario becomes increasingly realistic as gold and copper prices rise, because the margin for error in financing a copper mine increases. The big thing preventing potential investors from committing to a new mine projects is fear that we'll go back to a 2001/02 situation, when copper fell to \$0.65/lb. and it didn't make sense to turn on the lights in many mines. That just can't happen with gold over \$700/oz.

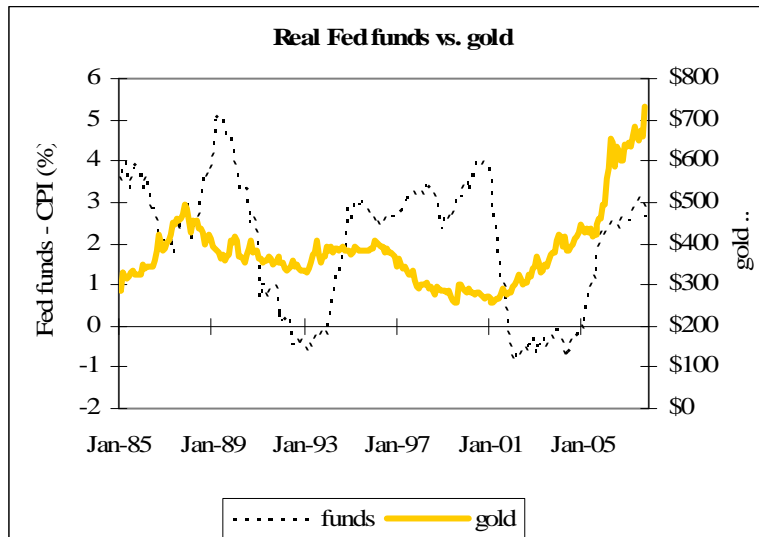
At times when gold and base-metal prices are actively rising, the natural instinct is to buy companies that are producing *right now*. It's no coincidence that the current rally in base-metal miners is being led by established producers. Looking ahead, though, one could see a situation where the valuation arbitrage between the established producers and the junior miners widens to the point where the junior miners outperform. One commonly-cited concern is that scarcity of project financing will prevent many new mining projects coming on. This is likely to prove a non-issue, however. The big miners who are the most logical builders of new mining projects are loaded, and fresh piles of money roll in their doors every day.

Here are 22 names in the Classical Insights portfolio with substantial deposits yet which are not yet in production:

African Copper (ACU LN)
Albidon Ltd (ALB AU)
Allegiance Mining (AGM AU)
Anvil Mining (AVM CN)
Asian Mineral Res (ASN CN)
Baja Mining (BAJ CN)
Canadian Zinc (CZN CN)
CBH Resources (CBH AU)
Crowflight Minerals (CML CN)
Equinox Minerals (EQN CN)
European Nickel (ENK LN)
Great Western Minerals (GWG CN)
Inca Pacific Res (IPR CN)
Lundin Mining (LUN CN)
Mercator Minerals (ML CN)
Mirabela Nickel (MNB CN)
Mustang Minerals (MUM CN)
Northern Peru Copper (NOC CN)
Quadra Mining (QUA CN)
Taseko Mines (TKO CN)
Tyler Resources (TYS CN)
Yukon Zinc (YZC)

Below is the portion from the September 20 bullets dealing with the relationship of gold to the real funds rate:

The strongest candidate as to what moves gold is the real fed-funds rate – and historical data *do suggest* that the gold price moves inversely to the real funds rate. Here are the series back to 1985:



One really has to go through this chart segment-by-segment in order to get comfortable with the relationship.

- The relationship works fine from 1985-1990. The lines move inversely, more or less. (In 1989-90 the real funds rate fell hard and gold didn't move, but that was probably because the real funds rate was coming down from a very high level.)
- The relationship also works nicely from 1995 to 2005. In the late '90s, the real funds rate was increased to 4% (Greenspan's vendetta against the Nasdaq) and gold fell from about \$385/oz. to \$250/oz. Beginning in January 2001, real rates started falling hard, and gold bottomed three months later. Real rates were negative from October, 2001 to January, 2005, and during that period gold rose from \$274/oz. to \$438/oz.
- The period from October 1990 to February 1993 is somewhat problematic. The real rate fell from 2.7% (a neutral-ish rate historically) to -0.6% during this period -- yet gold actually declined (from \$380/oz. to \$329/oz.). However, gold's subsequent behavior suggest it may simply have been responding with a lag: Gold rose \$62/oz. between February 1993 and December 1993 to finish the year at \$391/oz;
- The 2004-2007 period is also a bit tricky. From June 2004 to June 2006 the Fed raised the funds rate 17 times. By June 2006, the real funds rate was roughly at a neutral level (about 2.55%) yet gold was \$200/oz. higher than it had been two years previously (\$585/oz. vs. \$385/oz). From June of 2006 through early September 2007 (pre-rate-cut), gold rose yet another \$100/oz., despite the real funds rate (as conventionally defined) still being neutral-ish;
- Why did gold keep rising even after the real funds rate got up to the 2.5% level in 2006? There are two possible explanations. The most convincing explanation is that conventional measures of CPI have been incorrect in recent years and that "true" CPI actually has been running higher than official indices show (due to increases in the gold price post-2002). For instance, if CPI is "really" 3.5% now, then the real funds rate is "really" only 1.25% (i.e. 4.75% minus 3.5%). That's quite a low number by historical standards. This line of reasoning (which is fairly convincing to me) also would explain why gold has risen so much since Tuesday's rate cut (which pulled down the real funds rate 50 bps). The other potential explanation for gold's post-2006 rise would be that other

factors are fueling gold now, such as heightened political risk, tax-hike risk, and the risk of trade sanctions on China. *One can't rule these factors out*, but one can't really *quantify* how these forces might affect the gold price over time, either. (How does one put a number on political risk?) So it's impossible to have a truly informed discussion about their potential impact on gold.

The Classical Insights portfolio holds all names mentioned in this report, and the Classical Insights Fund LP holds most of them.

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