## Gold's Sound And Fury May Signify Nothing

The comedienne Anne Meara, wife of Jerry and mother of Ben Stiller, had a punchline in the direction of an unseen daughter that was roughly, "If I knew you were miserable, I'd be the happiest mother on earth!" This sentiment corresponds roughly to how many gold bugs feel about financial markets: It is one thing for the yellow metal to rise, but it really does not count unless the rest of the world is suffering.

Their sentiment is understandable if misplaced. After all, it was illegal for American citizens to own gold bullion between 1933 and 1974, the U.S. stopped honoring its international gold specie obligations - the "gold window" in 1968, and anytime the federal government tells you to stop trusting something and start trusting them, you ought to start asking a few questions.

Gold's last long-term rally, the one that collapsed so spectacularly in early 1980 and ushered in more than two decades of stagnant and declining nominal prices, taught gold bugs the wrong lessons. They assumed gold was jumping due to three separate but related factors, dollar weakness, inflation and a hedge against the political unrest of the time. What was the political unrest of the time? How about an unstable and unfriendly government in Iran and fighting in Afghanistan? It is nice we settled those two issues a long time ago, no?

## Gold's Financial Fundamental

Gold straddles the line between a financial asset and a physical asset with a very unique characteristic: Unlike other physical commodities that are consumed, gold is mined only to be re-buried in vaults or sterilized in the form of artwork and jewelry. Very little gold is consumed in the classic sense.

The financial aspect of gold should be easy to model. Gold or any other inert asset such as a handful of dirt should rise in nominal value whenever the expected rate of inflation exceeds the short-term interest rate cost of holding it. Inflation expectations used to be inferred; since the advent of the Treasury Inflation-Protected Securities (TIPS) market in January 1997, we can calculate a forward-looking albeit highly imperfect breakeven rate of inflation by subtracting TIPS yields from conventional Treasury yields.

If we subtract the three-month repurchase agreement rate from this breakeven rate and annualize the difference, we can approximate the extent to which expected inflation exceeds holding costs. That number, dubbed Annualized Inflation Gauge, or AIG, exploded higher in early 2001 when the Federal Reserve began its aggressive rate-cutting campaign. It reached its maximum in May 2004, marked with a magenta vertical line, and then fell steadily into October 2006; the decline corresponded to the Federal Reserve’s rate-hike campaign between 2004 and 2006. It exploded higher once again in August 2007 with the onset of the subprime mortgage-induced credit crunch and the Federal Reserve's rate-cutting campaign.


Gold was slow at first to react to the AIG's rise; it did not start moving higher in force until mid-2005 whether measured in its dollar price or in its dollar index-adjusted price. And then its rise was occurred in the face of a declining AIG; this leads us to conclude gold’s rise had nothing to do with either inflation or dollar weakness, but rather to increased physical demand from regions such as India and the United Arab Emirates where gold is held as a store of household wealth.

## Comparison To Stocks

Where has gold's surge of the past six years placed it in relationship to other investments? Here the answer may surprise you and if you are a gold bug with hypertension, you might want to stop reading right now.

Every owner of gold is buying it as a long gold / short cash spread. Gold earns no interest nor does it throw off any dividend, so the total return of holding gold is the price change less the short-term interest rate cost of carry less the physical costs of storage, which are fairly small in gold's case and will be ignored. The total return of a stock index is the change in price less the short-term interest rate cost of carry plus the value of the reinvested dividends.

As the futures contracts for both gold and stocks as measured by the S\&P 500 embed all of these charges in their basis, we can compare the total returns for stocks and gold going back to the inception of the S\&P 500. The raw data and the mechanics of rolling the contracts forward to produce these "backward-adjusted" futures are handled by the CRB-Infotech CD-ROM.

## Comparing Gold And The S\&P 500: Backward-Adjusted Futures



What jumps out in the chart above? First, the S\&P 500 and gold were moving in the opposite direction for nearly all of the 1980s and 1990s. Gold entered its bull market well before stocks completed their bear market; this phase is highlighted in the green rectangle. Then both entered parallel bull market from mid-2003 until late 2007; this confluence of good fortune was not supposed to happen according to the devout gold bugs.

If you are keeping score, how have the two total return streams fared against one another? Stocks are ahead regardless of whether we compare them properly on a backward-adjusted futures basis or on a cash-only basis. Whatever relative gains gold has enjoyed since its bull market began occurred primarily during the period when stocks still were in a bear market while gold was entering its bull market.

Comparing Gold And The S\&P 500: Backward-Adjusted Futures


The Unkindest Cut Of All
Now let's cap the discussion with a real head-exploder: Gold has underperformed both three-month Treasury bills and Merrill Lynch’s index of 10-15 year Treasuries since December 1977, a period which encompassed gold’s first
bull market. The long period of gold's underperformance and its long period of cumulative interest rate penalties vis-à-vis Treasury instruments placed it in a profound penalty box. Its total return adjusted for holding costs after 31 years has been 152 percent. Three-month bills have earned 671 percent and long-dated bonds have earned 1327 percent over the same period.

## Comparative Total Returns: Bonds, Bills And Gold



As three-month bills have outperformed gold over a period inclusive of not one but two bull markets in gold, we feel very confident in stating Treasury bills are a better hedge against inflation than is gold.

## But Wait, There's More

Now let's return to the dual bull markets between stocks and gold starting in 2003. We can analyze the relative performance of industry groups in the S\&P 500 to the S\&P 500 as a whole as a function of primal market variables such as gold. This analysis commences on May 6, 2003, the date on which the Federal Reserve declared its so-far successful war on deflation.

We can regress the relative returns of industry groups against the returns on gold and extract the betas, or relative variance, of these regressions at the 90 percent confidence level. If we multiply those betas by each group's weight in the S\&P 500 itself, we can sum the weighted positive and negative betas and arrive at the partial contribution of gold to the S\&P 500. The results are presented in the table below.

| Gold Beta-Weighted Impact On S\&P 500 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | SPX <br> Weight | $\begin{gathered} \text { GC } \\ \text { Beta } \end{gathered}$ | $\begin{gathered} \text { Weighted } \\ \text { Beta } \end{gathered}$ |  | $\begin{gathered} \hline \text { SPX } \\ \text { Weight } \end{gathered}$ | $\begin{gathered} \text { GC } \\ \text { Beta } \end{gathered}$ | Weighted Beta |
| Pharmaceuticals | 6.85\% | 0.093 | -0.63\% | Integrated Oil \& Gas | 7.62\% | 0.292 | 2.23\% |
| Industrial Conglomerates | 3.71\% | 0.072 | -0.27\% | Oil \& Gas Equipment | 1.77\% | 0.484 | 0.86\% |
| Integrated Telecommunications | 3.10\% | 0.079 | -0.25\% | Oil \& Gas Exploration | 1.52\% | 0.414 | 0.63\% |
| Household Products | 2.44\% | 0.095 | -0.23\% | Oil \& Gas Drilling | 0.61\% | 0.486 | 0.30\% |
| Hypercenters \& Superstores | 1.21\% | 0.160 | -0.19\% | Diversified Metals \& Mining | 0.29\% | 0.908 | 0.27\% |
| Computer Hardw are | 3.97\% | 0.046 | -0.18\% | Gold | 0.21\% | 1.054 | 0.22\% |
| Healthcare Equipment | 1.90\% | 0.093 | -0.18\% | Steel | 0.29\% | 0.493 | 0.14\% |
| Soft Drinks | 2.14\% | 0.073 | -0.16\% | Oil \& Gas Refining | 0.36\% | 0.386 | 0.14\% |
| Systems Softw are | 3.28\% | 0.046 | -0.15\% | Fertilizers \& Agricultural Chemicals | 0.50\% | 0.267 | 0.13\% |
| Managed Health | 1.59\% | 0.095 | -0.15\% | Construction \& Farm Machinery | 0.94\% | 0.133 | 0.12\% |
| Drug Retailers | 0.76\% | 0.192 | -0.15\% | Investment Banking \& Brokerage | 1.94\% | 0.053 | 0.10\% |
| Tobacco | 1.54\% | 0.080 | -0.12\% | Aluminum | 0.21\% | 0.293 | 0.06\% |
| Home Improvement Retailers | 0.71\% | 0.174 | -0.12\% | Asset Management \& Custodial Banks | 1.31\% | 0.035 | 0.05\% |
| Biotech | 1.32\% | 0.079 | -0.10\% | Railroads | 0.74\% | 0.061 | 0.05\% |
| Multiline Insurers | 1.65\% | 0.063 | -0.10\% | Construction \& Engineering | 0.17\% | 0.227 | 0.04\% |
| Air Freight \& Logistics | 0.98\% | 0.103 | -0.10\% | Industrial Gases | 0.37\% | 0.087 | 0.03\% |
| Property \& Casualty Insurers | 1.09\% | 0.076 | -0.08\% | Agricultural Products | 0.23\% | 0.141 | 0.03\% |
| Diversified Banks | 1.76\% | 0.044 | -0.08\% | Industrial Machinery | 0.80\% | 0.037 | 0.03\% |
| Packaged Foods | 1.30\% | 0.057 | -0.07\% | Electrical Components \& Equipment | 0.47\% | 0.049 | 0.02\% |
| Regional Banks | 1.10\% | 0.067 | -0.07\% | Electrical Manufacturing Services | 0.19\% | 0.082 | 0.02\% |
| Data Processing \& Outsourcing | 0.77\% | 0.087 | -0.07\% | Forest Products | 0.11\% | 0.089 | 0.01\% |
| Thrifts \& Mortgages | 0.66\% | 0.100 | -0.07\% | Paper Products | 0.16\% | 0.056 | 0.01\% |
| Healthcare Distributors | 0.46\% | 0.131 | -0.06\% | Construction Materials | 0.06\% | 0.113 | 0.01\% |
| Restaurants | 0.84\% | 0.061 | -0.05\% | Gas Utilities | 0.09\% | 0.071 | 0.01\% |
| General Merchandise Retailers | 0.39\% | 0.130 | -0.05\% | Trading Companies | 0.04\% | 0.064 | 0.00\% |
| Healthcare Services | 0.53\% | 0.093 | -0.05\% |  |  |  |  |
| Movies \& Entertainment | 1.54\% | 0.031 | -0.05\% |  |  |  |  |
| Food Retailers | 0.36\% | 0.118 | -0.04\% |  |  |  |  |
| Broadcast \& Cable TV | 0.88\% | 0.043 | -0.04\% |  |  |  |  |
| Department Stores | 0.39\% | 0.096 | -0.04\% |  |  |  |  |
| Publishing \& Printing | 0.25\% | 0.116 | -0.03\% |  |  |  |  |
| Specialty Stores | 0.21\% | 0.131 | -0.03\% |  |  |  |  |
| Apparel Retailers | 0.27\% | 0.090 | -0.02\% |  |  |  |  |
| Computers \& Electronics Retailers | 0.22\% | 0.109 | -0.02\% |  |  |  |  |
| Insurance Brokers | 0.23\% | 0.090 | -0.02\% |  |  |  |  |
| Casinos \& Gaming | 0.25\% | 0.084 | -0.02\% |  |  |  |  |
| Food Distributors | 0.15\% | 0.120 | -0.02\% |  |  |  |  |
| Brewers | 0.36\% | 0.044 | -0.02\% |  |  |  |  |
| Airlines | 0.08\% | 0.183 | -0.01\% |  |  |  |  |
| Advertising | 0.15\% | 0.084 | -0.01\% |  |  |  |  |
| Leisure Products | 0.10\% | 0.131 | -0.01\% |  |  |  |  |
| Home Entertainment Softw are | 0.13\% | 0.087 | -0.01\% |  |  |  |  |
| Motorcycle Manufacturers | 0.08\% | 0.146 | -0.01\% |  |  |  |  |
| Personal Products | 0.17\% | 0.057 | -0.01\% |  |  |  |  |
| Environmental Services | 0.16\% | 0.050 | -0.01\% |  |  |  |  |
| Housew ares \& Specialty Stores | 0.14\% | 0.044 | -0.01\% |  |  |  |  |
| Office Services \& Supplies | 0.11\% | 0.051 | -0.01\% |  |  |  |  |
| Distributors | 0.06\% | 0.090 | -0.01\% |  |  |  |  |
| Diversified Commercial Services | 0.07\% | 0.067 | 0.00\% |  |  |  |  |
| Commercial Printers | 0.06\% | 0.068 | 0.00\% |  |  |  |  |
| Distillers \& Vintners | 0.08\% | 0.049 | 0.00\% |  |  |  |  |
| Healthcare Facilities | 0.02\% | 0.159 | 0.00\% |  |  |  |  |
|  |  |  |  | Subtotal: | 21.01\% |  | 5.50\% |
| Subtotal: | 52.55\% |  | -4.21\% | Total: | 73.56\% |  | 1.29\% |

A total of 52 industry groups comprising 52.55 percent of the S\&P 500 have negative weighted relative performance betas to gold, while a total of 25 industry groups comprising 21.01 percent of the S\&P 500 have positive weighted relative performance betas to gold. However, as the betas are much stronger for the positive contributions, the net impact if a positive $1.29 \%$. In other words, we should expect stocks to rise along with gold, all else held equal.
This is consistent with our thesis above that gold's rise is related more to global demand than it is to anything related to either inflation or dollar weakness. What would Anne Meara say at a moment like this?

