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TOP DOWN INSIGHTS...BOTTOM LINE RESULTS

The Gold-Oil Multiple as a Forecaster of Oil

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E ver since the U.S. dollar was "floated" monetarily (in August 1971),¹ the \$/gold price and \$/oil price have moved closely together, reflecting the relatively stable purchasing power of gold itself.² Whenever moves in the two prices have diverged materially investors have had an opportunity to exploit it profitably. That seems possible again today, as is clear from Figure One: the gold price has declined by 15% over the past year, while the oil price has remained elevated, and is still up 8% in the past year. Many commodity players today seem to believe oil also must decline. Well, let us see about that.

Under the Bretton Woods gold-exchange standard (1944-1971), the gold price was fixed at \$35/ounce, as the dollar was *defined* as 1/35^{ths} an ounce of gold. No wonder, then, that the oil price also was steady in those decades, as it averaged \$2.85/barrel and moved in a nar-

row range (never lower than \$1.25/barrel nor higher than \$3.56/barrel). Remarkably, oil traded a mere 10% on either side of \$3.00/barrel for more than a dozen straight years (1958-1970).

Since gold averaged \$35/ounce under Bretton Woods, and oil averaged \$2.85/barrel, the relative price ratio averaged 12.3X. Thus an ounce of gold typically purchased 12.3 barrels of oil. Today, with gold at \$1,385/ounce and oil at \$97/barrel, the gold-oil price ratio is 14.3X, so an ounce of gold now buys 14.3 barrels of oil, not far from its real purchasing power in the pre-1971 era. Gold holds its value over time, while the paper dollar does not. Today it takes many *more* dollars to buy a barrel of oil (97 of them) than it did before 1971 (3 of them), but today an ounce of gold actually buys a bit more oil (14.3 barrels) than it did in the decades before 1971 (12.3 barrels).



¹ See "The Crime of '71: A Retrospective," The Capitalist Advisor, August 15, 2001 and "A Brief History of the U.S. Dollar & Its Debasement," The Capitalist Advisor, August 18, 2011.

² Roy W. Jastram, The Golden Constant: The English and American Experience, 1560-2007 (http://gold.yabz.com/The_golden_constant.pdf).

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The gold-oil multiple. At first glance, a plot of the gold-oil price multiple (Figure Two) suggests volatility and no obvious case for reliable predictive power. Yet there is a long-term relative steadiness in the gold-oil price ratio which is eminently exploitable, precisely because the price multiple is norm-reverting namely, when the multiple is high it tends to decline, and when low tends to rise. Moreover, the higher the multiple, the more certain one should become about its subsequent decline, and the lower it is, the more confident one should be about it's subsequent rise. Finally, the main way in which the price multiple reverts to norm is by a decline (or muted rise) in the oil price (after the multiple

has been *low*) or by a significant *rise* in the *oil price* (after the multiple has been *high*).³

Other variables, and success rate. Since 2005, when we last materially revised our econometric model for oil, our forecasting success rate has been 71%.⁴ We have a multi-factor explanatory model, which uses such independent variables as real interest rates,⁵ the dollar's foreign exchange value,⁶ the Treasury yield curve,⁷ and the gold-oil price multiple.⁸ Obviously, it's possible that these signals will cross-cancel, leaving an indistinct and inconsequential (neutral) forecast for the oil price, but:

A rising oil price is signaled, in total, by:

- low or negative real short-term interest rates
- a depreciating U.S. dollar in foreign exchange
- an inverted Treasury yield curve
- a high gold-oil price multiple



In contrast, a *declining* oil price is signaled, in total by:

- high and positive real short-term interest rates
- an appreciating U.S. dollar in foreign exchange
- a steeply-sloped Treasury yield curve
- a low gold-oil price multiple

The empirical record. Figure Three (page 3) summarizes the empirical forecasting relationship using the gold–price multiple (since 1967).⁹

Notice that after the price multiple has been inordinately *low* (10X or lower, averaging 8.4X), the subsequent, average rise in the oil price has been quite *muted*, rising just 7.8% a year hence, and 5.6% two years hence – and, in some of those years, has *declined*). In contrast, after the price multiple has been quite *high* (18X or higher, averaging 21.9X), the subsequent, average rise in oil price has

³ For our previous analysis of the gold-oil relationship, see Oil's Jump: It's Bernanke, Not Gaddafi," *Investment Focus*, March 7, 2011; "The Real Story on Crude Oil: Not Mere Speculation," *Investment Focus*, July 23, 2008; "The Real Story on Crude Oil," *Investment Focus*, May 16, 2008; "The Fed's Liquidity Schemes Boost Commodities, Not Equities," *Investor Alert*, March 12, 2008; "Forecasting Commodities," *Investment Focus*, June 7, 2006; "The Peak Oil' Thesis: Quantity or Price?" *Investment Focus*, October 31, 2005; "Oil Headed for \$20/bbl Regardless of OPEC," *Investor Alert*, March 29, 2000. ⁴ See past issues of our annual Track Record.

⁵ "The Real Interest Rate as a Forecaster of Commodity Prices, U.S., 1968-2010," Table Two in "Yet Another Chance to Accumulate Gold – and Why the Euro Still Out-Performs the U.S. Dollar," *Investor Alert*, June 7, 2012, p. 2.

⁶ "Shifts in the Foreign Exchange Value of the U.S.\$ versus Commodity Currencies as a Forecaster of the Price of Oil, U.S., 1967-2010," Table One in *Investment Focus*, InterMarket Forecasting, Inc., March 7, 2011, p. 3.

⁷ "The U.S. Treasury Yield Curve as a Forecaster of the Oil Price & U.S. Industrial Production, U.S., 1967-2010," Table Three in *Investment Focus*, InterMarket Forecasting, Inc., March 7, 2011, p. 4. See also "Federal Reserve Interest-Rate Policy as a Forecaster of the Oil Price, U.S., 1967-2005," Figure Nine in *The Inter-Market Forecaster*; December 31, 2005, p. 11.

⁸ "The Gold-Oil Price Multiple as a Forecaster of the Oil Price, U.S., 1967-2010," Table Two in *Investment Focus*, InterMarket Forecasting, Inc., March 7, 2011, p. 4. See also "The \$/Gold Price as a Forecaster of Commodities, the Dollar, Fed Policy, the Yield Curve, Bills, Bonds & Stocks, U.S., 1968-2005," Table One in "What Gold Portends," *Investor Alert*, December 16, 2005, p. 2.

⁹ Although the dollar was officially floated for the first time in August 1971, the dollar-gold price became unfixed and started fluctuating in March 1968, with the breakdown of the London Gold Pool. Thus we can begin our study of fluctuations in gold and oil prices in the late 1960s.

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been *huge*, up by 21.8% a year hence and by 42.9% two years hence. Not surprisingly, cases of intermediate gold-oil price multiples (between 10X and 18X, averaging 13.0X) have signaled equally intermediate results for oil's price: an average rise of 10.0% a year later and 22.4% over two years.

We also note in Figure Three that the current gold-oil price multiple is 14.7X (average for June 2013), down significantly from 19.4X a year ago (average for June 2012), due mainly to gold's decline.

Whereas a year ago the price multiple was inordinately high (above 18X), and thus a signal for a rising oil price (as one would expect from consulting the right-most bars of Figure Three), today's multiple (14.7X) is in the intermediate range. Thus the oil price can still rise over the coming year, but it's not likely to rise materially.

Nonetheless, the gold-oil price multiple isn't the only factor in our model. Taking all four together, and what they are currently signaling for the oil price, we have:

- real short-term interest rates: *negative* = bullish
- U.S. dollar in foreign exchange: *appreciating* bearish
- Treasury yield curve: steeply-sloped bearish for oil
- Gold-oil price multiple: intermediate level neutral-bullish

A year ago, looking one-year ahead, we forecasted a *gain* in oil, in part (but not wholly) due to the overly-high gold-oil price multiple (19.4X).¹⁰ Oil averaged \$82.4/barrel a year ago (June 2012), and so far this month it has averaged \$94.6/barrel – so there's been a gain of nearly 15%. Our year-ago forecast panned out.



Currently we forecast no change in oil over the last half of 2013, due partly to the now *lower* multiple (14.7X), but then a mild (single-digit) percentage increase over the first half of 2014.¹¹ Other factors in the model have changed in the past year to warrant a less bullish stance: real yields are *less negative*, the dollar has shifted from depreciating to *appreciating*, and the yield curve is *steeper*.

A very bullish outlook for the oil price over the coming year isn't justified, even though it was justified a year ago. Nevertheless, commodity investors, traders and strategists today also shouldn't be counting on a huge decline in the oil price over the coming year, merely because the gold price (or other commodity prices) have dropped a lot.¹²

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¹⁰ See The InterMarket Forecaster, June 30, 2012, p. 7.

¹¹ See The InterMarket Forecaster, May 24, 2013, p. 7.

¹² Over the past six months, the biggest commodity-price declines (-10% or more) have come in steel (-59%), silver (-28%), wheat (-20%), gold (-17%), corn (-13%), and sugar (-12%). During this time the price of a broad basket (DBC) has dropped by 5%, while oil has bucked the trend, increasing by 10%.