

*Global Investment Strategy*

## Global Real Assets Strategy Report

March 7, 2016

**John LaForge**  
*Head of Real Asset Strategy*

### *Analysis and outlook for the real assets market*

» *Gold does not appear to be a great bargain vs. stocks, bonds, or housing. Gold also looks quite expensive compared to the average commodity, and especially vs. other precious metals.*

### *What it may mean for investors*

» *We recommend investors underweight gold within a diversified portfolio.*

## The Value of Gold

In February, we published a cautionary gold note titled, “*Not the Time to Buy More Gold.*”<sup>1</sup> The title pretty much said it all. To be clear, we do not detest gold. Rather, our long-standing guidance has been that gold should be a regular position in a diversified portfolio. Our beef is not with owning gold; but how much gold to own.

Many signs point to underweighting gold in portfolios today. In February’s gold publication, we highlighted two vital negative trends: 1) persistently poor price action, and 2) repeated performance losses to other major assets (stocks, bonds, and housing). Both trends, by the way, are characteristics of commodity bear super-cycles.

Poor price and performance trends, while important, only tell part of the underweight story. The value of gold is a major concern of ours too. Said simply—gold does not look particularly cheap. This may sound odd with prices down \$640 per ounce since 2011, but history argues for even cheaper relative prices in order for gold to begin a new bull market. As we will explain next, gold does not appear to be a great bargain vs. stocks, bonds, or housing. And gold is downright expensive compared to the average commodity, and especially other precious metals.

### The Historical Value of Gold

#### 1) Gold Is No Great Bargain vs. Stocks

The blue line in Chart 1 highlights the relationship between gold and the Dow Jones Industrial Average (DJIA), from 1968 to 2016. We use 1968 as the starting point as this was the year that the price of gold began to finally float freely; anticipating the U.S. exiting the gold standard in 1971. A rising blue line means that gold is outperforming stocks, while a falling blue line means the opposite.

It is the level of the blue line that interests us in our research today. It has been heading lower (gold losing ground to stocks), since 2011, but its current level has yet to approach the secular lows of 1971 or 2001—the jumping-off points for the last two gold bull markets. Our point being: past bull markets in gold were ignited by the price of gold being “washed out” vs. stocks—a condition that is not present in March 2016.

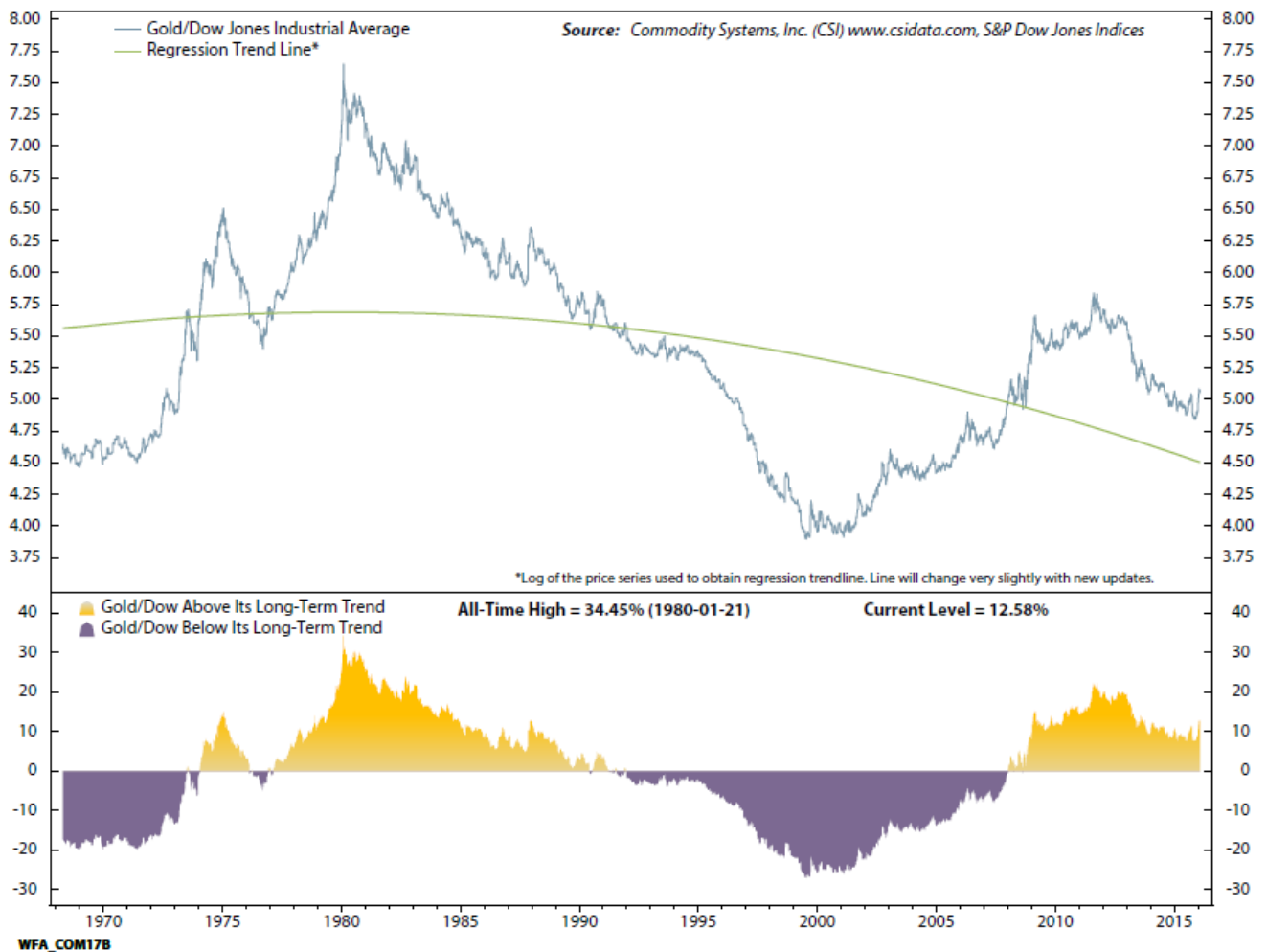
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<sup>1</sup> *Global Real Assets Strategy Report, “Not the Time to Buy More Gold,”* Wells Fargo Investment Institute, February 10, 2016.

The green line, which is called a regression-trend line, is also of interest in Chart 1. It plots the long-term historical relationship between gold and stocks (from 1968-2016). Think of it as a historical measuring stick. The fact that the historical green regression line is sitting below the current blue line reading signals to us that gold is no great bargain compared to stocks.

The bottom clip plots the percentage difference between the blue and green lines. Yellow bars indicate that gold is expensive vs. stocks, historically speaking, while the purple bars highlight that gold is relatively cheap.

**Chart 1. Gold vs. Dow Jones Industrial Average (Regression Trend Line)**



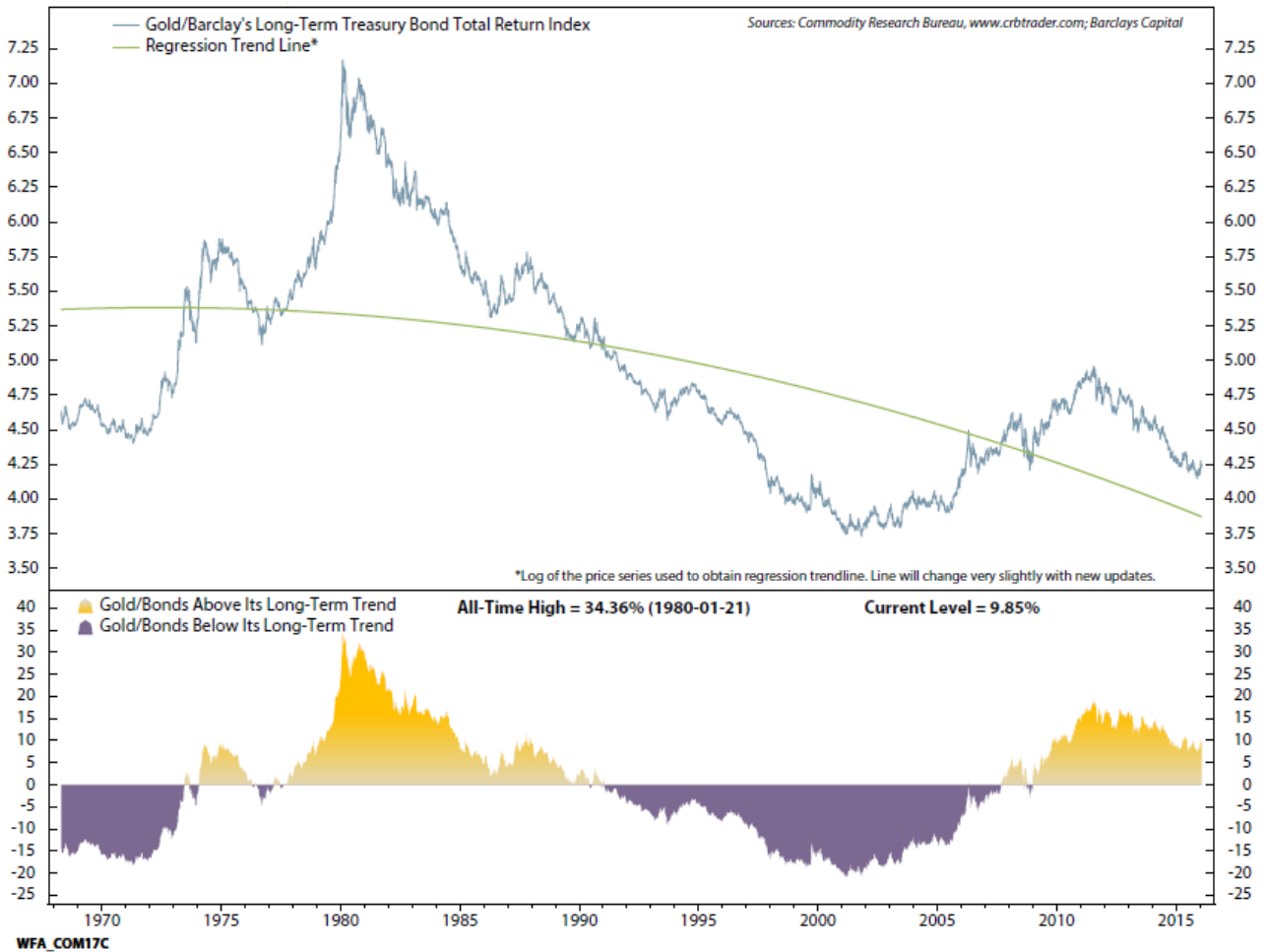
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Gold = NY Spot Price. Stocks = the Dow Jones Industrial Average (DJIA), a price-weighted average of 30 significant stocks traded on the New York Stock Exchange and the Nasdaq exchange. Regression Trend Line = a trend or long-term movement in the **time series** of data. It tells whether a particular data set (the gold-stocks ratio in this case) has increased or decreased over the period of time.

### Gold: A Mixed Bag vs. Bonds

Chart 2 highlights the relationship between gold and Treasury bonds, from 1968 to 2016. It is the same approach as Chart 1, so we won't repeat every fine detail. The value messages here are more mixed. The yellow bars in the bottom clip indicate that gold looks expensive vs. bonds. And the current blue line reading in the top clip is not as low as what we witnessed around 2001. However, today's reading is lower than the 1971 low. All combined, these historical angles suggest a mixed picture of gold's value vs. Treasury bonds.

**Chart 2. Gold vs. Bonds (Regression Trend Line)**



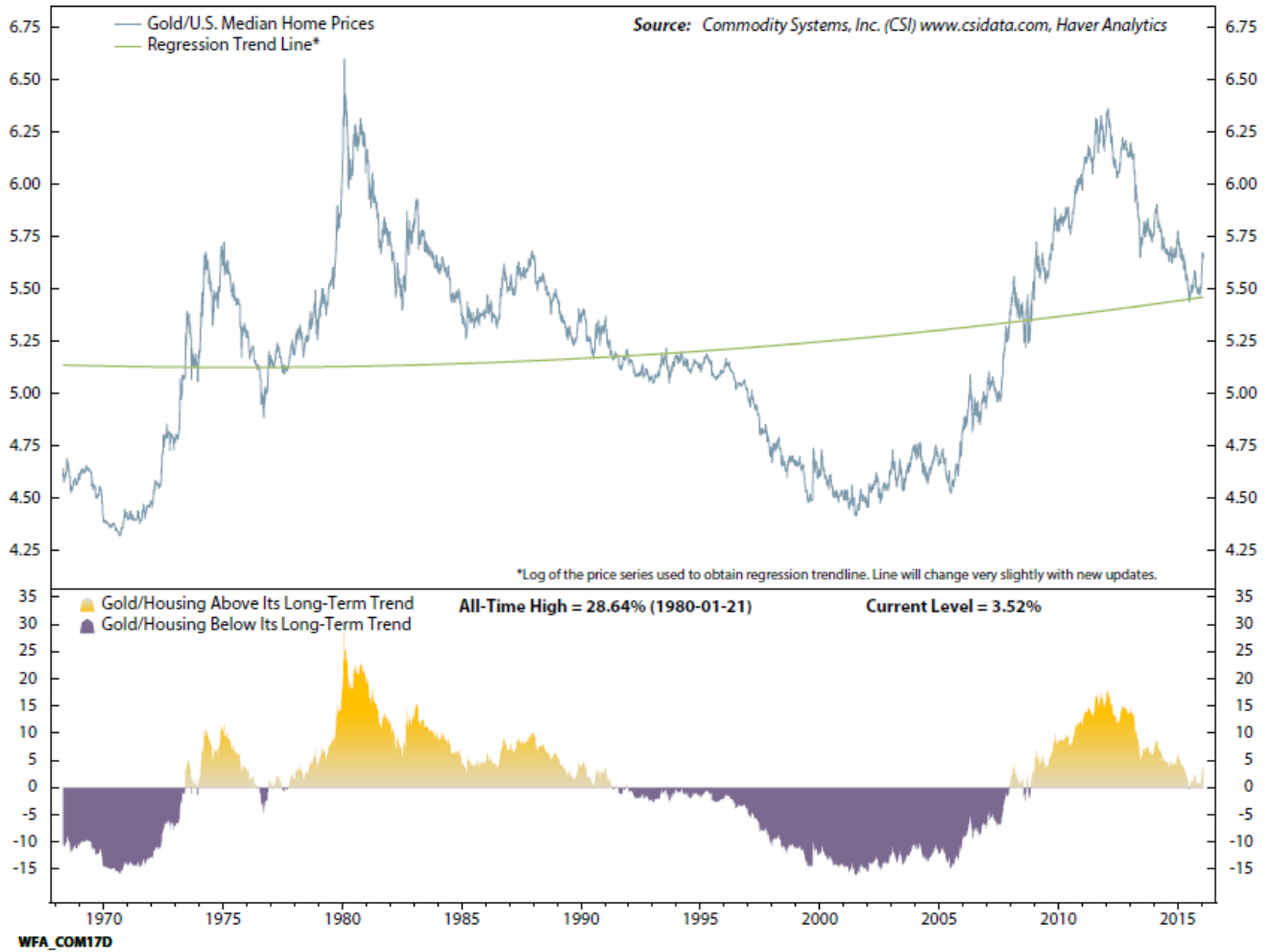
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Bonds = Barclays Capital Long-Term Treasury Bond Total Return Index. Please see disclosures for index definition.

2) Gold Is Not Cheap vs. Housing

Chart 3 shows gold’s value today vs. housing is pretty much where it has averaged historically. The blue line plots the relationship between gold and the median U.S. home price. Yet today’s reading is much higher than the washed-out levels visited around 1971 and 2001. Gold today may not be expensive compared to the median U.S. home price historically, but it isn’t washed-out cheap either.

Chart 3. Gold vs. Housing (Regression Trend Line)



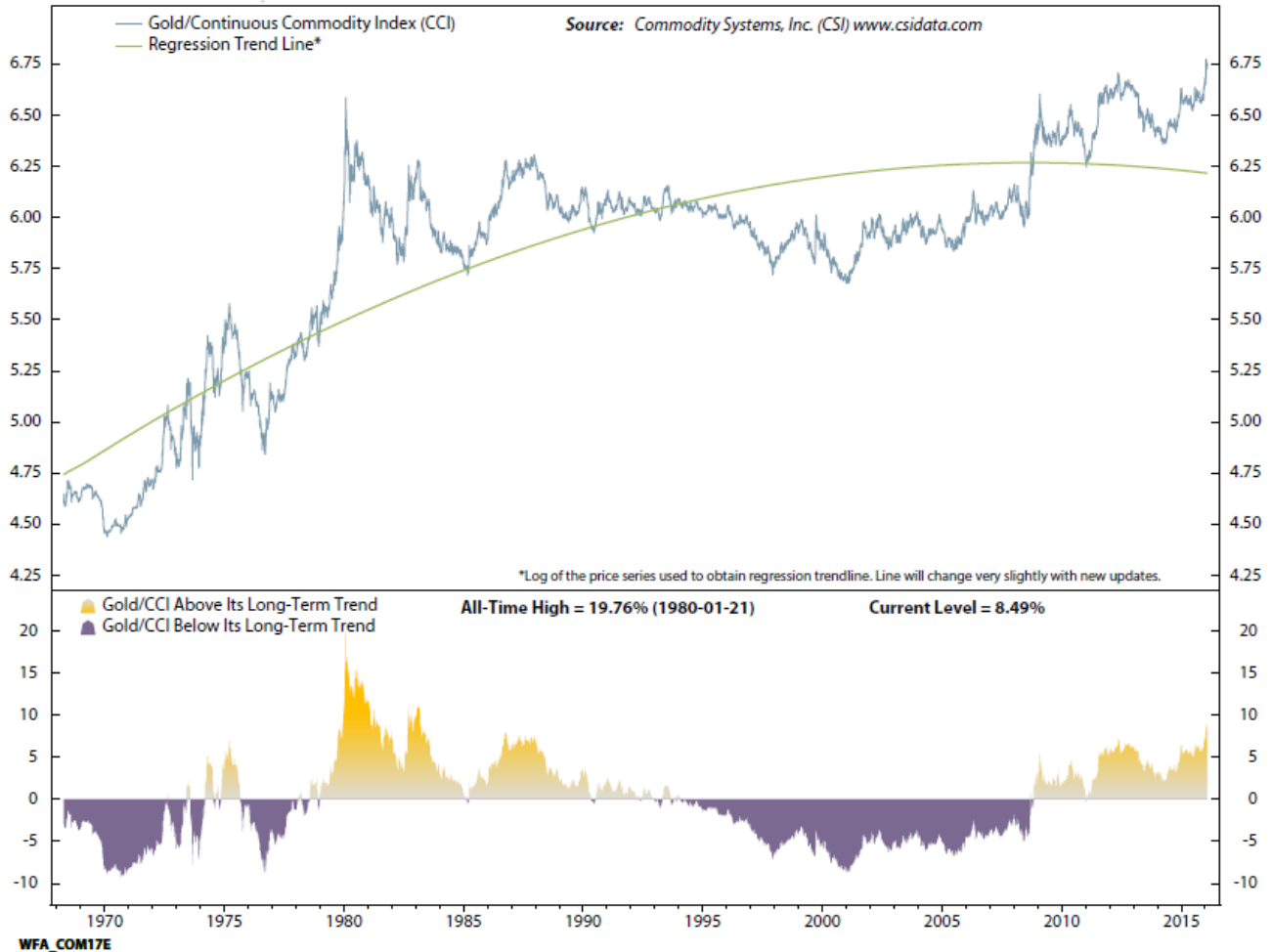
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Housing = U.S. median home price

### 3) Gold Is Expensive vs. the Average Commodity

Chart 4 highlights the relationship between gold and the average commodity, since 1968. No matter how we slice this one, gold looks quite expensive compared to the average commodity. In fact, gold today is more expensive than it has ever been in the past 48 years.

**Chart 4. Gold vs. Continuous Commodity Index (Regression Trend Line)**



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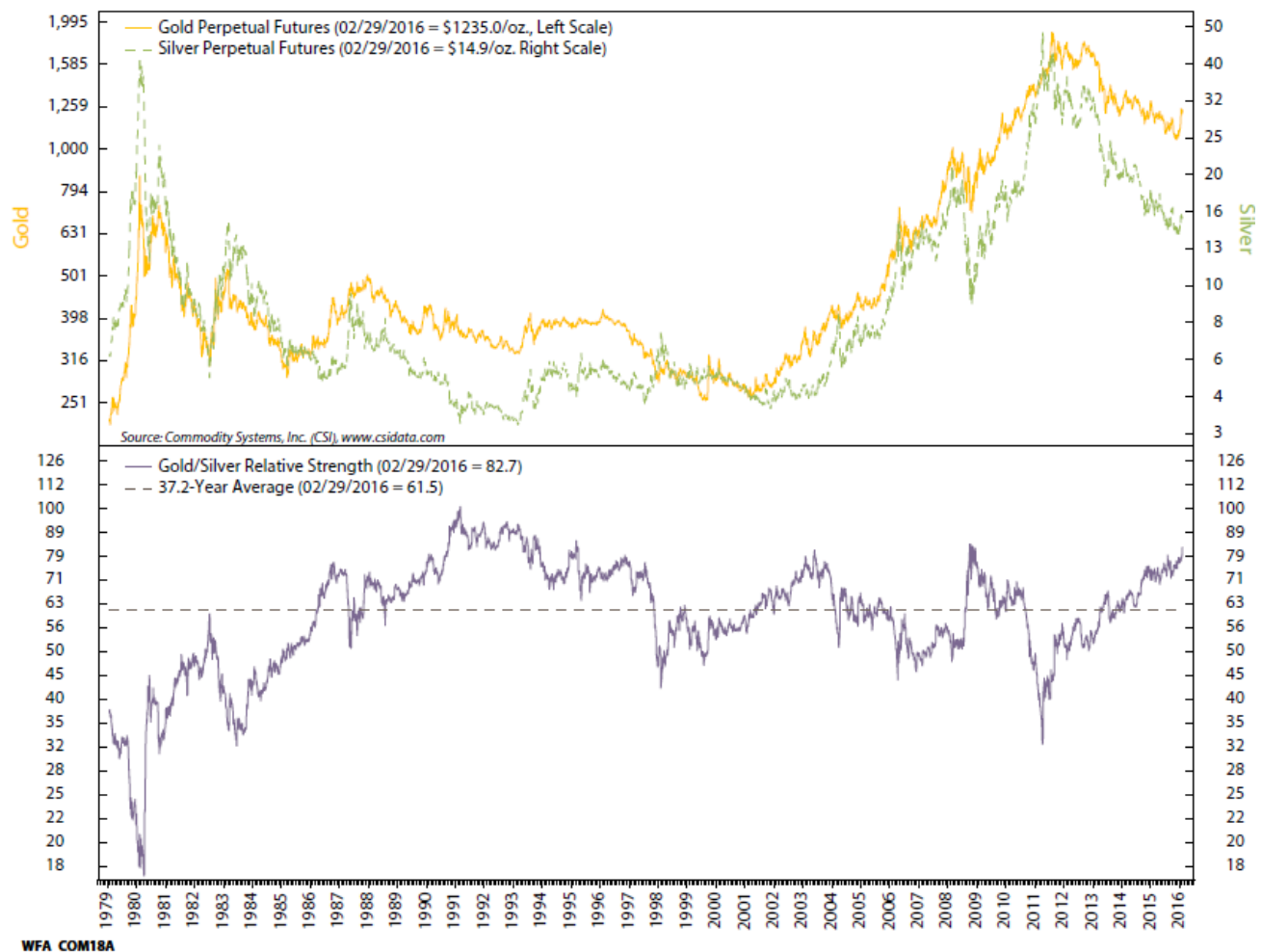
#### 4) Gold Is Expensive vs. Other Precious Metals

Digging even deeper into the commodity pile, we find that gold looks expensive vs. other precious metals too. Chart 5 plots the price of gold vs. silver, while Chart 6 plots the price of gold vs. platinum, from 1979 to today.

In the second clip of Chart 5, we can see that (as of 2/29/2016) an ounce of gold trades at 82 times the price of an ounce of silver. This is historically high compared to the 1979-2016 average of 61 times. Now, gold being much more expensive than silver has not historically signaled that gold should fall in price. What it does tell us, though, is that silver appears to be a better value than gold at today's prices. If one were to believe that a new bull market for precious metals is upon us (and we don't), silver looks to be a better value buy than gold.

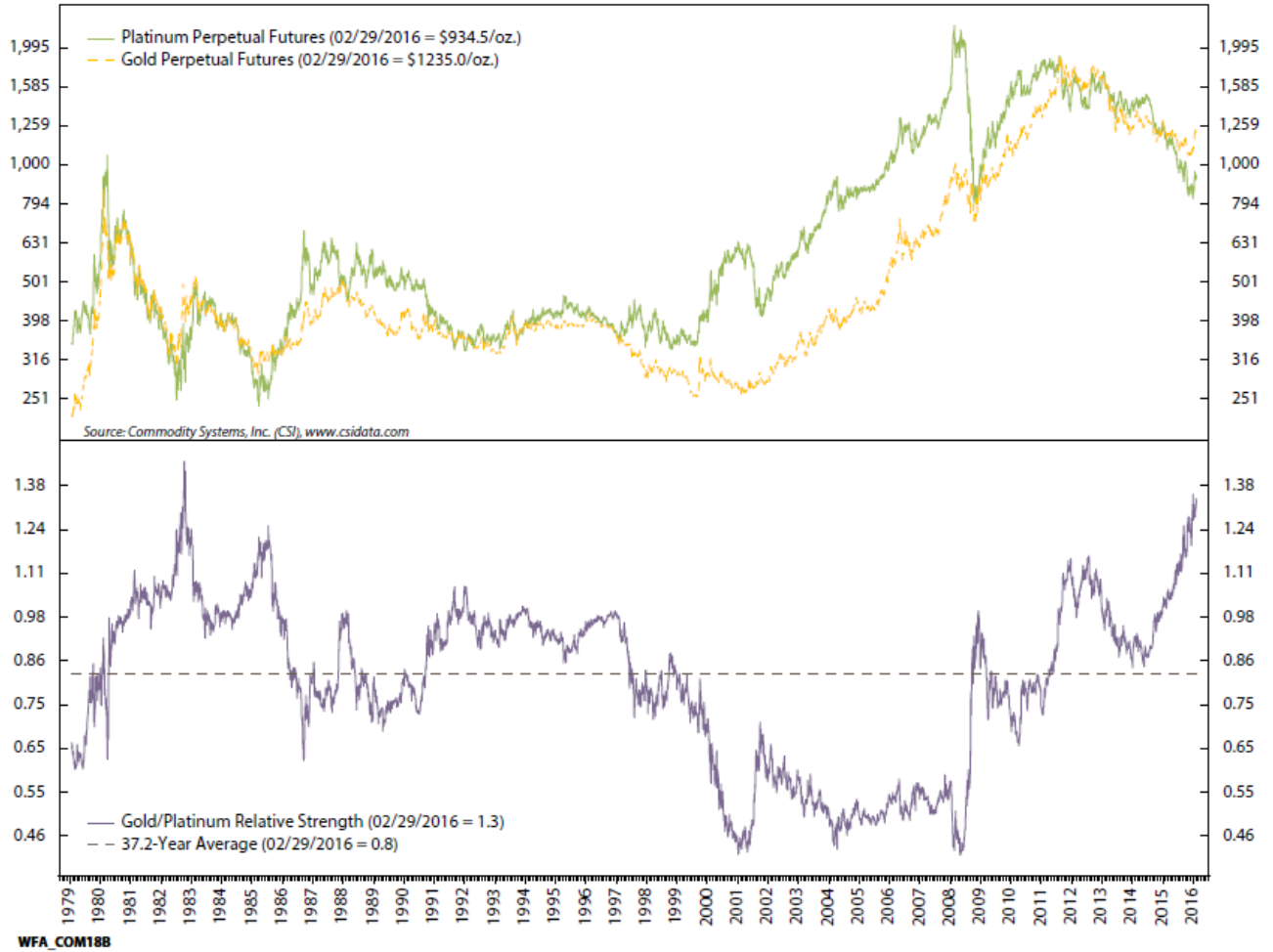
In Chart 6, platinum also appears to be a much better value than gold. In the second clip of Chart 6, we see today's gold-platinum ratio sitting at 1.3. This means that an ounce of gold trades at a 30 percent premium to an ounce of platinum, which is very near the all-time high set in 1983. The average of this ratio, since 1979, has been 0.8, which means that gold has averaged a 20 percent discount to platinum. As stated above, if one were to believe that a new bull market for precious metals is upon us (we don't), platinum is a much better value buy than gold.

**Chart 5. Gold vs. Silver**



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Chart 6. Gold vs. Platinum



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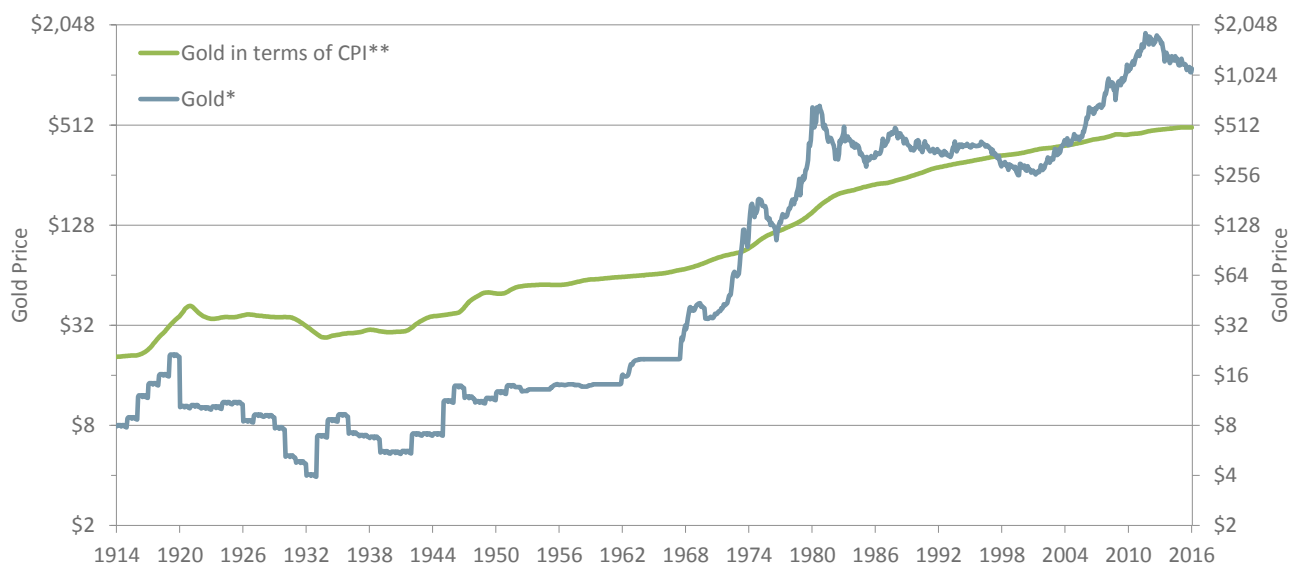
### 5) Gold Is Expensive vs. Inflation

Lastly, Chart 7 highlights a unique way of valuing gold—in inflation terms. It emphasizes that gold, at \$1250 per ounce today, is about twice the price it should be, based on inflation rates since 1914. Let us explain.

Chart 7 covers the period from 1914 to today. It combines the returns of gold (1968 to 2016) and silver (1914 to 1968) to give us a gold price line for the full 1914-2016 time period. As we discussed earlier, the price of gold was fixed prior to 1968. To help better understand how gold would have likely acted prior to 1968, we used silver returns in the chart as a proxy for gold returns from 1914 to 1968. Silver did float freely prior to 1968, and moved closely with the commodity super-cycles.

The green line is also the price of gold, but based on the rates of inflation back to 1914. The green line starts at \$20.67 per ounce, the fixed gold price in 1914. The price then appreciates based on changes in the Consumer Price Index (CPI). The green line shows us that gold is worth closer to \$500 per ounce today, based on inflation rates over the past 102 years. To be clear—this is but one value angle. We are not saying that gold is headed toward \$500 per ounce. This chart merely reminds us that gold is no great bargain when looked at through the lens of historical inflation rates.

**Chart 7. Gold vs. the Consumer Price Index (CPI)**



Source: Bloomberg, Kitco Metals, Wells Fargo Investment Institute. 2/26/2016. \*Gold prices based on annual returns of silver prior to 1/31/1950 and monthly returns of silver prior to 3/31/1968. \*\*CPI allocated to gold's fixed cost (\$20.67) on 1/31/1914. Note: Prices are shown in a logarithmic scale.

### **Risk Factors**

There is no assurance that any of the target prices or other forward-looking statements mentioned will be attained.

Investing in gold, silver or other precious metals involves special risk considerations such as severe price fluctuations and adverse economic and regulatory developments affecting the sector or industry.

Investing in commodities is not suitable for all investors. Exposure to the commodities markets may subject an investment to greater share price volatility than an investment in traditional equity or debt securities. The prices of various commodities may fluctuate based on numerous factors including changes in supply and demand relationships, weather and acts of nature, agricultural conditions, international trade conditions, fiscal monetary and exchange control programs, domestic and foreign



political and economic events and policies, and changes in interest rates or sectors affecting a particular industry or commodity. Products that invest in commodities may employ more complex strategies which may expose investors to additional risks, including futures roll yield risk.

Investing in foreign securities presents certain risks not associated with domestic investments, such as currency fluctuation, political and economic instability, and different accounting standards. This may result in greater share price volatility. These risks are heightened in emerging markets.

### ***Definitions and Explanations***

Log Scale Regression Charts: Regression Trend Line Charts (Charts 1-4): Charts 1-4 plot a rolling regression of a price series (blue line), called a rolling regression trend line. To create a rolling regression trend line, a regression of the price series (example: Gold/DJIA) is taken, and is considered the dependent variable. Time is the independent variable. A rolling regression is used vs. a log-based formula as a way of showing the compounding nature of the price series (example: Gold/DJIA). The green line is the log of the price series, used to produce the rolling regression trend line

A perpetual futures contract is the blending of all contracts within the next 91 days.

Barclays Long-Term Treasury Bond Index. The Barclays U.S. Aggregate Bond Index is made up of the Barclays U.S. Government/Corporate Bond Index, Mortgage-Backed Securities Index, and Asset-Backed Securities Index, including securities that are of investment grade quality or better, have at least one year to maturity, and have an outstanding par value of at least \$100 million.

Commodities = NDR Commodity Composite Index. It measures a basket of commodity prices as well as inflation. It blends the purchasing manager index (PPI) and the Reuters Continuous Commodity Index. The producer price index (PPI) measures the average changes in prices received by domestic producers for their output. The Reuters Continuous Commodity Index comprises 17 commodity futures that are continuously rebalanced: cocoa, coffee, copper, corn, cotton, crude oil, gold, heating oil, live cattle, live hogs, natural gas, orange juice, platinum, silver, soybeans, sugar no. 11, and wheat.

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