Investment Insights

Which Market Shocks Matter for Metals?

Summary

- Heightened equity volatility historically benefits gold and platinum, while equity drawdowns favor gold and silver.
- Positive oil shocks tend to boost all precious metals while platinum has had the least sensitivity to extreme price drops.
- Shifts in reserve currencies may drag on precious metals, but shocks from emerging market currencies may be limited.

Equity shocks

On June 23rd, the Chicago Board Options Exchange Volatility Index (VIX) closed at 9.75, hitting a 23 year low. This low volatility environment has raised concern among investors about a potential mean reversion leading to a spike in volatility. Given precious metals’ low correlation to equities historically, many support the view that they should serve as significant hedges against a spike in equity volatility. Based on the data, however, this may not be the proper way of gauging their relationship to equities, particularly during very short-term equity movements (see Exhibit 1).

Exhibit 1: Extreme VIX levels benefit gold and platinum

When evaluating the VIX Index, there have been 59 trading weeks since its inception in 1990 where it experienced elevated levels (weekly moves exceeding 2 standard deviations). These periods of elevated volatility on average have favored gold and platinum, with median weekly returns of 0.5% and 0.2% respectively and broadly even performance distributions. Silver’s track record to extreme VIX moves, on the other hand appears to be negatively skewed. Silver has also suffered significant pullbacks of 10% or more, albeit infrequently. This makes sense given silver’s high sensitivity to industrial demand as well as it historically higher volatility (27%) compared to gold (16%) and platinum (21%).

Exhibit 2: Equity drawdowns tend to favor gold and silver

The effectiveness of precious metals during equity swings becomes more clear when evaluating sustained sell offs in equity markets as opposed to individual trading weeks of extreme volatility.

When the S&P 500 suffered a peak to trough drawdown of 15% or more since 1987, precious metals helped limit the downside capture. Gold is the clear benefactor averaging a return of +7.2% and posting positive returns in 8 of the 10 events. Silver, on average, acted as source of downside protection better than platinum, while both outperformed the average S&P 500 return of negative 24.4% (see Exhibit 2).

Oil shocks

Over time, precious metals have exhibited a positive relationship to oil prices (see Exhibit 3). When evaluating shorter term periods, this relationship still holds, but with varying results depending on the specific metal and size of the oil price shock.

Exhibit 3: On average metals correlate positively with oil

Past performance is no guarantee of future results.
In evaluating weekly oil price swings, there have been 69 weeks since 1987 that exhibited at least 2 standard deviation move from the average move. As shown in Exhibit 4, gold tends to be the top performer for larger increases of oil prices of 10% or more followed by silver and then platinum. However, for more moderate positive oil shocks (+5%), silver outpaced gold and platinum.

**Exhibit 4: Platinum shines for largest oil shocks.**

Additionally for weekly oil returns of 5% or 10%, gold offers an asymmetrical capture to oil price moves. This means that gold’s upside movement for positive oil shocks is greater than its downside movement for negative oil shocks of a similar degree.

When the oil price drops rapidly, gold and platinum have provided a better hedge to oil price volatility than silver. Platinum, however, significantly outperforms both gold and silver during the largest weekly oil price drops on average. This may stem from the fact that a large part of platinum demand is tied to auto sales and with a fall of 15% or more in oil prices, this may boost market expectations of future auto sales spurred by a lower oil price environment.

**Currency shocks**

Another source of short term market shocks is driven by currency volatility. By evaluating long term correlations between precious metals and currencies, investors may gain some insight into how shocks to these currencies may impact each metal. Turning to major reserve currencies, the behavior of the precious metals complex is fairly uniform. The US Dollar, Swiss Franc, and Japanese Yen (which are often in demand during periods of flight to quality amid market turmoil) exhibit negative correlations. Conversely the Euro and British Pound tend to exhibit positive correlations to precious metals (see Exhibit 5).

**Exhibit 5: Shocks to reserve assets may impact metals.**

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Gold</th>
<th>Silver</th>
<th>Platinum</th>
<th>Palladium</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Dollar</td>
<td>(0.43)</td>
<td>(0.39)</td>
<td>(0.28)</td>
<td>(0.18)</td>
</tr>
<tr>
<td>Swiss Franc</td>
<td>(0.39)</td>
<td>(0.33)</td>
<td>(0.21)</td>
<td>(0.11)</td>
</tr>
<tr>
<td>Japanese Yen</td>
<td>(0.26)</td>
<td>(0.15)</td>
<td>(0.12)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Euro</td>
<td>0.40</td>
<td>0.35</td>
<td>0.25</td>
<td>0.16</td>
</tr>
<tr>
<td>British Pound</td>
<td>0.30</td>
<td>0.29</td>
<td>0.19</td>
<td>0.13</td>
</tr>
</tbody>
</table>

Source: Bloomberg, ETF Securities. Data from 11/5/93 to 6/16/17.

For emerging market (EM) currencies, the sensitivity is broadly negatively correlated but more limited compared to reserve currencies. Therefore shocks to these currencies may be more limited to metals prices. Free floating EM currencies that are highly levered to the precious metal markets (such as India for jewelry demand and South Africa for mine supply), however, appear to be exceptions with higher negative correlations (see Exhibit 6).

**Portfolio Strategy**

A key benefit from investing in precious metals lies within its distinct role as a core risk management tool. Precious metals wear many hats on the risk management front and thereby may serve as a dynamic and multi-faceted hedge against many forms of risk.

This role as a risk management tool may be useful particularly for long term investors seeking to continually hedge against a broad spectrum of both known and unknown risks.

Precious metals have historically shown low correlations with most asset classes, particularly equities. Over the past two decades, precious metals have carried lower correlations to both US and global equities than other alternative investments (see Exhibit 7).

**Exhibit 6: Metals are less sensitive to EM currency moves.**

<table>
<thead>
<tr>
<th>Correlation</th>
<th>Gold</th>
<th>Silver</th>
<th>Platinum</th>
<th>Palladium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazilian Real</td>
<td>(0.12)</td>
<td>(0.19)</td>
<td>(0.15)</td>
<td>(0.14)</td>
</tr>
<tr>
<td>Russian Ruble</td>
<td>(0.10)</td>
<td>(0.12)</td>
<td>(0.12)</td>
<td>(0.10)</td>
</tr>
<tr>
<td>Indian Rupee</td>
<td>(0.20)</td>
<td>(0.28)</td>
<td>(0.26)</td>
<td>(0.22)</td>
</tr>
<tr>
<td>Chinese Yuan</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.00)</td>
</tr>
<tr>
<td>S. African Rand</td>
<td>(0.28)</td>
<td>(0.32)</td>
<td>(0.22)</td>
<td>(0.19)</td>
</tr>
</tbody>
</table>

Source: Bloomberg, ETF Securities. Data from 11/5/93 to 6/16/17.

Precious metals may serve as robust hedges against risk, but the true benefit of a precious metal allocation emerges when they are added to a diversified portfolio allocation. By adding precious metals to a diversified stock-bond portfolio, the portfolio efficiency may increase – whereby the portfolio risk is lowered while the portfolio return remains the same or increases – compared to diversified portfolio without an allocation to precious metals.
Important Risks
The statements and opinions expressed are those of the author and are as of the date of this report. All information is historical and not indicative of future results and subject to change. Reader should not assume that an investment in any securities and/or precious metals mentioned was or would be profitable in the future. This information is not a recommendation to buy or sell. Past performance does not guarantee future results.

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Commodities generally are volatile and are not suitable for all investors. Trusts focusing on a single commodity generally experience greater volatility. Please refer to the prospectus for complete information regarding all risks associated with the Trusts. Shares in the Trusts are not FDIC insured and may lose value and have no bank guarantee.

The value of the Shares relates directly to the value of the precious metal held by the Trust and fluctuations in the price could materially adversely affect investment in the Shares. Several factors may affect the price of precious metals, including:

- A change in economic conditions, such as a recession, can adversely affect the price of the precious metal held by the Trust. Some metals are used in a wide range of industrial applications, and an economic downturn could have a negative impact on its demand and, consequently, its price and the price of the Shares;
- Investors' expectations with respect to the rate of inflation;
- Currency exchange rates;
- Interest rates;
- Investment and trading activities of hedge funds and commodity funds; and
- Global or regional political, economic or financial events and situations. Should there be an increase in the level of hedge activity of the precious metal held by the trust or producing companies, it could cause a decline in world precious metal prices, adversely affecting the price of the Shares. Should there be an increase in the level of hedge activity of the precious metal held by the Trusts or producing companies, it could cause a decline in world precious metal prices, adversely affecting the price of the shares.

Also, should the speculative community take a negative view towards the precious metal held by the Trusts, it could cause a decline in prices, negatively impacting the price of the shares. There is a risk that part or all of the Trusts’ physical precious metal could be lost, damaged or stolen. Failure by the Custodian or Sub-Custodian to exercise due care in the safekeeping of the precious metal held by the Trusts could result in a loss to the Trusts.

The Trusts will not insure its precious metals and shareholders cannot be assured that the custodian will maintain adequate insurance or any insurance with respect to the precious metals held by the custodian on behalf of the Trust. Consequently, a loss may be suffered with respect to the Trust’s precious metal that is not covered by insurance.

Diversification does not eliminate the risk of experiencing investment losses.

Commodities generally are volatile and are not suitable for all investors.

Please refer to the prospectus for complete information regarding all risks associated with the Trust.

Investors buy and sell shares on a secondary market (i.e., not directly from Trusts). Only market makers or “authorized participants” may trade directly with the Trusts, typically in blocks of 50k to 100k shares.

The Chicago Board Options Exchange (CBOE) Volatility Index (VIX) shows the market’s expectation of 30-day volatility. ETFS Physical Precious Metals Basket Index which reflects the daily performance of an investment in a precious metals basket with the following fixed components and ratios: gold (0.030oz), silver (1.100oz), platinum (0.004oz) and palladium (0.006oz). The Bloomberg Commodity Index is a broadly diversified commodity price index distributed by Bloomberg Indexes. The MSCI World Index is a free, float weighted equity index developed to track developed world markets, and does not include emerging markets. The S&P 500 Index is a capitalization-weighted index of 500 stocks designed to represent the performance of the U.S. economy. The HFRI Fund Weighted Composite Index is a global, equal-weighted index of over 2,000 single-manager funds in the Hedge Fund Research Database. The FTSE NAREIT All Equity REITS Total Return Index is a market capitalization weighted index that includes all tax qualified REITs in the US. The LPX50 is designed and calculated by LPX Group, and contains the largest private equity companies listed on global stock exchanges. Correlation is a measure of fluctuation between two variables. Standard deviation is a measure of the dispersion of a set of data from its mean. The Swiss Franc is the official currency of Switzerland, Japanese Yen is the official currency of Japan, Euro is the official currency of the European Union, British Pound is the official currency of Great Britain, Brazilian Real is the official currency of Brazil, Russian Ruble is the official currency of Russia, Indian Rupee is the official currency of India, Chinese Yuan is the official currency of China, South African Rand is the official currency of South Africa.

Commodities generally are volatile and are not suitable for all investors. This material must be accompanied or preceded by the prospectus. Carefully consider each Trust’s investment objectives, risk factors, and fees and expenses before investing. Please click here to view the prospectus.

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