Diversification Benefits of Real Assets

Introduction

September 5, 2012
For Financial Professionals/Not for Public Distribution
What makes COMMODITIES an asset class?

Commodities offer an inherent or natural return that is not conditional on skill. Coupled with the fact that commodities are the basic ingredients that build society, commodities are a unique asset class and should be treated as such.

1. Greer (1997) PIMCO
2. (Ibbotson [2006], Anson [2002], Waring and Siegel [2003,2005] and Dopfel [2005])
In a Barclays Capital commodity investing survey of over 100 institutional investors….

“For more than 70% of the survey the appropriate long-term average weighting for commodities in a portfolio is over 6%, a long way above current norms.”

Source: Barclays Capital, Commodities Research, Commodity Cross Currents Commodity investing to rebound, February 2012
What are the historical benefits that has driven investments in commodities as an asset class?

- **Diversification**
  - Low correlations to stocks (0.17) and bonds (-0.02)
  - Low correlations between commodity sectors has reduced volatility of the S&P GSCI to 2/3 of oil alone.

- **Inflation Protection**
  - Positive correlation to inflation
  - One dollar of commodity index investment may hedge more than one dollar of inflation

- **Potential equity-like risk and return**
  - Equities = 7.28% return, 15.27% risk
  - Commodities = 7.35% return, 19.27% risk

Source: PIMCO

Commodities have provided diversification from equities and from nominal bonds.

In only 4 years from 1970 through 2011 did both the S&P 500® and the S&P GSCI drop in value.

<table>
<thead>
<tr>
<th>Correlations on Monthly Returns from 1/76-12/11</th>
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<tbody>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>S&amp;P 500</td>
</tr>
<tr>
<td>BarCap US Agg</td>
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<tr>
<td>S&amp;P GSCI</td>
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</tbody>
</table>

Commodities have provided diversification during historical crises

- Commodities provided diversification during a political crisis
  - Persian Gulf War
- Commodities provided diversification during a financial crisis
  - Black Monday

Sample for illustrative purposes only.
SOURCE: PIMCO, Goldman Sachs, Bloomberg Financial Markets
This pattern has led to increased portfolio efficiency and capital preservation.

<table>
<thead>
<tr>
<th>Historical Performance for Hypothetical Portfolios from 1/02-12/11</th>
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<tbody>
<tr>
<td>Portfolio</td>
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Commodities have provided protection from inflation

S&P GSCI yoy% and CPI yoy Index have 0.68 correlation since 1991 and 0.75 correlation in the past 10 years

Commodity index investments may provide a levered response to inflation

One dollar of commodities may hedge more than one dollar of the portfolio from inflation

**INFLATION BETA**

<table>
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<tr>
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<th>SPGSCI</th>
<th>DJUBSCI</th>
<th>G&amp;R*</th>
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<tbody>
<tr>
<td>1960–2007</td>
<td></td>
<td></td>
<td>1.6 (0.08)</td>
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<tr>
<td>1971–2007</td>
<td>1.1 (0.02)</td>
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<td>1.5 (0.06)</td>
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<tr>
<td>1971–2009</td>
<td>2.8 (0.11)</td>
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<tr>
<td>1987–2007</td>
<td>8.7 (0.18)</td>
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<td>4.1 (0.14)</td>
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<td>1987–2009</td>
<td>13.7 (0.50)</td>
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<tr>
<td>1992–2007</td>
<td>11.7 (0.13)</td>
<td>7.6 (0.14)</td>
<td>7.5 (0.23)</td>
</tr>
<tr>
<td>1992–2009</td>
<td>17.0 (0.50)</td>
<td>10.8 (0.46)</td>
<td></td>
</tr>
</tbody>
</table>

**SOURCE:** PIMCO, Bloomberg, "Facts and Fantasies about Commodities Futures": Gary Gorton and Geert Rouwenhorst (rolling 12-month calculations)

Bolded numbers above (representing inflation beta) are measured by CPI-U and numbers in parentheses are r-squared.

R-squared signifies the percentage that inflation explains of the variability in commodity index returns.

Inflation beta can be interpreted as: (using DJUBSCI 1992-2009 as an example) A 1% increase in inflation results in 10.8% increase in return of the DJUBSCI during the period from 1992–2009.


“G&R” refers to Gorton and Rouwenhorst, who constructed an equally-weighted collateralized futures index with data through 2007.

Hypothetical example for illustrative purposes only.
Virtually everyone is short commodities so to investing through indices may provide protection

- There is a simple reason everyone might want to invest in commodity indices to capture the asset class return…

- If you buy products like gas, food, and clothing, then you are a consumer.

- Remember consumers are “short” commodities so owning them through an index may at minimum protect against price spikes and hence provide insurance.
For more information on commodities please visit:
http://www.spindices.com/index-family/commodities/sp-gsci

Watch Bob Greer from PIMCO and Boris Shrayer from Morgan Stanley in Index Matters – Commodities:
http://www.youtube.com/playlist?list=PL5D05FC40DB163606

Thank You
Contact Us

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