The Outlook For Gold & Silver

...And How To Play Them With ETFs

Live Webinar
April 14, 2011  2-3 p.m. EDT
Today’s Webinar: Alpha/Beta

Jim Lowell
President
Lowell Investment Research

Matt Hougan
President, ETF Analytics
Global Head of Editorial
IndexUniverse

Jason Toussaint
Managing Director
World Gold Council

• How To Evaluate Silver & Gold
• How To Evaluate Silver & Gold ETFs
The Outlook For Gold & Silver

... And How To Play Them With ETFs

Jim Lowell
President
Lowell Investment Research
Silver vs. Gold

Silver vs. Gold over time graph.
<table>
<thead>
<tr>
<th>Date</th>
<th>Gold</th>
<th>Australian $</th>
<th>British Pound</th>
<th>Canadian $</th>
<th>Japanese Yen</th>
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</thead>
<tbody>
<tr>
<td>Feb-07</td>
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<tr>
<td>Aug-07</td>
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<tr>
<td>Feb-08</td>
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<tr>
<td>Aug-09</td>
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<tr>
<td>Feb-10</td>
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<tr>
<td>Aug-10</td>
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<tr>
<td>Feb-11</td>
<td></td>
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</tbody>
</table>
Gold vs. Dollar

US Dollar  Gold  S&P 500

Mar-07  Sep-07  Mar-08  Sep-08  Mar-09  Sep-09  Mar-10  Sep-10  Mar-11

Precise in a world that isn’t:
The Outlook For Gold & Silver

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Jason Toussaint
Managing Director
World Gold Council
Gold has low correlation relative to most assets...

Correlation of weekly returns between gold (US$/oz) and selected asset classes (US$); Jan '87-Jul '10*

- JPM 3-month T-bill Index
- JPM US Treasury Index
- BarCap Global Tsy Agg ex US
- BarCap US Credit
- BarCap US High Yield
- JPM EM sovereign debt
- MSCI US
- MSCI EAFE
- MSCI EM
- S&P GSCI
- Gold (US$/oz)

*Except for MSCI EM index (Dec'87-Jul'10) and JP Morgan EM sovereign debt index (Dec'90-Jul'10) due to data availability.

Source: LBMA, Barclays Capital, JP Morgan, Bloomberg, WGC
...and it is negatively correlated in tail risk events

Weekly-return correlation between equities, gold and commodities when equities move by more than 2 standard deviations; Jan '87-Jul '10

- S&P 500 return more than +2s
- S&P 500 return less than -2s

Correlation between S&P 500 and gold (US$/oz)
Correlation between S&P 500 and S&P GSCI

Source: LBMA, Bloomberg, WGC
Gold tends to outperform in high-inflation years...

Asset class performance during high inflation years (US CPI YoY > 5%)

- Average return over all periods:
  - S&P 500: -0.5%
  - MSCI World: -0.5%
  - GSCI: +8.7%
  - Ibbotson B1: +1.5%
  - Gold: +31.1%

Source: Bloomberg, MSCI, Ibbotson, LBMA, WGC
…and provides protection against the US dollar.

Gold versus US trade-weighted dollar index

Source: Bloomberg, WGC
China and India play an important role in global demand

Jewellery and investment demand in China and India*

Source: Source: GFMS, WGC
* Includes jewellery and total bar and coin demand only (excludes ETFs & similar and technology)
** Global demand includes demand for jewellery, bars, coins, ETFs & similar, and technology
Mine production has been fairly constant...

Global mine production in tonnes and the gold price (US$/oz)

Source: GFMS
...while costs continue to go up...

Total cost of replacing and producing an ounce of gold 2000-2009

- Production costs (GFMS)
- Reserve replacement costs (MEG)
- Estimate (5-year avg)

Source: GFMS, Metals Economics Group, WGC
Note: Production costs include cash and depreciation/amortization costs; reserve replacements costs relate to exploration spending
...and there are fewer new discoveries

Gold in major discoveries and gold exploration budget by year

- Resources in major new discoveries, 3-year average (tonnes, lhs)
- Gold exploration budget (US$ mn, rhs)

Source: Metals Economics Group
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Matt Hougan
President, ETF Analytics
Global Head of Editorial
IndexUniverse
The Three Commodities

- Spot (You can’t get it most of the time)
- Futures (It isn’t spot)
- Equities (It’s neither of the above)
Precious Metals: The Exception

- Spot (You can buy this easily)
- Futures (Isn’t as bad as it is for oil)
- Equities (Directly connected to Spot)
Bullion

- $25 Billion gold bullion traded/day
- $130 Billion annual gold supply
- $4 Billion silver bullion traded/day
- $30 Billion annual silver supply
Bullion: Considerations

Expensive:
- .20 – 2% commissions
- Fabrication Costs:
  - $1,454 Spot = $1,512 coins
  - Storage: 12 – 50 bps / year
  - Spreads: 50-100 bps

Alternatives:
- Pooled gold (Kitco, etc.)
- ETFs
Futures

- $75 Billion of notional Gold outstanding
- $30 Billion traded per day
- $28 Billion of notional Silver outstanding
- $15 Billion traded per day
Futures: Pros & Cons

Contango and Backwardation

• Gold: .20% Annualized Roll Cost
• Silver: .37% Annualized Roll Cost

Leverage

Size & Complexity
Equities

Majors (GDM Index)
- $300 Billion of market cap
- P/E of 25-30
- Largely available as ADRs
- Under 1% yield

Juniors
- Generally “Wildcatters”
- Speculative
Miners: Considerations

- Buying the Cow, not the Milk
- Equity risk
- Hedged/Levered? Not any more.
- Response to real rallies muted
Miners: Mediocre Performers

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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<tbody>
<tr>
<td>GOLDS Comdy</td>
<td>128.9023</td>
<td>+.7145</td>
<td></td>
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<tr>
<td>GDM Index</td>
<td>61.9343</td>
<td>-.4188</td>
<td></td>
<td></td>
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<tr>
<td>SILV Comdy</td>
<td>214.1973</td>
<td>+4.0232</td>
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<tr>
<td>SOLGLOS1 Index</td>
<td>98.4919</td>
<td>+2.6634</td>
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Normalized As Of 01/01/2007
## The ETF Investment Matrix

<table>
<thead>
<tr>
<th>Bullion</th>
<th>Futures</th>
<th>Miners</th>
<th>Strategy</th>
<th>Leverage</th>
<th>Inverse</th>
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<tbody>
<tr>
<td>Gold</td>
<td>GLD</td>
<td>UBG</td>
<td>GDX</td>
<td>FSG</td>
<td>UGL (2X)</td>
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<tr>
<td></td>
<td>IAU</td>
<td>DGL</td>
<td>GDXJ</td>
<td>SPGH</td>
<td>DGP (2X)</td>
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<tr>
<td></td>
<td>SGOL</td>
<td></td>
<td>GLDX</td>
<td>TBAR</td>
<td>GLL (-2X)</td>
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<tr>
<td></td>
<td>AGOL</td>
<td></td>
<td>GGGG</td>
<td></td>
<td>DZZ (-2X)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PSAU</td>
<td></td>
<td>DGZ (-1X)</td>
</tr>
<tr>
<td>Silver</td>
<td>SLV</td>
<td>USV</td>
<td>SIL</td>
<td>---</td>
<td>ACQ (2X)</td>
</tr>
<tr>
<td></td>
<td>SIVR</td>
<td>DBS</td>
<td></td>
<td></td>
<td>ZSL (-2X)</td>
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</table>
## The ETF Investment Matrix

<table>
<thead>
<tr>
<th></th>
<th>Spot Gold</th>
<th>Gold Futures</th>
<th>Gold Miners</th>
<th>S&amp;P 500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spot Gold</td>
<td>1</td>
<td>.91</td>
<td>.81</td>
<td>.23</td>
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<tr>
<td>Gold Futures</td>
<td>.91</td>
<td>1</td>
<td>.73</td>
<td>.21</td>
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<tr>
<td>Gold Miners</td>
<td>.81</td>
<td>.73</td>
<td>1</td>
<td>.44</td>
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<tr>
<td>S&amp;P 500</td>
<td>.23</td>
<td>.21</td>
<td>.44</td>
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<table>
<thead>
<tr>
<th></th>
<th>Spot Silver</th>
<th>Silver Futures</th>
<th>Silver Miners</th>
<th>S&amp;P 500</th>
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<tbody>
<tr>
<td>Spot Silver</td>
<td>1</td>
<td>.88</td>
<td>.82</td>
<td>.39</td>
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<tr>
<td>Silver Futures</td>
<td>.88</td>
<td>1</td>
<td>.72</td>
<td>.33</td>
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<tr>
<td>Silver Miners</td>
<td>.82</td>
<td>.72</td>
<td>1</td>
<td>.59</td>
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<tr>
<td>S&amp;P 500</td>
<td>.39</td>
<td>.33</td>
<td>.59</td>
<td>1</td>
</tr>
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</table>

Daily Correlations, 12/31/08-04/12/11
## Core Data: Bullion vs. Futures vs. Miners

<table>
<thead>
<tr>
<th>Type</th>
<th>Physical Bullion</th>
<th>Futures</th>
<th>Equity</th>
<th>Physical Bullion</th>
<th>Futures</th>
<th>Equity</th>
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</thead>
<tbody>
<tr>
<td>Name</td>
<td>SPDR Gold</td>
<td>Powershares DB Gold</td>
<td>Market Vectors Gold Miners</td>
<td>iShares Silver</td>
<td>Powershares DB Silver</td>
<td>Global X Silver Miners</td>
</tr>
<tr>
<td>Ticker</td>
<td>GLD</td>
<td>DGL</td>
<td>GDX</td>
<td>SLV</td>
<td>DBS</td>
<td>SIL</td>
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<tr>
<td>Expense Ratio</td>
<td>0.40%</td>
<td>0.75%</td>
<td>0.53%</td>
<td>0.50%</td>
<td>0.75%</td>
<td>0.65%</td>
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<tr>
<td>AUM</td>
<td>$56,829m</td>
<td>$266m</td>
<td>$6,663m</td>
<td>$14,188m</td>
<td>$452m</td>
<td>$636m</td>
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<tr>
<td>ADV</td>
<td>$1,821m</td>
<td>$3m</td>
<td>$489m</td>
<td>$1,191m</td>
<td>$9m</td>
<td>$26m</td>
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<tr>
<td>Avg. Spread</td>
<td>0.01%</td>
<td>0.05%</td>
<td>0.02%</td>
<td>0.03%</td>
<td>0.11%</td>
<td>0.09%</td>
</tr>
<tr>
<td>1-mo</td>
<td>3.22%</td>
<td>2.19%</td>
<td>5.25%</td>
<td>17.90%</td>
<td>12.20%</td>
<td>8.81%</td>
</tr>
<tr>
<td>3-mo</td>
<td>5.40%</td>
<td>4.42%</td>
<td>8.70%</td>
<td>37.48%</td>
<td>37.02%</td>
<td>20.26%</td>
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<tr>
<td>YTD</td>
<td>3.23%</td>
<td>1.85%</td>
<td>-0.87%</td>
<td>31.14%</td>
<td>29.43%</td>
<td>7.79%</td>
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<tr>
<td>12-mo</td>
<td>26.43%</td>
<td>24.30%</td>
<td>28.52%</td>
<td>120.38%</td>
<td>117.93%</td>
<td>N/A</td>
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<tr>
<td>3-Yr</td>
<td>55.24%</td>
<td>49.48%</td>
<td>27.42%</td>
<td>120.79%</td>
<td>119.05%</td>
<td>N/A</td>
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<tr>
<td>5-Yr</td>
<td>140.98%</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Tax Rate LT/ST</td>
<td>28%/28%</td>
<td>23%/23%</td>
<td>15%/35%</td>
<td>28%/28%</td>
<td>23%/23%</td>
<td>15%/35%</td>
</tr>
<tr>
<td>Structure</td>
<td>Grantor Trust</td>
<td>Limited Partnership</td>
<td>Open Ended Fund</td>
<td>Grantor Trust</td>
<td>Limited Partnership</td>
<td>Open Ended Fund</td>
</tr>
</tbody>
</table>
Evaluating Gold & Silver ETFs

- Efficiency: Taxes and Expenses
- Tradability: Spreads and Premiums
- Fit: Understand your correlations
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President
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Thank You!

CFP & CIMA Non-ICMA Credits
Forms will follow in email in a few days for live webinar attendees.