Merk Currency Investiing:
Diversification and downside protection

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President & CIO
Merk Investments
Course of the Dollar?
2012 Currency Returns relative to the U.S. Dollar

Source: Merk Investments, Bloomberg
Currency returns relative to the U.S. Dollar for period 01/01/2012-12/31/2012  © 2013 Merk Investments, LLC

Europe Pulling Through

Eurozone Sovereign 10-Year Bond Yield Spreads Over German Benchmark

Source: Merk Investments, Bloomberg

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Draghi’s Burden
Yen Harakiri
Currencies may be a great place to deflect “mania” of policy makers.

**U.S.**
- Dovish Fed
- Dire fiscal outlook?
- Bond market risks

**Europe**
- Euro: “not printing”
- Nordic currents
- UK nominal GDP targeting?

**Asia**
- Yen doomed?
- China growth
- Benefits for Thailand, Singapore, Malaysia, Taiwan?

**Commodity Currencies**
- Loonie’s new leader
- Cautiously optimistic on Kiwi
- No to Brazil

Dollar at Risk?

Euro Rock Star 2013?

China yes! Japan no!

Go Canada!
Happy with the recent run in equities, but concerned about the downside risk? Currencies may help...

- Low correlation to traditional asset classes
- Low volatility: downside resilience
- Well suited for active management

Currencies: Return Diversifiers
Approaches to Currency Investing

**Directional**
- Basket of Currencies
- Managed Basket of Currencies

**Non-Directional**
- Long / Short
- Absolute Return

*Inverse U.S. Dollar (Inv. DXY) Index:* a measure of the inverse value of the United States dollar relative to a basket of foreign currencies including EUR, JPY, GBP, CAD, CHF and SEK.

*Deutsche Bank Currency Returns (DBCR) Index:* an equal-weighted blend of the most widely used investment strategies among active currency managers. It captures long term systematic returns available in the world currency markets.
Downside Resilience

Performance in Recent Market Downturns

Currencies Non-Directional
-0.71%  -2.48%  -4.36%

Currencies Directional
-11.61%  -3.85%  -7.04%

US Equities
-15.27%  -17.63%  -55.25%

International Equities
-16.04%  -23.67%  -60.99%

Crisis: October 9, 2007 – March 9, 2009
Flash: April 26, 2010 – July 5, 2010

Past performance is not indicative of future results.

Source: Bloomberg, Merk Investments

Currency Non-Directional: DBCRUSI Index. Currency Directional: Inverse of DXY Index.
Currencies’ low correlation to traditional asset classes may provide portfolio diversification benefits.

<table>
<thead>
<tr>
<th>Core Indices</th>
<th>Alternatives</th>
<th>Currencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large Cap</td>
<td>1.00</td>
<td>0.28</td>
</tr>
<tr>
<td>Small Cap</td>
<td></td>
<td>0.25</td>
</tr>
<tr>
<td>Int’l Equity</td>
<td>0.51</td>
<td>0.56</td>
</tr>
<tr>
<td>EM Equity</td>
<td>0.50</td>
<td>0.38</td>
</tr>
<tr>
<td>US Bonds</td>
<td>-0.34</td>
<td>0.61</td>
</tr>
<tr>
<td>TIPS</td>
<td>-0.04</td>
<td>0.19</td>
</tr>
<tr>
<td>Commodities</td>
<td>0.37</td>
<td>0.38</td>
</tr>
<tr>
<td>Real Estate</td>
<td>0.82</td>
<td>0.35</td>
</tr>
<tr>
<td>Hedge Funds</td>
<td>0.55</td>
<td>0.35</td>
</tr>
<tr>
<td>I.DXY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBCR</td>
<td></td>
<td></td>
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</tbody>
</table>


The following indices are used as proxies for the respective asset classes:

- **Large Cap Domestic Equity**: S&P500
- **Small Cap Domestic Equity**: Russell 2000
- **International Developed Equity (Int Equity)**: MSCI EAFE
- **EM Equity**: MSCI Emerging Markets
- **US Bonds**: JPM US Bonds
- **TIPS**: Barclays US Treasury TIPS
- **EM Bonds**: JPM EM Bond Index EMBi Global
- **Commodities**: DJ Liquid Commodity
- **Real Estate**: FTSE/NAREIT US All REIT
- **Hedge Funds**: HFRX Global Hedge Fund
- **G10 Currencies**: Inverse DXY US Dollar
- **Inverse DXY**: Inverse DXY US Dollar
- **DBCR**: Deutsche Bank Currency Returns Index

**SOURCE**: Merk Investments, Bloomberg, Hedge Fund Research (HFR)
Currencies’ low historic volatility may mitigate downside risks and improve risk-return ratio.

The following are used as proxy for the asset classes:
- Equities: Chicago Board Options Exchange Market Volatility (VIX) Index measures the market expectations of near-term volatility of S&P 500 index options.
- Currencies: Deutsche Bank Currency Volatility (CVIX) Index measures the currency volatility; weighted average of the implied volatility across 9 major pairs of currencies.
- Fixed Income: USD Swaption 5 Year Fixed/Floating Volatility Index (USSV055).

Source: Merk Investments, Bloomberg.
The following indices are used as proxies for the respective asset classes:

- **Real Estate**: FTSE/NAREIT US All REIT, spans the commercial real estate space across the US economy.
- **Currencies**: Deutsche Bank Currency Returns (DBCR) Index, an equal-weighted blend of the most widely used investment strategies.
- **Commodities**: DJ Liquid Commodity Index, serves as a liquid and diversified benchmark for the commodities' asset class.
- **TIPS**: Barclays US Treasury TIPS, measures the performance of the US Treasury Inflation Protected Securities ("TIPS") market.

**Correlation**: 5 year correlation to S&P 500

**Volatility**: 5 year standard deviation of returns

*SOURCE: Merk Investments, Bloomberg*
Who is Merk?

Global Economic Expertise

Original Research

Primary source of info for media & investment pros

Prudent quantitative modeling

Insight into major central banks

Regular speaker at conferences

Merk: largest mutual fund manager focused on currencies
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QUANTITATIVE
• Modeling
• Quant Portfolio Optimization

QUALITATIVE
• Financial Analysis
• Portfolio Analytics
• Macro-Economic Research
• Macro, Policy Analytics
We strive to invest with discipline while adapting to changing environments.
### Allocating to Currencies

#### Which Asset Category?

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term bond allocation</td>
<td>20%</td>
</tr>
<tr>
<td>Alternative investments allocation</td>
<td>50%</td>
</tr>
<tr>
<td>International cash</td>
<td>10%</td>
</tr>
<tr>
<td>Other</td>
<td>10%</td>
</tr>
</tbody>
</table>

#### How Much to Allocate?

<table>
<thead>
<tr>
<th>Allocation Range</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 3%</td>
<td>40%</td>
</tr>
<tr>
<td>4%-6%</td>
<td>30%</td>
</tr>
<tr>
<td>7%-9%</td>
<td>10%</td>
</tr>
<tr>
<td>10% or greater</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: Merk Investments RIA Survey 2011-2012. Survey of 82 RIAs and Intermediaries, ranging under $50 mm to over $4 bn in assets under management.
Currency Asset Class

DIVERSIFICATION
Generally low correlation to traditional asset classes, which may reduce downside risk.

ATTRACTIVE RISK/RETURN
May generate positive excess returns and lower portfolio’s standard deviation. May provide an inflation hedge to protect purchasing power.

DOWNSIDE RESILIENCE
Historic performance in market downturns has demonstrated considerable downside resilience.

LOW VOLATILITY
Historically lower levels of volatility in comparison to traditional asset classes.

LIQUIDITY
Largest, most liquid market.
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Merk Currency Investing: Diversification and downside protection

Axel Merk
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