

Identifying a More Responsive Inflation Hedge



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Part two of a three-part series on inflation hedging strategies

In part one of this series (published in the October 19, 2009, issue of *ING Investment Weekly*) we acknowledged that TIPS, commodities and real estate investments are widely employed as inflation hedges. However, our research found that these investments, while offering portfolios clear diversification benefits, are only loosely correlated with inflation. Their hedging attributes are muted due to the disproportionate impact on returns exerted by other risk factors independent of inflation. We concluded that investors needing to combat inflation on a short-term basis may be better served by synthetic inflation hedges benchmarked to LIBOR.

LIBOR (London Interbank Offered Rate) is the interest rate at which banks can borrow funds from one another on an unsecured basis. The British Bankers' Association derives this benchmark daily from an average of interbank deposit rates for large loans offered by the world's most creditworthy banks. A LIBOR benchmark is produced for 15 different maturities — ranging from overnight to 12 months — with each denominated in ten different currencies — U.S. dollar, British sterling, euro and Japanese yen being the most prominent.* In addition to loans, LIBOR is commonly used as a reference rate for a variety of financial instruments, including certain types of futures, options and swaps.

We compared a monthly series of trailing 12-month returns of three-month LIBOR rates to year-over-year headline inflation; i.e., the Consumer Price Index (CPI), a weighted average of the prices of a basket of consumer goods and services. Since interbank rates adjust quickly to reflect inflation expectations, we see a high and stable correlation with year-over-year inflation rates as reflected in LIBOR and CPI. Furthermore, this pattern is consistent across regions and monetary regimes; the graphs on this page illustrate the historical relationships between inflation and interbank lending rates in the U.S., eurozone and U.K.

* Though a euro-denominated LIBOR rate is available, EURIBOR (Euro Interbank Offered Rate, sponsored by the European Banking Federation and the Financial Markets Association) is more widely used. To simplify this discussion, we will refer only to LIBOR; however, the inflation hedging attributes of LIBOR also apply to EURIBOR.



Why LIBOR?

Strategies such as TIPS, commodities and real estate are touted as being responsive to changes in inflation rates; while this is true over long time periods, investors who desire near-term inflation protection may be disappointed. LIBOR, on the other hand, is highly responsive to inflation due to the interaction between interbank lending rates and monetary policy.

Most central banks, particularly in developed economies, use monetary policy as a tool to control inflation (among other things). Generally speaking, policymakers raise target rates to combat rising inflation and reduce rates to stoke economic growth. Regardless of whether central bank rates are the result of hawkish or dovish monetary policy, interbank rates will usually be higher than the rate of expected inflation and will correlate well with realized inflation. Further, given that monetary policymakers are unable to set nominal rates below zero even in a shrinking economy, LIBOR-based returns can be attractive in both inflationary and deflationary environments.

As indicated in the graphs, our research shows that interbank lending rates:

- typically outperform realized inflation
- have lower volatility than other inflation hedging instruments
- have high and stable correlations with realized inflation

Thus, interbank lending rates are a viable benchmark for an inflation hedging program. Given the characteristics cited above, we believe that using a highly liquid LIBOR index provides greater potential to meet or exceed CPI than does a strategy employing TIPS, commodities or real estate, especially over short-to-medium time horizons. Nevertheless, while LIBOR-based strategies may reliably produce a return in excess of inflation, this spread is most likely insufficient to satisfy the funding objectives of most investors. We will address a potential solution to this conundrum in our third and final piece on inflation hedging in an upcoming issue of *ING Investment Weekly*. ■

Weekly Commentary and Statistics

As of October 30, 2009

- An uncertain economy produced heightened volatility in the stock market this week, as investors grappled with whether the recent run in stock prices was excessively optimistic. U.S. markets surged on Thursday after GDP data indicated an end to the recession, but retreated Friday on declines in personal spending and consumer confidence. Meanwhile, European stocks posted their largest weekly drop since July, while the U.K. had its worst week since March. Asian markets were also down, despite a Friday rally on better-than-expected earnings and improving employment data out of Japan.
- The CBOE Volatility Index (VIX) surged more than 20% on Friday to reach its highest levels since July. For the week, the index was up nearly 40%, indicating markedly higher concern among traders.
- The most recent GDP data release suggested that the U.S. has emerged from its longest recession since World War II; official confirmation of the recovery awaits word from the National Bureau of Economic Research. GDP growth of 3.5% for the third quarter was slightly ahead of consensus. However, two of the major sources of growth in the quarter — consumption spending and housing — were at least partially supported by government programs. The removal of these stimuli ("Cash for Clunkers" has already expired) will likely dampen GDP growth going forward.
- Other economic releases last week continued to be mixed. Durable goods and capital goods orders increased in September,

| Global Market Returns (%) | One Week | | Year to Date | |
|---------------------------------------|----------|-------|--------------|-------|
| | Local | USD | Local | USD |
| Barclays Global Aggregate Bond Index | 1.84 | 0.05 | 2.08 | 8.35 |
| MSCI EAFE Index | -3.30 | -3.83 | 18.52 | 27.97 |
| MSCI United Kingdom Index | -3.74 | -2.90 | 18.41 | 35.75 |
| MSCI Europe ex-U.K. Index | -4.01 | -5.78 | 21.14 | 28.81 |
| MSCI Japan Index | -0.88 | 0.68 | 6.51 | 6.67 |
| MSCI AC Asia ex-Japan Index | -3.67 | -3.95 | 57.03 | 61.01 |
| MSCI Emerging Markets Index | -4.54 | -5.54 | 51.24 | 65.10 |
| JPM EMBI+ Emerging Markets Bond Index | NA | -0.67 | NA | 24.37 |
| NAREIT Global Real Estate Index | -1.88 | -3.83 | 18.41 | 25.06 |

| U.S. Broad Market Indexes | Close | Returns (%) | | |
|--|------------|-------------|--------------|----------|
| | 10/30/2009 | One Week | Year to Date | One Year |
| Dow Jones Industrial Average | 9712.73 | -2.60 | 10.67 | 5.80 |
| S&P 500 Index | 1036.19 | -4.00 | 17.05 | 11.49 |
| NASDAQ Composite Index | 2045.11 | -5.08 | 29.68 | 20.41 |
| Barclays Capital U.S. Aggregate Index | 1544.80 | 0.51 | 6.24 | 13.62 |
| Barclays Capital High Yield Bond Index | 1008.54 | -0.21 | 51.65 | 47.33 |

| S&P 500 Sectors | | | |
|------------------------|-------|-------|-------|
| Consumer Discretionary | -4.93 | 26.43 | 23.98 |
| Consumer Staples | -0.96 | 10.76 | 9.42 |
| Energy | -4.33 | 11.30 | 8.32 |
| Financials | -6.88 | 13.99 | -2.15 |
| Health Care | -2.29 | 7.28 | 8.19 |
| Industrials | -5.20 | 9.47 | 4.56 |
| Materials | -7.07 | 31.08 | 17.44 |
| Technology | -3.49 | 45.56 | 31.62 |
| Telecom | -0.07 | -2.25 | 3.92 |
| Utilities | -3.49 | 1.17 | 0.40 |

| U.S. Returns by Style | | | | | |
|-----------------------|--------------|------------------|--------------|--------------|--------------|
| One Week (%) | | Year to Date (%) | | One Year (%) | |
| Large Value | Large Growth | Large Value | Large Growth | Large Value | Large Growth |
| -4.7 | -3.8 | 11.3 | 25.4 | 6.9 | 19.0 |
| Mid Value | Mid Growth | Mid Value | Mid Growth | Mid Value | Mid Growth |
| -5.9 | -5.8 | 21.5 | 31.6 | 17.3 | 24.9 |
| Small Value | Small Growth | Small Value | Small Growth | Small Value | Small Growth |
| -6.1 | -6.5 | 8.6 | 20.2 | 6.8 | 16.2 |

Large Value: Russell 1000 Value
MidCap Value: Russell MidCap Value
Small Value: Russell 2000 Value

Large Growth: Russell 1000 Growth
MidCap Growth: Russell MidCap Growth
Small Growth: Russell 2000 Growth

Source: FactSet, Bloomberg

and there was a sharp spike in the Chicago purchasing managers index, though it was not echoed in the neighboring Milwaukee region. Consumption spending by U.S. households fell and household income remains weak, pressures that led to a renewed decline in consumer confidence.

- Despite all the talk about the dollar losing its standing as the global reserve currency, there seems to be no end to investor appetite for U.S. government debt. The Treasury sold a record \$123 billion in notes during the week in four auctions, each of which was heavily oversubscribed.

| Bond Rates (%) | As of | | | |
|--------------------------------------|------------|------------|------------|------------|
| | 10/30/2009 | 10/23/2009 | 12/31/2008 | 10/30/2008 |
| U.S. Federal Funds Target Rate | 0.25 | 0.25 | 0.25 | 1.00 |
| U.S. Two-Year Treasury Yield | 0.91 | 1.00 | 0.76 | 1.58 |
| U.S. Ten-Year Treasury Yield | 3.39 | 3.48 | 2.25 | 3.94 |
| U.S. Ten-Year Muni Yield | 3.17 | 3.18 | 3.91 | 4.43 |
| High Yield (Merrill U.S. Corporates) | 9.30 | 9.20 | 16.58 | 16.35 |
| Commodity Prices | | | | |
| Gold (USD/oz) | 1040.40 | 1056.40 | 884.30 | 738.50 |
| Crude Oil (USD/bbl) | 77.00 | 80.50 | 44.60 | 65.96 |
| Gasoline (USD/gal) | 1.96 | 2.05 | 1.06 | 1.45 |
| Copper (USD/lb) | 295.55 | 303.45 | 143.95 | 192.95 |
| Exchange Rates | | | | |
| \$ per € | 1.48 | 1.50 | 1.39 | 1.29 |
| \$ per £ | 1.65 | 1.63 | 1.44 | 1.63 |
| ¥ per \$ | 90.52 | 91.95 | 90.65 | 97.49 |

Source: FactSet, Bloomberg

Index Definitions

Barclays Capital Global Aggregate Bond Index measures a wide range of global government, government-related, corporate and securitized fixed-income investments, all with maturities greater than one year.

Barclays Capital High-Yield Bond Index tracks the performance of below investment grade U.S. dollar-denominated corporate bonds publicly issued in the U.S. domestic market.

Barclays Capital U.S. Aggregate Index is a bond market index composed of US securities in Treasury, Government-Related, Corporate, and Securitized sectors that are of investment-grade quality or better, have at least one year to maturity, and have an outstanding par value of at least \$250 million.

Dow Jones Industrial Average is a price-weighted average computed from the stock prices of 30 of the largest and most widely held public companies in the United States, adjusted to reflect stock splits and stock dividends.

FTSE EPRA/NAREIT Global Real Estate Index represents general performance trends of the equity securities of real estate companies involved in the ownership, disposition and development of income-producing properties worldwide.

JPMorgan Emerging Markets Bond Index Plus (EMBI+) tracks total returns for traded foreign currency denominated debt instruments in the emerging markets which meet minimum criteria for face value outstanding and market trading liquidity.

MSCI EAFE Index is a free float-adjusted market capitalization weighted index designed to measure developed markets' equity performance, excluding the US & Canada, for 21 countries.

MSCI Europe ex-U.K. Index is a free float-adjusted market capitalization weighted index designed to measure equity performance of the 15 developed European markets except the United Kingdom.

MSCI U.K. Index is a free float-adjusted market capitalization weighted index designed to measure equity performance of listed common stocks in the United Kingdom.

MSCI Asia ex-Japan Index is a free float-adjusted market capitalization weighted index designed to measure equity performance of the 15 developed Asian markets except Japan.

MSCI Japan Index is a free float-adjusted market capitalization weighted index designed to measure equity performance of listed common stocks in Japan.

MSCI Emerging Markets Index is a free float-adjusted market capitalization index that measures emerging market equity performance of 22 countries.

Municipal Bond Index is a bond index that includes investment-grade, tax-exempt fixed-rate bonds with long-term maturities (greater than two years) selected from issues larger than \$50 million.

NASDAQ Composite Index is a market capitalization weighted index of the performance of domestic and international common stocks listed on The Nasdaq Stock Market including over 2,800 securities.

Russell 1000 Growth Index measures the large-cap growth segment of the U.S. equity market including Russell 1000 companies with higher price-to-book ratios and forecasted growth.

Russell 1000 Value Index measures the large-cap value segment of the U.S. equity market including Russell 1000 companies with lower price-to-book ratios and lower expected growth.

Russell Midcap Growth Index measures the performance of the mid-cap growth segment of the U.S. equity market including Russell Midcap Index companies with higher price-to-book ratios and forecasted growth.

Russell Midcap Value Index measures the performance of the mid-cap value segment of the U.S. equity market including Russell Midcap Index companies with lower price-to-book ratios and forecasted growth.

Russell 2000 Growth Index measures the performance of small-cap growth stocks in the U.S. equity market including Russell 2000 companies with higher price-to-value ratios and forecasted growth.

Russell 2000 Value Index measures the performance of small-cap value stocks in the U.S. equity market including Russell 2000 companies with lower price-to-value ratios and forecasted growth.

S&P 500 Index is a widely regarded as the best single gauge of the U.S. equities market, including 500 leading companies in major industries of the U.S. economy.

S&P 500 Sectors are defined as the GICS (Global Industry Classification Standard) sectors which provide standardized industry definitions consisting of 10 sectors, 24 industry groups, and 68 industries.

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