Commodity ETFs That Know How to Navigate the Futures Market

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Most commodity-related exchange traded funds track a basket of futures securities. Consequently, investors should understand how the underlying futures markets work and the effects they will have on ETFs.

In a paper titled The Strategic and Tactical Value of Commodity Futures, Claude Erb and Campbell Harvey argue that returns on commodity futures can be broken down into four parts: the risk-free rate, the spot-price return, the roll yield and the diversification return, writes Morningstar strategist Samuel Lee.

The risk-free return has historically made up half of the returns from the widely monitored GSCI Commodity Index. Erb and Harvey point out that the risk-free rate is low, so fully collateralized futures investors won’t generate much cash returns.

The spot-price return is the return from selling a commodity for cash.

Over the past decade, commodity prices have been increasing, largely due to the ramp up in the Chinese economy. [Indexology: Low Chinese CPI: A Commodity Catalyst?]

The roll yield refers to the return generated from rolling a maturing contract for a later-dated contract. According to John Maynard Keynes’ theory of normal backwardation, producers are more likely to hedge their price risk than consumers, so they compensate speculators with a positive roll yield where later-dated futures contracts trade below the spot price.

However, what may be considered normal does not always occur. Between January 1983 to January 2012, the average roll yield for the 12 major GSCI commodity futures was negative. Specifically, the market was in contango, or the opposite state of backwardation, where later-dated contracts were more costly than the spot price.

Lastly, since many commodities have low correlation with one another and high volatility, many indices earned a positive diversification return through regular rebalancing.

“Expected long-only futures return = Risk-free rate + Spot-price return + Roll yield + Diversification return,” Lee said.

By optimizing futures exposure levels, an ETF can potentially generate excess profits. For instance, the PowerShares DB Commodity Index Tracking Fund (NYSEArca: DBC) and United States Commodity Index Fund (NYSEArca: USCI) eschew rolling front month contracts, which can lead to underperformance, especially in a contangoed market. Instead, DBC targets futures contracts that offer the highest implied roll yield while USCI rebalances each month and selects the most-backwardated contracts and then the seven highest-returning contracts.

“By intelligently adjusting their exposures, the ETFs stand a chance to eke out excess profits,” Lee added.
Additionally, Teucrum Trading LLC offers a suite of corn, natural gas, crude oil, soybeans, sugar and wheat ETFs that are designed to diminish the effects of contango and backwardation. The Teucrum ETFs track multiple futures contracts with varying maturities. However, the ETFs may not optimize contracts to maximize the benefits of backwardation.

Due to the way these futures-backed ETFs are structured, ETF investors must have to fill out the complex K-1 form. However, the recently launched PowerShares DB Optimum Yield Diversified Commodity Strategy Portfolio (NasdaqGM: PDBC) also tries to maximize potential roll yield returns but is structured as a 1940s Act Registered Investment Company, so investors would only have to fill out a form 1099. [An Active Commodity ETF That Optimizes Returns]

For more information on the commodities market, visit our commodity ETFs category.

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