Commodity ETFs and the Business Cycle

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Investor enthusiasm for non-gold commodity ETFs[1] continued to wane during the first quarter of 2014, as net outflows accelerated to $922 million, following $1.785 billion in net outflows for 2013.[2] This is unsurprising in light of the poor performance of many commodity indices and their related ETF over the past few years. However, investors may be selling out of commodity ETFs at (or near) a stage in the business cycle when the diversification benefits potentially provided by commodities ETFs may be most beneficial. In this blog entry, we'll discuss how the relationship between commodity futures and the business cycle may provide a compelling reason for investors to consider adding commodity ETFs to a diversified portfolio of stocks and bonds.

In 2006, Gary Gorton and K. Geert Rouwenhorst published a study which compared the average returns of U.S. stocks, U.S. bonds, and a diversified portfolio of commodity futures during four different phases of the U.S. economic business cycle, based on the economic peaks and troughs identified by the National Bureau of Economic Research (NBER) from 1959-2004.[3] The four phases in the study were determined by bisecting each period of NBER-identified "expansion" and "recession". The data showed that both stocks and bonds tended to perform better during the first half of economic expansions than they did during the second half, while the opposite was true for commodity futures, which tended to outperform during the second half of expansions (Table 1). Moreover, while stocks and bonds tended to produce negative returns during the first half of recessions, followed by positive returns during the second half, commodity futures tended to produce positive returns during the first half of recessions, followed by negative returns during the second half. Based on these observations, the study suggested that the long term diversification benefits offered by a portfolio of commodity futures were partly due to differences in performance during different phases of the business cycle.

During the most recent NBER-identified full business cycle, which began in November 2001 and ended in June 2009, there were important similarities and differences compared to the longer-term averages published by Gorton and Rouwenhorst. The most obvious differences occurred during the early expansion phase, as returns for commodity futures far outpaced stocks and bonds, and during the late recession phase, as negative returns for commodity futures were more extreme than the longer-term average, even as returns for stocks were also negative (Table 2).

Perhaps the most significant similarity between returns from the recent business cycle and the longer-term averages was the positive return provided by commodity futures during the first half of the recession, while stock returns were negative. Additionally, commodity futures outperformed stocks and bonds during the second half of the expansion phase, although the outperformance relative to stocks was less pronounced.

[1] For the sake of clarity, this article uses the term "ETF" to refer to all exchange-traded products (1940 Act exchange-traded funds, exchange-traded notes, commodity exchange-traded securities, etc.).

[2] Morningstar Direct.

[3] Gorton, G. and K. Geert Rouwenhorst (2006). "Facts and Fantasies about Commodity Futures." *Financial Analysts Journal*, vol. 62, no. 2: 47-68.

Table 1

Average Returns by Stage of the Business Cycle, July 1959-December 2004

Cycle Type	Stocks	Bonds	Commodity Futures
Expansion	*13.3%*	*6.7%*	*11.8%*
Early	16.3%	10.0%	6.8%
Late	10.4%	3.6%	16.7%
Recession	*0.5%*	*12.6%*	*1.1%*
Early	-18.6%	-3.9%	3.7%
Late	19.7%	29.1%	-1.6%

Gorton, G. and K. Geert Rouwenhorst (2006). "Facts and Fantasies about Commodity Futures." Financial Analysts Journal, vol. 62, no. 2: 47-68. Past performance is no guarantee of future results.

Table 2

Returns by Stage of the Business Cycle, November 2001-June 2009

Cycle Type	Stocks	Bonds	Commodity Futures
Expansion (10/31/01-11/30/07)	*55.8%*	*33.8%*	*131.5%*
Early *(10/31/01-11/15/04)*	17.7%	16.7%	74.7%
Late *(11/15/04-11/30/07)*	32.4%	14.7%	32.5%
Recession (11/30/07-5/30/09)	*-35.6%*	*6.9%*	*-28.2%*
Early *(11/30/07-8/31/08)*	-12.0%	2.3%	8.8%
Late *(8/31/08-5/30/09)*	-26.8%	4.5%	-34.0%

Stocks are represented by the S&P 500 Index. Bonds are represented by the Barclays US Aggregate Corporate Bond Total Return Index. Commodity Futures are represented by the Dow Jones-UBS Commodity Total Return Index. Past performance is no guarantee of future results. An index cannot be purchased directly by investors.

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Of course, a major problem arises for those interested in applying a trading strategy to this information (which was recognized by the study's authors): NBER identifies the beginnings and ends of recessions and expansions several months after the fact. This makes it impossible for investors to know when the economy has reached an inflection point between expansion and recession, or when a midpoint of either has been reached.

Nevertheless, we can make a reasonable approximation about the phase(s) to which the U.S. economy may currently be closest. With the trough of the last NBER recession identified as June of 2009, and in light of relatively steady positive GDP growth over the past several quarters, we can reasonably assume that the U.S. economy is currently in a NBER expansion. If so, the current expansion is about 57 months old. According to NBER data, the average duration of the 11 expansions since 1945 (through the peak of the last expansion in December of 2007) was 58.4 months; the longest was 120 months (between March 1991 and March 2001). So, while it's not yet possible to identify the midpoint of the current NBER expansion, if it's anything like the previous eleven, there is a good chance the second half has already begun, or if it hasn't (and the next recession is more than 57 months away), the midpoint is likely drawing near.

If this inference proves correct, the U.S. economy may be in the midst of (or about to enter into) the two phases of the NBER business cycle during which commodity ETFs could provide the greatest benefit to a portfolio of stocks and bonds. The second half of NBER expansions produced the highest average returns for commodity futures, while the first half of NBER recessions produced positive average returns for commodity futures, during a stage in which average returns for stocks and bonds were both negative.

Broad commodity indices have started 2014 with attractive first quarter gains, and we believe there are compelling reasons, including portfolio diversification, inflation expectations, and past business cycle analyses, for investors to review, and perhaps increase, exposure to commodity ETFs within their asset allocation models.

You should consider a fund's investment objectives, risks, and charges and expenses carefully before investing. You can download a prospectus or summary prospectus by visiting www.ftportfolios.com, or contact First Trust Portfolios L.P. at 1-800-621-1675 to request a prospectus or summary prospectus which contains this and other information about a fund. The prospectus or summary prospectus should be read carefully before investing.

Investors buying or selling ETF shares on the secondary market may incur customary brokerage commissions. Market prices may differ to some degree from the net asset value of the shares. Investors who sell fund shares may receive less than the share's net asset value. Shares may be sold throughout the day on the exchange through any brokerage account. However, unlike mutual funds, shares may only be redeemed directly from the fund by authorized participants, in very large creation/redemption units. A fund's shares will change in value, and you could lose money by investing in a fund. One of the principal risks of investing in a fund is market risk. Market risk is the risk that a particular security owned by a fund, fund shares or the market in general may fall in value.

The trading prices of commodities futures fluctuate in response to a variety of factors which will cause a fund's net asset value and market price to fluctuate in response to these factors. As a result, an investor could lose money over short or long periods of time. In addition, the net asset value of a fund over short-term periods may be more volatile than other investment options because of a fund's significant use of financial instruments that have a leveraging effect. Futures instruments may be less liquid than other types of investments. The prices of futures instruments may fluctuate quickly and dramatically and may not correlate to price movements in other asset classes.

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