Seeking Alpha with Biotechnology ETFs

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2014 is shaping up to be another strong year for the biotechnology industry and associated exchange-traded funds (ETFs). After declining nearly 20% from February to April, the NYSE Arca Biotechnology Index rebounded to new highs during the month of August, boosting year-to-date returns to 34.6% (through 8/31/14). As in years past, the industry's news flow contained a number of important announcements that significantly impacted near-term returns for biotechnology stocks. While such stories have a tendency to frame investors' conceptions of biotechnology ETFs in terms of short-term, tactical trading opportunities, a compelling case can also be made for longer-term, strategic allocations to the biotechnology industry.

In many respects, biotechnology is unlike other industries. To a large extent, future earnings for these companies depend on innovation that pushes the boundaries of scientific understanding. On the one hand, tremendous resources can be expended on ventures that ultimately provide little or no payoff; on the other, scientific breakthroughs may create blockbuster revenue streams. Moreover, circumstances that are largely beyond the control of biotechnology companies, such as decisions made by regulators, can make or break a project.

Together, these factors make it exceedingly difficult to forecast the level and timing of future cash flows and earnings for many biotechnology companies. As a result, individual biotechnology stocks are often extremely sensitive to positive or negative announcements, related to topics such as trial results, regulator comments, and M&A activity, which can lead to high levels of volatility. Over the past decade, the standard deviation for the NYSE Arca Biotechnology Index was 58% higher than that of the S&P 500 Index (23.2% vs 14.7%).[1]

However, these idiosyncrasies have also resulted in a pattern of returns that is less aligned with broader equity markets. Over the past decade, the correlation coefficient between the NYSE Arca Biotechnology Index and the S&P 500 Index was 0.63.[2] Moreover, less than 40% of the NYSE Arca Biotechnology Index's returns could be explained by returns of the S&P 500 Index (through 8/31/2014).[3] Hence, although the total risk of biotechnology indices may be higher than that of broad equity indices, within a diversified portfolio, an allocation to biotechnology may serve to enhance portfolio diversification and potentially increase risk-adjusted returns.

Over the past ten year period ending 8/31/14, biotechnology allocations ranging between 5% and 15% (rebalanced quarterly) would have meaningfully enhanced returns, while only marginally increasing risk, compared to the S&P 500 Index (see allocations below). Allocations of 5%, 10%, or 15% to the NYSE Arca Biotechnology Index each produced a higher Sharpe Ratio than the S&P 500 Index.[4]

There are many objectives that may drive investors to make short-term, tactical allocations to biotechnology ETFs. However, we believe investors should not overlook the longer-term benefits that an allocation to the biotechnology industry may provide. In light of the unique, idiosyncratic factors that help drive biotechnology returns, biotechnology ETFs may be useful tools for enhancing diversification and potentially improving risk-adjusted returns.

[1] Morningstar Direct. "Standard deviation "is a measure of price variability (risk).
[2] Bloomberg. "Correlation coefficient" is a statistical measurement of the co-movement between the returns of two assets.
[3] Bloomberg.
[4] Morningstar Direct. "Sharpe Ratio" is a measure of excess returns (above a risk-free rate) per unit of risk.

10-Year Period Ending 8/31/14	S&P 500 Index	95% S&P 500/ 5% NYSE Arca Biotechnology Index	90% S&P 500/ 10% NYSE Arca Biotechnology Index	85% S&P 500/ 15% NYSE Arca Biotechnology Index
Average Annual Total Return	8.4%	9.0%	9.6%	10.3%
Standard Deviation	14.7%	14.7%	14.8%	14.9%
Sharpe Ratio	0.52	0.56	0.59	0.63

These examples are for illustrative purposes only and not indicative of any actual investment or fund. The performance excludes the effects of taxes and brokerage commissions or other expenses incurred when investing. An index cannot be purchased directly by investors. Past performance is no guarantee of future results. The S&P 500 Index is an unmanaged index of 500 stocks used to measure large-cap U.S. stock market performance. The NYSE Arca Biotechnology Index is an equal dollar weighted index designed to measure the performance of a cross section of companies in the biotechnology industry.