

CastleArk Risk Management: Identifying 'Source Risk'

Incorporating Economic Risk for optimal portfolio construction.

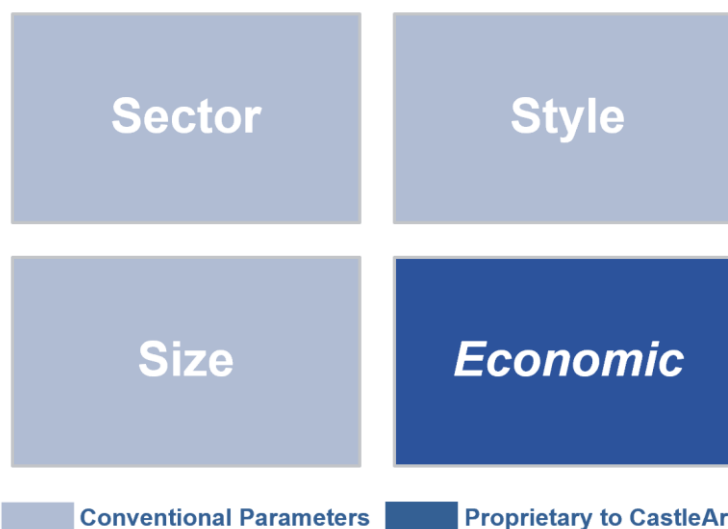
We believe that conventional methods for describing individual stock and portfolio risks offer only a partial view of the underlying forces that drive those risks. While attention to a company's size and sector exposure are critical to diversification, they can often be undermined by misclassification error. And while style factors, (momentum, value, leverage, etc.), measure volatility, they lack the acumen that fundamental investment processes require. We believe that a comprehensive approach to risk analysis requires an understanding of how risk is sourced.

In our view, risk is sourced from the economic forces that drive earnings and valuation. For this reason, the outlook for **economic growth** and **valuation** are as critical to the risk management process as the conventional measures for diversification and volatility. This is the purpose of our comprehensive economic risk measurement discipline.

Our proprietary model incorporates key economic indicators that have historically driven equity and bond market returns. Using real-time proxies enables us to sort stocks based on their sensitivity to economic factors such as cyclical growth, inflation, and yield curve among other trends. By directly measuring economic influences on return patterns, we can describe our economic risks and their impact on portfolio diversification and volatility. This gives us a true sense for the impact that the economy can have on forward returns.

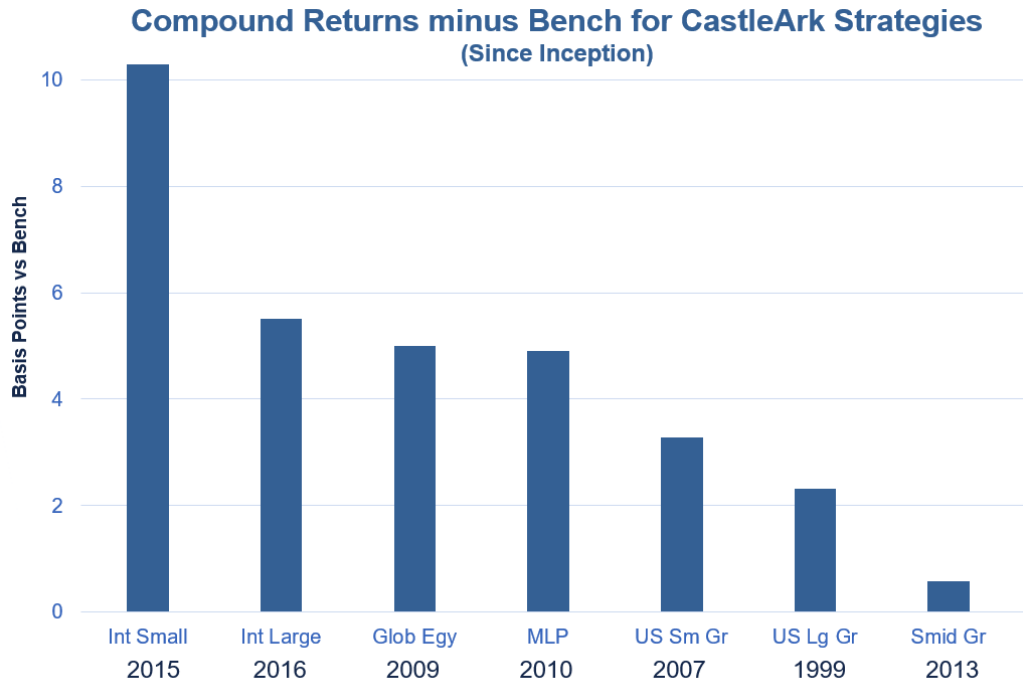
The past decade of modest global growth and low inflation caused investors to focus on style factors as the primary methodology for risk measurement. Yet the global pandemic and the rapid changes in economic conditions remind investors the impact that unforeseen events can have on returns. Incorporating conventional measures of size, style, and sector affiliation with an economic factor discipline gives CastleArk an advantage in generating alpha with well-measured risk.

Measures of Stock and Portfolio Risk



Results

Combining a boutique culture, fundamental analysis with behavioral finance elements, and a comprehensive risk management process has produced strong returns for our clients. Since inception, each of our marketed strategies have generated returns that exceed their benchmarks. This demonstrates the collaborative environment of CastleArk's boutique structure coupled with a strong understanding of behavioral influences on market outcomes and thorough risk management produces superior results for our clients.



Gross returns vs various benchmarks, year of inception below