

# A Quick History of Factor-Based Investing

And how factor-based strategies can help you protect wealth from downturns in the market and improve outcomes

## From the AGFiQ ETF Team

In 1992, Major League Baseball's Oakland A's pioneered the combination of traditional scouting practices with statistical analysis of players. Like baseball, investing contains a wealth of data and metrics, which can be analyzed to inform decisions.

In investing, isolating the characteristics of a security associated with higher returns is referred to as factor investing. Factor-based approaches to investing have, in recent years, gained significant attention, however the concepts guiding these approaches have been around for some time. Many fundamental attributes of companies and securities have shown to be correlated with past stock returns and so are expected to be correlated with future returns.

The basis of Modern Portfolio Theory has long been centered around the Capital Asset Pricing Model (CAPM) originated by William Sharpe and Harry Markowitz. Sharpe and Markowitz identified beta as a factor that was instrumental to a stock's return. Beta is arguably the best-known factor and the one every investor gains exposure to, whether intentionally or not, when allocating to equity securities.

Countless academic studies have since expounded on the ground-breaking CAPM, noting that other identifiable investment factors yielded significant premiums.

Many investment professionals have used factors to pick stocks from the very beginning. Warren Buffet isn't thought of as a factor investor, but his focus on identifying stocks trading at a discount to their intrinsic value, based on Benjamin Graham and David Dodd's work in 1934, makes the legendary investor one of the early adapters.

Extensive academic research has confirmed the value factor has proven to be effective in identifying stocks that are expected to outperform.

As the volume of the company data expanded, and academic research intensified, the number of factors increased as Eugene Fama and Kenneth French developed a three-factor model, which included value, beta, as well as size. Size refers to the historical precedent that small-cap stocks have outperformed large cap stocks over the long-term.

## Understanding Factors – 5 examples



### Value

A stock with a market price that is below the company's intrinsic value. Over time, stocks with a lower price relative to their intrinsic value have outperformed.



### Momentum

A stock that has recently trended upward tends to continue rising.



### Size

Small-capitalization stocks tend to outperform large-capitalization stocks over time.



### Quality

Stocks that are of a higher quality tend to outperform poorer quality stocks over time.



### Volatility

Stocks with a lower volatility tend to outperform higher volatility stocks over time.

## Continued

The conventional wisdom with regard to timing small-cap stock investing is that U.S. small-cap stocks have historically outperformed large-cap stocks during rising rate environments. But performance is cyclical and periods of underperformance can be long.

Today the list of factors has expanded to include low volatility and momentum. In 2005, the term fundamental indexation was coined, which attempted to redefine a company's weighting in an index based on an attribute other than market capitalization, while smart beta tilted the index to potentially improve returns and/or reduce risk through the application of rules.

Individually, each factor can provide investors with long-term performance, but research has demonstrated that

individual factor performance will vary considerably based on market cycle and can lead to a volatile, uneven ride.

## Why multi-factor investing?

Over time, factor-based investing has evolved from identifying individual factors to combining multiple factors in a disciplined investment process.

Multi-factor strategies can capture the opportunities provided by a factor-based approach, but also manage risk and volatility. Factor exposures can be managed to provide a smoother ride for investors across different sectors, regions and asset classes. This ongoing evolution provides investors opportunities to incorporate factor-based strategies into their portfolios.

For more information visit [AGFiQ.com](http://AGFiQ.com)

## Multi-factor Investing

Factor-based investing is a highly effective way to invest in today's uncertain markets. By appreciating that different factors do well at different points in the cycle, a disciplined, multi-factor approach can capture potential benefits regardless of which factor is driving returns at any given time.

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Volatility -29.23	Size 42.05	Size 18.19	Volatility 8.04	Size 16.69	Value 32.66	Volatility 12.06	Volatility 5.82	Size 9.38	Momentum 32.59
Quality -37.54	Value 41.87	Momentum 16.54	Momentum 4.79	Quality 15.44	Momentum 30.28	Quality 7.26	Momentum 4.54	Value 8.86	Size 23.92
Momentum -39.92	Quality 32.32	Quality 13.31	Quality -0.06	Value 15.01	Quality 26.56	Momentum 7.03	Quality 3.14	Volatility 8.18	Quality 23.89
Size -41.92	Volatility 17.18	Volatility 12.76	Size -9.34	Momentum 14.79	Size 26.53	Value 4.56	Size -1.05	Quality 5.63	Value 22.88
Value -42.63	Momentum 14.76	Value 9.15	Value -11.05	Volatility 8.87	Volatility 19.41	Size 3.42	Value -2.73	Momentum 4.75	Volatility 18.04

The chart represents the MSCI factor indexes calendar year performance for quality, momentum, value, size and volatility expressed in U.S. dollar terms. Source: Morningstar as of December 31, 2017.

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