

## Will Momentum Move Your Portfolio?

September 22, 2009

by Robert Huebscher

Instead of mixing value and growth stocks, investors would be far better served by combining value and momentum stocks, according to Cliff Asness, co-founder and Managing Principal of AQR Management.

In fact, momentum has “kicked butt” when compared to growth over the last 80 years, Asness said.

Asness, who has a PhD from the University of Chicago and did his thesis on momentum, delivered his remarks at a breakout session at last week’s Schwab Impact Conference. His firm recently introduced a series of indices and mutual funds aimed at allowing investors to gain low cost, passive exposure to momentum, and his talk detailed the theory underpinning and historical evidence supporting his momentum strategy.



Momentum was first identified by academic researchers in the early 1990s. It is the phenomenon that stocks – as well as other asset classes, according to Asness – that have done well in the recent past tend to do well in the future. Those that have done poorly are more likely to continue to underperform.

The over- or underperformance associated with momentum is measured relative to a benchmark, although Asness said that momentum has also performed well on an absolute basis.

Momentum is negatively correlated (-0.5) to value, and it makes sense alongside value in a portfolio. Such a strategy produces better risk-adjusted returns than a combination of value and growth, Asness said.

Momentum has a positive (0.4) correlation to growth.

### The basis for momentum

For momentum to be a viable strategy (and to be considered a viable “factor” alongside growth and value), it must pass three tests:

1. It must be pervasive and “work” (outperform relative to a benchmark after adjusting for risk) across a variety of asset classes and markets. Asness offered data showing that momentum has in fact worked in small- and large-cap stocks, within industries, in US and non-US markets, within specific countries and among commodities and currencies.
2. It must not be “subsumed” by other styles. Momentum would be useless if it could be explained by following either a growth- or value-oriented strategy or by a market-cap-based strategy. Technically, this means that momentum generates alpha when tested against the Fama-French three-factor model.

For example, a researcher once posited that outperformance could be achieved by purchasing those stocks which had done poorly over a five-year period. It was later shown, however, that his strategy merely picks up on the value bias: stocks that do poorly tend to be value stocks.

3. It is more growth-like than value-like, but it is neither one. Momentum stands apart as an independent risk factor.

Choosing the right time frame is critical, and Asness said that stocks that outperformed over the last 12 months are those more likely to continue to outperform. It is important, however, to wait a month before choosing those stocks, because month-to-month stocks tend to reverse themselves. “If you act too quickly, the market tends to overreact,” he said.

Countering the claim that his choice of 12 months amounts to data mining and that momentum is just picking up on a random effect, Asness said that many out-of-sample studies of momentum across other markets and asset classes confirm the underpinnings of his theory. Momentum has as much out-of-sample evidence as the value effect, for instance.

### Why does it work?

Asness offered several explanations for why momentum has persisted in the market.

From a behavioral standpoint, investors are slow to adjust to news because of “anchoring” and a reluctance to abandon long-held beliefs. Thus, when news comes out, prices only move part of the way. Buying recent winners is a good idea because they still have some distance to go. Investors may also overreact to good news; once prices incorporate the effect of good news, they go up further than they should, so again buying recent winners, and selling recent losers, would work.

And there is also something called the “disposition effect” – investors are more likely to sell their winners too early and hold their losers too long, waiting for them to come back. If investors sell their winners too quickly, they won’t be able to get a fair price – implying that stocks on their way up will continue to go up.

There are also efficient-market explanations (Asness’ PhD advisor was Gene Fama, one of the foremost advocates of efficient markets), but they are weaker. The fact that momentum works consistently in many environments may support the efficient market claim that it is a risk factor. But momentum actually does much better during liquidity crises, while value underperforms – an argument against an efficient market explanation for momentum. Efficient market theory dictates that momentum doing well in a liquidity crisis is a good feature, and investors should accept lower returns on momentum, not the opposite (higher), which has been consistently the case.

Asness stressed that these are just theories and none offer conclusive explanations for the momentum effect.

In fairness, momentum is not alone. Practitioners also still debate the source of the value premium – whether it is a risk premium or a behavioral phenomenon, and Asness rightly claims that momentum should not be held to a higher standard.

### **Turnover and taxes**

Two large and interrelated concerns about momentum are high turnover and tax inefficiency.

Asness admitted that momentum has higher turnover (approximately 150%) than either value or growth, but the trading costs are “not that bad,” he said. He and his team have spent a lot of time working on this issue and, through electronic trading, have minimized many of those costs. “Trading costs have taken out only a very modest portion of total return,” he said.

Taxes, he said, are mostly an issue for the future, since “investors today have plenty of losses against which to net gains from momentum.” His funds are also designed to be more tax-efficient than just following momentum blindly. For example, they trade tax lots so as to minimize taxes for shareholders.

In spite of turnover and taxes, Asness said, “outperformance is large and survives these issues.”

### **Will it work in the future?**

Momentum has worked in the past, and investors would have been better off with a combination of value and momentum than with a combination of value and growth (even after trading costs and taxes). That much is certain, but can one expect similar outperformance in the future?

Asness claims that his out-of-sample results, showing that momentum has worked across asset classes and markets, are strong evidence that momentum’s superiority will persist. His other out-of-sample test over time is that it worked during the 20 years since his initial research – but, of course, we must wait another 20 years to see whether the future will replicate the past.

Momentum has fared poorly in 2009, as value has been a clear winner. Asness’ explanation was simply that momentum, or any style, does not win all the time. In fact, momentum wins about two out of three years (an impressive result), but it does not work every time. That’s why you should make it only part of your portfolio, importantly combining it with value.

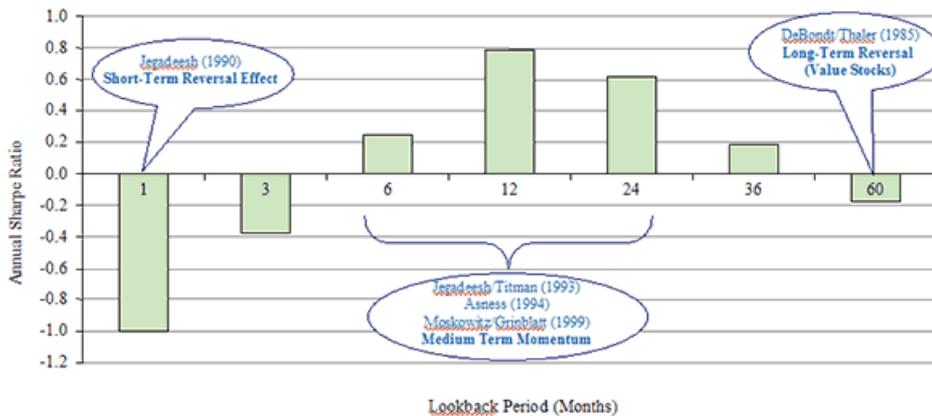
Also, there is some evidence that momentum has a tough time when the market abruptly turns around. This makes sense, since momentum bases its stock selection on rolling prior-year returns. Hence, abrupt movements in the market will only slowly be taken into account in a momentum strategy. Again, this is another reason why Asness recommends momentum be held as a complement to value, which often does well at such times.

There do not seem to be strong trends in momentum itself. Whether it’s done poorly or well, it seems to have the same better-than-even chance of doing well going forward.

A crucial issue, which was raised during the question and answer period, concerns Asness’ choice of a 12-month timeframe for his calculations. He presented the data below showing that if radically different time intervals were chosen,

the results would be clearly inferior:

**Momentum Across Different Horizons**  
**Measured by Sharpe Ratios**



He stated that if you used one month instead of 12 months, you would “lose a ton of money.” But small changes in time interval, say using six months or 18 months, have a small effect on the results, indicating to Asness that the momentum effect is reasonably “robust.”

Similarly, the choice of the one month “lag” before selecting the stocks for the index is a critical assumption.

One possibility is that the popularity of social networks and the increased speed of communication will move Asness’ “sweet spot” away from 12 months with a one-month lag. Asness argued, however, that his timeframe has been robust in the face of rapid technology changes over the last 80 years. “Why it would change going forward if it hasn’t yet is a mystery,” he said. In any case, investors must embrace these critical assumptions if they become momentum proponents.

Investors should be concerned about turnover and taxes, and Asness is obviously sensitive to those issues, as well as the need to offer funds with very low costs. Momentum is clearly better-suited for non-taxable accounts.

Momentum is real and will persist into the future. The question is whether Asness can capture enough of it to make it worthwhile for investors.