Morgan Stanley

INVESTMENT MANAGEMENT

Quantamental investing: The future is now

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In their quest for new ways to generate alpha, investors continue to pump cash into factor- and quantitative-based strategies. *Quant Investing – Bridging the Divide*,[1] an article that explores the trend, says the pool of assets in these strategies has surged to US$1.5 trillion and is growing at a rate of 17% annually. Applied Equity Advisors have been adherents of factor-based investing for 15 years, but we find it works best when supplemented with traditional stock selection.

Investors are embracing factor-based and quantitative approaches because they have delivered excess returns. Research shows that, over the past 20 years, broad market factors—such as valuation, growth, quality and momentum—have driven about 65% of a global equity manager's relative returns.[2]

Leaving nothing to chance

But focusing only on broad market factors unfortunately leaves to chance the remaining 35% of excess returns, which historically have been attributable to stock selection *(Display 1)*. Some quantitative managers address this risk by simply increasing the number of holdings to diversify away the

[1] "Quant Investing – Bridging the Divide", Morgan Stanley Research, October 1, 2017.

[2] Morningstar, Rolling 18-month regression for Global Equity Managers, December 2015. Returns are net-of-fees based on mutual fund NAVs.

risk of any single stock. This approach has merit, but it leaves the strategy dependent on market factor timing as the single source of excess returns.

Managers who are equipped with the necessary skills and resources can choose to pro-actively address the "35%" by supplementing their quantitative factor research with astute stock selection. Indeed, the article suggests that the real power is not in pure quant investing, but in a combination of quantitative and fundamental, stock-specific research—a 'quantamental' approach. We agree that this is where the true value lies.

By blending factor-based and stock-specific research, clients can benefit from two engines that can potentially generate excess returns—one that works at the market factor level and the other at the individual stock level. Different environments tend to favor different approaches. The advantage of two engines is that when one doesn't work, the other one might. We believe that alpha delivery over time is therefore likely to be more consistent.

More consistency can lead to faster compounding . . .

The amazing thing about consistent returns is that they have the potential to compound more quickly than more volatile returns. Take two streams of returns—one generating 7% annual returns and the other having alternating years of 24% gains and 10% losses. Both return streams average 7% per year. But the steadier one compounds at a faster rate *(Display 2)*.

. . . and better investor behavior

Investing in strategies that invest in equities (like Applied Equity Investors) requires that investors be comfortable with more volatility of returns compared to other asset classes. Nonetheless, strategies that have produced more consistent returns have yet another advantage over those with boom-and-bust patterns: They are more likely to keep investors calm and prevent them from acting irrationally.

Research shows that behavioral biases cause investors to make poor decisions that compromise returns. For example, from 2007 through 2016, equity funds outperformed the average investor in those same funds by 6-12%. That's because investors tend to overreact to volatile markets, piling in when they are rising and pulling out when turbulence sets in. After every period in which the fund did well, investors piled in, and after every period in which the fund did poorly, investors ran for the exits. The result is that investors' actual returns, on an aggregate dollar-weighted basis, are significantly less than the fund's reported returns *(Display 3)*.

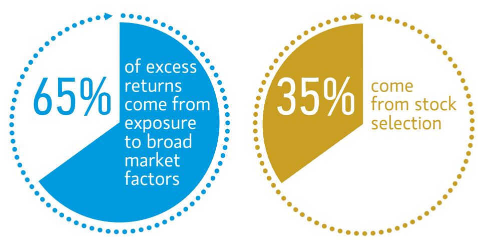
Investors in highly active strategies with active shares over 80% underperformed by an astonishing 12% *(Display 3)*. Clearly, predicting exactly when an active manager's strategy will deliver excess returns is extraordinarily difficult and the consequences of being wrong are costly.

Glimpse into the future

For over a decade, Applied Equity Advisors has been combining factor investing with stock-specific research. By tapping both sources of excess returns, we believe we can achieve greater consistency of returns and help investors avoid behavioral-based pitfalls.

DISPLAY 1

Two ways to extract excess return



Broad-based market factors tend to drive excess returns. The rest is driven by stock selection. We try to extract value from both.

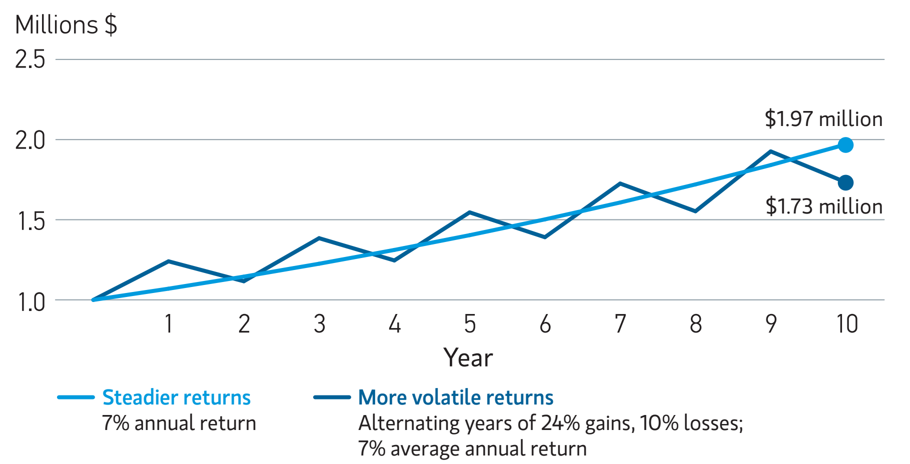
Andrew Slimmon
Head of Applied Equity Advisors

Source: Morningstar, 2015. **Past performance is no guarantee of future results.** This study is for illustrative purposes only and is not meant to depict the performance of a specific investment that the investment team manages.

DISPLAY 2

Steadier wins the race

Growth of $1 million

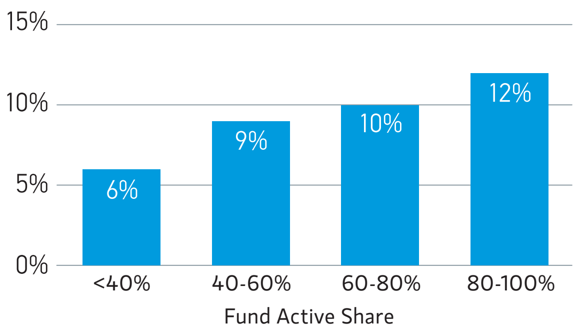


This hypothetical example is for illustrative purposes only and is not meant to depict the performance of a specific investment that the investment team manages.

DISPLAY 3

Bad behavior causes a return gap

Average 10-year Cumulative Mutual Fund Return Differential (Fund Return minus Investor Return) 2007-2016



Investors' poor market timing decisions caused them to underperform the funds they held—especially those that are highly active

Investor Return (also known as dollar-weighted return) measures how the average investor fared in a fund over a period of time. Investor return incorporates the impact of cash inflows and outflows from purchases and sales and the growth in fund assets. Source: Morningstar, Morgan Stanley Wealth Management GIC

Past performance is no guide to future performance and the value of investments and income from them can fall as well as rise. If sales charges were deducted, returns would be lower. This is shown for illustrative purposes only and does not represent the performance of a specific investment. Returns are net-of-fees based on mutual fund NAVs.

The active strategies we manage range from 20 stocks in our flagship Global Concentrated strategy to 30-60 stocks for our more diversified US Core and Global Core strategies.

Martin Leibowitz, Vice Chairman of Morgan Stanley Research and Chair of the firm's Quantitative Council, says we are likely to see a convergence of fundamental and quantitative investment processes in the future. "For quant investors, combining fundamental and factor approaches—what's called "quantamental"—could produce superior returns."

Having seen first-hand the benefits of combining quantitative factor modelling with traditional stock selection methods, we are avid proponents of quantamental investing. So, for us, the future is now.

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