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“Negative return gaps are driven primarily by trend-chasing allocation decisions.”

## KEY POINTS

1. A large body of literature holds that the equity market premium is countercyclical and, using valuation ratios, is predictable.
2. The investor return gap persists, despite strong evidence that factor performance is mean reverting, because investors use the manager selection process for alpha timing.
3. Contrarian strategies enable stalwart investors to overcome the institutionalized behavioral biases that depress long-term returns.

## If Factor Returns Are Predictable, Why Is There an Investor Return Gap?

Substantial evidence supports factor return predictability, yet evidence also indicates that investors are not reaping, to the greatest extent possible, the excess returns commensurate with such knowledge. A significant contributing factor to suboptimal investment results is the institutionalization of individual investor behavioral biases related to the confusion of short-term performance and manager skill as well as misplaced blame for poor outcomes. The good news for individual investors is—being free to act outside of institutional decision-making processes—they are more apt to make decisions that allow them to benefit from long-term mean reversion in factor returns.

### Are Factor Premiums Mean Reverting?

Increasingly, researchers are finding evidence that factor performance is mean reverting. A large body of literature argues that the equity market premium is countercyclical and predictable, using valuation ratios. The empirical literature shows that dividend yield and CAPE (cyclically adjusted PE) can predict future equity market returns.<sup>1</sup> Put simply, when the equity market rallies for an extended period of time, its CAPE ratio becomes meaningfully higher than the historical average. A common interpretation of a

high CAPE is that the market is expensive. When a high CAPE mean reverts toward the historical norm, the resulting forward return for the equity market falls meaningfully below average.<sup>2</sup>

Evidence is also mounting that other factor premia, such as value and low beta, are also time varying and predictable.<sup>3</sup> **Table 1** reports for a number of popular factors the one-year-ahead predictive regression using the valuation spread as the predictive variable. The *t*-stat and the *R*<sup>2</sup> support the claim of predictability based on mean reversion. For example, when value stocks are substantially cheaper than growth stocks—meaning the spreads in valuation ratios are abnormally wide—a reversion toward the norm would result in above-average value stock outperformance.

These empirical observations have obvious implications for investors allocating to factor exposures and the smart beta products that house them. It suggests that successful market timing could be possible! First, however, it is useful to understand the source of this return predictability. As it turns out, timing is possible, in part, because most of us time very poorly, and there are attributes, baked into our institutions, which ensure we will continue to time poorly!

**Table 1. Predicting Next-Year Factor Returns Using Book-to-Market (B/M) Valuation Spread**

Predicting	with	Beta	Beta t-stat	R <sup>2</sup>
Large-Cap Value	Large Value B/M Spread	0.174	<b>4.10</b>	0.25
Small-Cap Value	Small Value B/M Spread	0.094	<b>3.06</b>	0.10
Large-Cap Momentum	Large Momentum B/M Spread	0.140	<b>3.26</b>	0.11
Small-Cap Momentum	Small Momentum B/M Spread	0.180	<b>3.00</b>	0.14
Large-Cap Low Beta	Large Beta B/M Spread	0.133	<b>2.66</b>	0.07
Small-Cap Low Beta	Small Beta B/M Spread	0.191	<b>5.38</b>	0.14

Source: Research Affiliates, LLC.

### Why Is Next-Period Factor Return Related to Current Valuation?

Short-term momentum and long-term mean reversion are features of almost all return data examined by researchers. Behavioral explanations help paint a compelling and intuitive narrative for the existence of these features. Overextrapolation of past performance combined with herding results in short-term momentum in securities prices. The eventual overshooting in prices then gives way to long-run mean reversion.

The same occurs for the various investment styles captured in factor portfolios and smart beta strategies. In the context of the modern investment mandate process, we can easily understand this boom-and-bust cycle for factor premiums. Most investors adopt a process for evaluating managers and investment strategies based on the past two to three years of relative performance versus a capitalization-weighted market benchmark.<sup>4</sup> Strong past performance attracts strong

inflows, and weak performance leads to outflows. For example, in the years since the global financial crisis and subsequent European debt crisis, quality and low beta have outperformed as investment styles.

*“The modern investment delegation practice is one in which manager skill has minimal impact on the wealth...of investors.”*

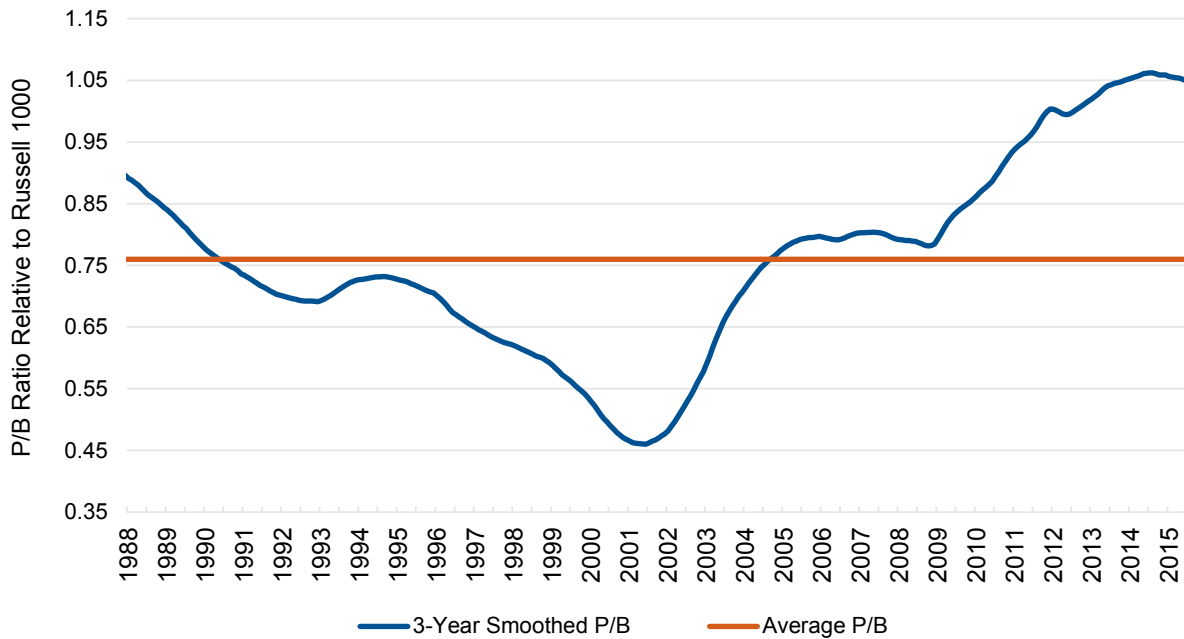
Managers and smart beta strategies with these style biases have outperformed and attracted flows. These flows have, in turn, led to additional price appreciation for low-beta and high-quality stocks as the outperforming managers plow subscription funds into the stocks that they currently own. On the flip side, strategies with a value bias have underperformed and suffered outflows. Redemptions then necessitate the selling of value stocks, which further depresses prices. **Figures 1 and 2** show

how the valuation (price-to-book) ratio for low-beta and value stocks fluctuates over time, with low-beta stocks trading at the top of the valuation range and value stocks trading near its bottom.

The procyclical or trend-chasing allocation accentuates the underlying economic shocks to various investment styles as flows push valuations. In the short run, this results in self-fulfilling prophecy and momentum. In the long run, it becomes self-defeating and gives rise to mean reversion. This investor pattern contributes to a predictive relationship between the valuation multiple and future return. Frazzini and Lamont (2008) and Hsu, Myers, and Whitby (2015) find evidence that mutual fund flows predict negative future fund performance. **Figure 3** shows that mutual funds with high inflows have low next-period relative performance. **Figure 4** shows that the investor return gap, which is driven by the negative correlation between flows and subsequent returns, is large across all fund categories. This pattern is observed for pensions as well, although to a smaller degree.

### Figure 1. Low-Volatility Stocks Are Expensive Today vs. Historical Norm

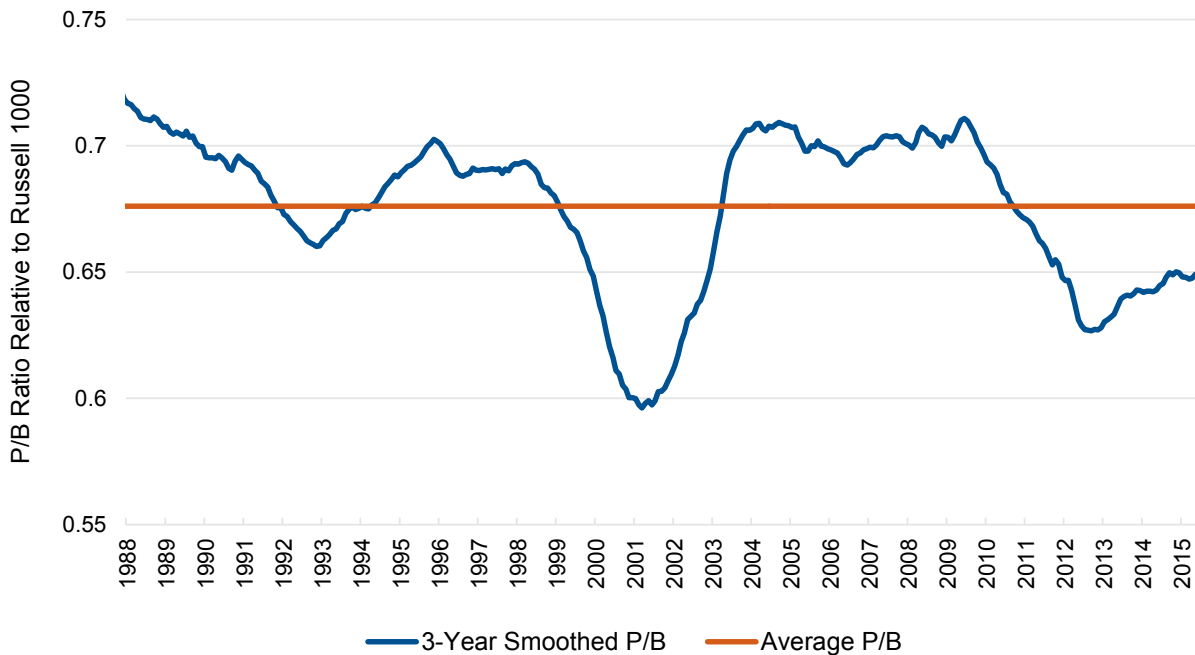
Low-Volatility Valuations Relative to Russell 1000, 1988-2015



Source: Research Affiliates, LLC , based on data from CRSP/CompuStat.

### Figure 2. Value Stocks Are Cheap Today vs. Historical Norm

Russell 1000 Value Valuations Relative to Russell 1000, 1988-2015



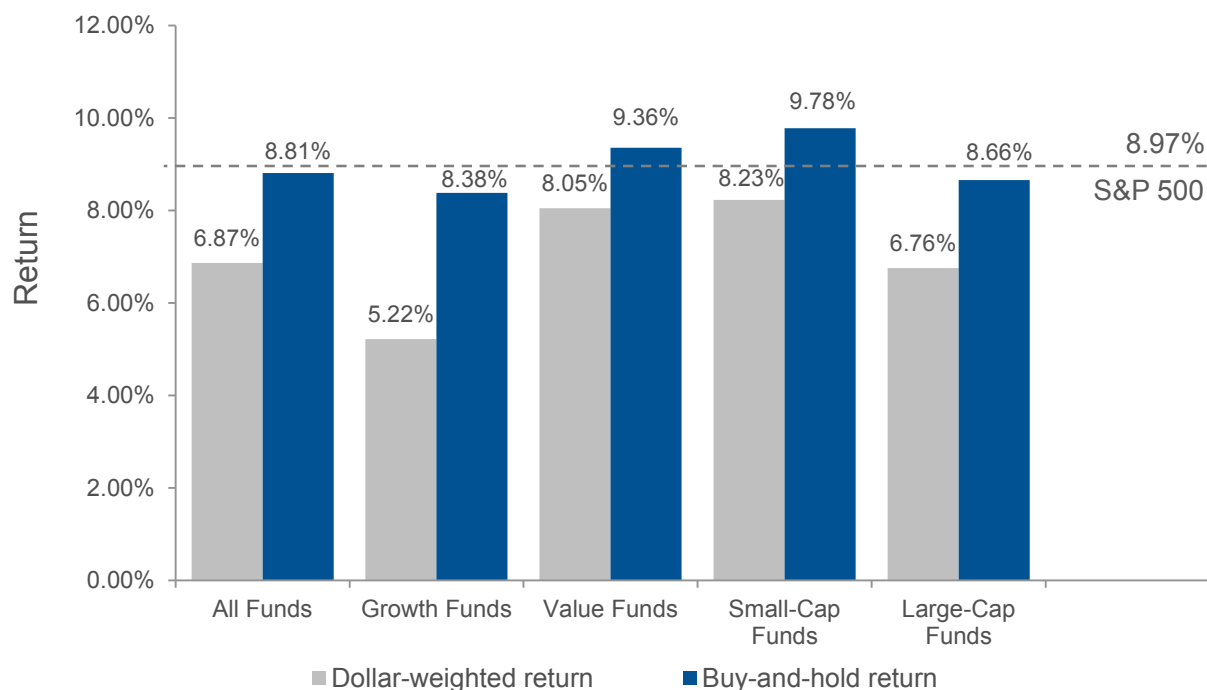
Source: Research Affiliates, LLC , based on data from CRSP/CompuStat.

Figure 3. Returns of Stocks in Low- vs. High-Inflow Funds



Source: Research Affiliates, LLC, based on Frazzini and Lamont (2008) data. Measurement period 1980–2003.

Figure 4. Investor Return Gap Is Large for All Fund Categories (January 1991–June 2003)



Source: Hsu, Myers, and Whitby (2015).

## Alpha Is Zero-Sum and So Are Flows!

It is important to remember that flows are zero-sum, meaning that for every seller of a cheap value stock a buyer must exist on the other side of the trade. It is thus important to be clear about the investor cohorts being examined in the research. Most studies are based on mutual fund investor flows, with a few studies examining pensions and their allocations to institutional asset managers. The emerging evidence is that this particular investor cohort has earned negative dollar-weighted alphas on a gross-of-fee basis, as indicated by their large negative return gaps versus a buy-and-hold strategy. These negative return gaps are driven primarily by trend-chasing allocation decisions, which have largely been institutionalized by the investment industry through its hiring and firing decisions, the majority of which are based on recent performance. Given the poor performance of the adopters of modern investment selection practice, it

is not unreasonable to label mutual fund investors and pensions as naïve flows, which are supplying dollar alphas to others.<sup>5</sup>

Ironically, the pursuit of positive alpha, which leads to the regular switching of investment strategies and managers, is the very reason why mutual fund investors and pensions have earned negative alpha. Investors should realize that the widely followed selection practice is technically an attempt to time manager alpha. **Figure 5**, using institutional manager data from eVestment, shows that managers who underperformed in the previous five years tend to outperform in the next five years, while the outperformer tends to then underperform. As manager styles come in and out of favor, the hiring and firing of managers is akin to timing the returns of style factors. That procyclical timers, such as mutual fund investors and pensions, do poorly is the very reason why countercyclical factor returns persist.

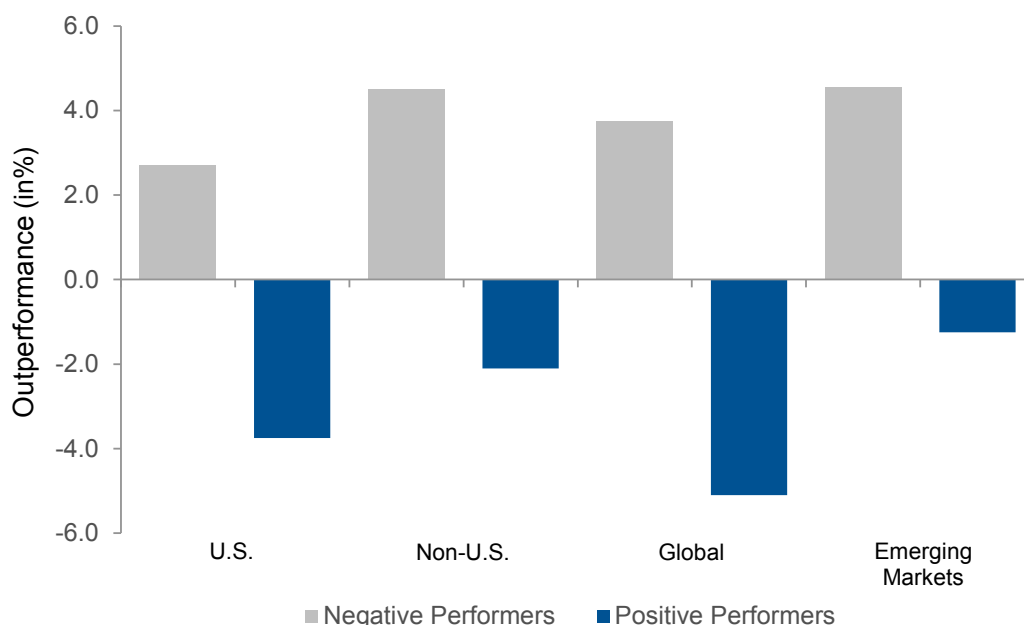
## Delegation of Investment Decisions Results in Massive Failures

Individual investors delegate investment decision making to mutual fund managers. Pensions delegate investment decisions to institutional asset managers. Delegation is supposed to prevent less sophisticated investors from being the proverbial pig, slaughtered by better-informed bulls and bears. Putting aside the facts that the average investment manager charges just enough fees to extract all of the alpha they create, the delegation of investment decisions has failed miserably along a dimension that has received scant attention.

The modern investment delegation practice is one in which manager skill has minimal impact on the wealth outcome of investors. To fully understand this, we need only examine the buying and selling activities of professional managers. In 1999, when value stocks were as cheap as they have ever been, value managers were the biggest sellers of value stocks.

**Figure 5. Past Five-Year Performance vs. Trailing Five-Year Performance**

Change in Excess Return by Manager



Source: eVestment Alliance, Hewitt Ennis Knupp Blog Weekly Update, September 25, 2013.

This was also true in 2008. It isn't at all surprising when we realize that the selling is driven by redemptions! The manager could be doing *exactly* the right thing by tilting the investor's portfolio toward value stocks. But by redeeming the allocation to value managers, the investor is able to more than offset the manager's insight and effort.

Similar to the findings of Brinson, Hood, and Beebower (1986), manager skill has proven to be a sideshow once again. Indeed, the industry's focus on the "alpha" of managers appears to be a distraction from the "negative alpha" "earned" by investors. Asset managers, at the end of the day, have far less sway on what happens to prices of stocks and investor wealth than do asset owners and their consultants.

## The Wisdom or Madness of Crowds

The classic study on the wisdom of crowds suggests that a large collection of investors with different information, experience, and expertise tend to get prices right. Experiment after experiment shows that the crowd is better at figuring things out than the experts. Yet the wisdom of crowds can give way to the madness of crowds when the crowd herds on the same piece of information and/or adopts similar thinking. Experiments show that if the crowd is made aware of the presence of experts, its members synchronize to the expert opinion, and the wisdom that once was, is no more.

When the majority of investors adopt an investment selection process based on recent performance, they are forced to pile into similar stocks belonging to similar styles—that is, they allocate to an increasingly crowded trade. There is little wisdom in the prices that result, though the madness can certainly persist for a long while, creating the

illusion of investment "guru"-ness on the part of many.

## The Institutionalization of Individual Behavioral Biases

The good news is that style returns or factor returns appear to be predictable. Additionally, a large cohort of mutual fund investors and pensions attempt to time, but do so very poorly because they use an investment selection process based on recent performance. These investors earn negative dollar alpha, on a gross-of-fee basis, and thus provide a large reservoir of alpha to others. The bad news is that we are they. We are the mutual fund investors and the pension fiduciaries. We are our own worst enemy, placing high-fee managers a distant second on the list of people contributing to our wealth destruction.

*“The investment ecosystem has conspired against the end investor.”*

The prognosis for improvement is unfortunately pessimistic. What started as behavioral biases—that we confuse short-term performance as vital information on manager skill, and that we enjoy blaming others and holding them accountable for random bad outcomes—have been institutionalized.<sup>6</sup> No longer can behavioral biases be overcome by the greater mastery of one's emotional state or by attaining greater investment enlightenment. These biases are now organizational problems that cannot be easily fixed by any single individual in the process. Would a consultant or financial advisor recommend a shortlist of managers with poor recent performance? Would the pension CIO and his staff choose a

manager with a negative trailing three-year alpha to present to their layman board? Given a keen understanding of investors' buying behavior, would salespeople and marketers educate client prospects on products that have recently underperformed? The investment ecosystem has conspired against the end investor. Oddly, the end investor is leading the conspiracy against himself. The path of least resistance is the path most often taken: buy recent performance.

## The Individual Investor's Edge

Given the institutional challenges of traditional investment advice that plague pension sponsors and the wealth management industry, in general, a savvy individual investor could actually have an edge by being a contrarian in the modern investment-selection process. Buy the style that is out of favor and whose stocks are trading meaningfully below historical norm. Sell the popular style and its expensive stocks. The individual investor may be early in buying or selling, but has a far greater ability to deal with that potential discomfort than does an institutional investor. An individual is unencumbered by the constraints and oversights—a board, quarterly reviews, asset-raising goals, angry clients, or other pressures—that dominate institutional investment decision making.

Investors who have the courage to be a contrarian will earn a handsome "fear" premium for taking the other side of the industry's trades, counter to those who seek to avoid uncomfortable client conversations. For those unable to fully embrace a contrarian stance, they should at least consider adopting a buy-and-hold strategy. Indeed, most investors might benefit from simply forgetting the ID and password to their trading account.

## Endnotes

1. See Shiller (1986) and Campbell and Cochrane (1999).
2. The CAPE mean reversion has a roughly 5½-year half-life.
3. See Cohen, Polk, and Voltanahou (2003) and Hsu (2014) for evidence on timing the value premium and Garcia-Feijóo, Kochard, Sullivan, and Wang (2015) for evidence on timing the low-beta premium.
4. This meaningfully captures the practice of institutional investors, such as pension funds and retail investors. Most institutional mandates are awarded to managers chosen from a short list of finalists with strong recent performance. Many retail investors, with or without a financial advisor, select funds with a five-star Morningstar rating, which simply measures recent past performance.
5. To be perfectly fair, the estimated negative return gap experienced by pensions is meaningfully lower than for mutual fund investors.
6. See Hsu (2013 and 2014) and Hsu, Myers, and Whitby (2015).

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