Oh, Behave! The Disposition Effect Enters the Behavioral Finance Discussion

May 2025

DeMarche

Oh, Behave! The Disposition Effect Enters the Behavioral Finance Discussion

May 2025

Point of Discussion

Abstract

Behavioral finance examines the psychological factors that influence financial decision-making. Traditional economic theories, such as the Efficient Market Hypothesis and Utility Theory, assume that investors make rational choices to maximize expected utility. In reality, emotions, social influences, and cognitive errors often drive market behavior.

This paper highlights the disposition effect and its impact on financial markets. While many behavioral biases interact, the disposition effect is particularly intriguing, as it combines multiple elements of behavioral finance. The research presented aims to show that, although not widely accepted, the disposition effect is not limited to retail investors.

> *"An investor's chief problem, even his worst enemy, is likely to be himself"*
>
> *- Benjamin Graham, The Intelligent Investor*

Groovy Beginnings, Baby!

Benjamin Graham's quote is enlightening, as his investment philosophy was developed (and published) well before the advent of behavioral finance as a widely recognized field. However, it's quite clear that Graham recognized the importance of psychology as it relates to decisions concerning investments. For example, Graham understood that investors tended to fear losses more than they valued gains, which we all know now as loss aversion. Graham also emphasized that investors needed to be aware of both their tendencies and, most importantly, their biases.

The Mojo Behind the Mind Games

In 1979, Daniel Kahneman and Amos Tversky developed prospect theory, establishing a key connection between psychology and financial markets. Their research challenged the traditional assumption of expected utility theory—that investors act rationally and make decisions based on maximizing expected outcomes. Through a set of scenarios, they found that people preferred a sure gain of $500 over a 50% chance to win $1,000, showing risk aversion, even when both options had the same expected value. However, when faced with losses, most participants chose a gamble over a guaranteed loss, highlighting risk-seeking behavior in losses. This revealed that losses feel about twice as painful as equivalent gains feel good—an idea known as asymmetric loss aversion. Prospect theory became a foundational principle of behavioral finance, offering a more realistic model of investor behavior shaped by emotion and bias.

Building on this foundation in the 1980s, economist Richard Thaler introduced influential concepts such as mental accounting, the endowment effect, and self-control bias. In his 1980 paper *"Toward a Positive Theory of Consumer Choice,"* Thaler illustrated the endowment effect by showing that participants who received a coffee mug valued it nearly twice as much as those who were offered the chance to buy it, simply because they already owned it. The following year, in *"Some Empirical Evidence on Dynamic Inconsistency,"* he introduced the planner-doer model, which explains how the rational planner wants to save for the future, while the emotional doer seeks immediate satisfaction. This model helped inspire the auto-enrollment features in 401(k) plans now widely used in retirement savings.

Introducing the Disposition Effect

In hindsight, cognitive and behavioral implications toward financial markets may seem obvious, but at the time behavioral finance was considered contrarian. Nobel Prize-winning economist Robert Shiller used its principles to identify speculative bubbles, accurately predicting both the dot-com crash in 2000 and the housing crisis in 2008. In 1996, he warned Federal Reserve Chairman Alan Greenspan that investor enthusiasm was pushing stock prices beyond fundamentals. His 2000 book Irrational Exuberance, named after a phrase from Greenspan's speech, explored this phenomenon in depth. In the 2005 edition, Shiller added a section on the housing market, warning that skyrocketing home prices and speculative buying were signs of a speculative bubble, correctly forecasting the collapse that followed.

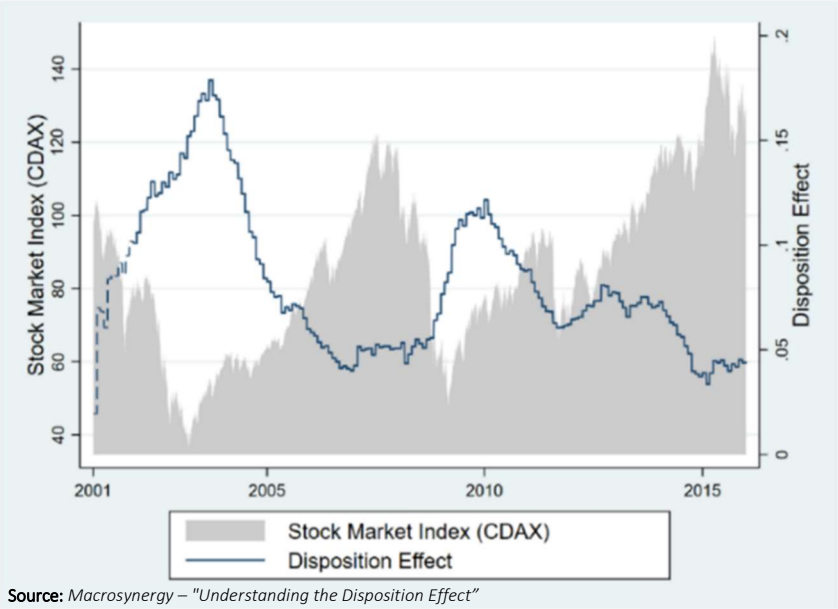
The disposition effect was first identified (and named) by Hersh Shefrin and Meir Statman in 1985 and refers to a behavioral bias that described people's tendency to sell assets that have increased in value, while holding onto assets that have decreased in value. More specifically, the authors hypothesized (building on the earlier work of Kahneman and Tversky surrounding loss aversion) that investors too often sell "winning" investments to ensure a profit or gain, but are much less willing to sell losing investments in hopes that they will eventually become gains.

Initially posited as a phenomenon that more often impacts individual investors, the disposition effect is alive and well among institutional investors. As evidence, we cite the work of Vijay Singal and Zhaojin Xu who examined the extent of the disposition effect at over 2,300 active mutual funds, and the overall performance of these mutual funds. They found that, on average, "disposition-prone" mutual funds fall behind non-disposition-prone funds by 4-6% each year. More importantly, they found that disposition-prone funds are less likely to be around five years later, suggesting that the disposition effect can determine whether a strategy sinks or swims. As Shefrin noted, the disposition effect and momentum are key determinants in the separation of outperforming vs. underperforming investments.

Is the Disposition Effect limited to Retail Investors?

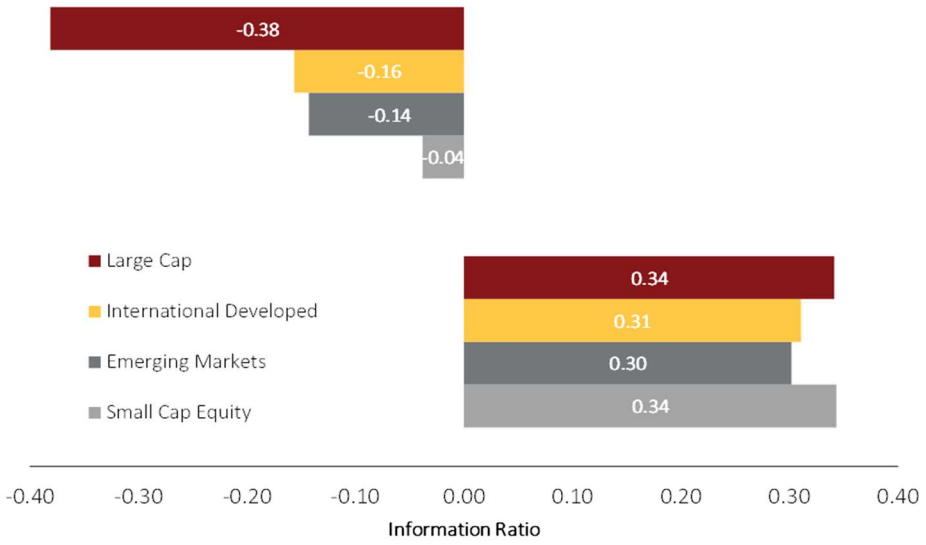
The following two graphs demonstrate how the disposition effect manifests differently across investor segments (both retail and institutional). Figure 1, based on German investor data from 2001 to 2015, shows a countercyclical pattern. As the German Stock Market Index (CDAX) rises, the disposition effect diminishes, and as the stock market declines, the disposition effect intensifies. This highlights how investors tend to behave more emotionally, often selling winners too early to lock in a gain and holding onto losers during downturns to avoid realizing losses.

Figure 1



Source: *Macrosynergy – "Understanding the Disposition Effect"*

Figure 2 **Capture Ratio Unit Differential and Information Ratio**



	Large Cap	International Developed	Small Cap Equity	Emerging Markets
Average IR If CRUD > 0	0.34	0.31	0.34	0.30
Average IR If CRUD < 0	-0.38	-0.16	-0.04	-0.14
Gap in Information Ratio	0.72	0.47	0.38	0.44

Capture Ratio Unit Differential (CRUD) is defined as the 10-year average upside capture minus downside capture for active managers within the DeMarche database. Information Ratios are calculated as active return divided by active risk. Data reflect the most recent 10-year period ending in the fourth quarter of 2024. Data are shown by equity segment: Large Cap, International Developed, Small Cap, and Emerging Markets.

In contrast, Figure 2 focuses solely on institutional asset managers and presents the impact of the Capture Ratio Unit Differential (DeMarche term: CRUD), calculated as the difference between the ten-year average upside and downside market captures for each manager in the DeMarche Universe, on information ratios across different equity strategies.

The chart shows the effect that CRUD has on information ratios (active return/active risk). This impact is most pronounced in the Large Cap universe, where managers with negative CRUD exhibit significantly lower information ratios (–0.38), suggesting poor risk-adjusted performance from managers with negative CRUD that outweighs positive CRUD managers. The asymmetry in information ratios across CRUD values is most pronounced in the Large Cap universe, as negative CRUD values lead to a greater decline in information ratios than the gains produced by positive CRUD. This skewed dynamic reflects the greater efficiency of the Large Cap universe, where alpha opportunities are harder to find, and behavioral missteps, such as those linked to the disposition effect, are more swiftly penalized.

Conversely, managers with positive CRUD across the other three universes (International Developed, Emerging Markets, and Small Cap Equity) tend to generate higher information ratios, with performance improvements that outweigh the penalties seen in their negative CRUD counterparts. This suggests that managers who avoid behavioral pitfalls, such as prematurely selling winners or clinging to losing positions, are better able to achieve favorable asymmetry in market capture, ultimately leading to stronger risk-adjusted performance.

While the disposition effect is commonly associated with retail investors, both charts suggest that institutional managers are also susceptible to its influence. The first chart shows countercyclical patterns in realized gains and losses, while the second demonstrates that deviations in capture symmetry, measured through CRUD, have a material impact on information ratios. Across all four asset classes, the data reveal meaningful gaps in risk-adjusted performance, reinforcing that behavioral biases can affect even professional decision-makers, and that consistent, process-driven buy and sell discipline is essential for long-term outperformance.

Avoiding the Disposition Effect

Although it's easier said than done, investors should adhere to a disciplined, objective approach to decision making by focusing on long-term goals and fundamental analysis rather than short-term emotions. This begins with establishing clear asset allocation policy targets and associated rebalancing ranges, which is imperative to help counteract the impulse to sell winners too early or

hold onto losing positions. Incorporating regular portfolio reviews helps to reassess portfolio holdings with fresh perspectives to align decisions with long-term goals, rather than emotional decision making. Additionally, increasing awareness of behavioral biases through education can help investors recognize when their instincts may be clouding their judgement. Ultimately, mitigating the dispositions effect requires a commitment to process over impulse, discipline over emotion, and long-term perspective over short-term reactions.

Conclusion

The disposition effect, once thought to be confined primarily to retail investors, is now recognized as a broader behavioral bias that can undermine performance across both individual and institutional portfolios. Through empirical research, historical context, and proprietary data analysis, this paper highlighted how emotional decision-making, particularly the disposition effect, can be a detriment to returns and compromise long-term portfolio outcomes. At DeMarche, we believe that recognizing and mitigating behavioral biases is essential to effective investment oversight. By focusing on leading indicators, maintaining a disciplined review process, and emphasizing consistency in manager behavior, we strive to help clients avoid pitfalls associated with reactive decision-making.

Put Research To Work

with the DeMarche Team

Don Lennard
Senior Consultant
(913) 384-4994

Jake Manchion
Analyst, Investment
Manager Research
(913) 384-4994

Sources Utilized:

- *DeMarche Database*
- *eVestment*
- *Science Direct*
- *Macrosynergy – "Understanding the Disposition Effect*
- *Morningstar*
- *Foundational research by Kahneman, Tversky and Thaler*