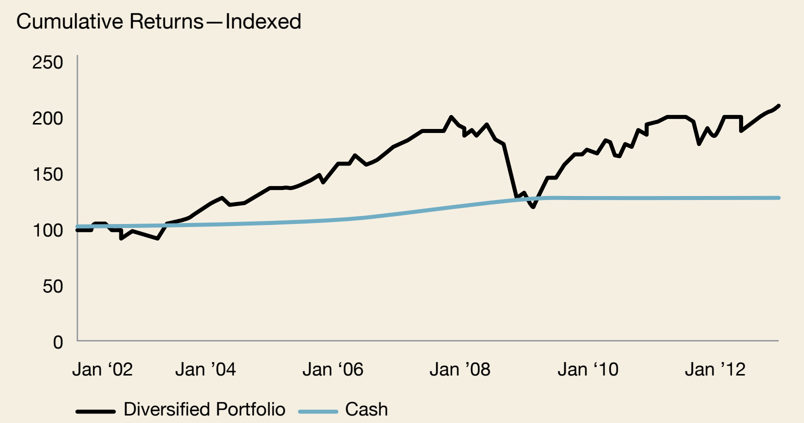
Behavioral Finance

Overcoming the Cost of Being Human

By Greg B. Davies, PhD

FIGURE 1: THE LONG-TERM VALUE OF DIVERSIFIED INVESTING



Source: FactSet, Bloomberg, Merrill Lynch, and Barclays. Past performance is no guarantee of future results. The Diversified Portfolio, representing nine asset classes, is constructed as the following mix of indexes: 7% Barclays US Treasury Bills Index; 4% Barclays Global Treasury Index; Investment Grade Bonds 7% Merrill Lynch Global Broad Market Corporate Index; 11% Merrill Lynch Global High Yield and Emerging Markets Index; 38% MSCI World Index; 10% MSCI EM Index; 5% Dow Jones UBS Commodity Index; 4% – FTSE EPRA/NAREIT Developed Global REITs Index; 14% HFRX. The weightings are rebalanced monthly to maintain the same mix over time. An investment cannot be made directly in an index.

The returns depicted above do not represent actual portfolios, nor do they reflect trading or the impact of material economic and market factors including fees. Hypothetical illustrations and performance have certain inherent limitations. No representation is being made that any client will or is likely to achieve the hypothetical return represented in the illustration on this page.

Until recent years, behavioral finance languished at the peripheries of an investment management industry so punch-drunk on classical finance theory that its myopic focus on returns proved to be to the detriment of returns. This may sound strange but by focusing on something other than long-run financial efficiency, we are actually able to get closer to it.

This paradox arises from the fact that, unless we look after our short-term need for emotional comfort, we may find it very difficult to enact and stick with the so-called right solution. Ultimately, investors who strive to ignore emotional responses will aim for perfection but fail, and fail expensively. As investment managers, we devote some portion of every decision to securing the short-term emotional security that human beings crave, opening the way for the pursuit of investment objectives—but at a cost to perfectly efficient long-term investment choices.

Behavioral finance provides insight into two aspects of investor behavior that the industry would have a hard time understanding without it. The first is reluctance: Individuals often fail to see the potential long-term benefit of investing in a diversified portfolio compared to holding cash. This can cost the average investor 4–5 percent per year of foregone returns over the long term. Figure 1 shows the effect of sitting in cash versus investing over the past 10 years. Even during this turbulent time in the markets, being invested was an uncontested winner.

The second issue that behavioral finance illuminates is the behavior gap, i.e., the difference between actual investor returns and the returns investors might have achieved had they doggedly adhered to classical principles. Multiple studies have confirmed that the average investor underperforms a simple buy-and-hold strategy over long periods of time. Most credible research on individual (as opposed to institutional) investors finds this underperformance to be between 1 percent and 2 percent per year on average (in many cases, the losses are substantially higher).[1] The behavior gap is purely attributable to market-timing decisions, not costs or fees.

Anxiety-Adjusted Returns

Much is right about the traditional financial models—the result of decades of research, discussion, and debate—but they are only completely right for the hyper-rational investor, the so-called *Homo economicus* (an ideal investor who simply doesn't exist). The traditional models assume that once individuals have agreed on optimum investment solutions, they can implement the solutions and persevere with them over long periods of time, regardless of what they have to endure along the way.

Traditional models also assume that investors care only about risk-adjusted returns. They don't. What investors really want are the best returns they can achieve for the level of stress they're going to have to experience. Some of this stress does come from taking risk, but a great deal of anxiety arises from emotional responses to fluctuations along the investment journey, which can be quite independent of risk. As a result, what investors truly want are maximum "anxiety-adjusted returns": the best possible returns, relative to the anxiety, discomfort, and stress they're going to have to endure over the volatile investment journey.

But to throw away decades of research on the grounds that the models invoke some simplifying assumptions is to throw the baby out with the bathwater. We believe the conflict between behavioral and classical finance is misplaced. We have taken the best of classical finance and sought to behavioralize it.

One of the most common responses to the uncertainty of being invested is to not invest at all. Therefore, overcoming reluctance early is one of the keys to better investing. However, just because one is in the market doesn't mean it's easy to attain the returns one has planned for. Particularly during periods of market uncertainty, being invested is inherently stressful. As a result, investors need to feel comfortable on an ongoing basis while putting their wealth at risk, otherwise they will usually incur further costs (relative to the long-term optimum) by being too active with the wealth they do invest.

Our strong tendency, once invested, is to do too much. Frequently those who do invest will find comfort through overtrading: being excessively active and constantly trying to adjust portfolios to take advantage of perceived patterns in the market.

Of course, there are good reasons not to be completely inactive in managing one's investment portfolio. For example, rebalancing periodically is essential to managing risk. But all too often investors trade in response to random market movements rather than to genuine changes in the risk-return expectations of assets. At best this drags down performance due to high transaction costs, but the effect can be considerably worse: The short-term emotional component of these decisions tends to lead us to take on more risk when it feels comfortable to do so (when times are good and markets are rising), and to pull away from risk when things feel uncomfortable and markets are low. In other words, when responding actively to the investment journey, our natural psychological tendency is to buy high and sell low.

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Across the market cycle, each investor will bear the behavioral costs to long-term performance to different degrees:

- Some may have greater natural reluctance to enter the markets.
- Some may have a greater need to be invested in familiar markets and asset classes.
- Some may need to be confident that the worst case is limited.
- Some may find it more difficult to stick with a volatile portfolio.
- Some may be nervous if they don't retain control of the key investment decisions.

Changing investors' behavior for the better requires practical actions that have tangible results. This requires understanding our emotional needs and our behavioral proclivities. Only when we have an objective understanding of what makes one investor respond differently over a market cycle, and how needs for short-term comfort differ, are we in a position to make bespoke changes to portfolio solutions that provide the necessary short-term comfort directly and efficiently. This is the cornerstone of our use of behavioral finance at Barclays.

Some of the changes we may choose to implement are at odds with traditional theory. However, a deviation from classical investment techniques is not wrong if it helps investors to overcome greater costs elsewhere, by reducing anxiety and curbing expensive knee-jerk responses to short-term moves in the market. Such deviations are designed to increase anxiety-adjusted returns.

In the sections below, we discuss each category of intervention we employ and the kind of investor most likely to benefit.

Education

Investors can take control to some extent by improving their knowledge. By helping clients understand more about a wider range of investments, we can help them become more comfortable with asset classes and markets. While education alone can only accomplish so much—knowledge does not eliminate our need for comfort—education can nudge us toward good actions, particularly for less-confident investors who perceive themselves to have low levels of financial expertise.

Constraints

Managing one's wealth effectively requires using all of one's long-term capital effectively and committing to the journey. An extreme way of preventing short-term emotional responses is to lock into investments so that in times of turmoil one can't just jump ship—often at the worst time from an investment point of view. However, this strategy requires considerable self awareness, and is not for the fainthearted because it removes the ability to achieve comfort at precisely the time an investor is most anxious. For this reason, we don't advocate liquidity constraints as a solution for investors with a low level of composure (i.e., a strong emotional engagement with the journey). Better to turn to the range of other options that improve decision making by seeking comfort rather than constraining options.

These include:

Smoothing. Smoothing strategies may include the use of derivatives to dampen volatility; dynamic portfolio insurance; use of active fund managers that perform particularly well in down markets; and structured products that access risky underlying investments, but with some downside mitigation. These all cost something, but because they specifically target aspects of short-term performance that induce anxiety, this cost comes with significant emotional benefits.

Downside defense. Smoothing focuses on the experience of the whole journey. However, some investors are relatively calm through most of the journey but worry intensely about the chance of calamitous market crashes. The targeted intervention for these investors is to purchase downside protection. This insurance will guard against the worst-case scenario and allow greater emotional comfort by removing the potential for extreme market loss and, as importantly, the fear of an extreme loss.

Phased investment. An effective means of persuading reluctant investors into the market is to engage them through a program of phased investment. Classical finance warns us against such strategies (known as dollar-cost averaging) because they leave wealth uninvested during the phasing period. This is true—phased investment is suboptimal when compared to theoretical perfection, but only slightly. And, compared to the returns of an investor who is otherwise too nervous to invest at all, gradual phasing in is an effective way of cheaply purchasing emotional comfort.

> "The simplest way to purchase the latter and reduce anxiety is to reduce risk (provided one has come to grips with the reduced opportunity for growth that comes with it)."

Risk Targeting

The lower the risk in a portfolio, the smoother the journey and the lower the demands on emotional liquidity. As a result, investors are less tempted to sacrifice long-term performance for short-term comfort. The simplest way to purchase the latter and reduce anxiety is to reduce risk (provided one has come to grips with the reduced opportunity for growth that comes with it). Increasing cash levels and choosing a less-risky asset allocation will reduce reluctance and the behavior gap, but this is a very blunt tool that imposes high costs on long-term performance.

For the majority of investors it is better to remain fully invested in the markets and find more efficient ways to achieve comfort. Fortunately, there are ways to target the risks that give rise to short-term discomfort while minimizing the drag on long-term performance.

Involvement

During periods of stress, people seek comfort from others. Friends, family, colleagues, advisors, and professional investment managers all can help investors through times of anxiety. However, this can be costly: At best one sacrifices some autonomy or pays management fees to improve both the journey and the returns. At worst, one places faith in poor advice, which offers a comfortable journey that goes nowhere, or worse. One crucial precondition for using others to improve the journey is that the investor has the personality that makes this possible. This requires a high level of comfort with the idea of delegation (i.e., the investor is happy to hand over the decision making to a professional). As a result, involvement comes in varying degrees of intensity:

Discretionary management—delegating. Discretionary management can be an effective way of discouraging knee-jerk investment decisions at a relatively low cost because it yields returns that are higher than they would have been. In effect, by handing responsibility to a third party, the investor is buying preplanned emotional insurance and greater expertise at an acceptable price.

Using advisors—the benefits of a second opinion. Seeking advice can help to ease the emotional burden of investing one's wealth. A second opinion can reduce inherent biases such as being overly optimistic or too prone to investing in a particular sector. However, bear in mind that the quality of the advisor matters too: A poor second opinion can leave one unduly comfortable with a bad decision.

Controlling information—focusing on the big picture. People have different appetites for information. Some can happily look at their portfolios only infrequently; others look every day. Bearing in mind that effective

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wealth management demands a long-term approach, it can be discomforting and distracting to receive information too often. Adapting the frequency and detail of information makes it possible for investors to shift focus from the expensive short term to a cooler medium- or long-term view. As a general rule, less is more.

Trading Efficiency for Comfort

As we've stated, small inefficiencies can be beneficial if they help investors to overcome reluctance or reduce the behavior gap. However, the best solution is to only sacrifice financial efficiency for comfort in a planned way, and with full awareness of the trade-offs, to ensure that comfort is purchased as efficiently as possible. For the right clients, some of the trade-offs we may introduce include the following:

Increase liquidity. Locking oneself into investments can be a dangerous way of preventing emotional responses in the short term. For investors who display high composure during times of uncertainty, this is a good way to boost returns, but for nervous investors, forgoing this premium and only entering highly liquid investments will help in maintaining emotional liquidity.

Home/familiarity bias. For investors who display a lower willingness to enter the market, the inclination is to steer toward the comfort of what they know (familiarity bias) and local assets (home-country bias). They will then invest too heavily in familiar assets to the detriment of performance. The net result is a less-efficient portfolio with its emphasis on local regions and industries, and its concentration of asset returns correlated with the investor's employer, local economy, and personal income stream. However, for these investors it can be helpful to introduce limited familiarity bias or home bias into the portfolio—a little bias is better than not investing at all.

Deliberate action bias. When things go wrong and we find ourselves invested in the depths of a crisis, the temptation to act—usually to exit—can become overwhelming. However, selling at such times is one of the most costly financial decisions an investor can take. For someone strongly inclined to the action bias, inaction can make a stressful time even worse. In these circumstances a good strategy is to deliberately look for small changes that one can make to the portfolio, in effect tidying up. Better a little action, mostly harmless, than costly capitulation.

Following an Investment Framework

All of us can acquire the focus we need to invest successfully, but we need to put in the effort to construct a considered framework of rules and guidelines to govern our own investing behavior. One of the key reasons why individual investors systematically underperform professional investors is not that they are inherently worse investors, but simply that professionals have more controls imposed on them through a strong set of institutional rules. To match this, individual investors can develop personal investment constitutions, providing the rules that we often need to guide our behavior in times of turmoil.

These rules need to be individually tailored to each investor's circumstances, experience, and knowledge. They can limit the proportion of wealth held in cash or short-term instruments or set a time period in which to invest cash in order to avoid being underinvested. They can fix levels of long-term holdings and the minimum diversification of the portfolio. When markets are turbulent, rules can guide the investor to be deliberately inactive to avoid rash decisions. They also can set out triggers that will prompt the investor to rebalance the portfolio to maximize returns. And because it is a formal way of investing, the investor will find it less difficult to execute.

Following a thoughtful investment framework means we don't have to make every decision from scratch in the heat of the moment. Instead we follow rules established in times of calm reflection. This vastly reduces the cost of our behavioral responses and ultimately allows us to become the habitually calm, effective investors we all should aspire to be.

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Endnote

1 See, for example, Andrew Clare and Nick Motson (2010), "Comparing the performance of retail unit trusts and capital guaranteed notes," a working paper commissioned by Barclays and produced through the Cass Business School, London.

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