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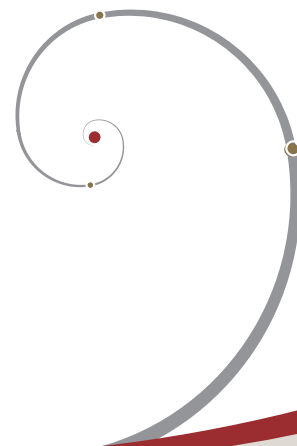
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Six Habits of Highly Successful Advisors

Active Vs. Passive: An Empirical Review for the Taxable Investor

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Six Habits of Highly Successful Advisors¹

By Scott Welch, CIMA®

The high-net-worth (HNW) wealth management industry is constantly evolving, and it is worthwhile to examine some of the trends among HNW investors since the financial collapse of 2008. We believe that investors:

- want to be more involved in the decision-making;
- are more cost/value/tax sensitive;
- are more concerned about due diligence;
- are more interested in risk management, transparency, and liquidity;
- are less interested in traditional bond/equity portfolios; and
- are increasingly interested in/open to more nontraditional investment approaches and solutions.

How should advisors to HNW investors and families be building portfolios and running their businesses? How can they help clients achieve evolving goals and objectives, and/or take advantage of industry trends? Are there best practices among successful, profitable, and fast-growing advisors that can be identified, analyzed, and adopted?

Successful advisors and financial institutions are winning business in a competitive marketplace by building and managing differentiated investment

portfolios and running their enterprises efficiently and profitably. We are in a position to observe them and see what they are doing to set themselves apart.

Based on our observations, here are six habits we see successful advisors using to address the demands of HNW investors.

Actively Adopting and Employing Unified Managed Accounts

A unified managed account (UMA) is a professionally managed, regularly rebalanced account that can accommodate many types of investments in a portfolio within a single account. UMAs offer advisors the ability to actively tax-manage portfolios as well as improve operational efficiency.

Contrast it with a portfolio of separately managed accounts (SMAs), where each account in the portfolio contains a specific type of investment that is separately established and managed.

SMAs originated as institutional offerings with high initial investment minimums (e.g., \$5 million–\$10 million), but over time these minimums were dropped in order to access the HNW and smaller institutional spaces, and now are generally \$250,000–\$500,000.

The promise behind SMAs is that they are customizable, they can be tax-managed at the individual account level, and investors actually own the underlying securities in the portfolios in their own accounts (versus a mutual fund, where investors simply own shares in the fund, not the underlying securities invested in by that fund). These features all appeal to taxable HNW investors. But from an advisor’s perspective, managing multiple portfolios of SMAs is not a scalable business and the promise of active tax management has, for the most part, gone unfulfilled. In addition, the operational management (implementing, rebalancing, managing cash flows, etc.) of a portfolio of SMAs is inefficient and cumbersome, and something advisors really can only get wrong, because it is a function the client assumes will be handled correctly.

With a UMA, the same managers offering SMAs instead act as sleeve managers inside a multi-manager account, sending their buy and sell signals to a third-party overlay manager whose responsibility it is to execute those trades in the most cost- and tax-efficient manner possible (see figure 1).

The earliest generations of UMAs were decidedly retail-oriented and investor unfriendly, with significant negative

Figure 1: Example of an Illustrative Unified Managed Account Structure

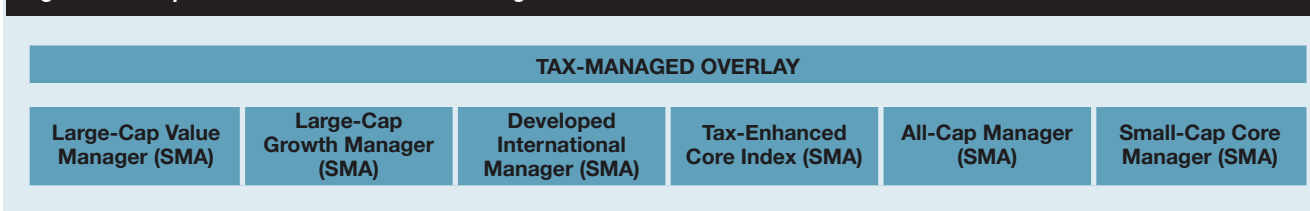


Table 1: Advantages of Today’s UMA Programs

Quality Managers, Tax Efficiency, Easy Implementation	Customizable Asset Allocation and Model Portfolios
Proprietary or third-party research, due diligence, and portfolio monitoring	Flexible and open platform that allows for both proprietary or third-party sleeve management
Increasing manager acceptance and participation means ability to build and manage widely diversified portfolios	Full advisor discretion means easier rebalancing and tactical re-allocations
Negotiated access and management fees	Easier to implement customized investor portfolios—SRI, concentrated stock, etc.
Negotiated investment minimums combined with active tax management	Sleeve-level reporting allows easier comparison to manager SMA composite (i.e., the performance “drift” that may come with active tax management)
Rapidly evolving technology means inclusion in the UMA of more of the overall portfolio (e.g., credit, alternatives, option overlay, etc.)	Custodial-agnostic programs increase advisor flexibility

manager selection bias (i.e., many managers refused to participate in the programs). The early programs were primarily about improved efficiency for the advisor, not the client investment experience, as evidenced by the fact that the majority of assets within UMA programs were mutual funds and exchange-traded funds (which cannot be tax-managed as effectively because they are individual securities and not a portfolio of securities, as is the case with actively managed sleeves).

But the technology and the manager participation rate have evolved to the point where the optimal use of the UMA structure has moved from retail clients, where operational efficiency for the advisor was paramount, to taxable HNW investors, where customization and active tax management move to the forefront. Table 1 summarizes the potential advantages of today’s UMA programs.

The ability to employ premier managers in actively tax-managed sleeves within one overlay account delivers on the decades-old promise of a portfolio of SMAs—better managers, ease of implementation, customizable to investor-driven specifications (e.g., socially responsible investing or SRI), and cost- and tax-efficiency. These programs also drive efficiency and profitability for the advisor. We anticipate that asset managers will begin to once again increase the investment minimums of their SMAs in order to re-institutionalize them and make their strategies available to HNW investors only through model sleeve accounts.

Taking Full Advantage of the Evolution of Alternative Investments

Since alternative investments first grew popular with high-net-worth investors in the early 1990s, opinions have fluctuated about how to use them. Today we are seeing wealthy investors take a more conservative approach to alternatives, opting to use more-liquid and -regulated investment vehicles as opposed to less-liquid limited partnerships or more-diversified but also more-expensive funds of funds. We expect this trend to continue as the distinction between alternative and traditional investments blurs.

In the past three years alternative investments have somewhat returned to normalcy. Despite generally negative media and relatively anemic performance, many investors understand that alternative investments may add value to well-diversified portfolios. So where is the industry heading?

Consider the interesting and rapid growth and acceptance of alternative investment (AI) retail products, including separately managed accounts, mutual funds, and regulated investment companies (which are hybrids of a mutual fund and a limited partnership). These investment vehicles have been adopted widely by advisors due to their more conservative approach to using leverage and managing liquidity and risk, and also by their more-regulated legal structures, especially among mutual funds.

Consider the portfolio illustrated in figure 2. Five years ago, an investor who

Figure 2: An Illustration of a Diversified Alternative Investment Portfolio



wanted this portfolio would have been limited to a diversified fund of funds limited partnership, or would have needed to be large enough (i.e., have more than about \$25 million) to build this portfolio with direct investments into the underlying hedge funds. Further, the advisor and/or investor would have had limited ability to directly allocate assets, influence manager decisions, or re-allocate to accommodate changing market conditions.

Today this portfolio can be built entirely with '40 Act mutual funds, if desired, and this fundamentally changes the conversation advisors can and should be having with clients. Even when dealing with qualified purchasers who have the ability to invest in hedge funds, the conversation can and should now revolve around the investor-specific trade-offs among return, risks, liquidity, and fees—a discussion that simply could not have taken

place when we were only able to talk about hedge funds.

Investors should not expect the same risk and return characteristics from these strategies vs. their hedge fund cousins, given the investment and leverage constraints on mutual funds, which are more regulated. This is the case even if the strategies are managed in a manner similar to a limited partnership run by the same portfolio manager.

Despite this, and despite the relatively short track records of many AI mutual funds, many investors seem happy to exchange the potentially superior performance of a limited partnership for the liquidity and regulatory “bear hug” associated with AI mutual funds.

The availability of these products means that an aversion to limited partnerships is no longer a reason to avoid alternative strategies. Assuming the sophistication and investment objectives of an investor warrant the inclusion of alternative investments within a diversified portfolio, the conversation then needs to focus on the characteristics the investor expects and desires from that AI exposure.

As these conversations take place, one result may be the eventual acknowledgment that “alternative investment” is an unfortunate misnomer. Perhaps the discussion is really just about what level of investment constraint investors want to place on the construction and management of diversified—and ultimately pretty traditional—portfolios.

Optimizing Active Management Fees

An interesting behavioral aspect of the active vs. passive debate is that many advisors and HNW investors simply prefer active management, regardless of the evidence that it is very difficult to do well consistently in active management. Many advisors base their practices on a fundamental value proposition: “I can find better managers than your current advisor.” Many investors want to believe that they—or their advisors—can do better than the market.

Because both advisors and investors are likely to continue using active management, a natural question is (or should be), “How do we optimize active management fees?” A simple but powerful answer to that question is to spend active management fees where they have the highest probability of making the biggest difference. Rather than a bottom-up approach of populating a portfolio with specific active managers and then adding up the cost, many advisors take a top-down approach where a total amount of active management fee is specified and then the portfolio is built spending those active management dollars where they are likely to do the most good.

An active portfolio built primarily around long-only managers in efficient asset classes, especially if those managers employ a large number of positions, is much more likely to underperform a similar passive portfolio net of fees, and leads to the notion of “diworsification.” Interesting analysis done by the Yale endowment fund and others suggests that the dispersion of returns between top-quartile and third-quartile managers for most traditional, long-only asset classes is not wide enough to support the time and resources required to find those top-quartile managers, and that passive strategies are preferable for many of those asset classes.²

Further analysis done by Standard & Poor’s via its semi-annual SPIVA® report shows that the overwhelming majority of actively managed mutual funds underperform their respective S&P benchmarks, net of fees, over almost all time periods.³ (Note: One counterargument to this analysis is that this underperformance is based on poor construction and use of the respective S&P indexes, not actual manager performance.)

If a top-down approach to active management is taken, then four primary areas for exploration reveal themselves:

1. Traditional asset classes that historically have been less efficient and therefore offer an improved potential for active-management alpha. These might include micro-cap, international small- and mid-

cap, emerging markets, all-cap, global equity, and so forth.

2. Managers investing in more-efficient asset classes (U.S. large- and small-cap, developed international, etc.) who run high conviction, concentrated portfolios and have proven historically that they can do so successfully.
3. Nontraditional but fairly liquid investment strategies that introduce a more diverse set of potential return drivers into the overall portfolio. These might include many of the AI illustrated in figure 2—long/short, global macro, relative value, market neutral, event-driven, and momentum-oriented trading strategies. These strategies cost more to access (even in mutual funds) in comparison to more-traditional strategies, but they tend to invest in less-efficient markets and they have the potential to improve the overall diversification of the portfolio.
4. Other nontraditional but more-illiquid strategies, such as private equity, venture capital, buyouts, and real estate; the Yale analysis referenced above indicates that it is worth the time and effort necessary to locate the dispersion between top-quartile and third-quartile managers in these areas.

In a volatile and potentially low-return market environment, fees matter and are a tangible source of potential advisor added-value. That does not mean that advisors need to give up active management and adopt a passive, low-fee approach. What it does mean, however, is that they should seek to enhance the value potential of those active management fees by focusing on those investment areas and strategies that offer the biggest portfolio bang for the active management buck.

Building Thematic—or Why vs. What—Portfolios

The most practical way to apply behavioral finance concepts to wealth management is to build and manage investment portfolios that are aligned with the way investors actually think about their money. Under modern portfolio theory, the objective of portfolio construction is to maximize the

portfolio Sharpe ratio, or risk-adjusted return. In thematic investing, on the other hand, the objective is to solve specific investor problems, take advantage of identifiable trends in the larger macro-economic environment, or help investors understand why the portfolio is built as it is. Examples of thematic portfolios might include:

Goals-based: Portfolios are built and managed to address specific investor objectives rather than to optimize a statistical ratio that may or may not mean anything to the investor. Figure 3 illustrates this concept using an adaptation from Chhabra (2005).

Multi-alpha: Let's define alpha simply as any action an advisor takes in managing a portfolio that potentially adds value and investors are willing to pay for. A multi-alpha portfolio focuses on the role that each particular investment plays within the portfolio (e.g., tax and fee alpha, active management alpha, beta management alpha, low-correlation alpha, leverage and illiquidity alpha, etc.; see figure 4). These portfolios focus on why vs. what, which may have intuitive appeal to some investors.

Yield/income-oriented: Portfolios are built and managed explicitly to maximize the yield and/or income, and include several different asset classes in addition to fixed income in an attempt to improve diversification (see figure 5).

Inflation-hedge: Portfolios are constructed using asset classes and investment strategies that historically have shown inflation-protection tendencies or properties.

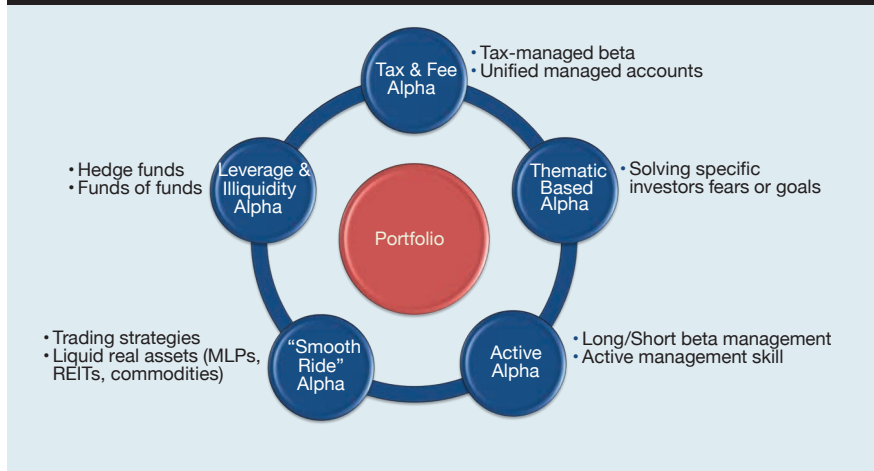
Risk factor allocation vs. asset allocation: Portfolios are built to allocate risk, which can be challenging because it requires accurate mapping of risk factors to investable assets. We see HNW investors expressing more interest in this approach. (Note that risk-parity strategies are a specialized case and the most widely commercialized example of a risk-factor approach.)

Figure 3: Wealth Allocation Framework, after Chhabra (2005)



Source: Adapted from Chhabra (2005)

Figure 4: A Multi-Alpha Portfolio Construction Approach

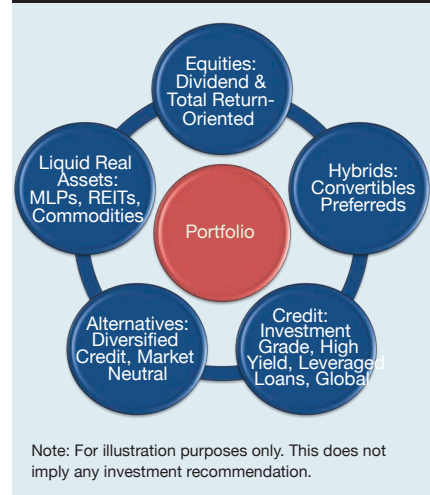


Economic regime-based: Portfolios are tactically tilted based on cyclical economic regimes, such as rising or falling inflation or rising or falling growth.

Employing Third-Party Managed Model Portfolios

Many advisors believe one of their primary value propositions is the construction and management of client investment portfolios. Nothing wrong with that, but many other advisors increasingly are seeking to outsource some or all of that function to qualified model managers—what the institutional world calls outsourced chief investment officers. Advisors who outsource are choosing to focus their activities on their core competencies—financial and estate planning, family

Figure 5: An Illustration of a Diversified Alternative Investment Portfolio



Note: For illustration purposes only. This does not imply any investment recommendation.

Table 2: Examples of Performance Reporting “Must Haves”

Comprehensive	Consolidated	Customizable
Timely and accurate	True data aggregation regardless of custodian and/or liquidity	Both time- and dollar-weighted performance, gross and net of fees
Benchmark, peer, and universe manager performance comparisons	Thematic or goals-based reporting capabilities	Aggregation and reporting on hedge funds and other illiquid assets
Scatter-plot features to show the value of portfolio construction	Tax lot accounting	Reconciliation and rebalancing capabilities
Benchmark customization	Risk-adjusted return analysis to show the advisor’s “added value”	Ad hoc reporting capabilities and online/mobile access

governance, business development, and relationship management—and outsourcing at least some portion of the investment management function as a way of improving productivity, efficiency, or (potentially) performance. Often using UMA technology, the number and quality of potential outsourced model managers continues to grow, and advisors can find providers of actively managed exchange-traded fund, mutual fund, SMA, and even AI portfolios, depending on the requirements of their specific business models.

Actively Using Performance Reporting for Business Development, Client Retention

Comprehensive performance reports can be the most tangible illustration of advisors’ added value—why they are worth their fees. Investors may be drawn to an advisor based on performance, but investors remain clients and may advocate for an advisor because they are constantly reminded in a variety of ways that the advisor is adding value. In this way, a performance report is an indispensable tool.

Performance reports that allow advisors to use them as business-development and client-retention tools should include the characteristics shown in table 2.

For more information about performance reporting, see Welch and McIntyre (2012).

Summary: Focusing on the Left Side of the Decimal Point

In a volatile, potentially low-return market regime, advisors need to think

differently about what adding value means in constructing and managing investor portfolios. We believe too many advisors spend too much time focusing on investment activities that potentially add value in basis points—they’re focusing on the right side of the decimal point.

Advisors who are most successful in growing their practices spend far more time focusing on the left side of the decimal point—i.e., on those activities that add the most value to investors’ financial lives. In terms of actual long-term value to a client portfolio, for example, we believe the hierarchy of added value might look like the following:

1. Estate planning
2. Asset allocation
3. Cost and tax management
4. Beta management (both tactical beta shifts and dialing up/down beta across the portfolio)
5. Manager/security selection (note that this is last)

The six habits of highly successful advisors allow advisors to incorporate this hierarchy of added value into their practices as well as address the objectives of sophisticated HNW investors that are trending today. Again, these six habits are the following:

1. Actively adopting and using unified managed accounts in your practice.
2. Taking advantage of the evolution of alternative investments.
3. Optimizing active management fees.
4. Building why vs. what thematic portfolios.

5. Using third-party managed model portfolios.
6. Actively using performance reporting for business development and client retention.

A few advisors may enjoy significant success without employing any of these habits or just one or two of them. In our experience, however, advisors who do use these best practices are enjoying faster growth, improved operational efficiency, enhanced client advocacy, and increased profitability. ●

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Endnotes

1. With respect and apologies to Steven R. Covey, author of *The 7 Habits of Highly Effective People* (1990).
2. See “Opportunity for Active Management” in the 2012 Yale Endowment Report, page 10. http://investments.yale.edu/images/documents/Yale_Endowment_12.pdf.
3. See the S&P Indices Versus Active Funds (SPIVA®) Scorecard: <http://us.spindices.com/resource-center/thought-leadership/spiva/>.

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ACTIVE VS. PASSIVE:

An Empirical Review for the Taxable Investor

By Dmitriy Katsnelson

The active versus passive debate goes back more than 40 years, to when Jack Bogle, founder of the Vanguard Group Inc., launched the Vanguard 500, the first index mutual fund. Ever since, ever-changing market dynamics have squashed and subsequently rekindled the debate in sequential cycles of booms and busts.

This debate became more interesting in the 1990s when several papers (e.g., Jeffrey and Arnott 1993) were published positing the additional benefits of tax efficiency inherent in passive options. Most of the initial research focused on data sampling and re-sampling through methods such as Monte Carlo analysis. Empirically, the ability to analyze after-tax returns began in 1993, when Morningstar introduced an after-tax methodology that took into consideration prevailing tax rates on short- and long-term capital gains. This methodology was revised in 2001, when the Securities and Exchange Commission (SEC) mandated that mutual funds report standardized after-tax returns in their prospectuses.¹

Passive strategies still have many critics despite the increased popularity of exchange-traded funds (ETFs), explaining why there are more active funds than stocks in the United States. Much of the acceptance of passive investment has occurred in larger-cap asset classes where the markets are assumed to be more efficient, thus making it more difficult for active managers to outperform. However, analysis accounting for taxation and fees reveals that passive investment is also a viable solution in the smaller market-capitalization segments of the U.S. market, as well

as in international markets. This article examines after-tax returns of active and passive funds.

Academic Research

Most research on after-tax returns focuses on U.S. large-cap stocks, mainly because they present the longest and most robust history of both active and passive. The seminal work by Arnott et al. (2001) focused on Monte Carlo-based sampling for an after-tax analysis on the Vanguard S&P 500 fund.

This article emulates past empirical research, such as Longmeier and Wotherspoon (2006), which focused on an empirical review of after-tax returns. That 2006 review analyzed active mutual funds versus respective indexes (adjusted for tax using the Quisenberry (2003) modified after-tax index model) instead of an investable passive proxy. At the time this was necessary because many ETFs or passive mutual funds did not have long-enough track records for an apples-to-apples comparison like the one presented in this article. Even with the adjusted index returns, the Longmeier and Wotherspoon findings yielded data very similar to our analysis, with most active managers across style boxes lagging respective passive proxies after-tax. Of the many follow-up papers that utilized different approaches, the expectations have been fairly consistent. Active managers start off with after-tax headwinds anywhere between 100 basis points (bps) to 300 bps (Luck 2000, 3) relative to passive options.

Analysis

This analysis is based on Morningstar Institutional universes, which are more “style pure” than the broader Morningstar

categories.² The institutional universes also allow for closer examination of the smaller subsectors of the 1940 Act space to glean the sources of alpha at the core of an allocation decision. It should be noted that we only reviewed 1940 Act funds and not tax-managed separate accounts. There is no good proxy or repository of empirical data for after-tax/after-fees performance of passive separate account managers because results vary depending on custody costs, negotiated management fees, and tracking error targeting.³

We reviewed the five-, 10-, and 15-year periods where applicable, with a focus on the 10-year period. The five-year period includes 2009–2013, which reflects a close proxy for the strongest bull market since the Great Recession. The 10-year period (2004–2013) represents a volatile decade for equity markets that culminated in a return consistent with the averages seen historically going back to 1926. Lastly, the 15-year period represents 1999–2013, accounting for two bubbles and two busts. We focused on pre-liquidation after-tax returns rather than post-liquidation to eliminate the variable of timing.

We omitted many universes in this analysis. Because after-tax returns do not account for state taxes, we did not examine municipal bond funds. The idiosyncrasies of state-specific taxes along with differing investor qualifications offered significant challenges. Furthermore, we avoided asset classes where there were not appropriate passive investment options with track records of at least five years. We also avoided target date funds because they are

used primarily in retirement accounts that are tax-deferred/free.

Findings: Domestic Equities

Table 1 shows an annotated Morningstar style box for the 10-year period ending December 2013 before accounting for taxes.⁴ Table 2 reflects after-tax data. The top line in each style box reflects the passive mutual fund/ETF return over the period. The Percentile figure reflects where that fund fell within the Morningstar Institutional category over the period. The Universe Median reflects the median return and the Universe 25th reflects the corresponding percentile return over that period. Where the boxes are marked green, the passive fund beat both the median and 25th-percentile return. Where highlighted yellow, the passive strategy beat only the median, and where highlighted red, it lagged both the median and the 25th-percentile return.

The first observation is that even before accounting for taxes, the past decade was very difficult for active managers. The median active manager return failed to outperform a passive proxy on a pre-tax basis in each style box. After-tax, the top 25th-percentile managed to outperform the passive proxy in only two of the nine style boxes.

Five-year data show a slight improvement for active management before tax (only active large-cap value and small-cap value medians beat the passive proxies), but the data still support passive investment. None of the active medians outpaced passive strategies after-tax, and in only four of the nine segments did the active 25th-percentile win out. The five-year window also brings microcap into the fold, which is an important component because active alpha theoretically should be easier to produce in this very illiquid asset class. However, when accounting for taxes, this hypothesis is ultimately proved untrue, with the passive option performing in-line with the median for the universe over a five-year period. Going back further, one could theoretically use the DFA Microcap fund as a passive proxy for the space. The same story holds, with DFA reflecting 26th-percentile and

Table 1: U.S. Style Box 10 Years Before Tax (Morningstar Institutional Universe)

	Return	Value	Core	Growth
Large	Vanguard MF	7.4%	8.0%	7.9%
	Percentile	48%	19%	44%
	Universe Median	7.3%	7.2%	7.5%
	Universe 25th %	8.1%	7.8%	8.7%
Mid	iShares ETF	10.1%	10.1%	9.5%
	Percentile	21%	33%	43%
	Universe Median	9.1%	9.6%	9.4%
	Universe 25th %	10.0%	10.3%	10.4%
Small	Vanguard MF	9.5%	10.2%	10.6%
	Percentile	41%	27%	24%
	Universe Median	9.2%	9.4%	9.5%
	Universe 25th %	10.1%	10.3%	10.5%
Microcap (5-Year)	iShares ETF		20.4%	
	Percentile		73%	
	Universe Median		21.7%	
	Universe 25th %		23.6%	

Source: Morningstar

Table 2: U.S. Style Box 10 Years After Tax (Morningstar Institutional Universe)

	Return	Value	Core	Growth
Large	Vanguard MF	6.9%	7.7%	7.7%
	Percentile	27%	11%	33%
	Universe Median	6.1%	6.4%	6.8%
	Universe 25th %	7.0%	7.1%	8.0%
Mid	iShares ETF	9.5%	9.7%	9.4%
	Percentile	8%	18%	28%
	Universe Median	7.9%	8.4%	8.5%
	Universe 25th %	8.5%	9.4%	9.5%
Small	Vanguard MF	9.1%	9.9%	10.5%
	Percentile	20%	11%	9%
	Universe Median	7.7%	8.3%	8.5%
	Universe 25th %	8.9%	9.3%	9.6%
Microcap (5-Year)	iShares ETF		20.1%	
	Percentile		49%	
	Universe Median		20.0%	
	Universe 25th %		22.6%	

Source: Morningstar

45th-percentile after-tax returns over the trailing 10 and 15 years, respectively.

Fifteen-year data exist for only the large-cap, mid-cap core, and small-cap style boxes, but the general theme remains the same. The

median for every style box except for large-cap growth lags the passive option. The out-performance of large-cap growth is curious and also brings the variable of survivorship bias into the equation, tilting the scales even further in favor of passive. Many large-cap

growth managers ceased operations following the burst of the tech bubble in the early 2000s, winnowing the universe substantially. According to a 2013 Vanguard study, when including those strategies that shuttered, the number of active large-cap growth funds that beat the index (not accounting for taxes) falls to less than 20 percent.

The second realization is that the passive funds are losing 10–60 bps to taxes on an annual basis, compared to 70–170 bps for active. This 60–110 bps difference is at the lower end of the academic research expectations but still within the assumed range. Other academic theories validated by the empirical data included that value managers tend to be less tax efficient than growth managers (Brunel 2000). The opposite was reflected in the empirical data of Longmeier and Wotherspoon (2006), who conceded this likely was due to an anomaly attributable to the high capital gains that growth managers realized during the late 1990s; Longmeier and Wotherspoon (2006, 4) state, “Notably, in 2001 and 2002, growth stocks produced negative returns, but tax laws do not allow mutual funds to distribute their losses, forcing any tax benefit to be deferred.” That anomaly aside, value should be less efficient. Value stocks normally carry a higher dividend yield compared to growth stocks over time, which are taxable. Furthermore, value managers by definition should suffer from greater turnover because value stocks that graduate to growth must be sold, whereas growth managers that are not valuation-conscious can own growth almost indefinitely.

Our data do not prove that passive large-cap funds are more efficient than passive small-cap funds. Theoretically, passive large-cap managers should be more efficient because passive small-mid-cap managers are forced to sell stocks as they graduate up the market-cap spectrum, resulting in greater turnover. Longmeier and Wotherspoon (2006) showed that turnover’s inverse relationship to after-tax returns was pervasive, explaining nearly 50 percent of tax-alpha variation. The empirical data, however, showed no notable difference in tax cost between large- and small-cap passive investments. This is possibly explained by the concept of “good turn-

Table 3: International 10 Years Before Tax (Morningstar Institutional Universe)

	Return	Core
International Large	Vanguard MF	7.3%
	Percentile	41%
	Universe Median	7.0%
	Universe 25th %	8.1%
Emerging Markets	Vanguard MF	10.4%
	Percentile	48%
	Universe Median	10.4%
	Universe 25th %	11.8%
Europe	Vanguard MF	7.4%
	Percentile	52%
	Universe Median	7.4%
	Universe 25th %	10.2%
Pacific Asia ex Japan	iShares ETF	11.1%
	Percentile	54%
	Universe Median	11.2%
	Universe 25th %	12.7%

Source: Morningstar

Table 4: International 10 Years After Tax (Morningstar Institutional Universe)

	Return	Core
International Large	Vanguard MF	6.6%
	Percentile	33%
	Universe Median	5.7%
	Universe 25th %	7.0%
Emerging Markets	Vanguard MF	10.0%
	Percentile	27%
	Universe Median	9.1%
	Universe 25th %	10.1%
Europe	Vanguard MF	6.7%
	Percentile	44%
	Universe Median	6.3%
	Universe 25th %	8.6%
Pacific Asia ex Japan	iShares ETF	10.0%
	Percentile	39%
	Universe Median	9.6%
	Universe 25th %	11.3%

Source: Morningstar

over” and “bad turnover” (Bouchey 2010, 5). Graduation up the cap spectrum that generates long-term rather than short-term gains is considered good turnover. Furthermore, since, on average, more small-cap compa-

nies fail, their relegation out of small cap can trigger tax-efficient capital losses.

Findings: International Equities

International style boxes are a relatively new

phenomenon, with passive style options arising only within the past five years. However, international large, emerging market, and regional proxies have been around for much longer. Table 3 shows pre-tax returns for the 10-year period ending December 2013.⁵ Table 4 shows after-tax data.

The takeaways are similar to that in the United States, although to a slightly lesser degree. Passive still beats the after-tax medians across the board but generally lags the top 25th-percentile active managers, reflecting greater potential for active-manager alpha generation. This relationship persists for five- to 15-year periods for international large and emerging markets, where there is sufficient data for longer-term review.

Findings: Fixed Income and Other Equities

We reviewed similar data for fixed income and nontraditional equities but found either lacking passive proxies or insufficient history. For the fixed income universes, this is likely due to the scarcity of pure passive solutions because most passive options reflect some degree of universe sampling. The aggregate bond universe, for example, represents more than 8,000 bonds. Most passive managers own only a fraction of the securities, in effect becoming active managers themselves. In the few areas where passive-esque options did have a long-enough track record, pre/post-tax returns varied little between active and passive. Intuitively, this makes sense because most of the return comes via coupon and not via capital appreciation (which is where passive can widen the gap via lower/smarter turnover).

Elsewhere, the only notable findings were within U.S. real estate investment trusts (REITs). A Vanguard passive REIT fund provided returns that fell into the 45th, 33rd, and 36th percentiles over the trailing five-, 10-, and 15-year periods on an after-tax basis.

Unrealized Gains

One important component often noted by active managers is that passive funds offer more risk with respect to future distributions. That is, because passive funds are not realizing gains unless there is an index

Table 5: U.S. Style Box Potential Capital Gains (Morningstar Institutional Universe)

	Return	Value	Core	Growth
Large	Active (MF/ETF)	13%	16%	24%
	Passive Mutual Fund	34%	34%	28%
	Passive ETF	7%	15%	12%
Mid	Active (MF/ETF)	8%	19%	24%
	Passive Mutual Fund	22%	26%	11%
	Passive ETF	-10%	6%	-7%
Small	Active (MF/ETF)	16%	24%	22%
	Passive Mutual Fund	21%	21%	32%
	Passive ETF	11%	7%	18%
Microcap (5 Year)	Active (MF/ETF)		19%	
	Passive Mutual Fund		N/A	
	Passive ETF		-25%	

Source: Morningstar

Table 6: International Potential Capital Gains (Morningstar Institutional Universe)

	Return	Core
International Large	Active (MF/ETF)	-13%
	Passive Mutual Fund	11%
	Passive ETF	5%
Emerging Markets	Active (MF/ETF)	-2%
	Passive Mutual Fund	-2%
	Passive ETF	-21%
Europe	Active (MF/ETF)	-3%
	Passive Mutual Fund	2%
	Passive ETF	0%
Pacific Asia ex Japan	Active (MF/ETF)	2%
	Passive Mutual Fund	-1%
	Passive ETF	-9%

Source: Morningstar

change, they accrue long-term capital gains that they will have to pay out eventually. Because active managers distribute realized gains more consistently, they have fewer unrealized gains to carry forward. In practice, this theory holds only partially true.

When discussing mutual funds alone, it is true that active funds carry far fewer unrealized gains. In tables 5 and 6, there are only a few anomalies (mid growth and small core) where the average passive mutual fund has less potential capital gains exposure.⁶ When factoring ETFs into the fold, however, that changes dramatically due to the inherent tax efficiency of an ETF's in-kind creation/redemption process.

In short, unlike mutual funds that have to buy and sell securities to meet investor contributions/redemptions, ETFs have the ability to receive and deliver shares in kind, often choosing to deliver their lowest cost-basis shares during creation and highest cost-basis shares during redemption. This allows some ETFs to not distribute capital gains at all and accrue very little gain regardless of the market environment.

Conclusion

The generally accepted passive argument subscribes to the following hypothesis: Use cheap passive options for your portfolio's beta (generally U.S. large-cap stocks) and use active managers in less-efficient areas, such as U.S.

small-cap and emerging markets. In practice, when accounting for taxes, fewer asset classes lend themselves to the “less efficient” moniker. Bringing potential for capital gains into the discussion only enhances the argument for passive if expressed through ETFs. As has been echoed by academic research over the past 30+ years: “Taxes matter.” ●

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Endnotes

1. Morningstar revised its after-tax methodology to reflect the Securities and Exchange Commission (SEC) guidelines and has revised it several times since to reflect changes in the tax code. The pre-liquidation return reflects the tax effects of fund distributions, such as short-term capital gains, long-term capital gains, and dividends. Shareholders must pay tax on any distributions they receive from the fund in the year in which those payments are distributed. The pre-liquidation after-tax return does not reflect the capital gains/losses that investors might incur from selling the fund at the end of the time period. Morningstar also refers to this measure as “Return after Tax on Distributions.” Read the full “Morningstar Definitions of Pre-Liquidation After-Tax Return” at http://corporate.morningstar.com/US/documents/MethodologyDocuments/MethodologyPapers/MorningstarAfterTaxReturn_Methodology.pdf.
2. Morningstar Direct was used as the engine of this analysis. Institutional categories were filtered to include only funds without a front- or back-end load (loads are counted in after-tax returns) and the oldest share class of those funds, in order to avoid double counting for multiple share classes.
3. Separate account tax-managed accounts generate tax alpha by investing in a subset of a passive index stocks and then generating alpha by realizing losses in like stocks (i.e., sell Pepsi and buy Coke when there is a potential loss). A client's tolerance for tracking error (i.e., performance/volatility dispersion vs. an underlying benchmark) can play a significant role in the level of tax alpha.
4. Vanguard Investor Share class mutual funds were used as proxies for large- and small-cap passive

mutual funds. iShares Russell Mid cap and iShares Russell microcap ETFs were used as proxies for mid and micro due to no corresponding Vanguard proxy. The microcap style box reflects only a five-year return because no purely passive investment has more than a 10-year track record. We found that pre- and after-tax returns for the ETF and Vanguard mutual funds were substantially similar over common timeframes.

5. Vanguard Investor Share class mutual funds were used as proxies for international large, emerging markets, and Europe. The iShares MSCI Pacific ex-Japan ETF was used for Asia Pac/ex Japan due to the lack of a corresponding Vanguard proxy.
6. These numbers reflect the average potential capital-gains exposure of the funds in Morningstar Institutional Universes as defined by endnote 2. Morningstar defines potential capital gains exposure in the following way: “Potential capital gain exposure measures how much the fund's assets have appreciated, and it can be an indicator of possible future capital gain distributions. Morningstar calculates potential capital gain exposure (PCGE) to give investors some idea of the potential tax consequences of their investment in a fund. PCGE measures the gains that have not yet been distributed to shareholders or taxed. It is especially relevant for investors who are considering a new purchase of a fund. If a lot of gains are embedded in the fund, the investor potentially may receive capital-gain distributions for gains that happened before they purchased the fund. A positive PCGE means that the fund's holdings generally have increased in value. So, a high PCGE can indicate the potential for upcoming capital-gain distributions. A negative PCGE means that the fund has reported losses on its books. The fund may be able to use those losses to offset future gains, thereby reducing the possibility of a capital-gain distribution. Thus, investors should expect funds with negative capital-gain exposure to be highly tax-efficient going forward.”



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Behavioral Finance

Overcoming the Cost of Being Human

By Greg B. Davies, PhD

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.

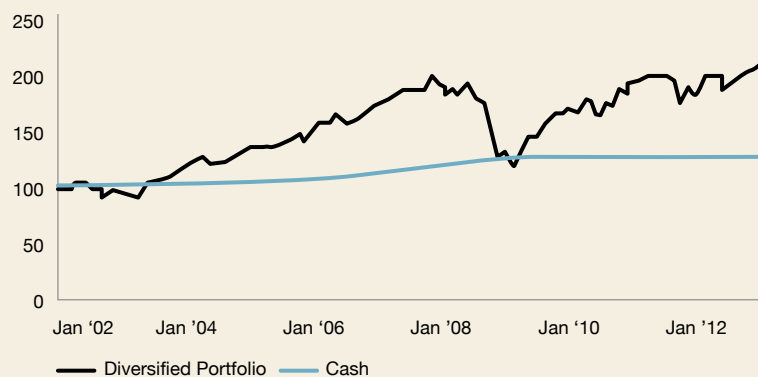
This paradox arises from the fact that, unless we look after our short-term need for emotional comfort, we may find it very difficult to enact and stick with the so-called right solution. Ultimately, investors who strive to ignore emotional responses will aim for perfection but fail, and fail expensively. 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 invest-

FIGURE 1: THE LONG-TERM VALUE OF DIVERSIFIED INVESTING

Cumulative Returns—Indexed



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.

tor 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 transac-

“ 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. ”

tion 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.

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.

“ 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.

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 sub-optimal 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.

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 discomfiting 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. 

Greg B. Davies, PhD, is head of behavioral and quantitative finance with Barclays. He earned an undergraduate degree from the University of Cape Town, as well as an MPhil in economics and a PhD in behavioral decision theory, both from Cambridge University. Contact him at greg.davies2@barclays.com.

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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