Merrill Lynch
Bank of America Corporation

The Value of Personal Financial Advice

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ALL INVESTMENT STRATEGIES INVOLVE RISK AND ARE SUBJECT TO LOSS.
PLEASE SEE THE DISCLOSURES AT THE END OF THIS PAPER.

How much value does personalized advice from a financial advisor add to your portfolio? It's a question many investors ask from time to time—and may be asking more frequently now that automated online services can provide advice for a low or zero fee.

Until recently, actually measuring the value of personal financial advice was difficult if not impossible—reliable data was simply not available. Today, however, that's no longer the case. Researchers, prompted in part by the rise of online advice services (see the Box at the bottom of page 5), have been finding ways to appraise the value that customized advice from a human can provide. The research reviewed in this paper suggests that:

- People at different stages of life, with different degrees of financial sophistication, wealth, needs and goals, vary widely in what they can gain from financial advice.
- For many investors, personal financial advice can potentially improve returns before fees by 2% to 3% a year relative to what they could achieve without this advice.

In this paper, we review the research findings and highlight the ways in which personal financial advice can measurably improve investor outcomes. We also present estimates of this positive impact based on a thorough survey of academic and practitioner research. Lastly, we offer perspective on these findings.

How we conducted this research

This report reviews a range of research that estimates the value of personal financial advice using a variety of methodologies. Four of these studies—by Vanguard, Morningstar, Envestment and Russell Investments—take a broad-ranging look at the benefits of professional financial advice. The studies found that this advice added value on the order of 2 to 3 percent per year (see the bottom line of Exhibit 1 on p. 6 for their specific estimates and the Appendix to this report for more background on the methodologies they used). Because each of these four studies focuses on different aspects of personal financial advice, we summarize their findings on a consistent basis relative to eight value-creating activities, listed in Exhibit 1.

In addition to these four comprehensive studies, we also review a variety of other studies, each of which focuses on a single aspect of personal financial advice, such as tax management or asset allocation. Taken together, this research offers ample evidence of the benefits of personal financial advice.

These studies do not, however, take into account the cost of personal financial advice. In deciding whether personal financial advice makes sense for them, investors should weigh its cost against its benefits.

Goals-Based Wealth Management

An evolution is under way in wealth management, with the emphasis shifting from simply beating a benchmark to something far broader: identifying an investor's objectives and developing a strategy to pursue them.[1] The new approach, which many financial institutions are adopting, is often called goals-based wealth management (GBWM). By using GBWM, financial advisors seek to better understand each client's needs, goals, resources and priorities, develop a strategy to pursue these goals, and provide advice and guidance reflecting those goals—with appropriate course-correction along the way.

In Brief: Three Steps of GBWM

Step 1:

Understanding Your Life

The GBWM process typically begins with a CLIENT ASSESSMENT[2] that clarifies the client's life priorities, investment personality and risk profile. As part of this process, clients then articulate their goals and identify the financial resources they have available to fund them.

Step 2:

Your Financial Strategy

Once goals are set, the advisor usually adopts an ASSET ALLOCATION that aligns with these goals. Implementation of investment strategies seeks to create value for clients through numerous activities that may include BEHAVIORAL COACHING, TAX MANAGEMENT, GOAL-RELATIVE OPTIMIZATION, PRODUCT ALLOCATION, AND SAVINGS AND WITHDRAWAL GUIDANCE.

Step 3:

Staying on Track

Through ongoing conversations with clients, the advisor regularly monitors their current personal and financial concerns, and updates their financial plan accordingly. As part of this process, the client's portfolio will periodically be REBALANCED as goals are realized or as asset allocation drifts from where it should be.

[1] Industry stalwart Charles D. Ellis discusses this trend in "The Rise and Fall of Performance Investing," *Financial Analysts Journal*, July/August 2014.

[2] Fully capitalized terms in this section refer to the value-creating activities listed in Exhibit 1.

The value of financial advice through the "lens" of GBWM

As noted earlier, researchers have been studying the impact of personal financial advice. One tool they have been using is estimating the value added by key components of the goals-based wealth management approach. (Exhibit 1, on page 6, presents a summary of these estimates.) What follows is a description of these components and the potential benefits they may offer.

Understanding your life

A critical first step in developing effective financial advice is to know the investor. Focus group research by Merrill Lynch has identified seven life priorities that reflect key concerns and opportunities for investors: family, finance, giving, health, home, leisure and work. Focusing on these topics can enable advisors to have more personal and meaningful conversations with their clients.

After listening to a client, the advisor usually applies a systematic methodology to clarify the client's life priorities and investment personality and to create a financial profile. Doing so is essential for designing a comprehensive financial plan that effectively suits an investor's needs. Consistent with estimates by Russell and Envestnet (see Exhibit 1, "Client assessment"), research by Marsden et al., found that the client assessment process improved investment performance by up to about **0.6% annually**.[3]

Understanding automated online advice services

With the increase in popularity of computerized online financial advice services, industry observers have been thinking more deeply about the value of personal financial advice. But how do these computer systems go about their business?

A typical automated online advice service prompts investors to provide details about their financial assets and goals, and to choose from pre-set portfolio alternatives, along with other defined steps. The system then uses dedicated programs—algorithms—to process the information and to provide advice. This "rules-based" approach may be a good fit for clients with relatively uncomplicated financial goals, who are seeking more guidance and are comfortable investing online. Other investors may gain more from in-depth and typically ongoing discussions with a personal advisor about their financial needs, goals and resources.

[3] Mitchell Marsden, Cathleen Zick and Robert Mayer, "The Value of Seeking Financial Advice." *Journal of Family and Economic Issues*, 32(4): 625–643, 2011.

Exhibit 1: Goals-Based Wealth Management, its associated activities and their estimated value added

Estimates of annual value added (in basis points) by value-creating activities

Steps	Value Creating Activities	Vanguard[1]	Morningstar[2]	Envestnet[3]	Russell Investments[4]	Marsden et al.[5]	Hackethal et al.[6]	Von Gaudecker[7]	Morningstar[8]	Barber et al.[9]	Dalbar[10]	Geddes et al.[11]	Blanchett[12]
Understanding Your Life	Client assessment			>50	85	60							
Your Financial Strategy	Asset allocation		45	28			19	50					
	Behavioral coaching	150			200–220				100	400	352		
	Tax management	0–75		100	50							190	
	Goal-relative optimization		12										165
	Product allocation		33	82–85	25–35								
	Savings and withdrawal guidance	110	70										
Staying on Track	Rebalancing	35		44	30								
Total Estimated Value Added		**370**	**160**	**>304**	**390–420**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

Sources: (1) Francis M. Kinniry, Colleen Jaconetti, Michael A. DiJoseph and Yan Zilbering, "Putting a value on your value: Quantifying Vanguard Advisor's Alpha," Vanguard, 2016; (2) David Blanchett and Paul Kaplan, "Alpha, Beta, and Now Gamma," *The Journal of Retirement*, Fall 2013; (3) PMC Quantitative Research Group, "Capital Sigma: The Sources of Advisor-Created Value," Envestnet, 2015; (4) Brad Jung, Russell Investments, "The Value of an Advisor: Worth More Than 1%," 2013, "Value of an Advisor Is Still More Than 1%," 2014, "Value of an Advisor: Once Again, Greater Than 1%," 2015, and "The value of a tax aware advisor: Where robotics get terminated," 2015; (5) Mitchell Marsden, Cathleen Zick and Robert Mayer, "The Value of Seeking Financial Advice," *Journal of Family and Economic Issues*, 32(4): 625–643, 2011; (6) Andreas Hackethal, Michael Haliassos and Tullio Jappelli, "Financial Advisors: A Case of Baby Sitters?" *Journal of Banking & Finance*, 36(2): 509–524, 2012; (7) Hans-Martin von Gaudecker, "How Does Household Portfolio Diversification Vary with Financial Literacy and Financial Advice?" *The Journal of Finance*, April 2015; (8) Morningstar, "Mind the Gap 2015"; (9) Brad M. Barber, Yi-Tsung Lee, Yu-Jane Liu and Terrance Odean, "Just how much do individual investors lose by trading?" *Review of Financial Studies*, 22(2): 609–632, 2009; (10) Dalbar, "Quantitative Analysis of Investor Behavior," 2016; (11) Patrick Geddes, Lisa R. Goldberg and Stephen W. Bianchi, "What Would Yale Do If It Were Taxable?" *Financial Analysts Journal*, July/August 2015; (12) Blanchett, David. "The Value of Goals-Based Financial Planning," *Journal of Financial Planning* 2015.

Notes: "NA" denotes a study that estimates the value added of a single GBWM activity, as opposed to GBWM in its entirety.
A "basis point" is a hundredth of a percent. So, for example, 45 basis points is 0.45%.
The value-creating activities identified here represent those activities most commonly used by Merrill Lynch to effect Goals-Based Wealth management. Other activities may exist that are not used, but would be beneficial for certain clients. Unless otherwise stated, the values presented in this table do not consider the effect of advisor fees required to effect the value-creating activities.

Your financial strategy

An essential part of the financial advice process is the clear articulation and prioritization of goals.

Goal articulation

Several fundamental questions form the basis of any thorough financial advice: How can an investor's personal needs be expressed as financial goals? What are the required cash flows? How much should an investor invest to fund a goal? How should these goals be prioritized?

The advisor works with clients to translate their personal needs and concerns into a set of distinct financial goals. Financial advice seeks to balance the client's competing financial goals with suitable funding resources.

Because all resources are finite, investors must rely on objective guidance to sort out each goal's relative importance and the interplay among income investment, spending and risk management. Many investors find that robust goal articulation benefits from a human touch.

Quantifying goals and funding sources

Once investors have articulated their goals, a financial plan quantifies them. For example, the goal of funding a child's college education can be translated into a series of cash flows supported by current and future savings. Cash flow analysis can clarify the extent to which goals can be funded and how competing goals can be prioritized.

This analysis can also highlight the need to take action, such as boosting future savings by reducing expenses or increasing income. In a study of goals-based planning, Morningstar's David Blanchett found that deciding which goals to fund and how to fund them can create benefits equivalent to generating an incremental return of up to **1.65% per year** over the lifetime of a household.[4] In other research, he found that effective cash flow management is the most important determinant of retirement success.[5]

[4] David M. Blanchett, "The Value of Goals-Based Financial Planning," *Journal of Financial Planning*, June 2015.

[5] David M. Blanchett, "The ABCDs of Retirement Success," *Journal of Financial Planning*, May 2013.

Asset allocation

Financial advice can add value through disciplined asset allocation. The asset allocation process begins with a crucial step: understanding the risk tolerance and investment horizon of the investor with respect to each goal. Different goals imply different risk capacities and time frames, and the investor's portfolio should be constructed accordingly.

If, for example, an investor's goal is to fund a child's college education starting five years from now and the investor views this goal as extremely important, then the portfolio that supports this goal should leave little to chance.

If, by contrast, the goal is to achieve a high return over the next two decades even while risking principal, then it may be acceptable to assume more risk to achieve a higher expected return.

Translating qualitative goals into a strategy that balances risk and reward is an important, tangible benefit that financial advice provides. The asset allocation chosen should reflect the risk tolerance and investment horizon for the goal under consideration.

To ascertain the value financial advice adds in terms of portfolio performance, researchers have compared professionally managed accounts to those managed without the benefit of financial advice.[6] These studies suggest that professionally managed accounts typically have higher returns, lower risk and lower probability of losses. A study by Hackethal et al., for example, found that the average monthly return of managed accounts can be up to **0.19% higher** than that of unadvised accounts. Notably, the volatility of accounts associated with financial advice was only about two-thirds that of unadvised accounts.[7]

The Importance of Diversification

Diversification is a key aspect of constructing a portfolio whose risk is appropriate for an investor's goals. Based on the investor's risk tolerance assessment, the advisor must first determine an appropriate asset allocation, such as 60% to equities and 40% to fixed income. In providing diversification, financial advice might also include crafting a personalized asset allocation that incorporates non-traditional investments such as commodities and REITs, or excludes specific sectors to which the client may already have exposure. This customization can also add a great deal of value.

Implementing a goals-based strategy

Successfully implementing an investor's financial plan requires the execution of an investment strategy. What are the appropriate asset classes and investment vehicles to meet the investor's financial objectives? Should an investor include actively managed funds in the portfolio or only passively managed ones? How does incorporating actively managed funds affect fees, taxes and portfolio performance? We believe that addressing these difficult yet important questions requires expertise.

[6] Ralph Bluethgen, Andreas Gintschel, Andreas Hackethal and Armin Muller, "Financial Advice and Individual Investors' Portfolios." SSRN 968197, 2008; and Claude Montmarquette and Nathalie Viennot-Briot, "The Value of Financial Advice," *Annals of Economics and Finance*, 16(1): 69–94, 2015.

[7] Andreas Hackethal, Michael Haliassos and Tullio Jappelli, "Financial Advisors: A Case of Baby Sitters?" *Journal of Banking & Finance*, 36(2): 509–524, 2012.

Behavioral coaching

Not all benefits of financial advice are readily quantifiable, yet some lend themselves to empirical study. Consider, for example, the discipline needed to avoid the pitfalls of emotional investing. It has been well documented that investors, driven by fear or greed, often react to capital market gyrations by making investment decisions that undermine long-term investment performance.[8] Goals-based wealth management can help combat this tendency by shifting the investor's focus from short-term performance to meaningful long-term goals.

Research shows that financial advice tends to reduce behavioral biases that impair portfolio performance. One example is the behavioral bias known as the "disposition effect," the tendency of investors to sell winners and keep losers. Researchers have found that professional advice helps to counter this bias. Shapira and Venezia report that the disposition effect arises significantly less often among accounts that are professionally managed.[9]

Another well-known behavioral bias is aggressive trading, the tendency to make rapid, substantial changes in portfolio allocations. Such behavior tends to increase when markets are volatile. The aggressive trading bias is often attributed to overconfidence—excessive faith in one's own judgment that may be driven by emotions such as greed or anxiety. A study by Barber et al., found that aggressive trading by individuals can reduce return performance by up to about **4% a year**.[10] Maymin and Fisher document that investors who receive professional advice are considerably less prone to aggressive trading.[11]

Tax management

Financial advice also has a significant tax management component. Investors typically have both tax deferred accounts (e.g., 401(k)s, IRAs) and taxable ones, raising several important choices. First, which investments should be held in which account? This decision is known as asset location. It typically makes sense to place less tax-efficient assets in tax-deferred accounts and more tax-efficient assets in taxable accounts. A study by Vanguard found that asset location advice generated up to **0.75%** of additional annual after-tax returns. Similarly, Russell and Envestnet estimate that tax management improved annual after-tax returns by **0.5%** and **1.0%**, respectively (Exhibit 1).

Another key tax management strategy relevant to taxable accounts is tax-loss harvesting. This entails generating a tax benefit from realizing losses. Tax-loss harvesting can boost after-tax returns for a taxable investor who has realized gains that can be offset with losses. Geddes et al., estimate that for a federal-only taxable investor in the top tax bracket, the benefit can be up to **1.0% to 1.9% per year**.[12]

[8] Dalbar, "Quantitative Analysis of Investor Behavior," 2016.

[9] Zur Shapira and Itzhak Venezia, "Patterns of behavior of professionally managed and independent investors," *Journal of Banking & Finance* 25(8): 1573–1587, 2001.

[10] Brad M. Barber, Yi-Tsung Lee, Yu-Jane Liu and Terrance Odean, "Just how much do individual investors lose by trading?" *Review of Financial Studies*, 22(2): 609–632, 2009. The study does not take account of advisor fees.

[11] Philip Z. Maymin and Gregg S. Fisher, "Preventing emotional investing: An added value of an investment advisor," *Journal of Wealth Management*, 13(4): 34–43, 2011.

[12] Patrick Geddes, Lisa R. Goldberg and Stephen W. Bianchi, "What Would Yale Do If It Were Taxable?" *Financial Analysts Journal*, July/August 2015.

Retirement planning

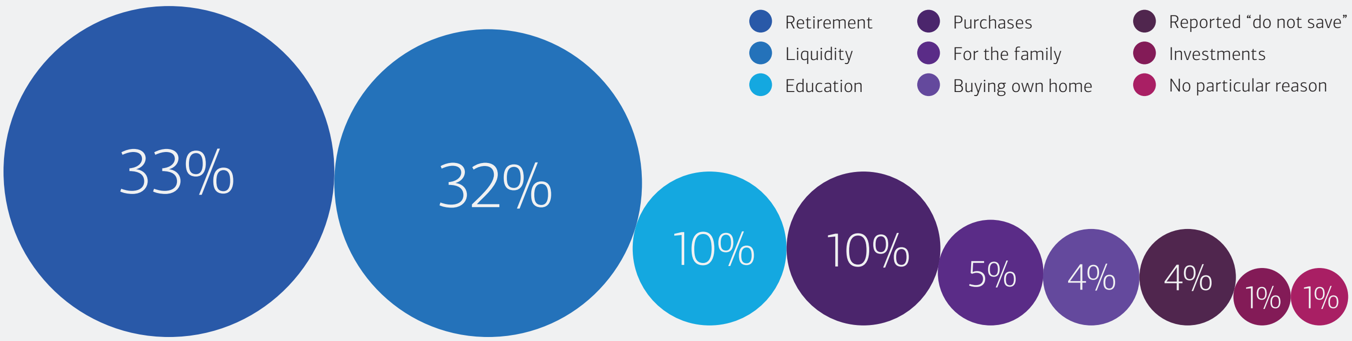
Retirement is the number one reason why U.S. households save and invest (see Exhibit 2). Thus, for many clients the complex challenge of retirement planning is a crucial aspect of financial advice.

Investors must contend with many significant risks in retirement, including longevity risk, inflation risk, sequence of returns risk and the risk of requiring costly health care.[13] A robust financial plan considers a full range of risk factors and crafts a retirement strategy that addresses the client's lifelong cash flow needs.

Key questions include: when to retire, where to live in retirement, whether a client has sufficient assets to maintain a desired lifestyle through retirement, and how to plan for unexpected events such as chronic illness.

Financial advice can add value by answering these fundamental questions and creating a comprehensive strategy that might provide allocations to investments, annuities and insurance, thus offering the potential for secure lifetime income while attempting to mitigate market, inflation, longevity, mortality and long-term care risks. This advice might also include a strategy for when to claim Social Security and a plan for sustainable spending.

Exhibit 2: Most important reason for families saving



Source: Federal Reserve Board, Survey of Consumer Finances, *Federal Reserve Bulletin*, June 2012, Table 3. Based on average of survey responses for the years 2001, 2004, 2007 and 2010.

[13] Sequence of returns risk is the risk of experiencing poor investment returns around the time of retirement. For more on significant retirement risks, see David Laster, Nevenka Vrdoljak and Anil Suri, "Strategies for Managing Retirement Risks," *Journal of Retirement*, Summer 2016.

Savings and withdrawal guidance

Another important benefit of financial advice is that it may strengthen an investor's discipline to meet financial goals. People commonly procrastinate when it comes to saving, in part because they lack a clear picture of whether or not they are on track to meet their goals. Gerhardt and Hackethal found that those who receive financial advice are far more likely to save.[14]

For retirees, another important component of financial advice is withdrawal strategy. A common rule of thumb is the traditional "4% rule," which states that an investor can safely take a 4% withdrawal of the initial portfolio value in the first year of retirement and then increase the amount withdrawn in subsequent years in line with inflation.

We believe a potentially better approach is a dynamic strategy that adjusts the investor's annual withdrawal based on portfolio performance. Morningstar research shows that employing a dynamic withdrawal strategy can allow investors to spend more in retirement.[15]

[14] Ralf Gerhardt and Andreas Hackethal, "The influence of financial advisors on household portfolios: A study on private investors switching to financial advice." Available at SSRN 1343607, 2009.

[15] David Blanchett and Paul Kaplan, "Alpha, Beta and Now... Gamma," *Journal of Retirement*, Fall 2013; Wade Pfau, "Are planners worth the fees they charge?" Advisor Perspectives, 2013.

Staying on track

Financial advice is not a one-time exercise. Life is replete with changes, many of which require reevaluating one's priorities and financial goals. The investment environment changes as well. Because of this, the asset allocation in a financial plan may need adjustment to ensure that it remains aligned with the investor's objectives. An advisor creates value by fine-tuning a client's financial plan periodically to reflect the changes in his or her life priorities and market fluctuations. Financial planning is an ongoing process that lasts as long as the client relationship does—and sometimes even longer as wealth transfers from one generation to the next.

Rebalancing

Rebalancing a portfolio regularly can help an investor stay within a risk tolerance zone and prevent an overreaction to market movements, benefits that outweigh rebalancing costs. While the goal of rebalancing is to control risks rather than to maximize returns, regular systematic rebalancing has the potential to generate higher returns when taking market momentum into account. Vanguard research estimates that annual systematic rebalancing can increase the expected portfolio return by up to **0.35% annually**, while Russell and Envestnet estimate this annual return improvement to be **0.30%** and **0.44%**, respectively (Exhibit 1).

Another key reason to rebalance periodically is to keep the investor's portfolios consistent with a predefined asset allocation. The initial stage of portfolio construction includes the design of a portfolio with a proper degree of diversification, reflected in an asset allocation, such as a 60/40 split between equity and fixed income. This "benchmark portfolio" provides an indication of the client's risk tolerance zone.

Although the asset allocations of the portfolios crafted by an advisor to meet a client's investment goals may differ from those of their benchmark portfolios, how well the portfolios perform relative to these benchmark portfolios is crucial in determining whether the investment strategy meets the client's expectations.

To measure the value that financial advice adds in terms of the consistency between the implemented portfolios and the benchmark portfolios, researchers compare the "tracking error" of portfolios associated with financial advice with that of unadvised portfolios.[16] Research indicates that portfolios based on financial advice have **tracking error up to 39.5% lower** than self-directed accounts.[17] In other words, financial advice can create greater alignment between investment portfolios and the goals they are designed to achieve.

[16] Tracking error is a measure of how closely a portfolio follows the index to which it is benchmarked.

[17] Ralph Bluethgen *et al., op. cit. 344.*

Conclusion

The emergence of online investment services that use computer algorithms to provide financial advice for a low or zero fee has prompted some investors to question the value of personalized financial advice offered by human advisors.

Using findings of recent studies and the experience of industry practitioners, this paper has explored a wide range of benefits real advisors can offer through the various stages of client engagement as reflected in goals-based wealth management.

Two points are key:

- People at different stages of life, with different degrees of financial sophistication and wealth and different needs and goals, vary widely in what they can gain from financial advice.
- The research discussed in this paper indicates that for many investors, financial advice can add value of up to **2% to 3% per year.**

Self-directed investing or online investment advice may be a good fit for knowledgeable, disciplined investors. But, for those who lack the knowledge or self-discipline to implement a goals-based process, we believe that hiring a skilled advisor can add value.

Our Commitment to GBWM

Goals-based wealth management (GBWM) is a scalable and consistent approach that Merrill Lynch advisors use to help their clients pursue their goals. GBWM can help our advisors uncover client concerns and priorities, evaluate risk, develop portfolios that align clients' resources with what they want to achieve, and more. This commitment to focusing on each client's goals has helped our advisors garner top ratings from *Barron's*, the weekly financial magazine. Merrill Lynch advisors led the 2016 annual list of *Barron's* Top 1,200 Advisors for the eighth consecutive year, for example, and Merrill Lynch had the most women receive the Top 100 Women Financial Advisors recognition from *Barron's* for the 11th year in a row.[18,19] To learn more about how GBWM helps us put our clients first, please speak with your financial advisor.

[18] *Barron's* "America's Top 1,200 Advisors: State-by-State," March 7, 2016. *Barron's* is a trademark of Dow Jones & Company, Inc. All rights reserved. Financial advisor criteria: minimum seven years financial services experience and employment at current firm for at least one year. Numerous quantitative and qualitative measures (including assets managed, revenue produced and quality of practice) determine the financial advisor rankings.

[19] *Barron's* "America's Top 100 Women Financial Advisors," June 4, 2016. For information about the selection criteria, go to http://details-he.re/JxcfBM. *Barron's* is a trademark of Dow Jones & Company, Inc. All rights reserved. Financial advisor criteria: minimum seven years financial services experience and employment at current firm for at least one year. Numerous quantitative and qualitative measures (including assets managed, revenue produced and quality of practice) determine the financial advisor rankings.

Appendix:

A Summary of the Methodologies Used in Four Broad-Ranging Studies of the Value of Personal Financial Advice

Vanguard	
Paper	*Putting a Value on Your Value: Quantifying Vanguard Advisor's Alpha*
Year Published	*2016*
Purpose	*This paper attempts to quantify the benefits that advisors can add relative to others who are not using such services*
Key Conclusion	*The authors believe implementing Vanguard Advisor's Alpha framework can add about 3% in net returns for clients*
Methodology	***Behavioral Coaching:*** *Potential value added is 150 bps* *1. Vanguard analyzed the personal performance of 58,168* ***self-directed Vanguard IRA accounts*** *over* ***five years through December 31, 2012****.* *2. The authors believe that the 5-year period was an extremely tumultuous period in the global markets.* *3. Vanguard compares the performance of the accounts to* ***Vanguard Target Retirement Funds*** *for the same 5-year period.* *4. The authors use the target-date funds as a proxy for the investors working with financial advisors because the funds provide some of the structure and guidance that a financial advisor might have provided.* *5. The authors find that investors who made even one exchange over the entire 5-year period through 2012 trailed the applicable Vanguard target-date fund benchmark by* ***150 bps****.* ***Tax Management:*** *Potential value added is 0-75 bps* *The authors reach this conclusion by taking the following steps:* *Step 1: Construct 4 portfolios which hold tax-efficient equity investments in taxable accounts and hold taxable bonds within tax-advantaged accounts.* *Step 2: Under their assumptions for asset returns, the authors conclude that the potential benefits could be up to 75 bps.* ***No specific time periods or accounts are identified.*** ***Saving and Withdrawal Guidance:*** *Potential value added is 0-110 bps* *The authors compare the internal rate of return of the following three withdrawal strategies:* *1. Spend taxable assets before tax-advantaged accounts (strategy proposed by financial advisors).* *2. Spend from tax-deferred assets before taxable.* *3. Spend from tax-free assets before taxable.* *Comparing the internal rates of return of the three withdrawal strategies, the potential benefit could be up to 110 bps.* ***No specific time periods or accounts are identified.*** ***Rebalance:*** *Potential value added is up to 35 bps* *Step 1: Collect historical data of equity and bonds ranging from* ***1960 to 2015*** *Step 2: Construct two 60%/40% (equity/bond) portfolios, one rebalanced annually and the other without rebalancing.* *Step 3: Find a portfolio which is rebalanced annually and obtains a similar risk level as does the 60-40 portfolio without rebalancing.* *Step 4: The portfolio is 80%/20% (stock/bond).* *Step 5: Compare the difference between the returns of the two portfolios, which is up to 35 bps.*

Morningstar	
Paper	*Alpha, Beta and Now Gamma*
Year Published	*2013*
Purpose	*The authors present a concept called "Gamma" designed to quantify the additional value that can be achieved by an individual investor from making more intelligent financial planning decisions*
Key Conclusion	*The authors find that the value added by a financial advisor could be an annual arithmetic return increase of 1.59%*
Time Period	*N/A*
Universe of Accounts	*401(k) accounts or traditional IRA and taxable accounts*
Methodology	*The authors propose a measure "****Gamma****" to quantify the economic gain from making more intelligent financial planning decisions.* *1. The measure Gamma is derived based on the* ***Constant Relative Risk Aversion (CRRA) utility function*** *with a certainty-equivalent income.* *2. The Gamma-equivalent* ***Alpha*** *is obtained by computing the annual return increase which provides the same impact on expected utility.* *The authors use* ***Monte Carlo Simulation*** *in this research. Hence,* ***no time periods are specified****.* *For all the benefits mentioned in the paper, such as asset allocation and withdrawal strategy, the authors assume different scenarios and compare them to the base scenario. Through Monte Carlo Simulation, the authors obtain the income flows under different scenarios and then calculate the measure Gamma. Finally, they obtain the Gamma-equivalent Alpha by calculating the increase in the return which could generate the equivalent Gamma benefit in the simulation.*

Appendix:

A Summary of the Methodologies Used in Four Broad-Ranging Studies of the Value of Personal Financial Advice (cont.)

Envestnet	
Paper	*Capital Sigma: The Sources of Advisor-Created Value*
Year Published	*2015*
Purpose	*The authors quantify the additional value that can be achieved by an individual investor from making more intelligent financial planning decisions*
Key Conclusion	*The authors find that the value added by financial advisor could be 3% annually*
Time Period	*N/A*
Universe of Accounts	*401(k) accounts or traditional IRA and taxable accounts*
Methodology	***Asset Allocation:*** *The added value could be up to 28 bps annually* *Data Range:* ***December 1996 ~ December 2014***. *The authors take the following steps to obtain the result.* *Step 1: First, establish a benchmark against which to measure these decisions. In this case, it is simply a 56%/44% (stock/bond) portfolio.* *Step 2: Second, the authors construct another 56%/44% portfolio. However, the authors try to fully diversify the portfolio with different combinations of selected assets. In total, the number of different diversified portfolios is 6,656.* *Step 3: Take the median of the Alphas and obtain the added value which is 28 bps.* *Step 4: The authors then calculate the Alpha of each portfolio relative to the naive portfolio constructed in Step 1.* ***Note: No account type is specified.*** ***Product Allocation:*** *The added value is between 82 ~ 85 bps* *Data Range:* ***September 30, 1996 ~ June 30, 2014***. *In this section, the authors measure the added value by either selecting actively managed funds or passively managed funds. The authors take the following steps to obtain the results:* *Step 1: Collect the historical data for actively managed funds.* *Step 2: Each quarter, the authors calculate the 3-year information ratio for each fund relative to each investment-style benchmark.* *Step 3: The funds then are ranked by the information ratio and grouped into deciles.* *Step 4: By weighting each fund by its weight in the world market capitalization portfolio, the authors obtain the annual return of the simple strategy.* *Step 5: The authors then use an ETF portfolio as a benchmark to measure the efficacy of an active manager versus a passive strategy. Again, the portfolio is constructed by weighting the primary asset class' weight in the world market capitalization portfolio.* *Step 6: The authors compare the outcomes of the two strategies to reach the conclusion.* ***Note: No account type is specified.*** ***Rebalance:*** *The added value is up to 44 bps* *Data Range:* ***December 1996 ~ December 2014***. *The authors take the following approach:* *Step 1: Construct the portfolios in the Asset Allocation sections (see above).* *Step 2: Assume that an investor without professional advice will rebalance at the frequency of three years.* *Step 3: Assume that a financial advisor will rebalance annually.* *Step 4: Calculate the annually rebalanced set of diversified portfolio Alphas relative to the 3-year rebalancing strategy across 6,656 diversified portfolios and through time.* ***Note: No account type is specified.*** ***Tax Management:*** *The added value is up to 100 bps* *Data Range:* ***January 1995 ~ December 2014***. *In this exercise, the authors use a tracking portfolio to gauge the added value of tax management. They define two types of tax optimization Alpha. "External tax Alpha" is the difference between the performance of the tax-optimized tracking portfolio and a buy-and-hold benchmark. "Internal tax Alpha" is the difference between a buy-and-hold benchmark and a tracking portfolio that has the worst tax efficiency. The sum of "external tax Alpha" and "internal tax Alpha" equals the tax benefit derived from a tax-optimization tracking portfolio. The authors then apply the historical data and simulate the tracking portfolios as well as the buy-and hold portfolio. It turns out that, at the end of 2014, the "external tax Alpha" was about 60 bps and the average "internal tax Alpha" was about 40 bps. As a result, the total benefit from tax management is 100 bps.*

Appendix:

A Summary of the Methodologies Used in Four Broad-Ranging Studies of the Value of Personal Financial Advice (cont.)

Russell	
Paper	*Your Advisor...Worth More than 1%?* *2016 Value of a Financial Advisor Update: More than 3.75%* *2015 Value of an Advisor: Once Again, Greater than 1%* *2014 Value of an Advisor Is Still More than 1%* *2013 The Value of an Advisor: Worth More than 1%*
Purpose	*The author argues that the services provided by financial advisors is worth much more than 1%*
Methodology	***Behavioral Coaching:*** *(2013) The potential added value is* ***2.7%*** */ Data Range:* ***January 1, 1984 ~ December 31, 2012*** *(2014) The potential added value is* ***2.2%*** */ Data Range:* ***January 1, 1984 ~ December 31, 2013*** *(2015) The potential added value is* ***2.0%*** */ Data Range:* ***January 1, 1984 ~ December 31, 2014*** *(2016) The potential added value is* ***2.1%*** */ Data Range:* ***January 1, 1984 ~ December 31, 2015*** *The author compares the data from Strategies & Investment Company Institute (ICI), Russell Investment, as a proxy of returns for average investors. The author then compares the return to the return on Russell 3000® Index, which serves as the return for investors working with financial advisors. The author argues that the reason why average investors get less return than the Russell index is because of emotional trading. The author further looks into the data of Russell returns and equity fund flows. He finds that, when the market is volatile, trading volume increases significantly. This serves as an evidence of emotional trading.* ***Rebalancing:*** *(2013) The potential added value is* ***51-93 bps*** */ Data Range:* ***July 1996 ~ September 2011*** *(2014) The potential added value is up to* ***93 bps*** */ Data Range:* ***July 1996 ~ September 2011*** *(2015) The potential added value is* ***30 bps*** */ Data Range:* ***January 1988 ~ December 2014*** *(2016) The potential added value is* ***20 bps*** */ Data Range:* ***January 1988 ~ December 2015*** *The author cites research done by Russell Investment. The research compares the rate of return with four rebalancing strategies: no rebalancing and rebalancing annually, quarterly and monthly. The result shows that the buy-and-hold strategy has the lowest return and highest risk (volatility). The author therefore concludes that, by working with a financial advisor, a client will rebalance his/her portfolio at least annually and hence will earn higher returns.* ***Financial Planning:*** *(2013) The potential added value is* ***>1%*** *(2015) The potential added value is* ***60 bps*** *(2014) The potential added value is* ***60 bps*** *(2016) The potential added value is* ***50 bps*** *Between 2013 to 2015, the author cites a fee study conducted by Financial Planning Association published in 2011 and finds that a financial planner spends about 1-3 hours during the initial discovery meeting with a new client and 3-14 hours on building a financial plan for the client. The average cost of developing a financial plan with a Certified Financial Planner is $2,855 with annual adjustments thereafter billed at $200 per hour. In 2016, the author updates the study to the* ***2015*** *version and finds that the cost of developing an initial financial plan is coming in at around $2,600 on average, and includes the cost of the advisor spending up to 13 hours interviewing the investor as a basis for the plan. Planners now typically charge an hourly rate of approximately $200 per hour for ongoing monitoring and updating the plan. The author argues that the clients pay the fees in exchange for saving their time and energy. As a result, the added value is worth approximately* ***0.60% on a $500,000 account****.* ***Asset Allocation:*** *(cost of basic investment-only management)* *(2014) The potential added value is* ***35 bps*** *(2016) The potential added value is* ***25 bps*** *(2015) The potential added value is* ***25 bps*** ***Account with $500,000 portfolio.*** *In the 2014 and 2015 reports, the author cites research done by them (without a clear source) that the cost for investment-only management without financial planning and financial planning is about 25~35 bps. In his 2016 report, he cites the cost from 10 robo-advisors (without a clear source) as the proxy of the value added and the value is 25 bps.* ***Tax Management:*** *(2016) The potential added value is* ***45 bps*** */ Data Range:* ***January 2006 ~ December 2015*** *The author cites a colleague's work in which they compare the average annual tax drag of non tax-managed US equity funds and tax-managed US equity funds. The author takes the former as the proxy of investors not working with financial advisors and the latter as a proxy for investors receiving professional advice. The author found that tax-managed funds have less tax drag than funds without tax-management by* ***45 bps****.*

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