

Vanguard Institutional Advisor's Alpha®: Quantifying the value of a financial professional Vanguard Research November 2021

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- Financial professionals play a central and growing role in institutional advice, but industry consolidation, fee pressure, and rising client expectations have intensified the industry's competitive pressures. This paper analyzes and puts forth recommendations to help financial professionals better serve defined contribution plans.
- Vanguard Institutional Advisor's Alpha outlines how financial professionals can further differentiate their value proposition by focusing on controllable outcomes to give institutional investors the best chance of achieving their mission. Financial professionals can enhance and distinguish their value by placing a greater emphasis on fiduciary expertise, experience with investment policy statements, and plan design.
- Financial professionals can add value to each client engagement, and many are already doing so, but the nature of the services and the potential benefits will vary significantly by client type and circumstances.
- We believe that when executing the Vanguard Institutional Advisor's Alpha framework, financial professionals can add up to 4.5% in value.

This is an update of a paper originally published in September 2018. Original authors: Michael A. DiJoseph, CFA; Sneha Kasuganti; Christopher Celusniak; Donald G. Bennyhoff, CFA; Francis M. Kinniry Jr., CFA.

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Institutional advice landscape

Vanguard has long believed in, and written about, the value of high-quality financial stewardship.

At its core, Vanguard Institutional Advisor's Alpha outlines how financial professionals can further differentiate their value proposition by focusing on controllable outcomes, giving institutional investors the best chance of achieving their mission. In a future where institutions have better access and transparency to compare outcomes across various financial professionals, those who focus on their clients' best interest will be positioned to compete most effectively.

The role of the financial professional

Institutional investors range from small-business owners seeking to provide employees with qualified retirement plans to the largest public state pension plans. For the purposes of this paper, we focus on how defined contribution plan sponsors engage with the financial professional community.¹

The financial professional is an essential partner for many institutions that do not have the expertise, willingness, or access to execute on their goals. Even those that have these capabilities often find it beneficial to engage with financial professionals. By providing dedicated resources and expertise, financial professionals can help their institutional clients achieve their goals and fulfill their fiduciary responsibility in an environment of growing operational complexity and regulatory scrutiny.

Growing influence

Institutional assets in the U.S. have increased to over \$26.9 trillion (Cerulli, 2020b). As these assets have grown, so, too, has the intermediated nature of the industry. Over 65% of the total asset-weighted percentage of corporate and government defined benefit (DB) and defined contribution (DC) plans involved the use of a consultant in 2020 (Cerulli, 2020a).

While investors' preference for low-cost investments² is often in the headlines, institutions continue to push for lower fees on the service side as well. This has led to a variety of responses from financial professionals and their firms. Some firms have expanded their service offer via mergers and acquisitions to better capitalize on economies of scale and serve institutional investors looking to reduce the number of their relationships. Others have focused more on niche specialization. All of them, though, have placed greater emphasis on customization and personalized service.

A shift in mindset

Vanguard believes that one potential key to success in institutional consulting is to emphasize your value proposition as one focused on elements within a financial professional's control. These elements may include increased attention to noninvestment issues such as regulatory developments and retirement plan design.

By creating and articulating a value proposition based on areas that are in your control, setting and meeting client expectations becomes an exercise in executing on your differentiated value proposition—rather than hoping the markets or your active managers perform as expected. This may not be easy, but that's precisely why it can be so valuable.

We have approached this research in a modular format in which we discuss and quantify the value added for three best practices in institutional consulting for DC plans. These three modules are not meant to be an exhaustive list of the areas where financial professionals can add value, but we believe it's a strong starting point.

Modules 1 and 2 cover the fiduciary considerations and the investment policy statement process—which are applicable for various institutional clients—while Module 3 covers plan design and monitoring.

¹ Throughout this paper, we will use the term *financial professional* to refer to institutional advice providers of all types, including traditional investment consultants, retirement plan advisors, benefits consultants, and financial advisors. Given the broadening spectrum of institutional advice and the increasingly diverse service offerings, the principles discussed in this paper could apply to all or to just a small subset of these audiences, depending on the topic.

² According to Vanguard research, for the 15-year period through December 2020, cash flows into the lowest-cost quartile funds totaled \$1.2 trillion compared with an outflow of \$1.5 trillion total for the three highest-cost quartiles.

For each of these modules, we lay out evidence to establish a baseline for the average experience. We then compare that baseline with an alternate experience in which the financial professional applies and executes on these best practices. In each case, we tried to err on the side of conservatism, and we intentionally use "on average" to account for the possibility that some financial professionals are already adding the value discussed and that for others, adding each module's numbers together may double-count the value-add.

We believe that implementing the Vanguard Institutional Advisor's Alpha framework can add up to 4.5% in value for the typical DC plan sponsor, as shown in **Figure 1**. As with any approximation, the actual amount of value added may vary significantly, depending on clients' circumstances.

As with the traditional definition of investment alpha, Institutional Advisor's Alpha should not be thought of as a discrete, annualized guarantee. It's uncertain and is often delivered in episodic bursts. It can even be negative at times. Ultimately, it doesn't show up on a statement, hence the difficulty and importance in articulating it.

Conclusion

Many financial professionals are already applying best practices and adding value, while others have the opportunity to move closer to best practices for their clients. In sharing the Vanguard Institutional Advisor's Alpha approach, we hope to provide a guide for financial professionals to demonstrate their value and, in doing so, help shape the success of their practice.

Figure 1. Vanguard quantifies the value-add of best practices in institutional consulting



Notes: While we sum the numbers for DC financial professionals, we make the distinction throughout the paper that the value attributed to the investment policy statement accrues to the plan sponsor and involves decisions made by the plan sponsor, whereas the value attributed to plan design and monitoring accrues to the end participants and involves decisions made by the participant, though influenced by the plan sponsor and financial professional. Bps stands for basis points; 1 basis point is equal to 1/100th of 1%, or 0.01%.

^{*} Our estimate was rounded down to 450 bps to be conservative.

Institutional financial professionals can deliver >0 bps in value for their clients by: Ensuring that your approach to fiduciary considerations is grounded in the applicable fiduciary duties and fiduciary best practices for your client type. Developing deep case law and legal precedent knowledge so as to proactively ensure operational compliance and, in doing so, guard against current enforcement action and litigation. Proactively monitoring the evolving fiduciary landscape to anticipate the direction of judiciary rulings and regulation as well as the subsequent enforcement actions and litigation in order to build fiduciary safeguards accordingly. Conducting thorough and ongoing fiduciary training to educate clients on relevant fiduciary considerations, including the key differences between 3(21) and 3(38) fiduciary services.

The evolving fiduciary standard

Effective financial professionals understand the complex landscape of fiduciary law and regulatory compliance (Figure 2) as it relates to their clients. They also communicate this understanding to clients while applying best practices and conducting fiduciary training. But the best financial professionals will simultaneously look to

the future. Increased regulation has resulted in intensified enforcement actions and litigation over the past few years. The best financial professionals balance fiduciary compliance with proactive research on trends and shifts in regulatory focus and litigation, setting their clients (and their business) up for success.³

Figure 2. The U.S. regulatory framework

The principal regulatory authorities

| Fiduciary law | Tax law |
|---|---|
| Body of law: Employee Retirement Income Security Act of 1974 (ERISA) | Body of law: Internal Revenue Code |
| Regulator: Employee Benefits Security Administration, U.S. Department of Labor | Regulator: Internal Revenue Service, U.S. Department of the Treasury |

³ More details on fiduciary duties and best practices for retirement plans and nonprofits can be found in the Vanguard publications Best Practices for Plan Fiduciaries and Fulfilling Your Mission: A Guide to Best Practices for Nonprofit Fiduciaries, respectively.

Being a dynamic fiduciary

By effectively navigating the regulatory backdrop and helping clients avoid lawsuits and enforcement actions, financial professionals can add a significant amount of fiduciary alpha. This seems particularly germane, as the headlines of lawsuits and settlements have increased over the last few years (Figure 3). Nobody knows which or how many plans will be subject to fiduciary penalties in any given year, but we assume that the possibility of such action is the baseline experience. While settlements and even the mere defense of lawsuits can be extraordinarily expensive for plan sponsors, the headline risk to the financial professional cannot be overstated either. Given the client-specific nature of fiduciary considerations for different types of institutions, we designated the value-add relative to the baseline experience as >0 bps (Figure 1).

Litigation

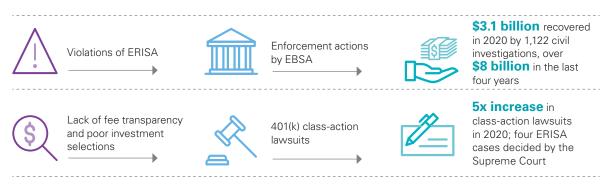
An element of fiduciary alpha is avoidance of enforcement actions. As demonstrated in Figure 3, Employee Benefits Security Administration (EBSA) civil investigations can result in sizable sums levied against DC plan sponsors. Figure 3 highlights the significant increase in class-action lawsuits, which have typically focused on excessive fees paid by participants for plan administration and investment management.

Litigation continues to be top of mind for both financial professionals and plan sponsors as the pace of lawsuits and settlements have increased. While maximizing savings and improving the financial wellness of employees are the top-two considerations, minimizing fiduciary risk and avoiding litigation is a top-three priority for plan sponsors of all sizes. A record number (90-plus) of 401(k) lawsuits were filed in 2020, representing a fivefold increase over 2019 (20 lawsuits). Filings seem to be concentrated among a few law firms; however, continued success of litigation has enticed new law firms to begin filing lawsuits. Plan sponsors, providers, and administrators were all targeted in filings.

Several underlying forces seem to be driving the trend of increased litigation, including the improved availability of information accessible by law firms in order to evaluate plans. A recent string of successful settlements from plans has given extra clarity around the statute and allowed for repeat cases based on the same merit (some plans have even been targeted twice in as few as five years). The continued success of these settlements has expanded the potential pool of targets to 403(b) and midsize/smaller 401(k) plans.

Plans of all sizes were targeted in the lawsuits; however, larger plans have heavier incentives to be targeted, as their larger size increases their potential settlement

Figure 3. Costs of regulatory oversight, enforcement actions, and litigation settlements have grown



 $\textbf{Sources:} \ \textbf{The U.S. Department of Labor Employee Benefits Security Administration statistics; Bloomberg Law.}$

- 4 Cerulli. U.S. Retirement Markets 2020: Exploring Opportunities in the Small Plan Market.
- 5 Bloomberg Law. "Spike in 401(k) Lawsuits Scrambles Fiduciary Insurance Market." October 2021.

amount. Alleged violations by plans include conflict of interest, self-dealing, inappropriate fund selection or plan design, and underperformance. The majority of cases point to excessive fees (both recordkeeping and expense ratios). One new area of concern is participant data privacy, so sponsors will need to be extra vigilant about protecting participant data in order to keep lawsuits at bay.

While poorly performing or expensive products grab the majority of the headlines when it comes to fiduciary lawsuits, financial professionals should also be aware that excessive recordkeeping costs are also used in targeting plans. When evaluating recordkeepers, it's important to weigh cost and quality of services to ensure only reasonable fees are charged against plan assets. It is also important to monitor and consider the plan's all-in costs, including direct and indirect charges to end participants. Best practices would be to map out and understand all fees charged throughout the plan, including settlor and plan expenses, investment fees, administrative charges, and third-party fees/reimbursements, and to ensure all fees are properly disclosed to both the sponsor and end participant.

It is important to monitor and consider the plan's all-in costs, including direct and indirect charges to end participants.

Financial professionals can take steps to protect their clients from incurring costs from class-action lawsuits by promoting fee transparency and evaluating the plan's investment lineup on an ongoing basis, with a proactive focus on monitoring fiduciary trends and shifts. In addition, financial professionals can help prepare clients for inevitable surprises by ensuring plans are set up so that swift, prudent action can be taken. By approaching fiduciary considerations in a comprehensive and forward-looking way, financial professionals can give their clients the best chance to carry out their mission and drive success for their end beneficiaries.

Regulatory changes

The signing of the SECURE Act at the end of 2019 represents the biggest change to the retirement landscape since the adoption of the Pension Protection Act (PPA) in 2006. The legislation includes both mandatory provisions that must be implemented and optional provisions that may be adopted by plan sponsors should they choose. Some provisions merely move the guardrails in existing legislation, such as the increase in the required minimum distribution age from 70½ to 72, or the stretch provision, requiring inherited benefits to be withdrawn over a 10-year period as opposed to over the beneficiary's lifetime. Other notable provisions include the expansion of eligibility to part-time workers, lifetime income disclosure, and the elimination of safe harbor notices under certain conditions.

Key optional provisions include a birth or adoption withdrawal option, an increase in the qualified automatic contribution arrangements (from 10% to 15%), and expanded coverage for plan sponsors when they offer annuities in their plans. The latter were given fiduciary safe harbor for annuities as a lifetime income provider, provided the plan sponsor appropriately considers the annuity provider's fees and ability to make all future payments under the annuity contract. There are multiple ways financial professionals and advisors can add value to both plan sponsors and end investors, from ensuring proper compliance with the new mandatory features to encouraging plan sponsors to use autoescalation to vetting and balancing the impact of adding an annuity to a plan.

It should be noted that, as of this writing, a bipartisan bill is currently being drafted by Congress to make further changes to the retirement landscape (SECURE Act 2.0). Although the specific details of this legislation are currently being debated and the ultimate fate of the bill is unknown, further changes should be expected.

Institutional financial professionals can deliver ~150 bps in value for their clients by: Building a deeper relationship with your client when partnering to create a comprehensive IPS. The IPS should be durable with regard to portfolio objective, asset allocation policy, risk management principles, and governance procedures. Leveraging your relationship with your client and your ability as a behavioral consultant to help the client adhere to the IPS over the long term. Opportunities for this include making manager hire/fire decisions and promoting positive investment committee behaviors. Monitoring the IPS on an ongoing basis to ensure its alignment with the client's circumstances. This involves maintaining a process for reviewing and updating the IPS when material inputs to the IPS change and clearly documenting the rationale for any changes.

Maximizing the institutional IPS

The responsibility for overseeing an institutional pool of assets inherently involves quite a bit of decision-making which—due to practices like performance chasing and market timing—can greatly influence changes to the plan lineup. Understanding how institutional clients make these decisions is crucial for financial professionals to build a strong foundation for their working relationship. By helping clients create and adhere to an investment policy statement (IPS), financial professionals can add significant value and help prevent behaviors such as performance-chasing and market timing. We believe that the vast majority of institutions create an IPS, but it may not always represent a high-quality plan. This can prevent the institution from being able to rely on the statement's contents over the long term.

Starting with the first or bottom schematic layer—as represented in Figure 4—once an IPS is created, financial professionals can deliver the next level of value by ensuring the IPS is comprehensive enough—emphasizing detailed processes, realistic goals, and clear articulation. As represented by the second layer, crucial elements include the portfolio objective, asset

allocation policy, risk management framework, manager search and oversight process, and committee governance procedures.

After a high-quality IPS has been developed and put in place, adhering to it often presents the financial professional with a larger challenge. As represented by layer 3, factors such as committee turnover, market corrections, and manager underperformance can make it challenging to stick to a long-term approach—and harder to resist performance chasing and market timing.

Cash-flow evidence clearly shows that there's an opportunity to do better (Kinniry et al., 2019). Vanguard research, *Reframing Investor Choices: Right Mindset, Wrong Market*, found that investment decision-makers often use decision heuristics, or shortcuts, in order to make what they feel is a more informed decision. Further complicating investment decision-making in the institutional space is the potential for behavioral derailers that uniquely arise from the investment committee structure (Bosse et al., 2017). Helping clients to adhere to the IPS and avoid behavioral missteps is where financial professionals have the opportunity to add significant value.

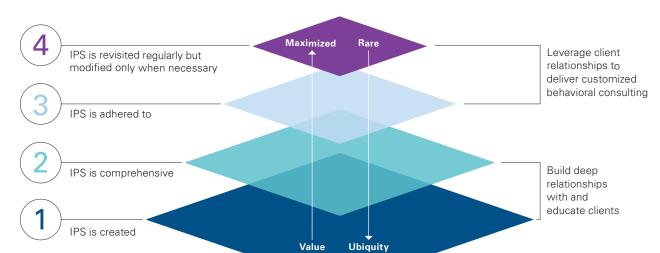


Figure 4. Moving up the IPS value stack using behavioral consulting maximizes value

Source: Vanguard.

The fourth and final layer of value (Figure 4) represents ongoing oversight for the IPS, which includes revisiting the IPS regularly to ensure alignment but modifying the IPS only when necessary. While an IPS should not be etched in stone—there certainly can be appropriate reasons to modify it, such as a change in objective or in the regulatory landscape—it should not generally be changed based on market movements.

By putting in the time up front to build a deep relationship with and educate the client during the period represented by the bottom two layers of this value stack, financial professionals can leverage this relationship to effectively navigate the top two layers. In doing so, they can maximize the value of the IPS through behavioral consulting.

Ensuring that clients are maximizing the value of the IPS at the plan level is still important in identifying the plan's objective and detailing processes for selecting and monitoring the investment lineup. As stated in the Vanguard research paper *Framework for Investment Policy Statements*, DC fiduciaries still risk overreacting to the latest performance trends without such documentation in place.

The value of behavioral consulting

Studies have shown (Figure 5) that clients and financial professionals alike can be swayed by historical performance, which detracts from returns.

Several years ago, Vanguard released a study (Wimmer et al., 2014) in which we used a sample of over 3,500 funds and over 40 million hypothetical outcomes to quantify the impact of chasing fund performance based on selling underperformers and replacing them with top performers using a three-year evaluation window. The study found that it could cost between 160 to 400 basis points per year in lost returns. As with the academic studies previously noted, that differential does not include transaction costs.

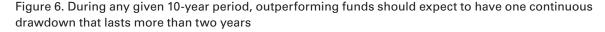
Similarly, State Street conducted a study of 400 institutional investors around the world and found that nearly 90% of them looked for a replacement manager after just two years of underperformance (State Street Global Advisors, 2016).

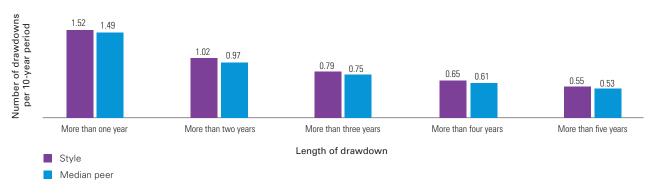
Successful outperformance is also likely to require a high degree of patience. A recently published paper (Tidmore and Hon, 2021) highlights the important role patience plays as part of a successful investment strategy. The study found that almost all outperforming traditional equity managers have frequent periods of underperformance relative to the equity market, some of which are long in duration and large in magnitude.

Fifty to sixty percent of outperforming active equity funds underperformed their style or median peer benchmark by 20% or more over the 25-year evaluation period. In addition, the study found that over any given 10-year period, investors should expect their outperforming manager to have, on average, one continuous drawdown relative to their style and median peer benchmark lasting two years or more. (Figure 6). A continuous drawdown is defined to mean that at no point over the time frame noted did the fund have a positive cumulative monthly return.

Figure 5. Academic research shows that institutional clients and financial professionals are swayed by historical performance

| Goyal and Wahal, 2008 The Selection and Termination of Investment Management Firms by Plan Sponsors | Plan sponsors frequently fire underperforming managers and replace them by hiring investment managers in large part due to large positive excess returns. The researchers further prove that these returns do not persist and that the return-chasing behavior does not lead to positive outcomes. |
|--|---|
| Jenkinson et al., 2016 Picking Winners? Investment Consultants' Recommendations of Fund Managers | Consultant recommendations do indeed drive the investment decisions of institutions but they do not, on average, add any value in the traditional sense of investment outperformance. In fact, the researchers found that products recommended by consultants actually produce returns around 100 bps lower than those that are not recommended. |
| Stewart et al., 2009 Absence of Value: An Analysis of Investment Allocation Decisions by Institutional Plan Sponsors | Institutional investors cost themselves \$170 billion in lost returns from performance chasing. That estimation does not account for transaction costs, which could significantly increase the dollar amount. |
| Jones and Martinez, 2017 Institutional Investor Expectations, Manager Performance, and Fund Flows | "Plan sponsors allocate funds, not so much to those asset managers they think will do well in the future, but to those that they think did well in the recent past and to those recommended by investment consultants. This behavior points to agency problems in that it is consistent with trustees basing their decisions on the most defensible variables at their disposal: past performance and advice received from investment consultants." |





Notes: We evaluated all U.S. domiciled Morningstar nine-style-box U.S. active equity, emerging markets, and developed market foreign funds with a minimum of 10 years of performance data over the period from January 1, 1995, to December 31, 2019, relative to their style benchmark and identified all net outperforming funds. We calculated the length of every cumulative drawdown of each fund over the sample period for the funds that outperformed their style benchmark. The number of continuous drawdowns (defined as a length of time where the cumulative monthly return of the fund was never positive) relative to style and medium peer were 12,821, and 12,791, respectively.

Source: Vanguard calculations as of May 2020, based on data from Morningstar, Inc.

Behavioral consulting can lead to better outcomes for the client by helping to instill a long-term patient perspective, setting expectations, and preparing the client to plan for and tolerate the frequency, magnitude, and length of these drawdowns. However, going against peers, consensus, intuition, and human behavior is very difficult. Financial professionals who do this well can add substantial value.

So how do you modify behavior with regard to selecting managers or funds for an investment lineup? Start by examining the IPS for allocations that may be off target and addressing them appropriately. Then, when implementing, sort on the basis of costs and take a long-term approach.

Based on these studies and the portrait of the average experience illustrated above, we believe that drafting and adhering to an investment policy statement process can, conservatively, add 150 basis points in value, a number

that is reinforced by the academic studies highlighted in Figure 5. Given the difficulties in quantifying the objective reality of an institutional investor adhering to its IPS, and the inherently hypothetical nature of this exercise, we decided to round down to 150 basis points, though the argument could be made that the value is actually much higher. Previous Vanguard research on the value of financial advisors to individual investors similarly concluded that an advisor acting as a client's behavioral coach is worth approximately 150 basis points annually in net returns (Kinniry et al., 2019).

Fundamentally, this alpha comes down to modifying the behavior of the institutional investor via the financial professional relationship to eliminate the deleterious effects of performance chasing.

Defined contribution financial professionals can deliver ~320 bps in value for their clients by: Applying the tiering method to construct an appropriate investment lineup that will help accomplish the primary goal of the plan sponsor as well as the plan participants. Developing a deep understanding of participant behavior and leveraging this understanding when implementing intelligent choice architecture in order to drive participant wealth creation. Employing an informed monitoring strategy for measuring participant wealth creation and evaluating plan effectiveness. Evaluating and helping implement a high-quality financial wellness program to address multiple challenges faced by end investors.

Driving participant outcomes

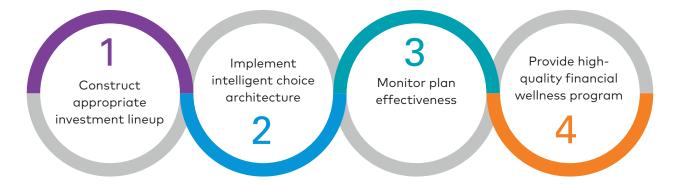
According to the Investment Company Institute, nearly a third of the approximately \$32 trillion in U.S. retirement assets (ICI, 2020) were held in DC plans in 2019. The tens of millions of DC plan participants—often with little to no investing education—are the ultimate decision—makers of how to allocate their hard-earned savings or whether to even save at all.

Given the high stakes of securing the financial futures of a large portion of our country's population, and the overwhelming evidence supporting the efficacy of plan design and monitoring in driving participant outcomes, financial professionals working with DC clients have an enormous opportunity to help end investors achieve their best chance for investment success. We propose a fourpronged approach, shown in **Figure 7**, to maximizing participant outcomes.

Constructing an appropriate investment lineup

Best practices for constructing a DC investment lineup include: identifying plan objectives, focusing on investing fundamentals, creating a tiered lineup based on plan objectives, and ensuring active, ongoing oversight (Chism et al., 2016). Figure 8 explores in more depth how the concept of tiering, or grouping of investments into logical categories, can help accomplish the primary goal of the client.

Figure 7. Four-pronged approach to maximizing participant outcomes



Implementing intelligent choice architecture

Constructing the investment lineup, while important, is only the first step in creating a robust retirement savings experience for plan participants. Financial professionals can use the accumulated knowledge of human behavioral tendencies to drive better outcomes through implementation of plan design features.

Intelligent choice architecture features, such as autoenrollment to overcome participant inertia and autoescalation to help increase client retirement assets, have become increasingly popular.⁶ Still, only 59% of all DC plans (Clark and Young, 2021) and only 15% of small-business plans (Vanguard, 2020c) employ an automatic enrollment feature.

This matters because participants who are offered the opportunity to participate in a DC plan are much less likely to participate if they have to take affirmative action to do so (opt in). Conversely, participants who are automatically enrolled in a savings plan are much more likely to stick

with the status quo and participate rather than opt out. If you know that participants are unlikely to take action either way, then that inertia can be beneficial when the correct choice architecture is applied.

Despite the overwhelming evidence on the effectiveness of using plan design features, the fact is that this baseline DC plan experience remains one in which participants must make active decisions to save at all, save more, and invest wisely. This means that there is a tremendous opportunity for financial professionals to both add value by creating wealth for participants and differentiate themselves by leading the industry in plan statistics.

Using data from Vanguard plan participants on how these plan features drive participant behavior (Clark and Young, 2021), we quantified the hypothetical future wealth creation that may occur from the application of plan design features relative to the baseline experience described below.

Figure 8. Tiering can be used to meet a variety of plan sponsors' goals

| | 1 | 2 | 3 | 4 |
|------------------------------|---|---|---|---|
| Primary goal of plan sponsor | Simplify | Maximize returns by keeping costs low | Potential outperformance | Streamline fund oversight across plan |
| Rationale | Minimize the chances for portfolio construction errors | Investment costs are the primary driver of investor returns | Low-cost active management can outperform | Leverage existing knowledge and research about certain active managers |
| Tier 1 | Index-based TDF | Index-based TDF | Actively managed TDF | Hybrid index/active TDF |
| Tier 2 | Underlying TDF funds: broad-based, low-cost options | Index-tier: broad-based, low-cost index options | White-label funds: major asset classes | Index/active core funds |
| Tier 3 | Supplemental choices: not necessary | Supplemental choices: low-cost index funds covering all style boxes | Supplemental choices: broad-based, low-cost active options and/or brokerage window | Supplemental choices: broad-based, low-cost index and/or active options |

⁶ In their 2004 article, "Save More Tomorrow: Using Behavioral Economics to Increase Employee Saving," Richard Thaler and Shlomo Benartzi demonstrate that behavioral finance techniques can be used to drive higher saving rates, leading to the development of autoescalation.

Using the proprietary Vanguard Capital Markets Model® (VCMM), we modeled the wealth creation that could be expected if today's behavioral patterns were to persist in the future. By starting with a plan that includes no plan design features and using the average participation and deferral rates, we were able to simulate the total wealth accumulated per covered employee over 30 years in this hypothetical plan. When automatic enrollment is added to our model, it increases the plan's participation rate, adding 260 basis points to the wealth of the average covered employee over 30 years. Adding an automatic escalation feature in which participants' saving rates increase on a regular schedule unless they opt out increases the total number by an additional 30 basis points to 290.

By using Morningstar data on fund returns versus investor returns, we examined the difference in returns between underlying funds and qualified default investment alternative (QDIA) options such as a target-date fund (TDF)⁷ and used this number to reduce the VCMM "return capture." Our model estimates that the value added on top of the 290 basis points is an

additional 30 basis points attributable to minimizing the negative effects of market timing and performance chasing.

Figure 9 shows the wealth creation effect from each plan design feature we included in our model, as well as the lever by which it does so, adding about 3.2% per covered employee. This annualized figure can have a significant impact on long-term outcomes through the power of compounding.

It's important to remember that this isn't alpha in the sense of additional portfolio returns, but rather the plan design alpha that can be added in the form of annualized participant wealth creation.

Figure 10 shows the distribution of wealth, or average plan balance, relative to starting salary, at the end of our 30-year analysis period. Employees in a plan with none of the the discussed plan features would accumulate 2.3 times their starting salary compared with 8.2 times for employees in the most robust plan.

Figure 9. Plan design features drive wealth creation relative to the average experience

| Feature | Autoenrollment | + Autoescalation | + QDIA |
|--|-----------------------|------------------------|-------------------|
| Lever | Participation rate up | Average saving rate up | Behavior gap down |
| Total annualized wealth creation (per covered employee) over 30 years | 2.60% | 2.90% | 3.20% |

Notes: This is per covered employee versus the "average experience" of not having any of these features. The wealth creation numbers include capital contributions and the compounding of capital contributions.

Source: Vanguard.

IMPORTANT: The projections and other information generated by the VCMM regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Distribution of return outcomes from VCMM are derived from 10,000 simulations for each modeled asset class. Simulations as of December 31, 2020. Results from the model may vary with each use and over time. For more information, see the Appendix.

⁷ Appropriate QDIA target-date fund options may include those that are "bundled" as well as "unbundled" options.

⁸ The behavioral gap benefit has increased as participation rates have decreased significantly since our last study in 2018. We cannot be sure if decreasing participation rates are driven by more plan sponsors adopting autoenrollment (a positive) or if greater turnover or other industry-specific factors are driving this trend.

⁹ Vanguard scenario analysis has estimated that the value of a custom TDF strategy to be 10 basis points of utility (Aliaga-Díaz et al., 2021).

Informed monitoring of plan effectiveness

Monitoring the effectiveness of a DC plan ensures that the time, effort, and capital invested in constructing an appropriate lineup and implementing intelligent choice architecture have been well spent. Even a well-designed plan can continue to be improved to help deliver the wealth creation discussed above. Monitoring of plan effectiveness can begin by capturing and analyzing metrics such as participation rates, saving rates, and investment decisions. Insights gleaned from this analysis can then be used to determine a course of action to further improve the plan's effectiveness.

For example, plans with high participation rates but low contribution levels could focus on educating participants about the importance of saving or offer broader financial wellness programming. Perhaps a plan has high participation and saving rates, but participant investment decisions leave room for improvement; that's when the financial professional's and plan sponsor's efforts may

best be spent revisiting the lineup and the QDIA. Using a targeted next best action model to send a customized nudge to each participant could drive plan effectiveness on the participant level. Those who succeed at providing these nudges and can demonstrate improved plan effectiveness will further differentiate themselves from their competitors given that plan statistics may become the next horizon for evaluating a fiduciary's value.

For many financial professionals, executing the necessary analysis and reporting and having the experience to advise their clients on how to maximize impact could be the key to ensuring that the 3% in potential value added is actually compounded over time, leading to outcomes like those in Figure 10. Even if all financial professionals were to recommend plan design features such as autoenrollment, those who can best drive adoption by the end participants can add the most value and create the most wealth.

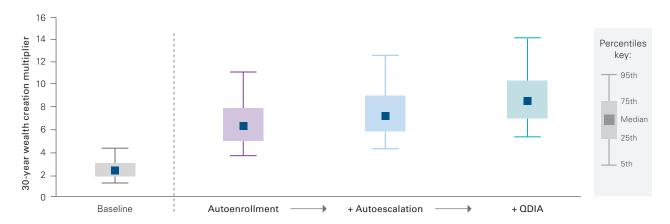


Figure 10. Plan design features lead to increased wealth over time

Note: Wealth creation multiplier refers to the ending balances in year 30 of our model as a ratio to the covered employee's starting salary.

Providing a high-quality financial wellness program

Financial professionals are increasingly being tasked with evaluating the efficacy and costs of implementing a financial wellness program. Financial wellness has been used as an umbrella term to describe a host of additional benefits and services provided by plan sponsors, above and beyond offering a defined contribution plan and simple matching schemes. Whatever the definition applied and services included, plan sponsors see improving overall financial wellness for plan participants as a top priority, second only to maximizing participant savings (Cerulli, 2020c). Large-plan sponsors increasingly see financial wellness and generous benefits as a way to stay competitive in their peer group, thus enabling them to attract and retain talent.

Fifty-five percent of all plan sponsors offer some form of financial wellness, with percentages increasing as plan sizes increase. Beyond the ability to attract and retain talent by offering competitive benefits packages to participants, plan sponsors point to increasing plan participation and contribution rates and helping older employees with retirement income planning as reasons for utilizing financial wellness programs.

As mentioned, financial wellness programs can vary and are meant to alleviate multiple pain points for participants, including debt management, emergency savings, retirement planning, household budgeting, health care, college planning, and student loans. Whatever the definition of financial wellness, plan sponsors have made financial wellness communication their top priority for plan participants (Callan, 2020).

More than 95% of all plan sponsors offer some form of investment guidance or advice. Advice can take a variety of forms, from an all-digital offer to full-scale financial planning. Vanguard has long espoused the benefits of advice as a means to improve investor outcomes. Our framework assesses the uses of advice along three dimensions: portfolio value, financial value, and emotional value (Figure 11).

10 Callan Institute. 2020 Defined Contribution Trends Survey.

Figure 11. The value of advice framework

Our framework defines three dimensions of potential value for advised investors:

| Component | Description |
|-----------------|--|
| Portfolio value | Optimal portfolio construction and client risk-taking • Portfolio risk/return characteristics • Tax efficiency • Fees • Rebalancing and trading activity |
| Financial value | Attainment of financial goals Saving and spending behavior Debt levels Retirement planning: cash flow, income, and health costs Rebalancing and trading activity |
| Emotional value | Financial peace of mind Trust—in advisor and markets Success and sense of accomplishment Behavioral coaching Confidence |

Source: Vanguard, 2019. *Assessing the Value of Advice*. Cynthia A. Pagliaro and Stephen P. Utkus.

Retirement income

A comprehensive financial wellness offer should also include a spectrum of products, solutions, and experiences dedicated to the fundamental component of retirement income. A recent survey suggests 8 in 10 workers would like help with converting their savings into retirement income (EBRI, 2020). According to the 2020 Defined Contribution Trends Survey by the Callan Institute, two-thirds of all plans offered some sort of retirement income solution to employees. Providing access to a drawdown solution or to a managed account service were the two most common (Callan, 2020).

At Vanguard, we believe advice is the most holistic and flexible retirement income solution, but it does require a certain level of engagement. Many retirees have complex needs. Many have saved outside of the plan, which can result in multiple sources of retirement income, including Social Security, spousal accounts, IRAs, taxable savings, and, in some cases, DB plans. These participants could greatly benefit from advice and education to navigate what could be the most complex financial stage of their lives.

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Appendix: About the Vanguard Capital Markets Model®

IMPORTANT: The projections and other information generated by the Vanguard Capital Markets Model (VCMM) regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. VCMM results will vary with each use and over time.

The VCMM projections are based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More important, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based.

The Vanguard Capital Markets Model® is a proprietary financial simulation tool developed and maintained by Vanguard's primary investment research and advice teams. The model forecasts distributions of future returns for a wide array of broad asset classes. Those

asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data from as early as 1960. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. Results produced by the tool will vary with each use and over time.

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All investing is subject to risk, including the possible loss of the money you invest.

Past performance is not a guarantee of future returns.

Investments in target-date funds are subject to the risks of their underlying funds. The year in the fund name refers to the approximate year (the target date) when an investor in the fund would retire and leave the workforce. The fund will gradually shift its emphasis from more aggressive investments to more conservative ones based on its target date. An investment in a target-date fund is not guaranteed at any time, including on or after the target date.

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