Vanguard Institutional Advisor's Alpha™:

Quantifying the Value of a Consultant

Vanguard

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Executive summary

The Vanguard Institutional Advisor's Alpha concept outlines how consultants can differentiate their value proposition by focusing on controllable outcomes and taking a holistic approach rather than anchoring to portfolio and manager outperformance

Module 1: Fiduciary Considerations

Defined Contribution
Defined Benefit
Nonprofit (E&F)

Module 2: Investment Policy Statement

Defined Contribution
Defined Benefit
Nonprofit (E&F)

Module 3: Plan Design and Monitoring

Defined Contribution

Module 4: Investment Strategy

Defined Benefit
Nonprofit (E&F)

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Growing influence. Significant headwinds.

Greatest threats facing investment consultants in 2017

		Major threat	Moderate threat	Little or no threat
1	Inability to differentiate firm value-adds relative to competition	21%	47%	32%
2	New competition from entrants in the outsourced CIO space	17%	50%	33%
3	Continued mergers and acquisitions among investment consulting firms	16%	47%	37%
4	Challenges finding new growth opportunities in the traditional/advisory space	16%	47%	37%
5	Perceived expertise in alternative investments	11%	58%	32%
6	Increased competition from peers that are expanding into new market areas	11%	63%	26%
7	Pressures to reduce fees to remain in line with competition	11%	63%	26%
8	Difficulty finding talented research analysts and consultants	5%	32%	63%
9	Conveying to clients the value-add of investment consultant services	5%	47%	47%
10	Client pressures to reduce fees	5%	47%	47%

Source: Cerulli Associates.

Module 1: Fiduciary Considerations

Defined Contribution, Defined Benefit, & Nonprofit (E&F)

Institutional consultants can deliver > 0 bps in value for their clients by doing the following:

- ☐ 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.

Source: Vanguard.

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Fiduciary alpha is significant

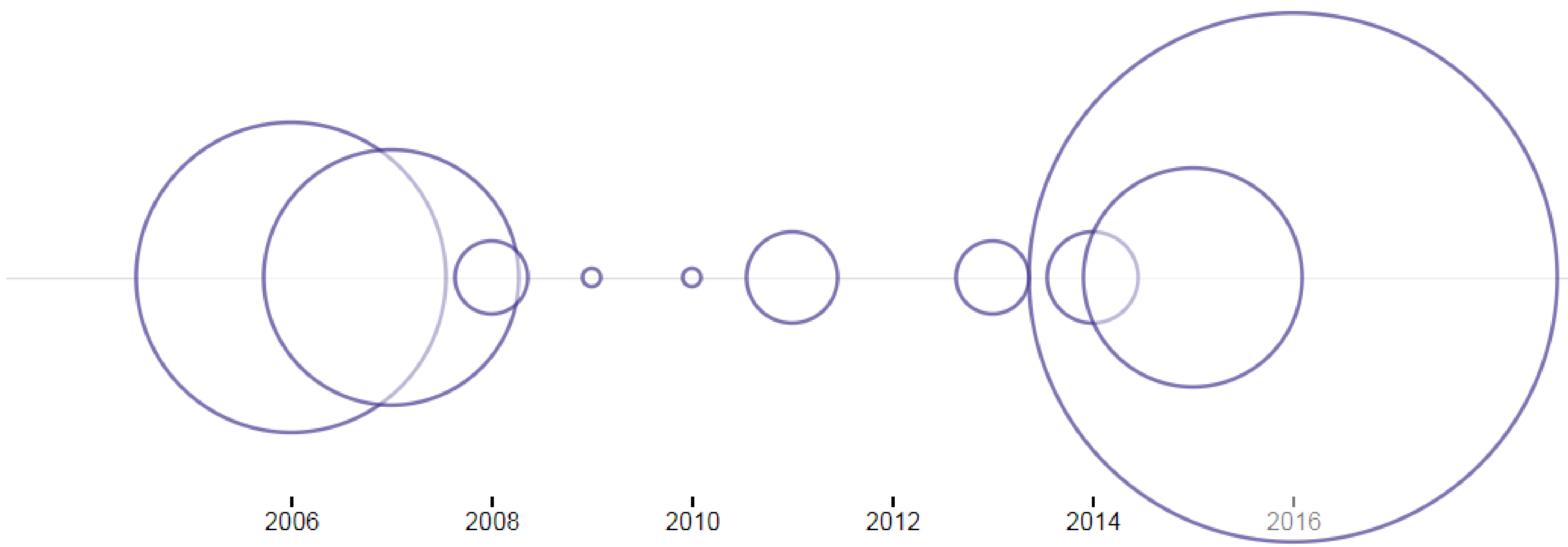
Defined benefit	Suboptimal contribution timing and recording errors	PBGC premiums tripling over the past five years	DB plan sponsors overpaid PBGC premiums annually by more than **$100 million**
Defined benefit and defined contribution	Violations of ERISA	Enforcement actions by EBSA	Recovered **$682.3 million** from 2017 civil investigations
Defined contribution	Lack of fee transparency and poor investment selections	401(k) class action lawsuits	Largest settlements range from **$26 million–$140 million**, which is 12%–63% of assets in the average 2017 plan

Notes: According to Vanguard data in How America Saves 2017, the average plan has 2,315 participants, each with an average balance of $96,495. This results in an average plan balance of $223.39 million.

Sources: How America Saves 2017, DOL EBSA stats, Pension & Investments, The PBGC Premium Burden Report 2018 by October Three Consulting, InvestmentNews.

The focus is on fees…for now

The number of retirement plan fee cases filed is growing



Source: InvestmentNews using data from Groom Law Group as of September 2016. Data includes 401(k) and ERISA-covered 403(b) plans.

Module 2: Investment Policy Statement

Defined Contribution, Defined Benefit, & Nonprofit (E&F)

Institutional consultants can deliver ~ 150 bps in value for their clients by doing the following:

- ☐ Building a deeper relationship with your client when partnering to create a comprehensive IPS. The IPS should be durable with regards 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, promoting positive investment committee behaviors, rebalancing, and benchmarking the portfolio.
- ☐ 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, clearly documenting the rationale for any changes.

Source: Vanguard.

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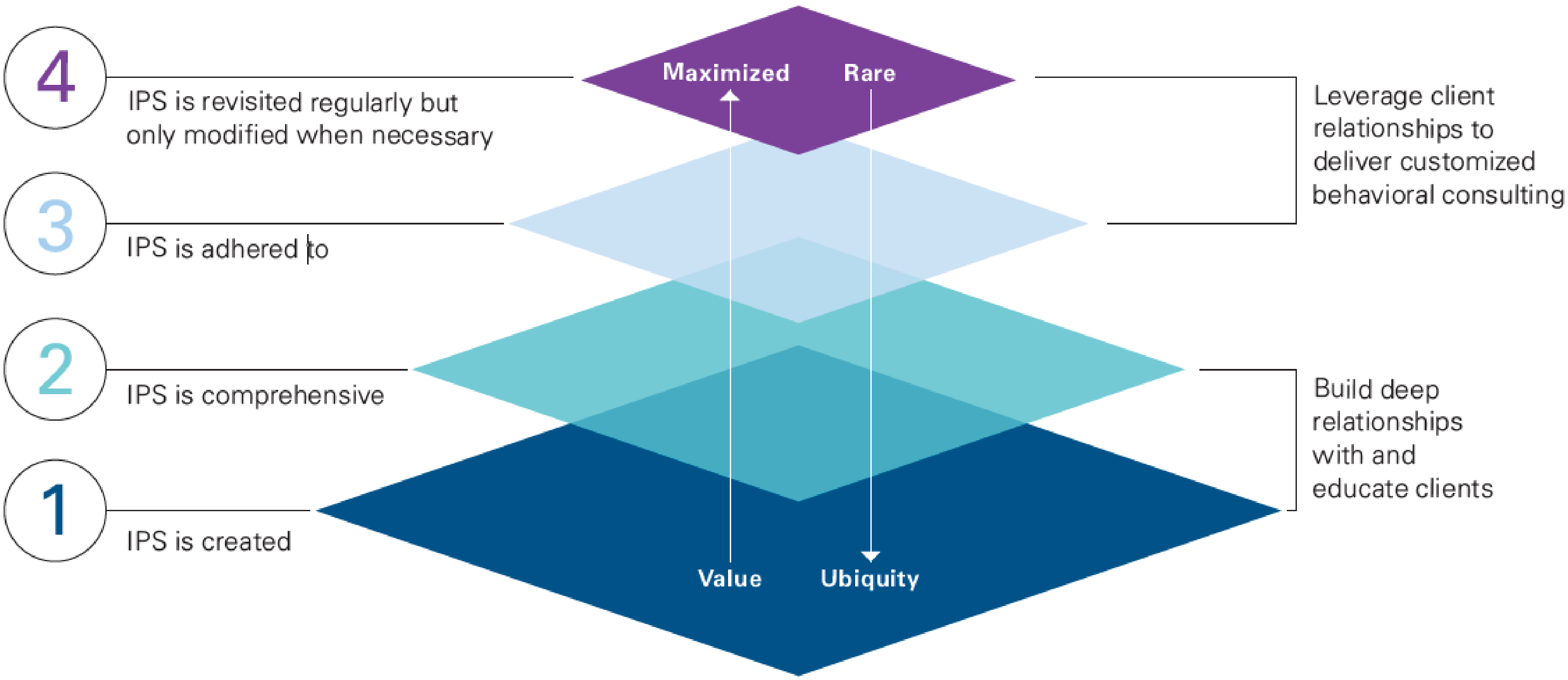
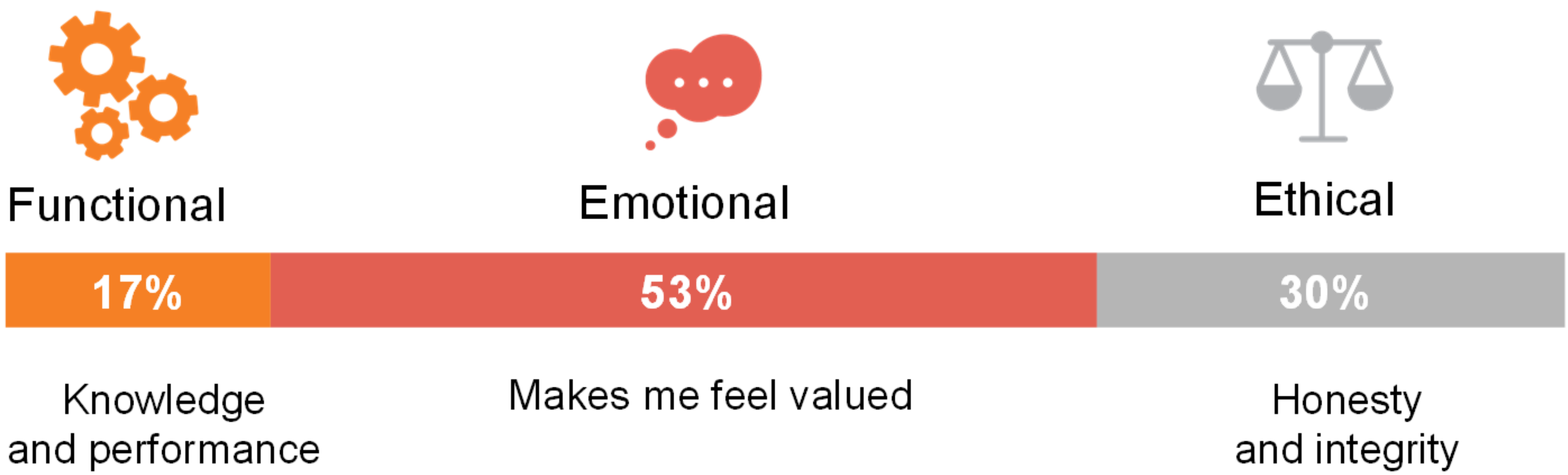
Moving up the IPS value stack using behavioral consulting maximizes value



Source: Vanguard.

Trust is complicated

Components of trust



Sources: Vanguard and Chadwick Martin Bailey.

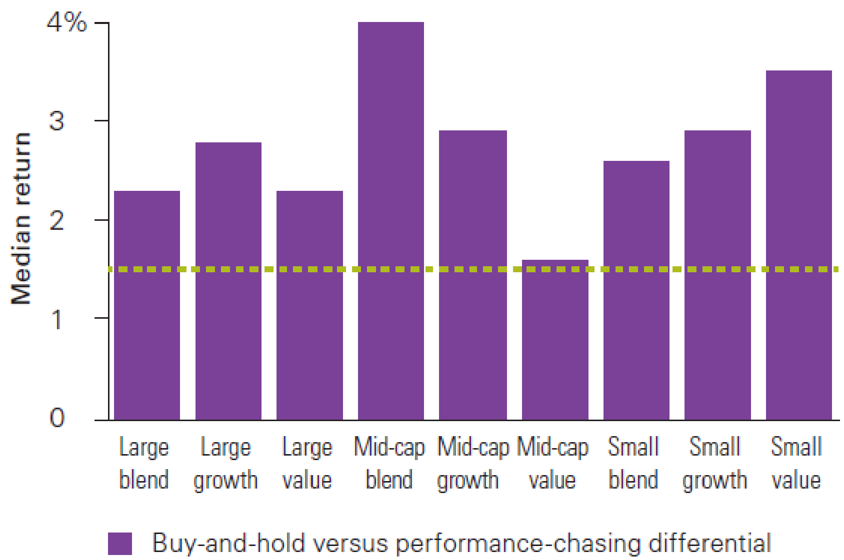
The baseline experience provides opportunity

Academic research shows that clients and consultants 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.
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."

The value of behavioral consulting

Return differentials favor a buy and hold strategy relative to performance chasing



Notes: Although the results are not displayed here, we performed this analysis using a variety of trading rules and time periods and observed similar outcomes. For more information, see *Quantifying the Impact of Chasing Fund Performance* (Wimmer et al., 2014).

Source: Vanguard.

Buy-and-hold

- **Initial investment:** Invest in any fund.
- **Sell rule:** Sell only if a fund is discontinued.
- **Reinvestment rule:** Reinvest in the median-performing equity mutual fund within the relevant style box.

Performance-chasing

- **Initial investment:** Invest in any fund in existence for the full three-year period from 2004–2006 that had an above-median three-year annualized return.
- **Sell rule:** Annually evaluate three-year rolling returns and sell any funds that achieved below-median three-year annualized returns or that were discontinued.
- **Reinvestment rule:** Following a sale, immediately reinvest in each fund that achieved an average annualized return within the top-20 performing funds in the style box over the prior three-year rolling period.

Module 3: Plan Design and Monitoring

Defined Contribution

Defined contribution consultants can deliver ~ 200 bps in value for their clients by doing the following:

- ☐ 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.

Sources: Vanguard.

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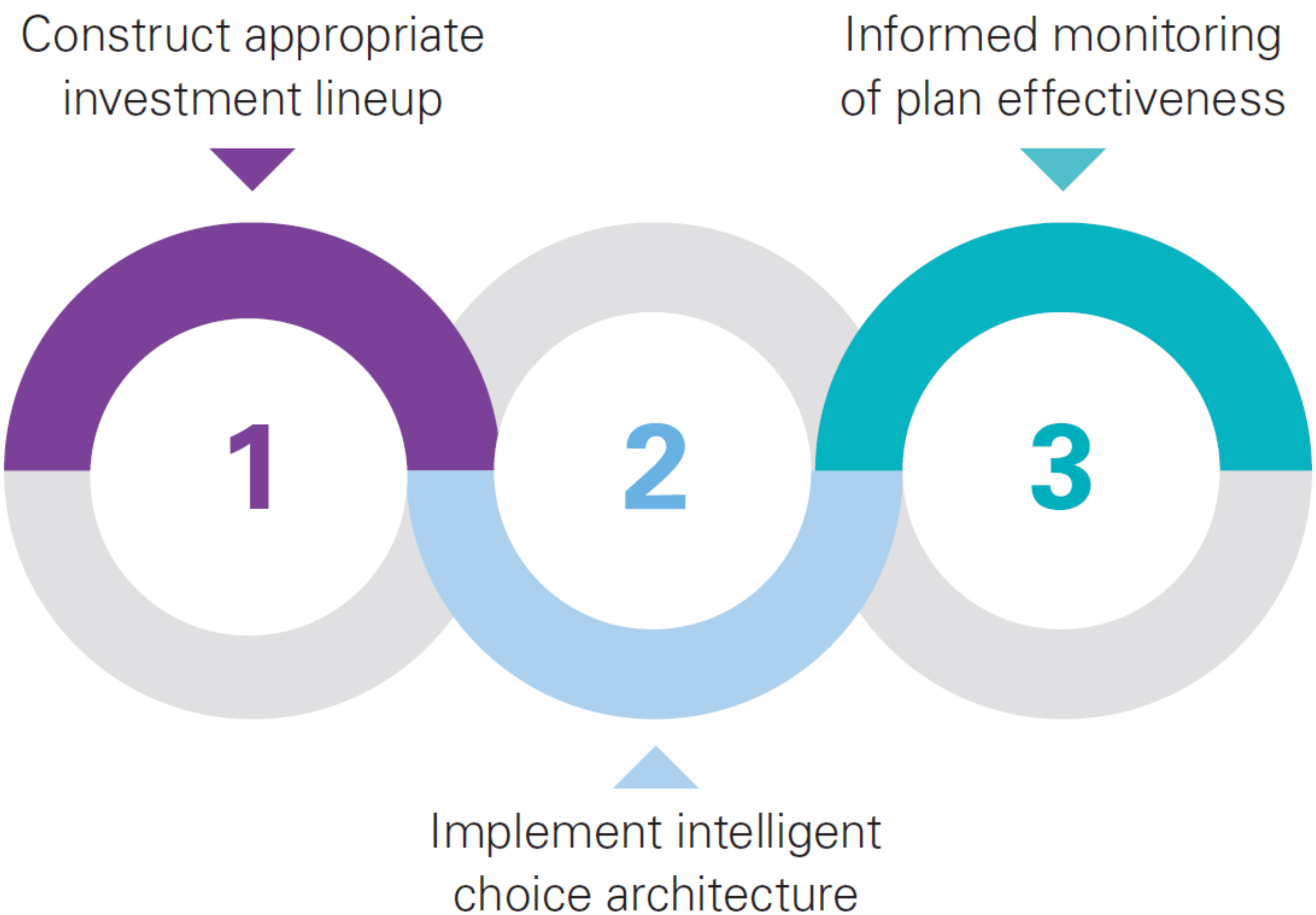
Three pronged approach to maximizing participant outcomes



Sources: Vanguard.

What do you think about when constructing an investment lineup?

Tiering can be used to meet a variety of plan sponsor goals

	1	2	3	4
Primary goal of plan sponsor	Simplify	Maximize returns by keeping costs low	Potential outperformance	Streamline fund oversight across DC and DB plans
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

Sources: Vanguard.

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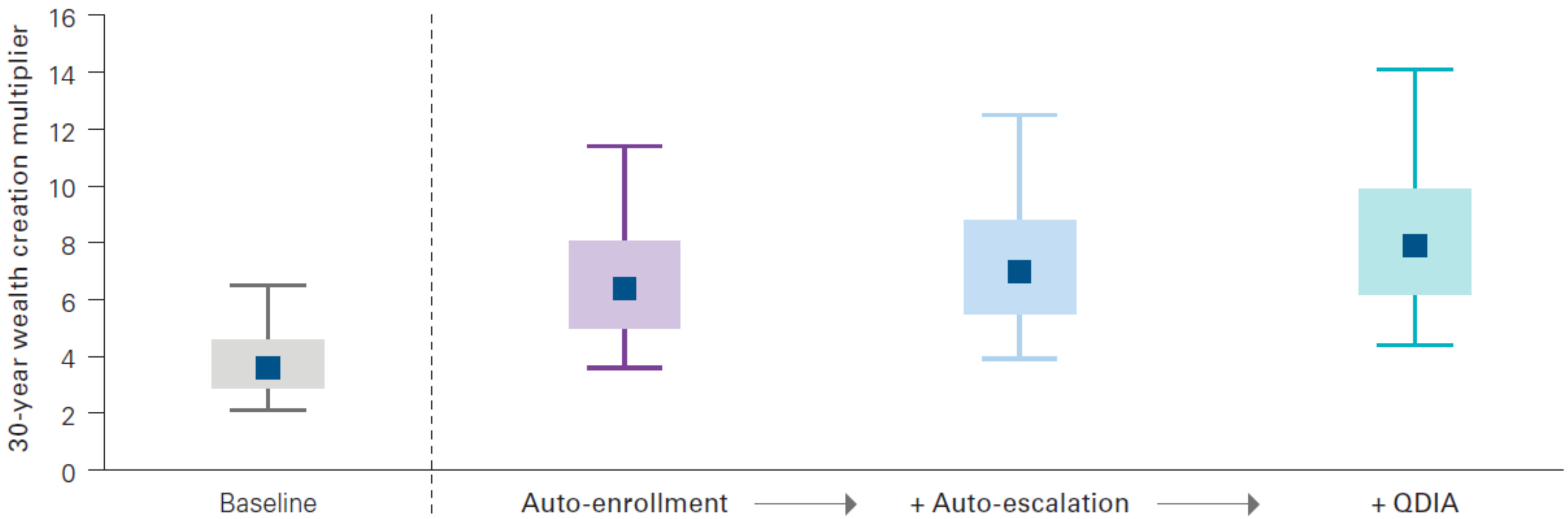
Plan design features drive wealth creation

Feature	Auto-enrollment →	+ Auto-escalation →	+ QDIA
Lever	Participation rate up	Average savings rate up	Behavior gap down
Total annualized wealth creation (per covered employee) over 30 years	1.40%	1.60%	2.00%



Notes: Using as inputs the participation and deferral rate data from Automatic enrollment: The power of the default (Vanguard, 2018), we used Vanguard's proprietary 10,000 VCMM paths to model 30 year participant-level outcomes based on the implementation of various plan design features. 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. Wealth creation multiplier refers to the ending balances in year 30 of our model as a ratio to the covered employee's starting salary.

Sources: Vanguard.

How do you approach benchmarking?

Monitoring of plan effectiveness begins with capturing and analyzing plan metrics

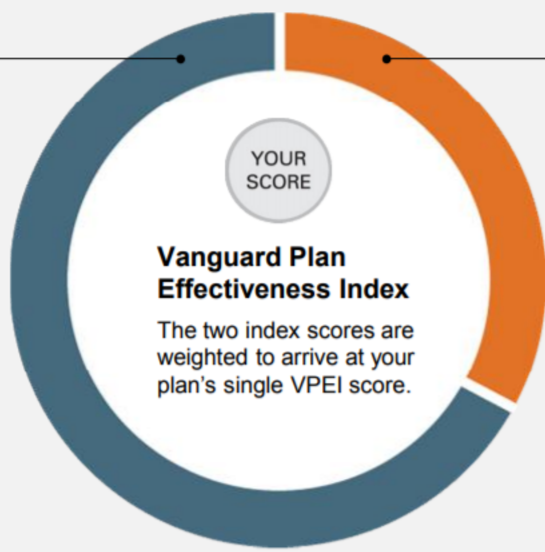
Vanguard Plan Effectiveness Index (VPEI) measures three fundamental factors—participation rate, total savings rate, and portfolio construction—to assess how effectively your DC plan is helping your participants save for retirement. These numbers produce VPEI's two key measurement figures: the Total Savings Index and the Portfolio Construction Index.

Total Savings Index

Measures total contributions to determine how close employees are to their recommended savings targets. (To factor in participation, nonparticipants are included at 0% savings.) The Total Savings Index accounts for two-thirds of the score.

A total savings factor of 100 would indicate that all eligible employees are at or above their recommended target.

Salary	Target total savings
<$50,000	9%+
$50,000 - $100,000	12%+
>$100,000	15%+



Portfolio Construction Index

Measures how close the total participant population is to having a balanced investment strategy, with equity exposure between 40% and 90% and no more than 20% allocated to company stock.

A score of 100 would indicate that every participant has a balanced investment strategy.

Sources: Vanguard.

Module 4: Investment Strategy

Defined Benefit & Nonprofit (E&F)

Nonprofit consultants can deliver ~ 70 bps in value for their clients by doing the following:

- ☐ Utilizing broadly diversified, low-cost portfolios as a benchmark to select and validate the appropriate strategic asset allocation in the context of helping the nonprofit achieve its goals based on its unique profile.
- ☐ Leveraging the impact of lowering institutional portfolio costs, whether implementing with active or passive investment vehicles.

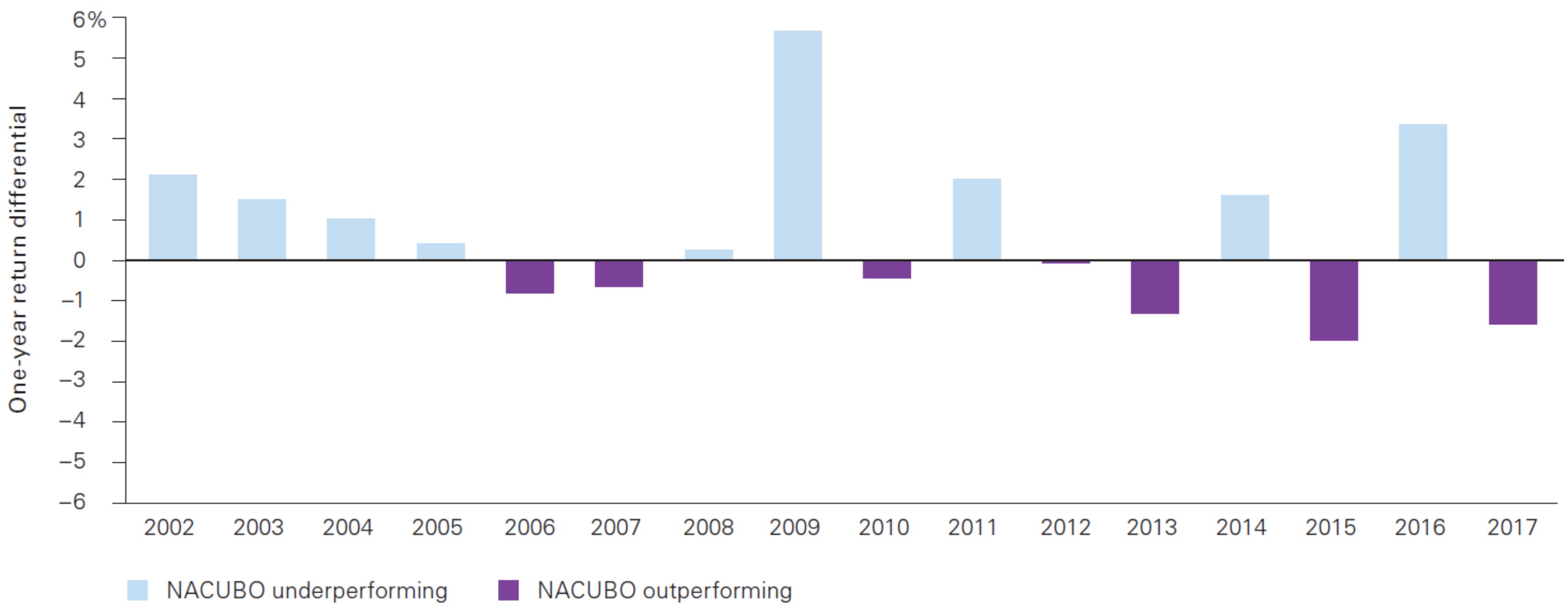
Defined benefit consultants can deliver ~ 45 bps in value for their clients by doing the following:

- ☐ Maintaining a dynamic balance between return-seeking and liability-hedging assets as dictated by the funding status and portfolio objective.
- ☐ Incorporating a liability-driven investing approach, encompassing liability hedging and a derisking glide path, in order to maximize funding status while minimizing funding status volatility.

Sources: Vanguard.

Asset allocation is the foundation for investment strategy

The Total NACUBO Institutions Portfolio underperforms

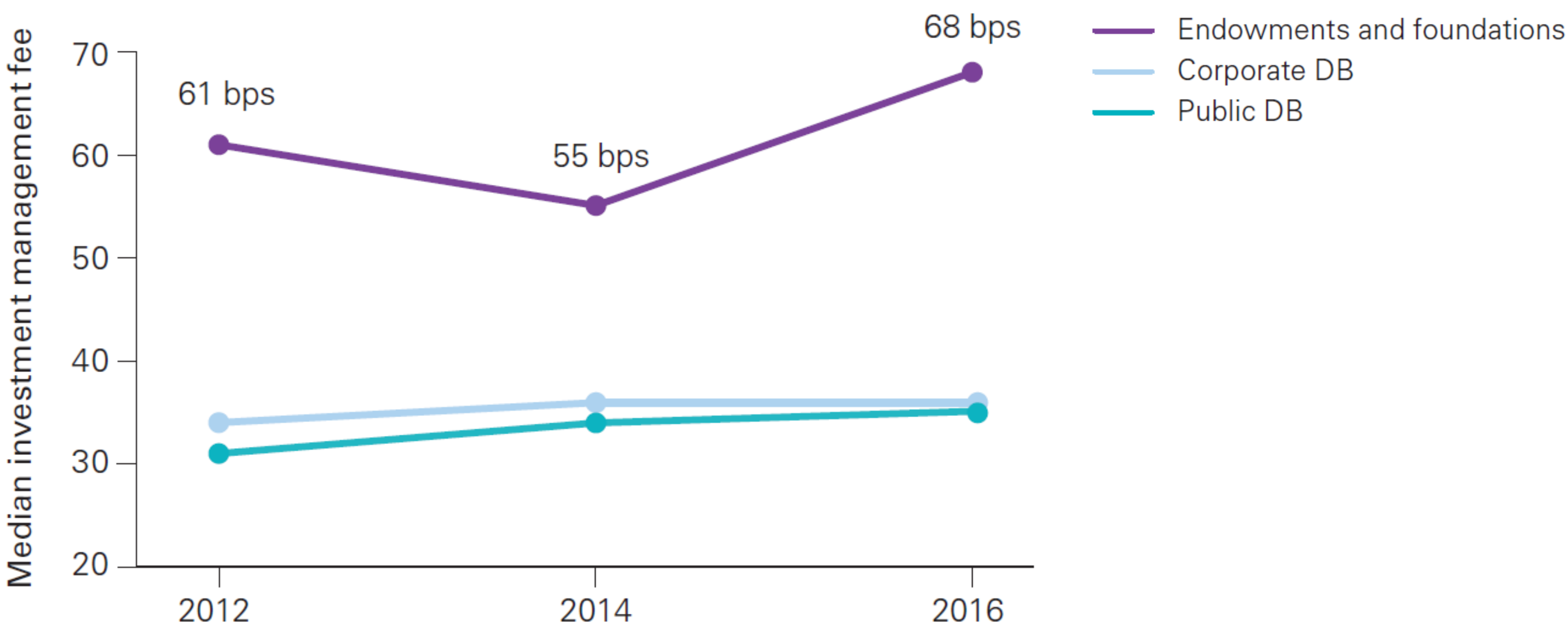


Notes: Data are as of June 30 for the previous year through June 30 of the stated year. For the 60% stock/40% bond portfolio, domestic equity (36%) is represented by the Spliced Total Stock Market Index, and international equity (24%) is represented by the Spliced Total International Stock Index. Domestic fixed income (28%) is represented by the Bloomberg Barclays US Aggregate Bond Index, and ex-US fixed income (12%) is represented by the Bloomberg Barclays Global Aggregate Index ex USD. The average return differential between the two portfolios is 0.70%. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index. We used a 60% stock/ 40% bond allocation because we believed it conservatively represented the liquid public market equivalent for the average nonprofit asset allocation according to NACUBO. NACUBO returns are net of fees. A portfolio of actual index funds would be subject to fees and expenses that do not apply to indexes. Past performance is not a guarantee of future returns.

Sources: Vanguard and NACUBO-Commonfund Study of Endowments.

Costs reinforce and amplify the value-add

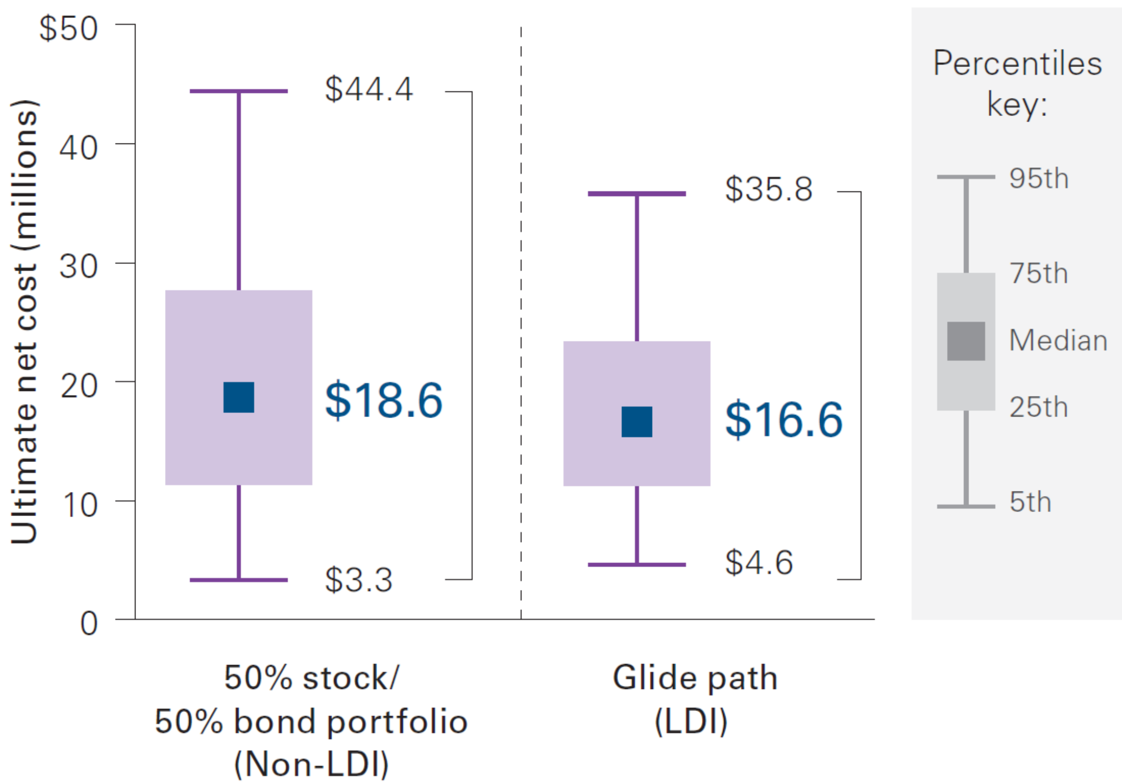
Institutional portfolio costs trend upward for endowments/foundations



Source: Callan 2017 Investment Management Fee Survey and Vanguard data.

Pension portfolios balance return-seeking with liability-hedging

Applying a liability driven investing approach reduces the median outcome for ultimate net cost



* Ultimate net cost is defined as cumulative contribution requirements plus the unfunded liability at the end of the ten-year projection period.

IMPORTANT: The projections or 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. Distribution of return outcomes from VCMM derived from 10,000 simulations for U.S. equity returns and fixed income returns. Simulations as of September 30, 2017. Results from the model may vary with each use and over time. For more information on VCMM, see the Important Information slide.

Notes: Contribution projections are based on simplified modeling of Pension Protection Act provisions, including subsequent amendments, and are not intended to precisely replicate actual contribution requirements. Unfunded liability projections are based on US Generally Accepted Accounting Principles (US GAAP). This sample pension plan is closed to new entrants with a funding policy of meeting the IRS minimum required contribution.

Sources: Vanguard, Vanguard Capital Markets Model (VCMM), PFaroe.

The "why"

To take a stand for ALL investors by partnering with consultants, giving institutional investors the best chance of achieving their mission, be it charity, education, or retirement.

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Important information

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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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