Vanguard

2022 pension sponsor survey

How the global pandemic, market volatility, and rising inflation influenced decision-making

Contents

Introduction

This survey—our fifth in a continuing series—was conducted to evaluate how sponsors are managing their pension plans in the current market and regulatory environment and to identify trends relative to previous surveys.[1] We received responses from individuals with decision-making authority at 117 organizations that sponsor corporate pension plans. This volume of responses allows our survey to gather information from sponsors representing a wide range of plans in terms of size, status, and plan design.[2]

We began our surveys in 2010 and have conducted one approximately every three years. That period has seen notable changes for plan sponsors, including several iterations of changes to minimum funding regulations, significant increases in Pension Benefit Guaranty Corporation (PBGC) premiums, and the growth of the risk transfer market for annuitizations and lump-sum payments. However, major changes have happened since our 2018 survey, with a global pandemic interrupting a period of both rising equity markets and declining interest rates, leading to the current conditions of increased inflation and a rise in the volatility of both interest rates and equity markets.

These changes and conditions have motivated plan sponsors to ensure that they are operating their pension plans in an optimal manner that reflects both their corporate and workforce goals. To this end, we have asked questions and organized the survey results into five parts that focus on:

- The misperception of risk.
- Plan design.
- Plan sponsor objectives, concerns, and risks.
- Investment policy.
- Outsourced chief investment officer (OCIO) services.

[1] The 2022 survey was completed in the first quarter of 2022. Our results are to be considered a point-in-time summary from a sampling of defined benefit pension plans. Small changes in results from one survey to the next may not represent a new trend or a reversal of an old trend and may be the result of the changing size and composition of our survey population. Note that in the remainder of this paper, comparisons of "2010," "2012," "2015," and "2018" refer to Vanguard's 2010, 2012, 2015, and 2018 surveys/results.

[2] For details on respondent demographics, see Appendix I.

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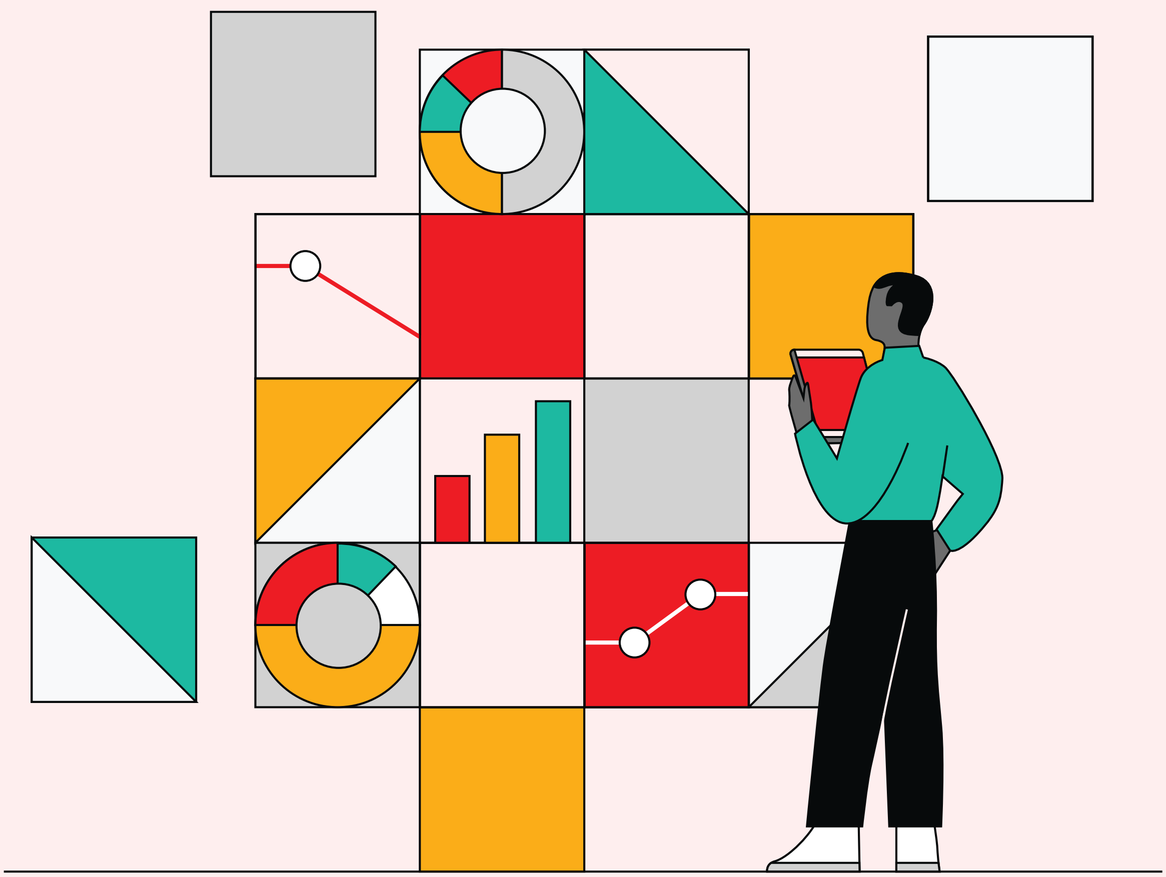
Part 1:

The misperception of risk



Part 1: The misperception of risk

Plan sponsors have been taking significant steps to manage risk. They have adjusted their plan design, increased their fixed income allocation, lengthened fixed income duration, adopted glide-path strategies with the intent to further increase fixed income allocations as funded status improves, and transferred liabilities to plan participants and insurance companies. Still—based on this survey and our conversations with plan sponsors—they find it difficult to gauge the level of risk they are taking and, in most cases, drastically underestimate the asset-liability, or surplus, risk within their pension plans.

In the current survey (see Figure 1), 91% of plan sponsors reported that their tolerance for an acceptable level of downside variation in funded status was 10% or less. Further, 46% reported that only a downside variation of 5% or less was tolerable. The desire for a low level of downside variation has remained unchanged from our prior surveys.

For reference, we define a 10% downside variation in funded status tolerance to mean that a plan sponsor would like to construct an asset allocation that gives them a high confidence of limiting the possibility that the plan's funded status will fall by more than 10% over the next year.[3]

Figure 1. Sponsors' tolerance of funding ratio volatility

Acceptable downside variation	2015	2018	2022
Less than 5%	51%	52%	46%
6%–10%	42%	36%	45%
11%–20%	6%	9%	6%
Greater than 20%	1%	3%	3%

However, our risk models show a downside variation in funded status significantly higher than the stated acceptable risk tolerance for the average pension plan. This difference uncovers a potential disconnect between the stated risk tolerance of the sponsor and the inherent risk within their investment strategy.

Based on our risk analysis, a 30% allocation to return-seeking assets and a 70% allocation to liability-hedging fixed income results in an 11% downside variation—outside the acceptable range for all but 9% of plan sponsors (see Figure 2).[4] Meaning a sponsor would need to allocate more than 70% to liability-hedging fixed income to achieve a downside variation of 10% or less.

[3] We are defining "downside variation" as a two standard-deviation decline in funded status over a one-year period based on a prevailing set of capital market assumptions, which include standard deviations and correlations for asset classes and liabilities. A two standard-deviation decline in funded status is like saying, "There is only a 5% chance that funded status will decline by more than the stated amount." This is often called a VaR, or Value at Risk, calculation.

[4] We are defining the allocation to return-seeking asset to be a well-diversified global equity portfolio and an allocation to liability-hedging fixed income assets to be a combination of high-quality U.S. corporate and Treasury bonds with duration equal to that of the plan's liabilities.

In Figure 2, we have combined the estimated downside variation of funded status for a given asset allocation along with the incidence of that asset allocation when looking at available public corporate filings.[5] Combining Figure 2 with Figure 1 shows that an asset allocation of either 0%/100% or 10%/90% would accomplish having a downside variation of 5% or less, the stated goal of 46% of our survey respondents. However, only 7% of corporate pension plan sponsors have adopted those asset allocation targets.

More remarkable is that 91% of respondents state that only a 10% downside variation is acceptable when only 16% of all plan sponsors have adopted an asset allocation that aligns with this level of downside risk (20% or less in return-seeking assets and 80% or more in liability-hedging fixed income).

On the other end of that spectrum, only 3% indicated that a downside variation in funded status greater than 20% would be acceptable, yet 46% of pension plans have an asset allocation that has a downside variation greater than or equal to that number.

Figure 2. Calculated downside funded status variation for asset allocations

Asset allocation (return seeking/ liability hedging)	Calculated downside variation	Incidence of asset allocation
0/100	3%	2%
10/90	5%	5%
20/80	8%	9%
30/70	11%	11%
40/60	14%	13%
50/50	17%	15%
60/40	20%	20%
70/30	24%	26%

This finding shows a large disconnect in the stated acceptable risk tolerance of the plan sponsor and the risk they are taking with their asset allocation and highlights a key decision sponsors should address—should asset allocation or risk tolerance be adjusted?

One option is for the plan sponsor to keep risk tolerance unchanged and shift their asset allocation from return-seeking assets to liability-hedging fixed income assets to reflect their tolerance for downside variation. Plan sponsors could also reduce risk in the portfolio by incorporating derivative exposure in their risk management process (see Dion and Dutton, 2020).

Alternatively, the sponsor could keep the portfolio unchanged and adjust their risk tolerance, accepting the additional downside funded ratio risk in exchange for the potential of higher equity returns and factor that adjusted risk tolerance into the range of outcomes that may occur. Either answer could be correct, but it is important for the choice to be clearly understood and agreed upon among the broader investment committee and for all stakeholders to understand the amount of risk they are exposed to.

[5] Source: FactSet. For this data we have used the asset allocation disclosed in the annual SEC 10-K filing for nearly 775 corporate pension plans as of December 31, 2021, and assumed that all bonds are allocated to liability-hedging fixed income, a generous assumption meaning the issue might actually be much worse than stated above.

Part 2:

Plan design

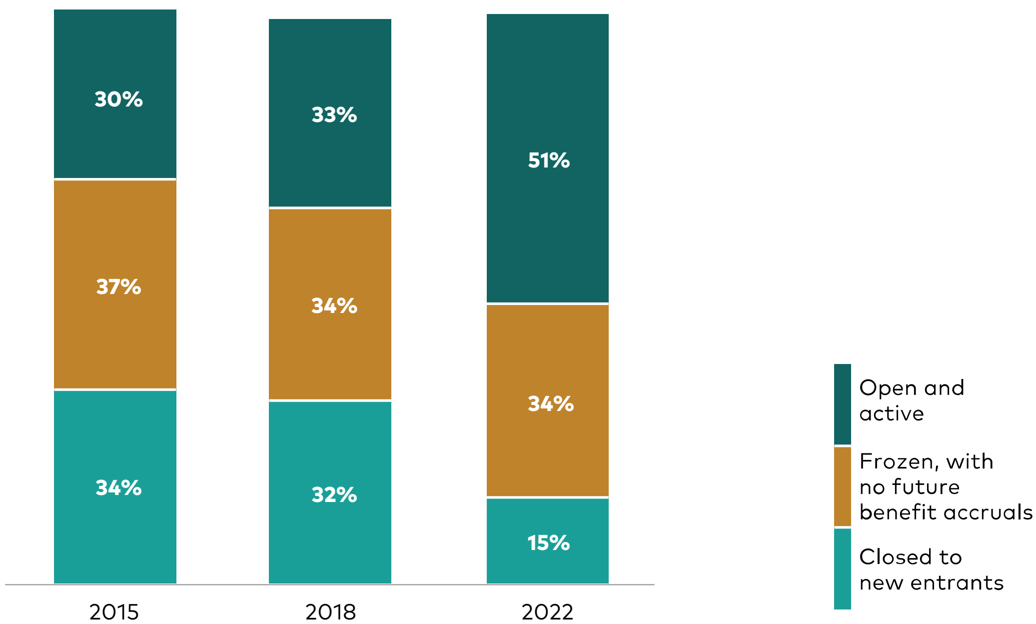
Part 2: Plan design

Despite a long-term industry trend in the declining number of open and accruing plans, when compared with prior Vanguard surveys, the plan status in the 2022 survey sampling has more open plans.

The increase in the number of open plans (see Figure 3) is not a statement that there are more open plans in 2022 than in prior years. This change is intended to show that we have taken the time to "reset" the survey sample to ensure that we are aligned with the data from recent government filings[6] to give a better reflection of the state of corporate pension plans within our survey.[7]

The change in the sample's composition for this survey pushed us to take extra care in interpreting trends. Hopefully, plan sponsors will appreciate this rigor throughout the analysis of these results.

Figure 3. Sponsors' current pension plan status



[6] Pension Benefit Guaranty Corporation 2019 Data Tables. https://www.pbgc.gov/sites/default/files/2019-pension-data-tables.pdf. See Table S-37, showing the number of open and accruing pension plans has decreased from 73% of all plans to 51% of all plans in the last decade, while the number of frozen pension plans has increased from 18% to 38%.

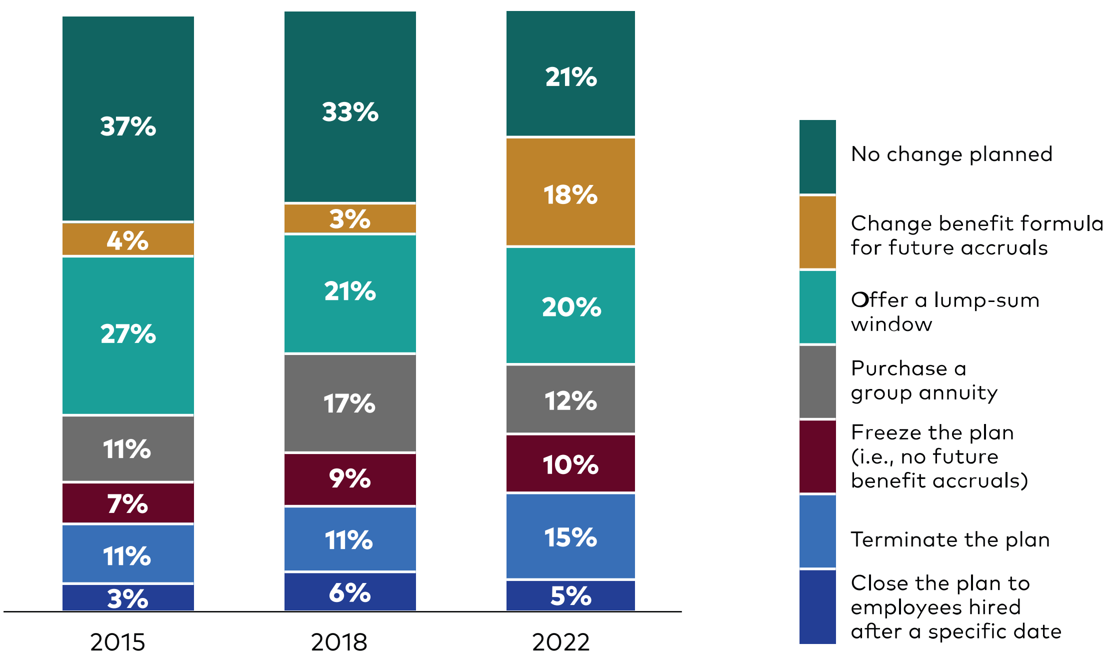
[7] Any survey of a population has what statisticians call "sampling error." This is not an error in the mathematical sense but an acknowledgement that the participants of any survey may, in one way or another, not be truly representative of the total population. As our survey has many variables (plan status, assets size, asset allocation, etc.), it is hard to capture a representative population on all these dimensions. We have made the judgment that plan status might be the single most important indicator of behavior for a corporate pension plan and, therefore, have taken the time to align our survey population to the overall population based on this variable.

In 2022, nearly 80% of respondents stated they intend to make a change to their pension plan (see Figure 4). This continues the trend where this percentage has increased with each survey dating back to 2012, when only 44% of respondents stated they intended to make a change to their pension plans.

Looking at trends since 2015, Figure 4 highlights include:

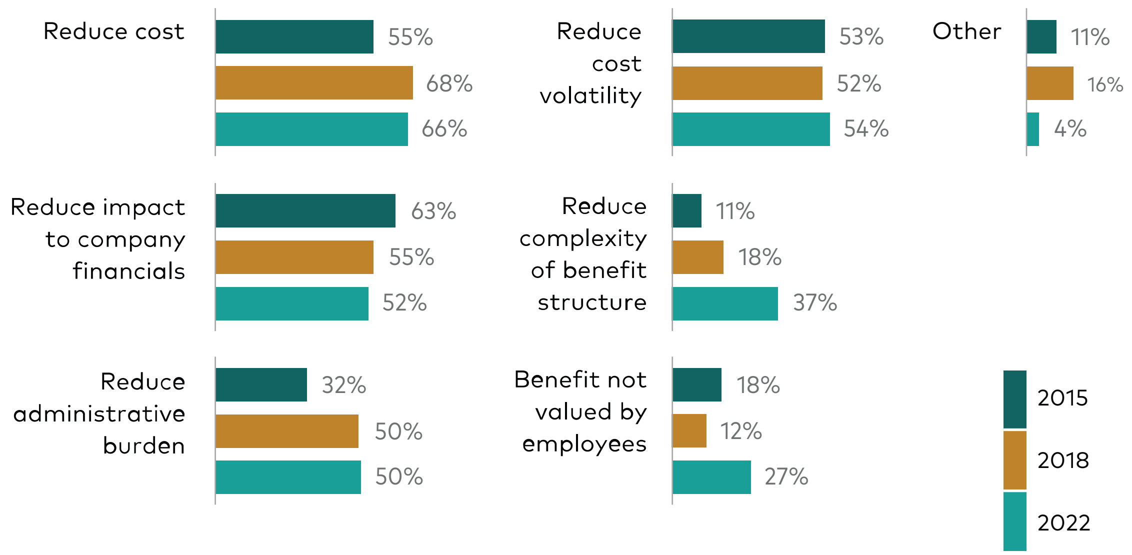
- A significantly larger number of respondents are considering a change in benefit formula, 18% in 2022 compared with 3% in 2018. This is likely due to the increase in the number of open plans in the 2022 survey.
- As in both 2015 and 2018, nearly half of those surveyed are intending to execute a risk transfer, meaning they expect to purchase annuities for retirees, offer lump sums to terminated vested participants, or fully terminate the plan. Each of these changes has more to do with transferring liability and risk from the pension plan, either to insurance companies or individual participants, than it does with changing the way in which participants earn benefits. The effect of both "purchase a group annuity" and "offer a lump-sum window," which combined represent 32% of those surveyed, is to reduce the plan's size going forward. We recommend that plan sponsors considering these strategies thoroughly analyze the impact on the risk profile, cost savings, and asset allocation of the remaining plan.

Figure 4. Expected changes to pension plans



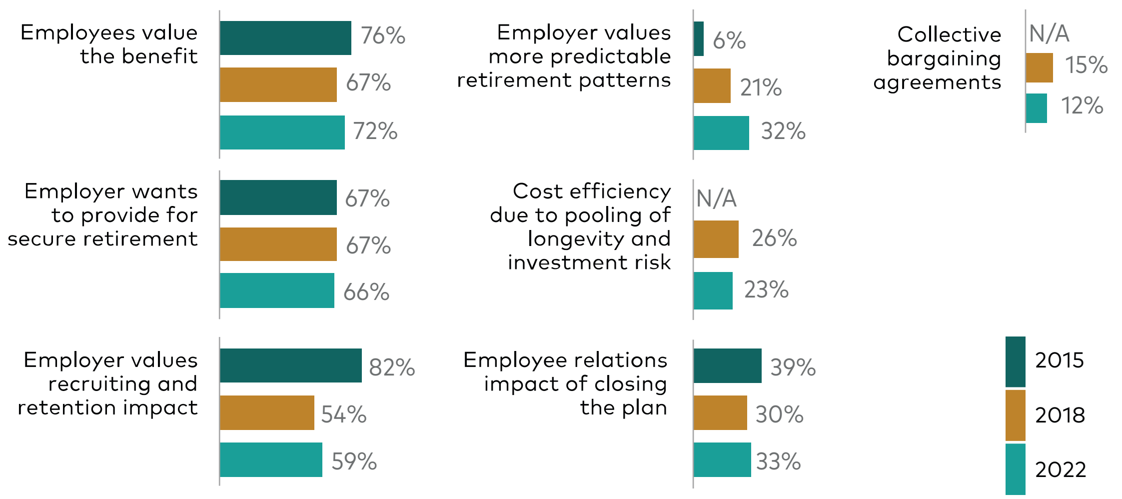
For plan sponsors considering making a change to the plan, the three top reasons have been consistent in all surveys since 2010. Plan sponsors are looking to reduce cost, reduce the volatility of cost, and reduce the impact of plan results on the company financial statements (see Figure 5). The order of priority between these three has changed over time, but they have remained the key priorities for plan sponsors. The fourth most popular reason is to reduce the administrative burden. We will see later in the survey's analysis that plan sponsors often do not have sufficient expertise, staff, and time to devote to the pension plan, which is consistent with their desire to reduce the ongoing administrative burden of managing their plan.

Figure 5. Top reasons for making changes to a pension plan



Some sponsors of defined benefit plans state they intend to keep their plans open indefinitely. We asked sponsors of open plans who did not intend to make any changes to plan status or design why they were intending to maintain their plan (see Figure 6). Consistent with Vanguard surveys since 2012, plan sponsors cited that the employees value the benefit, the employer values the recruiting and retention impact of the pension plan, and the employer wants to provide for secure retirement. Just like the reasons for making a change, these top three reasons for not making a change have varied in order of importance over time, but they have consistently remained the top three responses.

Figure 6. Top reasons for maintaining a defined benefit pension plan



The long-term trend for defined benefit pension plans has been toward open pension plans closing to new participants and then freezing new benefit accruals as the overall U.S. retirement systems have transitioned from defined benefit plans to defined contribution plans. Along with this trend is transferring benefits and risk, outside of the defined benefits system either by purchasing annuities for retiree participants or by paying lump-sum benefits, in lieu of an annuity, to terminated vested participants.

Vanguard has noticed two interesting developments that run counter to the trend of a declining defined benefit pension system. The first is that, according to government filings, the percentage of open and ongoing pension plans has begun to level off at about 50%, rather than continue to decline. This leveling may show that those sponsors who continue to maintain open and ongoing pension plans following the global financial crisis, the introduction of more stringent funding and reporting regulations, and the increases in PBGC premiums may be "true believers" in the defined benefit plan and may be more likely to continue to maintain the plan in the future. Second, we noticed a large increase in the number of cash balance pension plans covering a small number of participants. Anecdotal evidence suggests that this type of plan has become very popular with "partnership-type" firms such as doctors, lawyers, and financial service professionals. This allows them to benefit from more favorable tax treatment and the higher allowable contributions under a defined benefit plan than when compared with a defined contribution plan.

Part 3:

Plan sponsor objectives, concerns, and risks

Part 3: Plan sponsor objectives, concerns, and risks

When we surveyed plan sponsors about their financial objectives, concerns, and risks, we noticed many key themes and consistent answers. This is to be expected, as once someone sets an objective, it tends to be a top concern. Therefore, we will analyze Figures 7 and 8 together, and we will list those main themes that appeared across those questions. Figure 9 is separate since it can be thought of as what stands in the way of an objective or causes concern.

Objectives and concerns

Obtaining full funding has consistently been a primary objective for pension plan sponsors in this and prior surveys. Vanguard believes that is a worthy goal for all sponsors, as their funded status represents their ability to pay benefits to plan participants and a sign of the plan's overall financial health relative to the sponsor's financial position.

Minimizing the volatility of contributions and funded status is consistently very important to plan sponsors through our survey history. This is a practical top objective and concern, as minimizing volatility of results allows for a plan sponsor to better budget for future contributions and to position the pension plan to compare favorably with other key financial metrics (Gannon, 2021). We often see sponsors comparing their pension plan size with the corporation size or the amount of annual pension expense or annual contribution to annual metrics such as net income or free cash flow. Many sponsors try to alleviate these concerns through asset allocation, especially investing in liability-hedging assets, and risk transfer to reduce the pension plan's size and risk.

Rounding out our top three objectives and concerns is the goal of minimizing the sponsor's pension plan cost. As costs for defined benefit pension plans have continued to increase, so, too, has concern about this issue. We believe that most sponsors are primarily concerned about the dramatic rise in PBGC variable-rate premiums, from less than 1% of unfunded vested benefit to almost 5%, along with the rise in the PBGC flat-rate premium from $35 per participant in 2010 to $88 per participant in 2022. What could also be considered a "cost" is management's time spent on the pension plan. That has consistently increased in importance to plan sponsors, especially as closed and frozen plans offer benefits to fewer current employees and the regulatory complexity has continued to make the management of pension plans time-consuming.

The interest in developing an exit strategy—evaluating pension risk transfer or plan termination—has increased to become more of an objective and concern of plan sponsors throughout our survey history. This surge is likely linked to a combination of forces, including increasing funded status, the incidence of closed and frozen pension plans, and the growth in the pension risk transfer market.

It is also worth noting that these themes are seen consistently throughout the survey and underline many actions and responses from plan sponsors: The reasons to consider making a change to the plan, evaluating risk transfer, making an asset allocation decision, and even partnering with an OCIO provider are all consistent with the objectives listed here.

Figure 7. Financial objectives of the pension plan

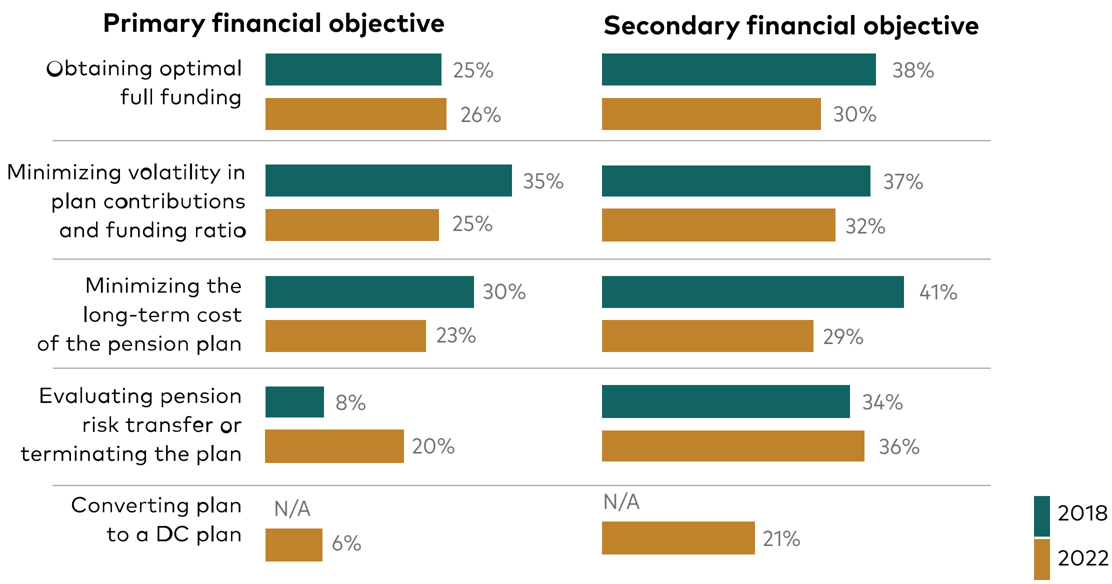


Figure 8. Plan sponsor concerns rated by importance

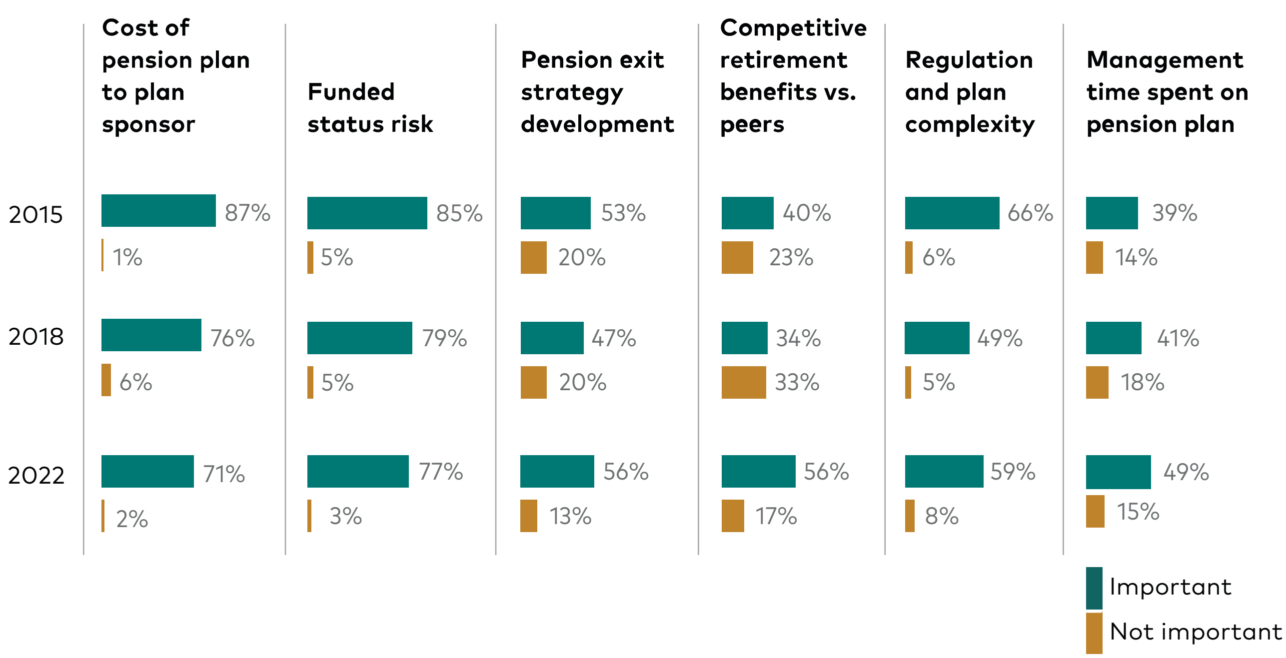


Figure 9 shows the results when our surveys queried sponsors about the types of pension risks that were important to them. These risks are those that they believe will keep them from meeting the above objectives and are listed in order of response.

Sponsors in our 2022 survey told us that interest rates continue to be the most important risk consideration, although its importance has fallen significantly since 2012. This concern might have abated, as 2022 has seen an increase in rates of about 275 basis points to nearly 5.50% for corporate bonds, the highest rates seen in nearly a decade.

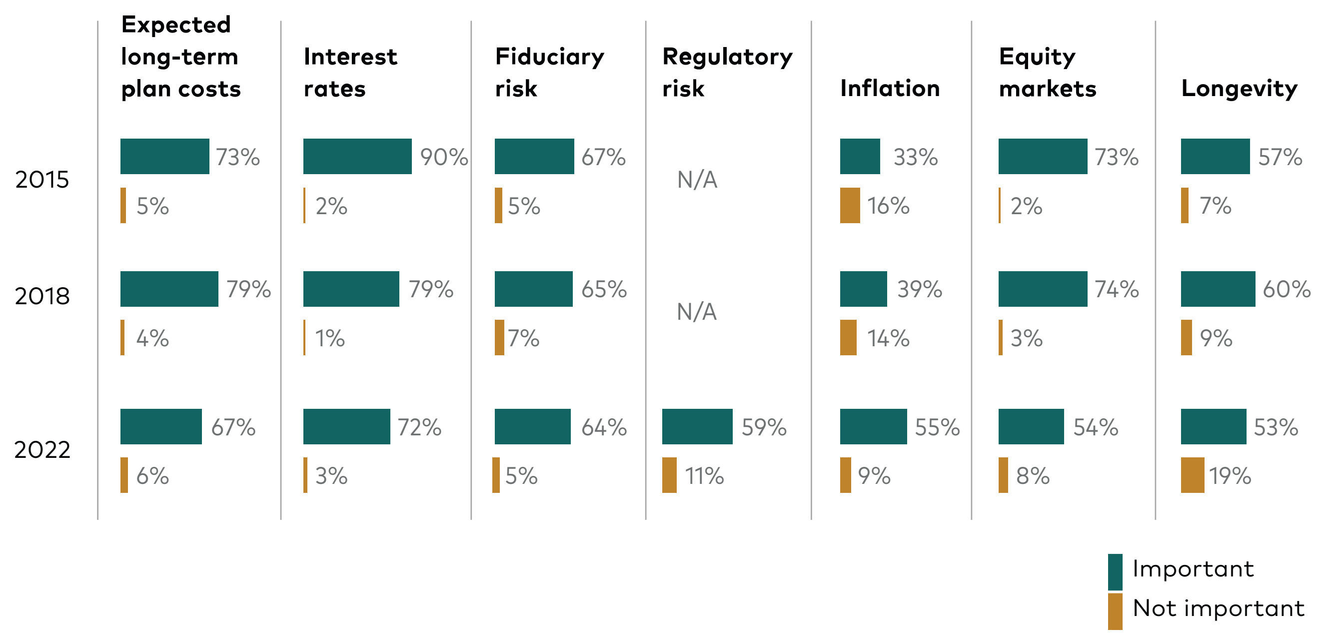
Interest rates are a critical risk factor for pension plans. The prior prolonged low interest rate environment had increased plan liabilities, resulting in lower funding status and possibly higher pension contributions and cost. Interest rate risk is typically a top-of-mind issue for plan sponsors when constructing their asset allocation and liability-driven investment (LDI) strategy.

Along those lines, inflation risk saw the largest increase in importance for plan sponsors. When the 2022 survey was conducted, inflation had exceeded 9% annually, a level not seen in decades. While some corporate plans offer a cost-of-living pension increase, most do not. For most plan sponsors, inflation's impact is felt through its influence on interest rate and equity returns and its impact on economic growth and stability.

It is interesting to note that equity market risk saw the largest decline in importance compared with prior years. When this survey was completed early in January 2022, the United States was in its 13th year of a bull market, which could have influenced the lower level of concern. Many investors exhibit "recency bias," which is the tendency to think that trends observed in the recent past will continue. We have seen significant equity market decline and volatility since the survey was completed, reminding investors that equity risk is still of great importance. It is also possible that plan sponsors expressed their concern with the equity markets with a concern about inflation and its impact on equity market returns.

Expected plan costs and increasing regulations are the primary "nonmarket" risks that plan sponsors see as inhibiting their ability to meet long-term objectives. It is not surprising that some form of "minimizing costs" has found its way into the higher importance ranking for all objectives, concerns, and risks, which shows its significance to pension plan sponsors.

Figure 9. Types of pension risk ranked by importance



Part 4:

Investment policy

Part 4: Investment policy

Through use of reported data in annual filings of corporate pension plans (annual SEC 10-K filings), we see for the first time that the average amount allocated to fixed income assets exceeds the average amount allocated to equity/other asset classes. Fixed income allocations have increased from 38% in 2008 to 51% at the end of 2021, while equity/other allocations have declined from 62% to 49% over the same period. This long-term trend of an increasing allocation to fixed income allows plan sponsors to better control asset-liability risk and reduce the risk of adverse plan outcomes on their finances. This trend is mostly driven by increasing funded status, which at the end of 2021 had reached its highest level since the global financial crisis of 2008, and the adoption of glide-path investment strategies, which are designed to increase the allocation to liability-hedging fixed income as funded status improves.

Investment objectives

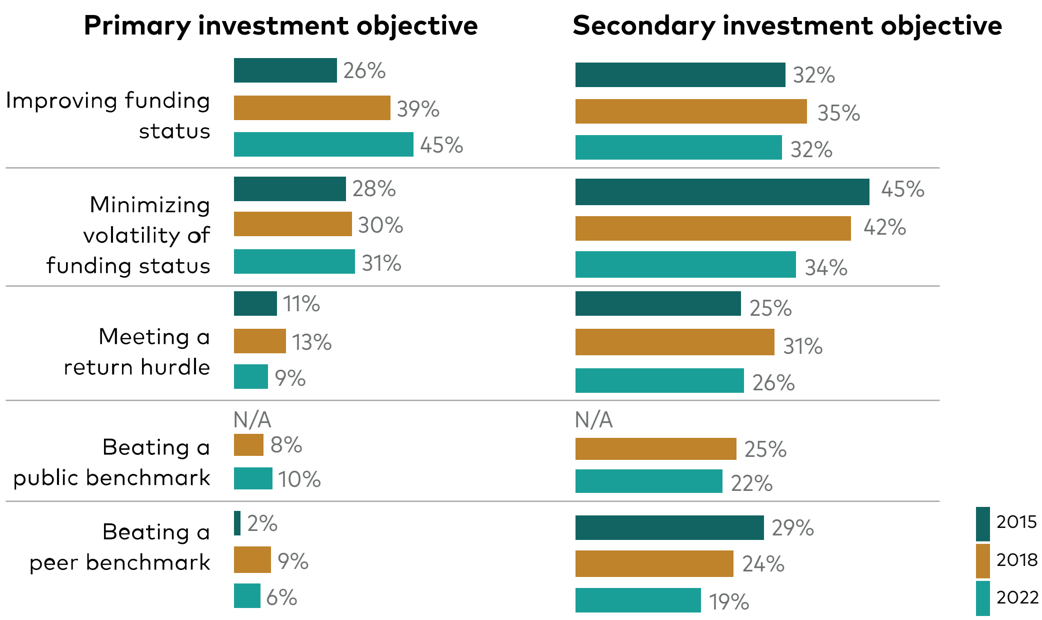
As in prior years, we queried plan sponsors about their investment objectives. As shown in Figure 10, survey responses linked directly back to sponsor objectives and concerns about their plans outlined in earlier sections. Improving funding status and minimizing funding ratio volatility continued to be the primary and secondary investment objectives of most, consistent with survey results since 2015.

Also noteworthy is that while only 9% of respondents listed meeting a return hurdle as their primary objective, 26% cited it as a secondary objective. This is not something we view as problematic, however. Although Vanguard believes return hurdles should not have a primary role in a plan's investment strategy, return hurdles as secondary objectives can be appropriate for open, underfunded plans or plans that cannot contribute the full plan deficit and are attempting to earn their way out.

Sponsors can also state a return hurdle as the growth in the liability plus a margin, which is consistent with the increased interest in LDI strategies. Public company sponsors may also consider their expected return on assets (EROA) for pension expense a return hurdle because plan EROAs must be reasonable given the plan asset allocation.

Similarly, "beating a peer or public benchmark" is getting significantly more interest as a secondary objective than as a primary objective. This is aligned with Vanguard's belief that this can be a secondary objective of a plan (or a primary objective of an individual manager) but should not be the plan's primary objective.

Figure 10. Investment objectives for plan sponsors

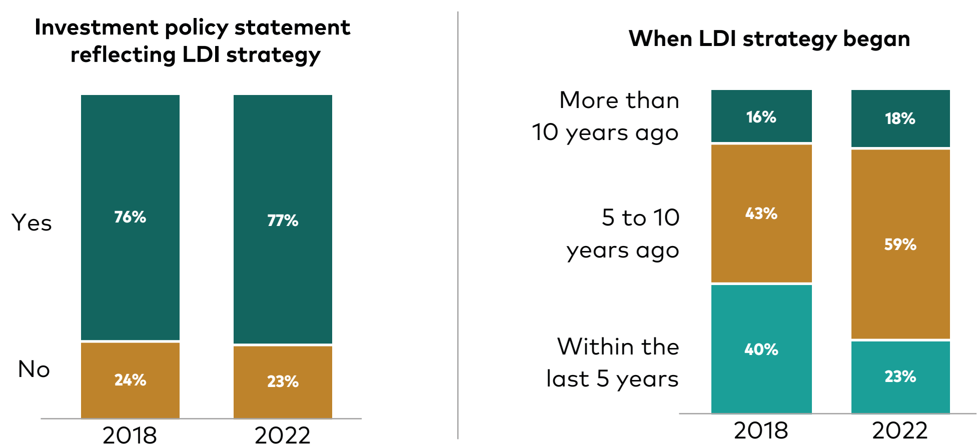


Liability-driven investing (LDI)

As in prior surveys, we asked many questions about LDI strategies. The results are consistent with the observations from our 2018 survey.

- The vast majority (77%) of plan sponsors are including a statement of their LDI strategy in the investment policy statement (IPS).
- LDI strategies continue to gain broad acceptance. Twenty-three percent of respondents who are using an LDI strategy implemented the approach within the last five years.
- We note that among the 20% of plan sponsors who are not using an LDI strategy, none of them are considering implementing one in the future. The top reason cited is that the plan sponsors do not believe that it is a viable strategy for their plan. While we do not have sight into the plan characteristics of these plan sponsors, this can be reasonable for some open cash balance plans depending on the benefit formula.
- As in prior surveys, the most common form of LDI strategy is a derisking glide path. A derisking glide path—the process of transitioning from a return-generating equity-dominated portfolio to a lower-risk portfolio composed mostly of liability-hedging fixed income based on key triggers or milestones—continues to be the most frequently used LDI strategy and is an approach recommended by Vanguard for defined benefit plans, especially those that are closed or frozen.

Figure 11. Use of liability-driven investment strategies

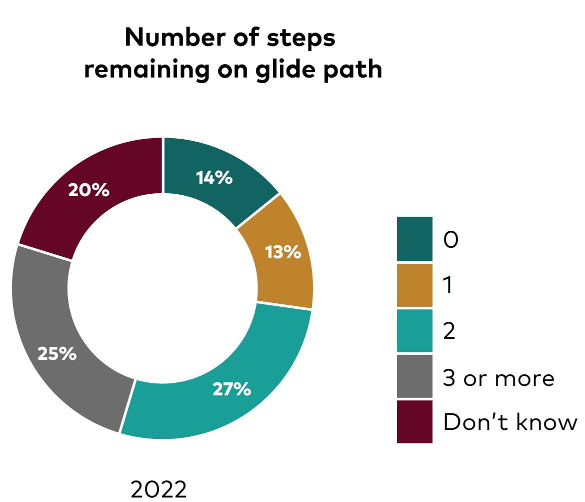


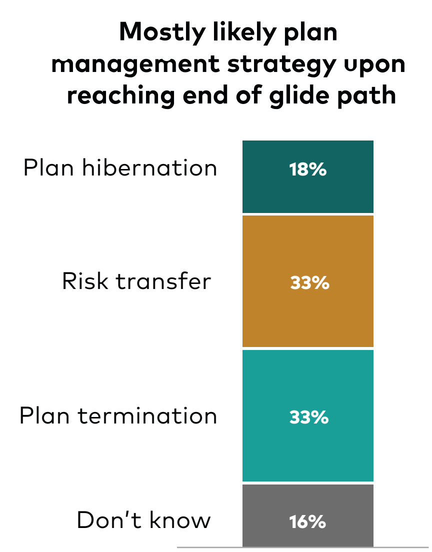
Given its prevalence as an LDI strategy, we asked further questions about the glide-path investment strategy and found the following from our survey:

- The most popular trigger system for a glide path is funding status. This is the most prevalent approach to managing pension plan glide paths. A minority answered that they based their glide paths on interest rates or equity valuations. Vanguard does not recommend those as triggers, as they imply that the investment manager or the plan sponsor has an ability to time the market and predict the directions of equity valuations or interest rates.
- Among those that employ a derisking glide path, one-third reached a trigger in the year prior to the survey and nearly 70% hit a trigger within the last three years. Within that smaller sample, 98% of those that reached that trigger followed the glide path and made the suggested asset allocation change. Vanguard believes that plans should follow their glide path and be disciplined in taking derisking steps as soon as possible after they reach a trigger point rather than overriding the asset allocation change to time the market.

Of the surveyed plan sponsors using a glide path, 14% have reached the end of their glide path, 13% are one step away from their ultimate target, and the remainder is approximately split between two, three, or more steps remaining. As more plan sponsors have been hitting triggers and moving down the glide path, we asked what they were planning to do once reaching the glide path's end. One-third of respondents intend to do a series of risk transfers targeting smaller groups of participants, and one-third intend to do a full plan termination within 12 to 18 months of reaching the target. This is consistent with the significant proportion of plans considering a partial risk transfer or full termination. One-fifth intend to pursue a plan hibernation strategy in which they would continue to manage the plan at the derisked asset allocation for an extended period. Given the right investment strategy and appropriate risk management, this can, over time, reduce the cost of an eventual plan termination, and it can help maintain relationships with former employees. The remaining plan sponsors do not have clear intent yet of what they will do once they reach the ultimate target. This is reasonable given that many plans are multiple derisking triggers away from their target.

Figure 12. Many pension plans are well along their investment glide path and planning for the future





Of plan sponsors not using or planning to use LDI, their reasons included: the plan sponsor does not believe it to be a viable strategy for the plan; it is not fully funded; there is not enough education; and the plan is a cash-balance or nontraditional plan design, which may not benefit from an LDI strategy in a low interest rate environment.

Although Vanguard advocates an LDI approach for all plans, there are sponsors who have very high pension risk tolerance. They, therefore, still manage their plans entirely from a total-return perspective, using only return-based risk measures and with little consideration for plan asset and liability correlation. In addition, some plan types may be less sensitive to pension risk than others. For example, privately held companies must worry about the impact of pension volatility on their cash flows, but not on public financial statements. These companies could have a higher pension risk tolerance than publicly traded companies.

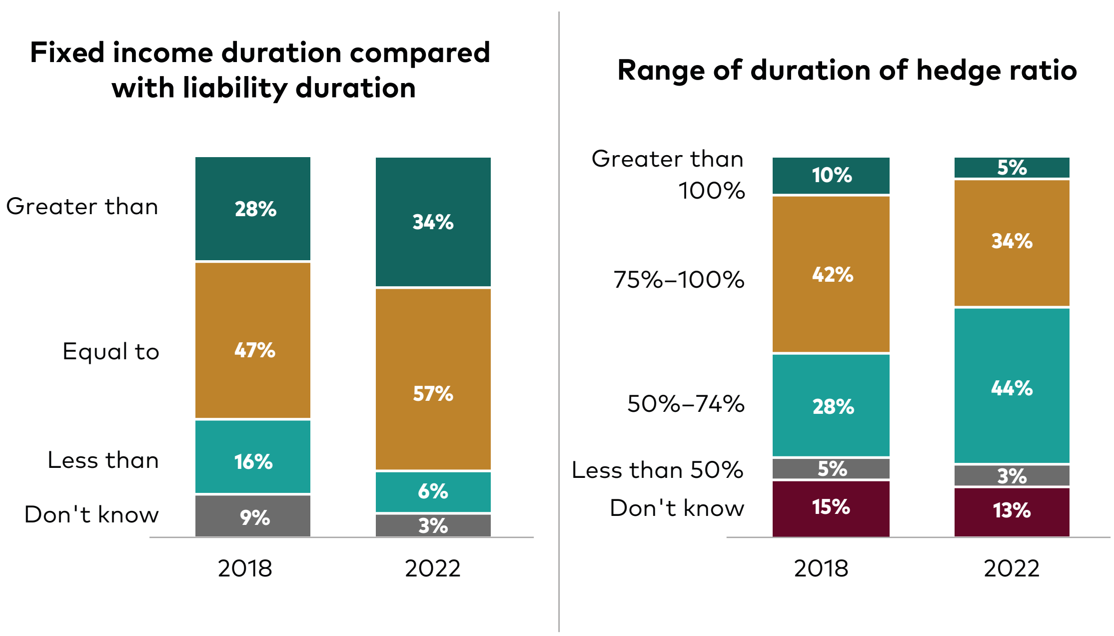
For plans that are not fully funded, concerns about return impact of adopting an LDI strategy, however, can be addressed with a glide-path approach to LDI. With such an approach, a return-seeking allocation is maintained until the plan is fully funded. At that point, the hedging allocation increases to maintain full funding. Higher returns are not necessary at some level above full funding and put the plan at risk for stranded surplus or a decline in funded status due to an adverse market event.

Fixed income duration in an LDI portfolio

For plan sponsors using an interest rate hedging strategy, 91% invest in a fixed income portfolio that has a duration greater than or equal to the duration of the liability, and 34% have a duration greater than the duration of the liability. This aligns with the objective of reducing funded status volatility by investing the fixed income assets in a capital-efficient manner (Dutton and Gannon, 2019).

Approximately 60% of plan sponsors who use an interest rate hedging strategy monitor the credit spread hedge ratio separately from the interest rate hedge ratio. Vanguard sees it as best practice to monitor these exposures separately and set target hedge ratios for both as part of the asset allocation strategy decisions (Dutton and Wolfram, January 2022).

Figure 13. Pension plans interest rate hedging strategies



Vanguard

Part 5:

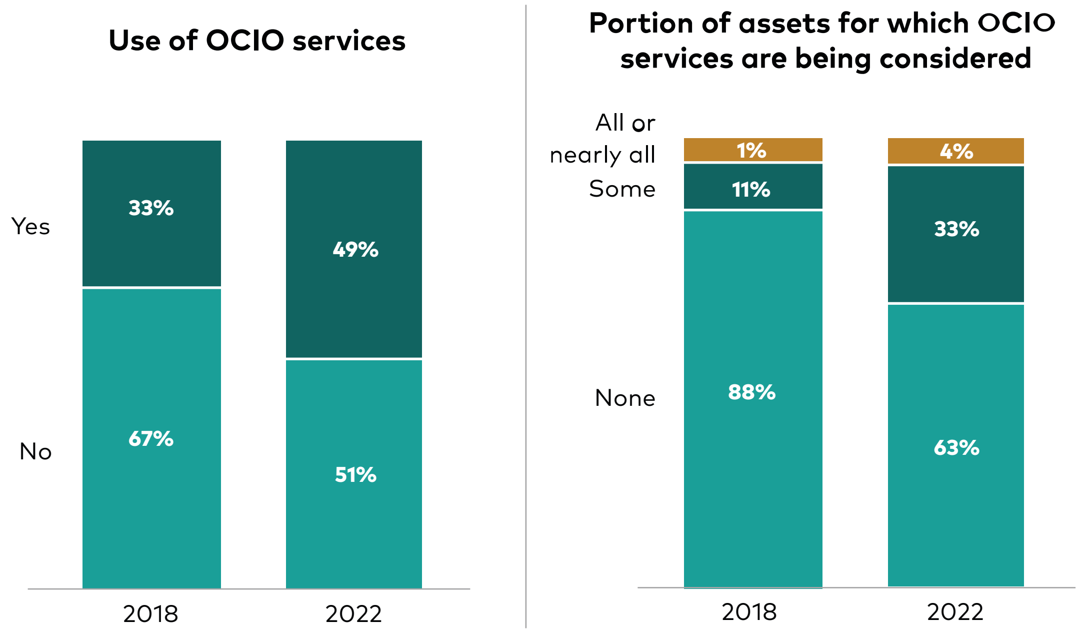
Outsourced chief investment officer (OCIO) services

Part 5: Outsourced chief investment officer (OCIO) services

From 2015 to 2021, the global OCIO market nearly doubled: from $1.3 trillion assets under management to more than $2.5 trillion, with defined benefit pension plans representing the largest share of the OCIO market.[8]

Mirroring the growth of the OCIO market, the percentage of respondents in our survey who use OCIO services has increased from 33% in 2018 to 49% in 2022. We have also seen growth in the future consideration of OCIO services. Our survey finds that of plans currently not using an OCIO asset management model, 37% are considering using an OCIO model, up from 12% in 2018.

Figure 14. Increasing use of and interest in OCIO services



Consistent with the 2018 survey, the top reasons cited to use or consider using OCIO services are to improve financial outcomes and to offset a lack of pension expertise. In a three-way tie for third most important reason to use OCIO services are the complexity of pension regulations, lack of time, and competitive cost. The latter was considered a factor by 34% of the respondents, up from 24% in 2018 and highlights the increased competitiveness in the OCIO markets and focus that plan sponsors have on managing their pension plan costs.

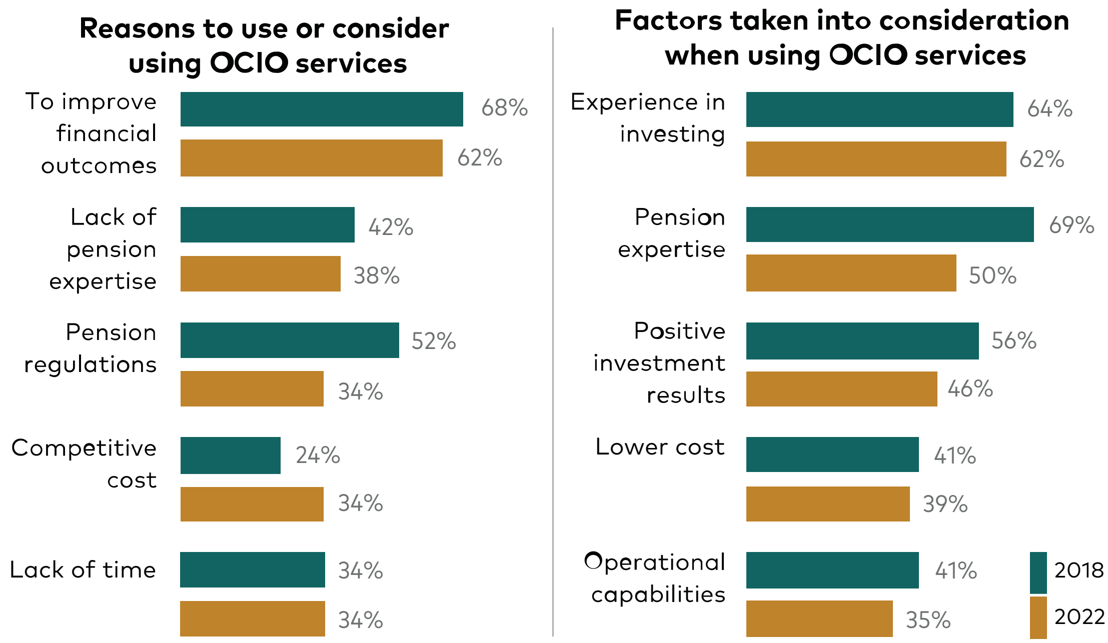
[8] Jessica Hamlin. "The Growing OCIO Industry Intensifies Market Competition for Managers and Consultants," Institutional Investor, January 25, 2022. institutionalinvestor.com/article/b1wgp057h8dc18/The-Growing-OCIO-Industry-Intensifies-Market-Competition-for-Managers-and-Consultants

Plan sponsors cited these factors for consideration, in order, when using OCIO services:

1. Investing experience.
2. Pension experience.
3. Positive investment results.
4. Lower cost.
5. Operational capabilities.

These findings are in line with the 2018 results and support this year's top reasons to use or consider using OCIO services.

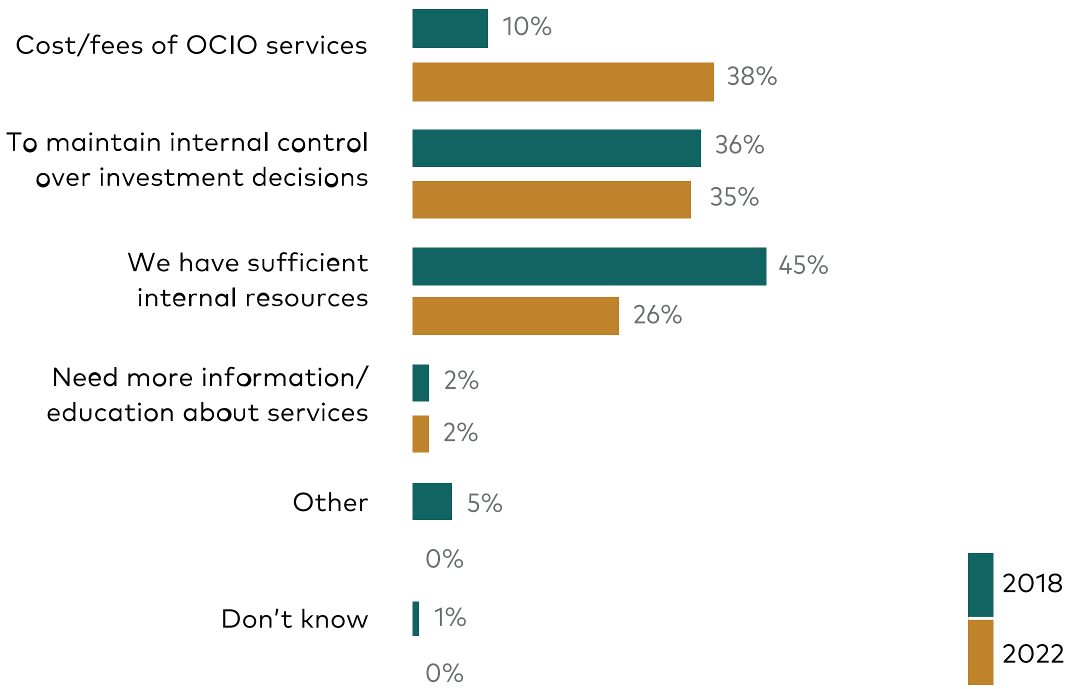
Figure 15. Top reasons to use OCIO services



For plan sponsors not considering OCIO services, the main reason is the cost and fees followed by a desire to maintain control over the investment decisions. We have observed a trend toward plan sponsors and OCIO search consultants seeking additional transparency into fees charged by OCIO providers. This push could increase a plan sponsor's ability to make an informed decision between cost and benefits of an OCIO relationship.

Interestingly, only 26% responded that they have sufficient internal resources to manage the plan, down from 45% in the 2018 survey. Lack of time and pension expertise are motivations pushing plan sponsors to use or consider using OCIO services.

Figure 16. Top reasons to use OCIO services



Overall, these findings mirror our view that more and more plan sponsors are looking to cede direct control of their pension assets and partner with an expert to improve financial outcomes. The survey results are consistent with why clients use Vanguard's OCIO services: increased governance, greater sophistication in plan management, and risk control in multiple frameworks—including on both the investment and fiduciary sides. In partnering with our clients, we bring a top-down view of the pension plan to the company itself, which is another layer that many organizations look for and why they might select an OCIO such as Vanguard (Gannon and Klein, 2021).

Conclusion

Since 2010, costs for maintaining a pension plan have risen, and several market and regulatory factors have had surprising impacts on funding ratios. This period covered nearly a decade-long equity bull market, but any funded-status gain implied by those strong returns was offset by stubbornly low interest rates and a new, longer mortality table. With respect to costs, the most prominent finding is the increase in PBGC variable premiums, from slightly less than 1% of unfunded vested benefits to nearly 5% (and increasing each year with inflation), as well as the more than doubling of the PBGC per-participant premium. That increase has spawned new strategies that largely did not exist at the time of our first study (or were rarely used in large numbers), such as lump-sum risk transfers and retiree annuity buyouts. Our results reflect this environment. A much larger percentage of plans are closed or frozen. A similarly large percentage is looking to make future changes to either their liability structure (exit strategies) or asset allocation to lower the risk of the plan and its impact on the sponsor.

References

Dion, Valerie, and Brett Dutton, October 2020. *Optimizing Pension Asset Allocation and Risk Management Using Treasury Futures*. Valley Forge, Pa.: The Vanguard Group.

Dutton, Brett, and Joe Wolfram, January 2022. *Revisiting Pension Asset Allocation*. Valley Forge, Pa.: The Vanguard Group.

Dutton, Brett, and Jim Gannon, June 2019. *Focus on the Main Thing: Maximizing Capital Efficiency in Liability-Hedging Fixed Income*. Valley Forge, Pa.: The Vanguard Group.

Gannon, Jim, and Eric Klein, December 2021. *Pension Plan OCIO—Is It Right for Your Company?* Valley Forge, Pa.: The Vanguard Group.

Gannon, Jim, September 2021. *Managing and Mitigating a Pension Plan's Impact on Financial Statements*. Valley Forge, Pa.: The Vanguard Group.

Appendix I

Weighted survey demographics

Defined benefit pension plan assets	
$20M–<$50M	16%
$50M–<$100M	16%
$100M–<$250M	20%
$250M–<$500M	11%
$500M–<$750M	9%
$750M–<$1B	7%
$1B–<$2B	20%
$2B–<$5B	--
$5B+	--
Plan status	
Open and active	51%
Closed	15%
Frozen	34%
Company ownership	
Public	55%
Private	45%
Company market capitalization	
Small cap	18%
Mid cap	50%
Large cap	32%

Appendix II

Certain projections or other information regarding the likelihood of various investment outcomes are generated by modeling functionality (the model) made available through the MSCI BarraOne model. These projections are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Model results will vary with each use and over time.

The MSCI Barra models are intended to help investors understand sources of risk and return within securities and portfolios of securities. The models pertain to risks present in the equity, fixed income, currency, commodity, and other alternative markets. As a predictive model, it may not achieve this intended purpose, especially over shorter-term periods. The model may not account for all risks actually present and may incorrectly infer the magnitude of the risks and the degree that they will influence security returns in the future. The model is continually updated based on MSCI Barra's ongoing research. The model itself is not to be construed as advice of which securities to own or the degree of return that will be earned by any security in the future. The model may be applied in the course of providing advice by Vanguard Investment Advisers, Inc. In this report, it is intended to ease communication related to the sources of risk and return within a portfolio of securities from a variety of asset classes.

The model uses standard deviation of investment returns to define risk. The model presents a consistent, integrated framework, which means that it seeks to distinguish various sources of risk so that the sources are mutually exclusive, but together present a clear composition of risk. These risk sources are style factors, industry factors, and a security-specific component. Each risk factor may include multiple subfactors. Factors and subfactors are associated with specific types of fundamental data (e.g., data from financial reports) and market or common data (e.g., data that are common to all securities in an industry or represent the return patterns of securities, in general). The model uses only data that are available for a broad universe of securities, are applicable across industries, and have a strong link to academic research that establishes strong predictive power for explaining return patterns.

Security style and industry factor exposures are calculated using the data described above. The returns attributable to each factor are estimated via cross-sectional regression (i.e., across all securities) of security returns against their exposures to the risk factors. Beyond a single security (i.e., when considering a portfolio of securities), the model must account for the relationship of risk factors to each other. The model uses a time series of the returns for each factor to calculate the variability of each factor return, and then computes the covariance and correlation of each factor to all other factors. The model weights more recent history in the factor return time series to give more importance to more recent events.

A security's specific, or residual, return is its return less the return attributed to all the risk factors. The model also calculates the risk associated with that residual return through its variability.

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

Past performance does not guarantee future results.

Bond funds are subject to interest rate risk, which is the chance bond prices overall will decline because of rising interest rates, and credit risk, which is the chance a bond issuer will fail to pay interest and principal in a timely manner or that negative perceptions of the issuer's ability to make such payments will cause the price of that bond to decline.

U.S. government backing of Treasury or agency securities applies only to the underlying securities and does not prevent share-price fluctuations. Unlike stocks and bonds, U.S. Treasury bills are guaranteed as to the timely payment of principal and interest.

There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

Diversification does not ensure a profit or protect against a loss.

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