PENSION DE-RISKING STUDY

ANALYZING THE DRIVERS OF PENSION DE-RISKING ACTIVITY

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PREPARED IN PARTNERSHIP WITH THE OFFICE OF THE PBGC PARTICIPANT AND PLAN SPONSOR ADVOCATE

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1 OBJECTIVE AND BACKGROUND

As the environment in which pension plans live has evolved over the past decade, defined benefit pension plans are no longer just an important part of an employer's total benefits and rewards program; they are also increasingly a legacy liability with significant impact on a company's financial results. In response to this, more plan sponsors have been looking to reduce their exposure to pension risk through various de-risking strategies. Such strategies span a wide spectrum of options, including plan design, workforce management, liability-driven investments (LDI), and risk transfer.

A plan sponsor's decision to implement pension de-risking is not one made lightly, but a confluence of several factors has led to an increase in such actions, including:

- The evolution of funding and accounting rules.
- Growth of liabilities as the pension system matures, leading to an increase in plan size relative to the overall financials of sponsoring organizations.
- Volatile funded status, driven by falling interest rates and turbulent equity markets environment.
- Competitive pressures as peer companies exit the defined benefit system to move to defined contribution plans.
- The desire in some cases to exit the defined benefit space all together, which is especially true for frozen and closed plans.



These various forms of risk reduction can be more broadly defined as "out-of-plan de-risking" or "risk transfer" and "in-plan de-risking", respectively.

RISK TRANSFER (OUT-OF-PLAN DE-RISKING)	IN-PLAN DE-RISKING
Lump sum payout offerings	Liability-driven investment strategies.1 (LDI)
Purchase of insurance contracts (buy-out)	Plan design changes such as account-based formulas or variable annuities
Full plan termination	Plan closure or freeze

A more recent stimulus for intensifying de-risking activity is the steep increases in Pension Benefit Guaranty Corporation (PBGC) premiums. These increases have served as a significant catalyst for de-risking, specifically via risk transfer activity. The increased PBGC premiums have "tilted the scales" to make risk transfer look like a more cost-effective approach compared to in-plan solutions such as LDI. Eliminating benefit obligation and participant headcount allows sponsors to capitalize on short term and ongoing savings while simultaneously reducing risk.

Increasing risk transfer activity has far-reaching implications for plan participants, plan sponsors and government and regulatory bodies. These implications include:

- An anti-selection problem whereby healthier plans eliminate their obligation and risk, leaving larger shares of poorly funded plans in the defined benefit system, increasing overall risk to the PBGC.
- A reduction in the overall size of the private defined benefit system, leading to questions about sustainability.
- Participant exposure to additional risk including longevity risk and inadequate retirement income risk – specifically in the case of lump sum risk transfer programs.

For the PBGC, this shifting landscape represents a fundamental change to the dynamics of how private pensions are insured in the US. While PBGC premiums are set by statute, the PBGC's



¹ This includes insurance solutions ("buy-in"), which are prevalent in the UK but relatively uncommon in the US. A buy-in is an insurance contract that transfers risk for a subset of participants to the insurer. However, in contrast to a buy-out, the participants remain in the plan and the contract is held as a plan asset. Such arrangements are relatively unattractive to plan sponsors in the US because the sponsor must continue to pay PBGC premiums on covered participants.

financial projections are generally analyzed by assuming the pension landscape remains relatively stable over time, and without anticipating future risk transfer activity. The exit of plans – either in full or in part – reduces future premiums and threatens to undermine the ongoing viability of the insurance program. Even worse, it is often plans that are well funded that are more likely to fully terminate or implement risk transfer strategies, potentially leaving the PBGC to insure an increasingly unhealthy pension universe with a shrinking premium base.

Furthermore, a declining defined benefit universe threatens the very mission the PBGC was set out to accomplish. The PBGC was created by the Employee Retirement Income Security Act of 1974 with a mission of enhancing retirement security by preserving the voluntary private pension system and protecting the benefits of workers and retirees.

In light of this noticeably changing pension environment, the Office of the PBGC Participant and Plan Sponsor Advocate (OPPSA) has partnered with Mercer to conduct a study to analyze the underlying causes and drivers of pension de-risking activity, with a particular focus on factors that are related to the PBGC as well as those under Congressional jurisdiction.



2 STUDY METHODOLOGY

Findings in this report are based on material collected as part of this study, previously conducted surveys and information in various Mercer databases. The following are the key sources of information used to develop the conclusions posed in this report:

- Results from the 2011, 2013, 2015 and 2017 Mercer / CFO Research Pension Risk
 Surveys Biennial surveys are conducted by Mercer in conjunction with CFO Research, with the most recent survey completed in 2017. Responses are collected mostly from CFOs, CEOs and Finance Directors, and encompass a wide range of plan sponsors.²
- Information from a set of discussion topics distributed internally to Mercer consultants on various de-risking issues Responses were received from 154 Mercer consultants. Consultants were tasked with reflecting on the discussion topics based on their in-depth knowledge of their clients' plans, financial circumstances and past and present deliberations regarding de-risking activities. In addition to the discussion topics, information was collected on plan status, size, funded status and organization ownership structure and industry. Discussion topics included general de-risking issues as well as more specific drill-down into PBGC premiums and other PBGC programs and reporting requirements. Consultants were asked to respond to these topics based on their clients' view of these issues.³ Plan specific details were not shared externally.
- Historical information in Mercer's databases from:
 - > PBGC Comprehensive Premium filings for years 2012 to 2016
 - > IRS Form 5500 filings for years 2011 to 2015



² The 2017 survey was comprised of 175 plan sponsors, including publicly-traded, privately-held, and not-for-profit sponsors holding DB assets ranging from \$100 million to over \$10 billion.

³ A natural question may be why plan sponsors were not surveyed directly for this purpose. Legal counsel expressed concern that a mass survey of plan sponsors on behalf of OPPSA may violate the Paperwork Reduction Act of 1980. To address this, the approach above was used instead. We believe this approach yielded insights that were just as valuable as surveying plan sponsors directly, given that our consultants have intimate knowledge of their clients' de-risking decisions and reasons.

> Publicly disclosed de-risking actions

PBGC-related factors were an important element of this study. In this context, it is important to make the distinction that not all PBGC-related factors are formally regulated by the PBGC. As an example, PBGC premiums, which are a large part of the discussion in this report, are certainly PBGC-related, but are ultimately set by statute.



3 KEY FINDINGS

DE-RISKING IS ON THE RISE, ESPECIALLY RISK TRANSFERS

In today's defined benefit pension environment, it is evident that most plan sponsors have employed at least some type of de-risking strategy. The de-risking journey often starts with plan design changes such as amending plan formulas to shift risk or, more commonly, closing the plan to new entrants and/or freezing ongoing benefit accruals entirely for some or all employees. An overwhelming majority of plan sponsors have already taken this step towards de-risking, with many doing so many years ago; the result is that the current single-employer defined benefit universe covers a smaller and smaller percentage of the workforce.

Another often common step for plan sponsors has been to implement risk reduction strategies through modifying investment policy. Such tactics include dynamic investment policies that adjust the plan's asset allocation based on funded status triggers, liability-driven investment strategies and asset-liability duration-matching policies.

Either in conjunction with other de-risking activities or as standalone measures, many plan sponsors have also employed various risk transfer activities that eliminate liability and participant headcount. Most commonly these strategies include lump sum payments and purchase of "buy-out" insurance contracts.

The overall trend is undeniable. Regardless of the method used, it is clear that if an organization maintains a defined benefit pension plan, the data supports the fact that decision-makers within that organization are likely considering how they should be derisking their plan or are already in the process of doing so.

Our responses from Mercer consultants indicated that over 86% of plan sponsors have taken at least some steps to de-risk their pension plans.

At least 80% of respondents in the 2015 and 2017 CFO surveys indicated that they were either considering a de-risking strategy or already had one in place.



While broad de-risking activity continues to increasingly permeate the defined benefit space, the nature of de-risking activity is also evolving. Growing trends for risk transfer activity vastly outstrip growth in "in-plan" de-risking solutions. This is an indication that plan sponsors are now more likely to remove obligations from their plans rather than maintain and manage liability and risk within their plans – leading to large numbers of liabilities and participants being transferred out of defined benefit pension plans.

Increase in risk transfer through lump sums⁴ based on CFO surveys



Increase in dynamic de-risking⁵ based on CFO surveys – a much more modest change



Nearly half of Mercer consultants indicated that plan sponsors had previously implemented a terminated vested lump sum offering or retiree annuity buyout.

Risk transfer is visibly on the rise with no signs of slowing down – risk transfer continues to be topof-mind for many plan sponsors as a majority indicate that risk transfer activity is likely in the near future. Additionally, there is a commonly expressed sentiment that risk transfer transactions may increase if interest rates rise materially, as many plan sponsors would like to undertake such activity, but are either not well funded enough or perceive risk transfer as "too expensive" in today's environment.⁶

55% of 2017 CFO survey respondents believe a lump-sum based risk transfer is likely or very likely in the next two years. 56% of 2017 CFO survey respondents believe a retiree annuity buyout is likely or very likely.



⁴ This data point refers to all lump sums, including plan amendments to incorporate permanent lump sum features for active participants.

⁵ Dynamic de-risking is an investment strategy that reduces the plan's risk as funded status improves.

⁶ According to the discussion topics distributed to Mercer consultants as part of this study.

FINANCIAL VOLATILITY AND THE RISING LEVEL OF PBGC PREMIUMS ARE DRIVING RISK TRANSFER ACTIVITY

The discussion surrounding risk transfer activity involves a number of key drivers. Topping the list of factors influencing plan sponsors' propensity towards risk transfer activity are: ⁷

- Accounting and earnings volatility
- Balance sheet liability management
- Funding volatility
- PBGC premiums

These areas continue to evolve and command the focus of decision-makers. Falling interest rates and turbulent equity markets have placed additional focus on balance sheet and earnings volatility. Similarly, funding volatility is a consistent area of concern, but in recent years, has been somewhat mitigated by several rounds of legislation offering funding relief to sponsors. Nevertheless, the notion of looming future cash contributions for underfunded plans, possibly at financially difficult times for the company, is a continuous and ominous concern for many plan sponsors.

PBGC flat rate premiums have doubled since 2012, and variable rate premium rates have quadrupled since 2013. As a result, this is an area of particular concern for sponsors, as the magnitude of increase has made this impossible to ignore. Furthermore, there are no indications of a slowing in these escalations, with premium rates in the coming years continuing to be pegged to inflation. Such increases magnify the advantage of undertaking risk transfer activity to reduce plan underfunding and participant headcount as a means of substantially decreasing the ongoing cost of maintaining a pension plan.

There is some economic justification for growing the flat rate premium with inflation each year. However, the inclusion of an inflationary increase on the variable rate premium rate – already expressed as a percentage of underfunding – makes little sense to plan sponsors. Taken to its



⁷ According to the discussion topics distributed to Mercer consultants as part of this study.

logical extreme, the variable rate premium rate will eventually exceed 100% under the current policy, resulting in a premium due that is larger than the plan's underfunded liability.⁸

69% of Mercer consultants indicated that a material decrease in PBGC premiums would make plan sponsors less likely to implement risk transfer actions.

According to Mercer consultants, 71% of plan sponsors have analyzed the present value of the cost of PBGC premiums compared to the cost of risk transfer activities, which has led to more consideration of such actions.

Beginning in 2014, the percentage of plan sponsors offering lump sums to terminated vested participants more than doubled based on analysis of IRS Form 5500 data. This coincides with the timing of PBGC variable rate premium (VRP) increases and the understanding that future flat rate and VRP increases were imminent.

THE CURRENT STRUCTURE OF PBGC PREMIUMS CREATES INCENTIVES FOR RISK TRANSFER FOR CERTAIN SPONSORS

The current structure of PBGC premiums – specifically the application of the variable rate premium (VRP) cap – creates strong (and presumably unintended) incentives for sponsors to reduce headcount. For a plan sponsor at the variable rate premium cap, 2018 premiums can be reduced by about \$600 per participant removed from the plan. And the savings continue at an increasing level for each year the plan remains at the cap. This structure – while well intentioned to limit the premiums paid by a given employer – encourages outcomes that appear contrary to the overarching goals of the PBGC.



⁸ A percentage-based premium inherently reflects inflation because the premium is expressed as a percentage of unfunded liability. Under the current structure, the percentage itself is subject to inflation adjustments. Eventually, this structure will result in a variable rate premium that exceeds 100% of the plan's underfunding.

Exhibit 2 – Example of Incentives Created by Hitting VRP Cap.

PRIOR TO RETIREE BUY-	ουτ	AFTER RETIREE BUY-OUT	
Participant Count		Participant Count	
Active	5,000	Active	5,000
Terminated Vested	5,000	Terminated Vested	5,000
Retiree	10,000	Retiree	0
Total	20,000	Total	10,000
2018 PBGC Premium Calculation		2018 PBGC Premium Calculation	
Flat rate premium (\$74 x total participant count)	\$1,480,000	Flat rate premium (\$74 x total participant count)	\$740,000
Variable rate premium assuming cap hit (\$523 x total participant count)	\$10,460,000	Variable rate premium assuming cap hit (\$523 x total participant count)	\$5,230,000
Total premium	\$11,940,000	Total premium	\$5,970,000
		Annual savings due to risk transfer activity (all else equal)	\$5,970,000

Note: In 2018 it takes \$13,763 per capita underfunding to hit the variable rate premium cap.

As an example, in this scenario, a plan not at the cap would only see savings of \$740,000.

For plan sponsors hitting the VRP cap, the incentive of reducing participant headcount to directly reduce PBGC premiums is abundantly clear. For a plan at the cap, the incentive to reduce headcount is so powerful that all types of risk transfer will appear attractive, particularly when focusing on participants with smaller benefits. Information collected as part of this study indicates that higher fixed premiums (whether flat rate or fixed due to the VRP cap) drive more risk transfer activity.

65% of Mercer consultants indicated that sponsors would be more likely to implement risk transfer activity if flat rate premiums were materially higher and VRPs were materially lower.



⁹ Savings may be greater than or less than \$740,000 to the extent the annuity purchase price is more or less than the PBGC vested liability of the participants covered, and depending on the plan's funded status.

40% of Mercer consultants indicated that sponsors would be less likely to implement risk transfer activity if the cap on VRPs were removed, even if the total amount of premium paid was unchanged.

However, note that this analysis focuses solely on the impact of risk transfer activity. When evaluating the appropriateness of the VRP cap, it is critically important to also consider the broader significance of the VRP cap. For severely underfunded plans, a change in the PBGC premium structure to eliminate the VRP cap could result in debilitating levels of PBGC premiums, ultimately endangering the plan sponsor's solvency or incentivizing these plans to leave the pension system entirely. The influence of premiums on plan sponsor decisions, and the resulting long-term effects on plan participants and the defined benefit system as a whole must be considered in any decisions regarding PBGC premium structure.

OTHER PBGC-RELATED FACTORS ARE SIGNIFICANT PAIN POINTS FOR SOME, BUT GENERALLY NOT WIDE-SPREAD ENOUGH TO DRASTICALLY IMPACT RISK TRANSFER ACTIVITY LEVELS

By far, the most significant PBGC-related factor leading to risk transfer activity is premiums. Still, a number of other PBGC-related issues present significant burdens for the plan sponsors they impact. This is because PBGC premiums impact all plan sponsors to some degree, whereas other PBGC-related factors may only affect a minority of sponsors. Nonetheless, there is opportunity for the PBGC to improve plan sponsor interactions, as some of these interactions drive an increased desire for the sponsor to exit the pension system.

Other PBGC-related factors examined include:

- Penalties
- Asymmetry of interest payments (i.e. the PBGC charges interest on underpayments but does not provide interest on overpayments)
- Early Warning Program encounters
- Plan termination encounters
- Reporting requirements (e.g. 4010, Form 10)
- 4062(e) funding

Of these factors, Mercer consultants broadly indicated that PBGC penalties and reporting requirements would not impact the likelihood of implementing risk transfer activity.



While not impacting a large number of plan sponsors (less than 10% based on responses from Mercer consultants), the PBGC Early Warning Program is another PBGC-related factor that appears to cause considerable difficulty for plan sponsors in the ongoing maintenance of their defined benefit plans. A number of Mercer consultants detailed experiences that required accessing difficult-to-obtain information, additional calculations and drawn-out and contentious interactions.

Of Mercer consultants that had PBGC Early Warning Program encounters, close to 40% indicated that this increased the plan sponsor's desire to exit the defined benefit system.

THE DEFINED BENEFIT VALUE PROPOSITION IS CHANGING AND PLAN TERMINATION IS OFTEN THE END GOAL

Over the last decade or so, a very noticeable shift from defined benefit plans to defined contribution plans has occurred. The closing and/or freezing of many defined benefit plans as a first step in the de-risking journey has left behind a retirement system that is heavily weighted towards defined contribution plans. The ensuing reality for many plan sponsors is that their pension plan represents a significant amount of risk – especially for sponsors with large plans relative to the company size – but provide little benefit to the majority of the active employee population.

This common phenomenon, along with increasing competitive pressures of industry-wide movements away from defined benefit plans, has changed the way many plan sponsors evaluate risk transfer activities – participant impact is less of a concern in the decision to implement risk transfer activity because of the overwhelmingly powerful and broad changes in the outlook on defined benefit plans. These broad changes in outlook also stem from the changing preferences of employees, who have come to value defined benefit plans less over time. The result is that when it comes to decisions regarding implementing risk transfer activity, the primary areas of focus are financial impact, management consensus, data quality and public perception.¹⁰

Only 12% of Mercer consultants indicated that a decision to not implement risk transfer action was due to concern over impact on participants.

According to the 2017 CFO survey, only 28% of plan sponsors have not implemented a terminated vested lump sum offering because of participant impact concerns. Only 22% regarded participant impact concerns as the main reason for not purchasing annuities for retirees.

For many, de-risking is viewed as a journey – one that requires a number of smaller steps, but has a final destination of plan termination. As de-risking has risen to the forefront of plan sponsor



¹⁰ According to the discussion topics distributed to Mercer consultants as part of this study.

attention, so has the examination of possible future plan terminations. For closed or frozen plans moving further along their individual de-risking journeys, plan termination often seems to be an inevitable destination. Some plan sponsors who are far along this path believe not much can be done to reverse their trajectory.

The number of sponsors considering plan termination in the next ten years has increased from 47% to 59% based on the 2015 and 2017 CFO surveys.

Nevertheless, the outlook is not universally grim. While the view of pension plans may have changed for many, for companies that still maintain defined benefit plans with ongoing accruals, the value they bring to the organization is significant. Similarly, employee appreciation for a pension benefit and the ability to use the plan as a workforce management tool are important factors in the argument against plan termination.

Over 45% of Mercer consultants indicated that sponsors are not considering terminating their plans because either employees appreciate the plan or the plan is helpful for workforce management.

These findings underscore the fact that plan freezes and risk transfer are not decisions made lightly by plan sponsors. Sponsors see and understand the value of these plans – but often feel the benefits are outweighed by financial volatility and the increasing cost of PBGC premiums.

INDUSTRY, PLAN SIZE, AND FUNDED STATUS INFLUENCE LEVELS OF DE-RISKING ACTIVITY

Industry-wide trends have a clear impact on the levels of de-risking action. Organizations often seek to collect information on peer behaviors prior to implementing de-risking – commonly performing benchmarking studies to understand how benefit levels compare and inquiring about publicly announced risk transfer transactions. The result is that there are frequently strong trends within particular industries – with some industries having a greater propensity towards de-risking than others.

Mercer consultants provided information on plan sponsors within a number of different industries. The Healthcare and Auto/Industrial/Manufacturing industries had the highest percentage of sponsors taking at least some de-risking steps. Energy/Utilities and Food/Beverages/Consumer Packaged Goods similarly had fairly significant proportions of sponsors taking at least some de-



risking actions. Financial Services/Real Estate had the lowest share of sponsors taking de-risking steps..¹¹

INDUSTRY	PERCENTAGE OF SPONSORS TAKING AT LEAST SOME DE- RISKING STEPS
Auto/Industrial/Manufacturing	94%
Healthcare	92%
Energy/Utilities	82%
Food/Beverages/Consumer Packaged Goods	76%
Financial Services/Real Estate	73%

Exhibit 3 – Percentage of Plan Sponsors De-Risking by Industry

Plan size and funded status also play an important role in de-risking decisions. According to Mercer consultants, well-funded plans are more likely than poorly funded plans to undertake de-risking actions. In many cases, this is because poorly funded plans are restricted from utilizing certain types of risk transfer by statute. In other cases, underfunded plans are hoping to close the gap through investment returns prior to reducing risk.

Similarly, the size of the plan in relation to the overall size of the organization impacts the prospect of taking de-risking steps. If the plan is immaterial to the overall company size, de-risking is less of a focus. On the other hand, plans that are large relative to the overall enterprise are likely to garner more scrutiny, often leading to increased de-risking activity. Some of the earliest movers in the risk transfer space were plan sponsors with very large pension liabilities relative to their balance sheet – in some cases, the pension liability was larger than the firm's market capitalization.



¹¹ Based on industries with at least ten Mercer respondents from the discussion topics distributed to Mercer consultants as part of this study.

4 CONCLUSIONS AND FUTURE CONSIDERATIONS

Changes that have taken place in recent history have indisputably altered the defined benefit pension landscape. De-risking is at the forefront of most discussions regarding pension plans as sponsors now focus more and more on how they can manage the uncertainty that surrounds these plans. These changes originally stemmed from concerns about financial volatility, but have been noticeably accelerated by significant increases in PBGC premiums.

When considering what can be done to stem the growing de-risking tide, levels of PBGC premiums are undeniably a key factor. This study has found that reducing PBGC premium levels or stemming their rapid growth is likely to decrease de-risking activity, specifically risk transfer. A reduction in future PBGC premium levels would also likely help curb the unintended incentives created when sponsors hit the VRP cap by lowering the likelihood that the cap would be hit in the first place.

A reduction in future PBGC premiums would have a significant beneficial impact on preserving the remaining plans in the defined benefit pension universe.



MERCER (US) INC.

Three Logan Square 1717 Arch Street, Suite 1100 Philadelphia, PA 19103 www.mercer.com

