

## SEPARATING ANNUITY BUYOUT FACT FROM FICTION

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### Annuity Buyout

In recent weeks we have read a handful of commentaries suggesting that pension plans should take advantage of a “window of opportunity” to complete annuity purchases with insurance companies. They argue that plan sponsors should increase annuity purchases and offer lump sums and even consider fully terminating their pension plans. The unifying theme of these commentaries is that recent improvements in funded status, whether from equity market returns, increased interest rates, or contributions, provide an opportunity for more plans to purchase annuities via a pension risk transfer. In each case, the conclusion is that if plans don’t buyout annuities now, they risk a later drop in funded status and will regret not having done a transaction.

As purveyors of pension risk management strategies, we of course read such pieces with significant interest. Perhaps unsurprisingly, we believe that these arguments gloss over, or completely ignore, the reality that pension risk management can be done internally, within a plan, to largely achieve the same result usually at a lower cost. With that in mind, let’s play a little fact or fiction with some of the major claims regarding annuity purchases that we typically see.

### Fact or Fiction: Pension Risk Transfers Are Necessary to Materially Reduce Risk

*This is fiction.* Asset allocation alone can significantly reduce risk. A plan that currently has half of its assets in equity and half in long duration bonds may have a funded status volatility in the range of 6-8%. If that plan moves 90% or more of its assets into fixed income in a well-designed strategy to track the general

rate, spread, and yield curve exposures of its liability (i.e., a hibernation portfolio), the plan can expect funded status volatility of 1-2%. Perhaps most importantly, reducing pension volatility to these levels effectively eliminates the impact of the pension on overall enterprise risk—even for the most highly “pension-levered” firms (i.e., large pension relative to company market cap.)<sup>1</sup>

Classifying annuity purchases as a significant risk reduction technique is one of the biggest non sequiturs we see. It is probably caused by conflating the multiple moving parts that occur with an annuity purchase. One of the commentaries we saw took the effort of comparing the cost of an annuity purchase and not doing one by looking at various scenarios where funded status dropped 7 percentage points and 14 percentage points. (Oddly, there were no scenarios in which funded status improved due to market moves.) Yet this analysis suffers the very simple, but fatal, logical flaw of ignoring that a hibernation portfolio funded status volatility would be 1-2%, and the chance of such a large funded status erosion would be vanishingly small. **A central tenet of any annuity purchase decision should not be how it reduces risk compared to the current volatility, but how it reduces risk compared to a well-designed hibernation strategy.** The results are underwhelming when properly analyzed.

## Fact or Fiction: An Annuity Purchase Can Drive Funded Status Volatility Down to Zero

*This is likely fiction for a large plan.* Even if an annuity purchase is pursued after a hibernation solution has been implemented, the remaining funded status volatility of 1-2% can't be completely removed. This is because most insurance companies prefer the easier-to-hedge retiree population—complete annuity purchases by sizable plans have been exceedingly rare. Accordingly, even plans that execute large annuity buyouts will be left with some residual liabilities and risk (and costs).

## Fact or Fiction: Pension Risk Transfer Is Cheap Relative to In-Plan Expenses

*This is typically fiction.* It is commonly stated that the premium paid for an annuity purchase represents good value relative to the ongoing costs that plans will incur if they maintain the plan. Some have even gone so far as to suggest that the RP-2014 mortality table update has reduced the cost of the annuity purchase. This thought ignores the simple fact that annuity purchases are never based on the mortality rates assumed by the plan. Instead, it is the insurance company's cadre of actuaries, who spend their careers assessing mortality trends in the US, that set a transaction's mortality tables.

It is often correctly pointed out that fixed rate PBGC premiums have increased and can be significant. In our experience with various market transactions, however, we have observed that eliminating these fixed-rate premiums through an annuity purchase only adds value when the “transferred” participants have small balances (i.e. those that receive \$400 or less per month). For all other participants, including retirees with larger benefits and active and term-vested participants with longer durations (and thus more uncertainty that insurance companies must hedge and charge for), the required insurance premiums almost always exceed the fixed-rate PBGC premiums and internal management costs when compared on a net present value basis.

It should not be forgotten that with a typical hibernation portfolio, manager fees will be significantly lower than those charged for traditional return-seeking allocations. Furthermore, given that it is unlikely that an insurance transaction would remove the pension liability in its entirety, many of the plan's fixed costs will remain and economies of scale will be lost.

Another spurious point we see is the claim that plans should do an annuity purchase now because being better funded makes the insurance premium less significant. This point conflates two separate components required to effect the transaction: 1) the funding required to fully fund the plan on an economic basis; and 2) the premium required above this amount to satisfy the insurance company's profit margin. Importantly, the size of the premium stays the same regardless of the plan's funded status, and a decision to do an annuity buyout should be evaluated independently from any funding decisions. This faulty logic can be seen when it is argued that plan sponsors should do an annuity buyout before the window closes on the higher corporate tax rate applicable to plan contributions in September. We certainly understand the benefits of increasing plan contributions before the September deadline—but that addresses the funding of the plan, not whether or not to transact an annuity buyout. Again, decisions regarding funding and de-risking are discrete and should be analyzed as such; those that try to blur the lines between the two tend to have an unstated agenda.

Tellingly, some of these analyses discuss the implications for the insurance industry from the profits that can be made on an increase in annuity purchase activity. The general conclusion seems to be that an increase in annuity buyout will lead to significant earnings for the insurers. If the insurers are making so much money on these transactions, it seems unlikely to be a good deal for plan sponsors. Said differently, the (very appropriate) profit motives for an insurance company seem very unlikely to us to be smaller than the ongoing costs of administering a pension plan and utilizing a hibernation strategy within the plan.

## Fact or Fiction: Mortality Risk Is Considerable and Needs to Be Hedged

*This is fiction.* Another common theme we see is that reducing or eliminating mortality risk should be a major driver for doing an annuity purchase. Not surprisingly, insurance companies have long been saying that mortality risk is significant and should be hedged. If we are talking about a single individual, then indeed mortality risk is a significant factor in the volatility of the benefits value. But for a reasonably sized defined benefit pension plan with thousands of retirees, the idiosyncratic risk is largely diversified away. The remaining risk is fairly small and we have historically estimated it as ~0.4% of funded status annually.<sup>2</sup> Admittedly this estimate may seem low for the sponsors that remember RP-2014 mortality table updates that increased most liabilities by 4-10%. It's crucial to remember, however, that the 2014 change was really a one-time catch-up on the RP-2000 mortality tables that hadn't been updated in 14 years. That is, the average annualized increase was between 0.25%-0.75%. It could also be argued that the [Society of Actuaries](#) overshot on the 2014 update as evidenced by the fact that the last three updates (2015, 2016, and 2017) have all led to lower longevity and commensurately lower liability valuations, about 2-4% total for an average plan. It is important to remember that not only is longevity risk relatively small, but it can also swing both ways. In fact, that is the natural goal of the Society of Actuaries—produce a mortality table that represents the best estimate of the central tendency of future mortality improvements.

## Fact or Fiction: Pension Plans Will Have an Effect on Rates and Credit

*This one is more fact than fiction.* One claim we have seen that we largely agree with is that improved funded status will lead to significant buying of fixed income in the long end of the curve and could affect the slope of the curve and credit spreads. While reasonable people can disagree on the pace of this shift, we have seen the average amount of fixed income in the [NISA PRSX Index](#) increase from 39% in 2012 to 45% at the end of 2017. We expect this trend to continue as funded status improves and plan sponsors move a larger portion of their assets into fixed income.

That was fun and probably long overdue. Aside from the cathartic nature of writing this note in light of recent arguments we have seen, I hope it is helpful to see our thoughts on the issue laid out in one place. We welcome your thoughts and feedback.

<sup>1</sup>See NISA's white paper, ["The Credit Rating Impact of Pension De-Risking,"](#)

<sup>2</sup>Frequent readers of NISA's white papers and Perspective pieces may remember our paper ["Putting Longevity Risk in its Place,"](#) in which we evaluate the true impact of mortality on year-to-year funded status. We admittedly used a simplistic mortality model to arrive at this estimate in the paper. Some have told us that better estimates of longevity risk could be "several" percentage points of risk. Even if this were the case, we would argue it is a relatively small amount.

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