Investment strategy for pension risk transfer

3 key considerations for asset allocation and strategy decisions

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Risk transfer strategies can help reduce both risk and expenses for DB sponsors. The most common forms of risk transfer are lump-sum cash-outs to terminated vested (TV) participants; and annuity purchases for retirees. Executing a risk transfer can lead to significant changes in the plan's funded status, liability duration and hedge ratio. DB plan sponsors ought to consider the investment implications of pursuing a risk transfer, both in the short- and long-term.

Background

According to data for single-employer DB plans, TVs represent about 14% of total DB liability, and retiree participants represent about 52%.[1] These are the two groups most impacted by pension risk transfers.

1. Lump sum cash-out

In the first type of risk transfer strategy, a DB plan will offer lump sum payments, typically to TVs, in place of an annuity at retirement. The payment of this lump sum will transfer the sponsor's DB risk directly to the plan participants.[2] Note that the lump sum can only be offered to the participant – not forced. The actual amount of risk transferred is dependent on how many elect to take the lump sum.[3] Taking this into account, a typical sponsor would transfer 5-10% of their total liability with a lump sum cash-out.

2. Annuity purchase

This type of transaction is different in that it is not an election by the plan participants. Typically, the company defines the group[4] for which it wishes to purchase annuities and then receives bids from multiple insurance companies to take responsibility for payment of benefits. The company may select groups of plan participants based on their level of benefits, retirement date or other factor. A transaction such as this could remove a significant portion of plan liability (and overall pension risk), since the average pension plan has approximately 50% of its liability associated with retirees.

Whether targeting 5-10% of plan liability through a lump sum program or 50% through an annuity purchase, a meaningful portion of DB liabilities and assets can be removed from the balance sheet.

> *DB plan sponsors ought to consider the investment implications of pursuing a risk transfer, both in the short- and long-term.*

Considerations

To effectively transition this amount of money in a prudent manner, plan sponsors and investment committees will be faced with many long- and short-term asset allocation and strategy decisions. This paper will address some of the matters sponsors must consider with respect to asset strategy while doing a pension risk transfer.

1. Considerations in preparation for pension risk transfers:
   a. Estimating the size of the transaction
   b. Examining the liquidity of the pension plan's assets
   c. Investing in the risk-reducing asset relative to a pension risk transfer
2. Considerations for managing the plan after the pension risk transfer:[5]
   a. Change in the duration of the plan's liabilities
   b. Change in the plan's liquidity profile
   c. Change in the asset allocation after a pension risk transfer
   d. Implications of decreased plan size on investment strategy
3. Importance of transition management during a pension risk transfer

1. Considerations in preparation for pension risk transfers

Estimating the size of the transaction

It is helpful to know the size of an annuity purchase transaction in order to minimize expenses and mitigate surprises. Having the right asset allocation in place should help with both of these objectives.

1. **Annuity purchase**

   Estimation is an easier task, because the group to whom annuities are offered is usually a defined subset of the retiree population; the offer is not subject to election by plan participants.

2. **Lump sum cash-out**

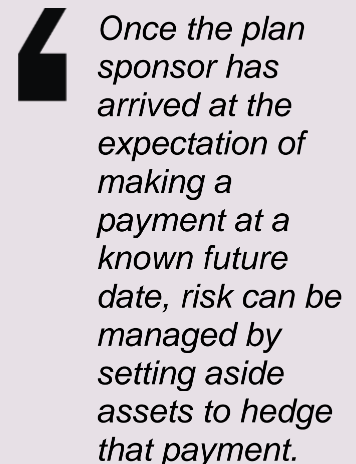
   This is different, in that the participants within the eligible group have the ability to make an election (lump sum payment or annuity) based on their individual retirement needs. One way to estimate the size of the transaction would be to start with the percentage of the pension liability that is included in the program (typically, the TV population) and then apply an assumed election percentage. The plan actuary or advisor can usually provide an expected acceptance range.

For reasons we will describe, the short-term investment of assets that will be used to pay for annuities is likely to be different from the investment of assets that will be used to pay lump sums. In either case, it is useful to estimate the size of the transaction.

Examining the liquidity of the plan's assets

Prior to engaging in a pension risk transfer, it is important to evaluate the liquidity of the plan's current assets. Whether undertaking a lump sum cash-out or an annuity purchase transaction, the plan will likely decrease in assets through either a sale or a transition of liquid assets. After the transaction, the plan's asset allocation will change (in percentage terms) if there are illiquid assets in the portfolio. For instance, consider a plan with $80 of liquid assets and $20 of illiquid assets (20% illiquid) that performs a risk transfer of $20. If we assume that this payment is made by selling or transferring liquid assets, then the post-transaction portfolio would have $60 in liquid assets and $20 in illiquid assets (25% illiquid).

This may not seem like a material amount (it may not be), but the larger the risk transfer, the greater the illiquid allocation in percentage terms. This scenario should be evaluated in advance so that sponsors can either get comfortable with this allocation increase or make adjustments to the overall allocation to compensate for the difference (e.g., maintain the same overall allocation to return-seeking assets). It may be necessary to establish a strategy for sizing the allocation back to its original percentage over time.[6] In the extreme case, the liquidity issues may affect whether or not a plan would want to undertake a pension risk transfer at all (or at least seek to limit the size of the risk transfer).



All closed and frozen pension plans are subject to a denominator effect (whereby significant levels of benefit payments tend to lead to an increasing proportion of remaining assets being illiquid), which can be particularly significant when a risk transfer takes place.[7]

Investing in the risk-reducing asset relative to a pension risk transfer

Once the plan sponsor has arrived at the expectation of making a payment at a known future date, risk can be managed by setting aside assets to hedge that payment.

Lump sum cash-out

In these programs, the hedging asset (and the assets the sponsor should set aside) would be cash. The lump sum value owed to a participant is calculated in a formulaic manner, with defined interest rates and mortality tables. Once calculated and presented to the participant, the value does not change with the markets – neither equity markets nor interest rate markets. Therefore, the amount of money involved in a lump sum risk transfer is best hedged with cash.

Any other investment set aside to pay lump sums will be exposed to market forces, which can cause a mismatch between the investment's value and the amount of the payments owed to the participants. As mentioned previously, the exact payout is not entirely knowable (due to varying participant elections), but sponsors can use estimates.

The period of time during which the plan has money invested in cash (which may be only a few months) will create a difference between the actual asset allocation and the long-term strategic asset allocation. Depending on the extent to which these allocations differ, and the period for which they differ, it may be necessary to change the policy portfolio benchmark or to segregate these assets within the plan's reporting structure.

Annuity purchase

The risk-reducing assets for this transaction would be a fixed income portfolio designed to hedge the portion of the plan's liabilities that are involved in the annuity purchase – like a dedicated liability-driven investing (LDI) strategy. This is because the actual amount payable is not fixed in cash terms (as lump sum payments directly to participants would be), but it will vary as interest rates move through the date of the payment.

The annuity-receiving population may differ from the rest of the overall plan participant population, and the sponsor may need to dedicate a separate "ring-fenced" LDI strategy for this group. An even better strategy would be to work closely with the insurance company involved in the annuity purchase. The pension plan may be able to build a portfolio of securities that would be transitioned in-kind directly to the insurance company, which would likely reduce both the transaction costs and the annuitization premium.[8] In-kind transfers are more likely beneficial with larger annuity purchases – say over $500 million, but there is no fixed threshold. The further in advance the plan sponsor can begin to build this portfolio and work with the insurance company, the more the costs can be reduced.

2. Considerations for managing the plan after the pension risk transfer

Change in duration of the plan's liabilities

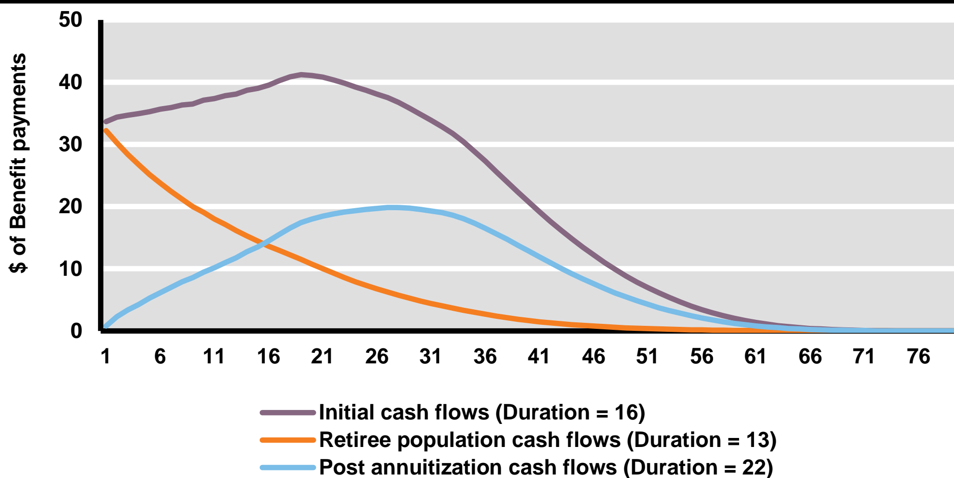
The duration of plan liabilities is a measure of sensitivity to changes in interest rates. This is closely related to the average weighted time to the payment of benefits. For instance, if the plan's liability duration is 12 years, we can estimate that for every 1% change in the discount rate, the liability will change by 12%.

After a pension risk transfer, especially for a retiree annuity purchase, the distribution of expected benefit payments may change significantly. In the case of the retiree population, whose benefit payments are earlier in the time horizon, it is likely that transferring liabilities to an insurance company will increase the duration of the pension plan.

In the table below, the duration of the pension plan increased from 16 to 22 years after the annuitization of the retiree population's benefit payments. This will increase the plan's exposure to interest rates on a percent basis, but not necessarily on a dollar basis (as the plan is likely to be significantly smaller after the annuitization). Overall interest rate exposure in the corporation's balance sheet (in the pension space) has likely been reduced.

The change in the plan's duration is somewhat predictable, given that the plan knows which participant group is involved; therefore, sponsors can plan and evaluate which trade-offs they want to make.

Exhibit 1: Pension risk transfer: impact on plan durations



The increase in duration will change the focus of the plan's LDI allocation (but not necessarily the percentage of the portfolio in that allocation). With longer liability duration, the plan will need to invest in longer-duration bonds in order to maintain the same liability hedge. This could mean depending on longer-dated treasury exposure, such as STRIPS or treasury futures, to maintain the desired liability hedge. Careful analysis should be completed to ensure the overall surplus risk does not increase, even as the allocation to various forms of LDI changes.

The change in the plan's duration is somewhat predictable, given that the plan knows which participant group is involved; therefore, sponsors can plan and evaluate which trade-offs they want to make. Planning will allow sponsors to position their portfolios in anticipation of this transaction.

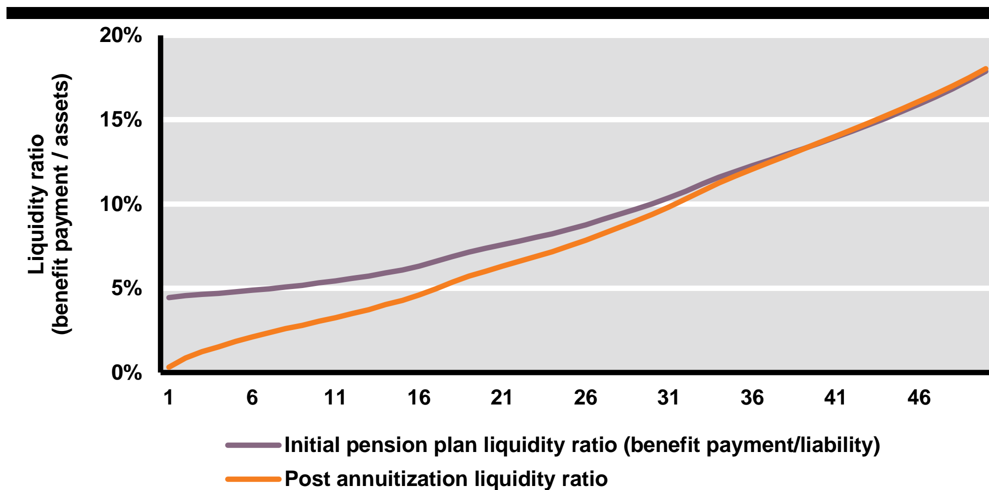
Change in the plan's liquidity profile

When a plan transfers the liabilities associated with the entire retiree population, short-term benefit payments will be limited until more participants retire (as shown in Exhibit 1). This means that the benefit payments will be very low relative to the size of the liabilities. The ratio of benefit payments to liability is the "liquidity ratio".

See Exhibit 2 below. In this example, the liquidity ratio of the plan is about 4.5% prior to the annuity purchase (purple line) and nearly 0% afterward. A liquidity ratio of 4.5% means that a plan must liquidate 4.5% of its assets each year to make the year's benefit payments. The higher that number, the more the sponsor should be concerned about the plan's overall liquidity profile and the more subject the plan may be to the denominator effect. Furthermore, in this example the liquidity ratio will not return to its previous level, 4.5%, for about 15 years (see orange line).

> *Plan sponsors will be well served by conducting an strategic asset allocation review (that excludes the impacted group) prior to a pension risk transfer, and using the release of assets during the pension risk transfer to achieve the desired allocation.*

Exhibit 2: Impact on liquidity from a pension risk transfer



This decreased liquidity ratio may change the opportunity set for investments that the plan can consider. The plan does not have the same need to sell assets (liquid or otherwise) to pay benefits as it did prior to the annuity purchase. Sponsors may have the opportunity to invest a higher percentage (but not necessarily a higher dollar amount, since the plan may have a much smaller asset base) in illiquid assets. They would be able to do this because they have a lower liquidity ratio than they used to.

Change in asset allocation after a pension risk transfer

Depending on the nature of the pension risk transfer, it may be necessary to know if an asset allocation change is needed after the transfer has taken place. The plan may need a higher percentage of return-seeking assets (to meet the challenges of a higher future liability growth rate, or to increase its funded status, which may have fallen after the pension risk transfer).[9] The plan may have more room for less-liquid alternatives, due to a decreasing liquidity ratio.

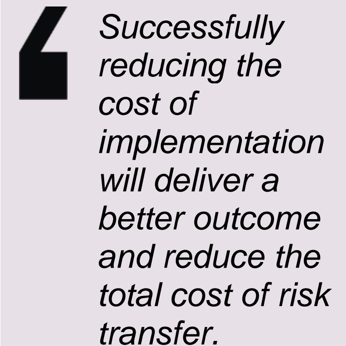
All of these variables, and more, go into formulating an asset allocation. To the extent any of these indicators change, the asset allocation may change as well. Plan sponsors will be well served by conducting an strategic asset allocation review (that excludes the impacted group) prior to a pension risk transfer, and using the release of assets during the pension risk transfer to achieve the desired allocation.[10] For instance, plan sponsors performing a TV cash-out may determine that they would like a higher-percentage allocation to LDI after the pension risk transfer. In this case, they would accomplish this primarily by funding the payment of lump sums through the sale of equity assets, thereby lowering their overall equity allocation.

Implications of decreasing plan size on investment strategy

With increased asset size comes an increased investment opportunity set for the pension plan (and most other investors). The investment staff may be granted company resources it can dedicate to running the pension plan, both human resources and dollars. The people may be able to research various asset classes, or the dollars may be used to hire outside partners to do the same. Either way, there is typically a positive correlation between asset size and resources. Pension plan size may also increase investment opportunities. Investment managers may have minimum-size criteria for certain investors (especially for separate accounts), or their fee breakpoints may make money management too expensive at small asset sizes.

A risk transfer transaction will result in a smaller pension plan with less assets to invest. With less money, typically, comes reduced resources. Smaller-scale plans may face personnel and financial constraints that can have numerous adverse effects, including fewer asset classes or strategies represented, and fewer managers within each asset class or strategy.

Pension plan sponsors undertaking significant risk transfer events will want to consider these second-order impacts on the plan and may need to think about how they can effectively run their plans if they are faced with such constraints. An OCIO partnership may give them access to more managers or better fee structures through a multi-manager or multi-asset solution.



Successfully reducing the cost of implementation will deliver a better outcome and reduce the total cost of risk transfer.

3. Importance of transition management during a pension risk transfer

When a pension plan sponsor is transitioning a large amount of money – to an insurance company, during an annuity purchase; when selling securities, to gain cash for lump sum payments to plan participants; or between asset classes, when aligning a new allocation after the risk transfer – there is potential for significant cost slippage. A key reason is that these are typically one-off transactions, with which sponsors will have had little or no prior experience, and where they may therefore need a transition manager to help hold down costs and manage risks.

Another important reason is that these transactions may include long corporate bonds (especially for the annuity purchase with the insurance company), which are some of the most expensive assets to transition, due to their liquidity and trade expenses. In any of these scenarios, working with a qualified transition management partner will likely improve efficiencies, manage associated risks and contain costs. A transition management partner who is accountable for the performance of the assets during this transition will develop strategies not only to reduce costs, but also to minimize investment risk. Successfully reducing the cost of implementation will deliver a better outcome and reduce the total cost of risk transfer.

Conclusion

The fundamental point of this paper is that after a pension risk transfer, the plan will no longer be as it was, and the degree of difference will depend on the size and nature of the transaction. The risk transfer may impact a plan’s duration, liquidity profile, asset allocation or governance structure, but with proper planning and analysis, much of this can be known in advance. Being cognizant of these factors and how they change can allow time for the plan sponsor to set up an investment strategy designed to assure success.

[1] The remainder of the liability, 34%, is associated with active participants. Data is based on Form 5500 filings for single-employer plans with plan years beginning January 1, 2018, more than 100 participants, and more than $10 million in assets.
[2] This paper discusses the lump sum transaction as a plan strategy and does not comment on how the participants should best weigh the merits of such an offer, and what they should do with the money upon receipt of payment – i.e., the public policy implications.
[3] Please see "Risk transfer options for defined benefit plan sponsors" (2020), for further details around the structure of these programs. Note specifically that the company must give the participants a choice between accepting a lump sum and remaining in the plan to receive an annuity (which would be the default option).
[4] Due to their attractiveness to insurers, the group offered the annuity will typically be a retiree population, meaning participants who are currently in pay status.
[5] This is worded to mean that even though these are effects that impact the plan and that can be seen after the transaction, they are predictable prior to the transaction, and therefore can be planned for in advance of the transaction.
[6] Possible ways to decrease this allocation would be to avoid making new commitments to the illiquid asset class. Alternatively, the sponsor could immediately sell the illiquid assets in a secondary market, but this could lead to losses.
[7] The denominator effect is discussed in more detail in "Alternative investing impact on return-seeking portfolios" (Lato, 2019).
[8] The most expensive way to do this would for the company to sell securities for cash and then give the cash to the insurance company to build a portfolio. This would be expensive for the plan sponsor, and not necessarily the insurance company. It is likely that the insurance company would simply pass the costs of building the portfolio (and the exposure risks for the time it takes to build a matching portfolio) on to the plan sponsor through a higher annuitization price.
[9] See "Return requirements for DB plan portfolios" (Owens, 2019)
[10] See "Strategic asset allocation reviews for DB plan sponsors" (Owens, 2020)

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