CONVERGENCE OF BUY-IN & RUN-OFF STRATEGIES

Edition 2

Independent Governance Group

CONVERGENCE OF BUY-IN & RUN-OFF STRATEGIES

NO MATTER WHAT THE LONG TERM OBJECTIVE THERE IS ANTICIPATED CONVERGENCE ON STRATEGIC RISK AND ASSET ALLOCATION AS SCHEMES SEEK TO STABILISE FUNDING IMPROVEMENTS

KEY TAKEAWAYS

In this issue of Ross Trustees Editions we consider how to construct low-dependency portfolios for defined benefit pension schemes. Our edition evaluates how schemes can account for risk mitigation though appropriate reserving within liability cashflows and delve into the case for dynamic discount rates.

As schemes look to evaluate their position, we believe that targeting a low-dependency portfolio creates consistency and price preservation should a scheme wish to go to buy-out or retain a run-off style strategy.

Over the last 12 months the average scheme has seen a rise in the level of solvency funding levels, increasing some 15%. This has in turn lead to trustees considering their end-game objectives earlier than they anticipated. The end game broadly remains buy-in/buy-out or run-off.

However, as the market for insurance solutions hots up, the implementation of such transactions cannot keep up with demand. Trustees will need to consider how to de-risk their portfolio so that they can secure the funding benefit seen on all basis.

The latest guidance from the Pensions Regulator outlines their expectation of a low dependency portfolio and its composition. While it is not directive on how such portfolios are to be constructed, the broad scope of the guidance is highly aligned to what is commonly seen in bulk annuity book strategic allocations, otherwise known as cashflow matching portfolios.

Indeed the explicit reference to dynamic discount rates lets trustees move to such portfolio while still maintaining funding level volatility.

We consider how sponsors, schemes and trustees can construct such low-dependency portfolios by considering the risks inherent within the cashflows. This can be achieved by and building in capital buffers to consider such risk, transfer risks to third parties (i.e. insurance solutions outside buy-in/buy-outs) as well as portfolio reallocations.

The improved funding positions of schemes and the impetus created by regulatory guidance points to portfolio constructions become more aligned no matter the ultimate end goal.

RECAP: SETTING A SCHEME'S LONG-TERM OBJECTIVE

The Pensions Regulator (TPR) now expects all schemes to set a long-term funding objective, where the trustee should be able to answer the following:

- ✓ What funding target is the scheme aiming for?
- ✓ When does the scheme want to achieve it by?
- ✓ How will the scheme achieve it?

When setting this objective, the trustees will need to consider the scheme's particular circumstances and views of the sponsor.

The majority of schemes will have a long-term funding target of a transfer of liabilities to an insurer or running the scheme in a low dependency manner until the scheme is small enough to wind up, which is also known as self-sufficiency.

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WHAT IS A LOW DEPENDENCY STRATEGY?

A low dependency strategy is a management approach that aims to manage the assets and the liabilities of a scheme in a low-risk fashion using similar considerations to that of an insurer with the aim of running schemes off to attain a similar outcome to that of an insurance buy-in but at a lower all in cost.

As the name suggests, a low dependency strategy should involve little additional financial support from the sponsor as the funding risks are largely understood and accounted for either from risk mitigations or asset buffers. This is achieved through adopting a strong and flexible integrated risk management framework. Such strategies need to be considered in the context of a sponsor's covenant and appetite to retain schemes on balance sheet.

TPR GUIDANCE FOR LOW DEPENDENCY

TPR has recently published its draft funding code, where it details its guidance for implementing a low dependency funding and investment strategy and the interaction between the two when determining a scheme's long-term objective.

LOW DEPENDENCY INVESTMENT ALLOCATION

It is now expected that for the purposes of funding and investment that schemes should be invested in a low dependency portfolio at the point that the scheme is deemed to be mature (which is when the scheme has a duration of 12 years).

A low dependency investment allocation is one in which the cashflows generated by the portfolio broadly match the benefit payments of the scheme (allowing for prudence when dealing with unexpected cashflows) and that this portfolio's value should move in line with the liabilities under short-term market shocks.

LOW DEPENDENCY FUNDING BASIS

Assuming that a scheme is well funded on a low dependency basis and that the scheme is following a low dependency investment strategy then the trustees will need to be comfortable that there is a low probability of further contributions from the sponsor under most reasonably foreseeable scenarios.

Therefore, TPR expects trustees to ensure that assumptions are chosen prudently and understand the risks associated with the funding basis. Furthermore, TPR acknowledges that a funding basis needs to be viewed holistically and that some assumptions may be more prudent and others closer to best estimate.

LOW DEPENDENCY DISCOUNT RATE

TPR have proposed several approaches for deriving the low dependency discount rate with the fundamental principle that the discount rate should reflect a prudent expectation of returns on the low dependency investment portfolio.

Where a scheme has purchased a cashflow matching portfolio, the trustees can use the expected returns of the assets allowing for a reasonable level of defaults and downgrades to value the liabilities.

This is known as a "dynamic discount rate" and means that if the expected returns of the investment portfolio changes then the discount rate applied to the liabilities will also change. Under this approach, the assets and liabilities should move closely in line with each other under short term market volatility.

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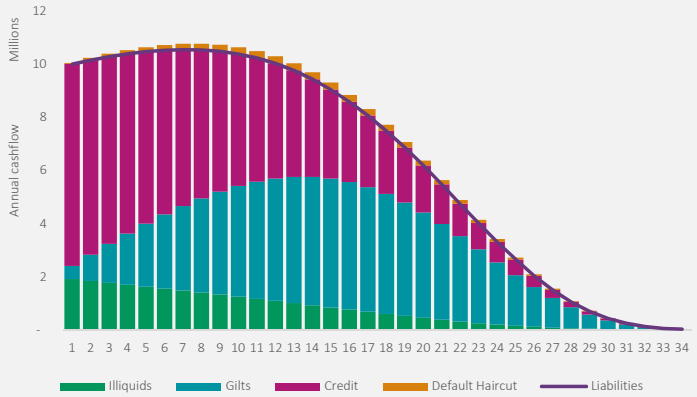
IMPLEMENTING A LOW DEPENDENCY STRATEGY

EXAMPLE: INSURER CASHFLOW MATCHING PORTFOLIO

When an insurer invests in a cashflow matching portfolio they look to maximise their allocation to long maturity corporate bonds and illiquid assets, with gilts being used for longer maturities to meet cashflows that are not possible with illiquid assets and credit.



They do this so that they "lock in" higher risk adjusted returns over the life of the scheme and not just at the start, which provides additional protection against future uncertainties, such as periods of higher defaults.

Investing in higher allocations to credit and illiquid assets is possible because the insurer uses minimal leverage to provide its interest rate hedging and therefore is not susceptible to the same degree of collateral requirements as typical LDI strategies used by schemes.

EXAMPLE: USE OF DERIVATIVE HEDGES TO HEDGE USD CASHFLOWS

Within a cashflow matching portfolio, insurers will look to diversify their portfolio through investing in global bonds. As a result it is common for them to hold a significant allocation to USD corporate bonds.

To meet the requirements stipulated under a cashflow matching approach, insurers will look to convert the cashflows of these bonds in GBP up front, using cross-currency swaps. Cross-currency swaps are a derivative that swaps the cashflows of a non-GBP bond into a fixed equivalent GBP cashflow stream.

Under this approach to hedging, the derivative contract will not always hedge the value of the underlying bond, however, the insurer will know with a high likelihood what cashflows they will receive in the future.

If the insurer was to hedge the currency exposure of the underlying bond using shorter dated derivatives, such as FX forward contracts, then the insurer would be susceptible to reinvestment risk when the derivatives mature and therefore the future cashflows would be unknown.

INVESTING LIKE AN INSURER

When a bulk annuity insurer takes on the liabilities of a scheme, they aim to hold a portfolio of high-quality fixed income assets, illiquid assets and derivative hedges, whose cashflow income closely matches the liability cashflows. The insurer will then aim to hold this portfolio of assets to maturity and therefore does not need to sell assets to meet liability payments, which largely removes:

1. Downside reinvestment risk as insurers do not allow for future unknown reinvestment;
2. Market risks as insurers do not need to sell assets; and
3. Liquidity risk due to lack of leverage.

The insurer is then only required to manage the corporate bond default risk, which is mostly mitigated through having an asset buffer to absorb any defaults/downgrades in excess of what is expected.

INSURANCE PORTFOLIOS SEEK TO HOLD ASSETS TO MATURITY TO REDUCE THE CAPITAL CHARGE OF REINVESTMENT

IMPLEMENTING A LOW DEPENDENCY STRATEGY

BROAD CASHFLOW MATCHING

Not all schemes will be able to invest in the same manner as an insurer and would look to apply the guidance around cashflow matching with more flexibility. Nevertheless, the overarching principles of low levels of reinvestment and leverage should continue to be the foundations of a low dependency investment strategy.

In practice, it will not be possible to accurately match all liability cashflows due to a lack of bond issuances for certain years or due to the need to maintain diversification within the investment portfolio.

Consequently, the investment portfolio will have a moderate level of cashflow mismatch.

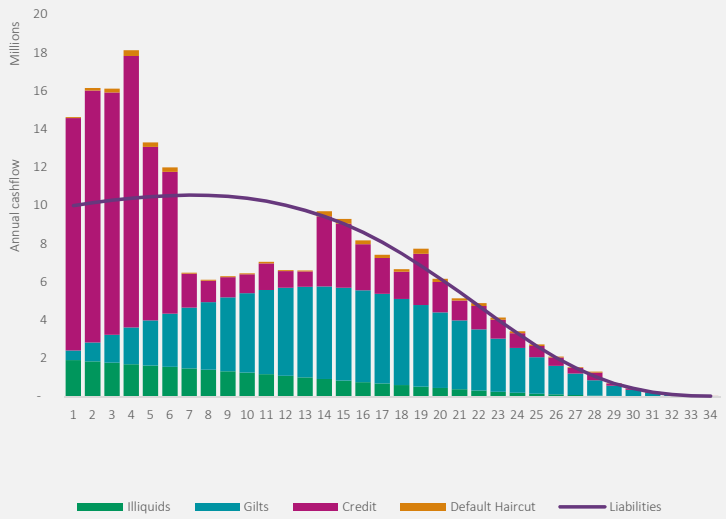
As shown in the example, this mismatch risk can be dealt with through the use of interest rate swaps, which guarantees the future reinvestment rates on excess cash, subject to confidence in the trading counterparty.

The key is to understand this cashflow mismatch and what assumptions are made around the future investment returns of these cashflows.

EXAMPLE: ASSESSING CASHFLOW MISMATCH AND REINVESTMENT RISK

A significant number of pension schemes invest in shorter maturity credit portfolios through a CDI strategy that aims to reinvest the excess shorter maturity cashflows generated in corporate bonds in the future.

Generally shorter term credit spreads are higher with a high number as compared to longer maturities; resulting in a value perspective on the allocation of CDI assets. The illustration provides an example of this strategy.



If the scheme were to adopt a pure cashflow matching view of the reinvestment then these excess cashflows could be held in cash and these cash returns could be fixed at the outset using interest rate derivatives. The scheme would be confident that there would be no future cashflow shortfalls as a result of reinvestment risk.

This approach is the most expensive option as there is no allowance for future returns above cash; some schemes may prefer to assume that the excess cashflows are reinvested in credit in the future using a prudent view of the returns that could be achieved and in particular not assume that shorter maturity returns will be achieved over a longer time frame.

This latter approach is acceptable under the draft TPR guidance but increases the uncertainty around a cashflow shortfall. Therefore, when schemes are assessing the level of mismatch and reinvestment risk, they should consider a prudent cost of mismatch versus investing in a better matched portfolio.

EXAMPLE: USE OF LDI FOR CASHFLOW MISMATCH RISK

When investing in a broad cashflow matching strategy, schemes will need to consider the interest rate risk associated with the mismatch (known as cashflow mismatch risk).

This arises due to cashflows being received earlier than the pension payment and will need to reinvested at an uncertain prevailing market yield at some future point. This risk can be largely mitigated through the use of LDI hedging and leverage.

When using leverage and LDI to remove this mismatch risk, schemes will need to consider the resulting increase in collateral risk and the requirement for higher allocations to gilts, which may reduce the overall yield of the portfolio.

Therefore, when schemes look to consider a broad cashflow matching approach, they will need to assess the associated LDI collateral requirements, how existing infrastructure allows these to be implemented and how this compares with a better matched portfolio.

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IMPLEMENTING A LOW DEPENDENCY STRATEGY

DEALING WITH UNCERTAINTY

A key assumption when implementing a cashflow matching investment portfolio is that the liability cashflows are only impacted by changes in inflation.

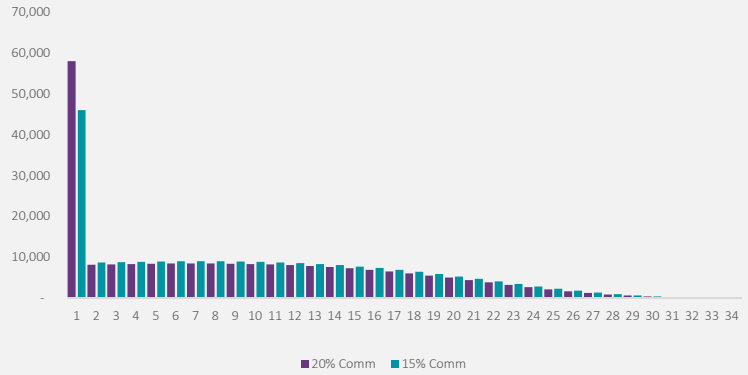
This is a simplification and the liability cashflows will change due to other factors such as longevity expectations and member option experience.

To address these risks within a low-dependency world, the scheme should aim to build prudency into the cashflows. These need to be create large enough buffers to minimise the requirement to request additional contributions in the future from the sponsor if experience is detrimental.

By constructing the cashflow matching strategy in this fashion, it means that if prudent assumptions are borne out then the scheme will not need to sell assets, which subsequently reduces the risk of portfolio restructuring alongside negative membership experience.

EXAMPLE: REDUCED COMMUTATION RATE

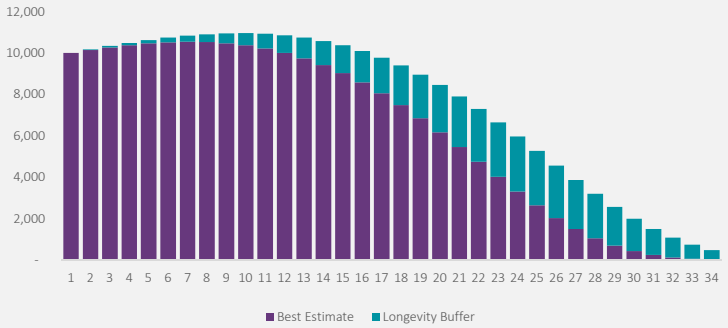
The chart below shows an example cashflow profile for a member under a best estimate 20% commutation rate and prudent 15% commutation rate.



Under a low-dependency strategy, the scheme would assume that the member's cashflows would be higher in the future and build a cashflow matching portfolio to match these higher cashflows. If the member in fact commutes a higher amount, then the scheme releases this reserve, which is then used to meet the higher initial commutation payment.

EXAMPLE: HIGHER LIFE EXPECTANCY

The chart below shows an example cashflow profile for a member who is assumed to have a higher life expectancy through strengthening their current survival rate and the future longevity improvements.



When managing longevity risk, schemes can adopt a similar approach to that outlined above through adopting prudency buffers or can look to remove the risk through the use of a longevity swap.

TARGET PRUDENCE WITHIN CASHFLOWS IN ORDER TO MINIMISE CONTRIBUTION VOLATILITY

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IMPLEMENTING A LOW DEPENDENCY STRATEGY

LONGEVITY SWAPS

A longevity swap is an insurance contract between the scheme and a reinsurer, where the scheme agrees to pay a pre-determined cashflow profile to the reinsurer in exchange for the actual membership experience.

The use of longevity swaps is consistent with a low-dependency strategy as it allows the scheme to stabilise future cashflows.

The cost that a scheme will have to pay will reflect the "riskiness" of the membership profile, i.e. a younger membership will result in a higher cost, so schemes usually look to hedge pensioner populations. This cost is also usually higher than the longevity buffer outlined previously as the reinsurer has additional capital requirements and will look to make a profit on the transaction.

However, by viewing a scheme's risks holistically, the trustee may view that this additional price is worth paying for and it can be funded through investing in higher yielding cashflow matching assets (e.g. illiquid assets). In the majority of cases, bulk annuity insurers use longevity swaps when they take on a scheme's liabilities and therefore the price of a buy-in will reflect the cost of the longevity swap.

Longevity swaps typically have legal provisions to allow the swap to be transferred from the scheme to a bulk annuity insurer if a scheme decides to enter into a buy-in/buy-out at a later stage. These provisions allow the insurer to take into consideration the scheme's longevity swap when pricing the buy-in/buy-out and could help reduce the overall cost.

EXAMPLE: HIGHER CASHFLOW MATCHING YIELD TO PAY FOR LONGEVITY RISK REMOVAL

Longevity swaps allow schemes to fix their cashflows with respect to longevity experience, however, this comes at the cost of a higher premium than is usually allowed for within a scheme's funding basis.

Due to this, all else being equal, if a scheme were to enter into the longevity swap then the scheme's funding level would deteriorate.

However, when setting the funding basis, it is usual to view the level of risk holistically and the discount margin is often set more prudently to cover areas of under prudence elsewhere.

Therefore, by removing longevity risk and stabilising the scheme's cashflows, it reduces the likelihood of selling assets to meet pension payments and the scheme can release prudence from the discount margin/investment strategy.

This means that a scheme can increase the yield of its cashflow matching portfolio through holding a higher allocation of long maturity corporate bonds and/or illiquid assets and this then meet the additional costs of the swap.

When viewed holistically, the scheme is able to reduce its overall risk profile without a material increase in the funding costs.

CREATING A EXPLICIT LONGEVITY RESERVE WITHIN A VALUATION BASIS ALLOWS SCHEMES TO INVEST TOWARDS RISK MITIGATION AND REDUCE UNCERTIANY IN OTHER AREAS OF THE VALUATION

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IMPLEMENTING A LOW DEPENDENCY STRATEGY

Dynamic Discount Rate

The fundamental theme that runs through this approach to a low dependency strategy is ensuring there is a consistent and transparent view of the investment and funding objectives.

If a scheme adopts a fully matched cashflow investment portfolio with mitigated risks then the scheme no longer needs to be concerned with the price volatility of the asset portfolio versus its liabilities.

Therefore, the scheme can assume that its liability valuation is equivalent to its asset portfolio valuation and any change in market valuation of the assets will be mirrored through a change in the liability valuation.

This means that the discount rate used for the liabilities should reflect the expected returns (net of prudent defaults and expenses) over the life of the underlying asset portfolio.

A dynamic discount rate is one of several options recommended in TPR guidance, however, in the case of a cashflow matching strategy it appears to be the most logical to adopt, which enables the scheme to better understand and manage its risks.

THE DISCOUNT RATE USED SHOULD REFLECT THE CHARACTERISTICS OF THE CASHFLOWS AND THE LIQUIDITY CHARACTERISTICS OF ANY INSURANCE CONTRACTS AND BE CONSISTENT WITH OBSERVABLE MARKET PRICES.

EXAMPLE: HIDDEN RISKS OF STATIC DISCOUNT RATE FUNDING

A scheme has adopted a low dependency cashflow matching portfolio, which invests in a broad range of fixed income assets with an expected return over run off of Gilts + 50bp at the valuation date.

This prudent expected return is then used by the scheme to determine a static discount margin that will be used to value the liabilities on an ongoing basis.

Over the inter valuation period the scheme has negative experience through:

1. The investment portfolio has generated lower than expected cashflows than was required to meet the liability cashflows through higher defaults; and
2. Higher than expected longevity rates, which have increased the future liability cashflows.

However, there have been positive market conditions and the asset portfolio expected return is now Gilts + 30bp. Whereas the liabilities are still being valued on a Gilts + 50bp basis.

The result of these factors is that the funding level has improved and the scheme is now in a surplus.

However, this surplus can be misleading as the liabilities have not been updated to reflect the change in expected returns of the investment portfolio and over time the trustees will find that it has a cashflow shortfall which will need to be funded through additional contributions from the employer or re-risking the scheme.

Aligning the assets and liabilities using a dynamic discount rate, the scheme is able to better identify that there is a cashflow risk and taking early action to improve the cashflow position of the scheme.

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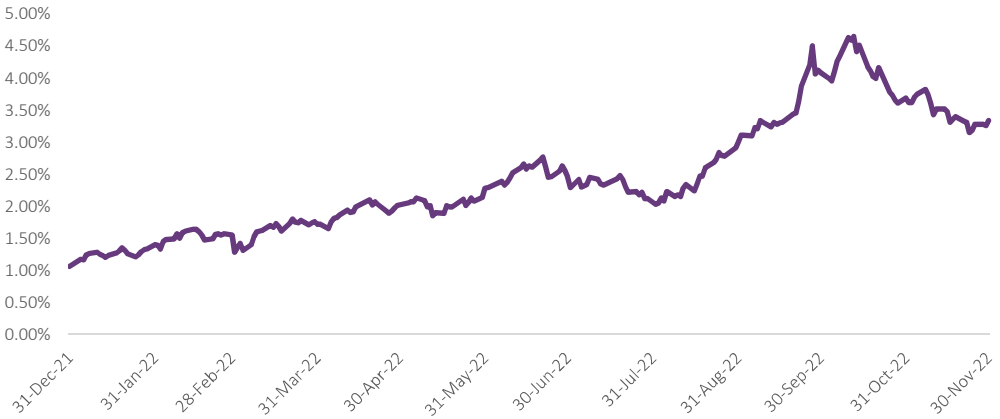
OVERVIEW OF BULK ANNUITY MARKET

IMPROVEMENTS IN SCHEME FUNDING LEVELS

2022 has seen an extraordinary change in the funding levels of DB pension schemes with long dated gilt yields increasing to levels that were last seen during the 2008/2009 Great Financial Crisis and inflation running at 40-year highs and pension increase caps being applied, resulting in assets outperforming the liabilities.



Source: Bank of England

According to a recent report by consultants LCP, the result of which has seen average funding levels on a buy-out basis improve by around 15% and trustees are bringing forward their long-term buy-out objectives by around 5 years.

Consequentially, it is expected that the demand for bulk annuities from schemes will increase significantly up to 2025.

IMPROVEMENTS IN SCHEME FUNDING LEVELS

During 2020-2022, the average annual bulk annuity capacity has been around £30bn and current market consensus is that the next three years could see up to £90bn of annual demand and a total of £200bn over the period.

This increased demand is expected to significantly exceed insurer capacity, with internal resourcing being the main limitation to increasing this capacity with long lead times and limited pool of appropriately skilled staff.

Therefore, it is expected that the insurers will become more selective over the schemes that they look to take on and will concentrate on the schemes that are already well prepared for transacting, i.e. schemes with good data, appropriate asset allocations etc. This means that schemes that have only recently started to prepare for buy-out are likely to have to wait for free insurer capacity after 2025.

AVERAGE FUNDING LEVELS ON A BUY-OUT BASIS HAVE IMPROVED CONSIDERABLY WITH TIMEFRAMES BEING BROUGHT FORWARD

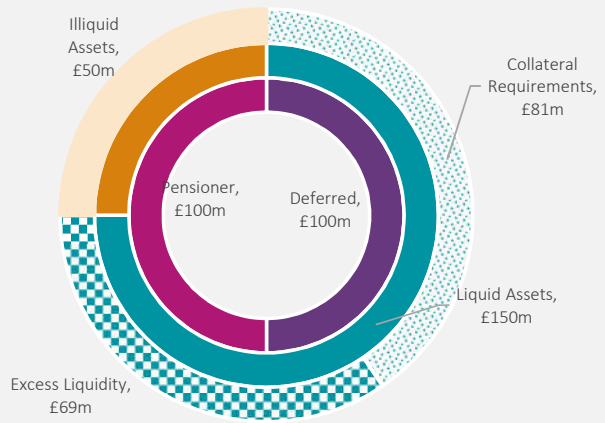
OVERVIEW OF BULK ANNUITY MARKET

EXAMPLE: REDUCTION IN LIQUIDITY FOLLOWING BUY-IN

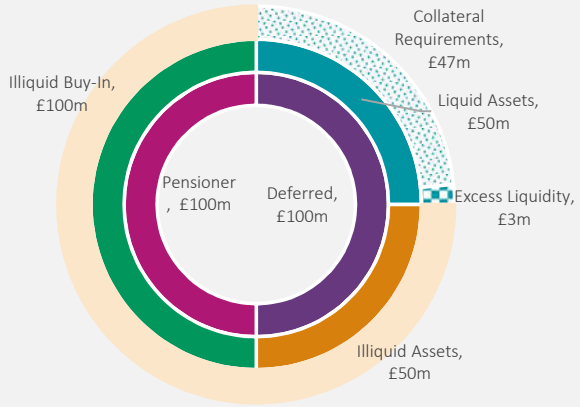
The following analysis show the impact on the overall net liquidity of a pensioner buy-in of a £200m scheme that is made up of 50% deferreds and 50% pensioners. It is assumed that the liabilities are equivalent to the buy-in premium and that the scheme holds 25% in illiquid assets that can't be transferred to the insurer.

The collateral requirements have been calculated based on 350bp increase in interest rates and that the durations of deferreds and pensioners are 18 and 12 respectively.

Pre-transaction



Post-transaction



Following the transaction, the scheme's asset allocation has increased from 25% to 75% and it shows that whilst the scheme may be able to afford to enter into a buy-in, from a wider asset allocation/risk perspective, the scheme may wish to maintain a higher allocation to liquid assets until the illiquid assets are sold or run off and the liquidity position allows the transaction to be implemented.

SCHEME LIQUIDITY CONSTRAINTS

Whilst solvency funding levels have seen significant improvements during 2022, this has been at the expense of a reduction in schemes' liquidity position. This peaked during September and October, where schemes were struggling to provide capital quickly enough to replenish their LDI and hedging strategies.

Following Bank of England and UK Government stabilisation, schemes' liquidity has improved, however, for some schemes their illiquid allocations remain overweight versus benchmark. As a consequence, schemes are looking to reduce these allocations. By their nature this is not straightforward and usually involves selling assets at a discount and over a long period of time.

This is important, as these illiquid allocations effectively reduce schemes' ability to transact with the insurers for two reasons

1. Insurers do not wish to receive illiquid assets and will charge the scheme for doing so
2. If premium is paid with liquid assets then the net liquidity of the remaining allocation will reduce and may not be sufficient to support hedging programme.

OVERVIEW OF BULK ANNUITY MARKET

PREPARING A SCHEME FOR TRANSACTION

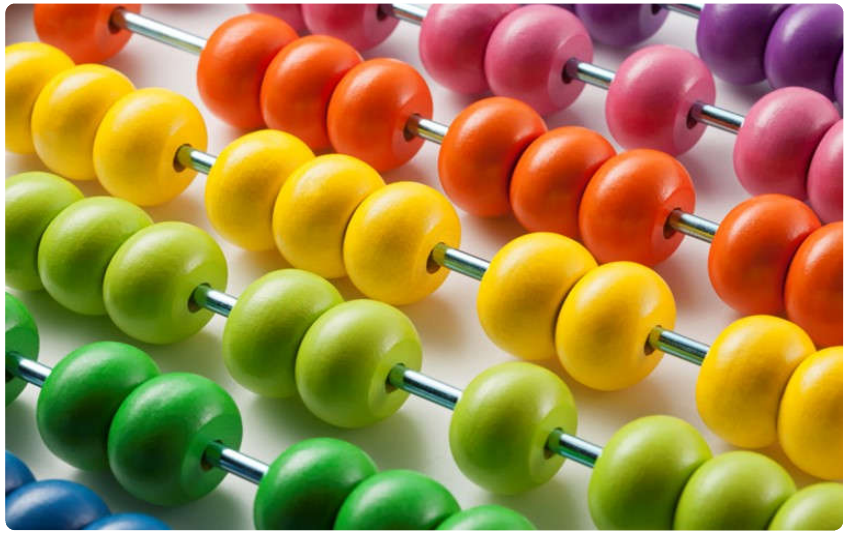
Whilst a scheme may have sufficient assets to transact, there are other many stages that need to be achieved before this is can occur.

Depending on the size and nature of the scheme, preparing a scheme for buy-in can take up to 3 years. The insurers are aware of this and as a result are providing greater clarity over the important aspects that they are looking for to enable them to quote, such as:

- Clarity over the scheme's long-term journey plan and involving the sponsor early in the process;
- Having a good understanding of the scheme's benefits;
- Having accurate data or a plan to improve data quality;
- Maintaining and collecting prior member experience; and
- Clarity over the assets that would be transferred.

Whilst some of these items should be straightforward for schemes to carry out, others will take longer and will be dependent on capacity from consultants and administrators.

With the increase in expected demand from schemes in performing these exercises and the limited capacity, timescales for these projects are expected to take longer than they would have done before 2022.



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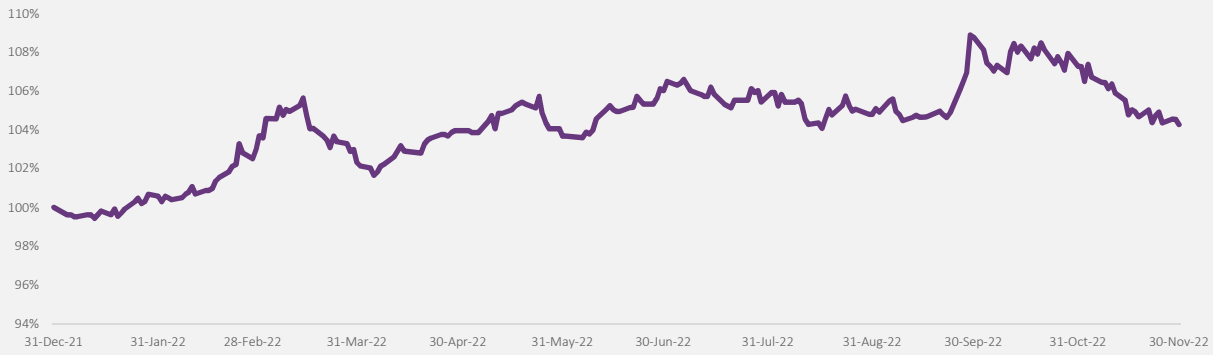
LOW-DEPENDENCY STRATEGY TO ACHIEVE BUY-IN

EXAMPLE: LOW CREDIT ALLOCATION WHEN TARGETING A BUY-IN

The following chart shows a model portfolio of 40% credit with average duration and 60% gilts for a scheme that is targeting buy-in during 2022.



The improvement in funding level over 2022 has been driven by the increase of credit spreads versus gilts, which can be interpreted as the cost of a buy-in portfolio has cheapened in comparison to gilts.

However, as the scheme's objective is to stabilise the cost of buy-in, the chart also shows that the mismatch between its assets and buy-in pricing is resulting in increased volatility.

By closer aligning the two through a cashflow matching portfolio, the scheme would protect itself in the event that credit spreads were to revert to 2021 levels.

This therefore provides the scheme with greater certainty that it will be able to afford the buy-in.

Over the next 2-5 years there will be a large number of schemes that will be beginning to plan their journey to buy-in/buy-out, however, for the reasons previously outlined these schemes may need to wait longer than they would like to achieve this goal.

During this transition period, schemes can look to ensure that they are ready to transact in the future.

Assuming that a scheme meets these requirements, the last major objective is for the scheme to have sufficient assets to meet the cost of the transaction. Therefore, the scheme should aim to reduce this risk through investing in a similar manner as an insurer.

Secondly, when insurers quote on a transaction they consider the potential cost and risks involved with transitioning from the scheme's assets to the insurer's target portfolio. The closer these two portfolios are, the insurer is able to reduce this risk charge and offer a scheme more attractive pricing.

SCHEMES WILL NEED TO ENSURE THEY HAVE SUFFICIENT ASSETS TO MEET THE COST OF THE TRANSACTION GIVEN THE TIMEFRAME TO BE PEPARED FOR A RISK TRANSFER EXERCISE

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