For professional clients only

Pension Insights

Generating income in a de-risking portfolio

Executive summary

Welcome to the second edition of our thought leadership series, Pension Insights.

In this paper we assess how pension scheme trustees may wish to proactively consider a positive near term cash flow whilst embarking on a de-risking programme.

In the January 2015 UBS Pension Insights publication 'The Income Balancing Act', we explored the requirements for pension scheme trustees to find a balance between meeting long-term liabilities, achieving sustainable growth and producing a positive cash flow.

We provided a range of possible solutions which encompassed utilising alternative sources of yield to meet long-term liabilities, different sources of growth to recover pension scheme deficits and combining multiple income orientated asset classes to produce a positive cash flow.

The ability to generate a positive cash flow becomes more challenging for trustees embarking on a de-risking programme. Pension schemes which have de-risked their liabilities can experience a decline in cash flow through the cessation of contributions. De-risking scheme assets focuses the pension scheme on meeting longer term liabilities but often little attention is given to meeting near term liabilities. As schemes mature and the demand to meet near term liabilities increases sources of income must be found but this must not impinge on schemes ongoing objectives. An income solution for schemes which are de-risking will ideally produce a stable and sustainable level of income to meet near term liabilities, provide the opportunity for capital growth to contribute to deficit recovery, and manage volatility to limit fluctuations in the scheme funding ratio.

This UBS Pension Insights publication assesses a range of methods to enable trustees to meet these challenges.

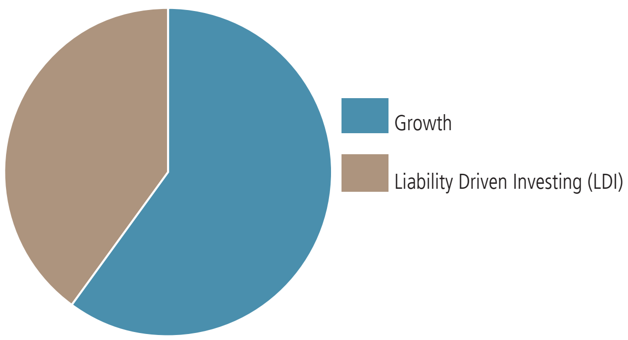
In this paper we assess how pension scheme trustees can achieve a positive near term cash flow as schemes de-risk and near term liabilities fall due.

Deficit recovery
In the January 2015 UBS Pension Insights publication, 'The Income Balancing Act', we assessed the impact of implementing near term cash flow solutions on open defined benefit pension schemes. We also provided initial thoughts about the onset of cash flow negativity on schemes that are in the process of de-risking, below we discuss this topic further.

Pension schemes typically de-risk in two ways. The first is to de-risk scheme liabilities through closing the scheme to new members and future accrual. The second is to de-risk scheme assets. This may entail allocating to asset classes which broadly match long-term liabilities such as nominal and inflation linked bonds, synthetics and cash. The remainder of the portfolio may be aimed towards achieving growth with an objective of improving the scheme funding ratio, such allocations would typically include risk assets such as return-seeking bonds, equities and alternatives.

The chart in figure 1.1 is an example liability hedged portfolio split between liability driven and growth asset classes.

Figure 1.1 Example Liability Hedged Portfolio



Source: UBS Asset Management. For illustrative purposes only

A consequence of de-risking liabilities is that this removes a source of cash flow into the pension scheme through the cessation of contributions. The challenge for trustees is how to secure adequate near term cash flow as they also de-risk scheme assets.

Liability Driven Investing
A potential source of income within a Liability Driven Investing (LDI) framework is coupons from hedging assets (bonds). A consideration is the nature and use of these investments, in particular where they have been invested to mitigate long dated cash flow and interest rate risk. We observe that many such strategies – whilst offering obvious benefits in mitigating future risks – do not necessarily address the need for shorter term (up to 7 years) liabilities falling due.

Within a LDI framework it is of course possible to cater for near term liabilities through the utilisation of short duration bonds, this however presents a number of challenges for trustees. Firstly, shorter duration bonds typically provide lower levels of yield than bonds at the longer end of the curve, the low interest rate environment further compressing any income which may be realised. Furthermore, many pension schemes which utilise LDI programmes will also use bonds in their programme as collateral for synthetics such as swaps, which play a critical role in the ability of the pension scheme to fully hedge liabilities. Drawing income from bonds in an LDI framework rather than re-investing yield reduces the amount of capital available to hedge liabilities. This can add to basis risk and an increase in the tracking error between the liabilities and the hedging portfolio.

Cash
Another option will be to utilise cash as source of liquid capital. LDI programmes may use cash as collateral for synthetics to hedge interest rate, inflation and potentially longevity risk. Drawing on this cash to meet near term liabilities could result in the scheme being unable to meet collateral calls. As a result some pension schemes ring fence this pool of cash making it unavailable for other purposes. A number of pension schemes hold cash balances outside of their LDI programme. For pension schemes with sizeable deficits holding large cash balances without market exposure can become a drag on scheme performance, hindering the schemes ability to recover the deficit.

Growth Assets
A further measure could be the utilisation of income from the growth portion of the portfolio, but this has a number of drawbacks. Firstly, the level of yield trustees can expect from managers focused on achieving growth needs to be tempered. The best growth stocks may not necessarily produce a high or stable level of yield. Furthermore, whilst

stripping dividends from equities is a viable method to produce income, unless this is a strategic objective, stripping dividends can hinder returns and crystallise scheme deficits as it is the compounding effect of income re-investment that is main driver of growth within this asset class. Selling assets to meet near term liabilities can result in locking-in losses during periods of market drawdowns and also presents a huge governance challenge. Trustees must decide what, when and how much to sell. Many schemes employ a structured de-risking programme where gains in the scheme funding ratio result in a re-balancing away from return seeking assets to liability driven assets. Trustees who elect to sell investments may remove those assets which could be used for rebalancing when markets recover; therefore losing the opportunity to secure funding gains.

Given these constraints, the aggregate yield produced within a generic liability hedged portfolio may not be enough to meet schemes near term cash flow requirements. At this stage a number of questions may be posed:

- What characteristics should an income solution entail?
- What options to generate income exist outside of schemes' existing liability driven and growth orientated exposures?
- How can an income solution be integrated alongside schemes evolving long-term liability driven and growth objectives?

Characteristics

- An income solution should provide stable and predictable levels of income at regular intervals.
- A degree of growth may aid deficit recovery.

However both of these objectives must be attained in consideration of the scheme funding level and also the objectives of the trustees. Taking this into consideration, it is reasonable to suggest that price volatility of any "income sleeve" should be controlled.

A solution should also complement the schemes long dated LDI allocation, for example catering for liabilities from 0 to 7 years.

Options

Below we assess a number of asset classes and investment approaches which trustees can access to generate income.

Liquid credit

Many UK defined benefit pension schemes' exposure to liquid credit is achieved through allocating to Sterling denominated investment grade. This not only reflects the Sterling denomination of UK pension scheme liabilities but also provides the opportunity to achieve returns above gilts. However, the low spreads in traditional credit portfolios and the continued uncertainty over the direction of interest rates has led trustees to consider allocating to alternative fixed income asset classes. Fixed Income strategies such as high yield corporate debt, emerging market debt and securitised bonds can provide investors with a range of risk premia.

The benefits of these strategies are that they display growth characteristics with potentially lower levels of volatility than equities, but can also be utilised as an alternative means of hedging liabilities. Depending upon the underlying assets some strategies may also offer a degree of inflation protection through the utilisation of floating rate securities and active management of duration risk.

However, trustees who rely on these strategies for growth may find themselves moving further up the credit risk spectrum to achieve higher returns. This may reduce equity beta but trustees may find themselves exposed to increased default risk, worsening levels of liquidity and greater levels of volatility. Despite the broad array of alternative credit strategies available, to achieve their required returns, trustees may also become inadvertently exposed to a specific segment of the credit structure and a concentration of risk. Arguably, whilst such a strategy may appear to offer diversification, the reality may be that in the event of market stress, concentration to a single asset class and or risk may lead to sub-optimal outcomes.

The challenge in utilising these strategies to simultaneously hedge liabilities is that growth will typically be based upon the total return of the underlying asset classes; that is with income reinvested. Utilising income from these strategies can limit the total return leaving trustees with sub-optimal levels of growth and income.

Private debt
Private debt strategies provide financing for companies, infrastructure and real estate. These strategies provide trustees with the potential for higher returns through accessing illiquidity premia.

Allocating to these strategies can provide trustees with stable contractual cash flows with a maturity profile between 5 and 10 years. Given the long dated nature of a schemes LDI programme, illiquid credit strategies can play an important role in meeting medium term liabilities.

However, trustees should be comfortable with the illiquid nature of the asset class. These strategies also have limited opportunity for capital growth.

Buy and hold
An additional option for pension trustees to realise income is to hold bonds through to maturity through buy and hold strategies. This involves purchasing individual bonds and utilising the yield produced to meet income requirements.

Allocating to these strategies can provide trustees with a source of stable predictable income, particularly on longer dated bonds where yields will be higher. Although this can expose trustees to significant duration risk, interest rate risk only materialises should the trustees decide to sell their bond holdings.

The drawback of these strategies is that they provide no opportunity for capital growth. Trustees who require higher levels of income may also be exposed to increasing levels of credit risk.

Governance
The challenge for trustees who wish to de-risk whilst recovering a deficit is the attainment of income and growth with limited volatility. As there is no single asset class which appears to provide this, schemes may wish to allocate across a range of asset classes to achieve their desired income and growth objectives. Schemes with a greater governance budget may have the ability to allocate across individual asset classes, whilst schemes which have a limited governance budget may wish to utilise specialist managers to alleviate the burden of continuously selecting the best asset classes from which to gain income and growth.

Below in figure 1.2, we assess alternative fixed income asset classes alongside broader income orientated investment strategies which in combination can provide schemes with income and a degree of growth whilst keeping volatility at a minimum.

Utilising these asset classes to create portfolios in accordance to schemes near term liability requirements can enable trustees to meet near and medium term liabilities whilst contributing to the recovery of the scheme deficit.

Aligning income solutions with schemes individual liability profile can increase the aggregate yield across the entire portfolio, complementing the existing growth and liability hedging strategies.

Figure 1.2 Cash flow building blocks

	ASSET CLASS	CHARACTERISTICS			
		Income	**Capital growth**	**Volatility**	**Liquidity**
CREDIT STRATEGIES	Government bonds	Low	Low	Low	High
	Corporate bonds	Medium	Low	Low	High
	High yield	High	Low	Low	Medium
	Direct lending	High	Low	Low	Low
	Real estate debt	High	Low	Low	Low
	Infrastructure debt	High	Low	Low	Low
EQUITY STRATEGIES	Equities	Medium	High	High	High
	Low volatility equities	High	Medium	Medium	High
	Listed real estate	High	Medium	Medium	High
	Listed infrastructure	High	Medium	Medium	High
	Synthetics	High	Low	Low	High
	Commercial real estate	High	Medium	Low	Low
	Long lease real estate	High	Medium	Low	Low
	Direct infrastructure	High	Medium	Low	Low
	Agriculture	High	Medium	Low	Low

Source: UBS Asset Management. For illustrative purposes only

Figure 1.3 Near term liability profile: 0-5 years

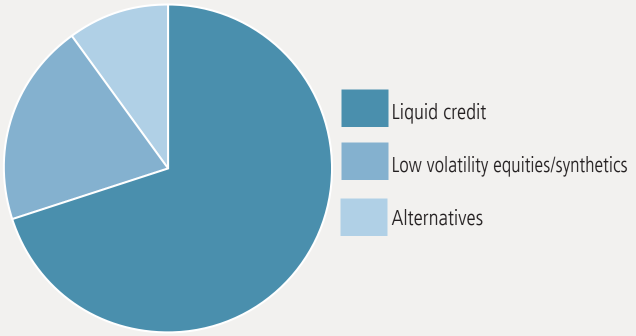
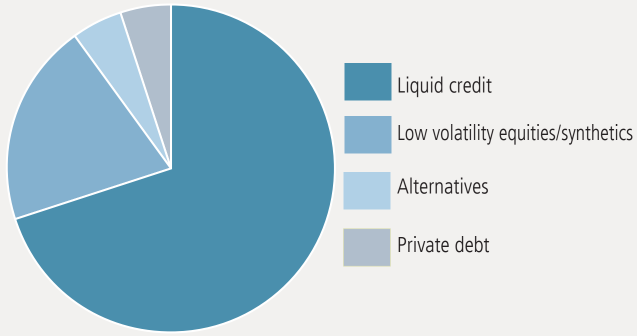


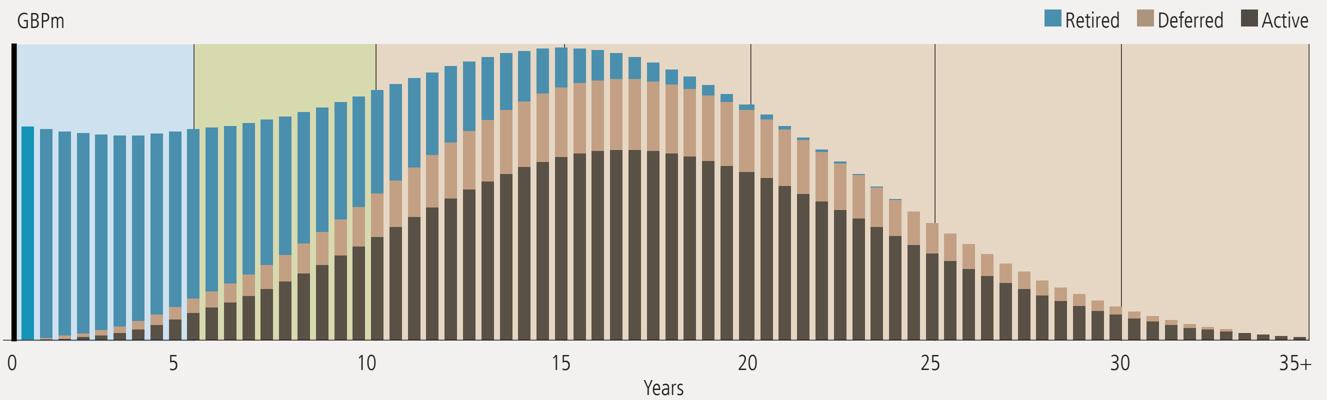
Figure 1.4 Near and medium term liability profile: 0-10 years

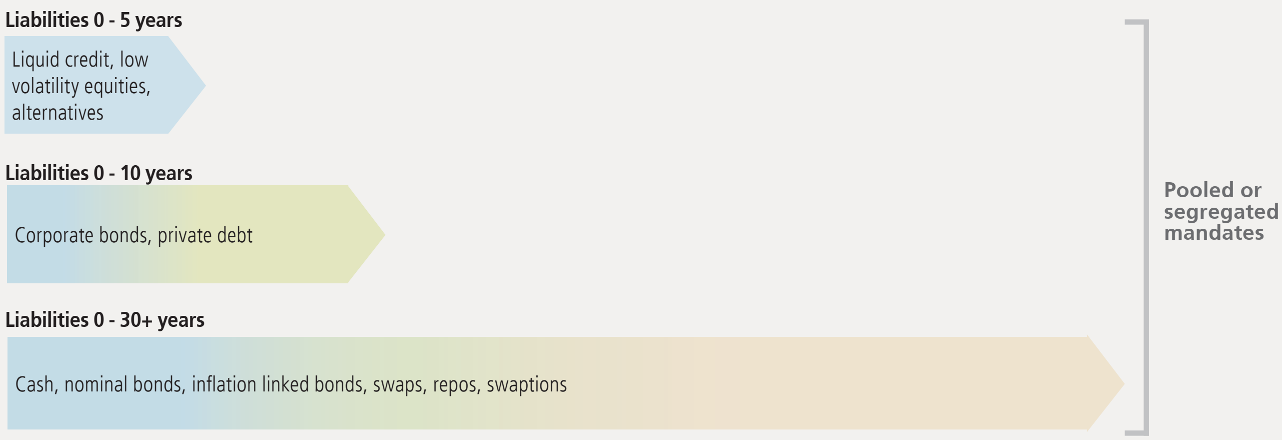


Source: UBS Asset Management. For illustrative purposes only

Figure 1.5 below demonstrates various income solutions across the spectrum. Beginning with the near term (0 – 5 years), near and medium term (0 - 10 years) and the longer term (0 - 30+ years), liability requirements are aligned accordingly.

Figure 1.5 Income solutions and alignment with liabilities

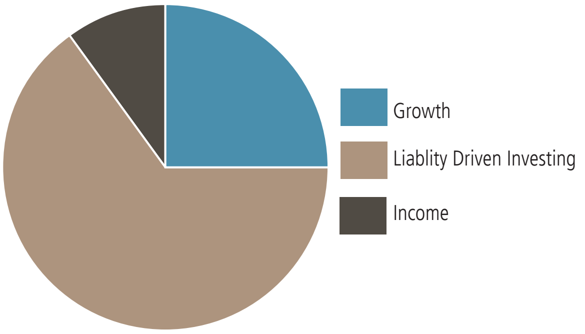




Portfolio construction
Once trustees have defined the level of income required attention can then turn to implementation.

Pension schemes which have a larger deficit will have a greater requirement for growth and hence an increased tolerance to volatility in any income solution.

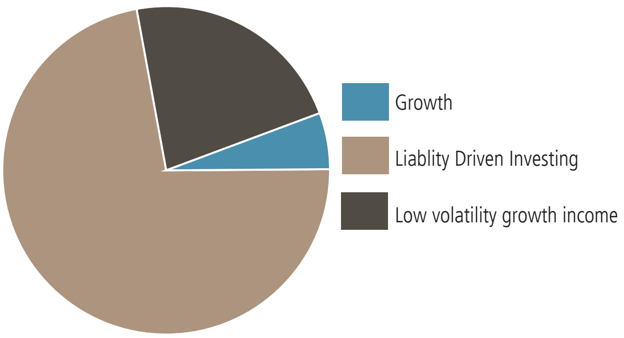
Figure 1.6 Example portfolio: Growth, LDI and Income



Source: UBS Asset Management. For illustrative purposes only

As the funding position of pension schemes improves, schemes will gradually de-risk their portfolios with lower returns required. An income solution may not only help trustees meet near term liabilities, but can also provide low volatility growth to enable schemes to recover the final deficit and stabilise the scheme funding level ratio as they head to full funding.

Figure 1.7 Example portfolio: Growth, LDI and Low volatility growth income



Source: UBS Asset Management. For illustrative purposes only

Generating sufficient income whilst pension schemes de-risk presents a significant investment and governance challenge.

Finding solutions which not only meet these challenges but also ensure pension schemes are able to meet their ongoing growth and longer term liability requirements is critical to the achievement of full funding.

Trustees should consider the full range of options at their disposal to meet their evolving objectives.

At UBS Asset Management we produce a range of thought leadership and industry insight papers, including Pension Fund Indicators, Pension Insights and Global Asset Views.

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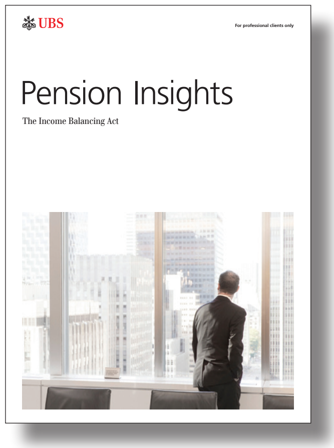

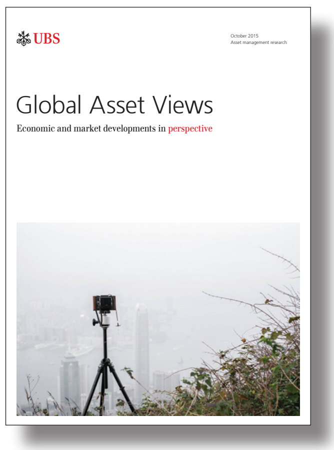

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