Secure income assets: new opportunities for a new decade

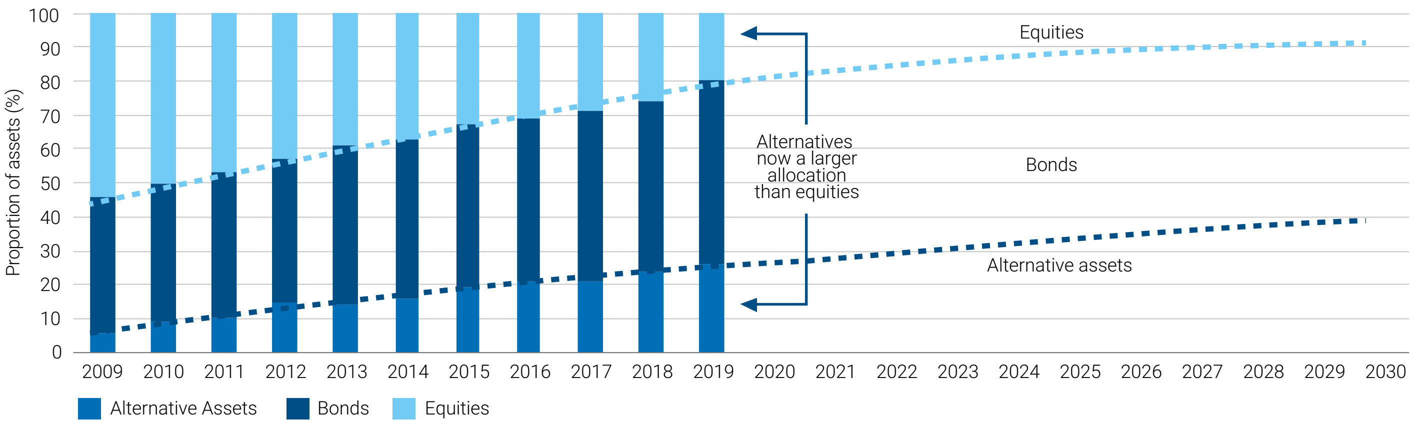
DB (defined benefit) pension schemes are progressing along their journey to end-game, with many becoming increasingly cashflow negative and struggling to balance competing requirements for returns and cashflow.

In this environment we believe that the cashflows, diversification and return-generating nature of **secure income assets** could be a significant opportunity for DB pension schemes.

Deciding an appropriate asset allocation can be challenging, with traditional asset and liability management ('ALM') frameworks struggling to incorporate all the relevant factors when choosing between illiquid assets. In this paper, we set out what we believe to be some of the key opportunities in this asset class and define a framework for how pension schemes could set allocations between these opportunities.

On account of their long time horizons, DB pension schemes are often able to commit a proportion of their investment capital to assets which are less liquid (i.e. less easily tradable) than traditional equities and bonds. As can be seen in Figure 1, pension schemes are increasingly taking advantage of this type of asset class, with alternative assets (including illiquids) now a larger proportion of a schemes' allocation than equities.

Figure 1: Alternative assets (including illiquids) are becoming an increasing proportion of pension scheme assets



Source: Pensions Policy Institute: Approaching the endgame: The future of Defined Benefit pension schemes in the UK (October 2019), Mercer (2019). Overlaid with illustrative trend lines (LGIM).

Secure income assets' ("SIA") identify cashflow outcomes from illiquid private asset classes, where the income stream often benefits from a range of contractual protections that enhance asset owners rights to maintain expected cashflows (for example, covenant protections, specific security or ring-fenced collateral). The contractual protections of a particular asset will depend on these terms and the financial strength of the counterparty. SIAs are held with the aim of producing a predictable income stream - this income stream is not guaranteed and there is no underwriting of income provided to the Fund.

Please note, there is no guarantee that any forecasts made will come to pass.

Legal & General INVESTMENT MANAGEMENT

Secure income is a subset of the illiquid asset universe. The assets, which are typically private (unlisted) in nature - and thus traditionally deemed to be illiquid - have a number of properties that may make them attractive for pension schemes. In addition to the so-called 'illiquidity premium' that investors can earn (above publicly traded assets), secure income assets typically distribute a series of pre-defined cash flows (which may be eligible for Solvency II matching adjustment), and tend to benefit from legal protections (in the form of financial and non-financial covenants) that could increase recovery rates.

Moreover, within the secure income universe, we believe there are opportunities for long term owners of capital – insurers and pension schemes – to effect real and lasting change. In the UK, there is a clear, sizeable and ongoing requirement to enhance public services (such as schools, hospitals and transport), build affordable housing, and reduce dependency on fossil fuels. Within these fields are many opportunities for investors in secure income to support projects that could have a long-term, positive impact on society.

We believe some key advantages of investing in secure income assets are:

- Diversification, e.g. credit (issuer, sector, sub-sector, rating) and structure
- Potentially, better protection in downturns than alternative asset classes
- Increased certainty of cash flow distribution
- Social and environmental purpose
- Potential Solvency II matching adjustment eligibility

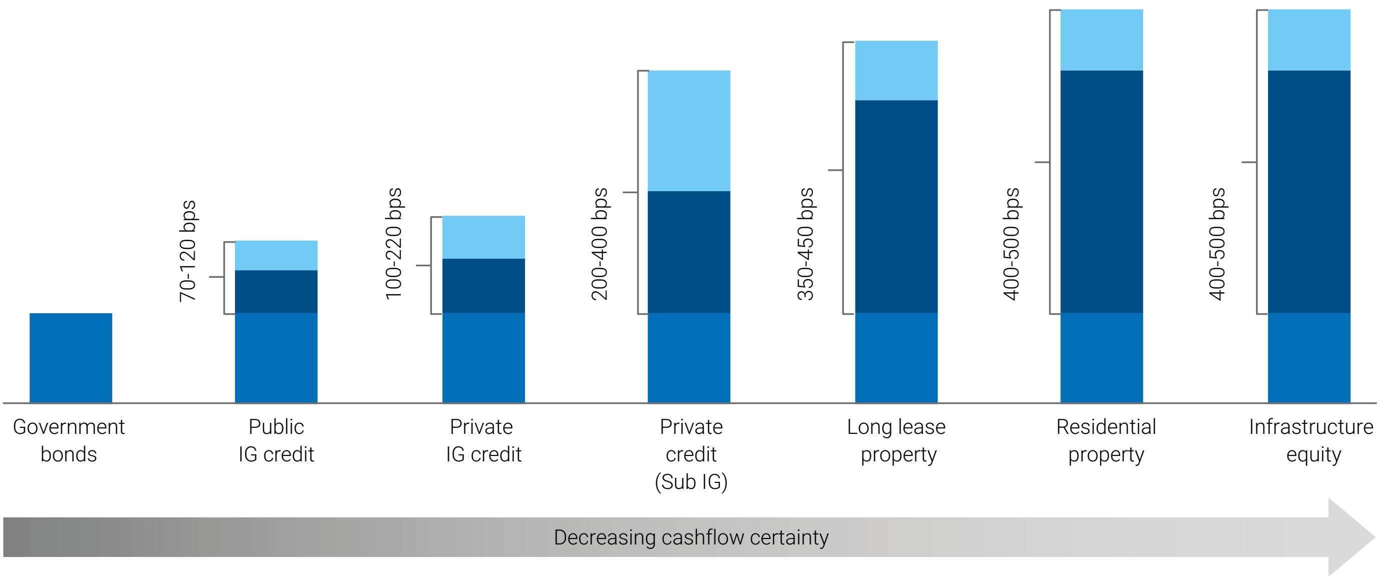
Key Risks:

The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

Part 1: Secure income opportunities: an overview

While not exhaustive, Figure 2 details some of the key opportunities we see in secure income. The additional return a scheme could receive from these assets classes depends on the risk that the scheme is willing and able to take. Higher returning asset classes typically have a lower credit quality, higher complexity, less certainty over the cash flows they produce and/or less liquidity.

Figure 2: Spectrum of secure income assets



Source: LGIM, April 2020. Key risk: the value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

However, with so many diverse opportunities for investment, the question arises as to how to decide allocations between them. Below, we briefly explain some of the key attributes of these assets.

Private credit (investment grade and sub-investment grade)

Overview: Private credit offers investors the opportunity to earn what is described as an 'illiquidity premium' when compared to public markets (although, private assets actually have much greater liquidity than is often assumed). In addition to this upfront spread premium, a key component of the attractiveness of the asset class is the provision of (and ability to negotiate) agreed protections. This differentiator from public credit can often lead to better experiences in default cycles, where recovery rates for private credit tend to be much higher (over 80%!). Below, we explain the characteristics of the three key areas of private credit.

These three debt classes are complementary, allowing for the construction of well-diversified portfolios in terms of borrower type, structure and risk factors.

Infrastructure debt

Overview: Providing debt financing for infrastructure assets across four sectors: transport (trains, tunnels and bridges), energy (wind farms, solar and energy storage), digital (data centres and fibre), and social (healthcare and student housing).

Features: Natural inflation linkage and, typically longer duration, with lower historical default rates and higher recovery rates than comparable corporate bonds.

Private corporate debt

Overview: Providing financing to companies seeking to borrow outside public markets. The investment universe is well-established and sizeable, with the vast majority of sectors having already issued debt before. Examples of particularly vibrant sectors issuing private corporate debt at present include housing associations, higher education institutions and utilities.

Features: Pricing linked to broader fixed income market trends, material downside protection via tighter covenant protection, and coupons may be linked to inflation.

Real estate debt

Overview: Lending which is secured against a broad range of property sub-sector types (office, industrial, retail, residential -including build to rent), mixed use and alternative), where the rental income supports interest payments and the property provides security.

Features: Stable, income-driven returns, with typical maturities of around five years (although there opportunities from 12-month to 30-year maturities). This type of debt tends to have a senior position in the capital structure, and the maximum loan-to-value tends to be 65%.

Long lease property

Overview: Owning property assets where there is a long-term (typically 20 years plus), contractually agreed rental agreement in place with an occupier.

Features: Bond-like contractual rental income (fixed or inflation-linked) makes up approximately 75% of the value. The residual property value offers a layer of protection for the investor, on account of the ability to re-let in the event of an occupier default.

Key Risks:

The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

Residential property

Overview: A diverse range of opportunities that include:

- **shared ownership:** investors co-own property with residents. The 'rental yield' on the loan is set at the outset of the contract and is often linked to inflation
- **social/affordable housing:** provision of housing at rental yields set by the government. Increases in rent are often set in line with inflation
- **build to rent:** purpose-built rental properties for wider market. Typically higher rental income than social/affordable housing, but with less certainty of cashflows

Features: cashflows from rental yields are likely to increase in line with inflation, with security from the underlying property investment.

Infrastructure equity

Overview: Providing equity financing for infrastructure assets such as wind farms, solar, sewers and trains.

Features: The secure income part of this universe has built-in guarantees for dividends received from the equity, which should provide a level of cashflow certainty for investors.

Part 2: Setting the top-down strategic asset allocation

Over the years there have been numerous methods for setting strategic asset allocations, from mean-variance optimisations to Monte Carlo methods and scenario analysis. Our preferred approach is to use our long-term ALM framework, within which we assess different asset allocations according to how they perform versus meeting liability payments as they fall due over the life of the scheme. The risk versus return profiles and cashflow-generating attributes of secure income assets could in our view potentially make them an attractive proposition for many pension schemes.

However, schemes' long-term cashflow requirements need to be balanced by the potential need to sell these assets in certain scenarios. While pension schemes are characterised by having long time horizons, unexpected cashflow requirements can arise, for example as a result of a buy-in or an increase in transfer value requests. This means that pension schemes should be careful to not over-allocate to illiquid assets, as this could lead to portfolios becoming too concentrated or bearing high transaction costs if a scheme has to disinvest. As such, there are no simple rules for how much should be allocated to secure income assets; setting a scheme's illiquidity budget is a multifaceted decision.

We believe that pension schemes should consider the evolution of their asset allocation over time and under a number of scenarios. This should take into account liability cashflows, assumptions made on longevity, transfer values, lump sum payments taken, and collateral requirements for derivatives held, among other factors. Reflecting the long-term nature of these risks, we advocate assessing how these factors affect a scheme's ability to meet its liability payments over the long term.

Setting the allocation between secure income assets

As with all strategic asset allocations, we believe it is important to create a diverse portfolio, particularly if the allocation to private markets is significant in the context of the overall scheme size. It is, however, important to recognise the limitations of mathematically modelling private market assets, given certain data limitations and the sometimes idiosyncratic nature of the underlying assets. As such, we advocate a mixture of quantitative and qualitative approaches to setting allocations within private markets.

Quantitative base portfolio

Our method begins with creating a quantitatively formulated base portfolio, taking account of the risk, return and correlation characteristics of the investment universe. We set portfolio parameters to target, for example, a minimum required level of return, cashflow distributed and/or duration. We then utilise our proprietary risk parity framework, which is a variant of 'maximum diversification' risk parity, to target the portfolio which has the strongest diversification characteristics. For the purposes of the basic model, we assume each asset class is equally risk efficient. However, in practice, we use further methods to refine this, drawing on the expertise of asset class investment professionals.

To illustrate the basic model, consider an example scheme looking for a portfolio that achieves gilts + 3%, made up of secure income assets. Figure 3 details the key characteristics of the example asset classes.[1] It can be seen that to achieve the return target, the example scheme could simply allocate fully to sub-investment grade private credit. However, we believe there are more risk efficient solutions to achieve this target.

Figure 3: key characteristics of secure income asset classes

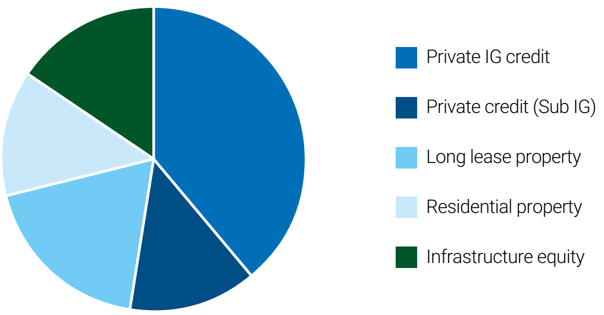
	Private IG credit	Private credit (sub IG)	Long lease property	Residential property	Infrastructure equity
Expected return over gilts	1.5%	3.0%	3.5%	4.5%	4.5%

Correlation matrix	Private IG credit	Private credit (sub IG)	Long lease property	Build to rent	Infrastructure equity
Private IG credit	1				
Private credit (sub IG)	0.4	1			
Long lease property	0.4	0.5	1		
Residential property	0.4	0.5	0.4	1	
Infrastructure equity	0.3	0.5	0.5	0.5	1

Source: LGIM. For illustrative purposes only.

In our view, a better solution could be achieved by targeting maximum diversification. In figure 4 we use our proprietary risk framework to arrive at a quantitatively defined base portfolio. This leads to a more intuitive outcome with a significant allocation to each of the broader range of secure income assets. By looking to maximise diversification, the resultant portfolio is 35% less volatile than simply investing fully in sub-investment grade private credit, while still achieving the gilts + 3% expected return.

Figure 4: Base portfolio, optimised utilising maximum diversification methodology[2]



Expected gross return: Gilts + 3.0%

Diversification ratio: 135%

Source: LGIM. For illustrative purposes only. Key risk: the value of an investment and any income taken from it is not guaranteed and can go down as well as up; you may not get back the amount you originally invested.

Qualitative assessment framework

Nevertheless, we believe that relying solely on a quantitative framework in isolation puts too much emphasis on the assumptions made, which will by their nature incorporate a degree of uncertainty. Furthermore, a quantitative method may not reflect scheme-specific factors that could advocate tilting the portfolio to one or other of the constituent asset classes.

To allow for this, we overlay a qualitative assessment framework which applies tilts to the quantitatively defined base portfolio. While the qualitative factors will vary from scheme to scheme, we have defined seven key characteristics we believe may be important for the majority of pension schemes in varying degrees. These are:

1. **Tradability:** even within illiquid assets, including secure income, some assets will be easier to buy and sell than others
2. **Ability to transfer *in specie* to an insurer:** eligibility for Solvency II matching adjustment
3. **Investment lead time:** the time until one can invest will vary and be a function of opportunities available in the market
4. **Diversification within asset class:** the ability to create diverse portfolio

1 These assumptions are purely for illustration purposes and should not be viewed as the characteristics of any particular fund

2 Diversification ratio is the volatility of the portfolio if correlations between asset classes were 1, divided by the actual volatility of the portfolio. A higher diversification ratio indicates that the portfolio is more efficient from a risk: return perspective

5. **Diversification at total portfolio level:** how diverse the asset class is versus the scheme's wider portfolio
6. **Cashflow generation:** the ability of the assets to deliver stable cashflows
7. **Cashflow profile:** the shape and nature (e.g. inflation linkage) of the cashflow profile and how this corresponds to the scheme's needs

Revisiting the example scheme, the heat-map in figure 5 illustrates how the qualitative framework works in practice.

We have assessed each of the asset classes against the seven qualitative factors above, ranking them from red (low score) to green (high score)[3]. For example, in the factor for potential for in specie transfer to an insurer, private credit performs strongly, reflecting its Solvency II eligibility. For similar reasons, residential property performs poorly on this factor. However, residential property performs very strongly on the diversification between asset classes, as its return profile exhibits low correlation to the example scheme's other assets.

Figure 5: Qualitative framework heat-map

	Private IG credit	Private credit (sub IG)	Long lease property	Residential property	Infrastructure equity	Example factor weight
Tradeability						5%
In-specie potential						5%
Lead time						25%
Diversification within asset class						10%
Diversification between asset classes						25%
Cashflow generation						5%
Cashflow profile						25%

Low ← → High

Source: LGIM. For illustrative purposes only.

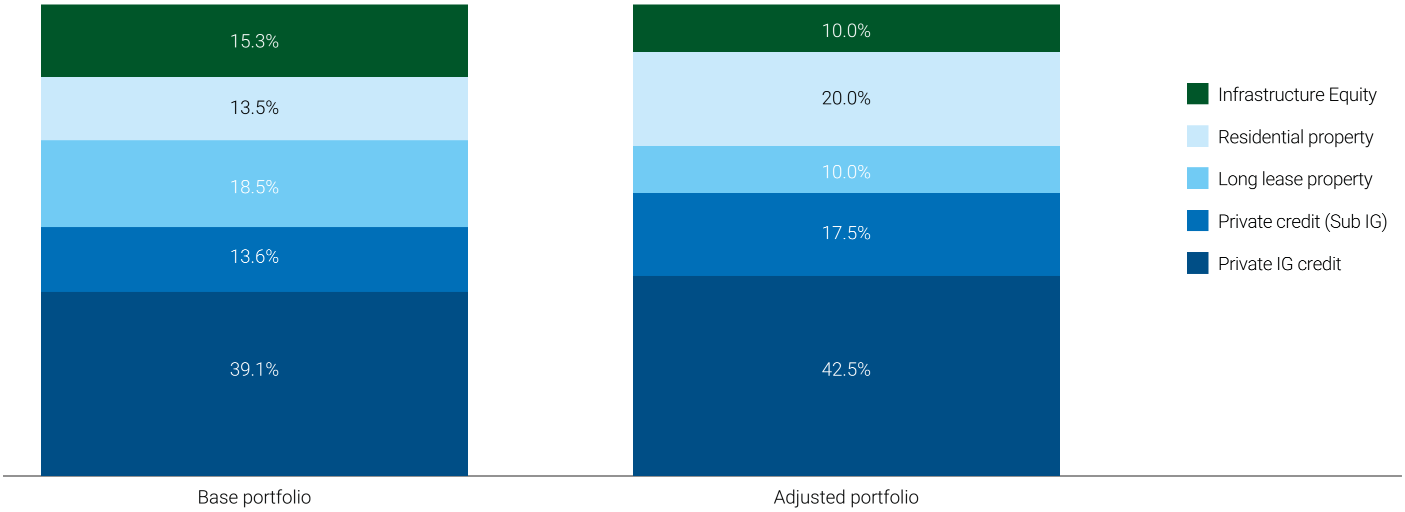
In addition to scoring each of these asset classes, they have been weighted according to their importance to the example scheme. Here, the scheme is fairly far away from buyout and is principally concerned with increasing its investment in long-duration assets, which may provide diversification from its existing strategy.

3 Please note that infrastructure debt, private corporate debt and real estate debt are included under the 'private credit' sections

Bringing the portfolio together

Figure 6 shows the culmination of applying the qualitative overlay to the base portfolio. The principal beneficiary from this preference is residential property, which has a shorter lead time in this scenario[5], is a good diversifier, and has a long cashflow profile which is linked to inflation. This results in its allocation increasing to 20%, at the expense of long lease property and infrastructure equity, reflecting their longer lead times. The resultant portfolio continues to meet the scheme's target of gilts + 3% expected return and shows significant diversification benefits. Please note that diversification is no guarantee against a loss in a declining market.

Figure 6: Utilising the qualitative framework to arrive at the final target portfolio



Source: LGIM. For illustrative purposes only.

Summary

While any ALM framework has its drawbacks, we believe this methodology is a good starting point for setting a strategic allocation to secure income assets. However, it is important to note that the long lead time to investment may mean this cannot be treated in the same way as a strategic allocation to public assets. Portfolio analysis above should be reviewed periodically through the investment period, to assess deployment levels, market dynamics and changes in requirements. Additionally, the nature of the underlying investments in each secure income asset class can vary significantly. We believe over-emphasis on achieving the target portfolio could lead to sub-optimal outcomes, causing investors potentially to miss out of 'off benchmark' opportunities. As such, we support a flexible approach with a holistic allocation across the various opportunities, with the above framework providing a useful guide.

5. Lead time factor reflects market conditions at a point in time and is subject to change. The assigned qualitative scores for this factor in the example are therefore purely illustrative

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