Think like an insurer, invest like a pension scheme

Private debt assets in cashflow-driven investing strategies

Contents

CDI strategies

Cashflow-driven investing (CDI) is about meeting the outcome that matters most to pension schemes – being able to pay out liabilities as they fall due. The approach involves investing in assets that generate predictable cashflows that can be used to match liabilities whilst still having the potential to generate attractive returns. This approach leads to more certainty of outcome in comparison to a traditional approach that concentrates on returns from growth and matching assets (a 'bar-bell' approach).

In practice, it means building a portfolio of high-quality investment-grade debt and debt-like assets that, after allowing for expected defaults, is designed to match liabilities and generate returns. Liability-driven investing (LDI) is also used as part of the strategy to fill in any remaining gaps between the asset and liability profiles.

The approach has been favoured by insurers for years; Now pension schemes are also considering and implementing it.

Including private assets in CDI can provide a yield uplift through illiquidity premia, as well as other benefits such as diversification and downside protection when compared to public markets. These factors have enhanced the case for increasing allocations to private assets.[1] Until recently, these assets were the domain of larger pension schemes with significant governance budgets. Now they can be accessed by schemes of all shapes and sizes; there are single and multi-strategy pooled funds available, as well as bespoke solutions.

This paper describes the private debt assets that might be suitable for CDI, and considers how pension schemes can make the most of today's opportunities in this competitive market.

Key takeaways:

1 The world is your oyster – many different types of private debt can be considered for CDI

As long as the predictability and security of income is high, a variety of private debt assets (e.g. infrastructure debt, real estate debt) can be considered for CDI strategies. Suitable opportunities can provide similar characteristics to public debt, while generating higher returns and lower risk - whilst also enhancing portfolio diversification.

2 Challenge convention to get the best outcome out of private debt assets

The long-dated private debt market is overcrowded, with many investors such as insurers chasing the same opportunities, leading to spread compression and longer capital deployment times. However, as pension schemes are not constrained by stringent insurance regulations, they are in a strong position to 'select against' insurers when investing.

The key is not to follow the herd, but use the flexibility denied to insurers, to invest in suitable shorter-dated senior secured debt assets. Investing in shorter-dated, floating-rate, private investment-grade debt, in conjunction with a LDI strategy, may result in the optimal returns for the amount of risk taken, even after taking reinvestment risk into account.

For schemes without an LDI strategy, there are ways to use a pension scheme's flexibility to achieve better returns on longer duration assets, but the scope is fairly limited.

3 The devil is in the detail – solutions design considerations

Close dialogue is needed between a pension scheme, their advisor(s) and asset manager to ensure the strategy is fit for purpose and the assets acquired meet the relevant criteria. A range of parameters will need to be agreed, including asset types, hurdle rate (e.g. spread over gilts) and investment quality. The time horizon to buy-out and/or the liquidity impact of unexpected transfers out of the scheme also needs to be kept in mind.

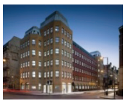
1. See Aviva Investors Alternative Income Study 2018 for further details. The study, which surveyed over 250 pension schemes and insurers in the UK and Europe, showed UK pension funds are planning the largest increase in allocations to alternative income, bringing their exposure closer in line with insurers in the UK, and pension funds and insurers in Continental Europe.

1 The world is your oyster

In order for private debt to be suitable for inclusion in CDI strategies, the assets need to generate predictable income. For this reason, the assets we consider are typically investment grade (IG) and need to be senior secured in the capital structure, so the investor has the additional security of a specific real asset or other form of collateral backing the debt.

The private debt market is evolving rapidly; there are many different assets that could be suitable for CDI. Examples of some of the main categories are set out below in figure 1.

figure 1. **Example of asset classes suitable for CDI**

	**Infrastructure debt**	Loans on infrastructure projects such as hospitals, schools, roads, utilities, etc.
	**Real estate debt**	Commercial real estate loans to finance the purchase of assets, such as offices, retail, industrial, etc.
	**Private corporate debt**	Private placements and direct lending to a variety of sectors and issuers.
	**Structured finance**	Bespoke / structured credit opportunities in asset, corporate and public sector financing.

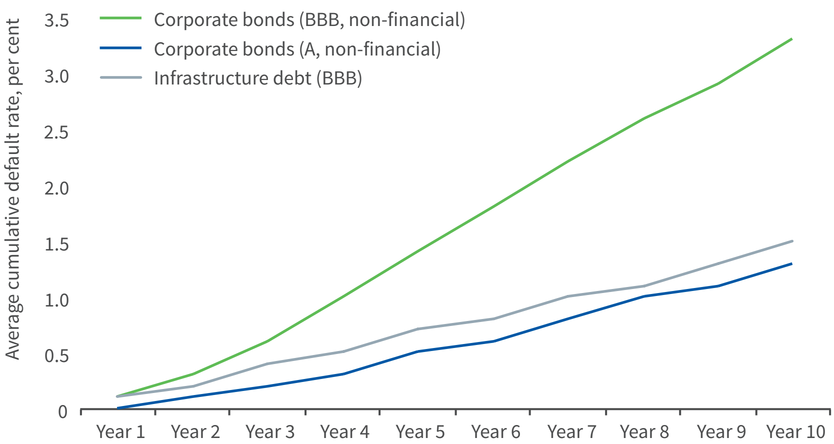
Source: Aviva Investors for illustration purposes only

Insurers have been active private debt investors for a long time, and over the last few years pension schemes have also started to invest.

Private debt can have similar characteristics to publicly-listed corporate bonds, but provide additional yield (in the form of illiquidity or complexity premia) and result in lower risk. In addition, private debt provides diversification away from public markets, which enhances diversification at the total portfolio level.

Although less liquid than listed credit, it is a natural asset class for pension schemes to consider as part of a CDI strategy. For example, infrastructure debt has a proven track record of lower defaults and higher recovery rates than equivalent-listed credits, as shown in figure 2 and 3 opposite.

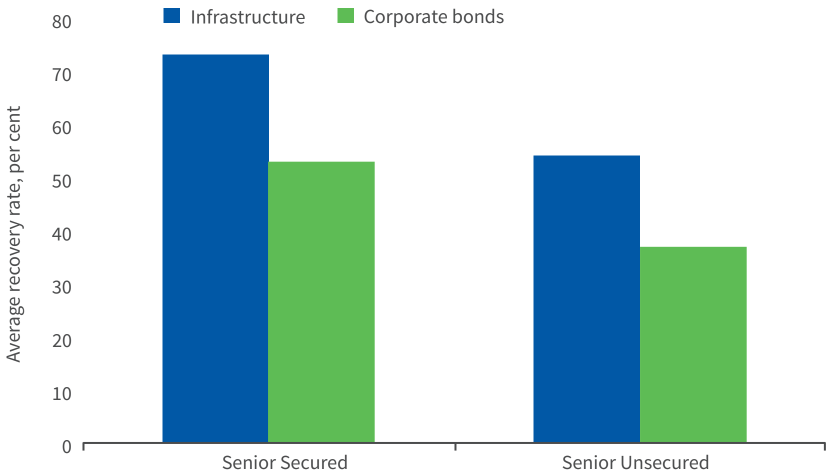
figure 2. **Historic default rates**



Source: Moody's – Infrastructure Default and Recovery Rates 1983 – 2016, July 2017.
For illustration purposes only

The default experience of BBB-rated infrastructure debt is closer to A-rated corporate debt than equivalently-rated corporate debt.

figure 3. **Historic recovery rates**



Source: Moody's – Infrastructure Default and Recovery Rates 1983 – 2016, July 2017.
For illustration purposes only

If default occurs, the recovery rates on infrastructure debt tend to be higher than for corporate bonds. Overall, the expected loss on infrastructure investments is lower than comparable corporate bonds.

Summary

A wide range of private debt assets could be suitable for CDI. Carefully selected assets can provide higher returns and lower risk than publicly-listed debt. In addition, private debt enhances portfolio diversification.

Carefully selected assets can provide higher returns and lower risk than publicly-listed debt. In addition, private debt enhances portfolio diversification

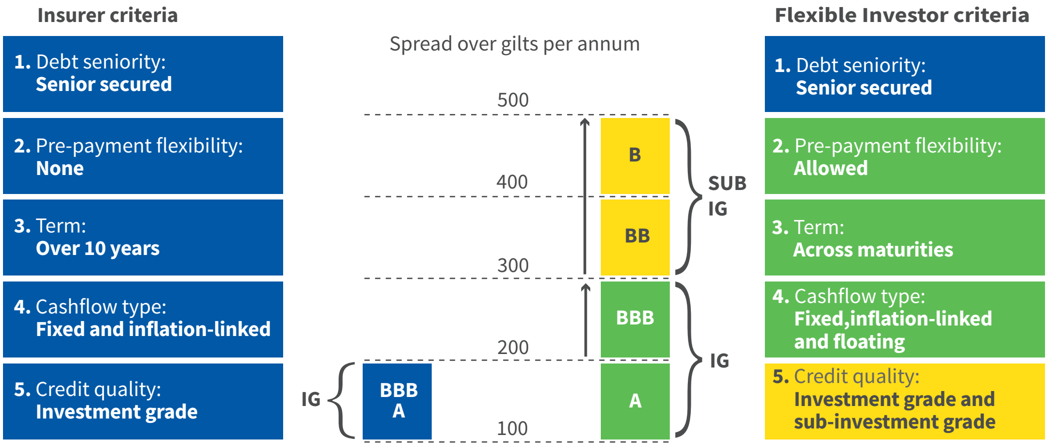
2 Challenge convention

Lessons from the insurance sector can be helpful for pension schemes. Unlike their insurer cousins, they are not constrained by stringent insurance regulations. This means that pension schemes can use their flexibility to 'select against' insurers when investing in private assets. In other words, they can think like an insurer, but still invest like a pension scheme.

Historically, annuity providers have been and continue to be major investors in private debt. However, given stringent and inflexible insurance regulations, activities focus on a narrow sub-set of opportunities that meet the eligibility criteria set out under Solvency II.

This puts flexible investors such as pension schemes in a strong position to 'select against' insurers, as they are not constrained by insurance regulations. Figure 4 below highlights the typical spreads over comparable gilts that might be achieved on private debt deals that satisfy insurers' criteria (shown on the left in blue) versus those that a flexible investor might achieve (on the right).
The illustration is in sterling, although including non-sterling issues also has the potential to enhance returns.

figure 4. **Flexible investors: using pension scheme flexibility to enhance returns**



Source: Aviva Investors, as at 31 October 2018. For illustration purposes only

Insurers typically invest in investment grade, senior-secured assets with no prepayment flexibility for the borrower, generating long-term, fixed-rate cashflows. Spreads would typically range between 100 bps and 200 bps annually over comparable gilts.

- More flexible investors can earn higher spreads while still investing in senior-secured debt. The range of returns would vary and depend on the appetite of investing in suitable sub-investment grade opportunities.
- By relaxing the 'no prepayment' requirement (criterion 2), term of the deals (criterion 3) and allowing investment in floating as well as fixed and inflation-linked debt (criterion 4), the spread for investment grade quality deals could be increased to 300 bps per annum.
- If there is appetite for senior-secured sub-investment grade deals, spreads could be increased further; to 400 bps per annum for BB-rated deals and to 500 bps per annum for B-rated deals.

What's the catch?

It is important to note most deals for a flexible investor that result in higher spreads tend to be shorter-dated, with maturities of 10 years or less, and floating-rate as opposed to fixed-rate or inflation-linked longer-dated deals.

This means the flexible investor has two main challenges to address:

a) The mismatch between cashflows from floating-rate assets vs. fixed or inflation-linked liabilities.

b) Reinvestment risk of investing in a shorter-dated, higher-yielding strategy vs. the longer-dated, lower-yielding one.

For clients with a LDI programme, challenge (a) can be addressed by converting floating into fixed or inflation-linked cashflows.

Challenge (b) needs careful consideration and management. This would involve starting with a calculation of the "break-even" reinvestment spread required to achieve the same returns for the shorter-dated flexible and longer-dated conventional strategies, then considering how achievable that spread is likely to be in public or private markets. In practice, the re-investment could often be done into public debt of similar or higher credit quality, which would increase the flexibility of the strategy whilst still providing higher returns than a longer-dated illiquid strategy.

The optimal way to access private debt markets today is to combine a flexible private debt strategy with an LDI programme

Summary

The optimal way to access private debt markets today is to combine a flexible private debt strategy with an LDI programme. If designed well, this can lead to better outcomes then chasing over-bid, longer-dated private debt assets, and take less time to deploy.

What if there is no LDI strategy to lean on?

Many pension schemes have now embraced LDI. The recent XPS Investment LDI Survey[2] shows that LDI strategies are used to hedge c.£965 billion, representing c.49 per cent of the total UK pension scheme liabilities.

For those schemes that do not employ LDI strategies, it is still possible to try to 'select against' insurers by relaxing some of the criteria discussed above, namely introducing the following flexibility:

Prepayment flexibility: Insurers would typically be investing in so-called "matching-adjustment" eligible assets. These assets do not have any prepayment flexibility for the borrower (i.e. criterion 2 in Figure.4 above). Introducing prepayment flexibility could render the assets unattractive for insurers, but they still could be attractive to a pension scheme. This in turn could lead to higher spreads and faster deployment times.

Credit quality: Insurers would typically invest in private debt assets rated BBB+ or above. This leaves a cushion of three notches above sub-investment grade. Introducing the flexibility to invest in assets rated BBB- or higher could open more opportunities for pension schemes.

Note the impact of the measures set out above will be relatively limited, as the overall approach is still broadly aligned with the conventional way of thinking about CDI. It still means following the herd and competing for a limited pool of opportunities.

Summary

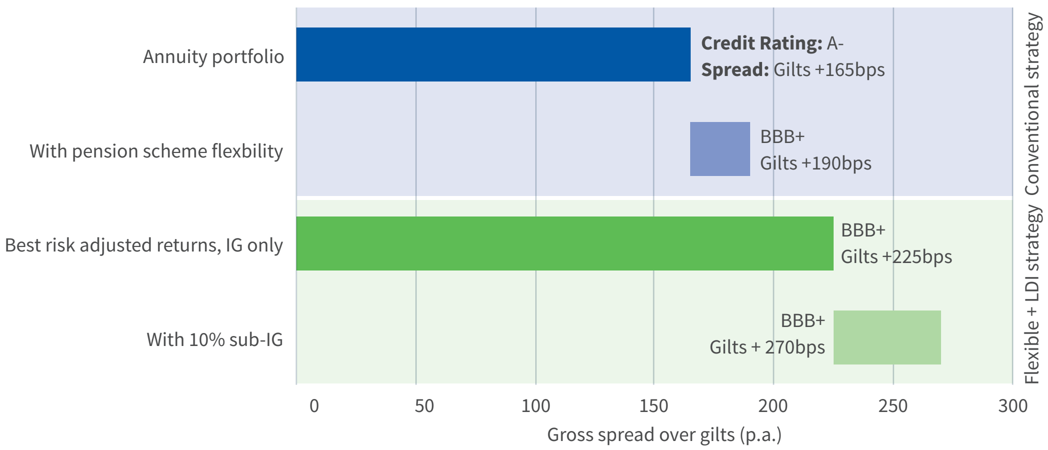
If a pension scheme is set on investing in long-dated fixed and inflation-linked private debt, it may be helpful to allow limited flexibility around prepayment and include deals rated BBB- and above. This might contribute to slightly better spreads and potentially faster deployment than what can be achieved when competing head on with insurers.

2 Source: XPS Pensions Group, as at 31 July 2018

3 The devil is in the detail

To bring these ideas to life, four illustrative multi-asset private debt model portfolios are set out below. The analysis is for illustrative purposes only, based on the UK private debt deals Aviva Investors is aware of and/or participating in. All portfolios are of investment grade quality and assume an adequate level of diversification across different types of private debt assets, as set out in Section 1.

figure 5. **Example: Comparing returns from constrained 'conventional' and more flexible investment approaches**



Source: Aviva Investors internal estimates as at 31 October 2018. Returns illustrated are in sterling, not guaranteed and may not be achieved.

The top two portfolios (in blue) assume a conventional approach; specifically, investing in long-dated assets only with a duration of around eleven years.

- The typical annuity portfolio is the most constrained strategy, where the assets need to meet the insurers' criteria discussed previously. It can achieve gilts + 165bps p.a. in current markets, with an overall credit rating of 'A- '. (The assets acquired have a minimum BBB+ rating.)
- The second portfolio shows what could be achieved if pension schemes relax some of the insurers' investment criteria, but still target long-dated fixed or inflation-linked assets suitable for a CDI strategy. The spread could be increased from 165bps to 190bps p.a. over gilts for the BBB+ strategy. This illustrates the point made earlier that the impact on spread is relatively limited.

The bottom two portfolios (in green) show the impact of introducing flexibility to invest in shorter-dated, senior-secured private debt assets. Both portfolios have credit spread duration of around seven years and around two thirds of the cashflows are floating as opposed to fixed rate; LDI is used to convert any floating into fixed-rate exposure.

- The investment grade (IG) only portfolio results in a higher spread (gilts +225bps p.a.) for the same BBB+ credit rating.
- Introducing limited flexibility to invest 10 per cent of the portfolio in sub-investment grade assets, while still maintaining an investment grade quality portfolio on average, increases potential spread gains further, from 225bps p.a. to 270bps p.a. over gilts for the BBB+ rated strategy.

Other factors to bear in mind in solutions design

Although the analysis highlights the impact of the changing the nature of the debt (including credit quality and cashflow maturity and type) on potential spreads, a wide range of other parameters need to be considered by prospective investors and advisors.

These include:

- **Asset types:** the extent of the investment universe and whether all the private debt assets discussed in Section 1 should be included. A multi-asset approach, where the asset manager has discretion to select within a wide range of asset classes within the implementation phase, may lead to a better outcome. Specifically, it would make it possible to exploit relative value opportunities between asset classes and decrease deployment time. In the model portfolios, it is assumed all four asset types are included.
- **Diversification requirements:** In order to manage overexposure to any single asset class, limits need to be set. In the model portfolios in figure 5, the assumption is that no more than 40 per cent can be invested in any single private debt asset class. In practice, other limits could be introduced, such as maximum deal size, and authorised deal structures, such as bi-lateral, co-investment and syndications.
- **Tolerance for illiquidity:** an important feature, as new pensions freedoms have resulted in some unexpectedly large transfers out of DB schemes, and as liquidity has clearly diminished in some listed instruments since the global financial crisis. All schemes need to test multiple scenarios to understand how portfolios are likely to perform in different market environments and have robust liquidity management frameworks, regardless of the strategies pursued.
- Nevertheless, most pension schemes have modest allocations to private debt assets. For schemes looking at higher allocations, careful consideration is required. Note that the flexible strategies (in green, as set out in figure 5) are shorter-dated and would naturally produce higher cashflows in the early years, which could be used to meet liquidity needs.
- **Timeframe to buy-out:** for pension schemes set on a buy-out, passing responsibility for paying scheme members to an insurer, there is a misconception that it is not possible to invest in illiquid private debt assets. Unless the plan to buy-out is very short term, it is still possible to invest in private debt assets by aligning the time horizon with the appropriate type of private debt assets.

Summary

In the design stage, a number of parameters need to be agreed for the mandate. Parameters around credit rating, maturity and cashflow-type will have an impact on what gilt spreads are achievable, as well as the time takes to deploy capital.

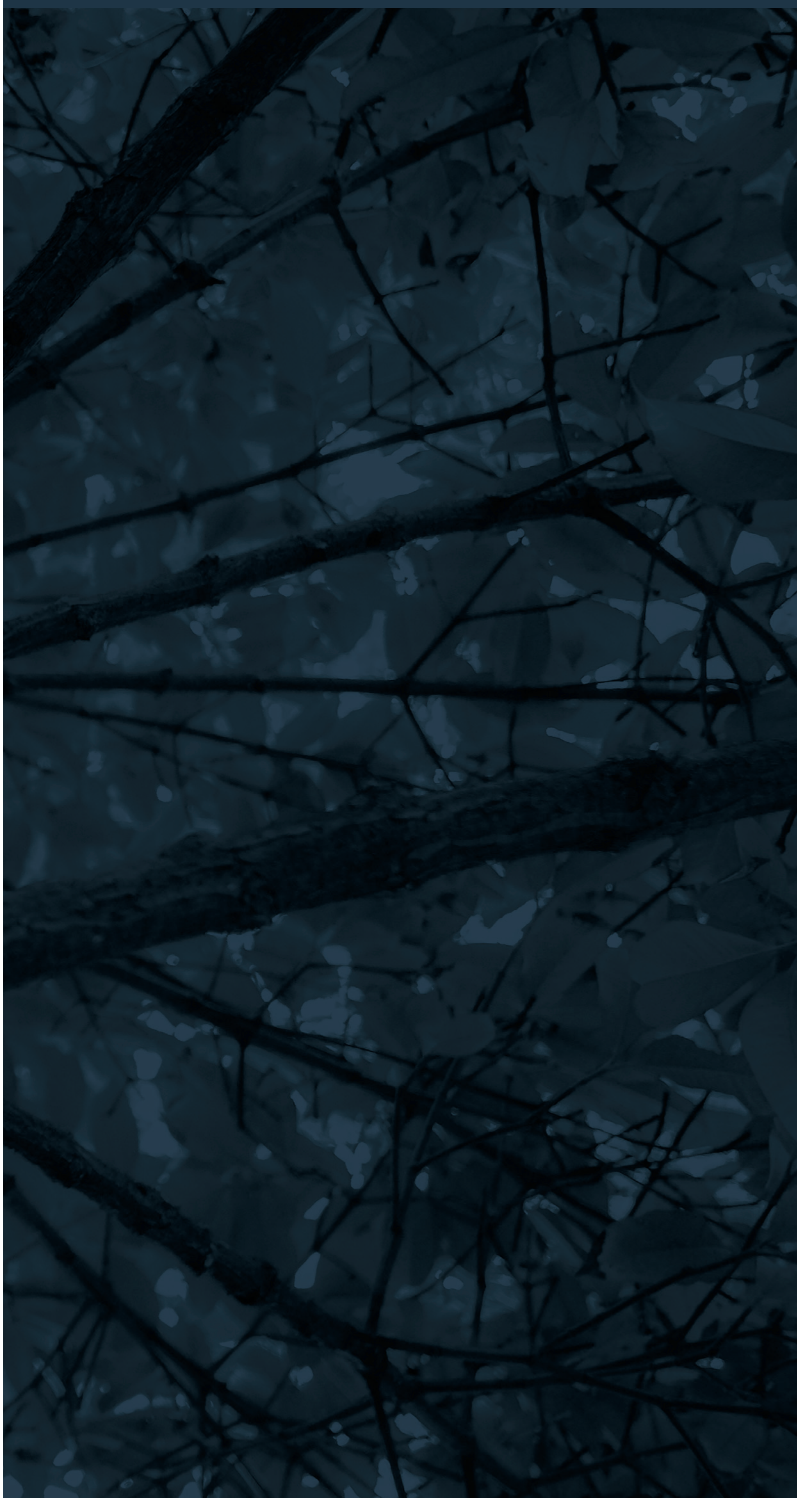
In addition, due consideration should be given to other factors, such as liquidity needs and if buy-out is the ultimate target (and if so over what timeframe). All these factors will help to ensure the private debt mandate is fit for purpose.

Conclusion

CDI is unlikely to provide flawless liability matching, but it can help pension schemes to increase the certainty of meeting these liability cashflows whilst generating returns. Evolving to CDI, and including private debt, could be a natural step for schemes with more flexibility and tolerance for illiquidity. Keeping the investment universe broad can help investors access a wider variety of premia and speed up deployment times.

Given the majority of defined benefit pension schemes are closed, maturing, and either cashflow negative or on the cusp of becoming so, the demand for these assets is expected to increase.

The reality, however, is that a large number of long-term investors are already competing for assets in a relatively small arena, forcing prices higher and extending deployment times for long-dated fixed and inflation-linked assets. But by looking outside insurers' parameters in particular, pension schemes may find it is possible to achieve better long-term outcomes for their members.



Key Risks

The value of an investment and any income from it can go down as well as up and can fluctuate in response to changes in currency exchange rates. Investors may not get back the original amount invested.

Where funds are invested in illiquid private assets, investors may not be able to redeem any units in the fund when they want because illiquid private assets may not always be readily saleable. If this is the case we may defer a request to redeem units

Bond values are affected by changes in interest rates and the bond issuer's creditworthiness.

Contact us at

Aviva Investors
St Helen's, 1 Undershaft
London EC3P 3DQ
+44 (0)20 7809 6000

www.avivainvestors.com

177453 - 05032022