The impact of credit risk for pension plans engaging with CDI

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Cashflow-driven investing (CDI) has gained significant traction in recent years as pension plans have successfully de-risked and strengthened their balance sheets over the last decade. Increasing numbers of plans are able to allocate significant proportions (potentially all of their assets) to fixed income like assets so that cashflow income closely matches expected liability payment, thus providing a simpler hedge and reducing the complexity of portfolios. Investment products, strategies and asset classes have developed to facilitate this approach.

Recent events have only served to increase the applicability and relevance of this approach. Recent market volatility has seen pension scheme funding levels significantly improve despite asset price falls and the yields available on CDI strategies look significantly more attractive. Furthermore, the recent draft DWP pension regulations (Occupational Pension Schemes (Funding and Investment Strategy) regulation 2023[1]), points schemes firmly towards a 'low dependency investment allocation'. This is defined as one where the assets of the scheme are invested in such a way that the cash flow from the investments is broadly matched with the payment of pensions and other benefits under the scheme – this is CDI.

In short, cashflow driven investing is conceptually a simple approach to investing. If an asset owner has a clear view of the payments they are expecting to make to beneficiaries, cashflow driven investing seeks to construct an asset portfolio that is expected to generate the same payments, all with a view to ensuring that the asset owner can then use those proceeds to make the payments to beneficiaries. Our PFaroe DB solution has always had cashflow analysis at its heart and has facilitated this type on investment approach and analysis for over a decade through providing high quality liability and asset information to pension plans.

As an investment approach, it shifts the focus of an investor's risk management approach and the associated risk metrics used. While a typical investment risk approach is likely to focus market risk and the variability and risks to metrics such as funding level or the surplus/deficit of the pension plan, a cashflow driven investing approach moves investors towards considering whether or not they will receive the cashflows they are expecting from their portfolio, and when these cashflows are likely to be received.

While there are a number of cashflow timing risks that need to be managed, credit risk (the risk of not receiving the promised cashflows) is the most significant. A simple approach often used in this area is to use the security or issuer credit ratings and apply a haircut to contractual cashflows based on historical default rates. Whilst this is a prudent approach and relatively straightforward to implement, credit risk sitting high up on the risk agenda suggests considering more sophisticated approaches.

Moody's have explored an approach to apply our market leading expected default frequencies (EDF) to the contractual asset cashflow profiles PFaroe DB has produced for our clients for over a decade. This applies a term dependent, forward looking default measure to adjust the cashflow profile for expected losses on default and the timing impact from default (which will tend to pull any recovery forward). This provides a high quality picture of how well cashflows from the asset portfolio will match the expected liability payments.

Pension plans have become increasingly familiar with and widely use market risk and relative value measures such as Value at Risk, PV01, z spreads. Whilst these remain relevant, in a cashflow matched world they potentially become less critical to risk management. Whilst there are long standing credit risk measures in play such as credit VaR, the modelling approach we have developed here facilitates the creation of some simple new metrics which such as expected value loss and an implied credit spread.

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As a risk management approach, scenario testing has grown significantly in importance. It is a powerful tool in this new context of CDI where narratives can be used to help provide context around the output and allow users to explore the impact of a range of possible scenarios from the macro economic to the increased focus on climate.

In times of market and economic stress, CIOs and decision makers need to be able to understand the impact of changing situations on-demand. Technology solutions facilitate this through instant access to information required. Through PFaroe DB, we ultimately seek to convert complexity into data and analysis that can be applied to real-world portfolios, helping those responsible for risk management and investment decisions for pension schemes make the best decisions possible.

PFaroe DB

PFaroe DB has focused on providing detailed asset and liability cashflow profiles since inception over ten years ago. Assets and liabilities can be modelled at the required level of detail in accordance with the data available, and hybrid approaches are possible where parts of a portfolio are modelled in full detail while others use a proxy or representative approach.

The pension liabilities can be modelled at the individual member level or using 2 dimensional cashflow tables, again in accordance with data availability and the ultimate needs of the client and their use case. The solution is capable of projecting contractual cashflows for a wide variety of fixed income assets, based on modelling the security in accordance with the relevant terms and conditions.

The future

The landscape for pension scheme risk management has dramatically changed over the last ten years. For many, this has resulted in a much more closely managed risk position, perhaps looking more like an insurer's annuity book. CDI strategies are unquestionably a key trend for pension schemes to follow. But the industry must not lose sight of the fact that new risks and considerations for pension schemes are constantly emerging. Unforeseen macro and geopolitical events clearly add layers of complexity, underscoring how the nature of risks will continue to evolve in the future.

This is why sophisticated pension schemes take a holistic view of how their schemes to respond to different risk events. By focusing on a broader range of risk measures, they are ensuring their schemes are less likely to be impacted by any unexpected risks that emerge. With demands on trustees increasing both in terms of managing data and risks and being seen to manage them, smart technology such as PFaroe DB is an essential part of how schemes achieve this.

FOOTNOTES:
1 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1093731/draft-occupational-pension-schemes-regs-2023.pdf

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