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# Designing an investment strategy to support PPO liabilities

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## Summary

Periodic payment orders (PPOs) are an increasingly significant feature of insurance and reinsurance balance sheets. Given the very different characteristics of PPO liabilities compared to typical motor insurance liabilities, distinct investment strategies should be considered to support PPOs, and several potential strategies are discussed within this paper.



## PPO liability features

Over the past decade, PPOs have increasingly been used to settle the most serious injury claims, with compensation awarded as a series of regular inflation-linked payments rather than as a single lump sum. As such, motor insurers and reinsurers need to invest to back increasingly significant liabilities, that tend to have different characteristics compared to typical motor insurance liabilities.

Key features of PPO liabilities include:

- **Long duration:** Many motor insurers have found themselves with a significant book of liabilities with a duration of 20–30 years, rather than the 2–3 years duration that is more typical in the rest of their book.
- **Inflation-linkage:** PPO liabilities most typically have an explicit, formal link to a specific and uninvestible inflation index, namely, the ASHE 6115 index – which is the Office for National Statistics' benchmark for measuring wage inflation in the UK's care worker sector.
- **Illiquidity:** The very long-term nature of PPOs and the absence of any policyholder surrender option mean that these liabilities have an illiquidity characteristic that is unusual in the UK general insurance business.

## PPO investment considerations

As reserves held for PPOs become a larger part of the balance sheet, managing the investments backing these liabilities is an increasingly important task. Insurers and reinsurers should consider distinct investment strategies to support their PPO liabilities. Within this paper, we summarise a range of potential investments that might be appropriate for consideration given the liability characteristics.

These investments share some common features:

- **Sterling returns:** PPO liabilities are a UK phenomenon and hence denominated in sterling. This does not preclude the use of overseas assets, but non-GBP assets need to be attractive on a GBP-hedged basis.
- **Long and real duration:** PPO liabilities are clearly long duration. Long-term inflation over the lifetime of the liability is thus a key determinant of investment return requirements. While the ASHE 6115 index and the UK Retail Price Index (RPI) are closely correlated, they are far from perfectly aligned. Since there are no tradeable securities specifically linked to the ASHE index, the starting point of any investment strategy is often index-linked gilts and inflation swaps, both linked to RPI.
- **Illiquidity premium:** Settled PPOs have a predictable long-term payment profile and such annuity-style payments mean there may be an opportunity to invest in illiquid assets. However the illiquidity premium relative to risk-equivalent liquid assets would need to be sufficiently attractive.

## Investment risk appetite and solvency capital efficiency

Motor insurers, like writers of many other forms of insurance business, typically have a low investment risk appetite and are capital-constrained. That's why the solvency capital efficiency of investment strategies will be an important consideration, especially when considering that the longer duration assets which will be needed to match PPO liabilities carry a naturally higher solvency capital requirement (SCR) than the short-dated assets typically held by motor insurers and reinsurers.

## Collateral constraints

Synthetic inflation-linked securities can be created, for example by overlaying an inflation swap to a corporate bond. The inflation swap would need to be supported by collateral and the underlying corporate bond itself is unlikely to be eligible as collateral. Ensuring the availability of sufficient eligible collateral is an important consideration when adopting such a strategy.

## Potential investment strategies and asset class opportunities

Investment strategies often considered by UK motor insurers and reinsurers to meet PPO liabilities are summarised in the below table, each of which is further described in the sections that follow.

Asset Class/Strategy	Expected solvency capital requirement (SCR)	Excess return over risk free rate (RFR) <sup>3</sup>	Inflation Linkage	Pros/Cons
Long-term index linked gilts	0% <sup>1</sup>	50 to 75bps	UK RPI	<ul style="list-style-type: none"> <li>✓ Explicit inflation linkage</li> <li>✓ Low capital requirement</li> <li>× Limited excess return over risk free rate</li> <li>× ASHE 6115 index is not perfectly aligned with UK RPI</li> </ul>
Long-term inflation-linked investment grade corporates – mainly utilities, with an average BBB credit rating	30% <sup>1</sup>	150 to 250bps	UK RPI	<ul style="list-style-type: none"> <li>✓ Explicit inflation linkage</li> <li>✓ pick-up over the risk-free rate</li> <li>× Sector concentration within issuers</li> <li>× Poor liquidity</li> </ul>
Synthetic inflation-linked investment grade corporates – diversified exposure across sectors and issuers	15.5% <sup>1,2</sup>	150 to 200bps	UK RPI	<ul style="list-style-type: none"> <li>✓ Explicit inflation linkage</li> <li>✓ pick-up over the risk-free rate</li> <li>✓ Improved diversification across issuers and sectors</li> <li>× Complex operational set up with derivatives</li> <li>× Eligible collateral requirements</li> </ul>
Liability-driven investment (LDI)/ cashflow-driven (CDI) approach	Bespoke	Bespoke	Bespoke	<ul style="list-style-type: none"> <li>✓ Expected returns in line with risk appetite</li> <li>✓ Customisation potentially limited by fund availability</li> </ul>
Illiquid assets – mainly infrastructure, utilities, renewable energy, transportation and university-sponsored student accommodation	Variable	Variable illiquidity premium in the region of 25-150bps	Variable	<ul style="list-style-type: none"> <li>✓ Pick up over the risk-free rate</li> <li>✓ Availability of assets with explicit inflation linkage</li> <li>× Difficulty sourcing</li> <li>× Limited liquidity</li> </ul>
Protected equity	39-49%		No explicit exposure	<ul style="list-style-type: none"> <li>✓ Potential pick-up over the risk-free rate</li> <li>× No explicit inflation linkage</li> <li>× High capital requirements</li> <li>× Exposure to equity market NAV volatility</li> </ul>

<sup>1</sup> The estimated capital requirements shown are illustrative and relate only to the spread risk SCR.

<sup>2</sup> For A-rated issuance at 20 years duration.

<sup>3</sup> Returns in excess of the risk-free rate (SONIA), as at 30 June 2024.

## Long-term index-linked gilts

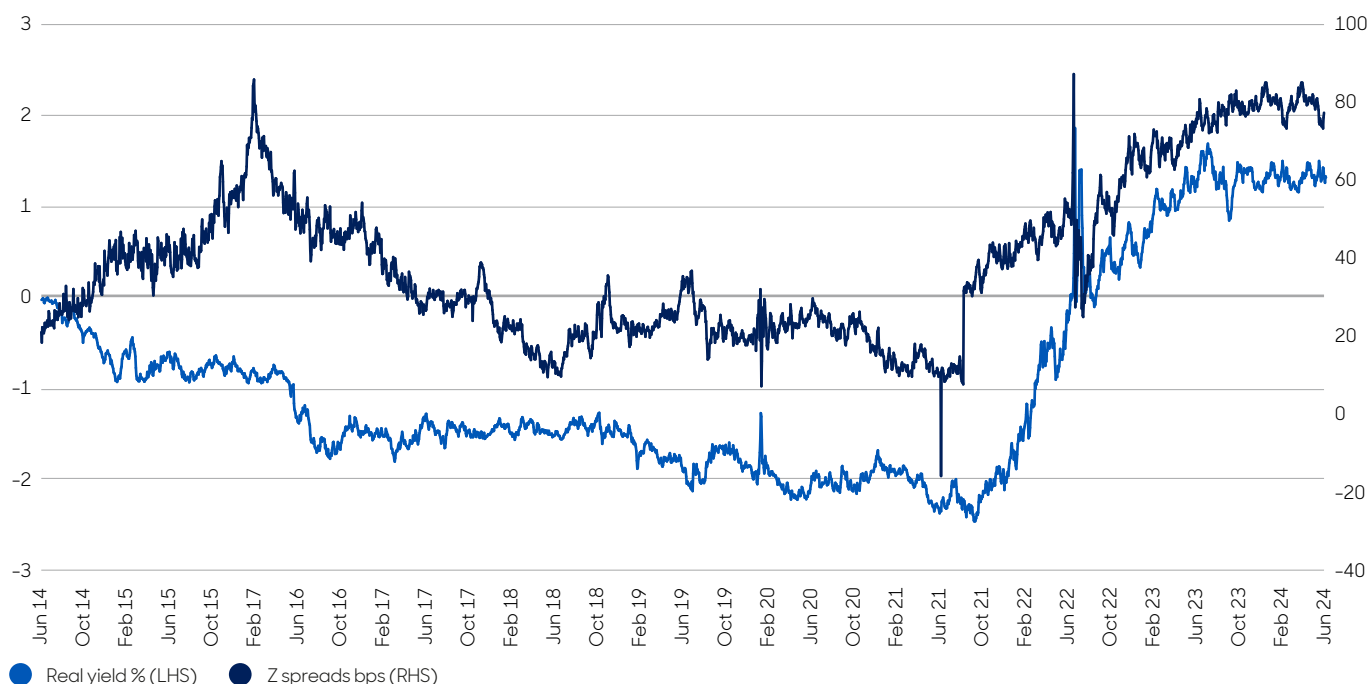
Given the desire for long-duration real returns and strong asset covenants, the default starting-point of any investment strategy for PPO liabilities is likely to be UK index-linked gilts.

While index-linked gilts will clearly not achieve a target return of 100 to 200 basis points in excess of the long-term real risk-free rate, they can still serve as a useful benchmark for more ambitious allocations.

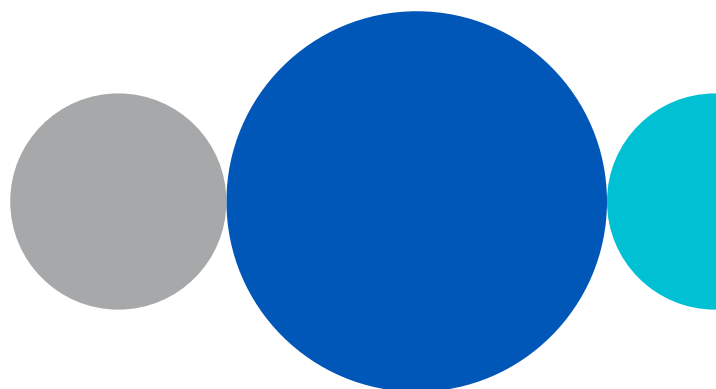
The valuation for this asset class has improved dramatically since 2021, with real yields moving back from negative territory as shown in figure 1. Index-linked gilts also benefit from any spread on gilts over swaps (c.70bps at longer tenors, as at June 2024).

While liquidity in index-linked gilts is more challenging than for conventional gilts, index-linked gilts are among the most heavily utilised assets for inflation-hedging. PPO liabilities are typically linked to the ASHE inflation index, rather than the Retail Price Index (RPI). However the degree of correlation between the indices and the absence of tradeable securities linked to the ASHE index means that index-linked gilts can provide some necessary inflation exposure.

Figure 1: Real yield and spread on the 2055 index-linked gilt



Source: Bloomberg, 26 June 24. For illustrative purposes only.



## Long-term inflation-linked investment grade corporate bonds

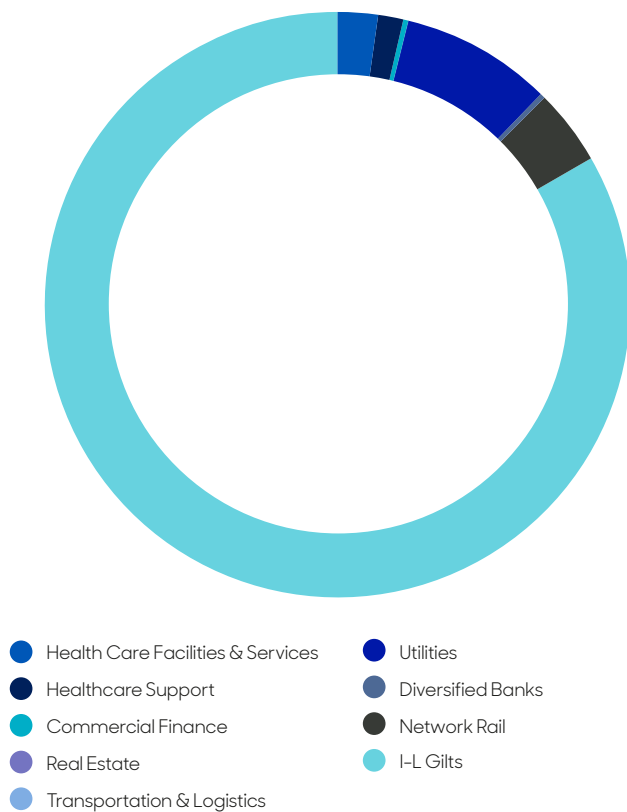
There is potential for bond yields and expected bond total returns to be enhanced by sourcing long-term index-linked bonds that are issued by companies, rather than the UK government.

The yield pick-up would be in line with the prevailing credit spread for the issuer. However, this pick-up needs to be enough to compensate for the cost of the additional regulatory capital that is required to be held. For example, an A-rated corporate bond with duration of 20 years has a standard formula credit SCR charge of 15.5% compared with zero for an equivalent duration index-linked gilt.

While corporate bond yields can be attractive, it is important to note that the corporate issuers of inflation-linked bonds tend to be heavily clustered within a single sector – utilities – creating concentration risk. In addition, market liquidity can be very challenging, with high bid-offer spreads and issues with trading larger volumes.

**Figure 2: Market cap of 10yr+ inflation-linked investment grade bonds**

Market cap of 10yr+ inflation-linked investment grade £ bonds (Tot £21.7bn)



Source: Bloomberg, as at July 2024.



## Synthetic inflation-linked investment grade corporate bonds

For those insurers comfortable with using derivatives in portfolio construction, it may be possible to synthetically recreate a diversified bond portfolio with investment grade credit risk and long-term real duration. Some examples of possible structures include:

- Long-term sterling investment grade (nominal) corporate bonds & an inflation swap
- Long-term index-linked gilts & a credit default swap index (CDX)
- US dollar investment grade (nominal) corporate bonds and a cross-currency swap and a sterling inflation swap.

Derivatives require a pool of eligible collateral to be available, which can cause a drag on returns. Strategy choices will be determined by relative market pricing, liquidity requirements and appetite for complexity.

## Using an LDI/CDI approach

By using a liability-driven investment (LDI)/cashflow-driven (CDI) approach, insurers can invest in a range of assets. While not distinct in terms of underlying asset exposures, what these strategies do differently is consider the expected liability cashflows. As such, an asset portfolio can be constructed that matches the liabilities (as closely as practicable) in either risk terms (LDI) or cashflow terms (CDI).



## Accessing illiquidity premia

Illiquid assets can be found across asset classes, including corporate debt, commercial real estate lending and infrastructure. Such assets can provide an opportunity for enhanced investment returns since they typically pay an illiquidity premium. This illiquidity premium varies according to factors including supply/demand dynamics, market conditions, and the underlying nature of the investment.

The longest-duration illiquid investments tend to provide finance for infrastructure and related assets with long economic lives, such as utilities, renewable energy, transportation and university-sponsored student accommodation.

Whilst it cannot be applied to PPO liabilities, the matching adjustment allows those insurers with matching adjustment approvals in place to take credit for the illiquidity premium on certain long-dated liabilities, subject to a strict set of requirements. This has resulted in strong demand for long duration illiquid assets, which without strong sourcing capability and careful asset selection, can compete away much of the economic benefit.

## Equity strategies

An exposure to equity markets is another option, although high equity volatility does mean higher risk. An investment strategy that incorporates equities will therefore be more regulatory capital-intensive, with the standard formula SCR for equity risk being 39% (before the impact of the equity dampener).

While the higher risk of equities will put off many risk-averse UK motor insurers, volatility, and hence risk, can be managed in several ways and a small allocation to equities (for example, up to 10%), may be suitable for some PPO books.

One way to manage risk is to use derivatives. For example, collar strategies involve the buying of put options to limit potential losses while selling call options can help pay for the cost of the puts, at the cost of also capping gains. These collar strategies can be tailored to meet individual requirements – In particular, a specific level of SCR can be targeted.

Another option could be to take equity exposure in the private markets, where a potentially attractive avenue can be Public Private Partnership infrastructure (often referred to as concession). These strategies often have strong sustainability credentials with targeted 12–15% net returns and, post-construction phase, they can deliver long duration annuity-style cashflows.



## Conclusion

PPO liabilities are very different to the standard liabilities of motor insurers and reinsurers. As such, a dedicated PPO asset strategy will also look very different.

There are a wide range of asset classes that can play a role in meeting the investment objectives and criteria of PPO investors. We have outlined several within this paper but this list is far from exhaustive.

There is no one-size-fits-all 'optimal' solution. Return objectives, appetite for risk, capital budgets, complexity, (ii) liquidity, market conditions, and desired asset allocation sizes all play a role in determining the appropriate strategy.

That's why a consultative approach between an insurer and an experienced insurance asset manager is essential for success. abrdn's experienced team of insurance specialists would be delighted to discuss any of the investments and strategies outlined in this paper with you.



## Important Information

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Past performance does not predict future returns.

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