Written evidence from the BT Pension Scheme Management (BTPSM) LDI0037

We welcome the opportunity to respond to the inquiry's call for evidence on defined benefit pensions with liability driven investments (LDI).

About BTPSM

BT Pension Scheme Management (BTPSM) manages the BT Pension Scheme which is a defined benefit (DB) pension scheme for employees, former employees and dependents of BT Group and some of its associated companies.

As a DB scheme, BTPS pays its members an income for life, based on a formula that takes into account their salary and the length of time they've been a member of the Scheme. Unlike defined contribution (DC) pension schemes, members' pensions aren't directly affected by the ups and downs of the stock market.

The Scheme has c.268,978 members, c. £47bn of assets and pays out c.£2.5bn in benefits each year. It is one of the largest corporate pension schemes in the UK.

The BTPS Trustee has appointed BTPSM as its investment advisor and therefore is required to discharge the Trustee's fiduciary responsibility.

BTPSM is the sole liability driven investment (LDI) manager of the pension scheme supported by a dedicated in-house operational resource.

As one of the largest DB schemes in the UK we believe we are well placed to provide an insight into the recent gilt market volatility and the impact on pension schemes.

Overview

The Scheme's main objective is to ensure there are sufficient assets to pay benefits to members and their beneficiaries as they fall due, and that all members and beneficiaries receive the benefits to which they are entitled under the Rules of the Scheme.

In considering the approach to meeting this objective, we take into account the expected progression of the Scheme's annual benefit payments relative to the projected level of Scheme assets as the Scheme matures.

We have set an objective to reduce the level of investment risk gradually over time and to increase the level of matching between assets and liabilities as the proportion of retired members increases.

By no later than 2034, we currently intend to be self-sufficient on a low-risk basis. That means we will hold sufficient assets such that, when invested in a portfolio consisting predominantly of appropriate bond and bond like investments, it would be reasonable and prudent to expect the assets to provide adequate income plus capital repayments each year. This will enable benefit payments to be met in full as they fall due and our reliance on BT as our sponsor would be low.

The Scheme is exposed to five main risk factors: changes in long term UK interest rates, changes in UK inflation, changes in longevity, asset risk, liquidity and cash flow risk.

Recognising these risks, the Trustee embarked on a programme to increase the Scheme's hedge ratio for interest rates and inflation in 2012 and sought to reduce the level of investment risk gradually over time, with the intention of moving to a substantially lower risk investment strategy by 2034. The Trustee has been engaged in a sustained programme to hedge the Scheme from fluctuations in interest rates, inflation and longevity. As a result, the Scheme's hedge ratios in respect of interest rates and inflation have increased from c20% to c70% (on a solvency type basis) during the period 2012 to 2022.

Were we to seek to be self-sufficient on a low-risk basis immediately rather than in 2034, the consequences for BT (upon whom we ultimately rely for Scheme funding) would be very significant, as the Scheme's deficit is around £4.4bn.

Managing volatility
We take an integrated approach to the management of risk and return in the Scheme. The investment of the Scheme's assets is set to be consistent with funding a defined level of benefits within an acceptable level of risk, having regard to the covenant of BT, and the funding requirements in the Scheme Rules and relevant legislation.

The approaches used by the Scheme to reduce funding volatility include:

- Reducing the interest rate and inflation risk in the liabilities (through the use of both liability driven investing and increasing the allocation to corporate bonds).
- Reducing the risk in the "growth" assets whilst retaining enough risk to generate the investment returns required to achieve the Scheme's 2034 funding target;
- Hedging longevity risk in the liabilities.

The funding position is assessed formally every three years, when cash contributions to BTPS are agreed between the Trustee and BT. Stability of the funding position helps provide certainty for BT in running its business. For example, a higher deficit than expected could reduce BT's ability to invest in its business and meet payment obligations. It could also impact BT's share price and credit rating.

BTPS has had a long-standing objective to hedge at least 60% of its interest rate and inflation risk (on a Solvency type basis or c.90% on a Technical Provisions basis). This goal was achieved during 2021 after building our LDI programme and management team in-house since 2012.

The implementation of the interest rates hedging programme has been key in managing the volatility of the Scheme's funding position and has proved very effective.

For example, at the Scheme's last triennial valuation in 2020, the Scheme's funding deficit was £8.0bn. We estimate that in the absence of the LDI hedging programme, the deficit would have been £7.6bn higher (i.e. £15bn or more) that would have required BT to pay significant additional contributions to repair the deficit. For context, at the date of the triennial valuation, June 2020, the market capitalisation of BT was c £11bn.

The Scheme's most recently reported deficit was £4.4bn as at June 30th 2022. Since then, our hedges have performed as expected, and whilst the value of the Scheme's assets has fallen over this period, there has been no worsening in our estimated funding position.

How LDI works
Defined benefit pension payments are often linked to inflation, which means that higher inflation will lead to higher payments, and lower inflation will lead to lower payments. The Scheme values its future payments using market-implied inflation expectations so higher inflation expectations lead to an increase in the *future* value of pension payments and an increase in the funding deficit.

Once the value of the future payments has been calculated, we calculate how much money is required today to meet those future payments. This is the ‘present value’ of the Scheme’s liabilities and allows the Scheme to assess its funding position. The present value is calculated using discount rates, which are usually linked to the value of government bonds, so lower gilt yields (i.e. higher gilt prices) lead to an increase in the *present* value of pension payments and an increase in the funding deficit.

The Pensions Regulator encourages schemes to offset these uncertainties or ‘hedge’ these risks.

To do so, schemes need to invest in assets that offset these effects; i.e., the value of the asset rises when long term UK interest rates fall and/or when inflation expectations rise.

Inflation-linked gilts (ILGs) are securities that are issued by HM Treasury whose semi-annual coupon payments and principal repayment are adjusted to take account of realised inflation since the gilt was issued. Their market price is therefore linked to inflation expectations and long-term UK interest rates and they are a key component of LDI portfolios.

To date, in order to maintain the return potential within the Scheme’s assets, increases in the proportion of interest rate and inflation sensitivity hedged within the Scheme’s assets have been implemented primarily through derivative instruments to supplement the Scheme’s assets with direct economic links to interest rates and inflation, such as inflation linked gilts and corporate bonds. However, using derivative instruments introduces new risks into the Scheme (principally liquidity risk and counterparty risk), and these risks are actively monitored and managed by the Trustee via the Investment Committee and BTPSM.

Impact of the rise in gilt yields on our Scheme

The period of volatility we saw following the mini-budget was truly unprecedented.

Regulators have indicated that events were beyond their past stress tests and were outside of the scenario planning the Scheme had previously conducted.

Whilst the level of real rates wasn’t an issue, the pace of change and the dysfunction in the gilt market presented significant operational and liquidity challenges.

In common with other DB schemes, we faced significant collateral calls during this period.

However, we have a robust liquidity process and run a substantial gilts and cash buffer and have a liquidity ladder we were able to tap into. The liquidity ladder defines the hierarchy of assets that we use to meet liquidity demands, starting with the most liquid on the first rung. The terms of our credit support annexes (CSAs) allow us to use cash or gilts to meet collateral calls so in the first instance we used our existing cash and gilt holdings. When we had exhausted our gilt holdings, we sold equities to generate cash. Constructing and using our liquidity ladder in this way meant that we were able to meet all of our collateral requirements.

The Bank of England (BOE) intervened several times to ameliorate the market dysfunction – including buying long-dated conventional gilts, introducing additional repo facilities, and buying inflation-linked gilts. These interventions were welcome and effective.

BTPSM is the sole LDI manager of the pension scheme supported by a dedicated in-house operational resource. Having an in-house team with access to assets held in segregated funds put us in a strong position to coordinate portfolio activity and react quickly to manage market volatility.

This enabled the Scheme to meet all of its collateral calls without having to sell any of the Scheme's ILGs and without recourse to our sponsor, BT Group. However, had the BOE not intervened, we would have found it increasingly challenging to meet further collateral calls.

During this period, the Scheme's assets fell significantly prior to the BOE intervention. At the same time, the present value of the Scheme's liabilities also fell by a similar amount. However, our hedges continued to perform as expected and there was no worsening of our estimated funding position.

What this meant for our members
It is also important to note that whilst generating liquidity to satisfy collateral requirements was challenging, at no point was there any risk to the solvency of the Scheme or to Scheme members.

During this period, we closely monitored member response and provided regular updates to the Trustee Board on member reaction. Although we received only a handful of direct member calls regarding this issue, we were very conscious of the widespread publicity on this and the potential for concern and, as a result, posted an update for members on our website to provide reassurance. This can be read here.

Scheme governance and the role of our trustees
Estimating the total level of funding risk within a complex portfolio of asset and pension liabilities is challenging. In assessing the level of investment risk within the Scheme (including the risks associated with changes to interest rates and inflation) the Trustee considers a range of approaches, including long term historical analysis, recent Scheme experience and forward-looking scenarios.

The Scheme's liquidity policy was originally approved by the Trustee at the end of 2014 and is reviewed on an annual basis by the Trustee Investment Committee and monitored on an ongoing basis.

The role of The Pensions Regulator
The Pensions Regulator (TPR) through its oversight of DB schemes and the DB funding regime is an important influence on how schemes seek to manage their risks. TPR encourages schemes to look at integrated risk management and LDI is an important tool for managing funding volatility and risk.

TPR does not have a direct role in the regulation of LDI products and is not responsible for financial stability, that sits with the Financial Conduct Authority and Bank of England respectively, but some schemes may benefit from stronger guidance on liquidity.

In addition, it's important that TPR gives consideration to the impact this recent volatility may have on the DB Funding Code which focusses heavily on the importance of de-risking and self-sufficiency.

Furthermore, we would expect the DB Funding Code to provide specific guidance on managing investment and liquidity risk including understanding sources of liquidity and the importance of having efficient and robust operational procedures in place to help respond to changing circumstances.

If 'leverage' is to be a focus of future regulation, it is important to provide a precise definition of it, as there are various ways to define and calculate a leverage ratio. As an example, BTPS monitors leverage using two definitions:

- Leverage = Total asset interest rate sensitivity / cash instruments interest rate sensitivity
- Leverage = Liabilities hedged / allocation to hedging assets

Both are valid definitions but give different results. During the course of the stressed period, leverage was often discussed by regulators, the BOE and industry-wide commentators but there didn't appear to be a consistent interpretation of what was being considered.

What needs to change

Looking ahead, whilst lessons can certainly be learned, these were highly unusual circumstances and despite the volatility, hedges performed as expected and the strategy held firm.

We have become more cautious in how we manage the Scheme's liquidity and have increased the collateral buffer to which we operate. This will position the Scheme to better weather any further volatility in the gilt market but will also reduce the expected returns from our assets. However, the Scheme does need to achieve a certain level of investment return to achieve its 2034 funding targets and if expected returns fall below this level then the Scheme may need more support from BT in future valuations than previously anticipated.

We have also started to widen the pool of collateral in our CSAs; this means that we will be able to post assets as collateral rather than being forced to sell them. We would note that these assets will be subject to larger 'haircuts' than gilts.

Were similar circumstance to arise in future, it would be helpful if the BOE could open a repo facility that allows schemes to post a variety of assets including illiquid assets – this would maintain the integrity of the gilt market and reduce the requirement to sell illiquid assets (potentially including UK infrastructure) at fire sale prices. Again, we would expect the 'haircuts' associated with these assets to be significantly higher than for gilts – but we expect that such a facility would still serve the purpose of avoiding forced selling into a stressed market.

It is important that the BOE recognises that not all schemes hedge their interest rate and inflation risk through pooled LDI arrangements and that it is equally important for these in-house run schemes to gain access to repo markets directly.

It's imperative that schemes have sufficient buffers to withstand market turbulence and procedures in place to help them respond to changing circumstances, make decisions and implement them where the need arises. However, there is only so much liquid collateral (cash, gilts) that schemes can hold without it being an inefficient drag on returns that the sponsor ultimately needs to fund, or the scheme would need to cover by increasing risk in other parts of the portfolio. As a result, any regulation of buffers needs to be proportionate and risk based, appropriate for the individual scheme's circumstances.

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