Written evidence from Toby Nangle LDI0043

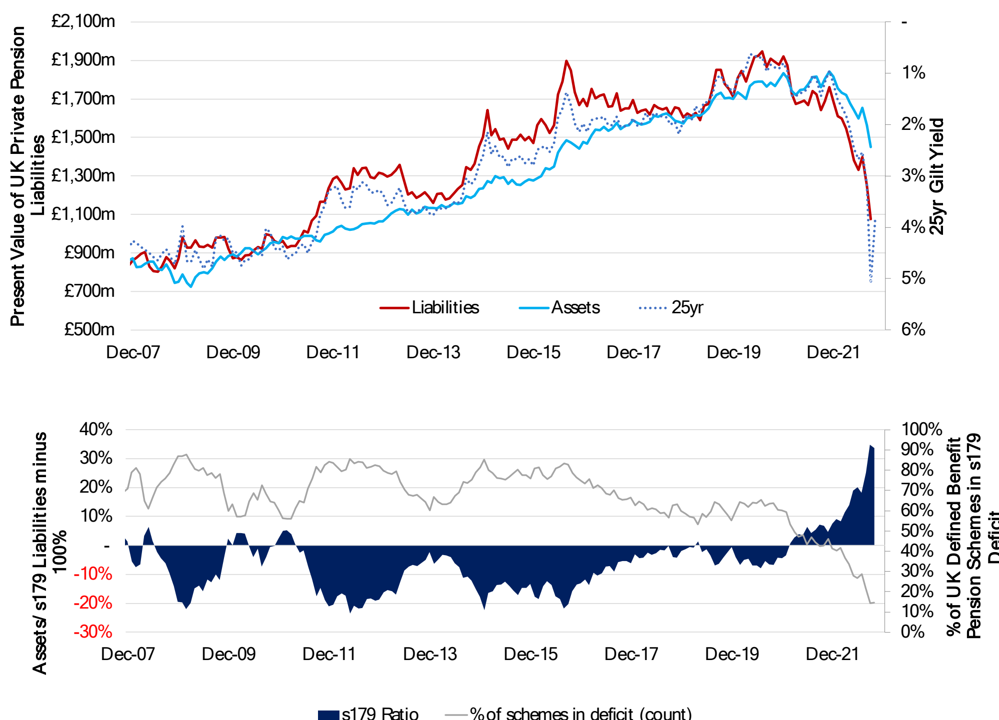
The impact on DB schemes of the rise in gilt yields in late September and early October;

Despite many operational problems (see below), the rise in gilt yields has been extremely positive for private sector defined benefit pension scheme solvency. While assets have fallen in value over recent months, and particularly during late September and early October, they have fallen less than the present value of liabilities, which are discounted using long-dated bond yields. As yields (and discount rates) rise, so the present value of liabilities fall.

The top panel of figure 1 shows an estimate for the aggregate private sector defined benefit s179 liabilities in red (the liabilities that would accrue to the Pension Protection Fund in the event of a scheme sponsor going bust) moving in lock-step with the dotted line which plots 25 year government bond yields (RHS inverted scale).

The light blue line in the top panel shows the aggregate private sector defined benefit system assets. The bottom panel shows in grey the proportion of the c.5,200 schemes running a s179 deficit, and the area chart depicts the surplus or deficit to s179 liabilities. s179 liability values are easier to source than other liability calculations (IAS 19, Technical Provisions, Self-Sufficiency and Buy-Out valuations). The overall movement of these other liability measures will be similar.

Figure 1: UK Defined Benefit Fund Assets, s179 Liabilities, 25yr Gilt yields



Source: Author's calculations, Bank of England, Pension Protection Fund, November 2022

But the magnitude of the moves in a very short period tested the operational capabilities of many schemes and the operational integrity of the financial system more generally – sometimes beyond breaking point.

As such the impact of the yield moves on specific private sector DB pension schemes will be diverse.

Broadly speaking, large schemes with well-resourced executive or fully-delegated governance frameworks in place appear to have fared extremely well.

Small schemes appear to have been tested more meaningfully: governance frameworks requiring multiple wet ink signatures, implementation via pooled funds that were designed with stress-tests that proved insufficient for the period, allocation to pooled funds with settlement periods longer than was useful. All of these issues

and more have likely contributed to an elevated prospect of having been whipsawed by markets during the late-September/ early October period. Their funding position may still be far improved versus their position six or twelve months prior (as the present value of their liabilities will have fallen substantially in a higher yield environment), but it may be worse than the counterfactual where the operational-induced whipsaw was absent.

The impact on pension savers, whether in DB or defined contribution pension arrangements;

Broadly speaking, the impact on private sector DB scheme members has been positive: the trustees responsible for their arrangements are better-positioned to secure them the retirement benefits promised to them by the pension sponsor regardless of the solvency of the sponsor.

However, rising yields and falling asset prices are always detrimental to those with defined contribution pension arrangements, with the degree of detriment proportional to the maturity of the DC pot (and typically the age of the DC pension saver).

Given its responsibility for regulating workplace pensions, whether the Pensions Regulator has taken the right approach to regulating the use of LDI and had the right monitoring arrangements;

There was not an appropriate level of system-wide oversight of leverage used by pension schemes either in the form of direct positions (repos, swaps) or indirect positions (levered pooled matching funds). It was not entirely clear to me ahead of the crisis whether this oversight sat with The Pensions Regulator or with the Bank of England. After the fact this is still not clear.

In June 2022 I sought out information around system-wide leverage from both The Pensions Regulator and the Bank of England.

I sent a Freedom of Information request to the TPR indicating that I was after data that would help me assess the proportion of private sector DB liabilities against which LDI had been deployed. Specifically, I requested the total value of scheme liabilities that have been liability-hedged using instruments that are not bonds (i.e, derivatives). TPR responded that:

> *"The Pensions Regulator recently consulted on collecting asset information from defined benefit schemes. We did consider requesting further information around hedging as part of this consultation. However, given the varying bases on which hedging could be reported back to us, we considered that the risk of reporting inaccurate information outweighed the benefit of collecting it."*

The challenge around data collection is not straightforward. The consultation arrived at a view that Tier 3 schemes (with a s179 liability valued in excess of £1.5bn) should deliver enhanced reporting on interest risk and inflation stress tests, but that this would be too burdensome on smaller schemes. It is not clear whether the notion that large numbers of small schemes could potentially become triggered by the same market stimuli to move in a near-identical way was considered. And it is not clear whether this risk (to financial stability) was one for TPR or the Bank of England.

I understood from a representative of the Bank of England that the Bank did not have the information around aggregate derivative use and positioning on the part of DB pensions either.

There did exist a good survey on derivative use, and operational frameworks deployed by large pension schemes that was commissioned jointly by both institutions at the end of 2019. It was not clear to me what – if anything – was done with the information collected.[1]

Whether DB schemes had adequate governance arrangements in place. For example, did trustees sufficiently understand the risks involved?

Speaking to a range of schemes it appears that there has been a huge diversity of experiences.

---

[1] OMB Research (2019): DB Pension Scheme Leverage and Liquidity Survey**.**

Whether LDI is still essentially 'fit for purpose' for use by DB schemes. Are changes needed?

The amount of leverage involved in LDI has fallen since late September, reducing meaningfully the chance of a financial accident from recurring.

But demand for LDI will remain as long as three conditions are met:

1. Liabilities are discounted with reference to long-dated bond yields;
2. IAS19/ FRS102 accounting standards require firms to report mismatches between asset and liability values, and boards/ shareholders are sensitive to the volatility of this asset-liability mismatch;
3. The Pension Regulator is required to oversee the present and future solvency of the Pensions Protection Fund, funding it through risk-based levies on other schemes.

It tends to be the case that as funding ratios improve (eg, as pension fund moves from deficit to surplus) the demand on the part of the trustees to lock-in this strong funding ratio increases. This manifests in greater demand for long-dated bond-like investments – whether in the form of physical bonds or through derivative contracts.

My expectation, and the expectation of those in the industry, is that lower leverage is here to stay. One measure of 'cushion' for an individual scheme might be 'basis points to exhaustion' – the amount that long-dated bond yields can rise before excess collateral is exhausted in margin calls and needs to be replenished. Before the late-September crisis it may not have been the norm, but was certainly not uncommon, for schemes to run cushions of 100-150bps to exhaustion. Following the crisis there appears to be a move to a minimum of 300bps to exhaustion of cushion, with many implementing larger cushions still.

An increased demand for long-dated bond-like investments without the scope to take as much leverage as was the case means a greater demand for physical bonds (rather than derivative exposure). The counterpoint to this is that pension schemes will – rather than keep their assets largely in place and target their liability-matching overlay with derivatives – seek to divest of physical assets to reinvest in physical bonds.

The implications of this change to operate with physically trades runs deep. The asset universe is ill-configured to allow pension funds to meet their demands for physical implementation. Attempts to do so could cause meaningful funding draughts in key areas of the economy, raising the cost of capital for entrepreneurs, and delivering unpredictable fall-out. Assets deemed illiquid may trade at a significant discount as a consequence, running counter to government moves to encourage long-term private sector investment in areas like infrastructure.

Does the experience suggest other policy or governance changes needed, for example to DB funding rules?

The most obvious area to look at is the degree to which liabilities should be measured on a marked-to-market basis. While smoothing the mark-to-market of liabilities is no panacea, it can increase the ability to take long-term strategic investment decisions without as much concern around matching the return path of bond markets.

November 2022