stress testing DB ▼

Looking out for tremors

▶ How are DB schemes preparing for tomorrow's market shocks? Alex Janiaud finds out

n the autumn of 2022, a series of unfortunate political events caused a market shock that threatened devastating consequences for defined benefit pension schemes.

A 'mini-Budget' delivered under former Prime Minister Liz Truss's brief tenure in Downing Street frightened financial markets and triggered a sell-off in gilts. Spiking yields and collateral calls under schemes' LDI contracts created a doom-loop of gilt sales that was eventually halted by intervention from the Bank of England. The crisis forced a rethink in how schemes protect themselves against market volatility.

Schemes now follow stricter guidance from The Pensions Regulator (TPR) on their liquidity buffers. But regulation has long stipulated the need for schemes to stress-test their investment portfolios and model for the risks of tomorrow. These risks have evolved to consider threats like climate change.

Investment risk has fallen

DB schemes have to adhere to TPR's Funding Code, which sets out rules for trustees to plan the long-term funding of schemes, as well as for their routine valuations.

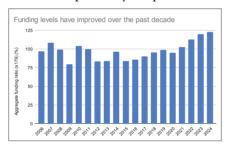
The latest iteration of the code came into force in November 2024. It introduced a greater emphasis on covenant assessment, journey planning and risk management, as well having a long-term objective for the scheme. Schemes were told to submit statements of strategy as soon as reasonably

Summary

- DB schemes perform routine testing to ensure their resilience against market shocks.
- Climate change scenarios features in the testing.
- Sponsors have a right to be consulted over scheme investments.

practicable to the regulator once they had prepared their funding and investment strategy.

DB schemes are broadly, however, extremely well-funded. As at the end of March 2024 and on a section 179 basis, there was a net surplus of £219 billion and a funding ratio of 123 per cent, according to the Pension Protection Fund's *Purple Book*, which was largely in line with the previous year's position.



Source: Purple Book | Pension Protection Fund

Capital Cranfield professional trustee, Paul Watson, observes that many schemes are broadly fully-funding on a relatively prudent technical provisions basis.

"There is less requirement for investment returns to fill the deficit," Watson says, "hence many schemes are running far less in growth assets (certainly liquid growth assets) and thus less exposed to market shocks". He adds that schemes are still "not immune" to shocks though.

Watson also points out that schemes' LDI positions are now generally designed to hedge 80-90 per cent of their liabilities, and are therefore also less exposed to interest rate and inflation fluctuations than in previous years. Their LDI positions are also supported by a higher proportion of more liquid assets such as absolute return bonds.

"The investment risk is far lower than historically," he says. "As such, many schemes consider that they would stand up well in most stress scenarios, or at least most expected scenarios." Schemes are making less use of stochastic asset-liability management models and now place more focus on journey plans and de-risking further to a steady state run on or insurance transaction-ready portfolio, he adds.

Don't solve yesterday's crisis

One common metric used to conceptualise risk amongst pension schemes is value at risk (VAR), Quantum Advisory principal investment consultant, Paul Francis, says.

"Traditionally, the risk has been calculated at a 5 per cent probability, so a one-in-20 downside risk. This is in comparison to the banking sector, which has historically preferred a more stringent 1 per cent downside risk measure," he adds.

"A great benefit of VAR analysis is that one can decompose the overall risk into its respective drivers. This helps pension schemes understand what the key drivers of risk are and adopt investments or hedging strategies to diversify these and reduce said risk This information also informs further analysis, as for example, if a scheme identifies that is has a lot of, say, equity risk, it can then examine in more detail what specific equity exposures are behind that risk. VAR is also used to predict likely outcomes under specific market situations, such as stagflation, impact of trade tariffs and debt crisis," Francis explains.

However, there are some risks that VAR will not capture, such as liquidity risk, ESG/climate risk and impact of regulatory changes etc. Specific stress testing can help here, he adds.

TPR's new Funding Code expects schemes to be highly resilient to short-term adverse swings in market conditions. The regulator expects schemes to now test for a one-year, one-

▼ DB stress testing

in-six stress scenario, and for resulting changes in funding levels to be capped at 4.5 per cent, assuming that these schemes are fully funded on a low dependency funding basis.

The regulator advises in its funding code that scenario analysis could consider the impact of collateral calls for schemes using leverage and how the shape and level of liability cashflows affect a scheme's resilience.

"Scenario testing is a really powerful tool when used correctly, but it's also a much less powerful tool when used incorrectly," says Cartwright senior investment consultant, Yona Chesner. But "if the scenario testing is just a restating of everything you've done before, then it can be a nice tool for communication, but it's not really adding an extra layer of scrutiny", he adds.

Scenario testing could have helped some schemes before the LDI crisis of 2022, he suggests, adding that "those who did it, it did help them very well". "What you don't really want to be doing is solving yesterday's crisis," Chesner says. "Of course, you'll learn lessons out of the LDI crisis and you'll come up with a different approach to that particular part of your portfolio, but if you're not learning the broader lesson of expecting unexpected things, then you're bound to fail somewhere else."

Climate risk emerges

In addition to more conventional investment stress-testing, schemes are now assessing their portfolios' resilience to factors such as climate



• How to protect against the risk of deteriorating covenant

One scenario facing schemes is the risk of their employer covenant weakening. The Pensions Regulator (TPR) advises schemes to assess covenant from three angles:

- Legal: Schemes should understand their sponsor's legal obligations and how they can be enforced
- Scheme: The size and funding requirements of the scheme, currently and in the future
- Financial: An employer's ability to provide cash when necessary

"Even if you're well-funded as a pension scheme, if you have an insolvent sponsor that still gives you challenges," says Aon head of covenant and security, Alex Beecraft. "The access to your IT systems might be dependent on the operation of your sponsor."

Some schemes are more reliant on their covenant than others, Beecraft notes. Schemes should establish what they want from their sponsor, and then test their ability to support their needs.

"If you're just hoping for it to remain solvent, then there's tried and tested ways of doing financial analysis to look at that," he says, while schemes can also observe how other stakeholders are behaving towards the sponsor, such as whether lenders are still lending to the company or if shareholders are still investing in the business.

"For those that need a bit more cash funding, for those pension schemes that have more risk inside them, then you're probably doing a bit more financial analysis," he continues, which can involve understanding the sponsor's cashflow forecasts, and working out how much more money the sponsor could theoretically contribute to the scheme.

risk. Since 2022, schemes with over £1 billion in assets under management and authorised schemes have needed to publish climate reports.

A 2021 report by the Pensions Climate Risk Industry Group advised schemes to consider a range of climate scenarios, including an orderly transition in the event that the objectives of the Paris Agreement are met, along with more disorderly or even failed attempts to meet the goals of the Paris accord.

"Over time, schemes should seek to address data shortcomings and modelling limitations identified in their initial rounds of climate scenario analysis," the report said. "Trustees may wish to increase the sophistication and granularity of their modelling, incorporating the latest thinking from across the industry."

"The challenge with climate risk modelling is the impacts tend to happen in the longer term," says Aon partner, Daniel Peters. While Aon does perform climate risk modelling with its clients, Peters observes that "it's really hard to draw actionable insights that people are then going to change their portfolios with as a result of that".

Sponsors have a right to be involved

According to the Pensions Act 1995, sponsoring employers have a right to be consulted over a scheme's investment policy, although sponsors may not dictate the policy itself.

"Ultimately the sponsoring employer is on the hook for making contributions to restore any deficit, so they're clearly going to be very interested in what risks they're taking and what that could mean for them," says WTW head of investment modelling, Alasdair MacDonald.

"The trustee doesn't have to go with the employer's views, but they're going to have some weight in the process, because ultimately they pick up the tab."

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