Risk management framework

Monthly Monitoring Report: 31 December 2022

Clwyd Pension Fund
February 2023

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welcome to brighter

Overriding objectives

Stable and affordable contribution rate

Versus

Achieve returns in excess of CPI required under funding arrangements

Objectives are two-fold but conflicting

- Risk needs to be taken in order to achieve returns, but risk does not guarantee returns

Need to ensure a reasonable balance between the two objectives

- Do you need to take the same level of risk when 70% funded (say) as when 110% funded?

Executive summary

= as per or above expectations = to be kept under review = action required

Overall funding position at 31 December 2022

- Ahead of existing recovery plan
- Funding level above 100%

The funding position is 105% which is ahead of the target by around 12%. There is continuing uncertainty in the outlook for future returns and inflation which could impact on the future funding requirements.

Liability hedging mandate at 30 September 2022

- Insight in compliance with investment guidelines
- Performed in line with the benchmark over Q3 2022
- Hedge ratios in line with target levels

The interest rate and inflation trigger framework was paused in October 2022 following significant volatility in gilt markets. 11 interest rate triggers were breached in September 2022, which led to additional collateral being provided to the RMF over October.

Synthetic equity mandate at 31 December 2022

- Insight in compliance with investment guidelines
- Underperformed the benchmark over the month

A dynamic protection structure was implemented in late May 2018, with refinements made in November 2020. The TRS structure rolled on 23 May 2021 with no further changes to the strategy. No action required.

Currency hedging at 31 December 2022

- Currency hedging overlay implemented in the QIAIF in August 2019
- As at 31 December 2022, the market value of the currency hedge on physical equities since inception on 22 August 2019 was -£17.4m

No action required.

Cash Plus Funds, collateral and counterparty position at 30 September 2022

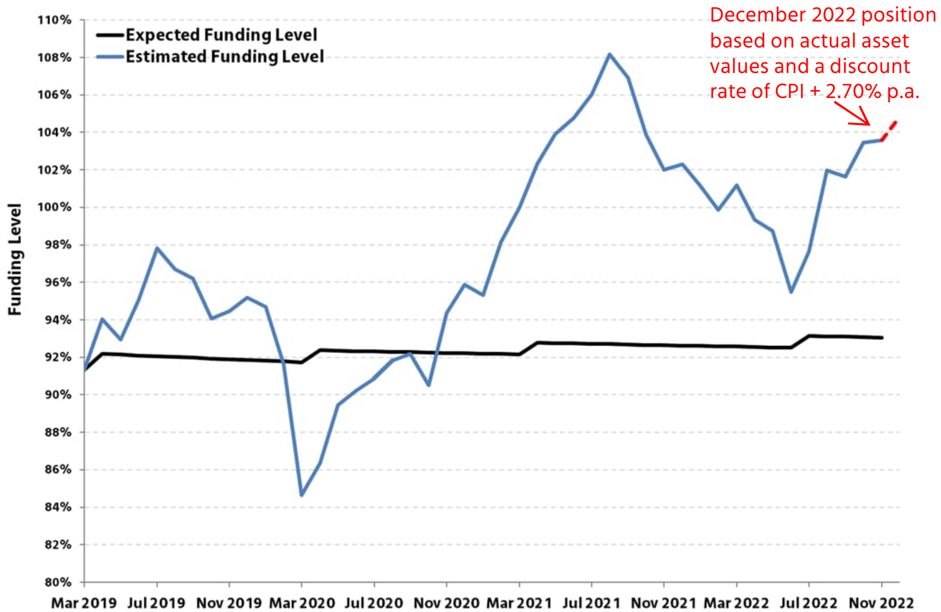
- The Cash Plus Fund has underperformed the benchmark since inception and also over the quarter. We will continue to monitor performance.
- The Insight QIAIF can sustain at least a 1.7% rise in interest rates or 2.7% fall in inflation without eliminating all headroom.

Overall, the collateral waterfall has returned £4.0m at 30 September 2022 since implementation at 31 January 2019 versus the previous structure.

The Fund has sufficient collateral to withstand the stresses as at 30 September 2022. No action required.

Funding level monitoring to 31 December 2022

Estimated funding position since 31 March 2019



The actual funding level figures include allowance for the impact of the McCloud judgment and GMP equalisation from 31 May 2021 plus the provisional 2022 valuation results from 30 September 2022.

Funding Level Triggers

Following a breach of the 100% soft trigger, it was concluded at the FRMG on 9 July 2021 that the funding level was not currently sufficiently high to warrant de-risking in a traditional sense via a change in long term strategy.

It was agreed that a new trigger will be put in place to prompt FRMG discussions regarding potential actions as the funding level approaches 110% on a consistent approach to the 2019 valuation funding basis. This funding level will be monitored approximately by Mercer on a daily basis.

Comments

The **black line** shows a projection of the *expected* funding level from the 31 March 2019 valuation based on the assumptions (and contributions) outlined as part of the 2019 actuarial valuation. The expected funding level at 31 December 2022 was around 93%.

The **blue line** shows an estimate of the progression of the funding level from 31 March 2019 to 30 November 2022. The **red dashed line** shows the progression of the estimated funding level over December 2022. At 31 December 2022, we estimate the funding level and surplus to be:

105% £102m

From 30 September 2022, we have allowed for the impact of the 2022 valuation outcomes based on the draft Funding Strategy Statement assumptions. The Fund's position was ahead the expected funding level based on the **2019 valuation** expectations at 31 December 2022 by around 12% on the current funding basis.

Uncertainty continues to be prevalent in the investment and fiscal environments due to the geo-political uncertainty and economic outlook – in particular inflation which has a direct impact on the Fund's liabilities. In particular when assessing the funding levels from 31 March 2022 onwards above, we have incorporated an allowance for observed CPI inflation to provide a better estimate of future pension increases and therefore liability cashflows. For these funding levels we have also allowed for the change in interest/inflation rate plus the economic outlook and the impact on expected asset returns when considering the appropriate discount rate as agreed at the FRMG.

The funding progression will be restated relative to the final 2022 valuation once the final contributions and assumptions are agreed which will be in April 2023.

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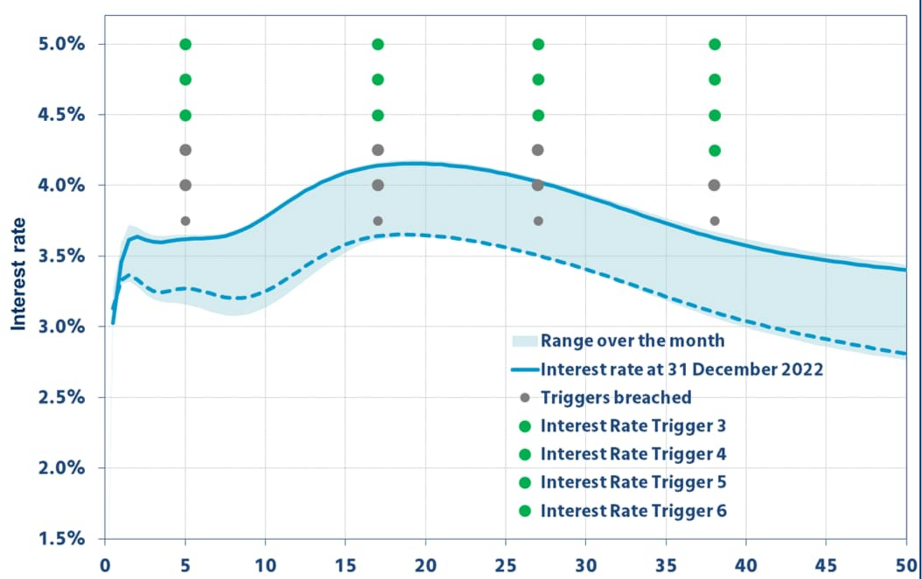
Update on market conditions and triggers

Change in interest rates



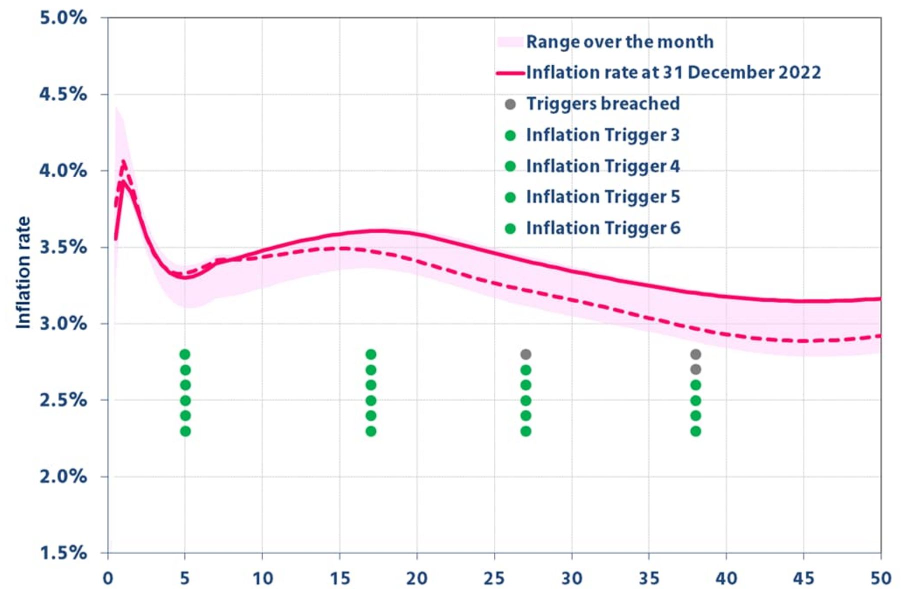
Date	Band 1	Band 2	Band 3	Band 4	Actual
30 September 2022	47.2%	50.9%	49.7%	48.7%	49.5%

Comments

Relative to the position at end November, yields rose across the curve.

The Fund paused the interest rate trigger framework on 23 September 2022. As at 31 December 2022, the third interest rate trigger had been breached in three of the four maturity bands. The trigger framework was reinstated on 23 December 2022.

Change in inflation rates



Date	Band 1	Band 2	Band 3	Band 4	Actual
30 September 2022	39.1%	22.2%	32.2%	58.0%	38.6%

Comments

Inflation expectations rose at the long end of the curve over December 2022.

The target hedge ratios for the portfolio are 50% for interest rates and 40% for inflation expectations.

**Hedge ratios calculated with reference to 2019 valuation cash flow analysis and relying on a discount rate of gilts + 3.9% p.a..*

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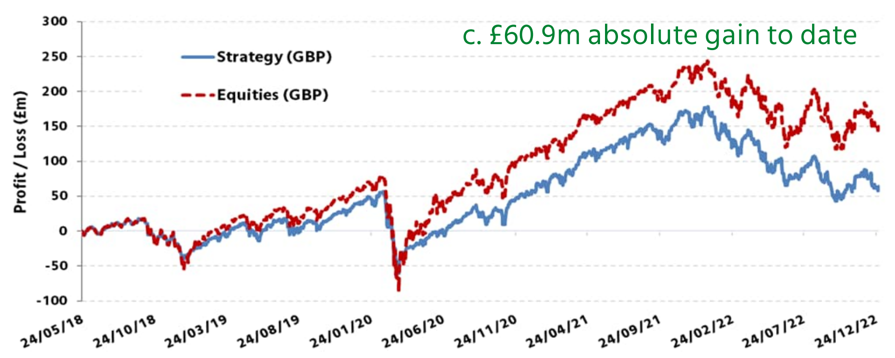
Update on equity protection mandate

Strategy versus equity index

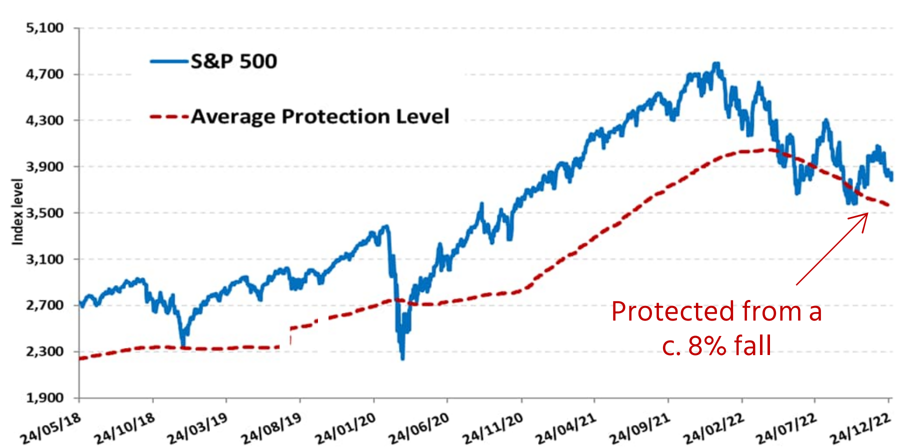


GBP returns	Equity return	Hedging return	Financing return	Costs	Overall return	Relative return
MTD	(7.3%)	0.8%	0.6%	(0.1%)	(6.0%)	1.4%
YTD	(22.2%)	1.3%	0.0%	(0.5%)	(21.4%)	0.8%
SI (per annum)	8.0%	(2.5%)	(1.5%)	(0.6%)	3.4%	(4.6%)

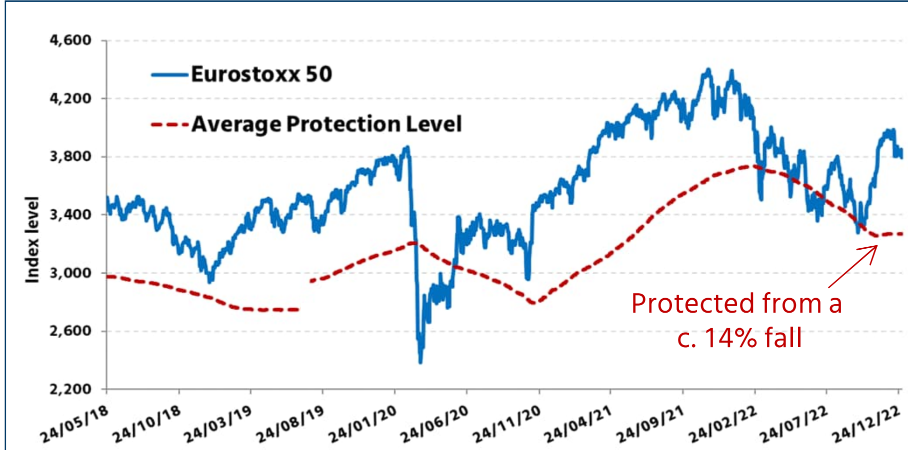
Comments

- The Fund implemented a dynamic equity protection strategy on 24 May 2018 with exposure of £362m. The equity protection strategy was revised in Q4 2020, increasing the call frequency to 2 weekly. This ensures that the Fund can participate in more upside as equity markets rise. The TRS structure was extended for a further 3 years on 23 May 2021 with no further changes to the strategy.
- Equity markets fell over December. Both the financing and hedging legs made positive returns which reduced the overall negative return.
- The strategy has outperformed passive equities over the month and over the year to 31 December 2022. As at the same date, there was a gain of c. £60.9m on the strategy since inception.
- From inception on 8 March 2019 to 31 December 2022, the currency hedge of the market value of the synthetic equity mandate has resulted in a c. £19.6m loss relative to an unhedged position, as sterling has weakened versus the dollar level since inception.

US equity exposure

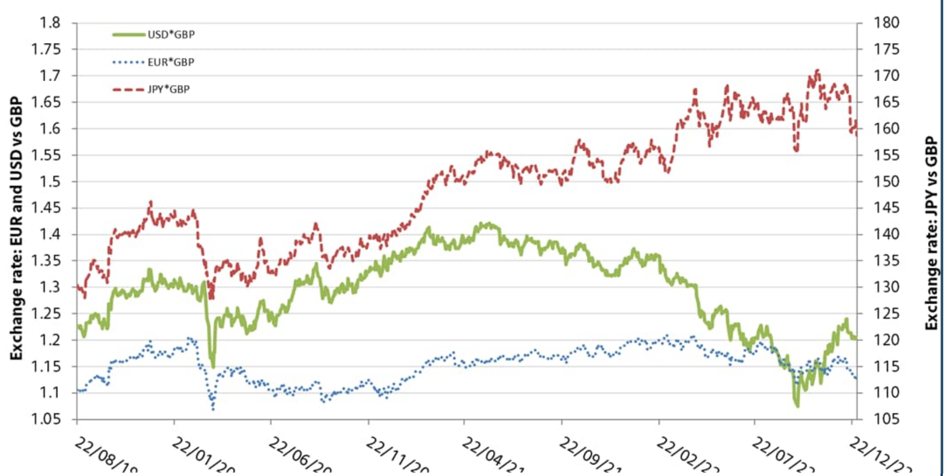


European equity exposure (note: different scale)



Developed market physical equity currency hedge

Sterling denominated FX rate



Comments

- A currency hedge was placed on the physical, developed equity portfolio to lock-in gains from sterling weakness and reduce currency risk.
- The hedge has been implemented via a currency overlay, using 3 month forward contracts, within the Insight QIAIF. The hedge is updated quarterly to allow for changes in the underlying equity exposure.
- As at 31 December 2022, the market value of the currency hedge since inception on 22 August 2019 was -£17.4m.
- The market value of the currency hedge fell over December as sterling depreciated against the Euro and Yen, which was only partially offset by appreciation relative to USD.

	Currency basket weight	FX performance (since inception*)	FX change in performance since 30 November 2022
EUR	13%	£1.3m	(£0.2m)
JPY	7%	£3.9m	(£0.3m)
USD	80%	(£22.6m)	£0.4m
	100%	**(£17.4m)**	**(£0.1m)**

*Insight transacted on the currency hedge on 22 August 2019.

Figures may not sum due to rounding.

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Glossary

- **Actuarial Valuation** - The formal valuation assessment of the Fund detailing the solvency position and determining the contribution rates payable by the employers to fund the cost of benefits and make good any existing shortfalls as set out in the separate Funding Strategy Statement.
- **Collateral** – Liquid assets held by the Fund as security which may be used to offset the potential loss to a counterparty.
- **Counterparty** – Commonly an investment bank on the opposite side of a financial transaction (e.g. swaps).
- **Deficit** - The extent to which the value of the Fund's liabilities exceeds the value of the Fund's assets.
- **Dynamic protection strategy** – Strategy to provide downside protection from falls in equity markets where the protection levels vary depending on evolution of the market.
- **Equity option** – A financial contract in which the Fund can define the return it receives for movements in equity values.
- **Flightpath** - A framework that defines a de-risking process whereby exposure to growth assets is reduced as and when it is affordable to do so i.e. when "triggers" are hit, whilst still expecting to achieve the overall funding target.
- **Funding level** - The difference between the value of the Fund's assets and the value of the Fund's liabilities expressed as a percentage.
- **Funding & Risk Management Group (FRMG)** - A subgroup of Pension Fund officers and advisers set up to discuss and implement any changes to the Risk Management framework as delegated by the Committee. It is made up of the Clwyd Pension Fund Manager, Pension Finance Manager, Fund Actuary, Strategic Risk Adviser and Investment Advisor.
- **Hedging** - A strategy aiming to invest in low risk assets when asset yields are deemed attractive. Achieved by investing in government backed assets (or equivalent) with similar characteristics to the Fund future CPI linked benefit payments.
- **Hedge ratio** – The level of hedging in place in the range from 0% to 100%.
- **Insight QIAIF (Insight Qualifying Investor Alternative Investment Fund)** – An investment fund specifically designed for the Fund to allow Insight to manage the liability hedging and synthetic equity assets.

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