

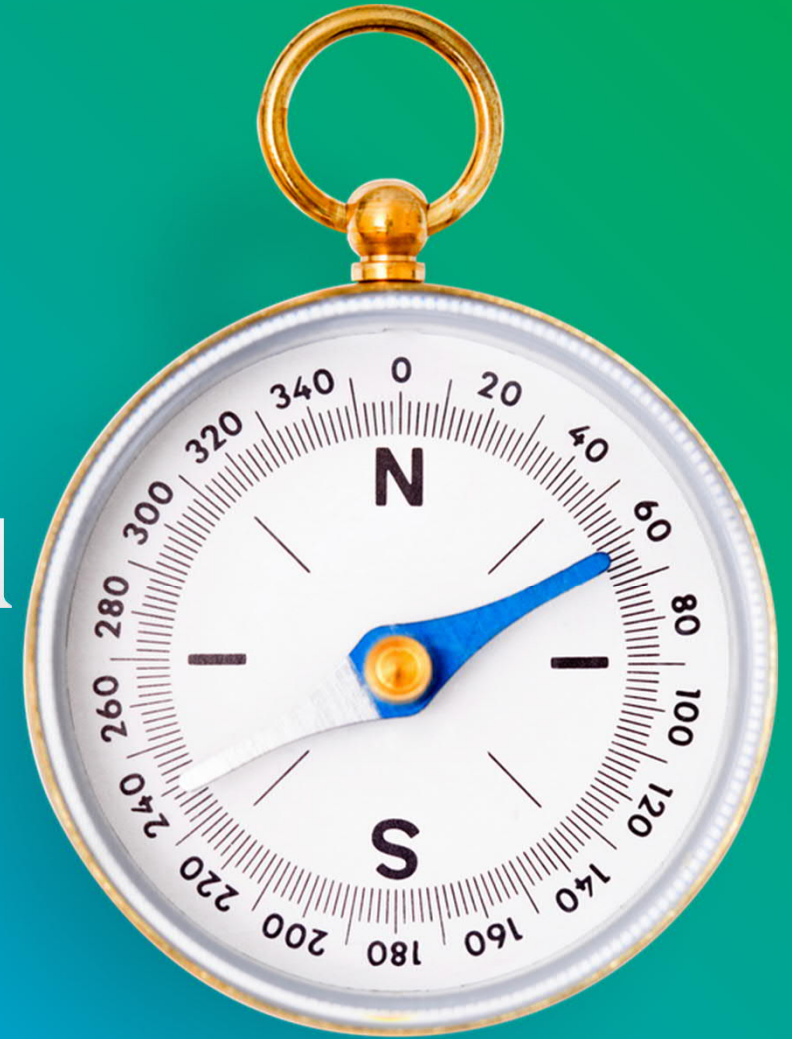


Risk management framework

# Monthly monitoring report: 30 September 2021

Clwyd Pension Fund  
October 2021

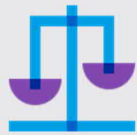
Nick Page, FIA CERA



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

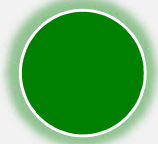

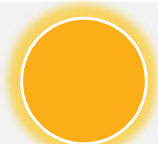

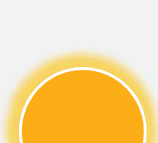
- Risk needs to be taken in order to achieve returns, but risk does not guarantee returns

## Need to ensure a reasonable balance between the two objectives

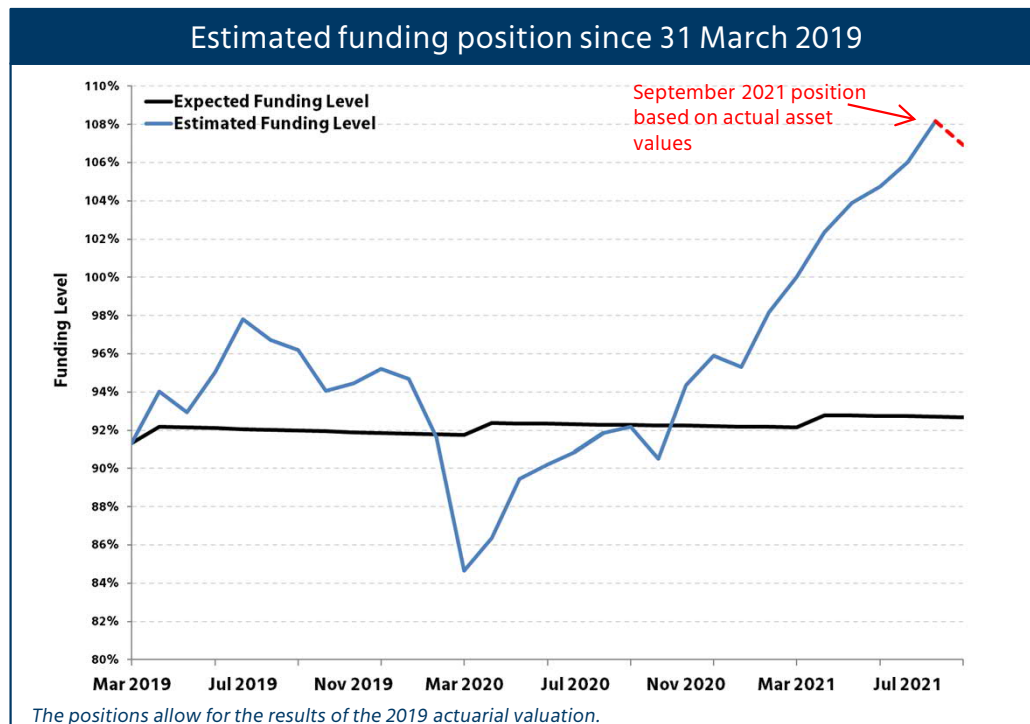
- Do you need to take the same level of risk when 70% funded (say) as when 110% funded?

# Executive summary

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

	<p><b>Overall funding position at 30 September 2021</b></p> <ul style="list-style-type: none"> <li>• Ahead of existing recovery plan</li> <li>• New funding level trigger introduced at 110%</li> </ul>	<p>The funding position is 107% which is ahead of the target by around 14%. There is continuing uncertainty in the outlook for future returns and inflation which could impact on the future funding requirements.</p>
	<p><b>Liability hedging mandate at 30 June 2021</b></p> <ul style="list-style-type: none"> <li>• Insight in compliance with investment guidelines</li> <li>• Outperformed the benchmark marginally over Q2 2021</li> </ul>	<p>No triggers breached over Q2 2021.</p>
	<p><b>Synthetic equity mandate at 30 June 2021</b></p> <ul style="list-style-type: none"> <li>• Insight in compliance with investment guidelines</li> <li>• Underperformed the benchmark over Q2 2021</li> </ul>	<p>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.</p>
	<p><b>Currency hedging at 30 September 2021</b></p> <p>Currency hedging overlay implemented in the QIF in August 2019</p> <ul style="list-style-type: none"> <li>• As at 30 September 2021, the market value of the currency hedge since inception on 22 August 2019 was £9.4m</li> </ul>	<p>No action required.</p>
	<p><b>Cash Plus Funds, collateral and counterparty position at 30 June 2021</b></p> <ul style="list-style-type: none"> <li>• The Cash Plus Fund has underperformed the benchmark since inception, but the collateral waterfall outperformed over Q2 2021. We will continue to monitor performance.</li> <li>• The Insight QIF can sustain at least a 3.0% rise in interest rates or 1.9% fall in inflation without eliminating all headroom.</li> </ul>	<p>Overall, the collateral waterfall has returned £8.8m at 30 June 2021 since implementation at 31 January 2019 versus the previous structure.</p> <p>The Fund has sufficient collateral as at 30 June 2021. No action required.</p>

# Funding level monitoring to 30 September 2021



The positions allow for the results of the 2019 actuarial valuation.

## 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 30 September 2021 was around 93%.

The **blue line** shows an estimate of the progression of the funding level from 31 March 2019 to 31 August 2021. The **red dashed line** shows the progression of the estimated funding level over September 2021. At 30 September 2021, we estimate the funding level and surplus to be:

**107% £154m\***

This shows that the Fund's position was ahead of the expected funding level at 30 September 2021 by around 14% on the current funding basis. This ignores the impact of updated membership and other factors considered at the 2021 funding review. This will be incorporated in the October report.

Uncertainty continues to be prevalent in the markets and economy in relation to inflationary pressures. This means that the likelihood of achieving the assumed real returns (CPI + 1.65% p.a. at this update) going forward has fallen. To illustrate the impact, a reduction of 0.25% p.a. in the assumed future investment return/real discount rate would reduce the funding level by c.4% to c.103% with a corresponding decrease in surplus of £90m to £64m. This will be kept under review in light of changing market conditions and the economic outlook.

## Funding Level Triggers

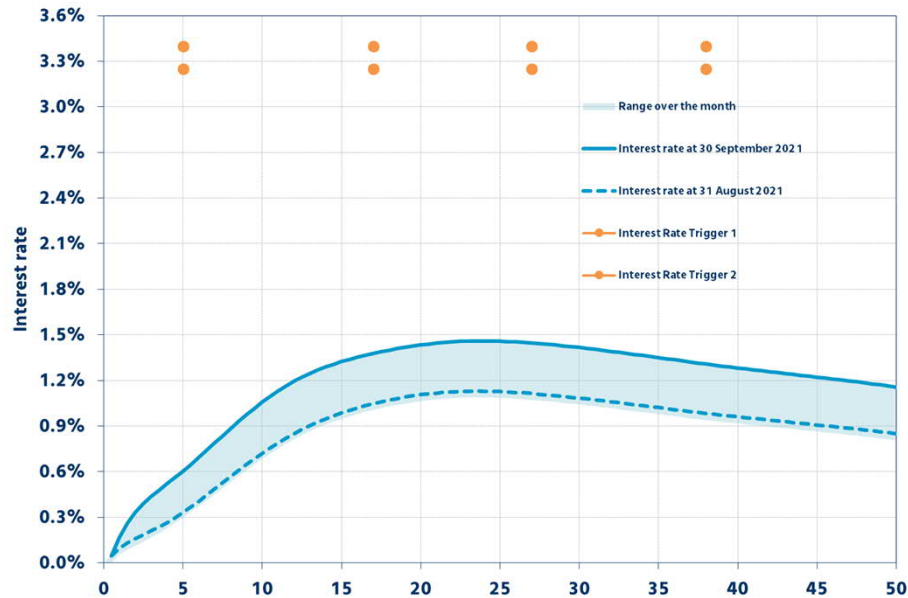
Following a breach of the 100% soft trigger, it was concluded at the FRMG on 9 July 2021 that the funding level was not currently sufficiently high to warrant de-risking in a traditional sense via a change in long term strategy.

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 the current funding basis. This funding level will be monitored approximately by Mercer on a daily basis.

\*Asset values based on assets provided by Mercer investment consultants as at 30 September 2021.

# Update on market conditions and triggers

## Change in interest rates



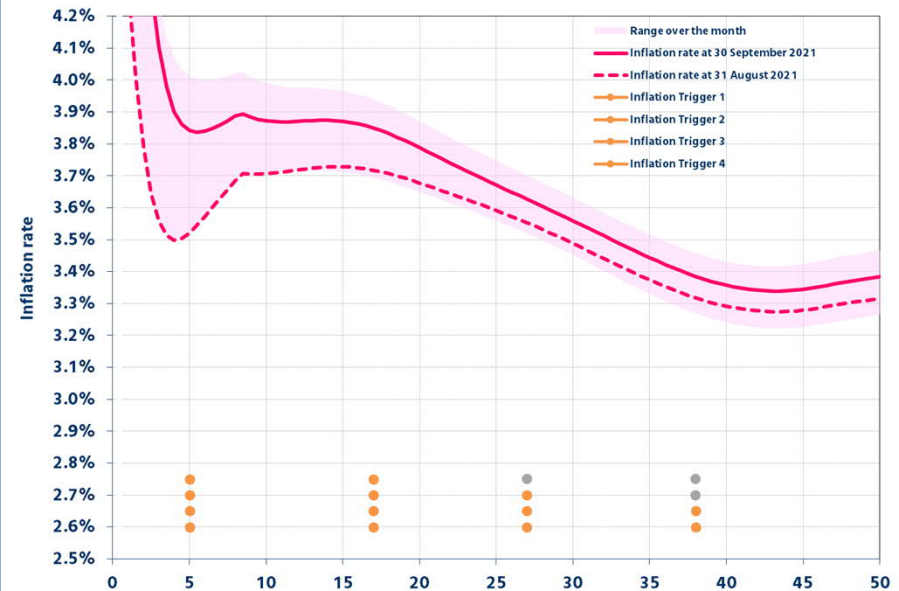
Date	Band 1	Band 2	Band 3	Band 4	Actual
30 June 2021	18.25%	18.61%	21.05%	27.56%	22.6%

### Comments

Over the month of September, interest rates rose materially across the curve, with an average change of c. 0.3% p.a.

Based on market conditions as at 30 September 2021, yields would need to rise by c. 1.8% p.a. before the Fund would hit any of the revised interest rate triggers implemented by Insight in Q3 2017.

## Change in inflation rates (note: different scale)



Date	Band 1	Band 2	Band 3	Band 4	Actual
30 June 2021	35.02%	21.36%	30.01%	62.81%	39.9%

### Comments

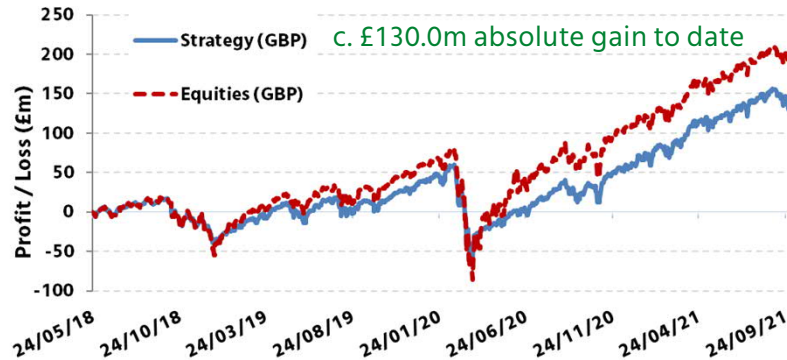
Over the month of September, inflation expectations increased at all durations, with the largest increases seen at earlier durations.

The target hedge ratios for the portfolio are 20% for interest rates and 40% for inflation expectations. No triggers were breached in August.



# Update on equity protection mandate

## Strategy versus equity index

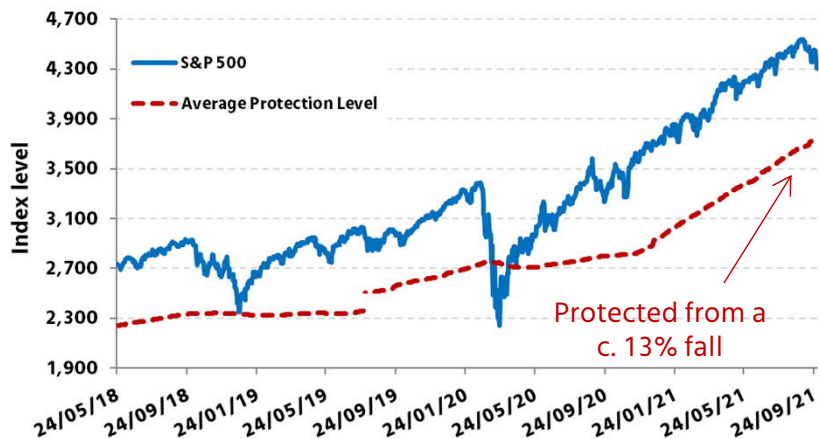


GBP returns	Equity return	Hedging return	Financing return	Costs	Overall return	Relative return
MTD	(5.1%)	0.5%	0.0%	(0.0%)	(4.7%)	0.5%
YTD	19.7%	(2.9%)	0.1%	(0.3%)	16.5%	(3.1%)
SI (per annum)	15.6%	(3.3%)	(2.1%)	(0.5%)	9.7%	(5.9%)

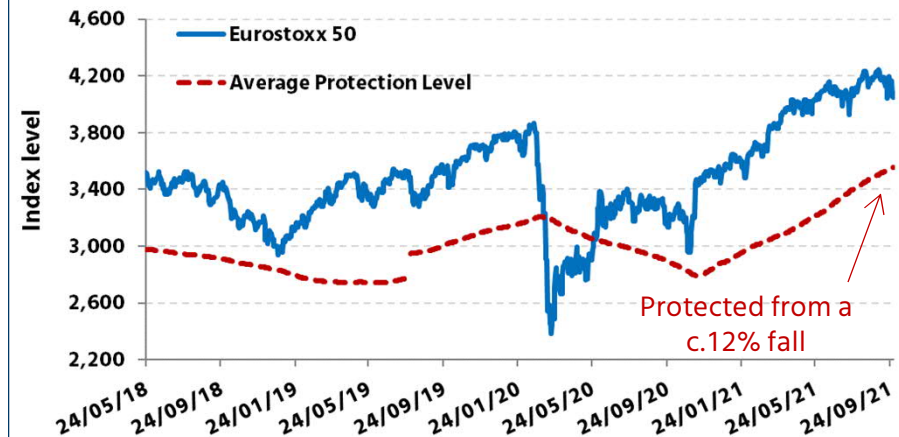
## Comments

- 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 two 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.
- Negative equity returns over September meant that the strategy performed negatively, though outperformed the benchmark following a positive return from the hedging leg of the strategy. As at 30 September 2021, there was a gain of c. £130.0 m on the equity strategy since inception, relative to a c. £186.1m gain had the Fund invested in passive equities (with no frictional costs).
- From inception on 8 March 2019 to 30 September 2021, the currency hedge of the market value of the synthetic equity mandate has resulted in a c. £3.6m loss relative to an unhedged position, as sterling has weakened at an overall level since inception.

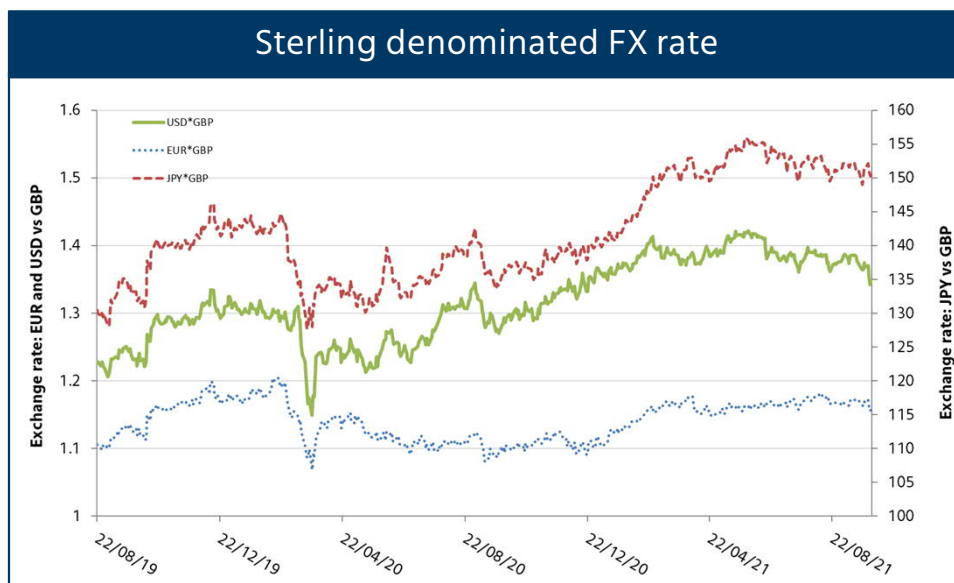
## US equity exposure



## European equity exposure (note different scale)



# Developed market physical equity currency hedge



- 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 30 September 2021, the market value of the currency hedge since inception on 22 August 2019 was £9.4m.
  - The market value of the currency hedge has decreased over September due to a weakening of sterling against all three major currencies.

	Currency basket weight	FX performance (since inception*)	FX change in performance since 31 August 2021
EUR	15%	£1.6m	(£0.5m)
JPY	8%	£2.5m	(£0.1m)
USD	77%	£5.3m	(£3.1m)
	<b>100%</b>	<b>£9.4m</b>	<b>(£3.7m)</b>

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

Figures may not sum due to rounding.

# 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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