

CLWYD PENSION FUND

RISK MANAGEMENT FRAMEWORK MONTHLY MONITORING REPORT 31 DECEMBER 2019

January 2020

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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

- Ahead of existing recovery plan
- Funding level below the first soft trigger

In absolute terms the funding position is c.14% ahead of target. However there is continuing uncertainty in the outlook for future returns which could impact on the future funding requirements.



Liability hedging mandate

- Insight in compliance with investment guidelines
- Outperformed the benchmark over the quarter and since inception
- Hedge ratios in line with target levels

No action required.



Synthetic equity mandate

- Insight in compliance with investment guidelines
- Underperformed the benchmark over the quarter and since inception

A dynamic protection structure was implemented in late May 2018. Refinements have been made in August 2019. To be kept under review due to underperformance arising from the financing return.



Cash Plus Fund

- Underperformed the benchmark over the quarter and since inception
- Collateral waterfall performing as expected
- Management team stable and no change in manager rating

Collateral waterfall framework implemented in Q1 2019. Overall, the collateral waterfall generated an additional £3m in returns between 31 January 2019 and 30 September 2019 versus the previous structure. No action required.



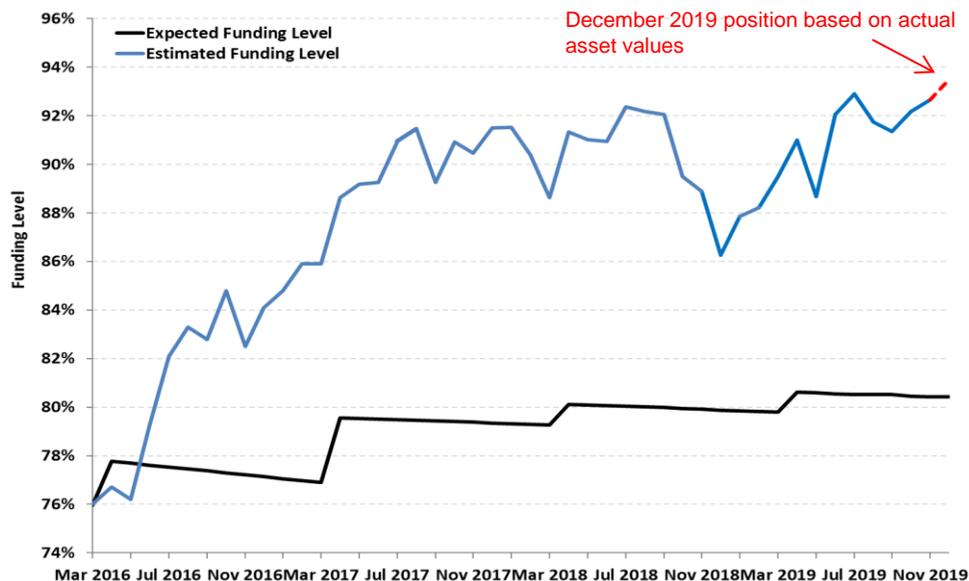
Collateral and counterparty position

- Collateral within agreed constraints
- The Insight QIF can sustain at least a 1.0% rise in interest rates and fall in inflation, in combination with a 40% fall in equity markets without eliminating all collateral

No action required. A currency hedging overlay was implemented within the QIF in August. The Fund has sufficient collateral to withstand this and it had a market value of £9.4m as at 31 December 2019.

FUNDING LEVEL MONITORING TO 31 DECEMBER 2019

Estimated funding position since 31 March 2016



The positions from April 2018 onwards have been adjusted to reflect the actual 2018 and 2019 revaluation/pension increase awarded.

Funding Level Triggers

It was concluded at the FRMG on 20 June 2017 that the funding level is not currently sufficiently high to warrant de-risking in a traditional sense via a change in long term strategy.

It was agreed that a “soft” trigger will be put in place to prompt FRMG discussions regarding potential actions as the funding level approaches 100% 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 31 December 2019.

Comments

The **black line** shows a projection of the *expected* funding level from the 31 March 2016 valuation based on the assumptions (and contributions) outlined in the 2016 actuarial valuation. The *expected* funding level at 31 December 2019 was around 80%.

The **blue line** shows an estimate of the progression of the funding level from 31 March 2016 to 30 November 2019. The **red line** shows the progression of the estimated funding level over December 2019. At 31 December 2019, we estimate the funding level and deficit to be:

94% (£139m*)

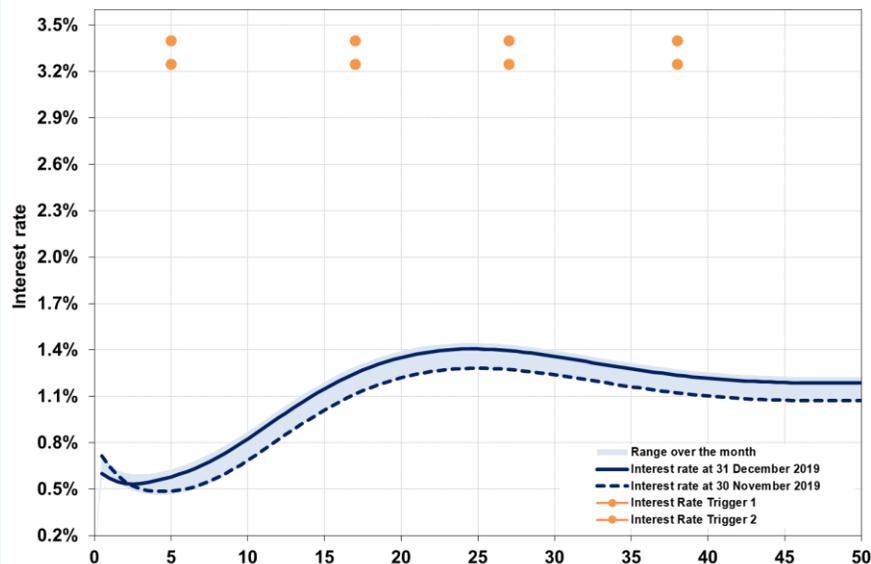
This shows that the Fund’s position was ahead of the expected funding level at 31 December 2019 by around 14% on the current funding basis.

Uncertainty continues to be prevalent in the investment environment due to ongoing external political and fiscal factors. This could mean that the likelihood of achieving the assumed real returns 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.90% with a corresponding increase in deficit of £91m to £230m.

This will be kept under review in light of changing market conditions.

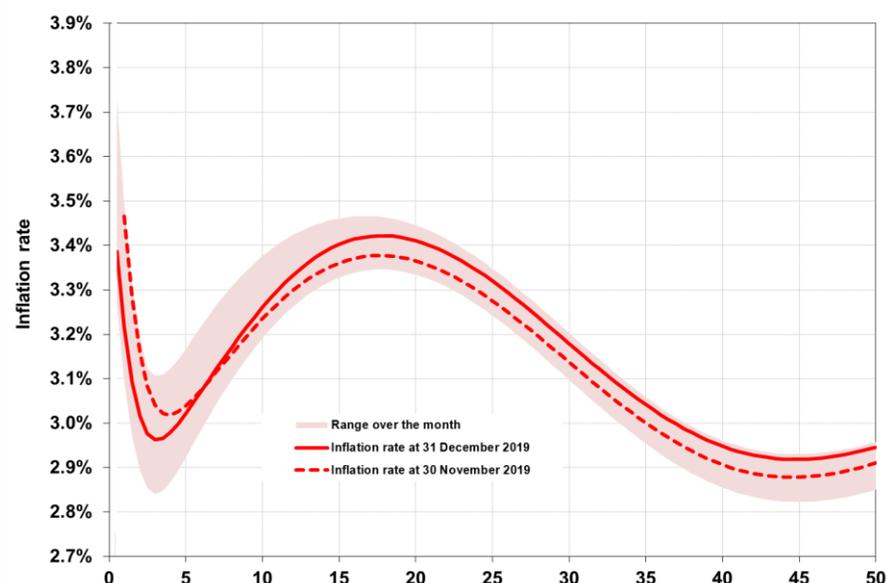
UPDATE ON MARKET CONDITIONS AND TRIGGERS

Change in interest rates



Date	Band 1	Band 2	Band 3	Band 4	Actual
30 September 2019	23.2%	19.1%	19.3%	20.3%	19.0%

Change in inflation rates (note: different scale)



Date	Band 1	Band 2	Band 3	Band 4	Actual
30 September 2019	38.4%	42.8%	36.0%	41.9%	40.1%

Comments

Interest rates rose marginally across the curve over December 2019.

Based on market conditions as at 31 December 2019, 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.

On average there was a rise in interest rates of 0.1% p.a..

Comments

Over December, inflation expectations increased marginally for most durations, with small decreases observed at shorter durations.

It has been agreed that Insight will not resume monitoring of the level of inflation hedging until the interest rate and inflation hedge ratios have been aligned.

*Hedge ratios calculated with reference to 2016 valuation cash flow analysis and relying on a discount rate of gilts + 2.0% p.a..

UPDATE ON EQUITY PROTECTION MANDATE

Strategy versus equity index

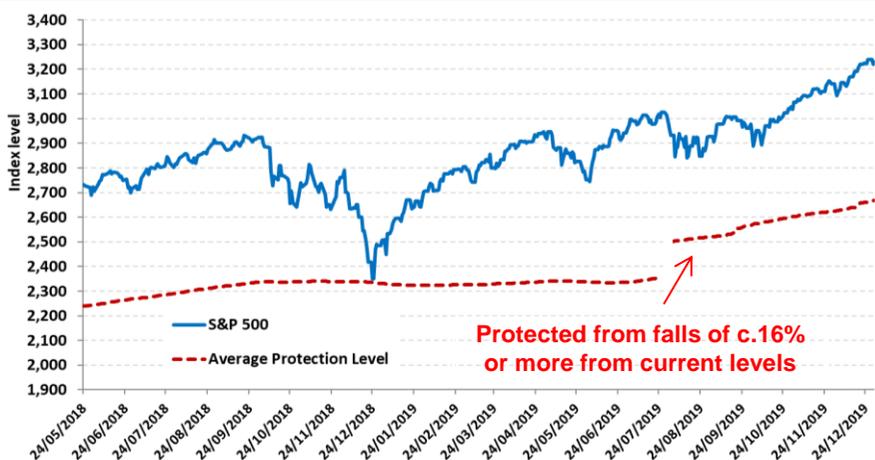


GBP returns	Equity return	Hedging return	Financing return	Costs	Overall return	Relative return
MTD	2.39%	(0.32%)	0.01%	(0.03%)	2.05%	(0.34%)
YTD	31.27%	(6.76%)	(1.81%)	(0.48%)	22.22%	(9.05%)
Since Inception	16.76%	(4.64%)	(0.94%)	(0.68%)	10.51%	(6.25%)

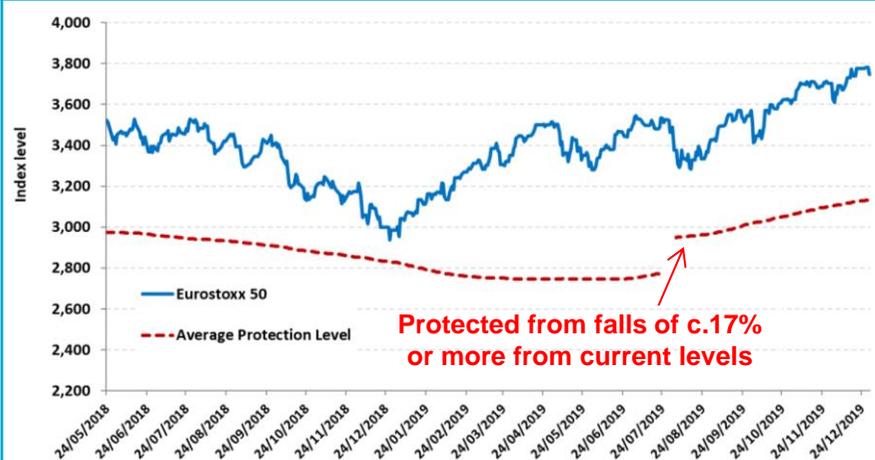
Comments

- The Fund implemented a dynamic equity protection strategy on 24 May 2018 with exposure of £362m. The equity protection strategy was revised at the beginning of August 2019, increasing the protection level by 5%. This increase is to ensure that the Fund is better protected in the event of a downside as the protection will kick in sooner. This has been funded by selling protection at extreme falls.
- As at 31 December 2019, there was a gain of c. £38m on the strategy since inception, relative to a c. £58m gain had the Fund invested in passive equities (with no frictional costs).
- Positive equity returns meant that the strategy exhibited a negative hedging return over December, as it moved further from the protection level. The Fund is 17% from protection at an overall level.
- From inception on 8 March 2019 to 31 December 2019 the currency hedge of the market value of the synthetic equity mandate has contributed a c. £0.4m loss relative to an unhedged position.

US equity exposure

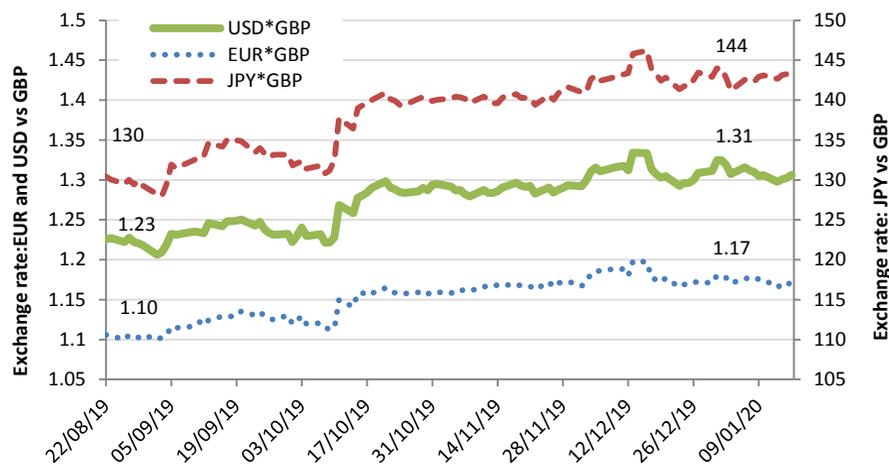


European equity exposure



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 over what is currently an ongoing volatile period due to uncertainty over the Brexit outcome. 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 2019, the market value of the currency hedge since inception on 22 August 2019 was £9.4m. The market value is positive due marginal improvements in the strength of the pound.

	Currency basket weight	FX performance (since inception*)
EUR	11%	£1.1m
JPY	10%	£1.8m
USD	79%	£6.5m
	100.0%	£9.4m

*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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