

Investment Strategy Review

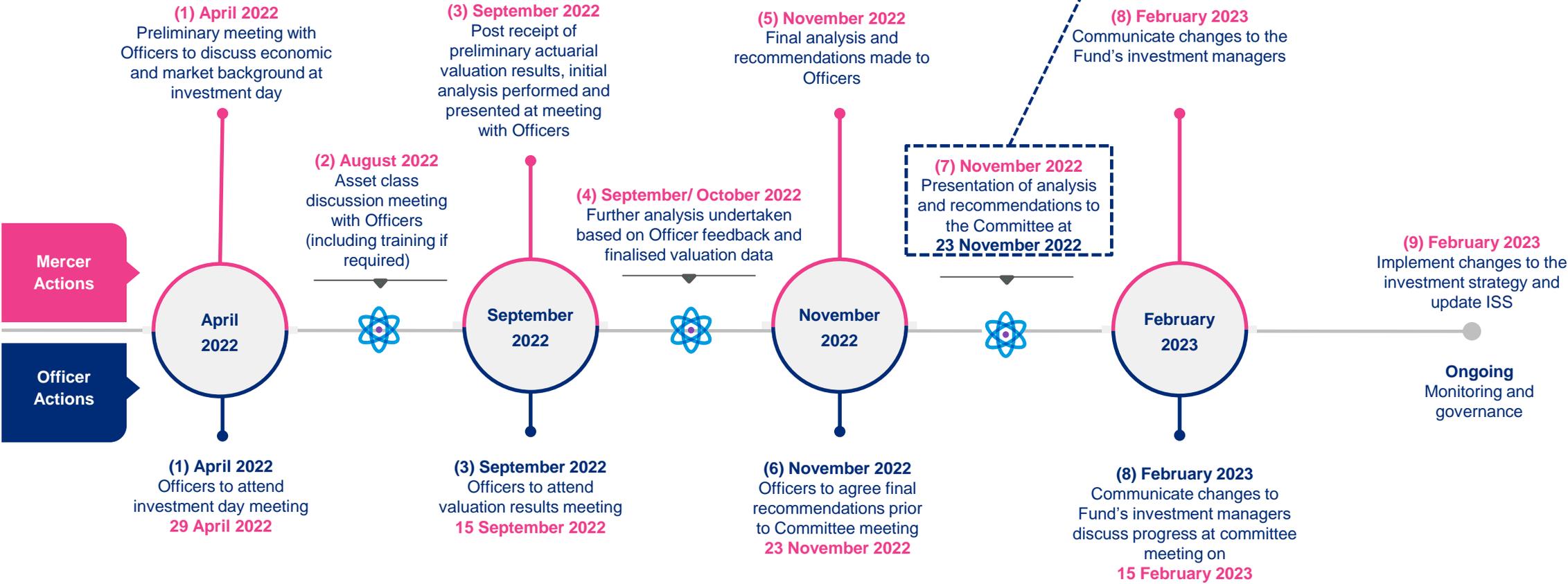
Clwyd Pension Fund Committee

February 2023

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Sandy Dickson
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Clwyd Pension Fund Investment Strategy Review: Proposed Timeline

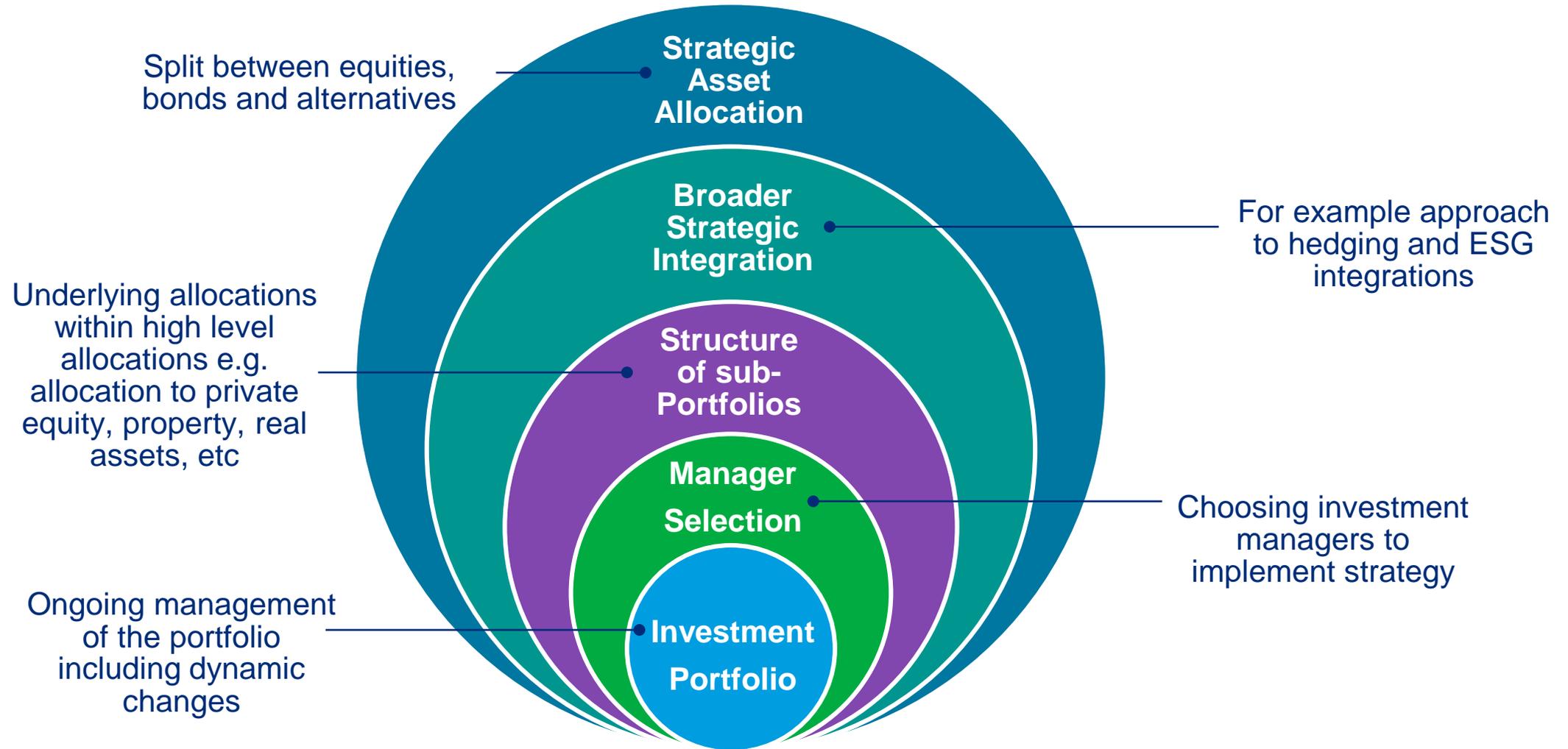
Due to market conditions Investment Strategy Review was pushed back to be taken to the Committee in early 2023



The timescales above are indicative and will depend on the amount of time taken to complete each step
Numbers in brackets show stages of project plan; previous stages must be completed before subsequent stages can start



Setting the Investment Strategy



Top level strategic decisions account for 80/90% of returns and should be the area of focus

Linking Funding and Investment

2022 Actuarial Valuation Summary (Past Service Position)

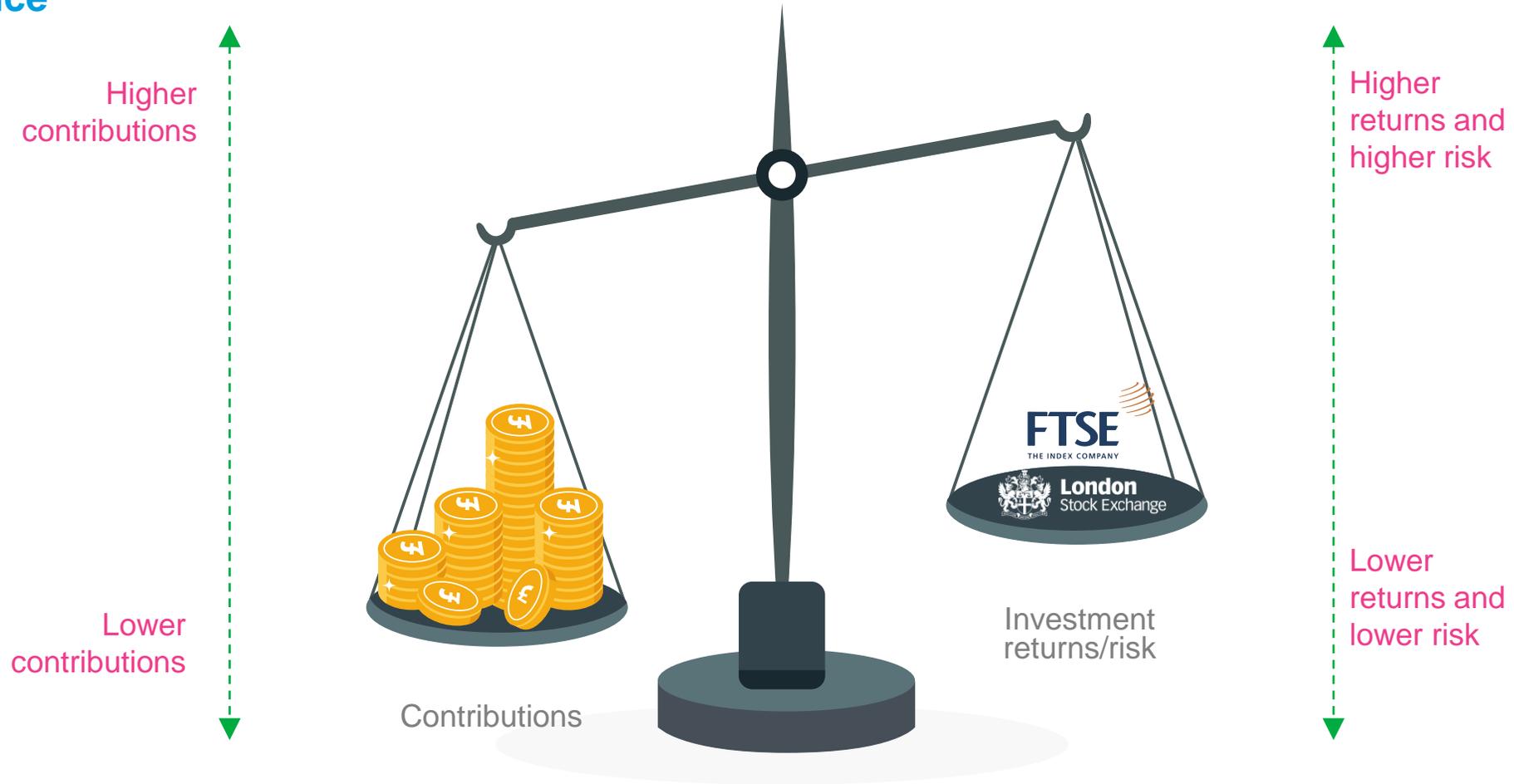
| | 31 March 2022 | 30 September 2022 |
|-----------------------------------|------------------|-------------------|
| Past Service Discount Rate | CPI + 1.50% p.a. | CPI + 2.40% p.a. |
| Surplus / (Deficit) | £126m | £36m |
| Funding Level | 105% | 102% |

The table above is based on the provisional 2022 actuarial valuation results and approximately updated to 30 September 2022.

Fund assets have grown by c£620m between 2019 and 2022 actuarial valuations

Balance of risk and return

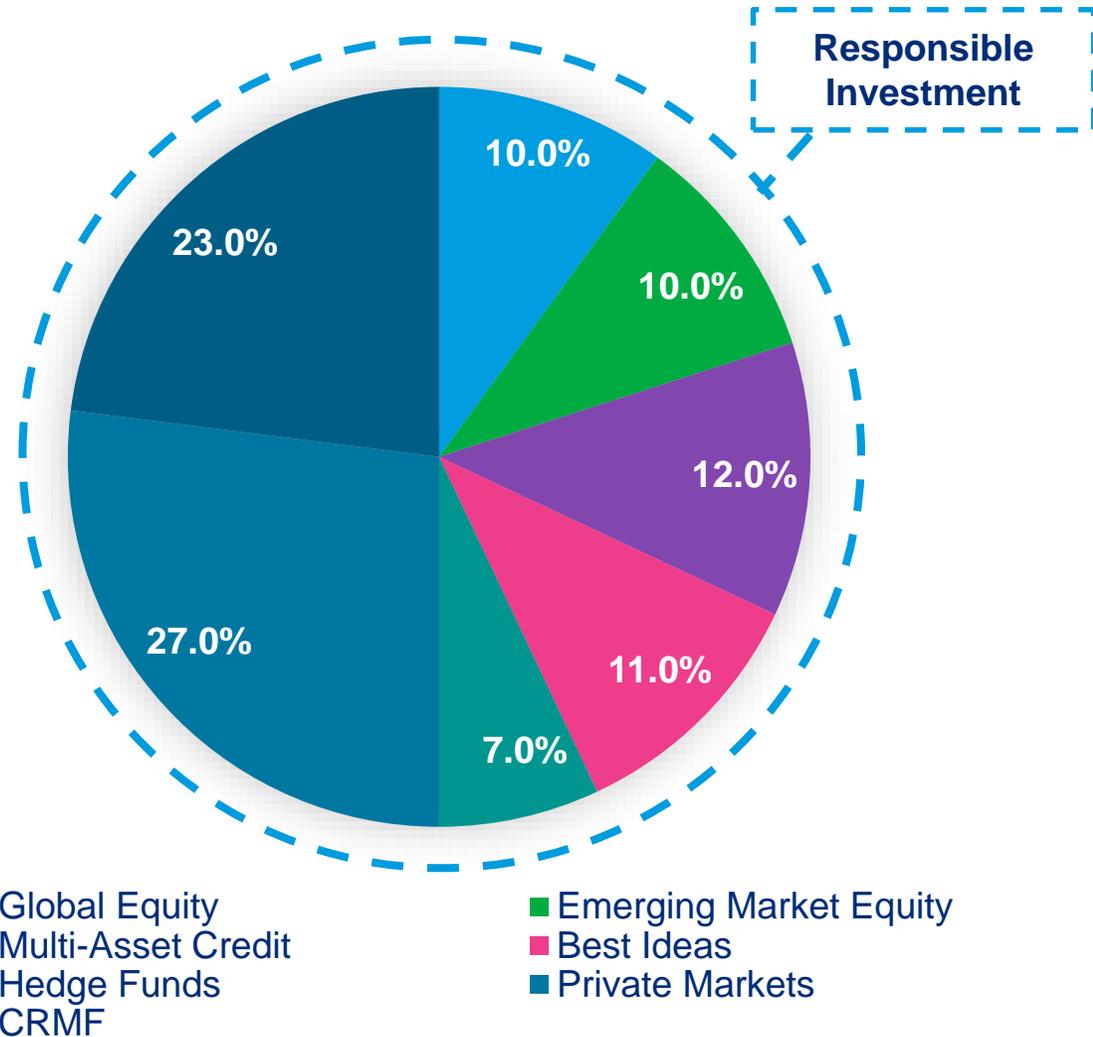
Future Service



Future cost of accrual is also an important consideration and can sit at odds with the desirable level of risk when the Funding Level is strong

Investment Strategy – various roles in Fund’s asset portfolio

Current Target Position



Asset allocation position

Global Equity – Growth asset. Consider introducing new Active Sustainable Fund within the Welsh pool.

Emerging Market Equity – Growth asset. Providing risk premium returns.

Best Ideas Portfolio – Diversified portfolio of growth assets directed by the Officers. Potential to introduce sustainable assets with an ESG focus to enable decarbonisation of Fund.

Hedge Funds – Diversifier within the portfolio, providing active returns with a low correlation to other investments within the Fund.

Multi-Asset Credit – Diversified portfolio of bonds with the aim of providing moderate returns.

Cash and Risk Management Framework (CRMF)– Complex framework providing protection against a variety of risks, such as interest rates, inflation, equity, FX and cashflow.

Private Markets – Key growth assets providing access to illiquidity premium:

Property – Inflation sensitive growth asset, exposed to UK, European and US property.

Private Equity – Diversifying growth asset providing access to the illiquidity premium.

Local/ Impact – Diversifying growth asset providing access to the illiquidity premium with an impact/sustainable focus on the underlying funds.

Infrastructure – Diversifying growth asset providing illiquidity premium and in some cases access to inflation-linked returns and positive ESG characteristics.

Private Credit – Diversifying growth asset providing access to the illiquidity premium.

Key Considerations

- **Funding level remains “strong”** – no need for fundamental change to “fix” a funding gap.
- **March 2022 position** - CPI +1.5% p.a. discount rate at valuation date vs. CPI +2.7% p.a. expected investment return (based on Mercer Capital Market Assumptions as at 31/03/22) under the current target investment strategy.
- **September 2022 position** – CPI +2.4% p.a. discount rate at valuation date vs. CPI +4.8% p.a. expected investment return (based on Mercer Capital Market Assumptions as at 30/09/22) under the current target investment strategy.
- **Private Market and Equity returns (and risk)** continue to dominate investment strategy.- the Fund can continue to build on the progressive allocations to date made in respect of sustainability and impact
- **Inflation risks** remain prominent
- **Interest rate risk** - officers have recently increased interest rate protection within the Cash and Risk Management Framework, the dynamic nature of the framework remains vital to ensuring it continues to add value .
- Scope to increase **sustainable/impact allocations** within liquid assets, the Fund will be allocating to the new **Active Sustainable Equity Sub-Fund** that the Wales Pension Partnership are developing.



This investment strategy review only requires “light touch” adjustments to Fund’s current position

Themes and Opportunities 2023

Déjà New concept

Recovery from a global pandemic, missions to the moon, runaway energy prices due to regional conflict ...
...The early 1970s or the early 2020s? –
Both (H3N2 / COVID, Yom Kippur War / Ukraine, Apollo / Artemis).



History Rhyme

Resources conflict, weak growth, soaring inflation, and unconventional fiscal policy leave investors looking to the lessons of yesteryear on how to be equipped for whatever comes next. With the withdrawal of liquidity, markets will have to stand on their own two feet, increasing the value of capital.



Position for Transition

The decline in commodity availability has highlighted the need for energy security, energy innovation and a long overdue overhaul of ageing infrastructure. Necessity is the mother of invention, and our current challenges will drive the next wave of technologies in energy, the environment, healthcare, and beyond.



Degrees of Freedom

'Degrees of freedom' is mathematics speak for wiggle room. This theme speaks to the power of quality governance: the ability to capitalise on opportunities, the capacity to make and manage sophisticated investments, particularly in private markets, and the potential to dynamically diversify.

Themes and Opportunities 2023

What Déjà New means thematically

History Rhyme



Inflation playbook

Cyclical vs structural inflation risks, investing during an inflation regime

End of free money

Fed put expiry, zombies, liquidity, income comeback, policy decoupling

Balance of power

Hot and cold wars, energy, food, assess exposures

Position for Transition



Resource code

Planetary boundaries, circular economy, infrastructure

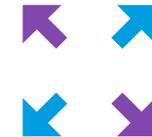
The age of engagement

Managing stakeholder needs just transition, biodiversity, impact

Mother necessity

Clean tech, hard-to-abate, adaptation, healthcare, cybersecurity

Degrees of Freedom



Private eye on the case

Accessing innovation, changing dynamics and product proliferation

Operational alpha

Governance with speed and quality helps capture dislocations

Dynamic diversification

Downside protection, dynamism within strategy, alpha, real assets

Themes and Opportunities 2023

What Déjà New means in terms of opportunities

Key: Process / Action Allocation

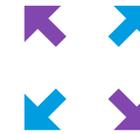
History Rhyme



Position for transition



Degrees of freedom



Inflation playbook

Inflation regime management

Inflation-linked Bonds

Resource Code

Transition-aware natural resources equity

Transition-aware listed infrastructure

ACT analysis

Environmental Funds

Private eye on the case

Don't blink*

Global Real Estate

Venture capital & Buyouts

Secondaries & Co-investments

End of free money

Bond yields

Review currency hedge

The Age of Engagement

Sustainable quality core

Sustainably themed / impact

Operational alpha

Governance speed test

Integrate downside protection strategy into HF program

DAA

Balance of Power

Scenario Analysis

Stress testing

Mother Necessity

Energy transition funds

Look-through to innovation

Dynamic diversification

Opportunities in credit

Flexible Mandates

Hedge Funds

Engage right across the portfolio

*Maintain private markets program and commitments schedule

Rationale for recommended changes

Equity Portfolios



| | Previous strategic allocation | Proposed strategic allocation | Change |
|-------------------------------|-------------------------------|-------------------------------|--------|
| Global Equity | 10.0% | 15.0% | ↑ |
| Emerging Market Equity | 10.0 | 5.0% | ↓ |

- Mercer believe that an increased de-globalised world reduces the advantages of having **significant overweight** exposure to emerging markets, as witnessed in the last couple of decades. The political instability in various segments of emerging markets is leading to lumpy return profiles.
- As a result Mercer recommend reducing the strategic asset allocation to emerging market equity and increasing the allocation to global equities to bring it more closely aligned with MSCI AC World Index weightings.
- In addition Mercer recommends allocating all of the Fund's proposed weight of 15% in Global Equities to the WPP Sustainable Active Equity Sub-Fund (post launch).

Rationale for recommended changes

Hedge Funds and Impact/Local portfolios



| | Previous strategic allocation | Proposed strategic allocation | Change |
|---------------------|-------------------------------|-------------------------------|--------|
| Hedge Funds | 7.0% | 5.0% | ↓ |
| Local/Impact | 4.0% | 6.0% | ↑ |

Hedge Funds

- Mercer recommend a reduction in the strategic allocation to Hedge Funds from a previous allocation of 7.0% to 5.0%.
- The fundamental restructure of the Hedge Funds mandate (undertaken as part of the 2019/20 investment strategy review) has produced returns in excess of the target.
- Significant market volatility in recent years has provided strong context for an asset allocation position that has a low beta to equities and exposure to a dynamic strategy aiming to add value in different market environments.
- Mercer still believe the mandate has an important role to play through its allocation in the wider asset portfolio, though the ability to hedge a range of investment risks also exists through the CRMF.
- A new strategic weight of 5% is therefore recommended.

Local/Impact

- The Local/Impact portfolio plays an important role in the Fund's asset portfolio allowing investments to be made across a range of illiquid asset classes: Private Equity, Private Debt, Infrastructure and Real Estate.
- The forthcoming DLUHC Consultation will, amongst other aspects, focus on the Levelling Up agenda and how the LGPS can play a part in this. The focus will be on LGPS Funds allocating to "local" (Local has been stated to mean UK) investments at a minimum of 5% of total assets.
- Mercer recommend increasing the strategic allocation to the Local/Impact portfolio from 4.0% to 6.0% funded through the reduction to the Hedge Funds allocation.
- Given the allocation is multi-asset in nature it does not lend itself to creating significant concentration risk and it would allow for an ambitious approach to impact to be further demonstrated.

Investment Strategy Modelling

Portfolio's Modelled – 30 September 2022

| | SAA (%) | Actual (%) | Alt 1 (%) | Alt 2 (%) |
|--------------------------------|--------------|--------------|--------------|--------------|
| Global Equity | 10.0 | 11.1 | 15.0 | 10.0 |
| EM Equity | 10.0 | 9.1 | 5.0 | 10.0 |
| MAC | 12.0 | 9.7 | 12.0 | 10.0 |
| Hedge Funds | 7.0 | 7.3 | 5.0 | 7.0 |
| Best Ideas | 11.0 | 11.6 | 11.0 | 12.0 |
| Private Markets | 27.0 | 30.2 | 29.0 | 28.0 |
| CRMF | 23.0 | 17.1 | 23.0 | 23.0 |
| Cash | - | 3.9 | - | - |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Interest Rate Hedge (%) | 50% | 50% | 50% | 50% |
| Inflation Hedge (%) | 40% | 40% | 40% | 40% |

Recommended Strategy

Investment Strategy Modelling

Key return Percentiles – 30 September 2022

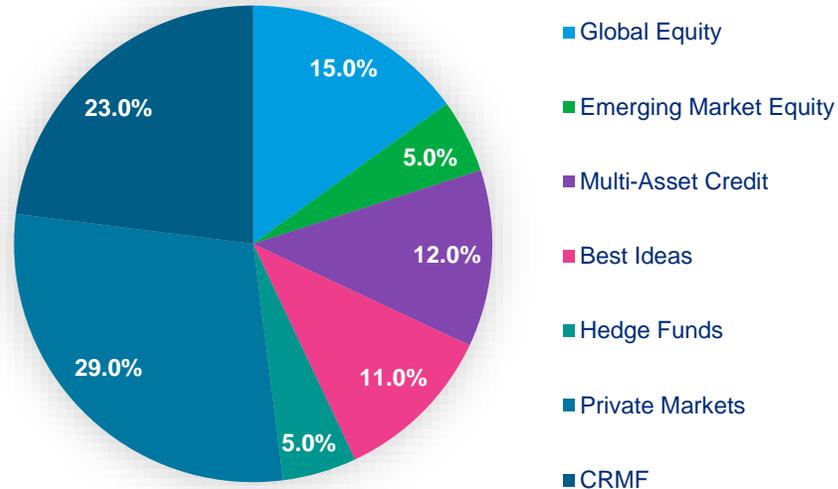
| Return metrics (20 years) | SAA (%) | Actual (%) | Alt 1 (%) | Alt 2 (%) |
|--|----------------|----------------|----------------|----------------|
| Expected absolute return | 8.0% p.a. | 8.0% p.a. | 7.9% p.a. | 7.9% p.a. |
| Expected return over CPI | CPI +4.8% p.a. | CPI +4.9% p.a. | CPI +4.7% p.a. | CPI +4.7% p.a. |
| Risk (3-year 95% VaR) (£m) | £861m | £873m | £855m | £857m |
| Probability of achieving Past Service Discount Rate of CPI +2.4% p.a. | 81.5% | 81.2% | 81.0% | 80.9% |
| Probability of achieving Future Service Discount Rate of CPI + 2.5% p.a. | 80.5% | 80.2% | 80.0% | 79.8% |
| | SAA (%) | Actual (%) | Alt 1 (%) | Alt 2 (%) |
| 60% Confidence | CPI +4.1% p.a. | CPI +4.1% p.a. | CPI +4.1% p.a. | CPI +4.1% p.a. |
| 68% Confidence (proposed past service discount rate) | CPI +3.4% p.a. | CPI +3.4% p.a. | CPI +3.3% p.a. | CPI +3.3% p.a. |
| 70% Confidence | CPI +3.4% p.a. | CPI +3.4% p.a. | CPI +3.3% p.a. | CPI +3.3% p.a. |
| 80% Confidence | CPI +2.5% p.a. | CPI +2.5% p.a. | CPI +2.4% p.a. | CPI +2.4% p.a. |

Note: Future Service Discount Rate yet to be agreed.

Investment Strategy Modelling

Alt 1 Asset Allocation

Asset allocation



Risk (3-year 95% VaR)



Key metrics

| | Alt 1 |
|---|----------------|
| Expected return (CPI + X) | CPI +4.7% p.a. |
| Expected absolute return | 7.9% p.a. |
| Probability of achieving Past Service Discount Rate of CPI +2.4% p.a. | 81.0% |
| Probability of achieving Future Service Discount Rate of CPI +2.5% p.a. | 80.0% |
| Risk (3-year 95% VaR) | £855m |
| | Real Return |
| 60% Confidence | CPI +4.1% p.a. |
| 68% Confidence | CPI +3.3% p.a. |
| 70% Confidence | CPI +2.5% p.a. |
| 80% Confidence | CPI +2.4% p.a. |

Hedging

| | |
|---------------------------|-----|
| Interest Rate Hedge Ratio | 50% |
| Inflation Hedge Ratio | 40% |

Recap on the Fund's Net Zero Commitments

Total Fund and Listed Equity



For the Fund as a whole:

- to have at least 30% of the Fund's assets allocated to sustainable investments by 2030
- to expand the measurement of the carbon emissions of the Fund's investments to include all assets by the end of 2023

Within the Listed Equity portfolio:

- to achieve a reduction in carbon emissions of 36% by 2025 and 68% by 2030 to target at least 30% of the Listed Equity portfolio to be invested in sustainable assets by 2030
- to reduce fossil fuel exposure relating to oil and gas by 70% by 2025 and 90% by 2030
- to reduce fossil fuel exposure relating to coal by 90% by 2025 and 95% by 2030
- to engage with the biggest polluters within the Fund's Listed Equity portfolio as part of an overarching stewardship and engagement strategy, to achieve:
 - by 2025, at least 70% of organisations in carbon-intensive sectors have clearly articulated and credible strategies to attain net zero or are subject to engagement to achieve this objective
 - by 2030, at least 90% of organisations in carbon-intensive sectors have clearly articulated and credible strategies to attain net zero or are subject to engagement to achieve this objective

Further climate change scenario analysis based on latest Mercer model (including three temperature scenarios) to be undertaken in Q1 2023

Summary of recommendations

| | Current target allocation (%) | Proposed allocation (Alt 1) (%) | Change | Comments |
|---|-------------------------------|---------------------------------|----------|--|
| Global Equity | 10.0 | 15.0 | Increase | Total Global Equity allocation to be held via WPP Sustainable Active Equity Sub-fund post launch |
| Emerging Market Equity | 10.0 | 5.0 | Reduce | Scale back given uncertainties in emerging markets |
| Best Ideas Portfolio | 11.0 | 11.0 | - | |
| Hedge Funds | 7.0 | 5.0 | Reduce | Reduce allocation, still role to play though hedging opportunities also via CRMF |
| Multi-Asset Credit | 12.0 | 12.0 | - | |
| Private Markets | | | | |
| Property | 4.0 | 4.0 | - | Allocation remains overweight at present vs previous strategic recommendations – belief to reduce UK exposure still strong |
| Private Equity | 8.0 | 8.0 | - | |
| Local/ Impact | 4.0 | 6.0 | Increase | Fund can continue to build on progressive work to date |
| Infrastructure | 8.0 | 8.0 | - | |
| Private Credit | 3.0 | 3.0 | - | |
| Stabilising Assets | | | | |
| CRMF | 23.0 | 23.0 | - | |
| Cash | - | - | - | |
| Total | 100.0 | 100.0 | | |
| Expected return (% p.a.) | CPI +4.8% p.a. | CPI +4.7% p.a. | - | Slight decrease in overall expected returns |
| Risk (1 Year 95% Asset VaR) | £861m | £855m | - | Marginal decrease in risk |
| Probability achieving PSDR (CPI +2.4% p.a.) | 81.5% | 81.0% | - | |
| Probability achieving FSDR (CPI +2.5% p.a.) | 80.5% | 80.0% | - | |

Note: Positions above cover September Modelling. PSDR = Past Service Discount Rate (CPI +2.4% p.a. as at 30 September 2022), FSDR = Future Service Discount Rate (CPI +2.5% p.a. as at 30 September 2022) – FSDR yet to be agreed. Expected return and VaR based on Mercer's UK Capital Markets Assumptions as at 30 September 2022.

Conclusion & Next Steps



The Fund's current investment strategy only requires "light touch" changes.



The recommendations are consistent with the Fund's Responsible Investment commitments and will demonstrate further progress on sustainability and impact investment.



Subject to Committee approval of the proposed changes to the Fund's investment strategy, the proposed changes to the Fund's **Investment Strategy Statement (ISS) will be made.**



Subsequent implementation planning to be undertaken by Officers with assistance provided by Mercer.

Appendix

Investment Strategy Modelling

Portfolio's Modelled – 31 March 2022

| | SAA (%) | Actual (%) | Alt 1 (%) | Alt 2 (%) |
|-----------------|--------------|--------------|--------------|--------------|
| Global Equity | 10.0 | 10.6 | 15.0 | 10.0 |
| EM Equity | 10.0 | 8.9 | 5.0 | 10.0 |
| MAC | 12.0 | 9.9 | 12.0 | 10.0 |
| Hedge Funds | 7.0 | 6.4 | 5.0 | 7.0 |
| Best Ideas | 11.0 | 11.0 | 11.0 | 12.0 |
| Private Markets | 27.0 | 24.8 | 29.0 | 28.0 |
| CRMF | 23.0 | 25.2 | 23.0 | 23.0 |
| Cash | - | 3.2 | - | - |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

Recommended Strategy

| | | | | |
|-------------------------|-----|-----|-----|-----|
| Interest Rate Hedge (%) | 50% | 50% | 50% | 50% |
| Inflation Hedge (%) | 40% | 40% | 40% | 40% |

Investment Strategy Modelling

Key return Percentiles – 31 March 2022

| Return metrics (20 years) | SAA (%) | Actual (%) | Alt 1 (%) | Alt 2 (%) |
|--|----------------|----------------|----------------|----------------|
| Expected absolute return | 5.9% p.a. | 5.7% p.a. | 5.8% p.a. | 5.8% p.a. |
| Expected return over CPI | CPI +2.7% p.a. | CPI +2.5% p.a. | CPI +2.7% p.a. | CPI +2.7% p.a. |
| Risk (3-year 95% VaR) (£m) | £887m | £843m | £873m | £875m |
| Probability of achieving Past Service Discount Rate of CPI +1.5% p.a. | 66.9% | 65.2% | 67.5% | 67.3% |
| Probability of achieving Future Service Discount Rate of CPI + 2.0% p.a. | 59.7% | 57.7% | 60.1% | 60.2% |

| | SAA (%) | Actual (%) | Alt 1 (%) | Alt 2 (%) |
|--|----------------|----------------|----------------|----------------|
| 60% Confidence | CPI +2.0% p.a. | CPI +1.8% p.a. | CPI +2.0% p.a. | CPI +2.0% p.a. |
| 68% Confidence (proposed past service discount rate) | CPI +1.5% p.a. | CPI +1.5% p.a. | CPI +1.5% p.a. | CPI +1.5% p.a. |
| 70% Confidence | CPI +1.3% p.a. | CPI +1.1% p.a. | CPI +1.3% p.a. | CPI +1.3% p.a. |
| 80% Confidence | CPI +0.4% p.a. | CPI +0.3% p.a. | CPI +0.4% p.a. | CPI +0.4% p.a. |

Note: Future Service Discount Rate yet to be agreed.

Tactical Allocation Portfolio

Best Ideas Portfolio

- Take advantage of short term, tactical opportunities.
- Asset allocation decisions based on a 12 month time horizon.
- The Mercer Tactical Allocation Group meets on a monthly basis to discuss tactical views based on a one year outlook – this forms a natural starting point for assessment of the Best Ideas portfolio's tactical positioning.
- Monthly meetings between Mercer and Officers on Opportunities and Threats.
- Overall asset allocation within the Clwyd Pension Fund at each point in time is considered before arriving at decisions.
- Invested on the Mobius platform accessing a wide range of managers and funds.

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