



USS

*For members, for the future.*

# Employer Investment Discussion Forum

5 December 2022

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# Agenda

1. Recent market activity (20 mins)
2. Investment governance, risk management and investment outlook (40 mins)
3. A detailed look at the Investment Builder (60 mins)

# Recent market activity



# What we will cover

- An overview of recent market volatility
- Why was USS better able to cope
- What we did over this period
- Q&A

# Inflation Linked Bond Yields



## 30yr UK Real Yields



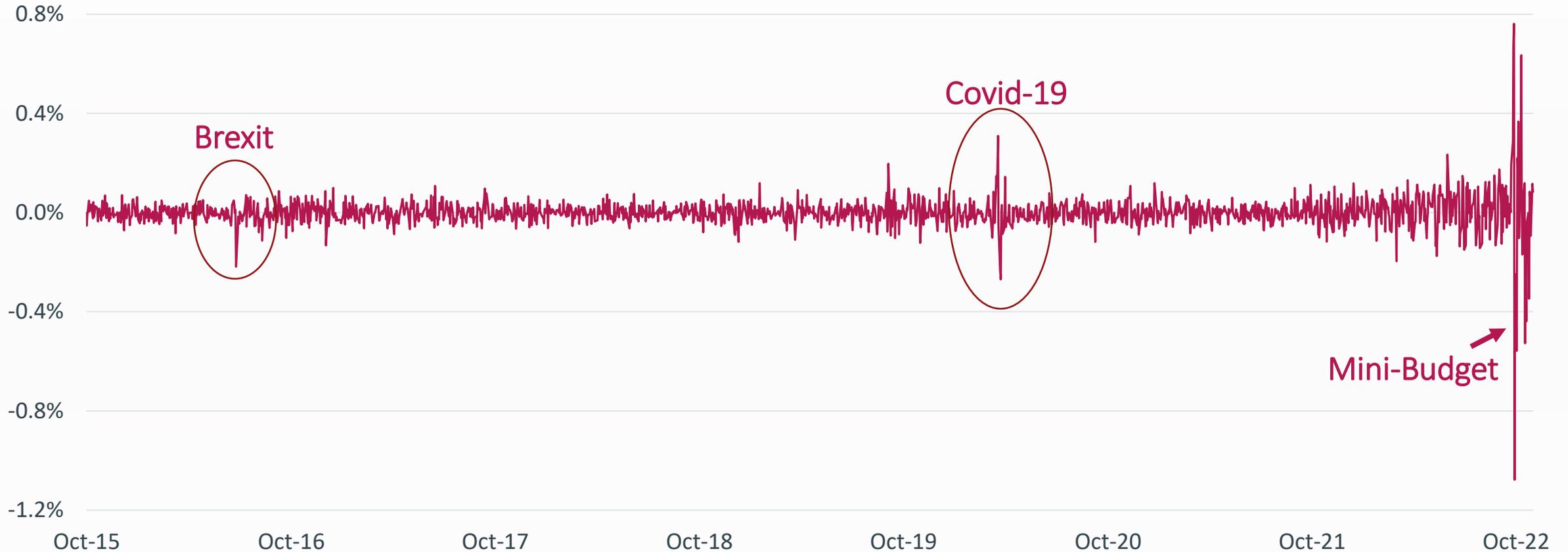
Source: Bloomberg

Rising UK Bond Yields improve funding position

# Inflation Linked Bond Yield volatility



## UK 30Yr Real Yield Daily Change



Source: Bloomberg

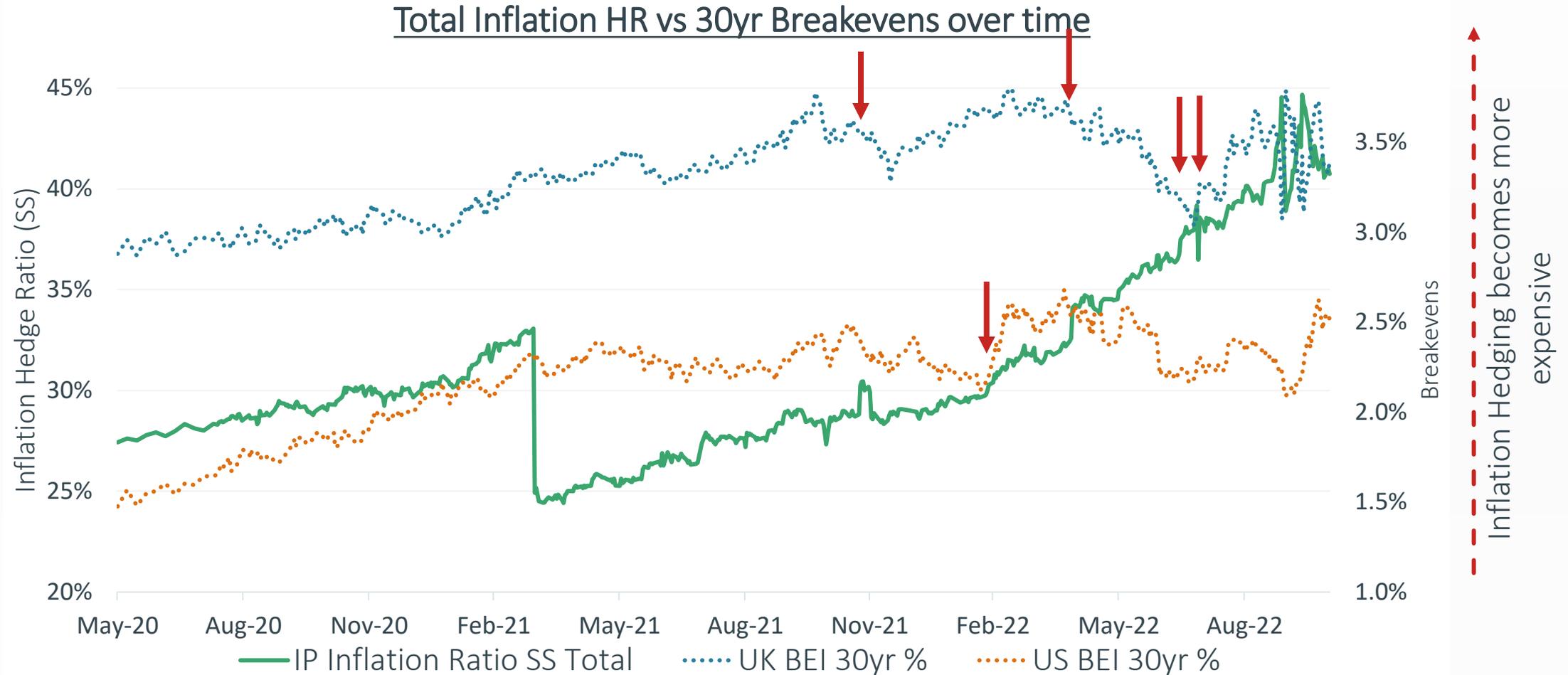
Unprecedented volatility in UK Government Bonds

# Why was USS better able to cope?

- Lower **leverage** than other funds
- More **diversification** of hedging assets (US TIPS/Private Markets) and leverage sources, collateral and funding
- Deliberately **targeted** lower exposure to sterling
- Pre-emptive **action taken** to bolster collateral and reduce cash drain
- An **empowered team** responding fast to events
- **Strong counterparty** relationships

USS has not been a forced seller – but has bought gilts in the turmoil

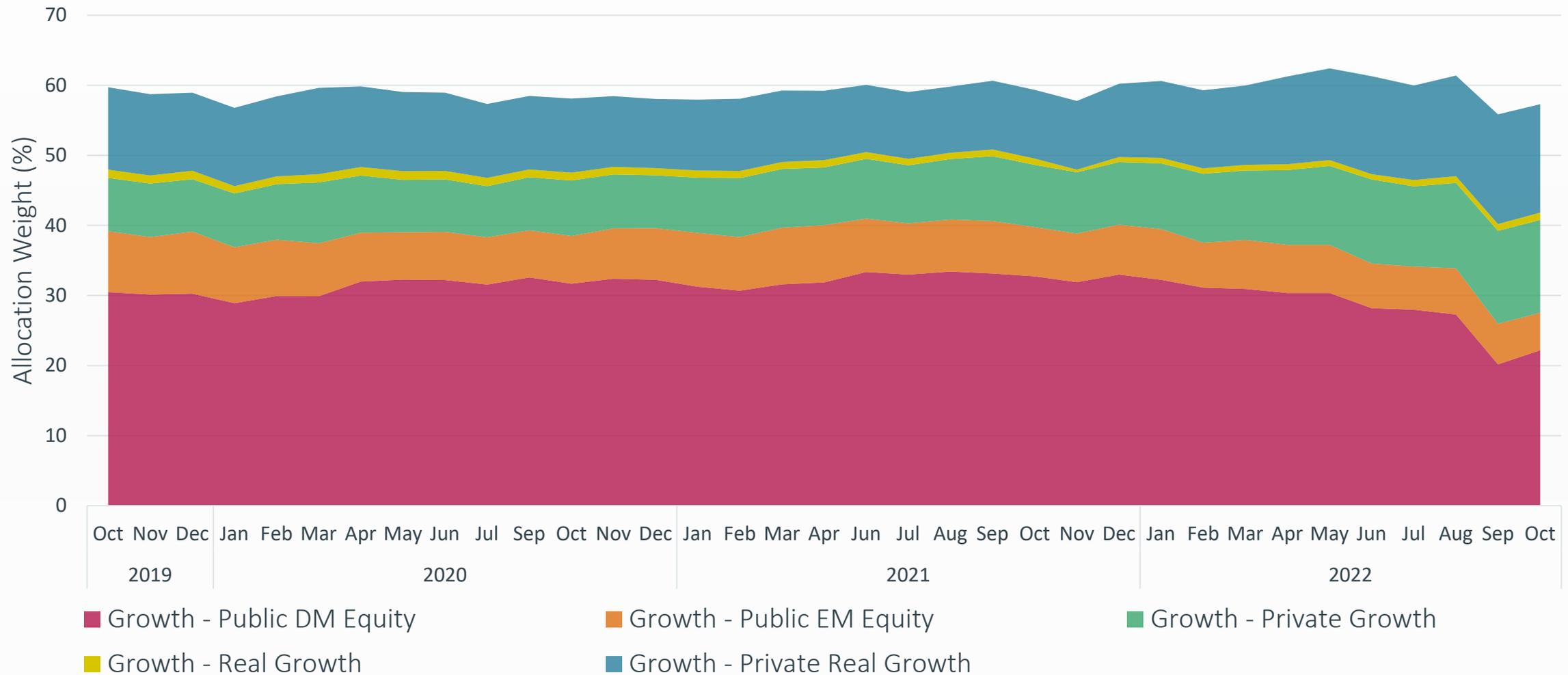
# Progress on Inflation Hedging



Material increase in Inflation Hedging as it got cheaper

↓ = sizeable additions to Hedge Ratio

# USS Growth Assets over time

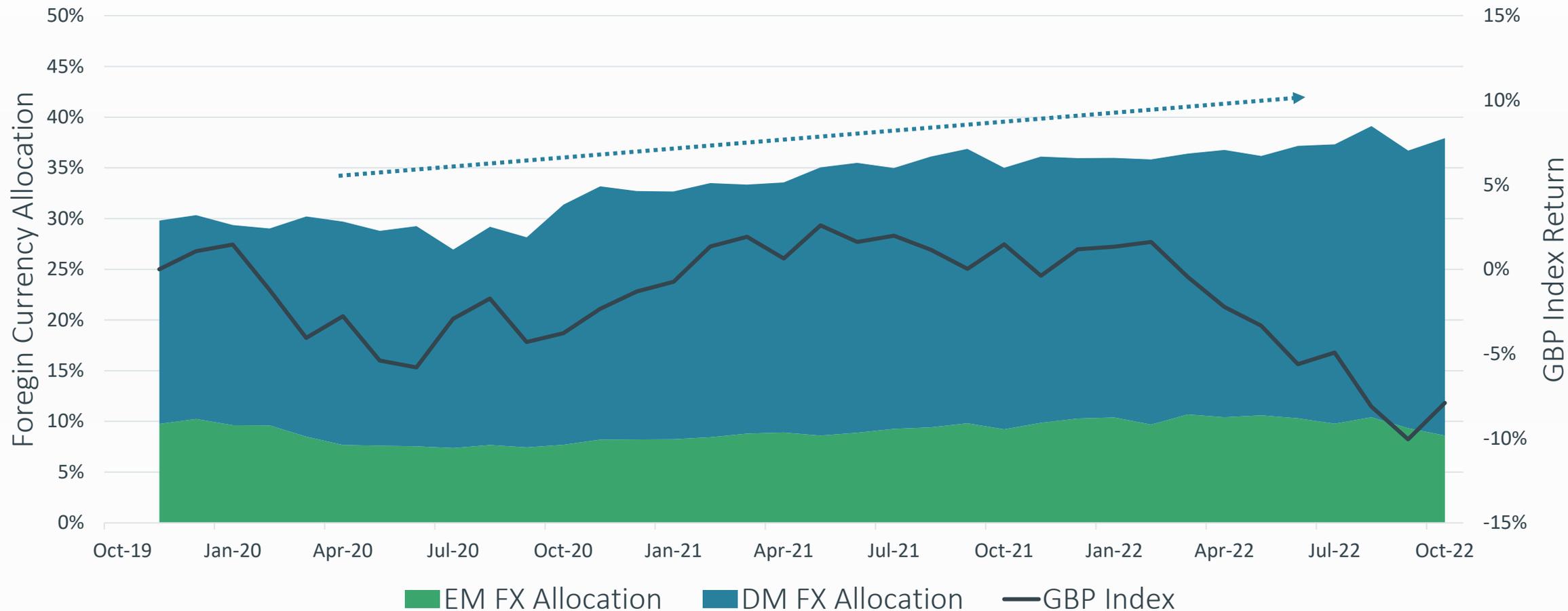


Growth Assets have broadly remained constant at ~60%, but recently reduced given outlook

# Foreign Currency Exposure



## GBP Index vs USS Foreign Currency Exposure



Foreign currency exposure was increased ahead of GBP weakness

# Implications of recent events

- Funding levels have improved. LDI has achieved what it set out to do
- More collateral is likely to be needed to support leverage going forward – stress tests will be recalibrated across the LDI community
- Likely that less leverage can be taken going forward
- More liquidity required across portfolios
- More regulation is likely – stable door horse bolted

# Q&A

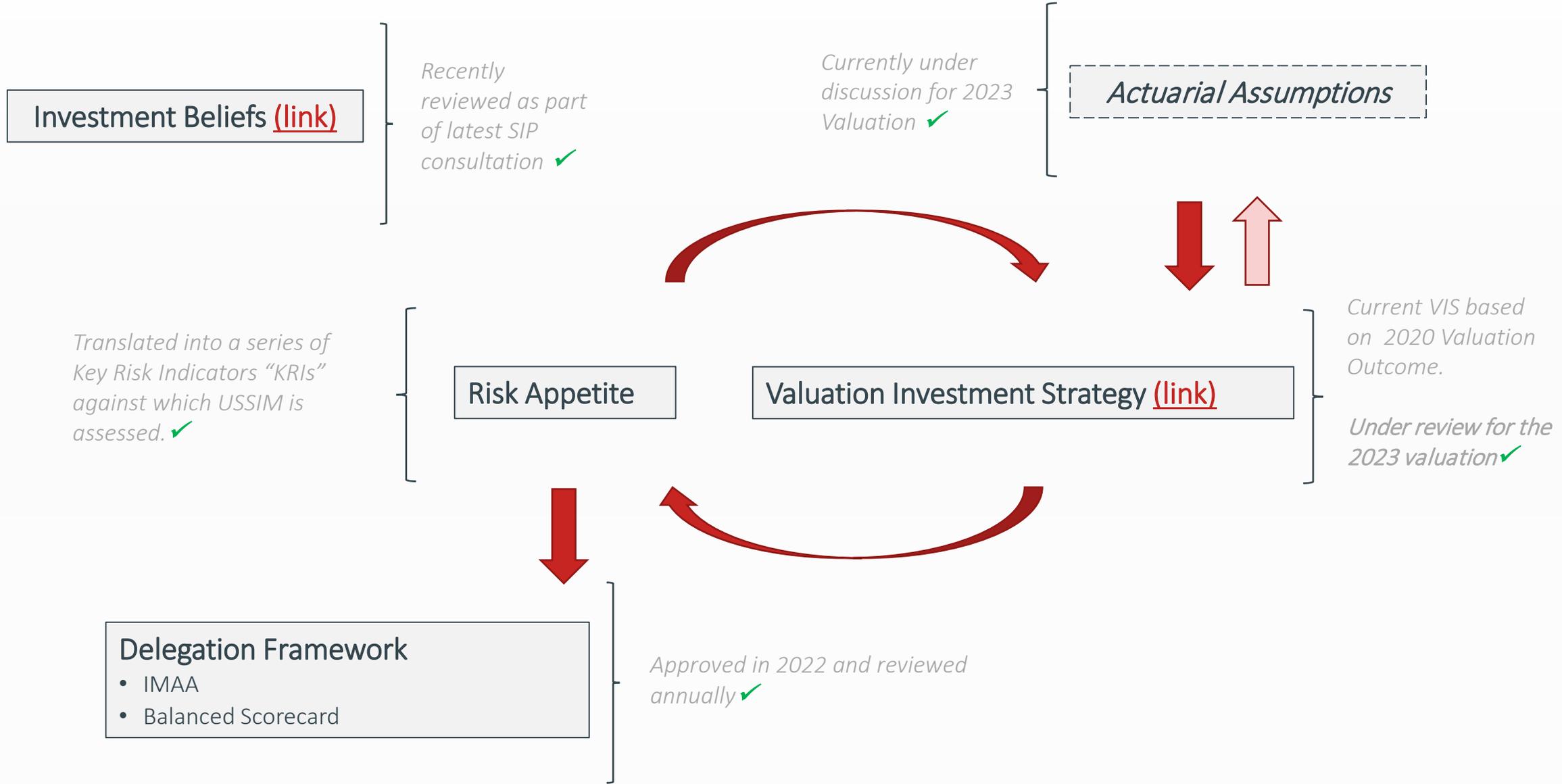
Investment  
governance, risk  
management and  
investment outlook



# What we will cover

- The Investment Decision Landscape
- A recap of the VIS and Investment Framework
- Short and long terms risks
- Short and long term investment outlook
- Long term investment scenarios
- Q&A

# Trustee (Investment) Decision Landscape



# What is the Valuation Investment Strategy (the “VIS”)?

Aligned with the valuation methodology/assumptions & Trustee risk appetite  
Similar to the old Reference Portfolio in formulation/composition  
Helps guide the development of the implemented investment portfolio, but is not the implemented portfolio

## Key components of the VIS

- **Growth: Maintains a high allocation to growth assets over time**
  - Maintains a **growth asset allocation** of c. 60%
  - **Higher allocation to growth assets over time than the 2018 valuation** (which reduced growth assets by c.7.5% every 3 years)
- **Credit: Provides a diversified asset allocation over time**
  - Provides a **credit asset allocation** of c. 25%
- **Hedging: Has increased hedging of liability-related risks (inflation risk and interest rate risk)**
  - Reduces the **total risk** (relative to the liabilities) and **reduces the imbalance** between different risks
  - **Hedge Ratio** (relative to self-sufficiency liability) **increased to 40%** for both interest rate and inflation
- **Leverage: Has increased leverage**
  - The additional leverage allows increased liability hedging **without** reducing the allocation to growth assets

# What is the DB Investment Framework?

## The DB Investment Framework is:

1. A replacement for the DB Reference Portfolio framework
2. An arrangement for DB investment risk management
3. An approach for the Trustee to assess USSIM's DB investment achievements.

## The rationale of the Investment Framework is to:

1. Remove the **disproportionate focus** on the single DB Reference Portfolio (for risk and return purposes)
2. Better **align** USSIM efforts to the Trustee's wider DB objectives and investment policies
3. Introduce a **multi-faceted view of risk** through Key Risk Indicators (in line with the Trustee's investment beliefs)
4. Make USSIM **more accountable** for the Trustee wider DB funding goals (via the USSIM DB Investment Balanced Scorecard).

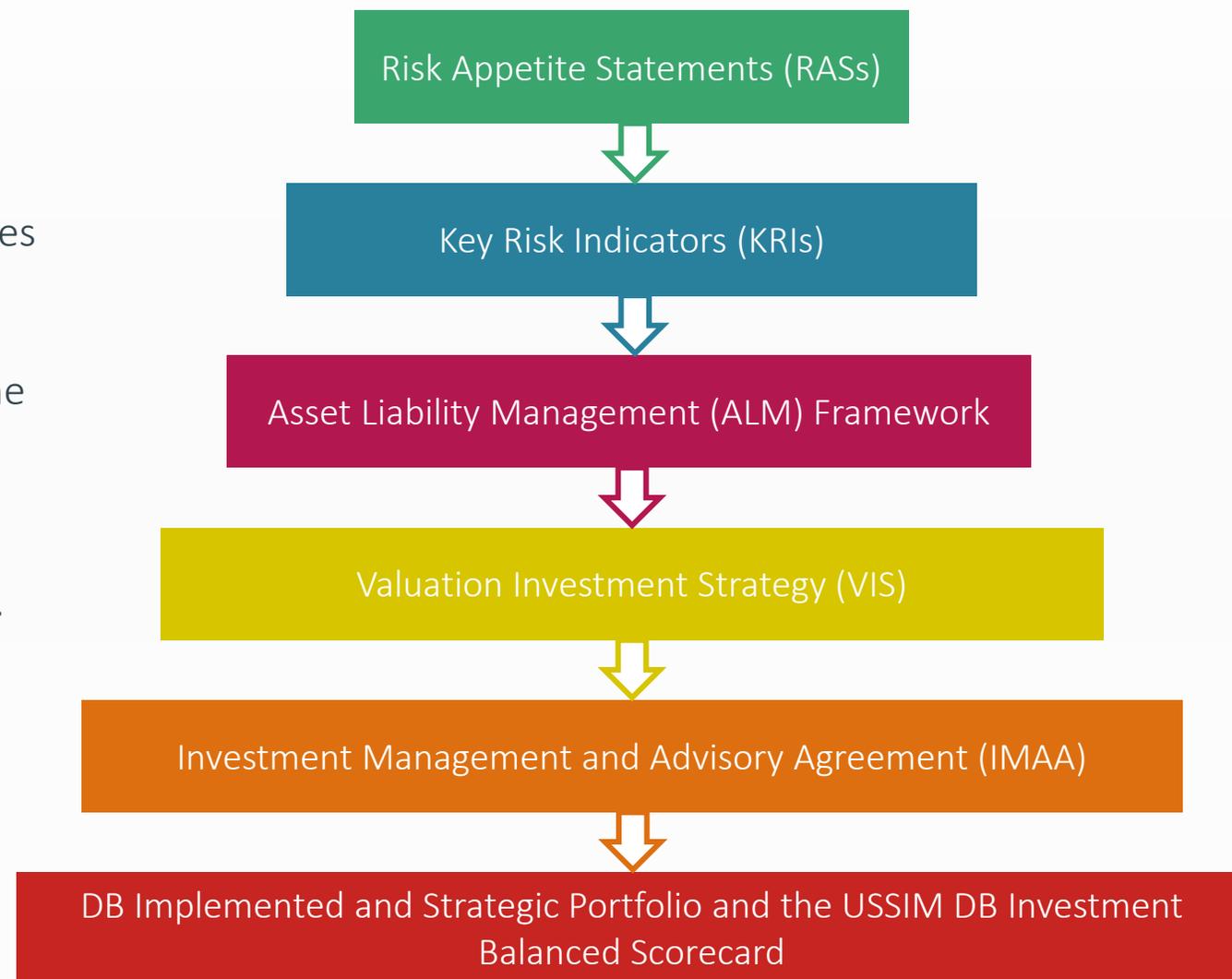
The Investment Framework includes Investment Key Risk Indicators for risk management and a scorecard for assessing USSIMs investment achievements

# How does the Investment Framework align with Risk Appetite?



The Investment Framework ensures that:

1. USSIM is **better aligned** with the risk appetites and investment objectives of the Trustee
2. USSIM is **better aligned** to the interests of the Scheme's members
3. There is a **greater holistic approach** to risk management and the assessment of USSIM.



# USSIM Investment Decision Landscape



**Modelling Decisions**

- Capital Market Assumptions
- ALM/GLASS studies
- Implementation of KRI metrics

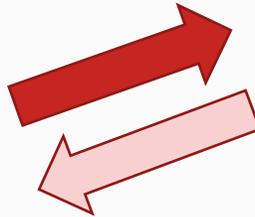


**Investment Advice**



**High Level Asset Allocation**  
Owned by asset allocation committee

- Boiler plate design / choice of bucketing
- Strategic allocations to high level buckets
  - Asset classes
  - FX
  - Hedge ratios
- % Allocation to illiquids
- Operating ranges around strategic allocation



Buckets	SP
<b>Growth</b>	<b>46.5%</b>
Public DM equity	30.5%
Public EM equity	7%
Private Growth	9%
<b>Real Growth</b>	<b>16%</b>
<b>Liability Matching</b>	
Other Hedging	10%
<b>Other Fixed Income</b>	<b>18%</b>
High Grade Credit	7%
Return Seeking	11%
<b>FX</b>	<b>45%</b>
DM FX	35%
EM FX	10%
<b>Rates Hedge Ratio</b>	<b>45%</b>
% GBP Rates HR	80%
<b>Inflation Hedge Ratio</b>	<b>40%</b>
% GBP Inflation HR	70%

**Lower Level Asset Allocation**  
Delegated to business

- Allocation to high level buckets (within operating range)
- Allocation within high level buckets
  - Sub-asset classes
  - FX allocation within EM and DM markets
  - Hedge ratio composition by region



**Implementation Choices**

- Synthetic or physical
  - Active vs Passive
  - Internal vs External, etc
- Treasury management
- Hedging implementation

# How USSIM is assessed: the Investment Balanced Scorecard



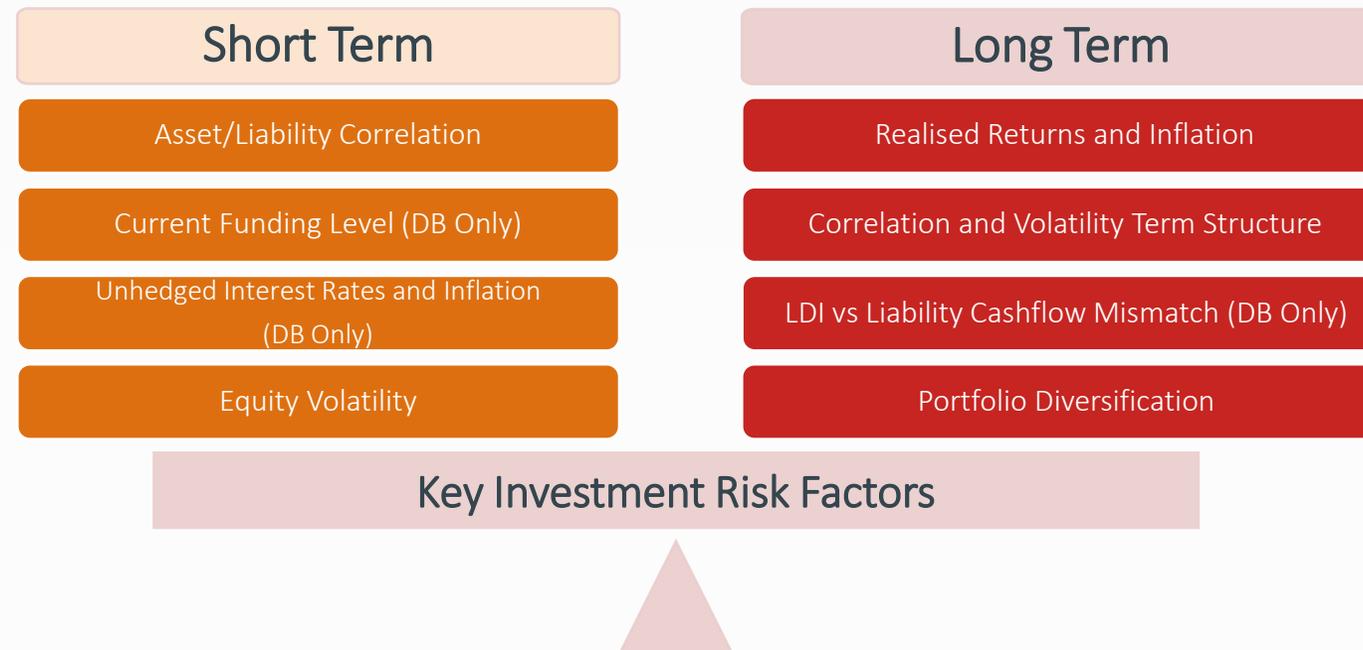
# What are we looking to avoid (as a Hybrid Scheme)?



	Short Term	Long Term
Defined Benefit (DB) Section	<p>Significant short-term deficits.</p> <p>Could lead to unwelcome decisions around contribution rates and/or benefit reform.</p>	<p>The DB Section fails to generate enough return and becomes unsustainable.</p>
Defined Contribution (DC) Section	<p>Member DC pots suffer unwelcome drawdowns (especially just before retirement / drawdown).</p> <p>Poor member perception and/or investment choices</p>	<p>Purchasing power of member DC pots are eroded over time due to underperformance vs inflation.</p> <p>Outcomes do not meet expectations</p>

# What risks do we consider (as a Hybrid Scheme)?

- **Considering investment risk over multiple horizons** is critical to developing a robust and sustainable investment strategy; doing so ensures we are best placed to deal with short term funding alongside longer term sustainability objectives:
  1. **Short term risk** is generally dominated by asset and liability “valuation” factors and assumptions, and is sensitive to the initial conditions.
  2. **Longer term risk** factors account for the evolution of correlations, the interplay between risk and return, and the impact of realised market dynamics
- The **DB ALM Framework** and **Investment Framework** consider both perspectives, and help to ensure the balance between return seeking assets, risk reducing/liability hedging and leverage is managed appropriately



# Investment outlook

# What is our outlook for 2023/24?

Metric	Direction	Outlook for 2023/24
Growth		Well below trend, with recessions likely in Europe
Inflation		Likely to fall but remain above comfortable levels
Interest rates		Rising to a peak in 2023
Equities		Weak outlook for earnings Valuations could bounce if rate rises slow down
FX		Potential for further GBP weakness

# What factors drive our secular outlook?

- What have we learnt about the world over the last few years that might be structural?
  - Supply shocks
  - Policy errors
  - Geopolitical risks
- What else do we know about the coming decade(s)?
  - Climate change
  - Demographic trends
  - Globalisation
  - Tech innovations

# Will real rates remain positive?

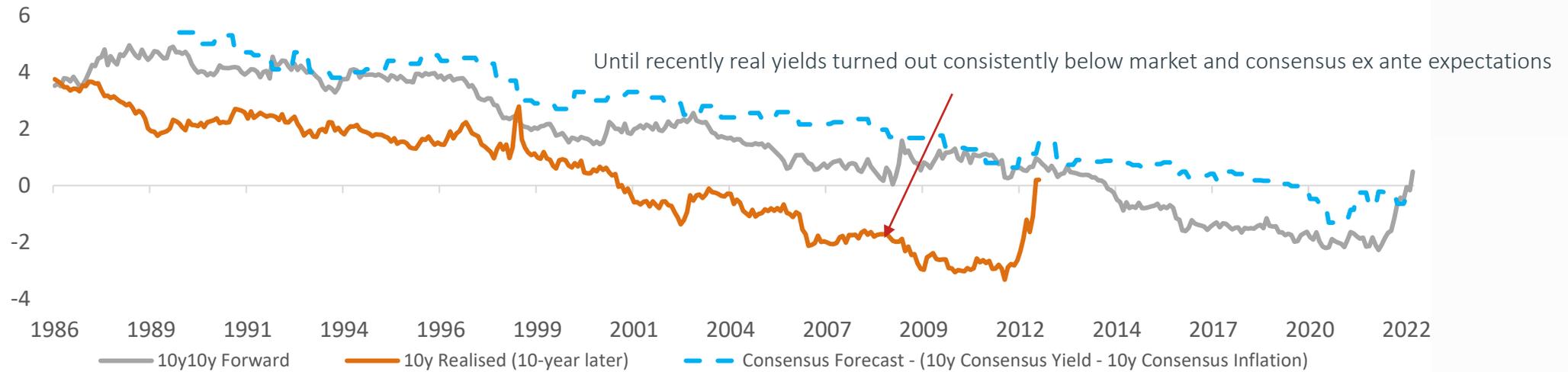
## Higher Real Rates

- Savings dearth
- Macro environment
- Financial fragmentation
- Investment boom

## Lower Real Rates

- Demographics
- Precautionary savings
- Debt overhang
- Financial repression

Long-term consensus forecasts vs. realised: 10-year real UK yields



Some structural factors point towards higher real rates but other long run drivers suggest upside is limited

# Will inflation be structurally higher?

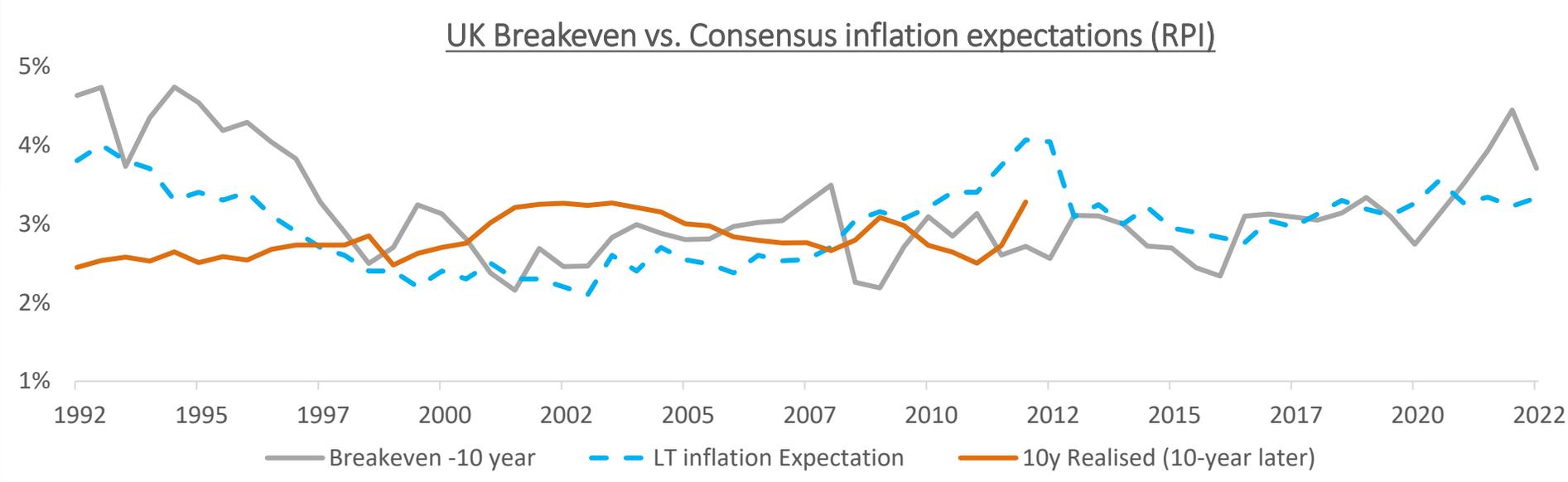


### Higher Inflation

- New world order
- Inequality
- Populism
- Energy transition
- Supply shocks

### Lower Inflation

- Austerity
- Inflation-focused policymakers
- Technology
- Demographics

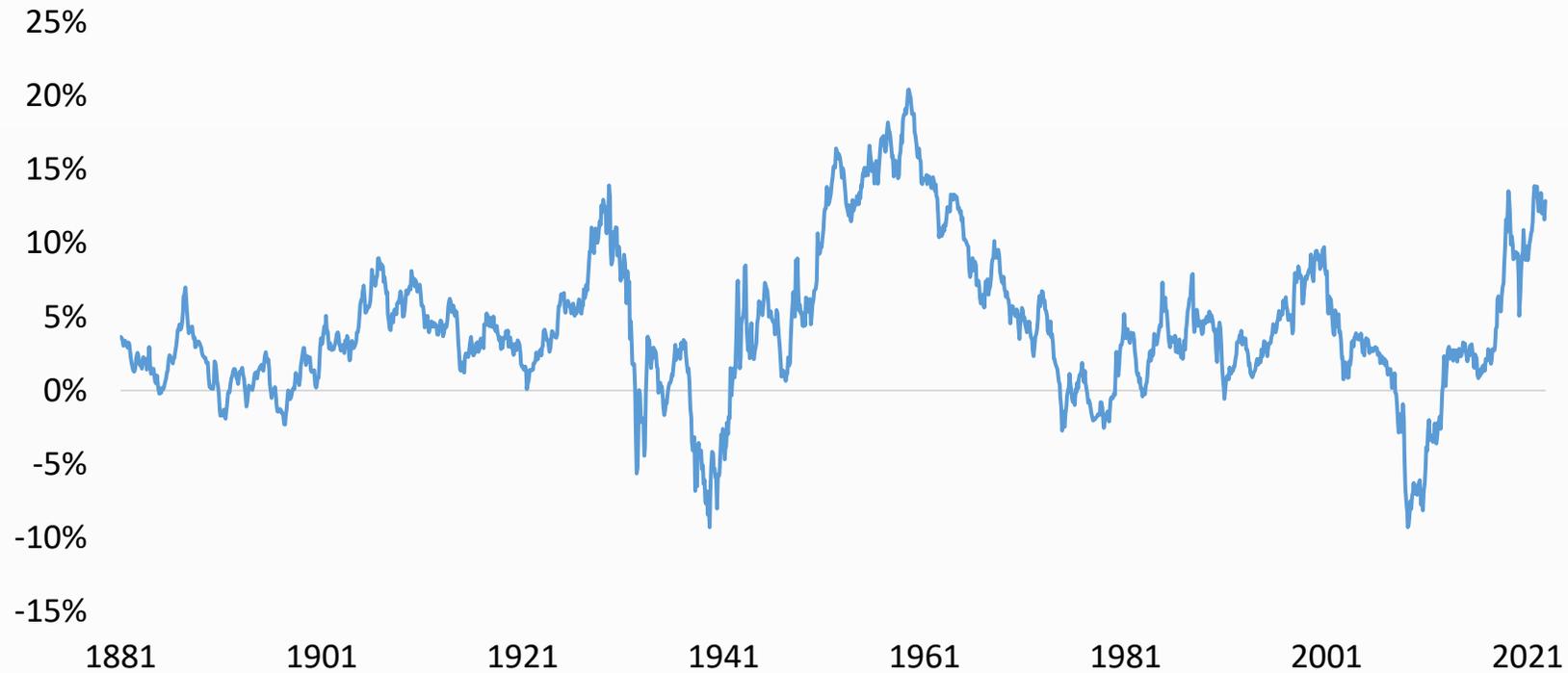


Inflation risks tilted to the upside but today's environment is very different from 1970s-style inflation spiral

# Equity returns relative to bonds can vary considerably



Historical US Equities vs Bond Returns (10y rolling)



Recent equity returns relative to bonds have been very strong

# Does today's pricing imply lower prospective equity returns?

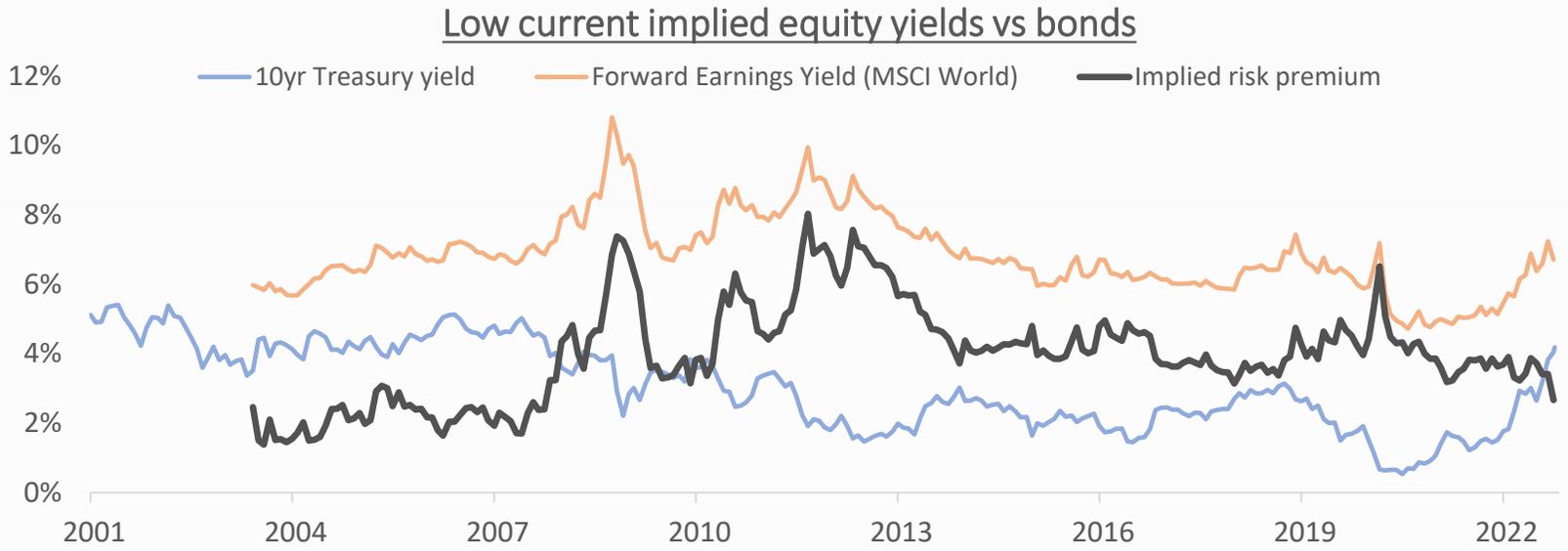


### Higher Equity Returns

- Policy support
- Tech
- New peace dividend
- Monopolies

### Lower Equity Returns

- Macro and geopolitical instability
- Portfolio allocation
- Profit margin compression
- Capital vs labour



Prospective equity returns relative to bonds appears low vs. history

# Overview of Long-term Scenarios

To understand some of the major macro risks that could affect our asset allocation, we have developed and investigated a set of plausible scenarios:

## Baseline

- A challenging period of moderate growth and inflation above target on average
- Modest falls in bond yields and low excess returns from equities
- CO2 emissions reduce but not in line with Paris Alignment

## Iron Curtain

- Globalisation in reverse as West and China/Russia blocs increase tensions and reduce trade
- Persistently higher energy costs as West attempts to transition to other sources
- Weak growth, high inflation, poor equity returns and lower yields

## Persistent Inflation

- Inflation and expectations rise but CBs do not tighten monetary policy sufficiently and fiscal policy remains loose
- Inflation structurally higher and more volatile
- Negligible impact on long term growth but equities hit by increased uncertainty

## Fast Transition

- Sharp reduction in global CO2 emissions, avoiding the worst of the climate physical risks
- More carbon regulation and taxes could result in higher inflation
- Additional investment increases real interest rates

## Redistribution

- Increased tax rates and redistributive fiscal spending
- Economy allowed to “run hot” so strong growth and inflation
- Supports labour vs capital share of income so sees a big hit to corporate profit margins

## Secular Stagnation

- As supply-side disruption subsides, fiscal tightening and shock to real wages could deliver persistent below-trend growth
- Interest rates remain close to zero for many years
- Profit margins and equity valuations remain elevated

## Strong Productivity

- Strong recovery followed by sustained productivity growth
- Muted inflationary pressures as growth driven by innovation
- Real yields edge higher while corporate earnings grow strongly

# Q&A

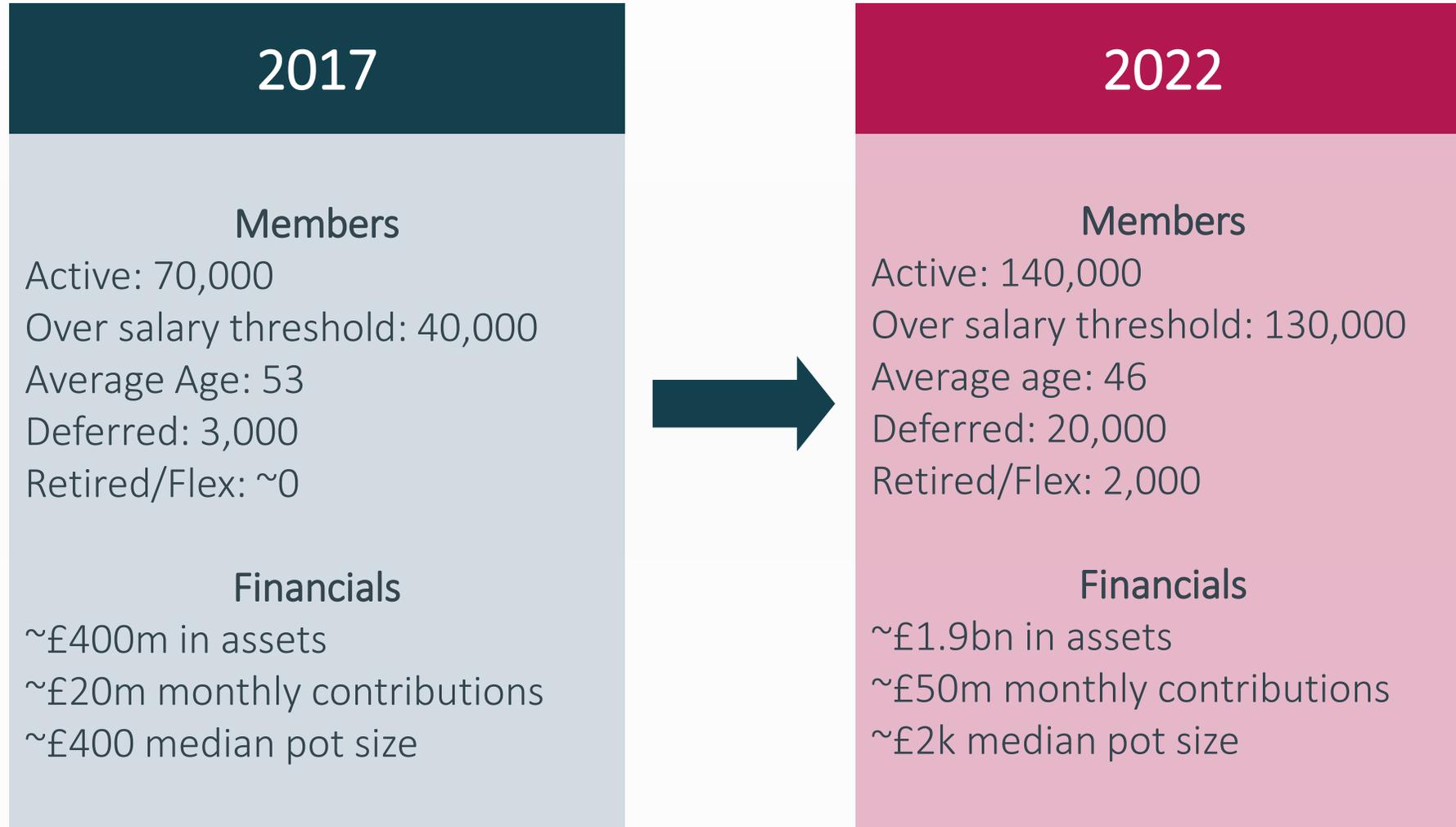
A detailed look at the  
Investment Builder  
(DC)



# What we will cover

- The evolution of the Investment Builder
- Making the Investment Builder suitable for our members
- Our DC communications
- Where our DC members are invested
- DC investment performance

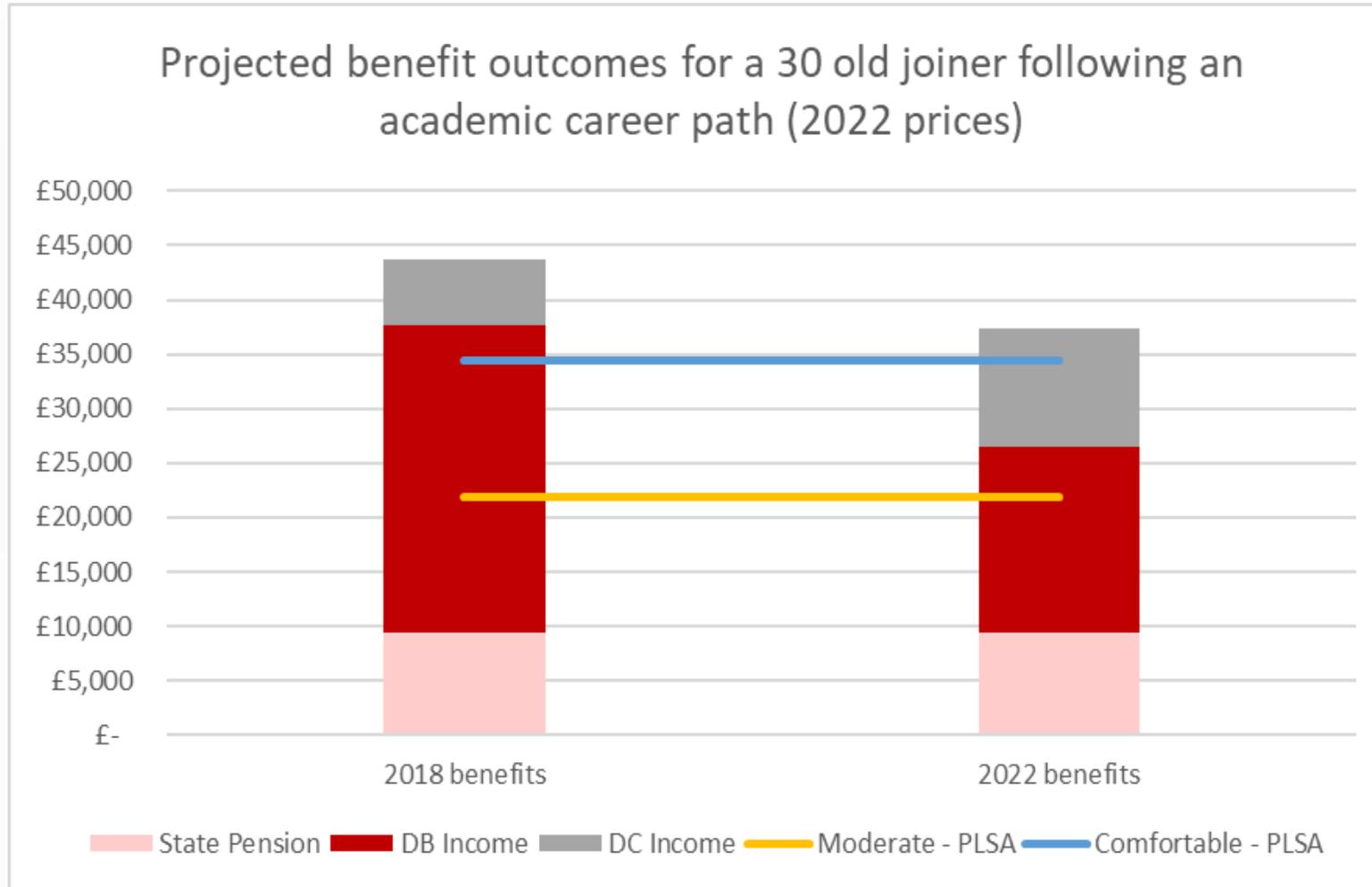
# Investment Builder – then vs now



# Scheme changes and the role of the Investment Builder



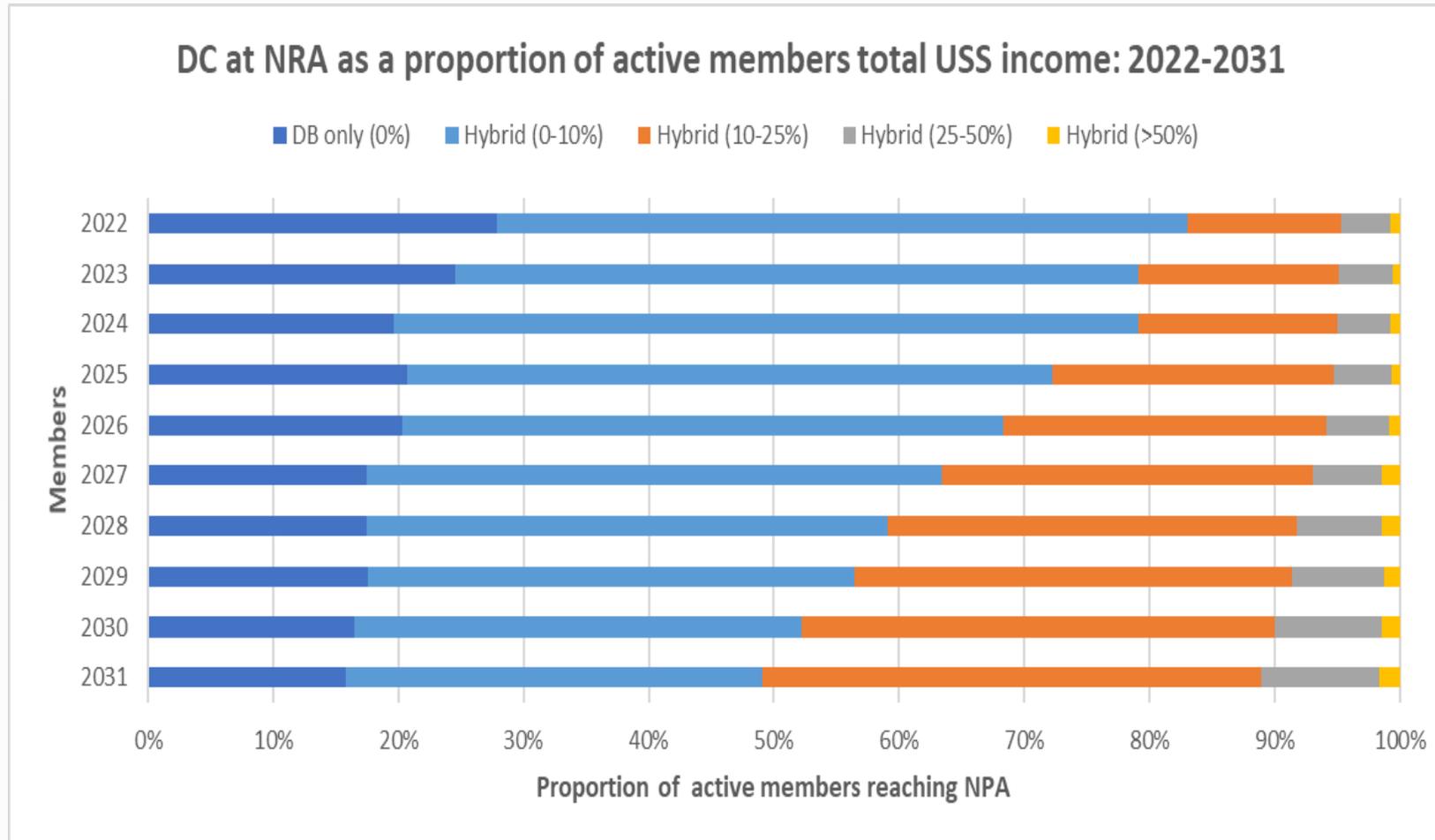
For younger members, DC will likely be an important part of their retirement income:



# Scheme changes and the role of the Investment Builder



But for most members approaching retirement, DC will remain a top up to their Retirement Income Builder benefits (their guaranteed income):



# Making the Investment Builder suitable

The pensions and investment proposition is driven by insight on the needs of our members, including where they may differ from other DC savers.

## A default for hybrid benefits

**Role of DB Underpin** – increased risk capacity, even after changes

**Attitudes to Risk** – Diverse, but age strongest predictor of risk taken in practice despite pre-launch research

**Demographics** – Members won't make significant contributions until later in their career

**How funds will be used** – Majority take tax free cash but expect gradual shift to continued investment

## A carefully curated set of self select options

Large majority of members are using the default

Strong (but not as strong as expected) demand for ethical investing

Small number of highly engaged members who want to actively manage their investments

10 options including risk rated DGFs, geographies and asset classes, but no attempt to mirror SIPP flexibility

## Evolving flexibilities

Low demand for flexibilities initially as Investment Builder as tax free cash has a number of advantages

Pre-retirement access valued by some - UFPLS

Small but growing group of retired members – later access or inheritance

Low interest in annuitisation, but access needed as in-scheme conversion is removed

# Current priorities for the DC proposition

## 1. Segmented communications

- Educating members new to DC (or with increased DC) with the basics, including how hybrid benefits work and using My USS to view and manage their savings
- Encouraging members closer to retirement to start planning, including reviewing and updating their Target Retirement Age

## 2. Supporting retirement planning for members

- Enhancing the modeller tools available to members, to include target incomes, investment choices and options for accessing DC
- Mid-life MOT
- At retirement guidance (digital and phone)

# Our DC content and communications



## New Investment Builder hub and choosing your investments pages on [uss.co.uk](https://uss.co.uk):

The screenshot displays the USS Investment Builder hub with several content cards:

- Choosing how and where to invest:** Explains that users can let experts manage investments (Do It For Me Option) or make choices themselves (Let Me Do It Option). Includes a 'Learn more' button.
- Setting your Target Retirement Age (TRA):** Discusses the importance of setting a TRA and provides an 'Update your TRA' button.
- A flexible way to take your savings:** Describes options for taking savings and includes a 'Learn more' button.
- Choosing to save more:** Encourages additional contributions and includes a 'My USS' button.
- Investment:** Mentions employer contributions and includes a 'Download guide' button.

The detailed view of the 'Choosing how to invest your savings' page shows two main options:

- Do It For Me:**
  1. Decide if you want your savings to be invested ethically or not, depending on your investment objectives and beliefs
  2. Set your investment choices in My USS
  3. Set a Target Retirement Age (TRA) in My USS
- Let Me Do It:**
  1. Choose to invest in one or more of the 10 funds available, which include ethical options
  2. Set your investment choices in My USS
  3. Set your Target Retirement Age (TRA) in My USS

## Member emails with a DC focus:

- ✓ Understanding investments video
- ✓ How does the Investment Builder compare?
- ✓ Ways the Investment Builder could work alongside your Retirement Income Builder pension.

## And more coming up...

- An overview of DC flexibilities
- The new salary threshold

## Repositioned DC alongside DB on [uss.co.uk](https://uss.co.uk) to demonstrate how both parts work together:

- ✓ New 'How your pension works' webpage
- ✓ New 'Managing your hybrid pension' webpage
- ✓ New 'What happens when you join the Investment Builder' video

# What we're doing to enhance our DC comms

Revamping the Investment Guide and Quarterly Investment Reports to make them more informative and resourceful for members and guide them through their options.

Updating the investment web pages to better align DC selling points and flexibilities.

Embed wider DC education, including TRA engagement, at the right time on members' segmented comms journeys.

DC 'did you know?' messaging to share DC benefits.

Visually summarise the DC Chair Statement to pull out key points for members.

Continue our 'understanding investments' campaign theme, which covers our DB and DC investments more broadly.

# A closer look at where our members are invested



Member assets: £1.9bn

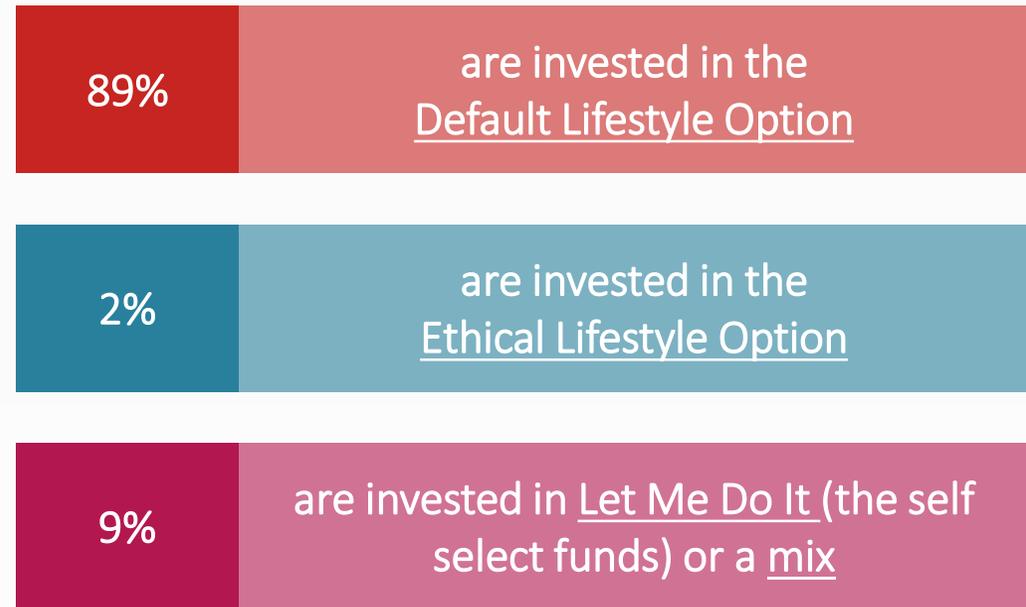
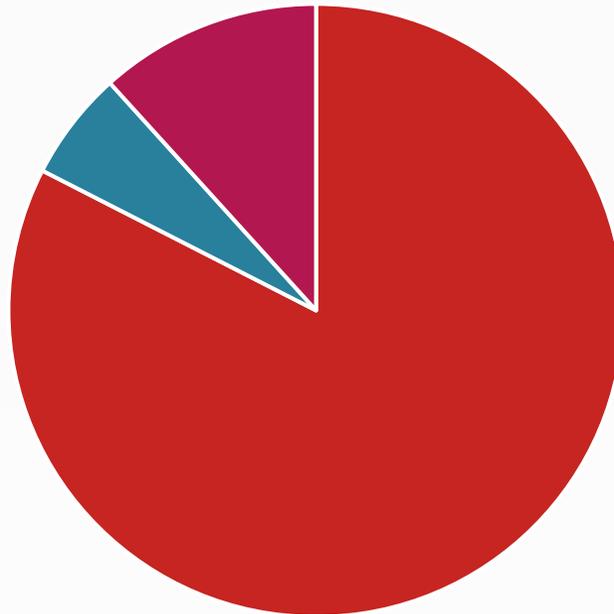


Annual contributions: £0.5bn



Members: >150,000

Where members are investing...



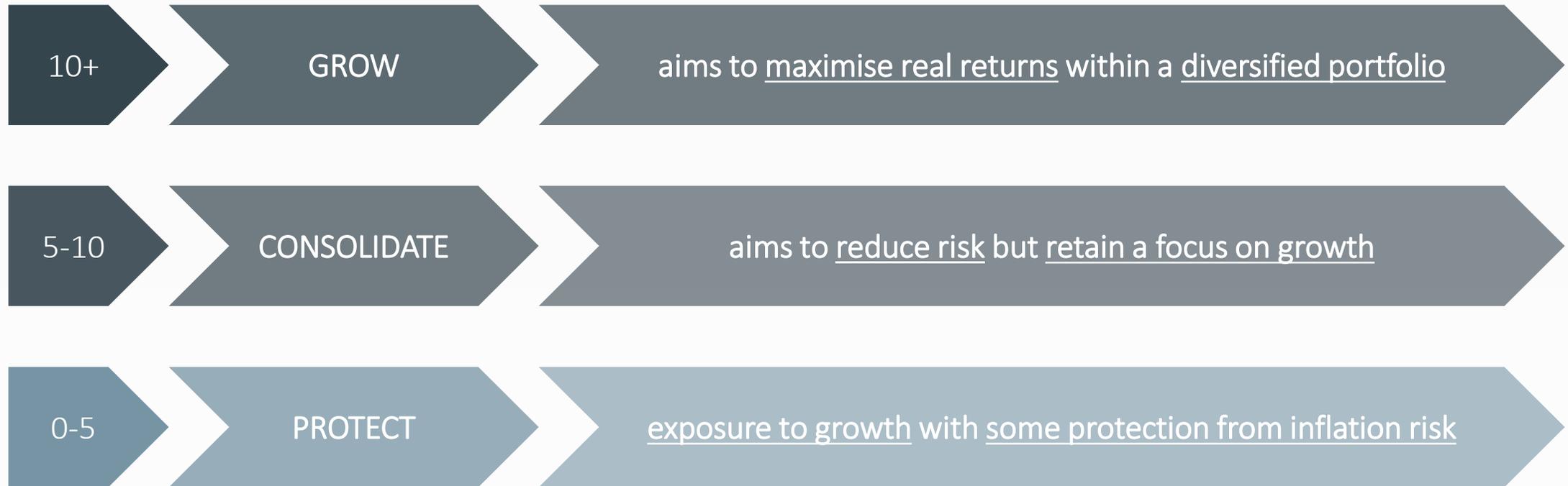
■ Default Lifestyle Funds ■ Ethical Lifestyle Funds ■ Self Select Funds

# The Default Lifestyle Option



The option members choose if they want us to manage their investments for them – we gradually de-risk investments over time to those generally less susceptible to market volatility.

Years to Target Retirement Age...



# USS Growth Fund



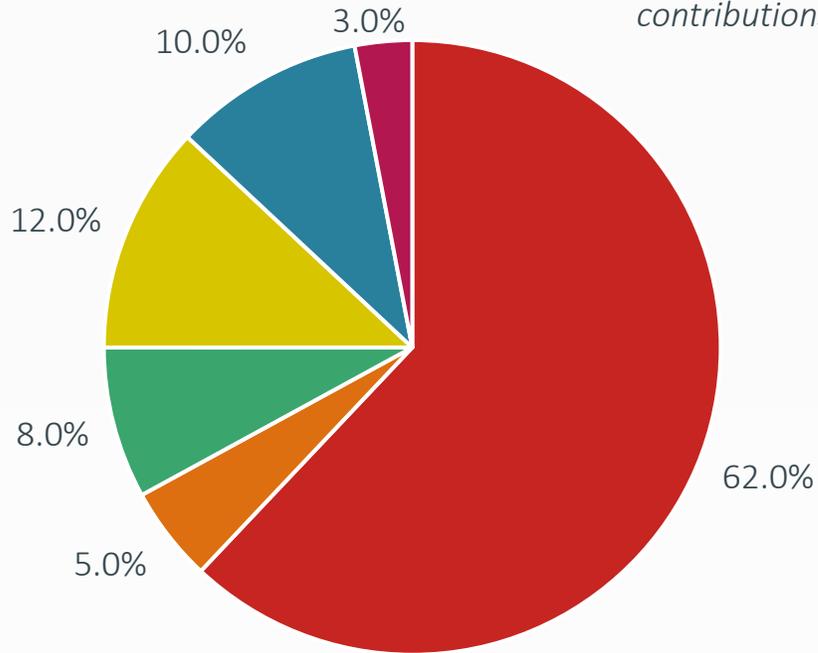
*Aims to produce a CPI +3.0% per year return over the long term*

AUM £1,107m

FEES 0.30%

LAUNCH 3 October 2016

*Subsidised by employers for normal contributions.*



- Equities
- Opportunistic Credit
- Govt. Bonds
- Real Assets
- High Grade Credit
- Cash



USS Investment Management Ltd



WELLINGTON MANAGEMENT®



# USS Growth Fund: Equities

*50% of the USS Growth Fund is invested in a Climate Tilted portfolio*

Maintains broad market exposure with sector and country constraints relative to parent benchmark

Aligns with our Net Zero ambition

Aligns with USSIM's investment exclusions policy and CTB baseline exclusions

# USS Growth Fund: Equities

*Passively managed developed markets equity mandate, which tracks a Climate Transition Benchmark, adjusted for our requirements. Segregated account used by both DB (£5bn) and DC (£0.7bn).*

## UK's biggest private pension fund to shift £5bn away from polluters

**Exclusive: climate tilt by USS will immediately reduce emissions associated with its holdings by 30%**

### USS makes steps towards Net Zero with carbon reducing investment benchmark

USS Investment Management, the wholly-owned investment arm of the Universities Superannuation Scheme, today announces its intention to introduce a climate "tilt" to a portion of the Global Developed Markets Equity component of the defined benefit and defined contribution funds held by the scheme. This change will affect over £5bn of assets under management.

This will be a first important step in USS's path to achieving the ambition to be Net Zero and will initially reduce emissions\* compared to the broad equity market by at least 30%, and further decrease its carbon intensity by 7% each year thereafter. This will include all Scope 1, 2 and 3 emissions from day one.

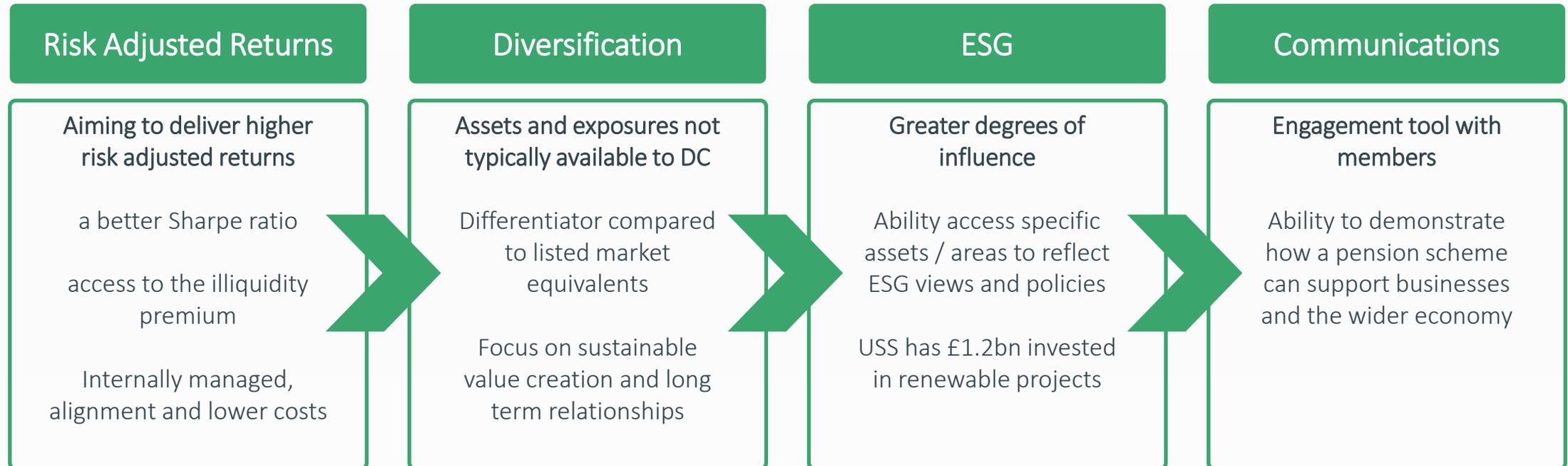
USS said last month that it would achieve an immediate cut of 30 per cent in carbon emissions on a \$5bn portfolio of developed market equities by shifting it to a new climate transition benchmark which has been developed in partnership with Solactive, an index provider.

The passive portfolio, which will be managed by Legal & General Investment Management, will overweight companies that can demonstrate they are on the path to reducing greenhouse gas emissions while also eliminating companies that do not meet the UN Global Compact's sustainable development goals.

# USS Growth Fund: Private Markets



*20% of the USS Growth Fund is allocated to Private Market investments*



# USS Growth Fund: other growth and diversifying assets

*The remaining 30% is invested in other growth and diversifying investments, such as...*

Emerging Market Equities

High Yield Bonds

UK and Global Government  
Bonds

Emerging Market Bonds

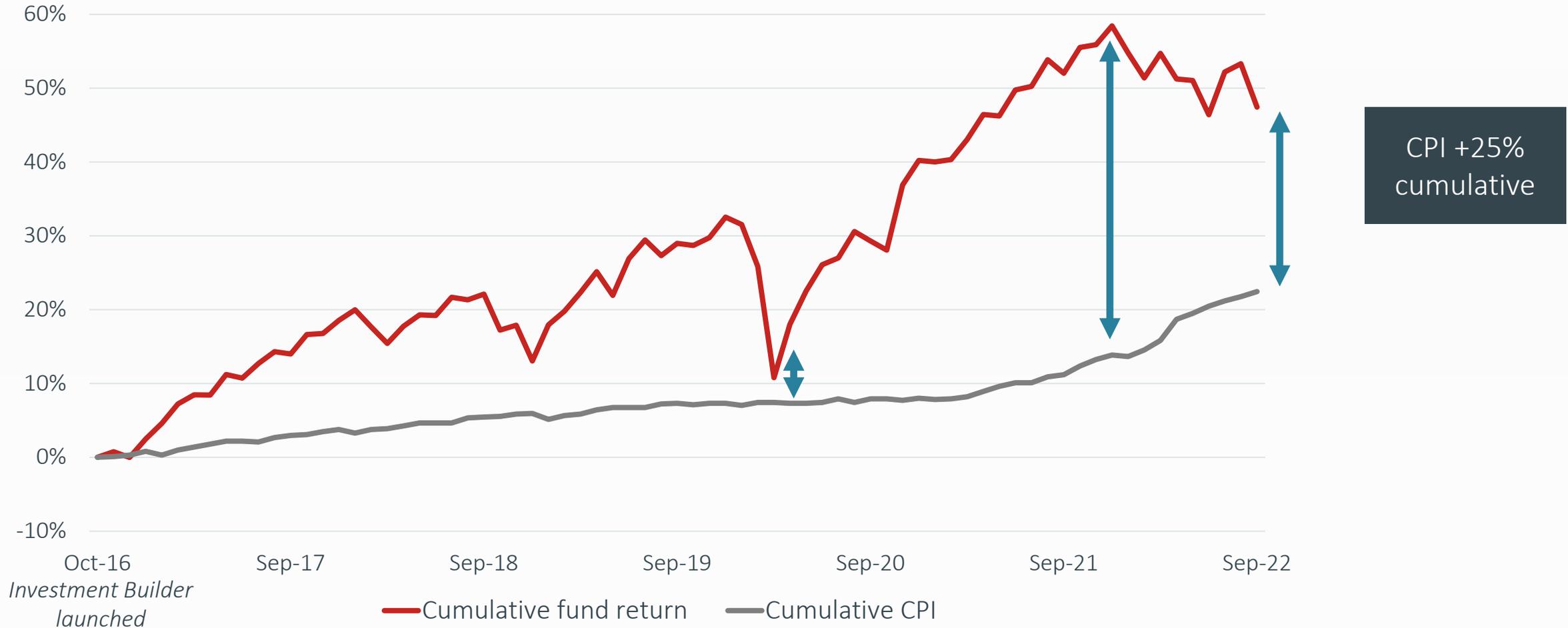
Sterling and non-Sterling  
Bonds

Cash

# What does this mean for members?



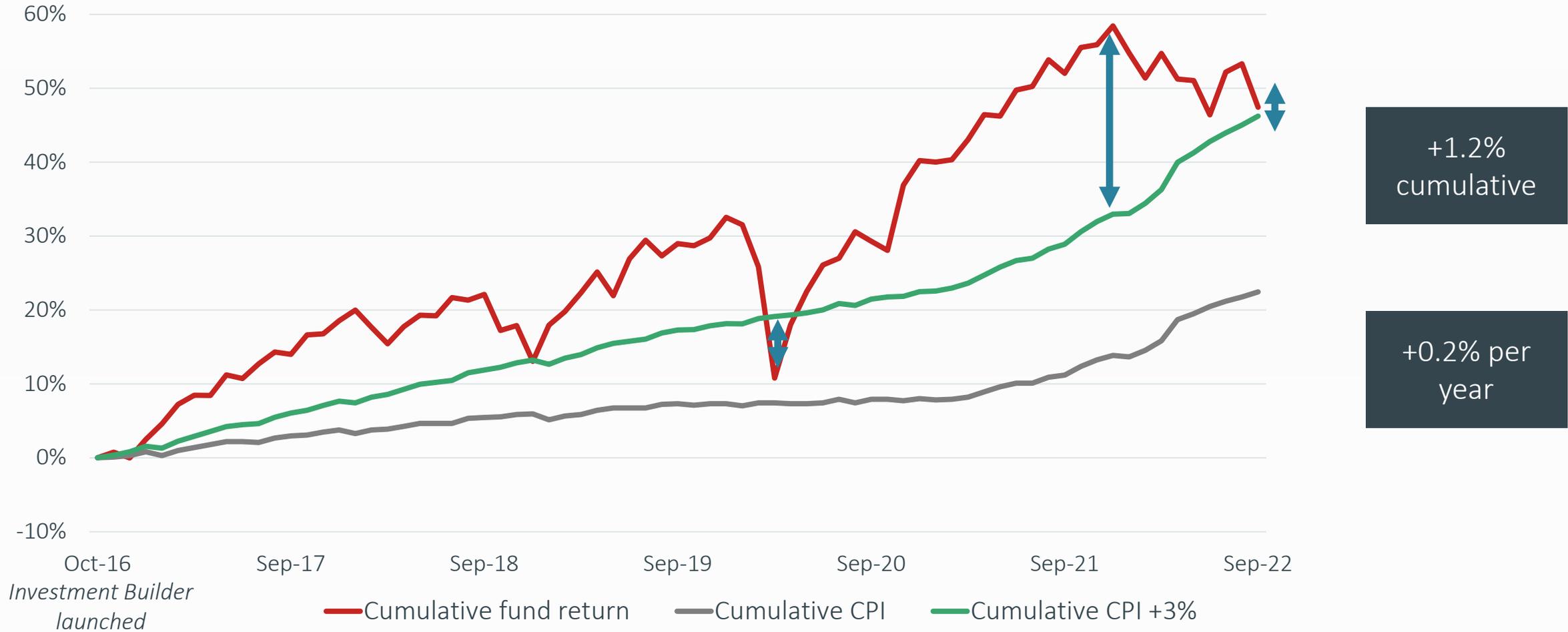
USS Growth Fund aims to maximise real returns within a diversified portfolio



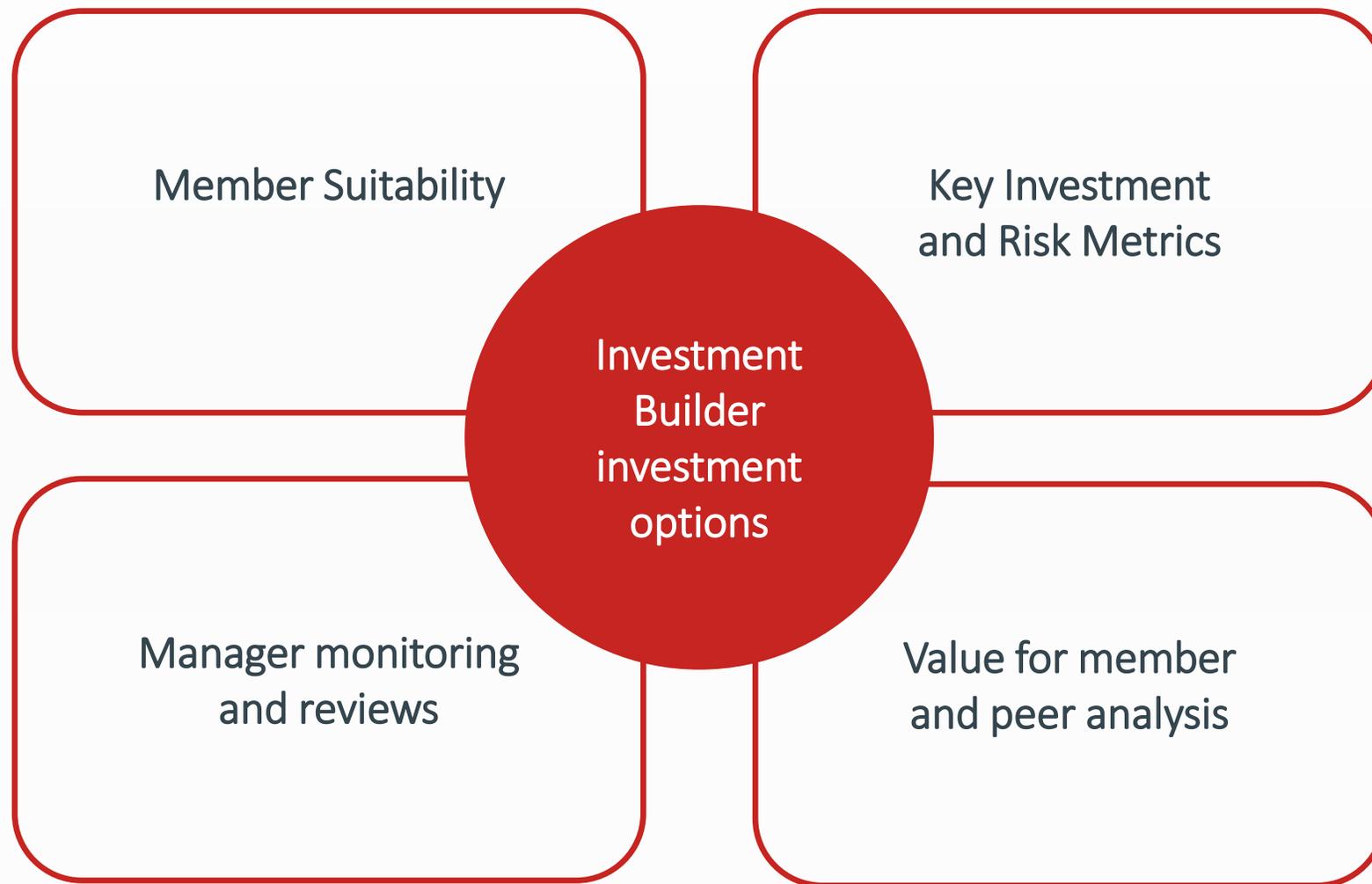
# What does this mean for members?



USS Growth Fund relative to member objective



# Ongoing monitoring



# Q&A