

Index-Linked Bond Seminar

21st January 2025



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Why CG Asset Management?

CG Asset Management is an experienced and well-established participant in index-linked bond markets globally



- *CGAM has been investing in index-linked bonds for over 30 years*



- *CGAM currently manages £1.6bn in index-linked bond funds globally*



- *CGAM's US and global index-linked bond funds have outperformed their benchmarks since inception*



- *CGAM's UK index-linked holdings have outperformed the index in recent years*



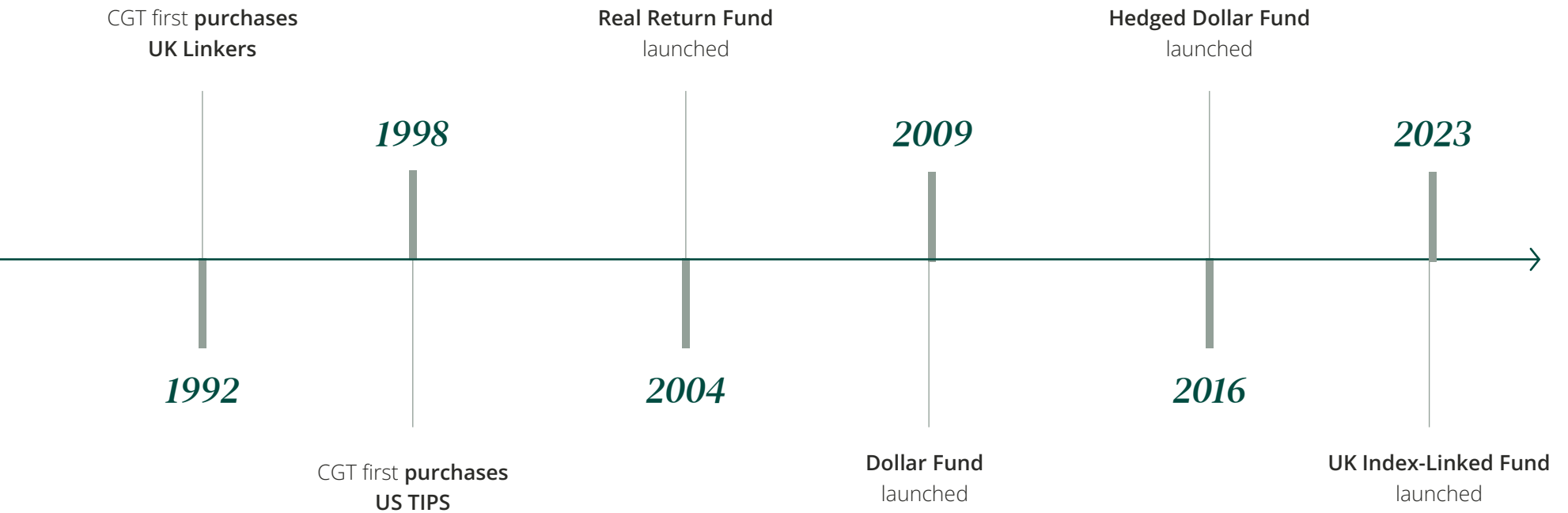
- *CGAM has established relationships with a wide network of trading counterparties in index-linked bonds, allowing us to access greater liquidity in less liquid government bond markets*



- *Despite deep sector experience, CGAM is a low-cost provider of index-linked expertise*

Why CG Asset Management?

CGAM has a long pedigree of investing in index-linked bonds



Why CG Asset Management?

Our established index-linked funds have outperformed their benchmarks since their inception, and we manage approx. £1.6 bn in index-linked globally

Dollar Fund – Performance since inception



Real Return – Performance since inception



Source: Bloomberg Finance LP, Northern Trust

Overview

Funds Summary

Strategy	Fund	ISIN	Launched	AUM ⁶	Dealing Frequency	AMC Fee	TER
Absolute Return Long only investments in a portfolio of bonds, equities and commodities	Capital Gearing Trust	GB0001738615	1982 ¹	£930m	Listed	0.40% ³	0.55%
	CG Absolute Return (EUR Hedged, USD Hedged available)	IE00BYQ69B30	2016	£810m	Daily	0.35%	0.47%
	Capital Gearing Portfolio (P,V shares)	IE00BG5Q6F12	2001	£240m	Daily	0.75%	0.87%
Real Return Long only investments in index linked bonds	CG Real Return Fund (GBP Hedged available)	IE0034304117	2004	£370m	Daily	0.30% / 0.20% ⁴	0.41%
	CG Dollar Fund (GBP Hedged, EUR Hedged and USD Unhedged available)	IE00B41GP767	2009	£550m	Daily	0.25% / 0.15% ⁵	0.37%
	CG UK Index-Linked Bond Fund	IE000ZSVG218	2023	£12m	Daily	0.15%	0.35%

¹ Peter Spiller began managing Capital Gearing Trust in 1982; ² Capital Gearing Trust is an Investment Trust listed on the London Stock Exchange, all other funds are Open Ended UCITS listed on the Dublin Stock Exchange; ³ Tiered fee structure, marginal rate is 0.3% above £500m; ⁴ 0.3% below £500m, 0.2% above; ⁵ 0.25% below £1,000, 0.15% above; ⁶ As of 31 December 2024

A black and white photograph of two mountain goats with large, curved horns standing on a dark, layered rock face. The goats are positioned in the upper right quadrant of the image. The rock face shows distinct horizontal and vertical geological strata.

Will inflation be higher or lower?

Peter Spiller

January 2025

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Higher for longer

We have been through a multi-year period of elevated inflation, and although headline measures are closer to target...

Headline inflation in the US, UK and EU (YoY CPI, %)

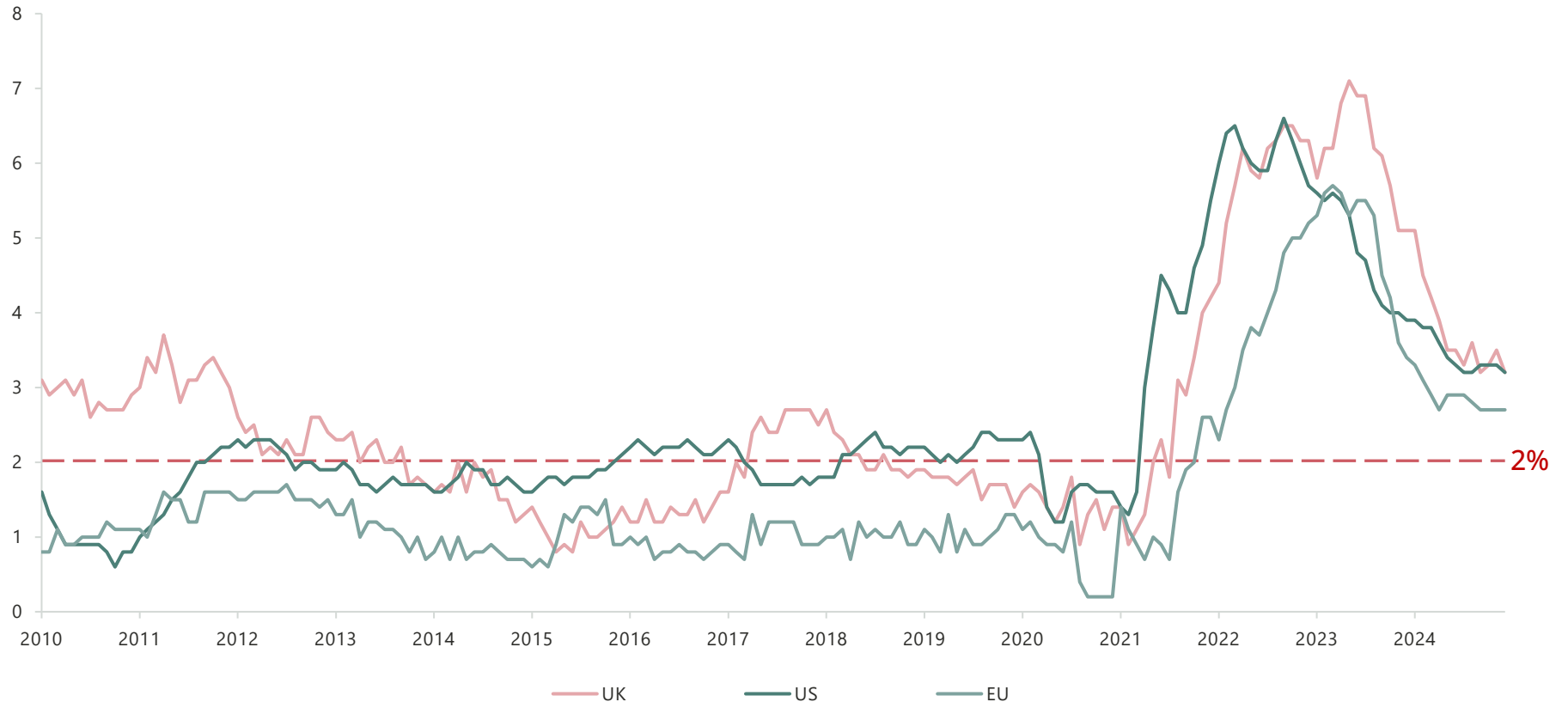


Source: Bloomberg Finance LP

Higher for longer

...measures of core inflation persist at elevated levels

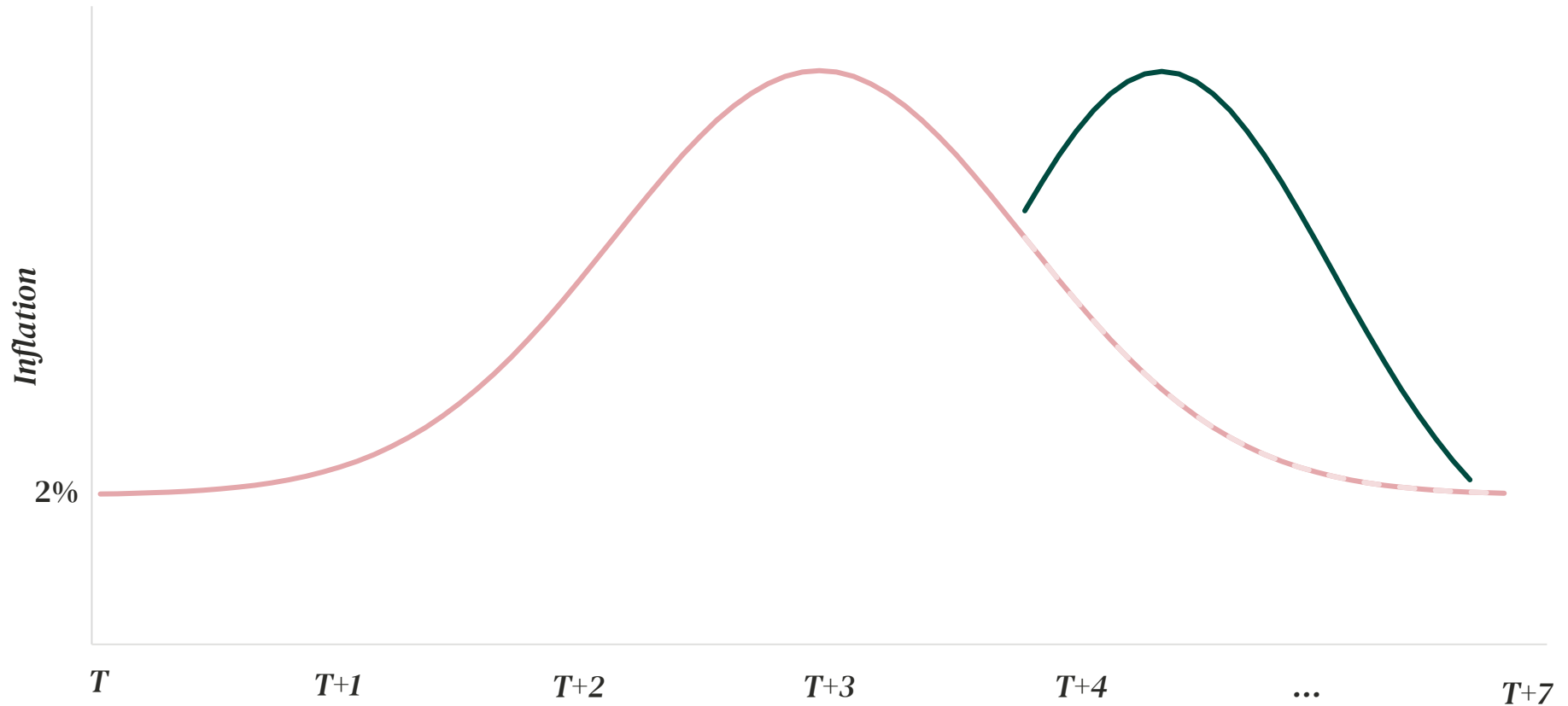
Core inflation in the US, UK and EU (YoY CPI, %)



Source: Bloomberg Finance LP

Higher for longer

The key question is where inflation goes from here: one wave or two?





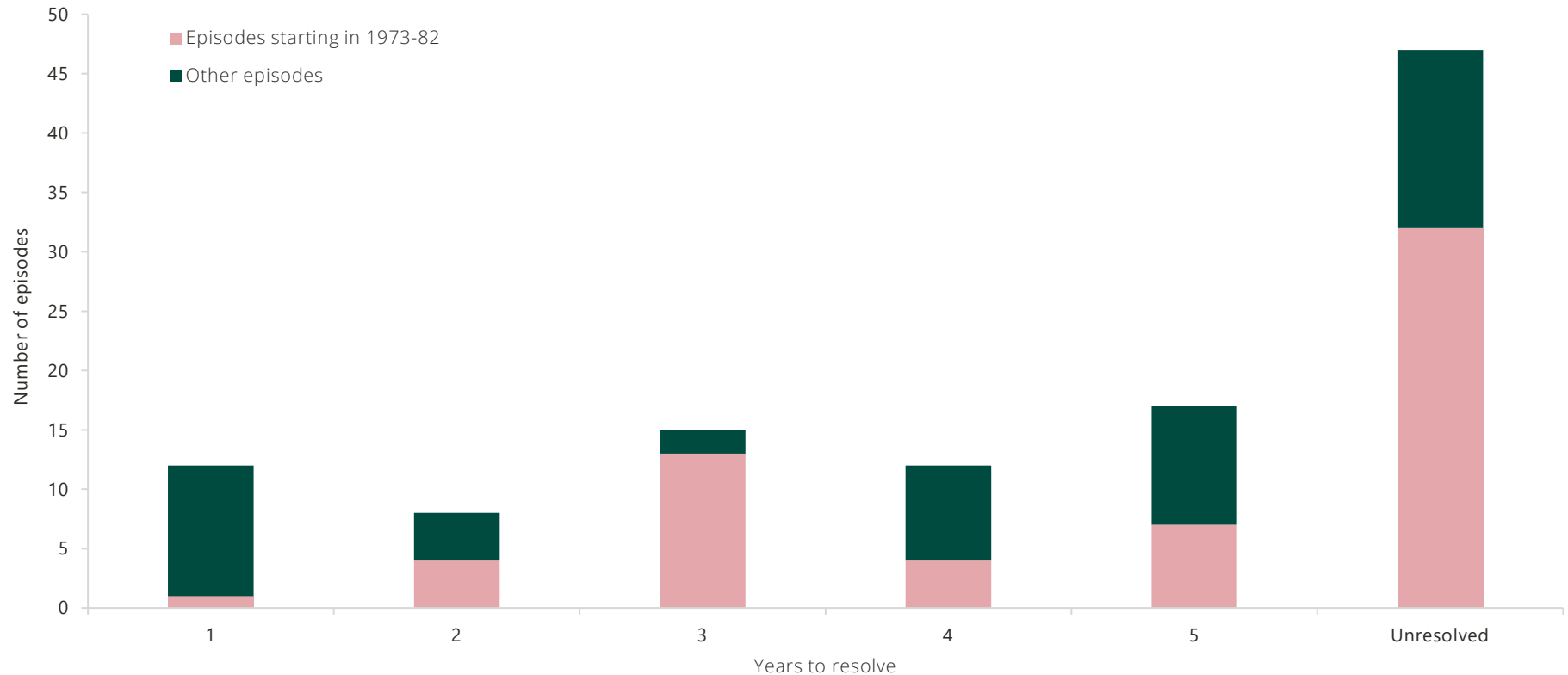
#1 Inflation is persistent, especially after a terms of trade shock

INTERNATIONAL MONETARY FUND (2023)
SEVEN STYLISTED FACTS

Higher for longer

Historical experience indicates that inflation shocks take a very long time to resolve

Years until inflation declines to within 1% of its pre-shock rate



Source: *One Hundred Inflation Shocks: Seven Stylized Facts* (International Monetary Fund, 2023). An inflation shock is a country-year pair where the average annual inflation rate rises by at least two percentage points. Inflation shocks are categorised as having been 'resolved' if inflation falls to within 1 percentage point of its pre-shock rate by the end of our 5-year window.



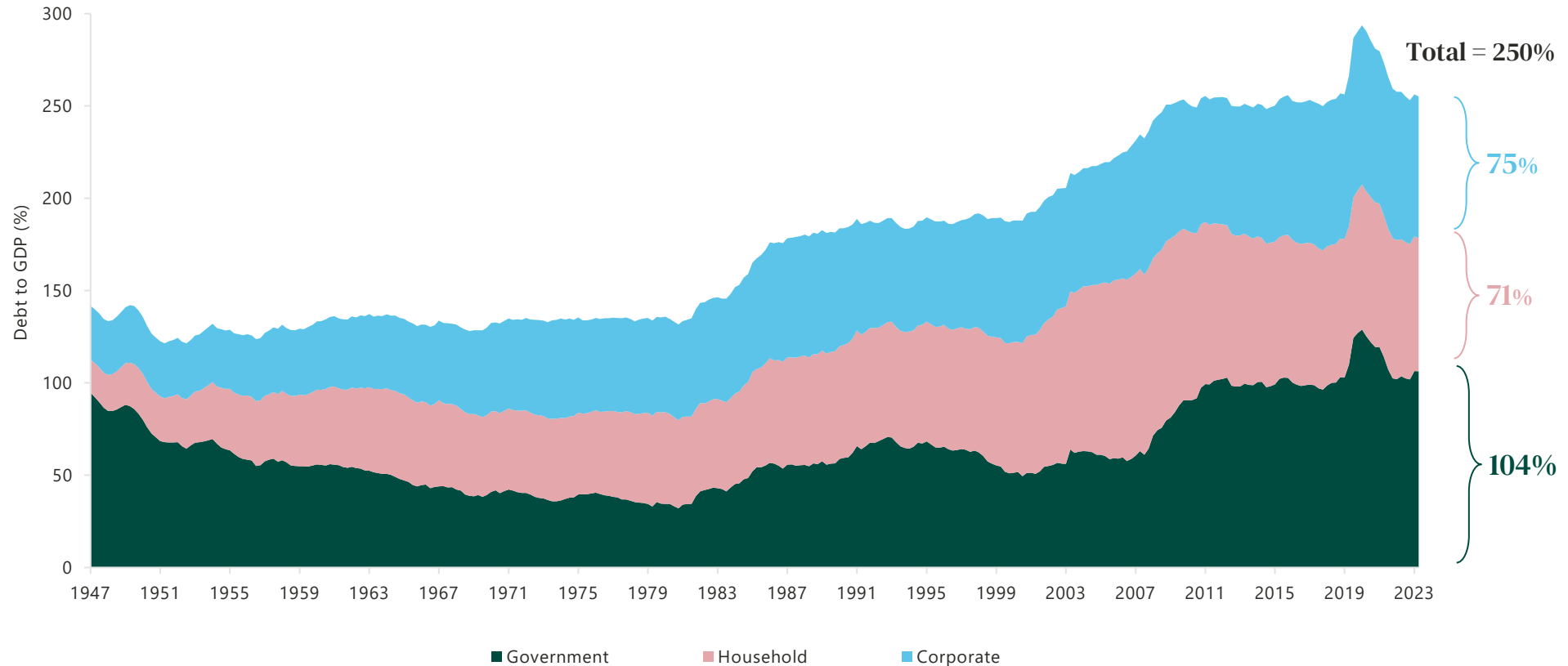
#2 Most unresolved inflation involved
“premature celebrations”

INTERNATIONAL MONETARY FUND (2023)
SEVEN STYLISTED FACTS

Higher for longer

Decades of expansionary monetary policy have encouraged a build up of debt. The most likely path from here is financial repression

US Non-Financial Debt to GDP

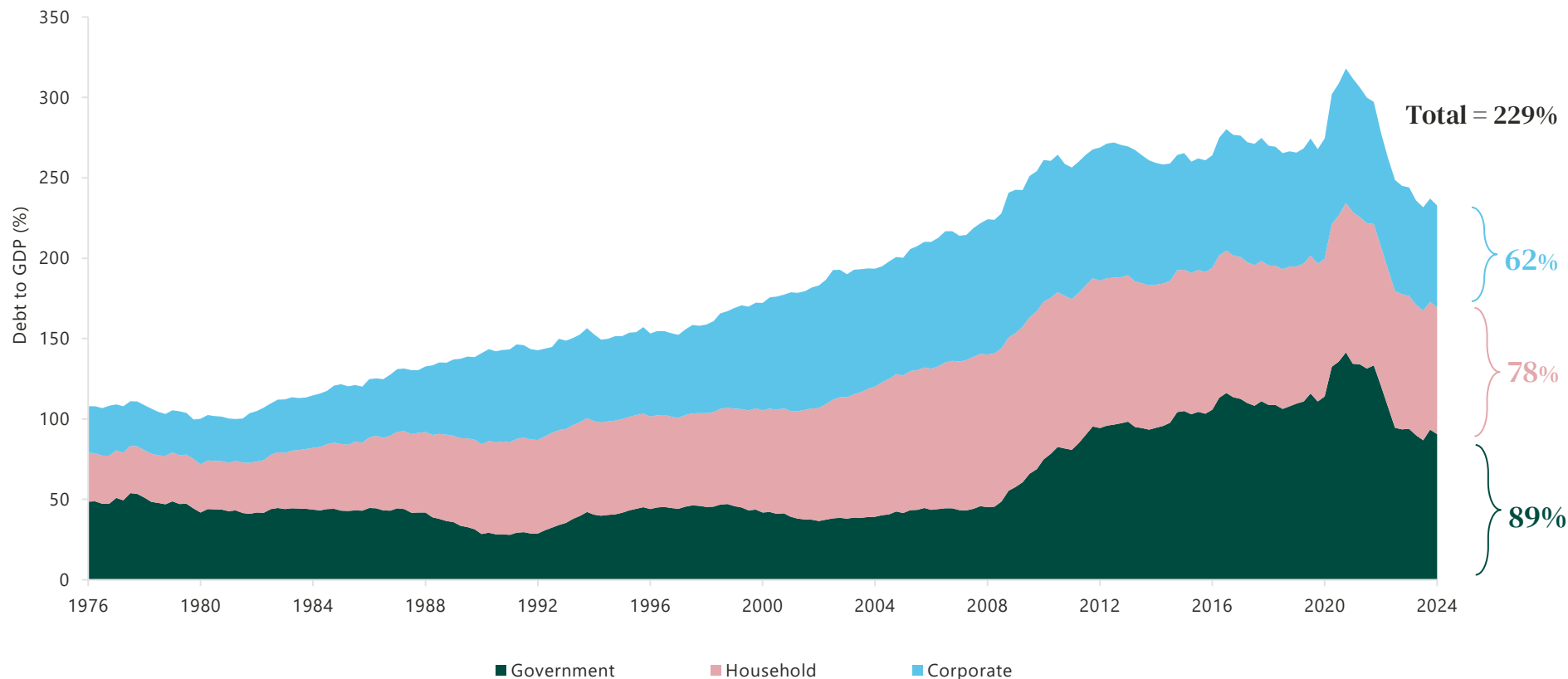


Source: Bank for International Settlements

Higher for longer

...and last week's gilt yield reaction to weaker-than-expected UK growth suggests that markets also expect financial repression in the UK

UK Non-Financial Debt to GDP



Source: Bank for International Settlements

Higher for longer

We believe that the disinflationary era that has characterised the last 25 years has come to an end



Globalisation Unwind

- Deflationary tailwind of globalisation diminishing as China wages approach those of developed economies
- Reshoring will increase costs
- Significant capex required to bring about reshoring will be inflationary



Energy Transition

- Energy transition will require massive capital investment
- Likely to generate a shortage of key materials notably copper and other metals
- Requires decommissioning of otherwise productive assets



War / Defence

- Defence spending will rise globally in response to Russian war in Ukraine
- Trade will continue to flow along political rather than economic lines
- Massive rebuilding programme for Ukraine will be required



Capital vs. Labour

- Labour share of GDP has been falling
- Unionisation and union assertiveness is rising in response to recent inflation

Living in the real world

Chris Clothier

Jan 2025



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Living in the Real World

If you pay too much for an asset you are likely to get a pretty poor result. indeed the 2073 halved within 6 months of issuance...

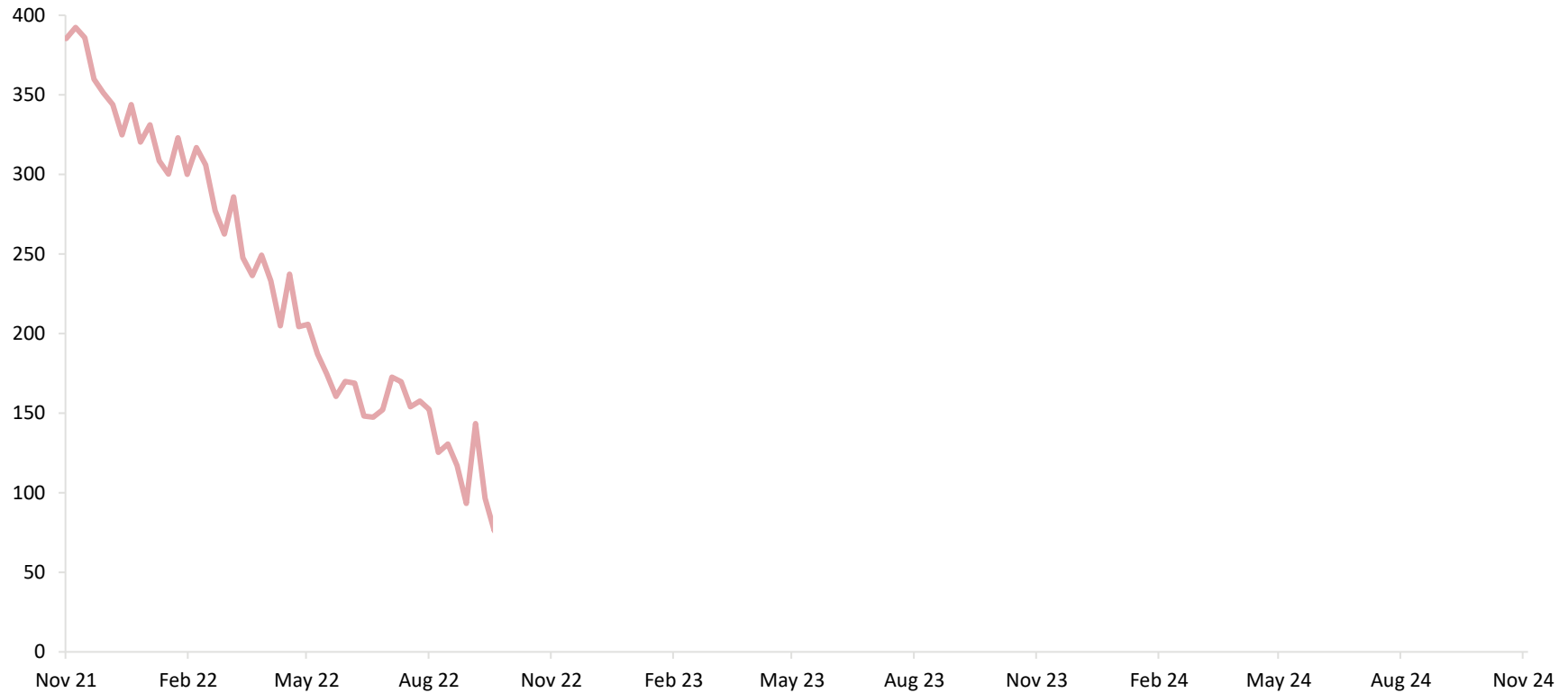
UKTI 2073 - Price



Source: Bloomberg Finance L.P.

... halved again in just another 3 months...

UKTI 2073 - Price



Source: Bloomberg Finance L.P.

... before finally halving one last time!

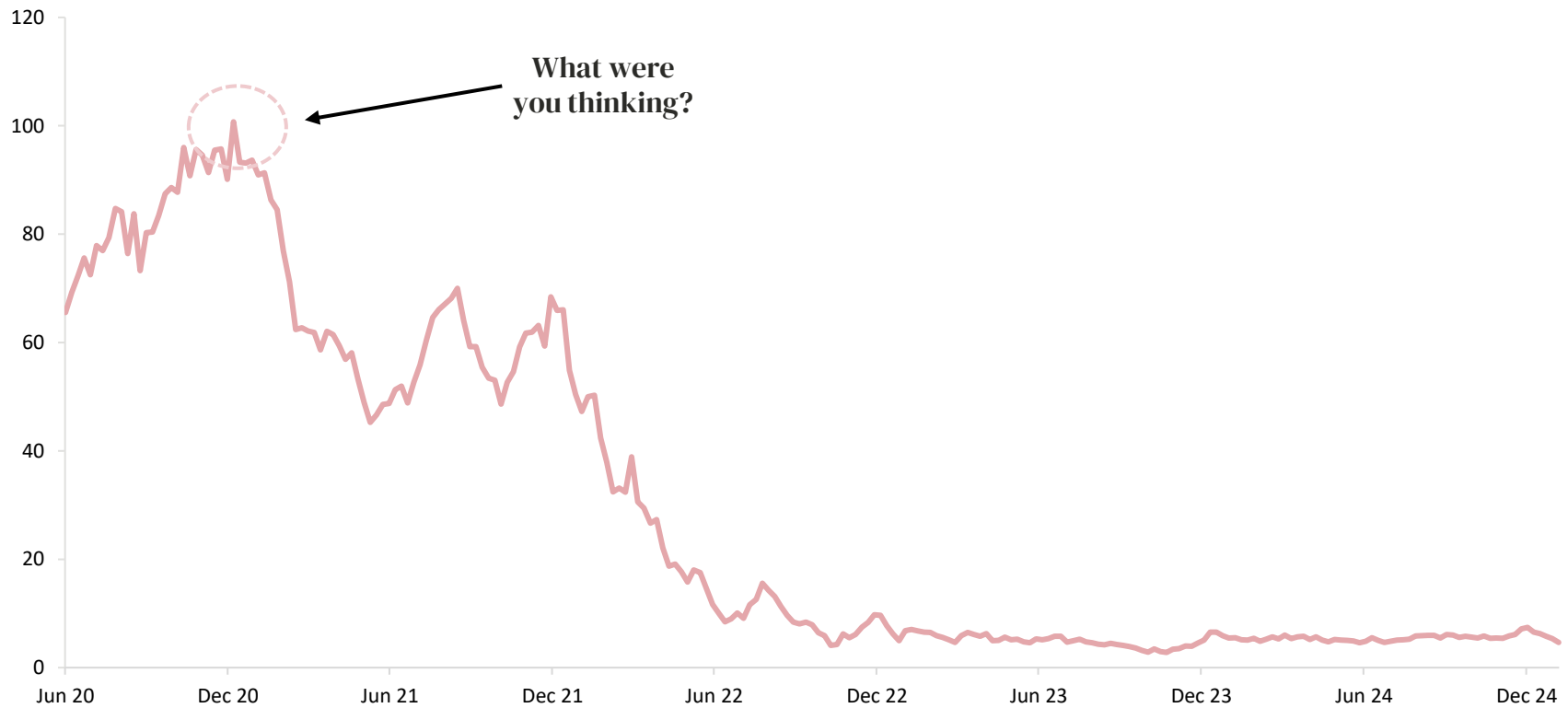
UKTI 2073 -Price



Source: Bloomberg Finance L.P.

Some people decided it would be a good idea to lend to the Austrian government for 100 years for a nominal return of **PRECISELY** zero

AUST 2120 - price



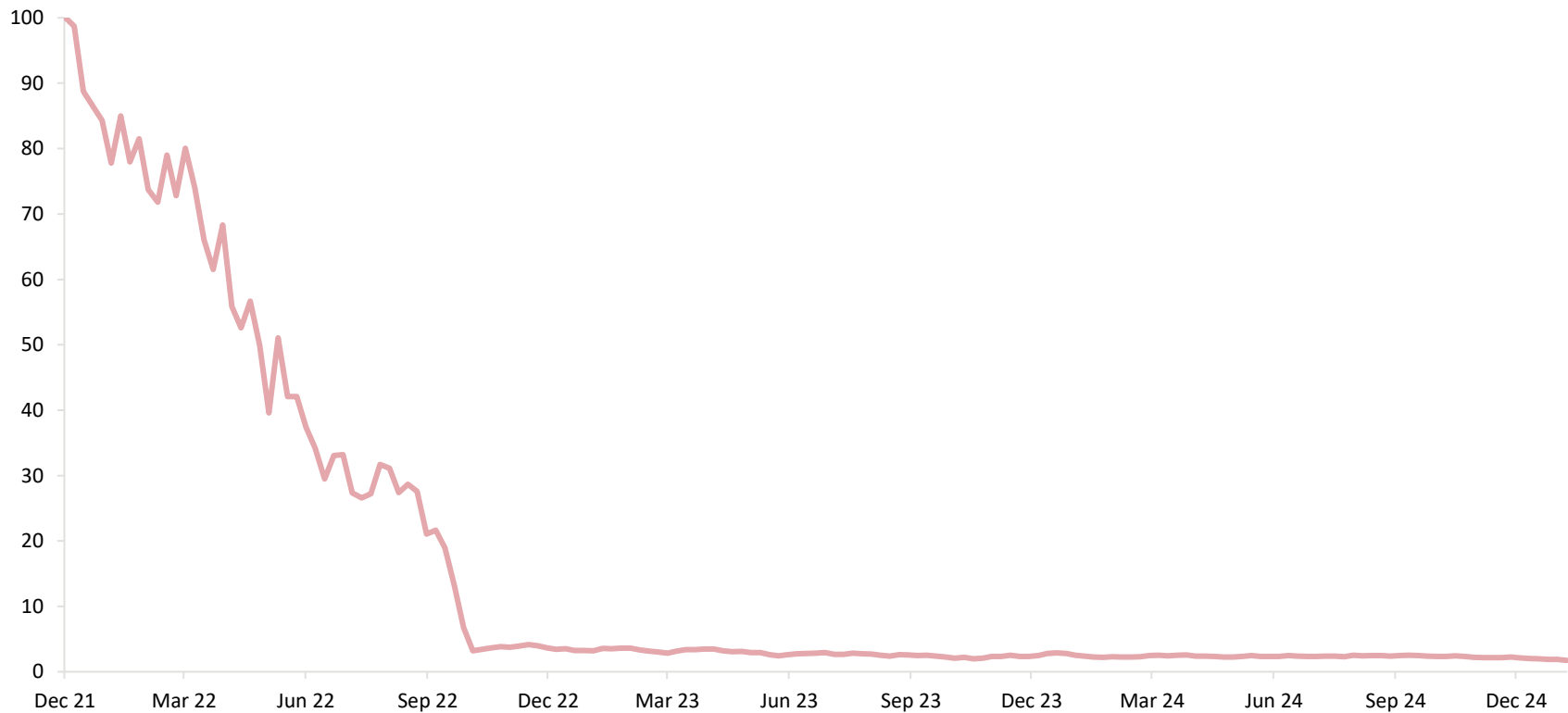
Source: Bloomberg Finance L.P.

“
When you combine ignorance and leverage,
you get some interesting results”

SOME GUY
FROM OMAHA

Liability investing working exactly like it is supposed to?

Un-named “Investment Consultant” LDI Fund – Share Price Performance



Source: Bloomberg Finance L.P.

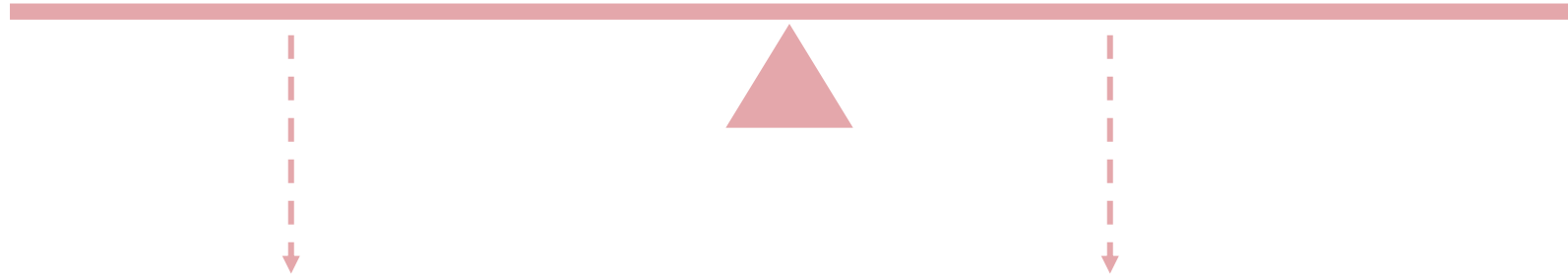


E.A. Shepard

Why did index-linked bonds go down in 2022 when inflation was at a 40 year high?

Shorter duration

Longer duration



Key factor: Realised Inflation

I/L performance is almost entirely determined by short term inflation

Nominals suffer from higher nominal rates

Real yield

Short term in I/L performance is determined by real interest rates

Source: CGAM

Our holdings of UK linkers have dramatically outperformed the index in recent years

CG Performance – UK Linker Holdings vs. Index



Source: Bloomberg Finance LP, Northern Trust.

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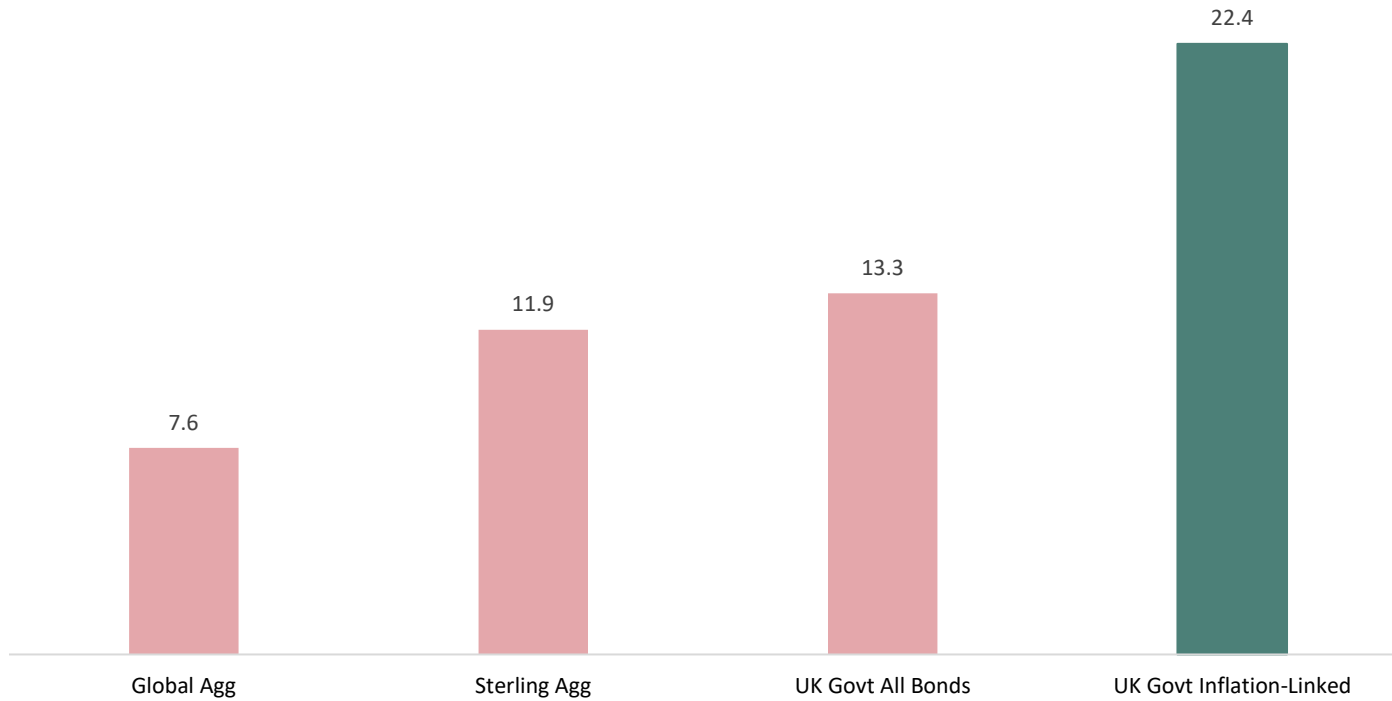
CG Performance – UK Linker Holdings vs. Index




Source: Bloomberg Finance LP, Northern Trust.

Long duration and low yields was not a good recipe

Duration – Selected Major Fixed Income Indices – Nov 21



Source: Bloomberg Finance L.P.

- 
- An aerial photograph of a desert landscape, likely the Namib Desert, showing vast sand dunes and a winding river. The colors are muted, with shades of brown, tan, and dark green. The lighting creates long shadows, emphasizing the texture of the sand and the curves of the dunes.
1. Equities
 2. Nominal bonds
 3. Index linked Bonds
 4. Gold
 5. Bitcoin

1. Equities

2. Nominal bonds

3. Index linked Bonds

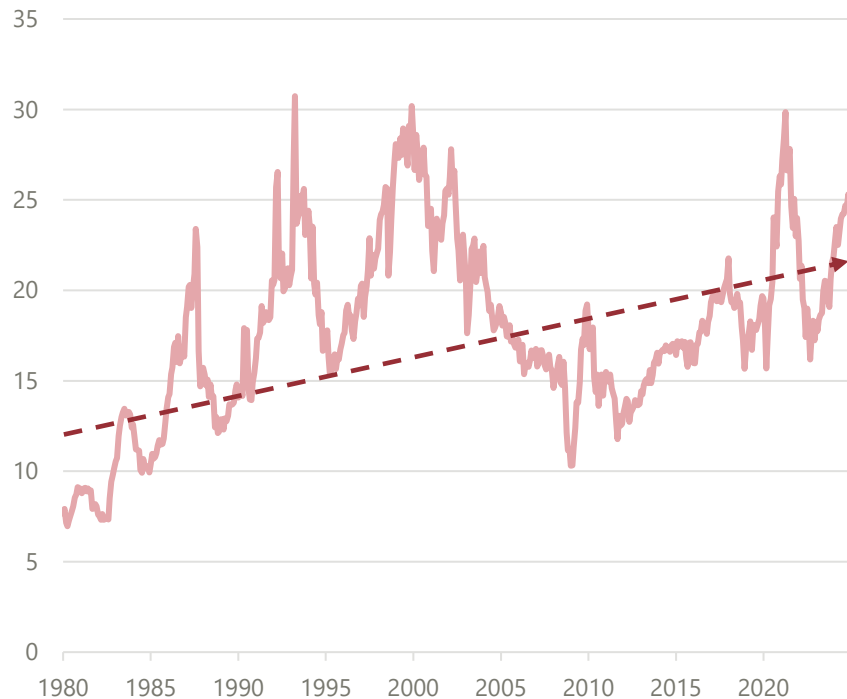
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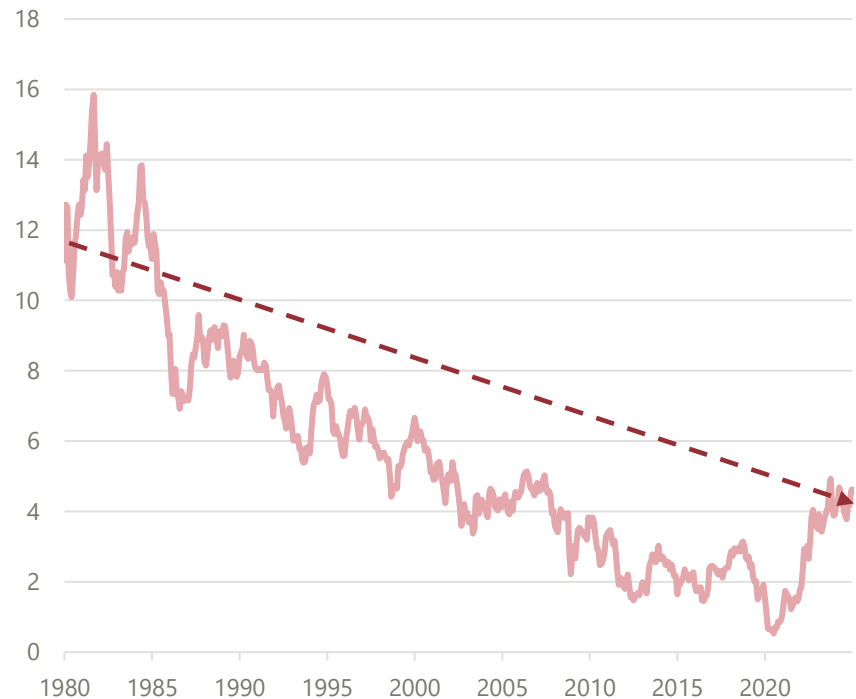
Living in the Real World

Asset allocation has been easy over the past 40 years ... an era characterized by falling inflation

S&P500 P/E Ratio



US 10Y Yield (%)

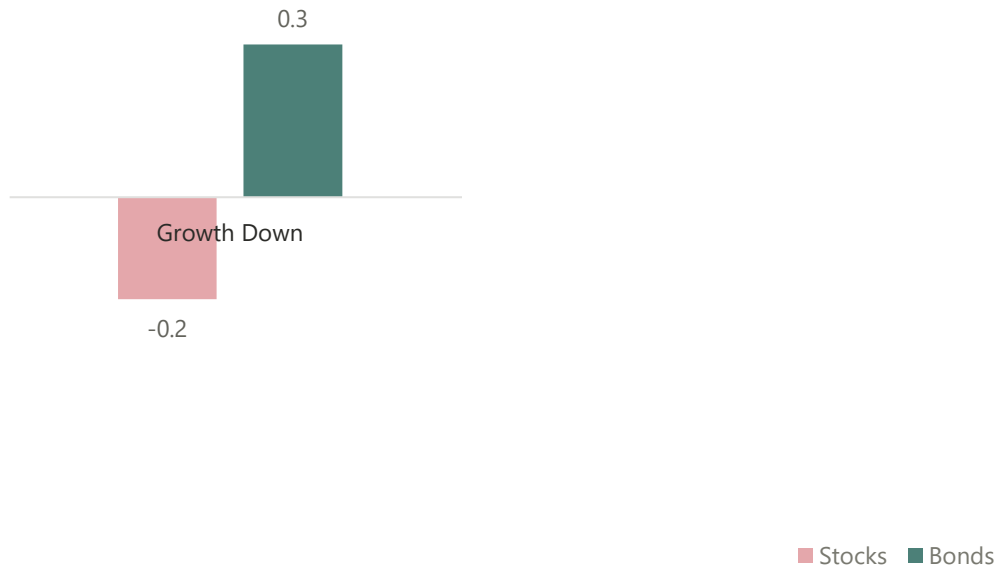


Source: Bloomberg LP

Living in the Real World

When we widen our lens to incorporate more varied macroenvironments a different picture appears

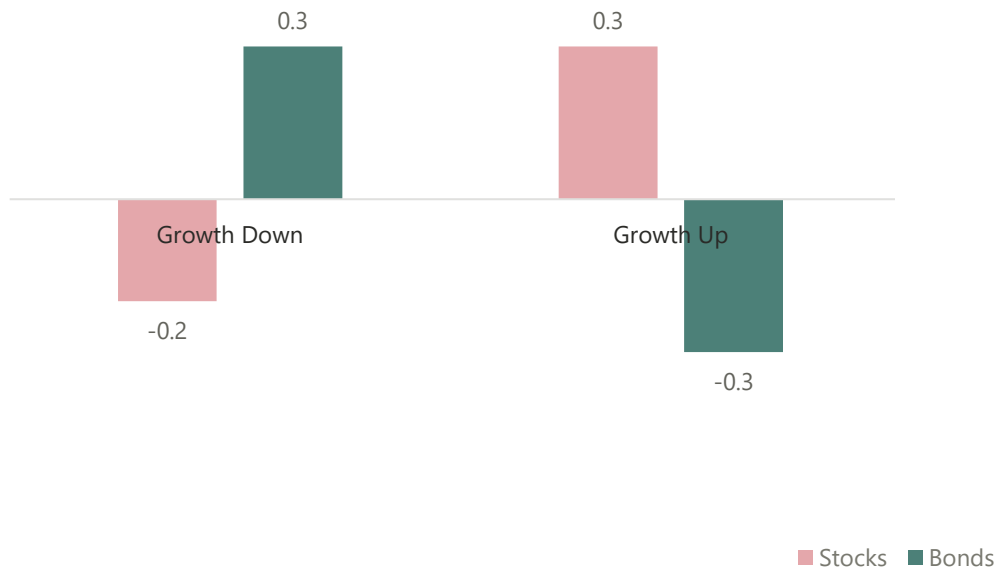
Sharpe Ratio Differentials by Macro-economic Environment 1972-2022



Source: *Journal of Portfolio Management* 49:4 March 2023

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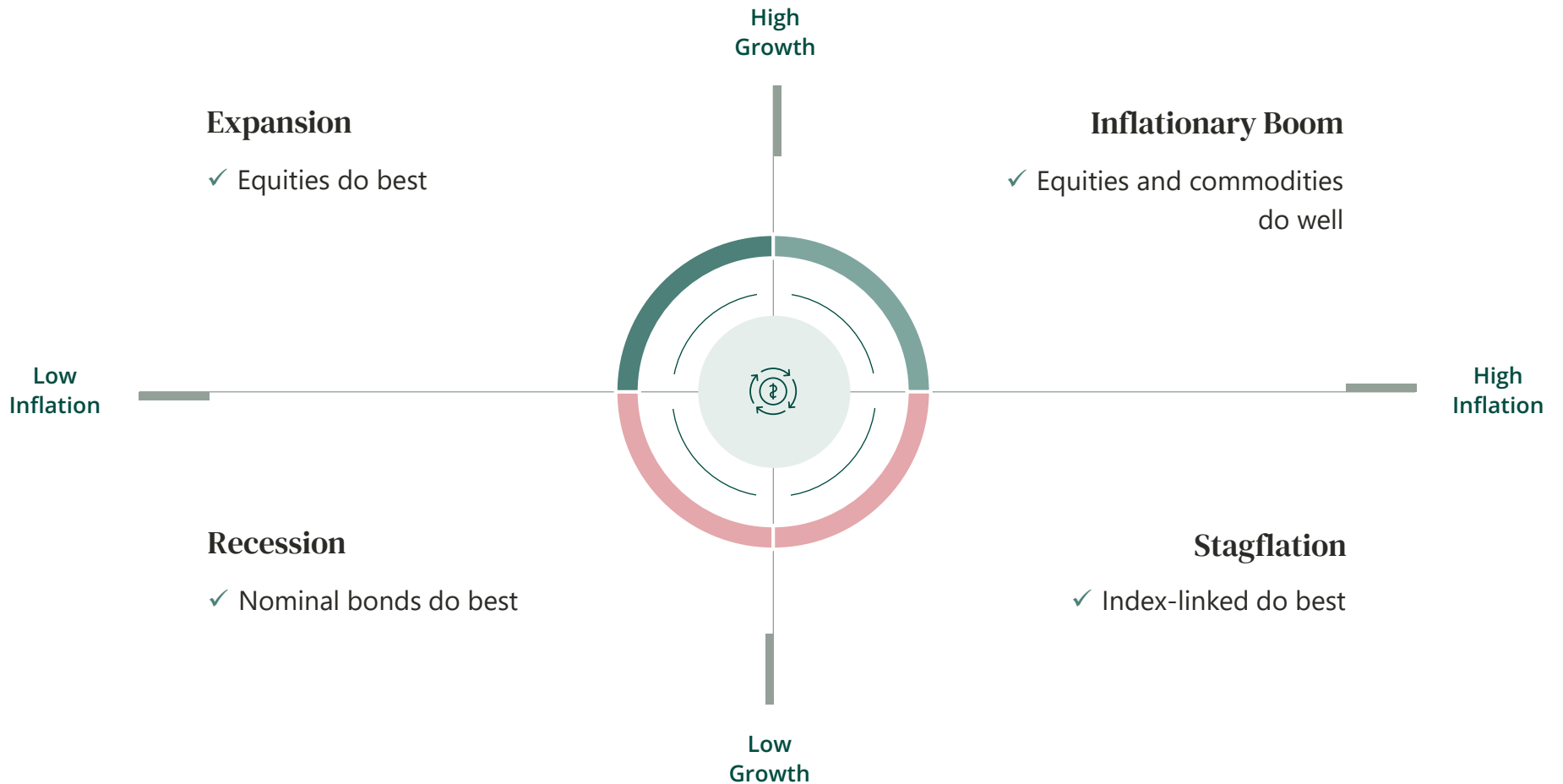
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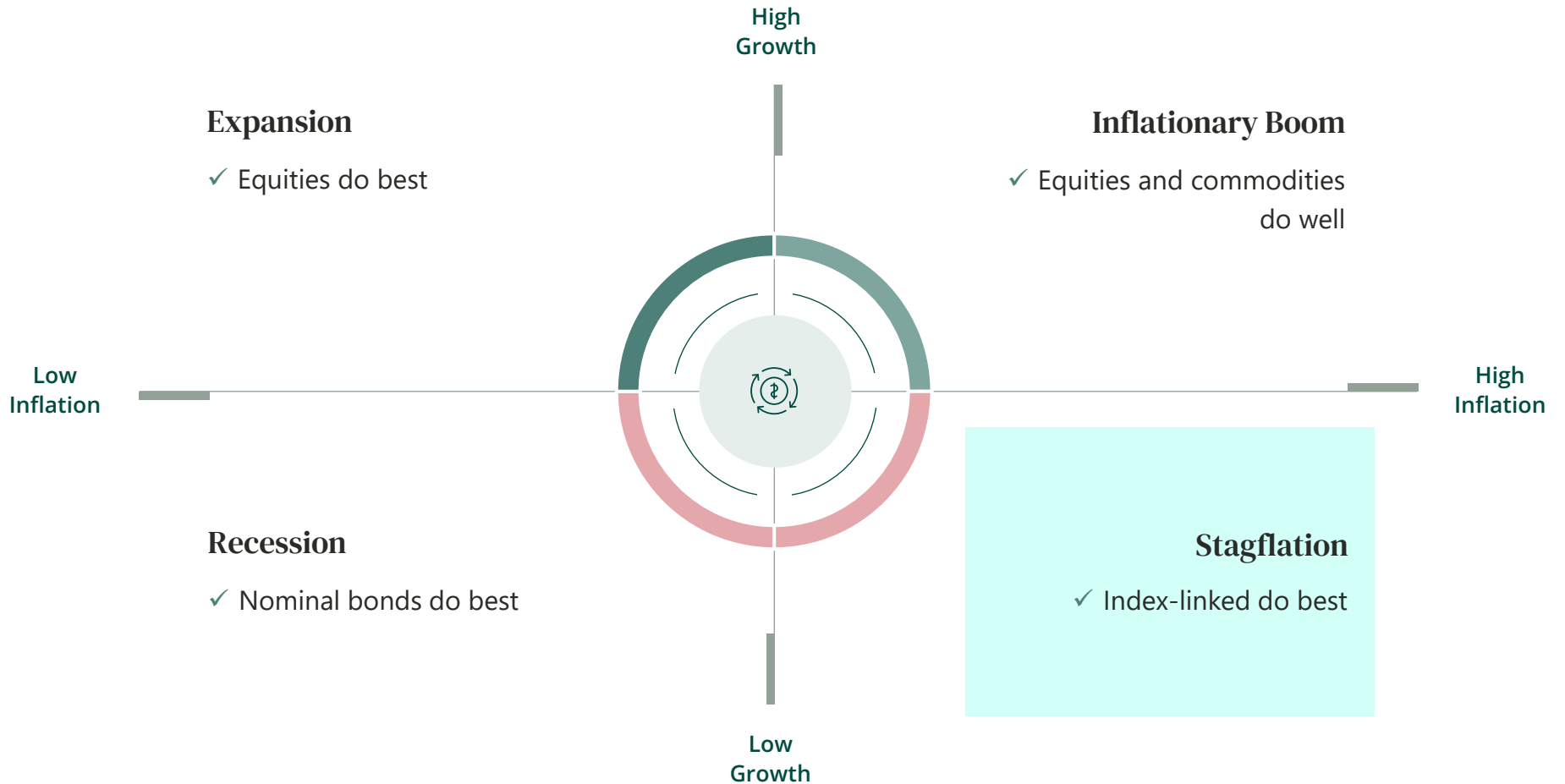


Source: Journal of Portfolio Management 49:4 March 2023

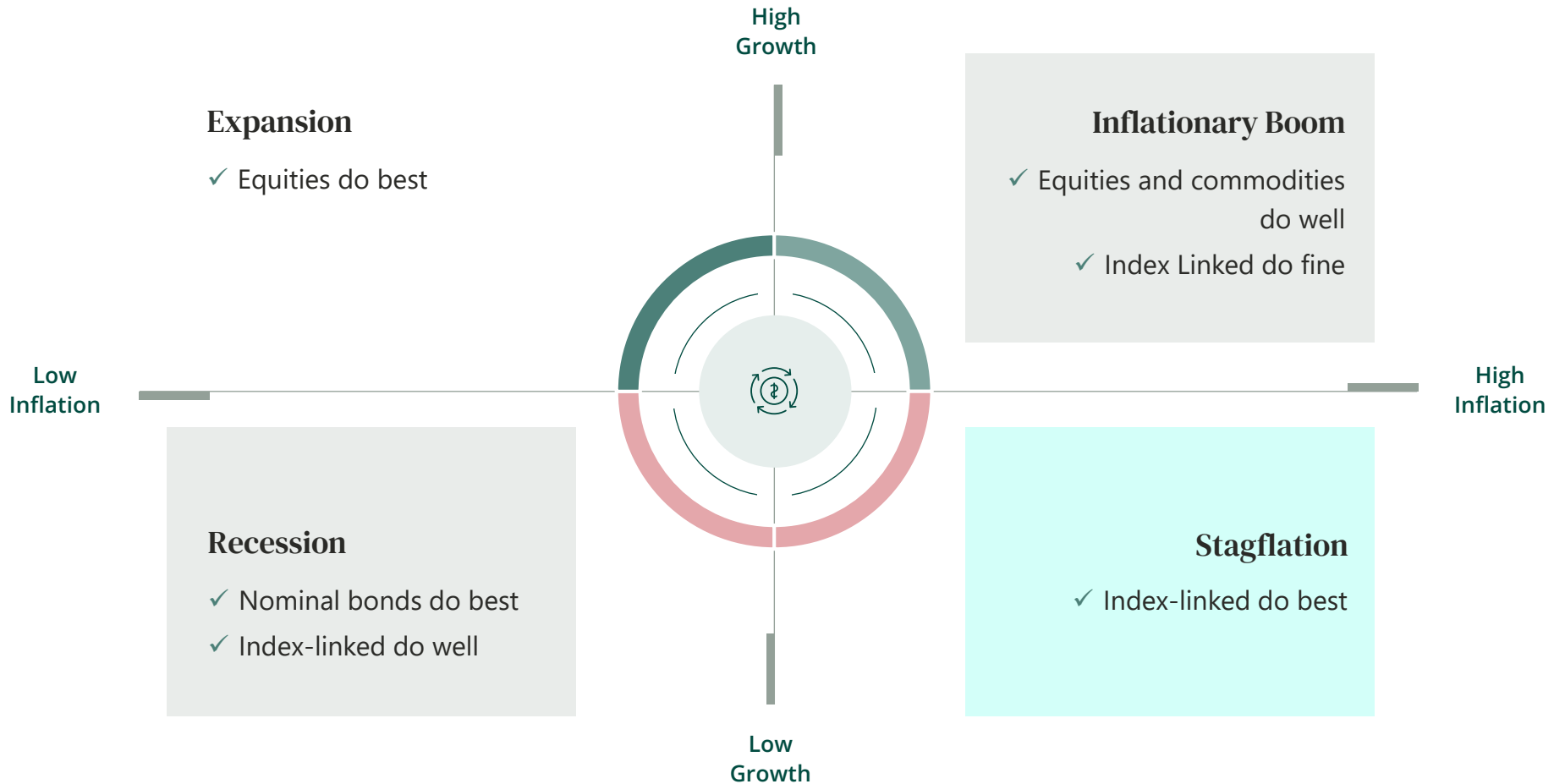
Index-linked bonds are the most reliable protector against stagflation



Index-linked bonds are the most reliable protector against stagflation

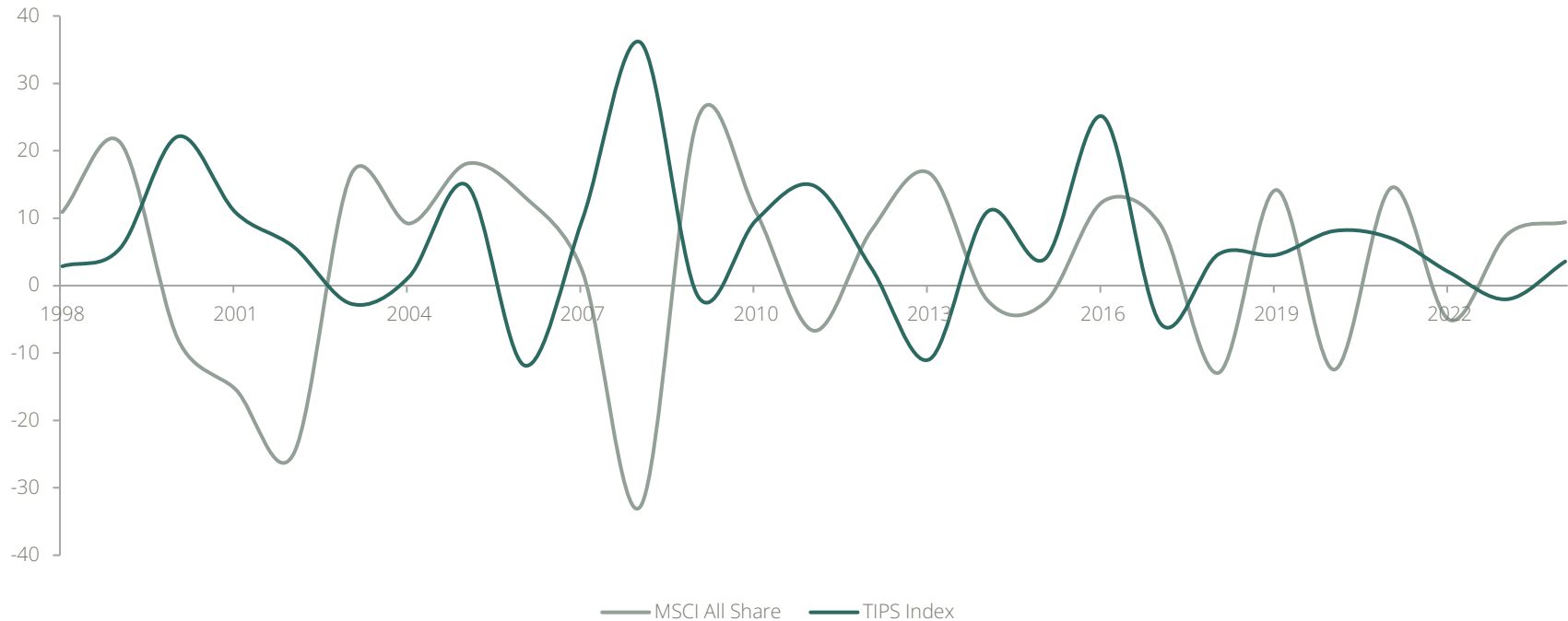


Index-linked bonds are the most reliable protector against stagflation



Sterling investors can still count on the negative correlation

Annual Returns % of UK Stocks and TIPS – unhedged in GBP (1998 – 2024)





Index-linked bonds have outperformed nominal bonds since the turn of the century. We believe this outperformance will continue

Index-Linked Bond – Total Returns (UK)



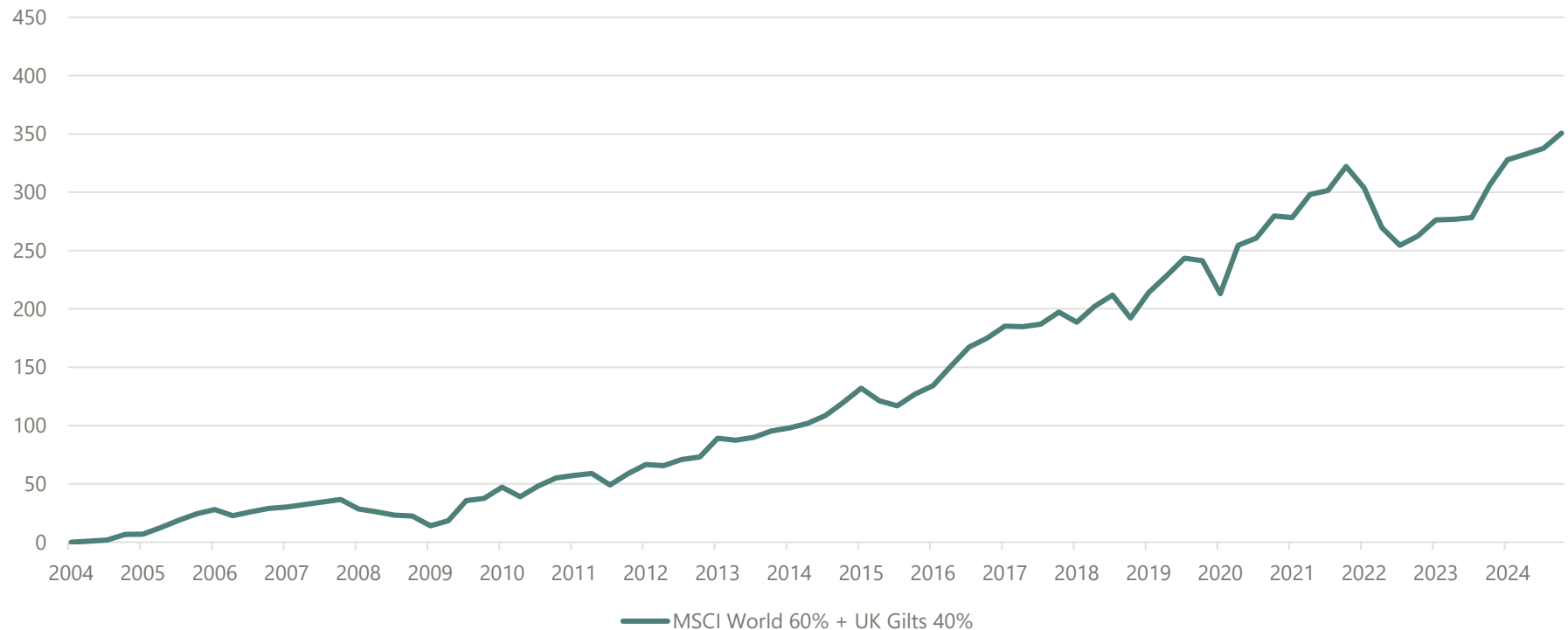
Index-Linked Bond – Total Returns (US)



Source: Bloomberg Finance L.P.

Adding index linked to a balanced portfolios improves returns

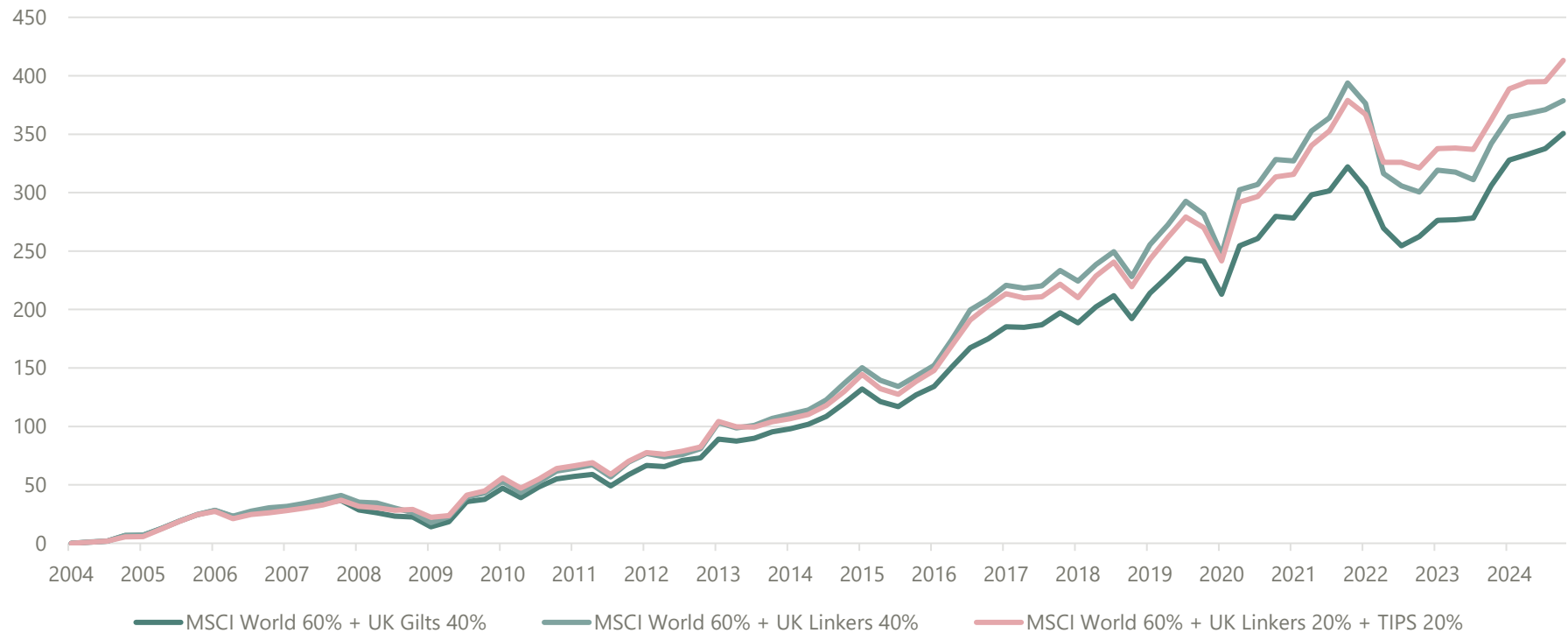
Balanced Portfolio Total Returns (GBP, % Mar 04 - today)



Source: Bloomberg LP, CGAM calculations

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1. Equities

2. Nominal bonds

3. Index linked Bonds

4. Gold

5. Bitcoin

1. Equities

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Choosing the best flavour

Emma Moriarty

January 2025

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How to: choose the best flavour

1. Define the investable universe

2. Set the portfolio allocation

- *Weightings to different sovereign issuers*
- *Worked example: curve positioning*

3. Consider the expected returns from currency hedging

- *Worked example: 10Y TIPS vs 10Y UKTI*

Define the investable universe

Choosing the best flavour

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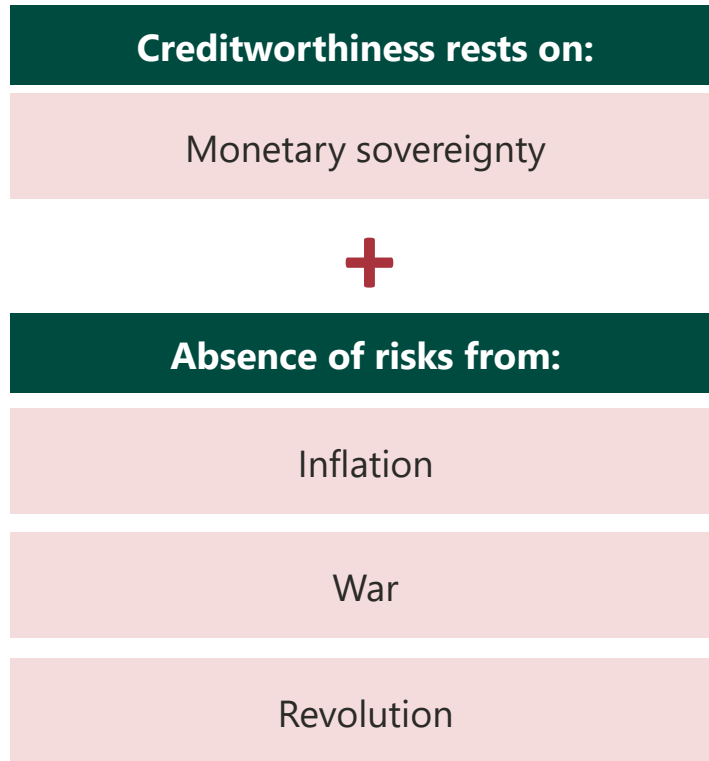
Index-linked bonds in international context

Issuer	Indexed nominal value (£bn)	Number of index-linked bonds
 United States	1,620	51
 United Kingdom	625	32
 France	245	19
 Italy	215	18
 Spain	70	8
 Germany	70	4
 Japan	65	10
 Canada	40	8
 Australia	30	7
 Sweden	20	8
 New Zealand	15	4
 Denmark	5	2

Source: Bloomberg Finance L.P, Bank for International Settlements, CGAM calculations. Note that nominal issuance amounts are rounded to nearest £5bn, and percentages of government debt are stated to the nearest percentage point.

Choosing the best flavour

In defining our investable universe, creditworthiness is the first and foremost consideration



- Buy index-linked bonds rather than nominal bonds
- Evaluate quality of institutional framework

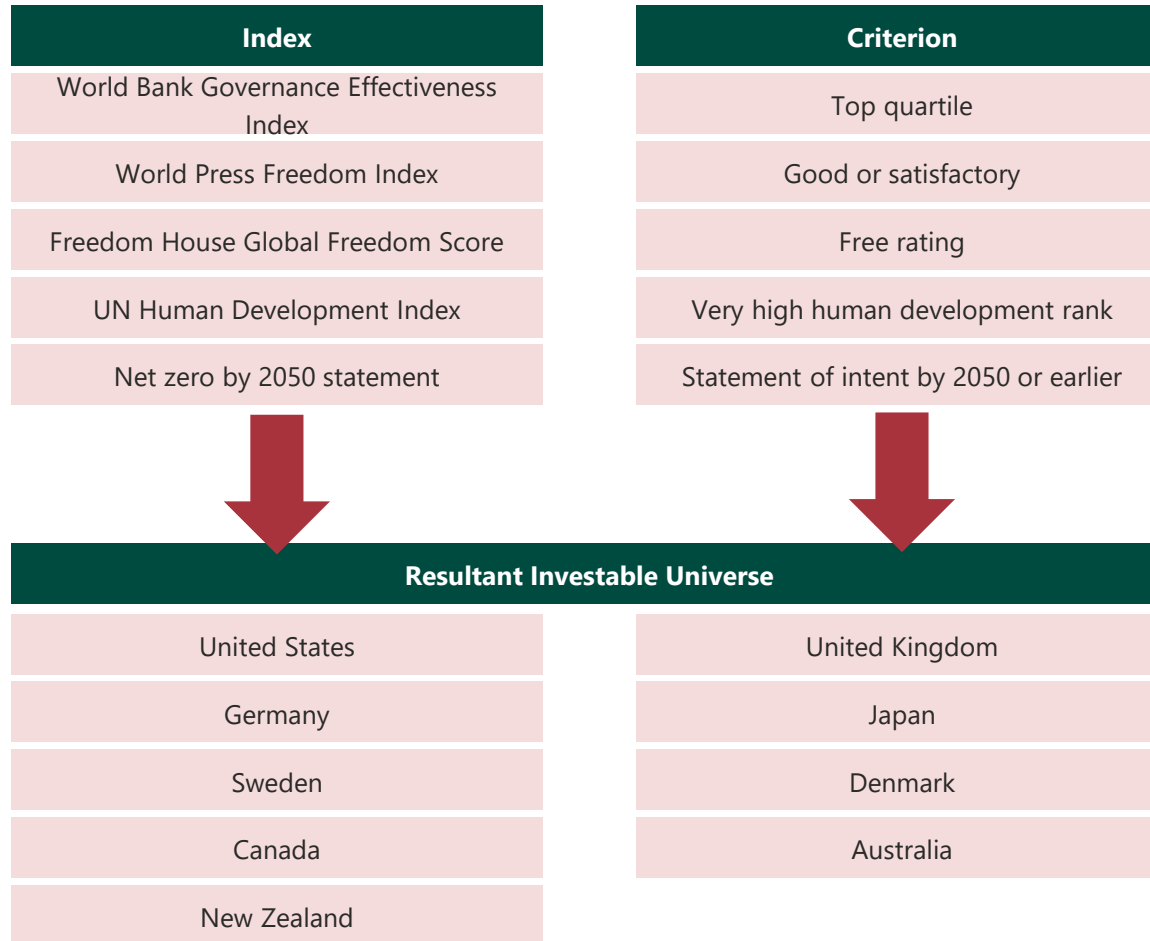
Choosing the best flavour

Sovereign creditworthiness is a judgment that rests on the quality of economic, social and political institutions – not just the fiscal position!

Index	Criterion
World Bank Governance Effectiveness Index	Top quartile
World Press Freedom Index	Good or satisfactory
Freedom House Global Freedom Score	Free rating
UN Human Development Index	Very high human development rank
Net zero by 2050 statement	Statement of intent by 2050 or earlier

Choosing the best flavour

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Choosing the best flavour

We invest in a narrower group of high-quality sovereign issuers

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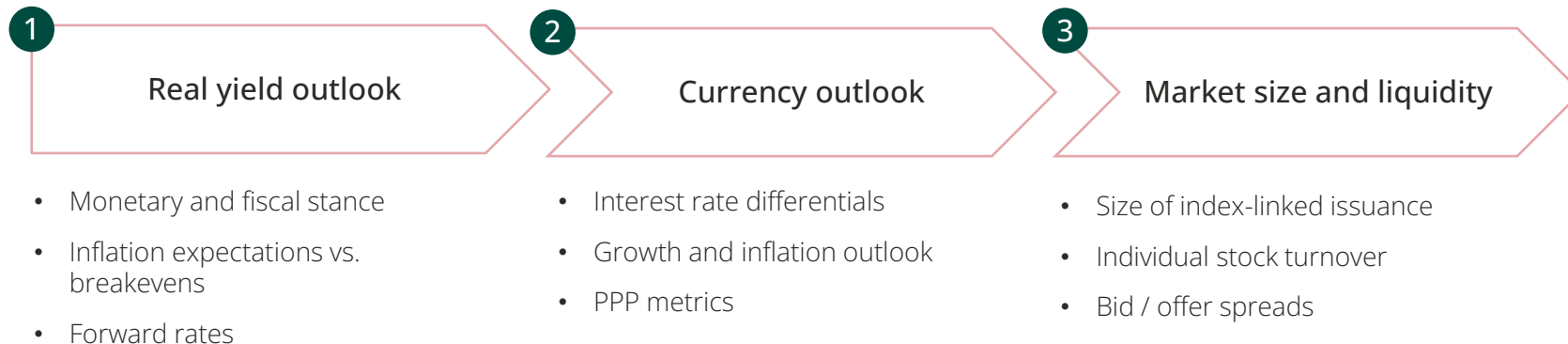
Set the portfolio allocation

Choosing the best flavour

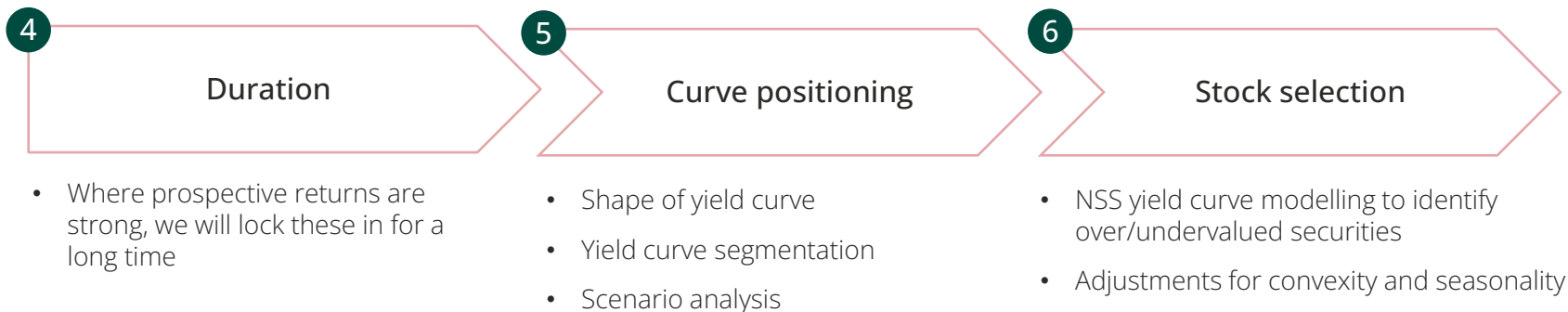
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Global index-linked allocation is decided in two stages

Stage 1: Determine the target weighting for each sovereign issuer



Stage 2: For each sovereign allocation, determine appropriate positioning



Choosing the best flavour

Weightings to different markets are a function of yield available, currency outlook and market size. On these grounds, the US remains the most attractive

Developed Government Bond 10 Year Real Yields

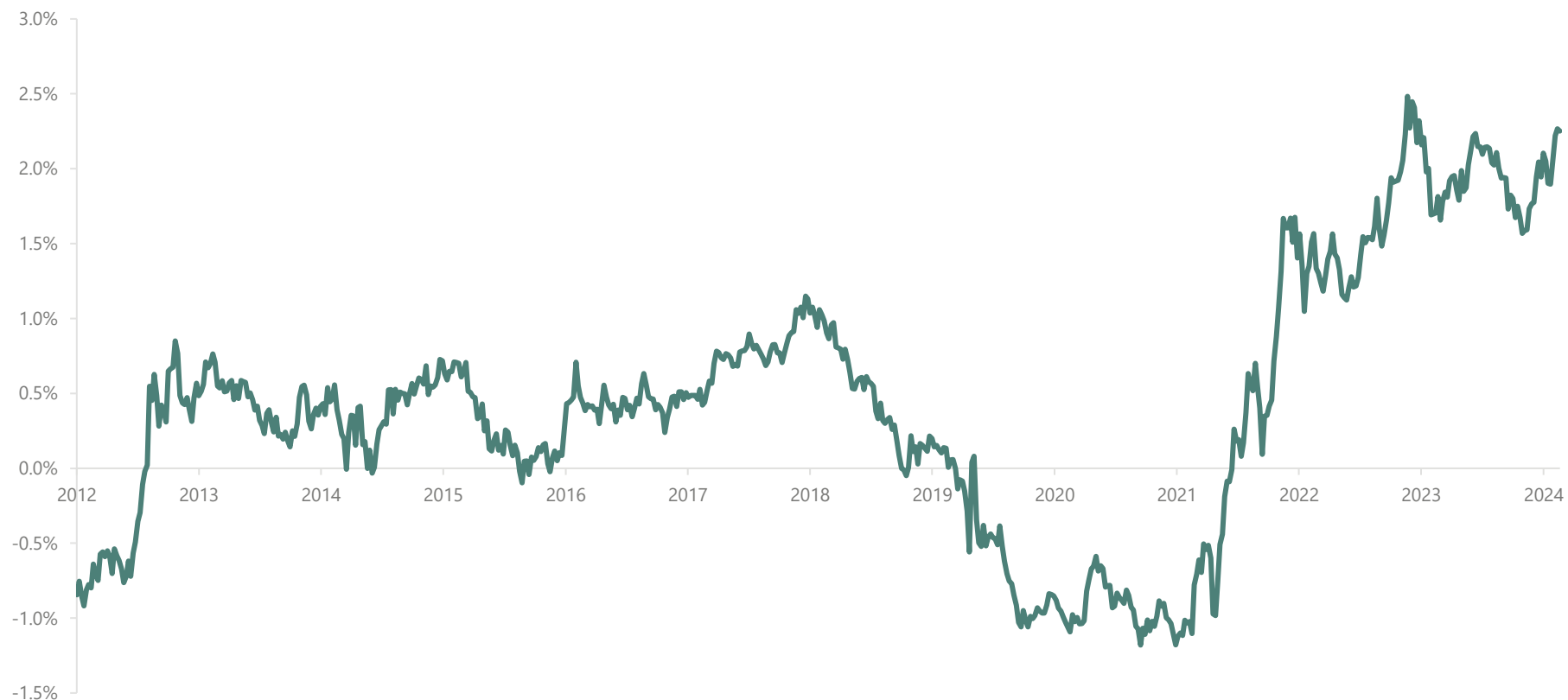


Source: Bloomberg Finance L.P.

Choosing the best flavour

US real yields are elevated relative to recent history and against most estimates of r^* . This leads us to favour long duration

10Y US TIPS Yield history

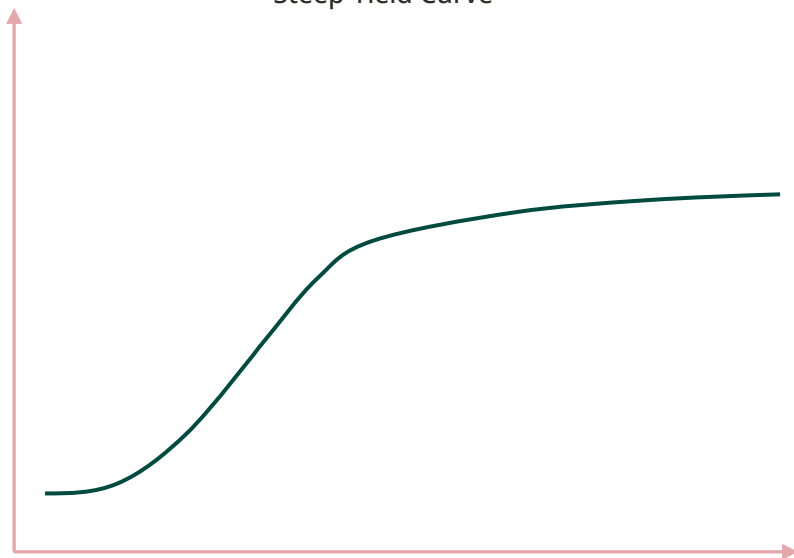


Source: Bloomberg Finance L.P.

Choosing the best flavour

The shape of the yield curve, combined with our expectations, drives our curve positioning. The recent flatness of the yield curve led us to prefer a barbell strategy

Steep Yield Curve



- Roll down is a significant contributor to total return;
- Prefer 'belly' of the curve, where gradient is steepest.

Flat Yield Curve

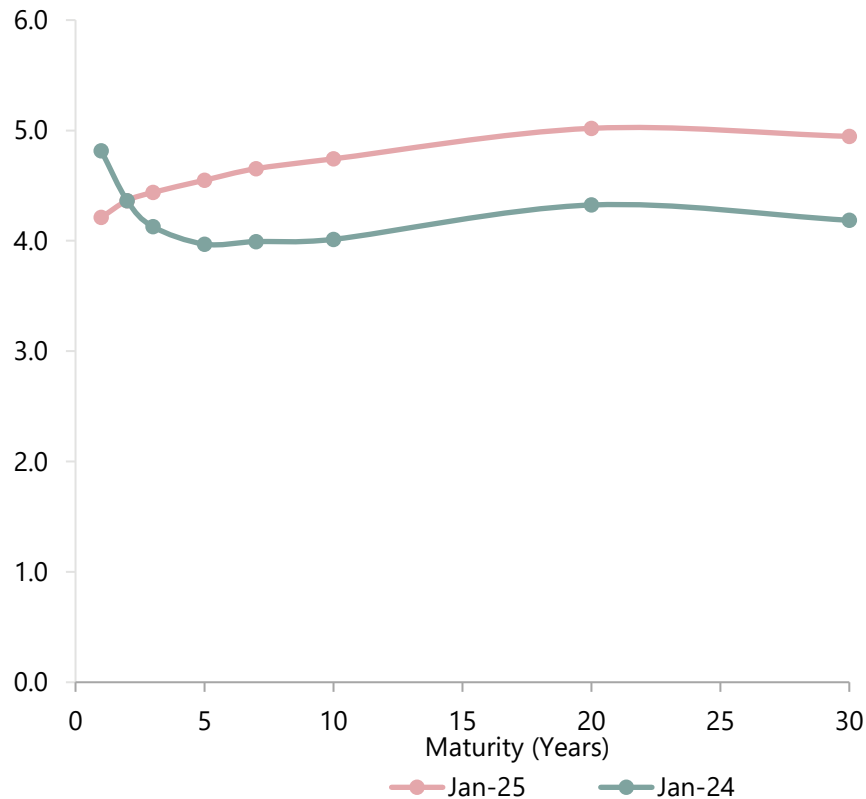


- No roll down, so favour convexity at long end;
- Prefer a barbell strategy, favouring front and long end of curve.

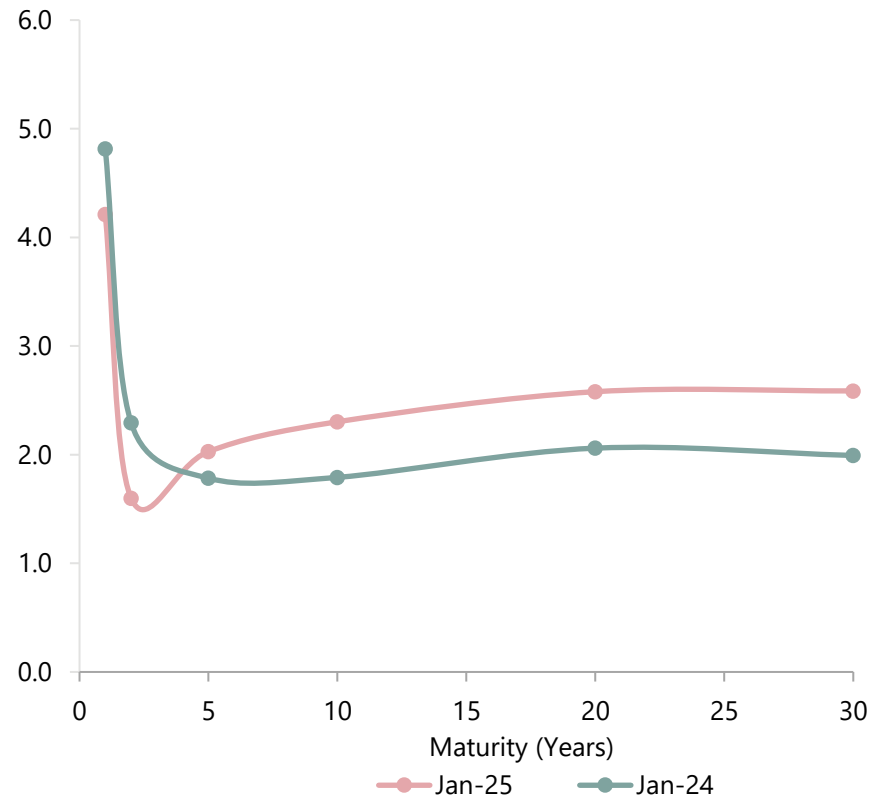
Choosing the best flavour

The US nominal and real curves have moved over the course of the year and are beginning to show some term premium...

US Nominal Yield Curve (%)



US Real Yield Curve (%)

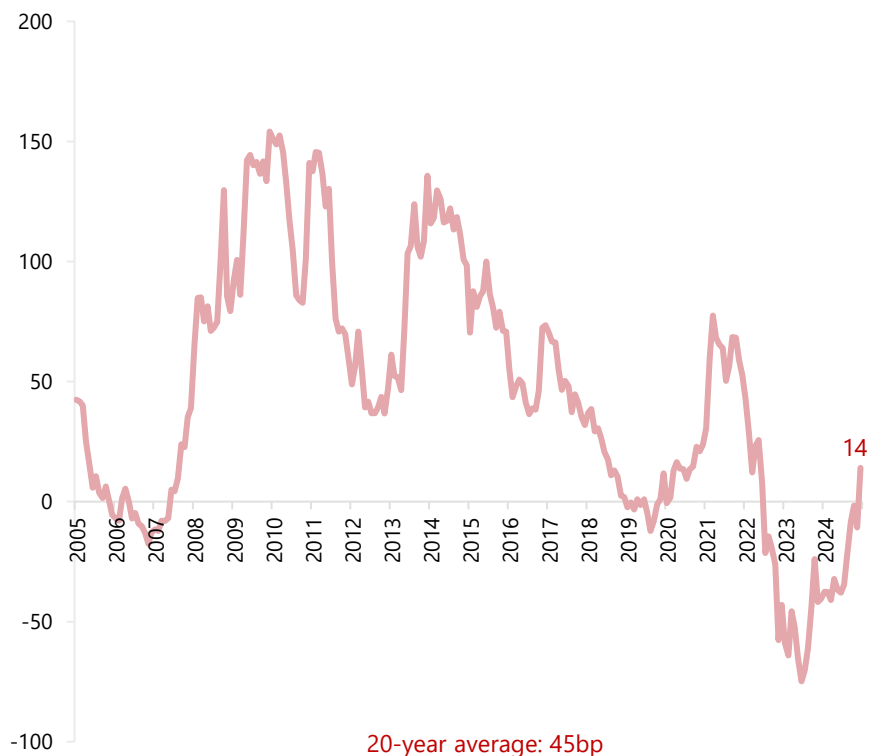


Source: Tax Foundation. Estimates forecast over 10-year horizon of 2025-2034. Fiscal balances from Bloomberg Finance LP and forecasts from the US Congressional Budget Office.

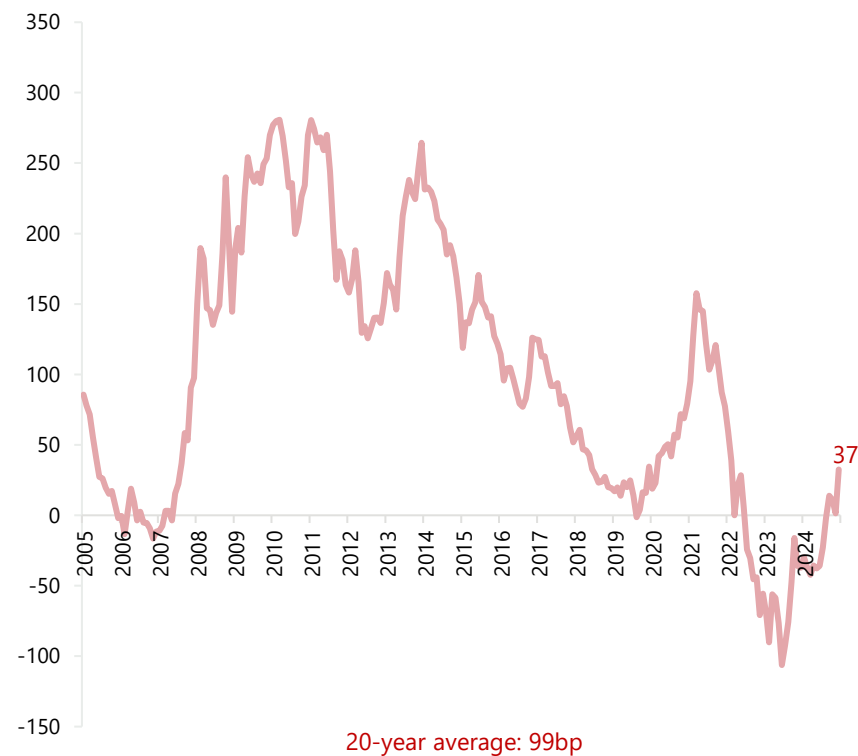
Choosing the right flavour

...however, a lookback against recent history suggests that the US curve is still relatively flat

US Treasury 2s5s spread



US Treasury 2s10s spread



Source: Bloomberg Finance LP

Choosing the best flavour

Positioning is much simpler for the smaller issuers!

Issuer	Index Duration	CG Duration	Running Yield	Comments
United States	6.6	7.7	2.1%	Liquid market, high real yields, long duration, barbell
United Kingdom	14.6	5.2	0.8% (RPI)	Volatile market, rising real yields, short duration
Germany	7.5	1.3	0.9%	Inverted yield curve
Sweden	3.7	3.2	0.9%	Inverted yield curve, small market
Denmark	7.5	5.8	0.5%	Small market, few bonds, flat yield curve
Japan	4.4	1.1	-1.8%	Illiquid market, rising interest rate environment
Canada	12.6	1.1	1.1%	Highly illiquid market
Australia	8.3	5.5	2.1%	Small market but relatively liquid, high real yields
New Zealand	7.5	3.0	2.4%	Small market, high real yields

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Considering currency hedging

Choosing the best flavour

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A case study in hedging: UKTI vs. GBP-hedged TIPS

1. Compare headline real yields for the same maturity

2. Make any adjustments needed for different measures of inflation

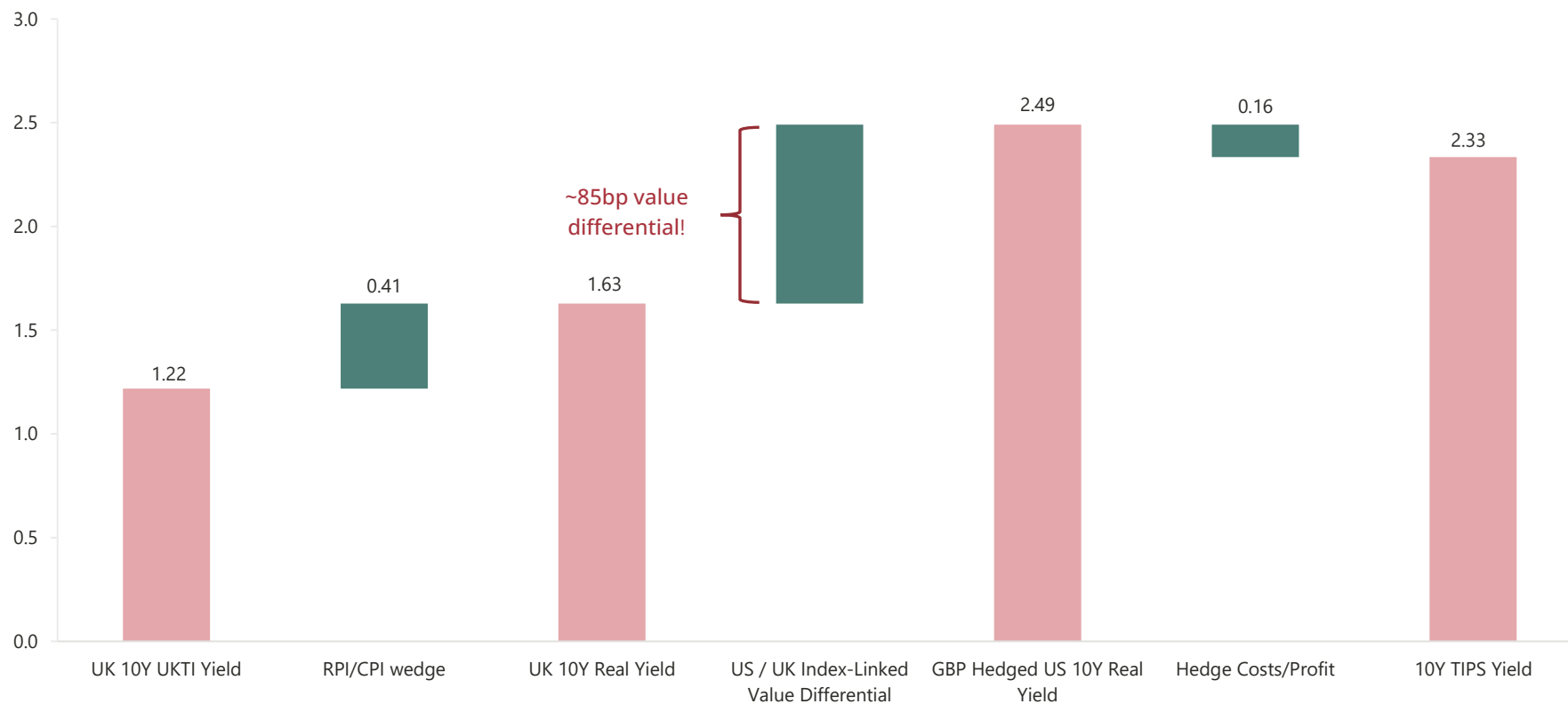
- *US I/L uses US CPI*
- *UKTI uses RPI (out to 2030); CPIH beyond that*

3. Calculate the costs of (or profit from!) hedging

- *Forward rate vs. spot rate for same currency pair*
- *Time horizon of hedge (e.g. 3M, 1Y)*

TIPS vs. Linkers: a perennial question for the GBP-denominated investor

Waterfall: Value differential between 10Y TIPS and 10Y UKTI



Source: Bloomberg Finance L.P., CGAM calculations.

In summary: choosing the best flavour

1. Define the investable universe
2. Set the portfolio allocation
3. Consider the expected returns from currency hedging

Q&A

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