Appendix A

REDINGTON

West Midlands Pension Fund

# YOUR MARKET AND INVESTMENT UPDATE

## Q4 2022

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# WHAT HAPPENED DURING THE QUARTER

Philip Rose
(CIO, Strategy & Risk)

## Market Summary

In Q4, markets started to price in a "goldilocks scenario" of both inflation being brought under control by existing central bank rate hikes and the economy avoiding recession. This resulted in a rally in risk assets, such as equities, while long-dated interest rates moved slightly higher.

There remains significant risk that bringing inflation back to target may require more rate increases than are priced in, or that by subduing inflation the economy will be pushed into recession, reducing corporate earnings and equity prices. Neither of these scenarios are fully priced into current market prices.

Markets are also pricing in continued US asset and economic outperformance, although historically this did happen in the global financial crisis and the pandemic.

## Key Points for You

- Expected returns increased slightly over the quarter from Gilts + 3.3% at 30 September 2022 to Gilts + 3.4% at 30 December 2022. This was largely driven by a higher allocation to Equities at 30 December 2022.
- Asset-side risk, as measured by VaR 95%, increased from 15.7% at 30 September 2022 to 16.6% at 30 December 2022. This was also largely driven by a higher allocation to Equities, with Equity risk the predominate driver of overall portfolio risk.

## Market Data

| Equity Index | Level | Change since 30-Sep-22 | Change since 31-Dec-21 |
|---|---|---|---|
| FTSE 100 (Total Return) | 7657 | 8.7% | 4.7% |
| S&P 500 (Total Return) | 8198 | 7.8% | -17.9% |
| EuroStoxx 50 (Total Return) | 1705 | 14.6% | -8.8% |
| Nikkei 225 (Total Return) | 44827 | 0.8% | -7.3% |
| MSCI World (Total Return) | 6237 | 7.5% | -16.0% |
| MSCI Emerging Markets (Total Return) | 628 | 6.6% | -15.5% |
| FX | | | |
| USD vs GBP | 1.21 | 8.4% | -10.6% |
| EUR vs GBP | 1.13 | -0.8% | -5.0% |
| Credit Spreads | | | |
| Sterling Non-Gilt Index | 125 | -10 bps | 56 bps |
| Sterling Non-Gilt 15Y+ Index | 175 | -13 bps | 38 bps |
| Global Investment Grade | 137 | -24 bps | 50 bps |
| US Investment Grade | 155 | -28 bps | 55 bps |
| Global High Yield | 442 | -71 bps | 108 bps |
| European High Yield | 381 | -75 bps | 91 bps |

## Market Data

| UK Gilts | Level | Change since 30-Sep-22 | Change since 31-Dec-21 |
|---|---|---|---|
| 10Y | 3.81 | -38 bps | 282 bps |
| 30Y | 3.92 | 21 bps | 281 bps |
| UK Nominal Swaps | | | |
| 10Y | 3.99 | -66 bps | 255 bps |
| 30Y | 3.63 | -8 bps | 241 bps |
| Gilt Breakeven Inflation | | | |
| 10Y | 3.57 | -42 bps | -36 bps |
| 30Y | 3.40 | -33 bps | 1 bps |
| UK RPI Swap | | | |
| 10Y | 3.91 | -53 bps | -26 bps |
| 30Y | 3.38 | -43 bps | -11 bps |
| UK Gilt Real Rates | | | |
| 10Y | 0.24 | 4 bps | 318 bps |
| 30Y | 0.52 | 54 bps | 280 bps |
| US TIPS | | | |
| 20Y | 1.87 | -19 bps | 239 bps |
| 30Y | 1.58 | 1 bps | 203 bps |

# VIEWS FROM THE ASSET CLASS SPECIALISTS

| | | |
|---|---|---|
|  | **Kate Mijakowska**<br><br>**LDI and Overlay** | In Q4 2022, at the 30-year tenor point, nominal gilts rose by 13bps while breakeven inflation fell by 38bps, leaving UK 30-year real yields 51bps up on the quarter. In October, markets saw extreme levels of volatility, with the 30-year index-linked gilt trading between -10bps and +155bps. Despite the initial nominal bond buying intervention by the Bank of England on 28th September, gilt yields started rising sharply again in October. On 10th October, the Bank of England announced it would extend the emergency bond buying programme to index-linked gilts, which led to real gilt yields falling dramatically again. That emergency measure was subsequently reversed, with the central bank selling its temporary £19.3bn holdings. During the quarter, the Bank of England hiked policy rates twice – by 75bps in November and another 50bps in December. Year-on-year UK CPI inflation prints started decreasing, with October, November and December readings at 11.1%, 10.7% and 10.5% respectively. |
|  | **Oliver Wayne**<br><br>**Liquid Markets (Equities)** | Over Q4, global developed markets ('DM') and emerging markets ('EM') both delivered positive absolute returns as investors lowered their expectations of future inflation, with Europe being the best performing region. The pound strengthened following a weak first 3 quarters, which meant that the equity rally was less pronounced in GBP terms. Energy was the best performing sector during the quarter and the only sector to deliver positive absolute returns during 2022. EM shares were supported by a weaker US dollar and China's relaxation of its zero-Covid policy. From a factor perspective, DM saw Value and Momentum perform positively and Quality/Growth factors underperform, with a similar picture in EM. During the calendar year there was high factor dispersion across DM and EM, with Value factors performing strongly and Quality/Growth factors performing poorly. |
|  | **Tom Wake-Walker**<br><br>**Liquid Markets (Multi-Asset)** | After a tough Q3, most liquid markets staged some form of recovery in Q4 as China started to re-emerge and inflation pressures eased slightly. This was good news for most long-biased multi-asset strategies, as they enjoyed the tailwind of rising markets. Any change in market direction is a challenge for trend-following strategies, and after a stellar Q3 it was not a surprise to see these funds struggle in Q4. Value as a style factor continues to outperform, however, and this was the driver of returns for most risk premia funds that had a stellar quarter. In fact, all the classic style factors were in positive territory for the period, so most quantitative funds ended 2022 on a high. It was a very strong quarter for merger arbitrage strategies as spreads started to normalise and the prospect of more M&A in 2023 appeared to improve. |

# VIEWS FROM THE ASSET CLASS SPECIALISTS

**Chris Bikos**

**Liquid & Semi-Liquid Credit**

Q4 2022 got off to a slow start, with the main themes of inflation, tighter monetary policy and geopolitical uncertainty continuing. However, from mid-October investor sentiment changed as inflationary pressures moderated. Credit spreads across the risk spectrum moved tighter, with European high yield leading the retrace by 127bps across developed markets. Duration (sensitivity to interest rate movements) continued to be the main source of volatility, although the relative impact by quarter-end was positive. Emerging market ("EM") debt in the final quarter of 2022 delivered overall positive returns. China's shift away from its zero-COVID policy, political developments in Latin America and easing US dollar strength were the main catalysts behind EM credit and local currency markets' strong performance in November and December. Despite the relief rally in Q4, 2022 will mainly be remembered as the year where investors felt the unpleasant consequences of higher inflation and interest rates.

**Tricia Ward**

**Illiquid Credit**

All private lenders signpost this period as the most attractive since 2008, while we are also seeing increased interest in shorter-duration private credit (sub 1-year).
Private equity ("PE") sponsors remain challenged when trying to raise debt at scale with the material slowdown in capital markets. The purported $1.6tn 2023-24 US debt refinancing requirement and continued decline in PE exits (67% lower in Q3 2022 vs Q3 2021) also increase demand for private credit.  Managers continue to focus on senior-secured lending to higher-quality, defensive companies with good cashflow.
In existing portfolios, defaults have risen by around one-third to 1.6% in Q3, the largest increase since 2020's 8.1% peak.  Whilst elevated in companies with <$50MM EBITDA, smaller borrowers are typically subject to more covenants than larger companies. Although not necessarily reflective of true distress, this offers early indications as we await Q4 numbers. As yet, return dispersion is not obvious, but this is a realistic expectation in the coming months.

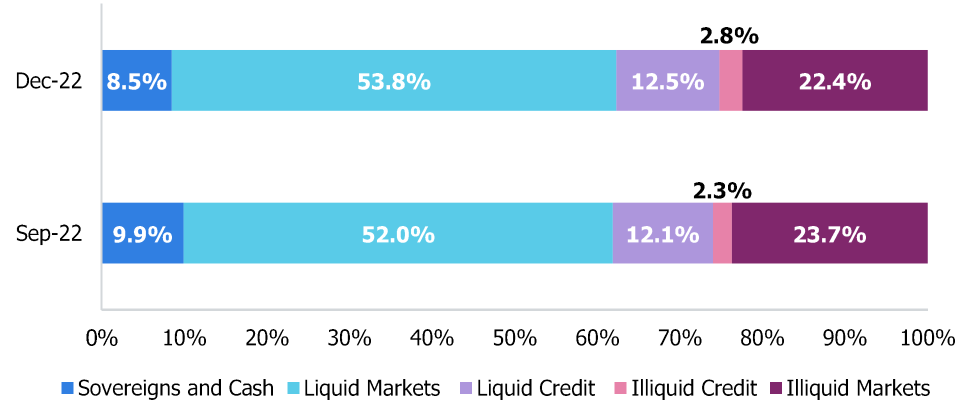
**Sarah Miller**

**Illiquid Markets**

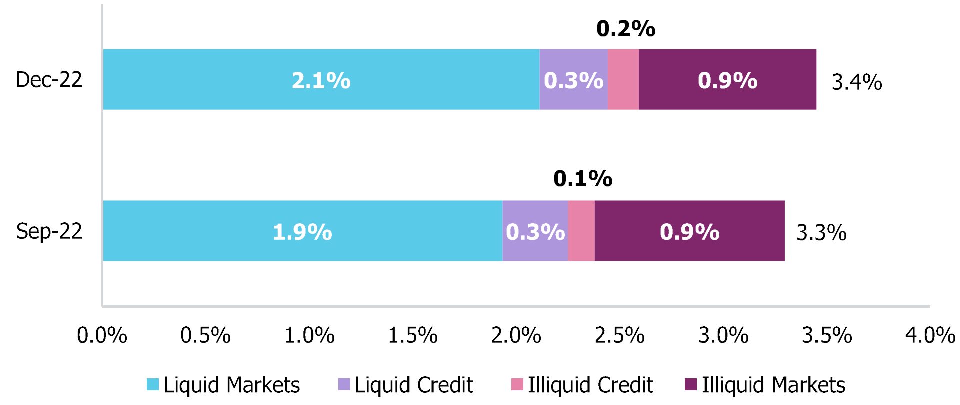
In 2022, power prices and inflation were front of mind. Unclear revenue caps, volatile energy prices and higher interest rates made gauging the progress of infrastructure investments more challenging. In Q4, governments stepped in to help address high energy prices, including emergency regulation of energy caps in the EU. After peak uptake in corporate power purchase agreement ('PPA') volumes in 2021, 2022 saw an 18% drop following a doubling in the cost of corporate PPAs in H1 2022. Since the introduction of the caps, prices have fallen.
Following the UK mini-budget in September, to generate increased liquidity amidst market uncertainty many corporate DB pension schemes submitted redemption requests from property fund investments at a time when underlying asset liquidity also evaporated, as asset owners re-assessed asset valuations. Subsequently, many funds deferred or gated redemptions.  It is a buyer's market at fund and asset level, with transactions in Q4 at their lowest since the Global Financial Crisis. Many bidders believe sellers, rather than assets, may be in distress.

# YOUR ASSET ALLOCATION AND EXPOSURE

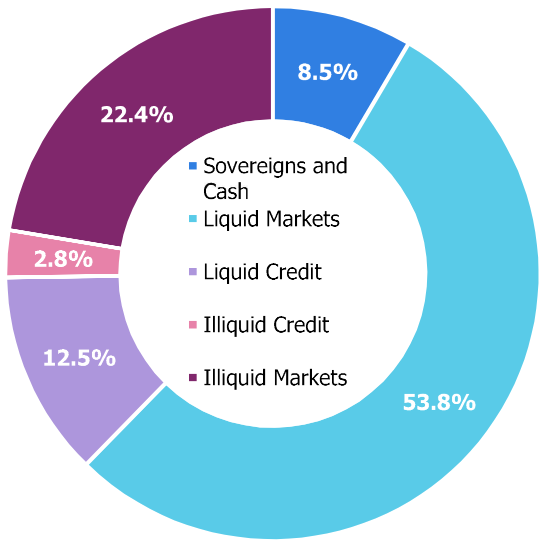
## Asset Allocation Change




## Expected Return Contribution Change (over gilts)




*Note, asset class expected returns are in the appendix.*

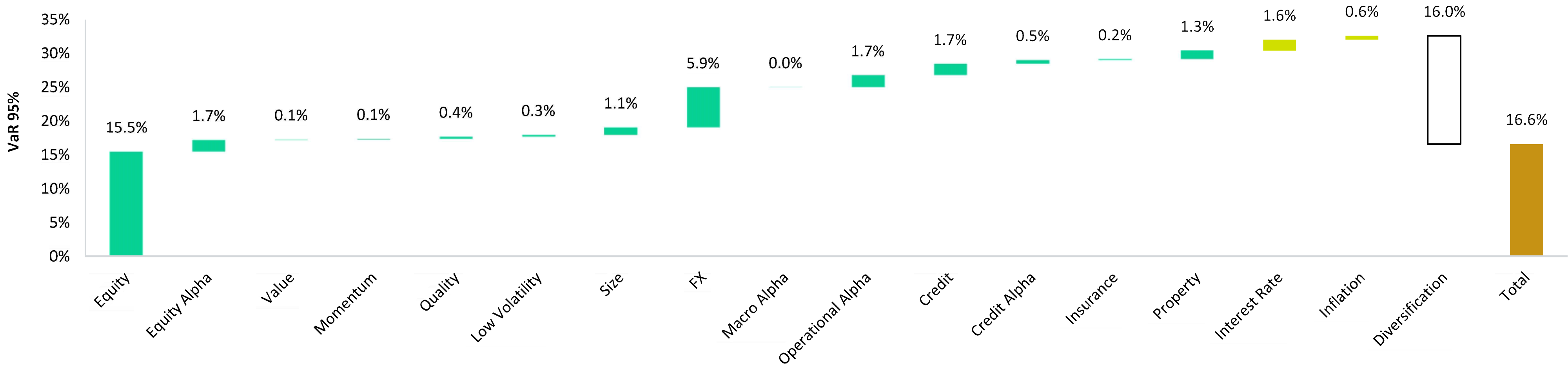



## Detailed Asset Allocation

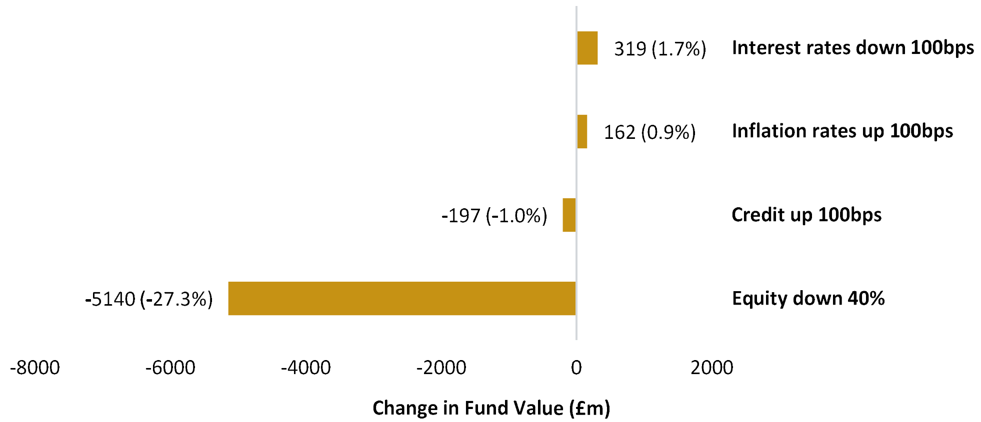
| | | | |
|---|---|---|---|
| Cash | 3.4% | Sustainable Equities - RBC | 2.2% |
| LGIM Overseas Bonds | 0.5% | Sustainable Equities - WHEB | 0.6% |
| Index-Linked Gilts | 3.8% | Emerging Markets Equities | 6.8% |
| Nominal Gilts | 0.7% | Aegon Short Dated Investment Grade Bond Fund | 1.5% |
| ACS LGPS UK Equity Passive Fund | 6.4% | UK Corporate Bonds | 2.8% |
| ACS LGPS Global Ex UK Passive Equity | 14.2% | LGPS Central Global Active IG Corporate Bond Fund | 0.9% |
| ACS LGPS Global Equity Dividend Growth Factor | 3.3% | Multi-Class Credit | 3.4% |
| ACS LGPS All World Equity Climate Multi Factor | 11.1% | Emerging Market Debt Funds | 3.8% |
| LGPS Central Global Equity Multi Manager Fund | 6.1% | LGPS Central Private Credit / Schroders FOCUS II/III | 2.8% |
| LGIM UK All Share | 0.3% | Infrastructure | 5.4% |
| Equities held with Merrill Lynch | 0.3% | Property | 7.3% |
| Smaller Equity Positions | 0.1% | Opportunistic Funds | 1.9% |
| Sustainable Equities - Impax | 2.5% | Private Equity | 7.8% |

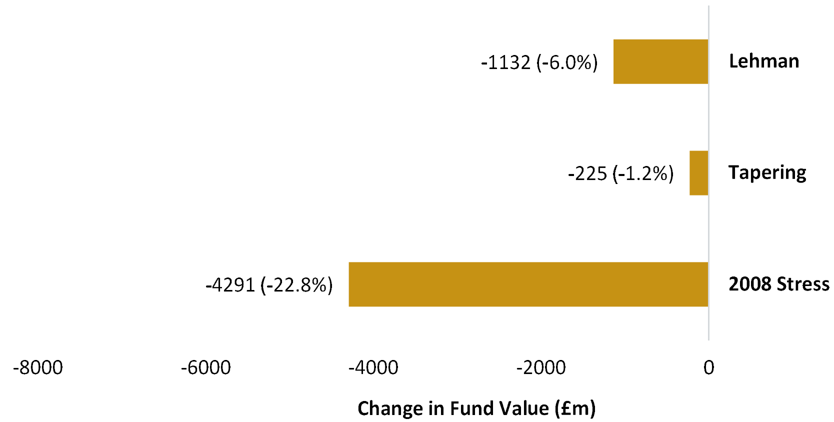
# HELPING YOU UNDERSTAND YOUR RISK

## Current Value-at-Risk 95% (Asset Only)




## Scenario Analysis



# APPENDICES

# REDINGTON’S EXPECTED RETURNS – DECEMBER 2022

| Asset Class | Expected Return (Gilts +) | Volatility | Expected Fees (p.a.) |
|---|---|---|---|
| **Equity** | | | |
| Developed Market Equities | 3.7% ↑ | 17.0% ↑ | 0.0%-0.1% |
| Sustainable Equities | 3.9% ↑ | 15.9% ▬ | 0.2%-0.4% |
| Emerging Markets Equities | 4.3% ↑ | 20.6% ↑ | 0.1%-0.2% |
| **Liquid Credit** | | | |
| Corporate Debt GBP – Passive | 1.5% ↓ | 5.8% ↓ | 0.1%-0.2% |
| Corporate Debt GBP – Active | 1.8% ↓ | 5.9% ↓ | 0.2%-0.3% |
| Emerging Market Debt – Corporates | 2.5% ↓ | 6.8% ↓ | 0.4%-0.6% |
| Emerging Market Debt – Local Currency Sovereign | 3.4% ↓ | 13.5% ↓ | 0.5%-0.8% |
| Emerging Market Debt – Hard Currency Sovereign | 2.5% ↓ | 8.2% ↓ | 0.5%-0.8% |
| Multi-Class Credit Global | 4.3% ↓ | 7.8% ↓ | 0.4%-0.7% |
| **Illiquid Credit** | | | |
| Diversified Matching Illiquids | 2.1% ↓ | 6.8% ↓ | 0.3%-0.5% |
| Opportunistic Illiquid Credit | 5.3% ↓ | 12.3% ↓ | 1.0%-1.5% (+ performance fee) |
| Securitised Opportunities | 4.1% ↑ | 5.8% ↓ | 0.5%-0.7% |
| Special Situations | 7.2% ↓ | 15.0% ↓ | 1.0%-1.5% (+ performance fee) |
| **Illiquid Markets** | | | |
| Private Equity | 5.1% ↑ | 31.1% ↑ | 1.0%-1.5% (+ performance fee) |
| Commercial Property | 2.0% ▬ | 11.8% ▬ | 0.4%-0.6% |
| Renewable Infrastructure (Whole Projects) | 3.5% ↑ | 14.1% ↓ | 0.5%-0.7% (+ performance fee) |

Fee data is estimated based on fees of preferred managers in each strategy. In practice, each fee would be negotiated for West Midlands and may be considerably lower.

# GLOSSARY

| Term | Description |
|---|---|
| Annual Management Charge (AMC) | The fee charged by the asset manager for managing the fund, typically expressed as an annual percentage on the invested assets. This excludes additional expenses, e.g. administrative costs, which when combined with the AMC make up a fund's total expense ratio (TER). |
| Credit Risk | The risk of financial loss as a result of the inability or unwillingness of an entity to make payments as they become due. Many types of relationships involve credit risk, such as those in which a company owes money to its suppliers (trade debt) or where a counterparty is required to make payments under a derivative contract (counterparty credit risk). |
| Credit Spread | The difference in the yield between two different bonds, due to different credit quality. The credit spread reflects the additional yield an investor can earn from taking incremental credit risk. Is it often quoted in relation to the yield on government bonds. |
| Inflation | The average rate at which prices (of products and services) increase over time. It gradually reduces the value of money over time – the higher the rate of inflation, the greater the erosion of value. |
| Risk Attribution | The process of attributing certain components of total risk to various sources such as inflation risk, credit risk, equity risk, etc. |
| Stress Testing | A tool used to assess a portfolio's exposure to large – but plausible – shocks. In the broadest sense, stress testing is a 'what if' exercise and can be modelled across various scenarios. For example, a stress test can be used to simulate the performance of a portfolio during 9/11, Black Monday and the Global Financial Crisis of 2007-08. |
| Value-at-Risk (VaR) | The minimum value that the Fund would expect to lose (at risk) for a given confidence level, over a given time horizon. We have used a 1-in-20 (i.e. 95%) confidence level. For example, if a portfolio's 95% 1-year VaR is £200 million, it would have a 5% chance (1-in-20) of suffering a loss over the year of £200 million or more. |
| Volatility | A measure of variability that is used as a common metric for risk. It represents the value of one standard deviation change in the value of an assets' return. Under certain assumptions, we are able to use this measure to calculate the probability of a given change in the value of the asset or portfolio. |
| Yield | The income return on an investment. It is based on the received cash flows of a security and is usually expressed as an annual percentage. |
| Yield Curve | A graphical representation showing the yields of a set of financial instruments by maturity. For example, the par interest rate swap curve or the UK Gilt curve. |

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