Defined Benefit Pensions Outlook

Invesco Investment Solutions | Q2 2022 | GBP

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Introduction

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Our private asset expected yields are represented by the CMAs of those asset classes in GBP.

Market Summary

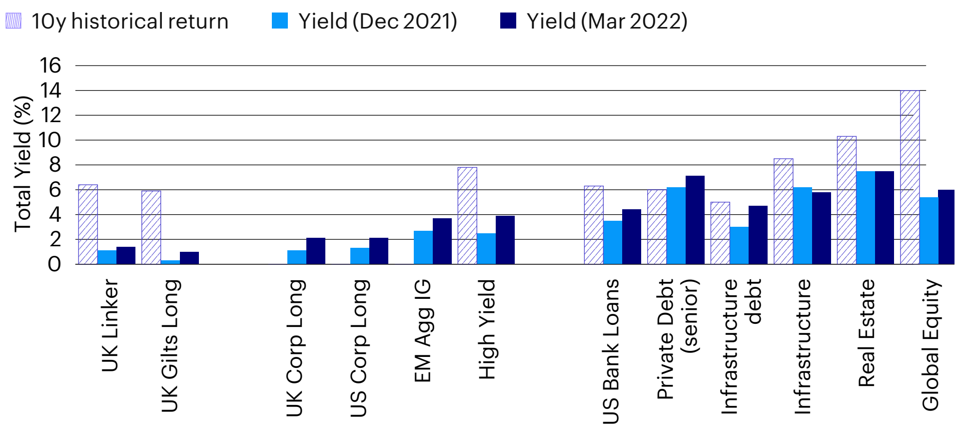
Russia's invasion of Ukraine on 24 February unsurprisingly dominated the quarter, with an immense humanitarian crisis rapidly unfolding as many have been caught in the conflict directly, many more displaced and the threat of wider fallout increased. In economic terms, the most significant global impact so far has been the rise in oil and gas prices as developed markets seek to exit ties with Russia, without it yet being clear how the shortfall will be replaced (Germany for example imported over 30% of its oil and gas from Russia in 2021). Inflation was driven sharply higher, with March year-on-year CPI inflation hitting 7.0% in the UK and 8.5% in the US, by the rapid rise in the cost of energy and other commodities (Ukraine and Russia together accounted for more than a quarter of global wheat exports and 80% of sunflower oil).

Having been slow to react previously, Central Bank interest rate communication has been robust with a total of eleven 0.25% US rate hikes now priced by markets for 2022 and eight in the UK. Equities ended the quarter higher than prior to the invasion as high bond prices dissuaded higher allocations to bonds; as bond prices have fallen on the back of higher interest rate expectations, equities have sunk with the MSCI World down 9.4% since quarter end.

Looking ahead, year-on-year inflation is expected to peak in 2022 before falling back, with the Bank of England forecasting a return to target in 2024. GDP growth is likely to slow as incomes fail to keep pace with rising rates, with Bank of England (BoE) forecasting a modest contraction in 2023. Net government bond issuance is expected to rise as QE programmes end, potentially lifting longer-dated rates where there is a lack of structural demand.

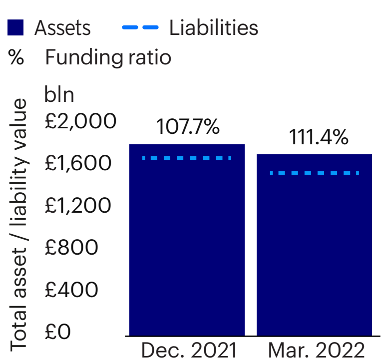
We have increased our 10y forecast across asset classes (global equity +0.6% to 6.0%, UK credit +1.0% to 2.1%). We forecast lower earnings particularly in sectors more exposed to Russia and related commodities, and lower growth generally in Asia given a more prolonged recovery from COVID-19. However, this was more than offset by the sharp rise in long-term interest rates above what we had already incorporated into forecasts.

Asset class yield (GBP CMA) compared to historical average yield



Source: Invesco, estimates as of Mar. 31, 2021. Proxies listed in footer on page 2; These estimates are forward-looking, are not guarantees, and they involve risks, uncertainties, and assumptions. These estimates reflect the views of Invesco Investment Solutions, the views of other investment teams at Invesco may differ from those presented here.

Pension Protection Fund (PPF) funding level, change over quarter



Funding levels continued to rise in Q1, ending the quarter at an average of 111%.

The sharp rise in interest rates caused assets to fall 5% but liabilities to fall further, by 9%.

Leverage within Liability Driven Investing (LDI) programmes rose as a result, requiring additional cash to reduce leverage and reducing scheme cash balances.

37% of schemes remain in deficit.

We expect significant de-risking activity in 2022, with the appropriate form depending on each scheme's progress towards its long-term objective.

Source: Pension Protection Fund (PPF S179 basis), Mar. 31, 2022.

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The de-risking journey

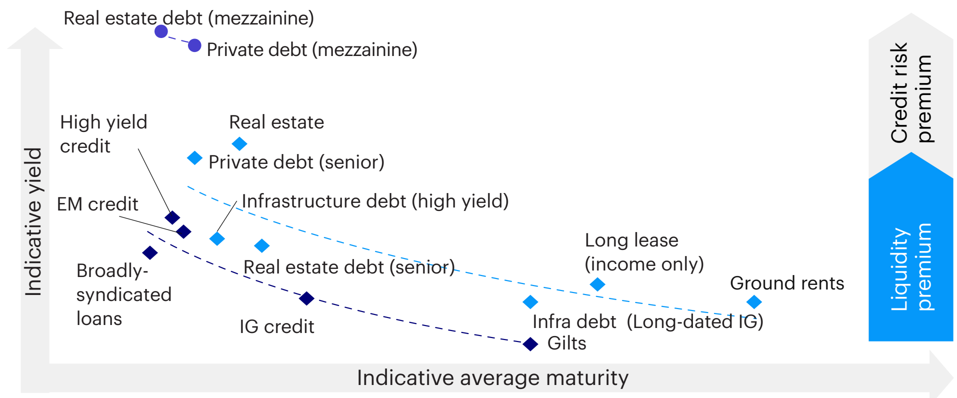
Rather than considering 'growth' and 'matching' assets in isolation, each investment held has a role to play in delivering cashflows when needed to pay pensions, while also delivering sufficient yield to pay all liabilities in full. A buy and maintain credit strategy can reduce the uncertainty of outcomes as more bonds are held to maturity. Alternative income provides the opportunity for higher yields than investment grade credit, but without the same volatility of capital values associated with equities. This can enable some de-risking without adversely affecting the pension scheme's liability discount rate.

We refer to this holistic investment approach as "Cashflow Driven Investing".

A well designed strategy will be able to weather short-term volatility as assets don't need to be sold in a hurry, and many clients will adopt a "de-risking plan" to build up this portfolio over time.

The chart below illustrates the breadth of the toolkit which can deliver more de-risking than a traditional approach:

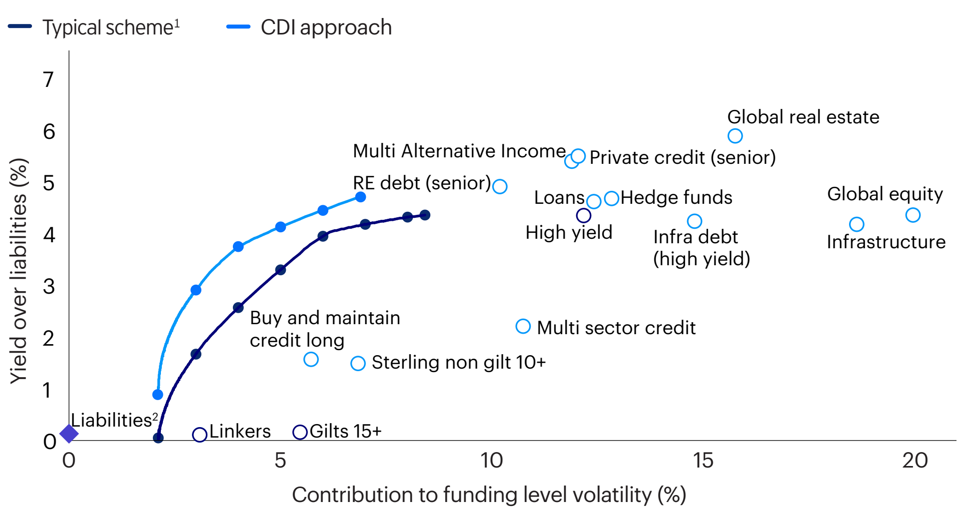
CDI fixed income toolkit



Source: Invesco Investment Solutions, as of Mar. 31, 2022. For illustrative purposes only.

By comparing the investment efficiency that is possible using typical asset classes (for schemes in the PPF 7800 index) and using a full Cashflow Driven Investing (CDI) strategy, we show that **the CDI toolkit can reduce risk for a given expected return.**

A CDI approach can improve investment efficiency



Source: Invesco Vision, MSCI, PPF as at Mar. 31, 2022.

Risk measure shows forecast 1-year volatility of return relative to liabilities - this is just one of a range of measures needed to assess risk.

1. **Typical scheme:** PPF Purple Book, as of Mar. 31, 2021.
Proxies are:
UK equity: MSCI UK - Daily;
Global equity: MSCI WORLD ex UK IMI - Daily;
UK Credit: Bloomberg Barclays Sterling Non-Gilts;
Hedge funds: Proxy - Hedge fund US HFRI FoF composite;
Global real estate: Direct real estate CMA income component (unleveraged), based on NCREIF property index;
Private equity: Proxy - Private equity US large buyout (De-smoothed);
UK gilts: Bloomberg Barclays sterling gilts;
UK linkers: ICE BofAML UK inflation-Linked gilt index;
Cash: Currency pound sterling;
2. **Liabilities:** representative cashflow profile with 19y duration and 13y inflation duration valued on a Gilts + 0% discount basis, and assumes a 72% funding level, interest rate hedge ratio and inflation hedge ratio on that basis.
3. **CDI strategy:** Proxies are:
Long-dated buy and maintain credit: Custom cashflows with c13y duration;
EM debt: Bloomberg Barclays EM USD aggregate: Investment Grade;
ABS: Bloomberg Barclays Non-Agency Investment Grade CMBS: Bbb Index;
High yield: Bloomberg Barclays global high yield;
Loans: Credit Suisse Leveraged Loan Index;
Private credit: IVZ proxy: Private credit: IVZ Proxy - US senior corporate (De-smoothed) unlevered;
RE debt: IVZ Proxy - Private credit US senior real estate (De-smoothed) unlevered;
Infra debt (HY): IVZ Proxy - Private credit US infrastructure HY (De-smoothed);
Asset leases: Proxy - Other Credit US aircraft leasing (De-smoothed);
Alternative credit: Proxy - Other credit US venture lending (De-smoothed);
Infrastructure: Proxy - Infrastructure US core (De-smoothed);
Global real estate: Direct real estate CMA income component (unleveraged), based on NCREIF property index.

An income-focused approach can reduce solvency uncertainty

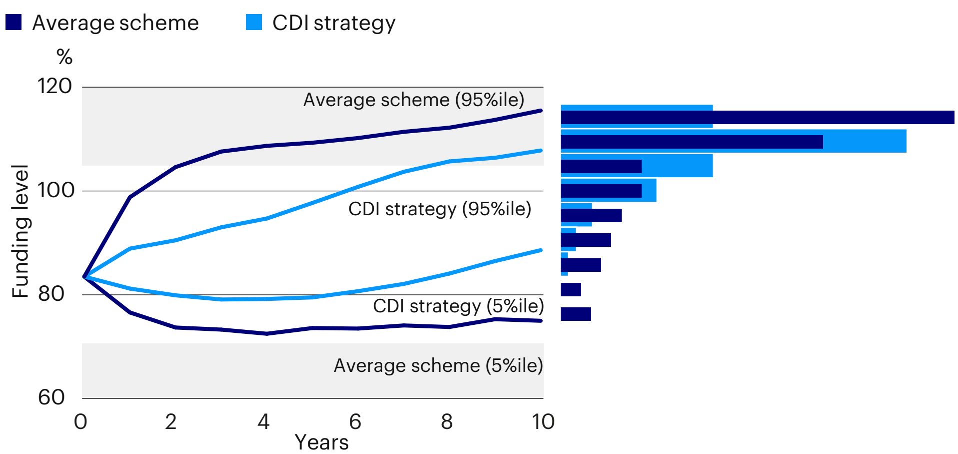
We model two investment strategies: The first models **a typical scheme asset allocation** and assumes de-risking proceeds as funding levels are hit. The second models a **cashflow-driven asset allocation** holding a diversified mix of fixed income and real assets and following the same trigger-based de-risking approach. We project asset values and deduct liability cashflows as they fall due.

The initial expected return of both strategies is the same. However the cashflow-driven strategy exhibits significantly less dispersion of future funding levels as while market volatility affects both strategies similarly in the early years, the cashflow-driven strategy delivers more certain cashflows over time, reducing the likelihood of a persistent deficit.

Modestly higher funding levels since last quarter have increased the starting point of the projection, increasing the probability of reaching full funding on a buyout basis within the 10 year period.

Solvency projection

CDI strategy offers lower funding level uncertainty



Source: Invesco, Moodys, as of Mar. 31, 2022. Funding level on a low-risk basis[1]

UK Regulatory update

Annual Funding Statement. The statement by the Pensions Regulator (TPR) highlighted the importance of robust risk management given higher funding levels but significant market and macro-economic risks.

Russia-Ukraine. In March, TPR set out its expectations of trustees regarding the conflict in Ukraine, including considerations relating to the potential divestment of Russian assets.

2022 priorities. In late January, the CEO of the TPR, Charles Counsell, blogged on TPR's priorities for this year. He confirmed that Department of Work and Pensions (DWP) is expected to consult on draft funding and investment regulations in the coming weeks, with TPR's second consultation on the revised DB Funding Code expected in the late summer. He also noted his expectation that trustees should continue to build their capability around climate change.

Further TPR Guidance on Climate Change Reporting. TPR has published additional guidance to schemes on climate change reporting, providing the example of a fictitious "XYZ pension scheme" to demonstrate how reporting can meet regulatory requirements.

Pensions dashboards. DWP consulted in February on draft regulations under which all schemes with 1,000+ members would be connected to the dashboard digital architecture by the end of September 2024.

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Global market conditions*

	Inflation	Interest rates	Credit risk premium	Illiquidity premium
Overall	2	4	3	4

See footnote on pg 5 for an explanation of our ranking methodology.

Inflation

Year-on-year UK Consumer Prices Index (CPI) rose from 5.4% to 7% over the quarter (US CPI: 8.5%, EU CPI 7.4%), driven higher by rising oil and commodity prices. The cost of hedging inflation for periods beginning in five years' time fell over the period, driven by strong demand for inflation protection.

Looking ahead, year-on-year inflation is still expected to peak in 2022 before falling back, with the Bank of England forecasting a return to target in 2024.

Unlike the 1970s, central banks have an explicit objective to target stable inflation. While energy transport networks (tankers and pipelines) will take time to reconfigure as the West reduces purchases from Russia, there remains enough oil and gas outside of Russia to meet global demand and so longer-term inflation should remain well anchored. Set against this, the acceleration in the increase of renewable energy capacity will require significant capital investment and this is likely to contribute to higher energy costs for the medium term.

Interest rates

Having been slow to react previously, Central Bank interest rate communication has been robust with a total of eleven 0.25% US rate hikes now priced by markets for 2022 and eight in the UK. This does not appear unreasonable.

However, the rise in long-dated rates (looking at forward rates beyond 10 years) may be overdone. While we do expect higher energy costs over the medium term, the long-term downward pressure on interest rates from ageing demographics and savings, high levels of debt and strict banking and insurance capital requirements remain unchanged. We therefore view interest rates as more favourably priced for schemes looking to increase interest rate exposure.

Credit risk premium

Corporate bond spreads widened further in Q1 and are now around historical averages (Global IG: +23bps to 1.13%). This reflects the expected impact of rising input costs and in some cases a likely reduction in consumer spending. Pension scheme demand remained a strong driver of technical support and this has helped eliminate what had been a persistent "sterling credit market premium" over US and Euro credit. We retain our neutral view overall.

Illiquidity premium

The excess return available from private assets compared to public markets remains high. The combination of record levels of private equity powder, a robust M&A environment, and a continued post-2008 retrenchment from middle-market lending by banks means the supply/demand balance continues to favour direct lenders.

* 5 indicates more favourable conditions to allocate new capital, whereas 1 indicates less favourable conditions. Fundamentals refers to risk factors of the assets themselves, Technicals refers to demand relative to supply, and Valuations refers to current price attractiveness in the light of these factors.

Blue indicates more favourable view since last quarter, grey indicates less favourable. Rising prices do not necessarily correlate with a more favourable view (and vice versa).

These views reflect the views of Invesco Investment Solutions, the views of other investment teams at Invesco may differ from those presented here.

Public debt*

	Gilts / LDI	Investment grade (IG) credit	Emerging market IG (hard currency)	Global asset backed securities (ABS) IG	Global high yield (HY)
Overall	**4**	**3**	**3**	**3**	**3**
Fundamentals	2	3	3	3	3
Technicals	4	3	3	4	4
Valuations	4	4	3	2	2

See footnote on pg 5 for an explanation of our ranking methodology.

Gilts / LDI

Many LDI hedges required additional capital injections in Q1, as leveraged exposure to rising interest rates caused valuations to fall; government borrowing costs also rose (contributing to our lower Fundamentals score). However, the rise in long-dated rates (looking at forward rates beyond 10 years) may be overdone, as while we do expect higher energy costs over the medium term, the long-term downward pressure on interest rates from ageing demographics and savings, high levels of debt and strict banking and insurance capital requirements remain unchanged. We therefore upgraded our LDI score, signifying more favourable conditions to increase hedging.

Investment grade (IG) credit

Corporate bonds suffered steep losses over the quarter on the back of both rising interest rates and credit spreads. Although tempered by rising input costs from supply chain bottlenecks and labour shortages in some areas, fundamentals remain strong and so we view this fall in prices as an attractive entry point, increasing our Valuations score to 4. US credit continues to offer higher yields for UK clients as Sterling credit yields (which are typically higher than US yields like for like) remain lower on the back of continued demand from pension funds.

Emerging market IG (hard currency)

War between two emerging market countries has inevitably led to a heightened awareness of risk, and in respect of Russian bonds, some heavy losses or trapped capital. We reduced our Technicals score accordingly. These risks now appear largely priced into the market and fund flows into the sector have turned positive.

Global asset backed securities (ABS) IG

We expect delinquency and loss rates to gradually increase to pre-COVID-19 averages for most ABS assets. Rising inflation is likely to particularly impact spreads more exposed to lower-income consumers. We reduced our Fundamentals score accordingly.

Global high yield (HY)

While yields have risen significantly as discussed above, we continue to expect a benign default environment for all but the lowest-rated high yield bonds

Alternative Income outlook*

	Senior secured loans (broadly syndicated)	Private debt (directly originated)	Private debt (distressed)	Real estate debt	Real estate	Infrastructure
Overall	**4**	**4**	**4**	**4**	**4**	**4**
Valuations	4	3	3	4	4	3
Fundamentals	4	4	4	4	4	4
Macro regime	4	4	4	4	5	4

See footnote on pg 5 for an explanation of our ranking methodology.

Senior secured loans (broadly syndicated)

Although supply chain issues and now inflation remain a concern, companies have broadly managed to defend margins in the latest wave of COVID. We expect strong demand from investors concerned about the impact of inflation eroding the value of bonds, and this is stimulating the formation of CLOs to meet demand. Taken together, our outlook for loans relative to other more liquid fixed income is strongly positive.

Private debt (directly originated)

Deal activity has accelerated in 2022, however strong inflows may put downward pressure on yields. Record private equity dry powder should support mergers and acquisitions, increasing the demand for direct lending within the finance package. However, supply chain constraints and a mismatch of skills and demand in the labour market continue to challenge business operating models, creating short-term headwinds for the affordability of debt repayment in some cases.

Private debt (distressed)

Distressed debt is yielding above average spread over high yield bonds and is supported by similar dynamics to senior and second lien debt covered above, leading to our positive outlook. The swift return to a "low and stable" regime, which has historically supported high returns from private debt vintages, completes our strong outlook for this asset class.

Real estate debt

Senior lending has remained highly resilient. Loan-to-value ratios have remained stable and debt coverage has been rising. Real estate values are likely to benefit from rising inflation, improving loan to value for lenders. The effect of this can be particularly significant for longer-term leases. We expect some increase in loan defaults for more junior tranches and less prime assets, lease space is rationalised and pressure grows to source new lending partners when refinancing.

Real estate

Real assets are enjoying strong demand into 2022, both as economic activity rebounds and as investors seek assets with inflation-linked returns without the very low yields associated with government bonds. While valuations in prime sectors remain well above 2020 lows, spreads to government bonds remain in normal range and debt coverage is high. Fundamentals are sounder in real estate than infrastructure (see below). As a result we view real estate as attractive overall.

Infrastructure

Infrastructure markets showed further strong momentum into 2022. Passenger transportation including unregulated toll roads and airports continue to face a headwind due to remote working and travel restrictions. However, the asset class continues to grow, evidenced by the trend for infrastructure funds taking publicly listed assets private. The largest such example to date, IFM's purchase of Sydney Airport, was confirmed early in 2022. While global travel and transport assets have seen a valuation shock, demand is expected to recover, leading to selective investment opportunities at discounts to historic valuations.

Use of asset classes within a CDI strategy

Gilts / LDI	Government bonds provide a large and liquid source of interest rate and inflation exposure to match residual liability sensitivity not provided by other assets. Exposure is typically leveraged to improve investment efficiency.
Investment grade (IG) credit	High quality bonds are a key source of duration and credit risk premia. Assets managed on a buy and maintain basis benefit from the yield enhancement from lower turnover and holding bonds to maturity.
Emerging market IG (hard currency)	EM credit has offered a premium to developed economies for investors with strong credit research coverage. Hard currency (USD) debt is less exposed to EM currency and emerging market interest rate fluctuations relative to liabilities.
Global asset backed securities (ABS) IG	Asset-backed securities provide a large and diverse universe with the security of an underlying pool of assets, across mortgages, corporate loans, student loans, auto loans and others.
Global high yield (HY)	The HY debt market provides a key source of high income potential for clients with higher return targets, either as a small allocation within buy and maintain mandates or within a multi-sector approach.
Senior secured loans (broadly syndicated)	Senior secured loans have delivered a stable level of income through the market cycle, with similar returns and lower volatility than HY bonds.
Private debt (directly originated)	Yields in senior direct lending are derived to a greater extent from illiquidity / direct origination premia rather than credit risk, due to the strong level of covenants. This can provide investors with access to attractive yields from relatively conservative assets with inherent downside mitigation.
Private debt (distressed)	Distressed investing involves purchasing or restructuring debt from companies in or close to default. Lack of traditional funding sources together with the complexity of working a company out of distress provides opportunity for significant returns for the experienced distressed manager. Level and timing of cashflows are uncertain.
Real estate debt	Real estate debt is a source of high and stable income with asset-backed protection. It can be attractive to pension funds and insurers seeking to deploy long-term capital without recourse to syndicated or securitised bank lending.
Real estate	Real estate is by far the largest alternative asset class offering long-term, broadly inflation-linked income, as rent and land value tend to rise with inflation. Global diversification can improve risk-adjusted returns. Properties let on longer lease reduce exposure to capital values, but this can reduce the liquidity of the portfolio.
Infrastructure	In most global cities there has been an underinvestment in infrastructure, which has put significant strain on the existing assets and provides opportunities for long-term capital, often with inflation- linked income.

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