Invesco

Alternative income for Defined Benefit pensions: Just what you were looking for?

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The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

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Long-term funding objective: The overlooked journey

While there is generally clarity on a scheme's long-term objective, there are many ways to get there. Often the journey is assumed to be a steady path, which for closed schemes is typically towards an agreed "low risk" asset allocation of gilts and credit, albeit this may still be many years in the future.

However, a journey is more than the destination: There is a risk that growth assets are held for longer than necessary for returns that may never arrive:

- Equities can present an uncomfortable risk of capital loss and uncertain income yields, particularly for schemes which are maturing: Demand has pushed valuation multiples to high levels and disruptions from supply chains, tariffs and inflation, particularly for UK investors, look to be far from transient.

  We find equities are sometimes retained for historical reasons, and only sold when the funding level reaches certain levels.
- Meanwhile, investment grade credit and gilt yields remain low despite the recent rise in interest rates: when funding levels rise, there is a limit to how much of the ultimate 'low risk' portfolio can be purchased, as every pound switched reduces expected return and hence increases the value of liabilities (on the technical provisions basis).

Alternative income can offer a stepping stone

Defined Benefit schemes are now looking to private markets for reliable asset growth as well as high and predictable income. While this type of investing may not be appropriate in the eventual low risk portfolio, it has several advantages on the journey:

- **Sequencing risk:** A declining asset pool will run out of cash sooner if assets need to be sold before losses from poor returns can be recovered; investing in funds which are either closed-ended or which can be put into run-off to mature over time means that assets do not need to be sold at unknown prices.
- **Regret risk:** The risk of a funding gap re-opening after getting close to full funding can be reduced by diversifying into assets ranking more senior in companies' capital structure.
- **Future de-risking:** The closed-ended (or run-off) features of many alternative income options mean the proceeds can naturally be invested into credit and gilts in future years.
- **Discount rate:** From an actuarial perspective expected return assumptions for asset classes must be prudent and a haircut is applied based on how dispersed the return outcomes are likely to be. Alternative income offers a lower dispersion of returns and therefore requires a lower reduction for prudence than equities. As a result, more de-risking can occur sooner without jeopardising the funding level in the process.

Figure 1
Prudent estimate of expected returns

Asset	Expected total yield	Potential prudent assumption
Global Equity[1]	5.4%	4.4%
Buy and Maintain Credit[2]	2.0%	1.9%
Alternative Income[3]	5.5%	4.8%

Source Invesco as at 31 December 2021 in GBP.

1 MSCI ACWI 10y expected return of 5.38% in GBP (15.42% risk) at 31 December 2021.

2 Buy & Maintain Credit: Gilt yield plus OAS of Bloomberg Global Aggregate Credit. Marginal reduction for potential sales on downgrade.

3 Alternative Income: 5.5% represents the midpoint of Invesco's Alternative Income target yield over a full market cycle (5-7 years): 5-7% in USD terms, adjusted for cross-currency rate differences. Please see the appendix for further information.

What is alternative income?

Alternative Income refers to any income from non-traditional sources and falls broadly into four categories: corporate debt, real estate debt, infrastructure debt and specialist financing. The asset class has grown exponentially since the Global Financial Crisis as banks have faced stricter regulation and higher cost of capital to lend customer deposits.

1. **Corporate debt**
   The largest and most established source, corporate debt may be further divided according to liquidity. Banks remain a key originator of private loans, with these packaged and sold on to asset managers and other institutions. **Bank loans** typically rank senior to the company's other debt with cashflows secured on the company's assets. Term is typically 3-5 years, with early refinancing and secondary market liquidity common. Income yields are typically similar to (or higher than) high yield bonds – but with stronger potential for risk mitigation provided by the senior secured features.

   The majority of companies' private debt does not have such an established secondary market and should be purchased with the expectation that it is held to maturity or until refinanced. These **Private credit** yields are higher, reflecting both the liquidity premium and the yield premium best-in-class private credit managers can obtain from strong underwriting and the ability to provide reliable long-term financing to companies whose other options may be more limited. The direct relationship allows for lower default loss because waivers and amendments can be agreed if repayment difficulties arise. Despite the lower risk profile, based on our Capital Market Assumptions (for which further details are found in the appendix) we expect senior private credit to deliver strong returns over the next 10 years making this an attractive option in the de-risking journey.

   At the other end of the risk spectrum, **Distressed debt** seeks a high level of returns by 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.

2. **Real Estate debt**
   Lending capital for the purchase of office, retail, industrial or potentially residential properties, can deliver stable and known cashflows, where the income is derived from contractual rent from high quality tenants who may themselves have public credit ratings. Senior debt derives most of the yield premium from illiquidity rather than credit risk. Typical maturity is 5-10 years. While longer lease debt may allow cashflow matching to longer maturities, opportunity for diversification and yield are more limited.

3. **Infrastructure debt**
   Seeks to cover the significant gap between capital required to renew infrastructure assets in developed economies as well as fund new technology where a long holding period is required. As with real estate debt, longer leases offer greater the potential for inflation-linked returns but may come with increased risk that the cashflows change over the asset's lifetime, particularly from assets exposed to technological or regulatory risks.

4. **Specialist financing**
   Finally, in an asset class that defies exhaustive classification, there are opportunities which do not fall neatly into the above categories. **Specialist** managers look to fill the gaps created by market inefficiencies, underwriting lending to niche areas, or using unusual structures to generate returns less correlated to the broader market. For example, financing royalties, intellectual property (such as pharmaceutical research) or insurance-linked securities, or inclusion of conditional features in the repayment structure.

We expect senior private credit to deliver strong returns over the next 10 years, making this an attractive option in the de-risking journey.

How does alternative income help?

The need for high and predictable income is best illustrated by considering how the funding level may evolve.

We modelled a typical UK DB Pension scheme[1] valued on a low-risk basis, consisting primarily of growth and liability matching assets with a typical set of de-risking triggers. Liability cashflows are deducted each year as they fall due, from income and asset sales as required.

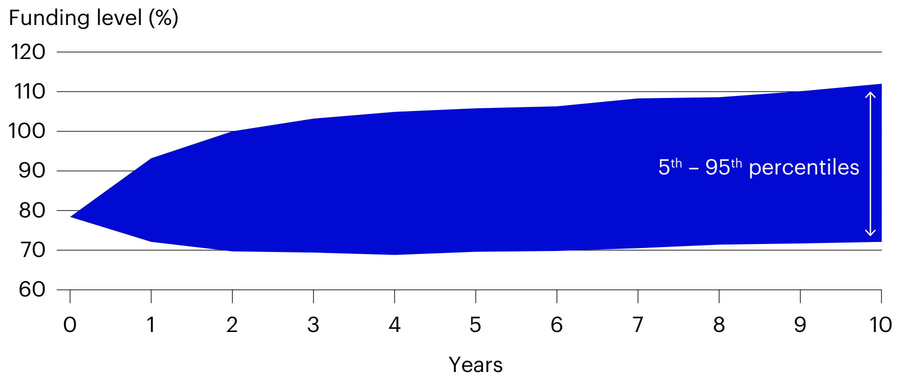
This leads to wide dispersions in funding level outcomes – in this model there is a 5% chance that the funding level has not improved after 10 years, which could require either unaffordable contributions or an irrecoverable shortfall.

By contrast, an asset allocation with a significant allocation to **alternative income** exhibits a much narrower range of potential funding levels, with the same expected return. This is firstly due to income and natural principal repayment avoiding the need for asset sales at unknown prices, and secondly due to the greater ability an alternative income manager has to work with the borrower to alleviate any funding difficulties which may emerge.

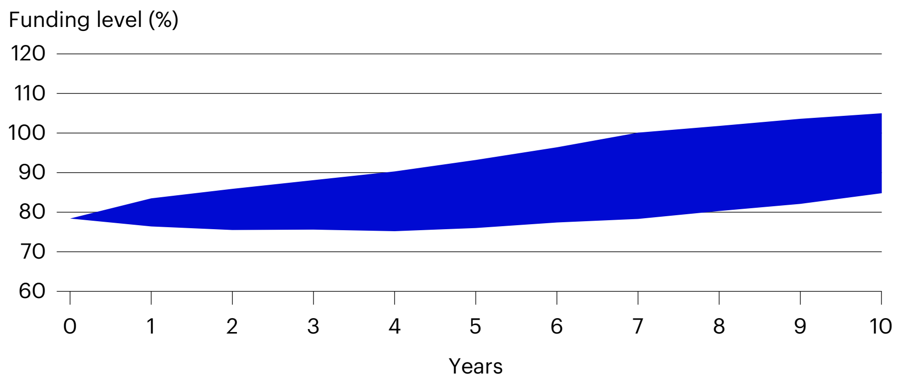
An allocation to alternative income exhibits a much narrower range of potential funding levels, with the same expected return.

Figure 2
Projected funding levels for an average scheme asset allocation[1] and when alternative credit is included[2]

Average scheme asset allocation[1]



Average scheme asset allocation but with alternative credit included[2]



Source: Invesco as of 31 December 2021. Charts shows 5th & 95th percentile funding ratios using our economic scenario generator, assuming no additional contributions, liability transfers or demographic changes. Funding level calculated on a low-risk basis.

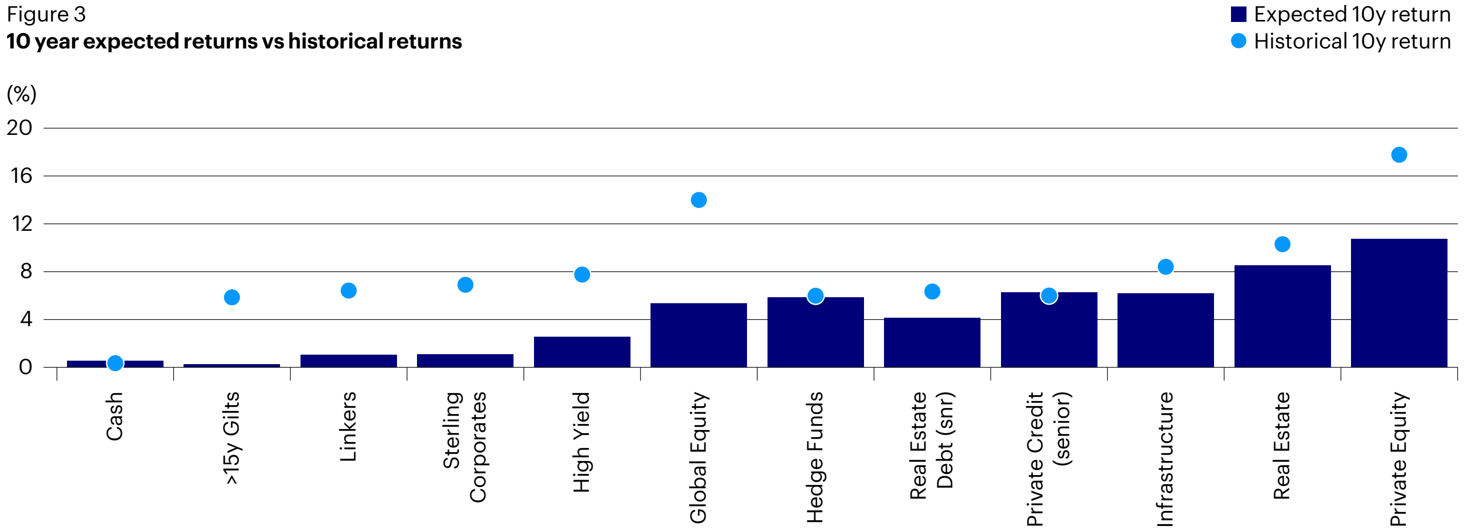
[1] Typical scheme: PPF Purple Book, as of Dec. 31, 2021. Proxies are: UK equity: MSCI UK – Daily; Global equity: MSCI WORLD ex UK IMI – Daily; UK Credit: Bloomberg Barclays Sterling Non-Gilts; Hedge funds: Proxy – Hedge fund US HFRI FoF composite; Global real estate: Direct real estate CMA income component (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: Pound Sterling.

[2] Alternative Income: 35% allocation consisting of private debt (16%) and real estate debt (7%) each split 75/25 senior/mezzanine, plus specialist credit (7%, bank loans (5%) and infrastructure debt (4%). Liability cashflows with c.19y duration and c.13y inflation duration, valued on a Gilts + 0% discount basis, and assumes a 72% funding level, interest rate and inflation hedge ratios equal to funding level.

Alternative income – is it really worth it?

We expect lower returns from public markets in the next 10 years compared to the last 10 years, as government and central bank injections have pushed easy-to-access equity and bond prices to elevated levels.

Figure 3
10 year expected returns vs historical returns



Source: Invesco; Capital Market Assumptions as of 12/31/2021, Historical returns to 12/31/2021, Private Credit returns refer to direct (unleveraged) returns. Past performance does not predict future returns. There can be no assurance that any estimated returns or projections can be realised, that forward-looking statements will materialize or that actual returns or results will not be materially lower than those presented. Data is unhedged GBP. An investment cannot be made into an index. Capital market assumptions are forward looking, are not guarantees, and they involve risks, uncertainties, and assumptions. Refer to the important information for additional CMA information. For illustrative purposes only Forecasts are not reliable indicators of future performance.

We are yet to see the same compression in return premia from alternative income, as returns are driven by different drivers. It is the alternative drivers of return which make them seemingly attractive to pension schemes:

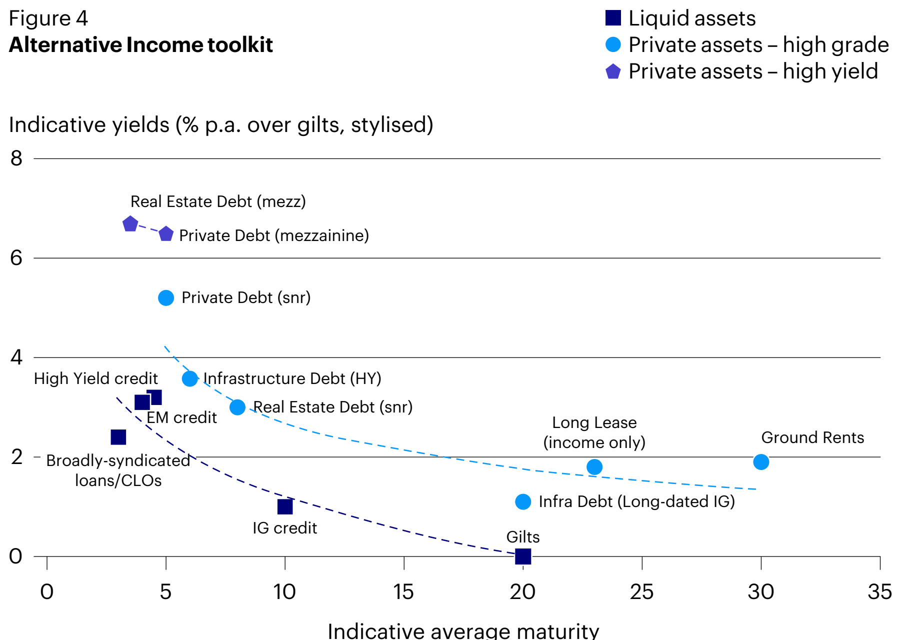
- Direct origination
- Liquidity premium
- Restructuring flexibility
- Smaller size
- Specialist underwriting

These return sources may be visualised in Figure 4 (below).

The importance of repeat lending and deep knowledge of borrowers means alternative income manager performance tends to persist across fund vintages, while the flexibility to work out of credit issues means that credit loss can often be mitigated.

We are yet to see the same compression in return premia from alternative income, as returns are driven by different drivers.

Figure 4
Alternative Income toolkit



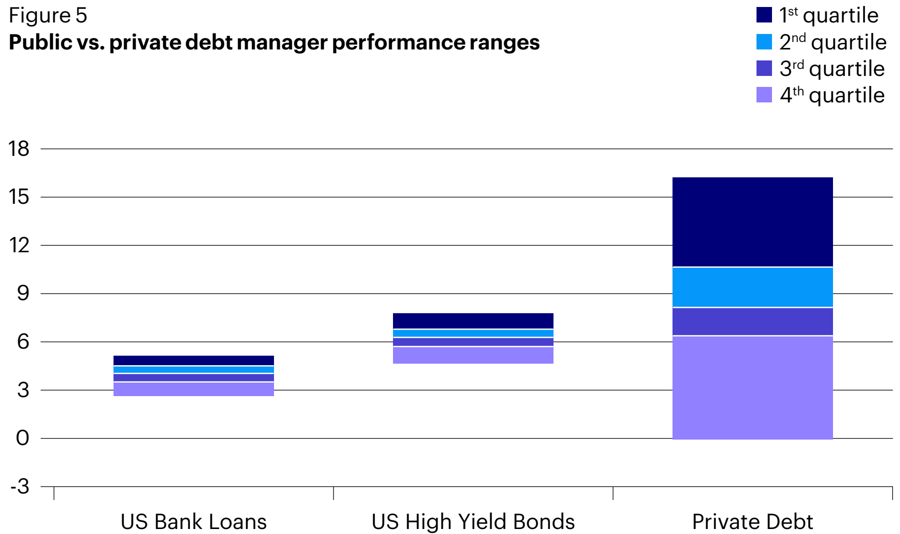
Source: Invesco, Bloomberg, as at 31 December 2021. Further information can be found in the appendix.

Invesco’s Alternative Solutions Platform offers streamlined access to Invesco’s specialist in-house alternative capabilities, together with high quality investments from leading partner firms.

From theory to practice

While there are many potential benefits of including alternative income within portfolios, the road to implementing private market investments can be difficult. It can take a significant amount of internal resource to assess private markets and source compelling risk-adjusted opportunities. These resources are particularly important during the manager selection process as identifying top performing managers is essential.

Figure 5
Public vs. private debt manager performance ranges



Source: Morningstar, Burgiss. Data is based on 5-year annualized total returns for public assets and IRR to date for private assets. Data as of 30 September 2021. All returns are net of fees. Past performance is not indicative of future results.

Once key asset classes and managers have been identified, the next notable barrier is minimum AUM and fee requirements which can be too high for many schemes to overcome. Recognising this challenge, we developed our **Alternative Solutions Platform** to provide streamlined access to Invesco’s specialist in-house alternative capabilities together with high quality investments from leading partner firms. Using this multi-manager platform, pension schemes can benefit from economies of scale and expertise from senior loans and real estate – to private credit and infrastructure, with lower minimum investment requirements. The platform also gives pension schemes access to Invesco Investment Solutions’ global resources and proprietary analysis. Through this ‘extension of staff’ approach, we can reduce the administrative burden for schemes in terms of monitoring, oversight and reporting across private market investments.

Want to find out more about current opportunities in alternatives?

Invesco’s Alternatives Opportunities outlook provides views on a variety of private asset classes from Invesco Investment Solutions and our partner firms. This semi-annual research presents a framework for analysing across and within alternative markets.

For more information about the outlook for alternatives and how Invesco can help your scheme meet its investment objectives, please contact your Invesco representative.

Conclusion: Not so alternative

The combination of the need to de-risk, the need for high income and the rapid growth of the asset class post the 2008 Global Financial Crisis, means that Alternative Income is no longer so alternative.

Through our analysis and research, we believe alternative income strategies can be highly complementary for many pensions schemes at this stage of their funding journey. For all pensions schemes, regardless of size, gaining access to high-quality alternative income investments – whilst reducing the governance burden often associated with private markets – will be key to realising its potential.

Appendix

Rationale for a prudent expected return assumption for alternative income

Calculating "prudent" expected returns is not a straightforward process, however, yield to maturity is the starting point for estimating this for alternative income. From this, some credit impairment is possible from alternative credit. The majority of the return premium does not come from credit risk, but from factors related to the sourcing of opportunities. For experienced alternative credit managers this tends to be relatively stable across fund vintages. Once capital has been invested, there is good visibility on yield delivered.

To determine a prudent haircut, historical losses are useful data in reserving for future losses. Invesco's alternative income strategy seeks to provide access to best-in-class managers with proven track records. Of the 5 funds currently invested. Three of the funds have experienced no losses since their inceptions (in 2012, 2014 and 2018 respectively). The remaining two experienced an annual loss rate of 0.02% (across $7bn deployed since 2011) and 0.06% (across $1bn deployed since 2013). The latter related to four defaults, where the recovery rates were 100%, 100%, 92% and 88% of capital.

Looking to public credit ratings, the default rate for BB-rated credit has averaged 0.6% per annum over the 20 years 1981-20201, indicating credit loss of around 0.35% (based on a recovery rate of 40%). A recent maximum was set in 2008 with a BB default rate of 0.8%, implying credit loss of around 0.5%.

Both these figures already contain some prudence, as credit spreads over the period were higher than their current level on average (2.9% compared to current spreads of 1.9%). And further, recovery rates for private credit tend to be substantially higher than 40%, due to the closer relationship between lender and borrower that allow terms to be amended rather than trigger default. Nevertheless, if we double the loss above, we arrive at a conservative deduction to apply of 0.7%.

	Yield
Risk free rate (GBP)[1]	1.0%
Credit risk premium[2]	1.9%
Sourcing premium	2.7%
Hedged yield	5.5%
Prudent allowance for default	-0.7%
Contribution to liability discount rate (based on the prudent assumption for expected return for alternative income)	4.8%

1 10-year gilt yield at 31 December 2021.
2 BB rated credit spread at 31 December 2021.

Proxy information

Asset class	Index
Global Corporate-Ex US	Bloomberg Global Corporate- Ex US
UK Aggregate	Bloomberg Sterling Aggregate
UK Gilts	Bloomberg Sterling Aggregate Gilts
UK Corp	Bloomberg Sterling Aggregate Non-Gilts – Corporate
UK Linker	BofA Merrill Lynch UK Inflation-Linked Gilt
Canada Aggregate	FTSE TMX Universe Bond
Canada Treasury	BOA Merrill Lynch Canada Government
Canada Corporate	BOA Merrill Lynch Canada Corporate
EM Aggregate	Bloomberg EM Aggregate
EM Aggregate Sovereign	Bloomberg EM Sovereign
EM Aggregate Corporate	Bloomberg EM Corporate
EM Corporate IG	Bloomberg EM USD Agg-Corp–IG
EM Corporate HY	Bloomberg EM USD Agg-Corp-HY
Agriculture	S&P GSCI Agriculture
Energy	S&P GSCI Energy
Industrial Metals	S&P GSCI Industrial Metals
Livestock	S&P GSCI Livestock
Precious Metals	S&P GSCI Precious Metals
Commodities	S&P GSCI
BB Commodities	Bloomberg Commodity
Hedge Funds	HFRI HF
HF Event Driven	HFRI Event Driven
HF Global Macro	HFRI Macro
HF Long/Short	HFRI Equity Hedge
HF Market Neutral	HFRI Equity Market Neutral
PE US LBO	Burgiss Buyout
Early Venture	Burgiss Early Venture Capital
Mid-market Lending	Burgiss Senior Private Debt
Distressed Credit	Burgiss Distressed Debt
Core Real Estate	Preqin Real Estate
Value-Add Real Estate	Preqin Real Estate Value Added
Infrastructure-Core	Preqin Infrastructure

Investment risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

Invesco Investment Solutions develops CMAs that provide long-term estimates for the behaviour of major asset classes globally. The team is dedicated to designing outcome-oriented, multi-asset portfolios that meet the specific goals of investors. The assumptions, which are based on 5- and 10-year investment time horizons, are intended to guide these strategic asset class allocations. For each selected asset class, we develop assumptions for estimated return, estimated standard deviation of return (volatility), and estimated correlation with other asset classes. This information is not intended as a recommendation to invest in a specific asset class or strategy, or as a promise of future performance. Estimated returns are subject to uncertainty and error, and can be conditional on economic scenarios. In the event a particular scenario comes to pass, actual returns could be significantly higher or lower than these estimates.

Multi-Alternative Income Strategy

Investment will involve significant risks due to, among other things, the nature of the Fund's investments. Investors should have the financial ability and willingness to accept the risks and lack of liquidity that are characteristic of the investment described herein. Prospective investors should specifically consider the material risks in addition to the other information contained in the Memorandum before deciding to invest. The occurrence of any of the risks discussed might result in the loss of some or all of an investment. The Fund is a multi-strategy fund-of-funds that will seek to invest, directly or indirectly, in a portfolio of pooled investment funds sponsored by third party managers or affiliates of the Investment Advisor (the Underlying Funds) that will comprise a diversified, global portfolio of income-oriented private market strategies (including, but not limited to, senior, distressed, structured, specialty, and mezzanine debt). The Fund also may invest in one or more portfolio companies through co-investment opportunities (each a Portfolio Company and together with the Underlying Funds, the Investments). The Fund aims to provide enhanced diversification across managers, strategies, asset classes, geographies, and vintage years. The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested. Prospective strategies for inclusion in the Fund include, but are not limited to, investments in direct lending, alternative credit, real estate lending, infrastructure debt and bank loans. The Fund may seek to invest in any part of the capital structure consistent with its investment objectives and may invest across multiple geographies. Target investments may be implemented via primary, secondary, and co-investment opportunities. The Investment Advisor does not intend, and is not required, to attempt to hedge currency, interest rate or other risks associated with its investments. There can be no assurance that the Fund's investment objective will be achieved or that the Fund will not experience losses, which could be substantial. Any investment in the Fund entails a risk of loss. For more important information on risks associated with the Invesco MAI Fund, see the "Risk Factors" section of the Private Placement Memorandum on pages 19-42.

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All information is sourced from Invesco, unless otherwise stated. All data as of 31 December 2021, unless otherwise stated. All data is GBP, unless otherwise stated.

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