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## Private Debt: A Valuable Allocation for DC Pension Schemes

As DC schemes increase allocations to private markets, we believe the benefits of private debt in the accumulation and decumulation phases should make it a key consideration for investors

Recently galvanised by the Mansion House Accord, the private markets investment initiative to enhance pension fund returns and support economic growth, UK defined contribution (DC) schemes have been increasing their allocations to non-public assets as part of their pledge to allocate 10% of their main default funds by 2030, with 5% ringfenced for UK investments.

For many DC schemes, private equity investment has been a chief focus for strategic allocation, a strategy we focused on and analysed in [our previous paper last year](#). This time, we turn to private debt, a broad asset class that has grown rapidly and evolved in recent years.

In this paper, we present a hypothetical study to illustrate the potential impact on asset accumulation of including private debt, how that affects the level of income that can be bought at retirement, and how the high-income distribution attributes of the asset class are attractive for retirees adopting a drawdown strategy in the decumulation phase. We also highlight key considerations for DC schemes in choosing an investment partner in this expanding market.

## Executive Summary

- As UK DC schemes look to diversify from public markets and within private assets, we believe the benefits of private debt in the accumulation and decumulation phases should make it a key consideration.
- Key benefits include the potential for enhanced risk-adjusted returns (see below), reliable income and portfolio diversification.
- While there are several types of private debt, we believe a combination of corporate direct lending, asset-based finance and residential transitional loans are an optimal fit for most UK DC schemes in achieving multiple objectives for their members.
- In modelling two hypothetical DC portfolios—one with public assets only for fixed income allocation, and the other to include private debt—we show the portfolio including private debt improves both the median (increasing the accumulated pension value by 5.2% net of investment management fees) and the range of returns.
- Our analysis also shows that the higher income distribution of private debt supports potentially retaining allocations in private debt beyond retirement, facilitating higher income drawdown during the decumulation phase.

Since the signing of the Mansion House Compact in July 2023—initially focused on private equity investment—and Mansion House Accord more recently in May 2025—which broadened the scope to include other private assets—DC schemes have made meaningful progress in incorporating private equity into their allocations. As this trend develops, we believe that private debt, as part of a scheme's broader exposure across private markets, can be a particularly valuable allocation under a typical DC strategy.

While not new, this asset class is growing rapidly—estimates vary, but the size of the total addressable market could be upward of \$20 trillion<sup>1</sup>—and evolving, underscoring the importance of partnering with an experienced investment manager to understand the dynamics of the market and the different approaches to private debt investing.

To that end, we provide detailed analysis that considers the hypothetical impact of moderate private debt allocations on DC portfolio outcomes, and on the income streams potentially provided to “typical” retirees through annuity payouts. We also compare income distribution attributes between different asset classes for participants adopting a drawdown strategy.

Our return and risk assumptions are based on our forward-looking estimates of index results, with fees roughly in line with industry averages. The net result, as we show in the following pages,<sup>2</sup> is a meaningful improvement of potential retirement outcomes for participants.

<sup>1</sup> Source: S&P Global, “The Opportunity of Asset-Based Draws in Private Credit,” 20 November 2024.

<sup>2</sup> Assumptions are for modelling purposes only and alternative assumptions may result in significant or complete loss of capital. There can be no assurance that the strategy will achieve comparable results, that targeted diversification or asset allocations will be met, that the strategy will be able to or will ultimately elect to implement the assumptive investment strategy and approach described in the model.

## Portfolio Construction: Minimising Risk, Maximising Returns

In our study, we created a glide path of allocation that gradually shifts growth assets to fixed income and cash as the retirement date approaches, modelled on the typical glide paths followed by DC default funds currently on the market.

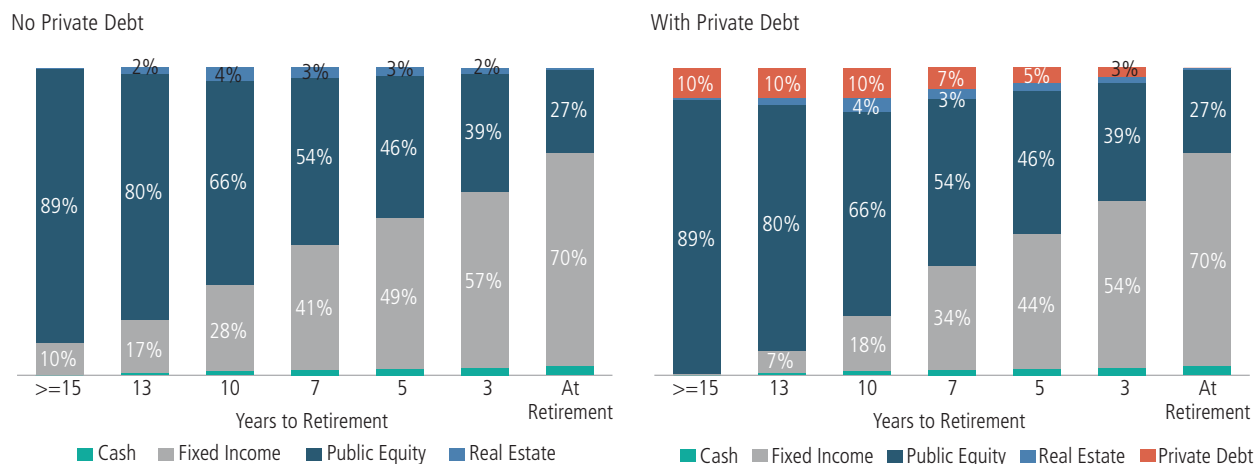
We considered two hypothetical glide paths (see figure 1):

1. An allocation to traditional public fixed income only
2. An allocation to private fixed income where a portion (10% at the outset, gradually reducing to 0% at retirement. Note that we address decumulation later in the paper) is devoted to private debt

The second glide path is modelled on the following private debt allocation (see *Definitions Box*) below:

- 60% corporate direct lending
- 20% asset-based finance
- 20% residential transitional loans

**FIGURE 1. GLIDE PATHS FOR HYPOTHETICAL DC PORTFOLIOS**



Source: Neuberger. Data provided is hypothetical. **Please see important disclosures relating to [Asset Class Assumptions & Estimates](#) at the end of this document.**

In building a portfolio of private debt for DC investors, our priority is ultimately minimising risk while achieving high returns. At the same time, we recognise that DC schemes must balance several factors such as cost, liquidity, valuation frameworks and the UK government's objective of encouraging pension schemes to invest in domestic assets, particularly domestic private assets. (See *Key Considerations* section at the end.)

Bearing in mind these criteria, we believe that, within a broad universe of private debt asset classes, a combination of **corporate direct lending, asset-based finance and residential transitional loans** could be an appropriate and optimal fit for most UK DC schemes in achieving many of their objectives.

In the main, for instance, the collateral coverage of asset-based finance and residential transitional loans provides an element of protection against downside risks, while direct lending provides priority in the capital structure and strong recovery prospects in stress. All also offer diversification benefits across industries and borrower profiles, fixed and floating rate formats, maturities and credit qualities.

In addition, these three forms of private debt have generally delivered higher returns, at similar volatility levels, than other forms of private debt, specifically asset classes such as infrastructure and commercial real estate debt.<sup>3</sup>

<sup>3</sup> Based on historical analysis of Neuberger's annual Capital Market Assumptions. (Please see important information related to the Capital Market Assumptions in the [Asset Class Assumptions & Estimates](#) section at the end of this document.)

We considered including these two asset classes, but ultimately their lower relative risk/return profile made it difficult to justify an allocation in our model, which, importantly, should be seen as a starting point in modelling private debt exposure.

Indeed, we acknowledge that a broader, more diversified, portfolio composing other private credit asset classes, could also improve return potential.

## Definitions

We define the three forms below that comprise our allocation model:

- **Corporate direct lending:** This type of (non-bank) lending to companies is privately negotiated and provided directly by an asset manager or group of asset managers. Unlike asset-based finance (see below), these loans are typically unsecured and have longer durations.
- **Asset-based finance:** This type of (non-bank) lending to companies is privately negotiated, provided by an asset manager or group of asset managers, and is secured by a diverse range of financial (consumer and small business loans, credit card receivables, royalties, intellectual property) and hard assets (ships, airplanes, industrial equipment) that generate contractual cashflows.
- **Residential transitional loans:** These short-term bridge, construction, or renovation loans help real estate investors purchase and renovate residential or small balance commercial properties (typically smaller, lower-value commercial properties blending residential/commercial use). The loans are mostly sourced from alternative lenders to traditional banks, including asset managers.

In structuring our model portfolio and glide path, we adopted an approach that assumes no illiquid allocation at the point of retirement. However, in practice, and in adopting a drawdown strategy for retirement, the portfolio could retain some illiquid private debt into the decumulation phase for income distribution, as opposed to purchasing an annuity. In later sections we will discuss these two decumulation strategies in more detail.

## Accumulation – Enhanced Range of Outcomes at Retirement

Given that retirement investing success is a probabilistic exercise, we ran our hypothetical portfolio through a Monte Carlo simulation to see how the addition of private debt could perform in a range of possible outcomes.

We calculated 10,000 different hypothetical return scenarios for the portfolio and ranked the results, net of all investment management fees. At the cautious end is a 1-in-10 probability that the increase in DC plan value from adding private debt could be around 2.6% higher than a DC plan without private debt. That's our "lower-end marker," helping set expectations for tougher market environments.

At the optimistic end is a 1-in-10 probability that the increase in DC plan value from adding private debt could be around 6.4% or higher than DC plan without private debt. That's our "higher-end marker," illustrating what's possible in stronger markets. Most outcomes fall somewhere between these two markers. The median increase in a DC plan adding private debt is 5.2%, net of management fees. (See figure 2.)

While we show that adding private debt can add value to a DC plan, downside risks could have the opposite effect in the short term, including, but not limited to, liquidity risk and complexity risk. For instance, private debt valuations can fall in the short term due to credit or liquidity stresses.

However, it's important to highlight that the underlying loans continue to pay contractual interest and amortise over time, allowing investors to earn income and capture an illiquidity premium. For a long-term DC pension plan that can hold these assets through cycles, this steady cashflow and premium compensation for bearing short-term volatility can still translate into strong risk-adjusted returns over the full investment horizon. What's more, complexity risk can be managed through a combination of robust governance and risk management and partnering with expert and experienced investment institutions in private debt.

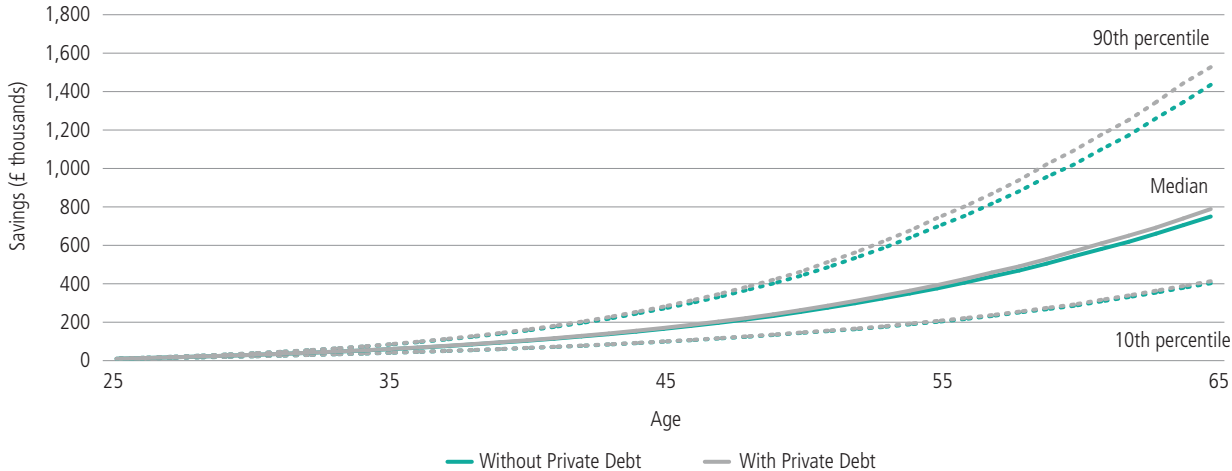
**FIGURE 2. STRONGER PERFORMANCE DURING ACCUMULATION**

		Assets at Retirement (£, thousands)	Inflation-Adjusted Assets at Retirement (£, thousands)
Model Portfolio (no private debt)	10th Percentile	403	116
	<b>Median</b>	<b>750</b>	<b>216</b>
	90th Percentile	1,435	413
Model Portfolio (including private debt)	10th Percentile	413	119
	<b>Median</b>	<b>789</b>	<b>227</b>
	90th Percentile	1,527	439
Increase in Value	10th Percentile	2.6%	2.6%
	<b>Median</b>	<b>5.2%</b>	<b>5.2%</b>
	90th Percentile	6.4%	6.4%

Source: Neuberger. Data provided is hypothetical. Please see important disclosures relating to [Asset Class Assumptions & Estimates](#) at the end of this document.

**FIGURE 3. ADDING PRIVATE DEBT ENHANCES HYPOTHETICAL OUTCOMES**

Median, 10th and 90th percentile outcomes from 10,000 hypothetical return simulations for portfolios with and without private debt



Source: Neuberger. See figure 1 for the starting asset allocations and glide path allocations for both portfolios. Data provided is hypothetical. Please see important disclosures relating to [Asset Class Assumptions & Estimates](#) at the end of this document.

**Decumulation Option 1 – Higher Retirement Income via Annuity**

We assume the DC participant will withdraw 25% lump sum (tax-free) upon retirement and convert the remainder into an annuity for regular payment until death. Based on prevailing annuity pricing listed on Legal & General’s website in March 2025—the same pricing we used in our earlier paper on enhancing DC outcomes with private equity—adding private debt into the DC allocation would translate into an additional £9,693 in lump-sum tax-free cash withdrawal and an additional £159 monthly annuity payment.

Of course, suitability will vary and is based on individual circumstances. However, the overall point is the potential for income generation in retirement where the larger principal resulting from the inclusion of private debt has the potential to generate additional income.

**FIGURE 4. STRONGER PERFORMANCE DURING ACCUMULATION ENHANCES ANNUITY INCOME**

		Tax-free Cash (£ thousands)		Monthly Payment (£)	
		Nominal Value	Inflation-adjusted Value	Nominal Value	Inflation-adjusted Value
Model Portfolio (no private debt)	10th Percentile	101	29	1,656	477
	Median	187	54	3,084	887
	90th Percentile	359	103	5,902	1,699
Model Portfolio (including private debt)	10th Percentile	103	30	1,700	489
	Median	197	57	3,244	933
	90th Percentile	382	110	6,281	1,807
Increase in Value	<b>10th Percentile</b>	<b>3</b>	<b>1</b>	<b>43</b>	<b>13</b>
	<b>Median</b>	<b>10</b>	<b>3</b>	<b>159</b>	<b>46</b>
	<b>90th Percentile</b>	<b>23</b>	<b>7</b>	<b>378</b>	<b>109</b>

Source: Neuberger. Data provided is hypothetical. Please see important disclosures relating to [Asset Class Assumptions & Estimates](#) at the end of this document.

## Decumulation Option 2 – Higher Income Drawdown from the DC scheme

Upon reaching retirement age, most DC participants would typically withdraw 25% as cash from their DC scheme as that's the maximum they can withdraw tax-free. DC participants would then withdraw a part of the scheme over time until it runs out or they die.

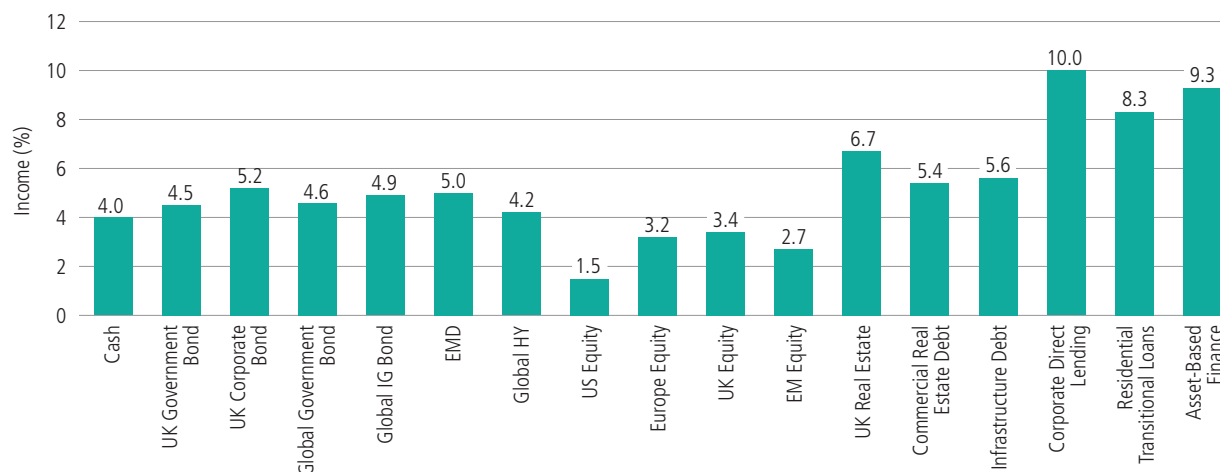
Typically, the participant withdraws a small proportion of the investment principal alongside the investment income, such as coupons from fixed income instruments and dividends from equities, while leaving the remaining principal in the scheme to grow in value. In this situation, we see a compelling case to keep or even increase allocations to private debt due to its high-income distribution qualities.

Below (figure 5) is a comparison of income of asset classes in a typical DC plan and some representative private debt asset classes. Historically, equities have typically generated higher returns than fixed income, but that's realised mostly through capital gains rather than income distribution.

Fixed income instruments present the opposite feature. This is the reason why a typical DC scheme would initially start with majority allocation in equities before gradually transitioning into fixed income as we get closer to retirement age. Based on historical analysis of our annual Capital Market Assumptions (please see end of document), private debt offers high gross (and net) returns as well as high-income distribution compared to typical public fixed income, making it an allocation worth considering for inclusion in the decumulation drawdown phase.

Within the asset classes shown below (in figure 5), corporate direct lending stands out as high-income distribution asset class, followed by asset-based finance and residential transitional loans. Given this, we believe an increased allocation to private debt is worth considering, potentially structured with a 60/20/20 split across corporate direct lending, asset-based finance and residential transitional loans, respectively, to help achieve DC retirees' objectives in income generation, diversification and risk/return profile.

**FIGURE 5. HIGHER INCOME DURING DECUMULATION DRAWDOWN PHASE**



**Past performance is no guarantee of future results.**

Source: Neuberger, Bloomberg-Barclays, J.P. Morgan, Morningstar LSTA, FTSE Nareit, NCREIF, Burgiss; Analytics are as at 31/08/2025. These hypothetical incomes are used for discussion purposes only and are not intended to represent, and should not be construed to represent, predictions of future rates of income. Actual incomes may vary significantly. Our assumptions are subject to change without notice. **Please see important disclosures relating to [Asset Class Assumptions & Estimates](#) at the end of this document.**

## Conclusion

Amid the call for pension funds to increase investment in private markets and the need for higher risk-adjusted returns and diversification from public markets, we see a strong case for considering adding private debt—across multiple forms—to DC portfolios as part of a broader strategic allocation to private market assets.

For many investors who may not qualify for traditional private markets vehicles or may be uncomfortable choosing among more retail-oriented products in the segment, their DC pension scheme may provide the only opportunity to gain private debt exposure.

Clearly, inclusion of private debt in DC plans requires due diligence and the navigation of operational and regulatory hurdles tied to introducing new or innovative asset classes. However, we believe such issues are surmountable, and ultimately less consequential than the potential advantages that private debt offers in pursuit of better retirement outcomes.

## Key Considerations

Selecting the most appropriate partner and investment content is important in DC schemes successfully capturing the benefits of private debt investing and balancing several other factors, such as cost, liquidity, valuation frameworks and the UK government's objective of encouraging pension schemes to invest in private assets, particularly domestic private assets.

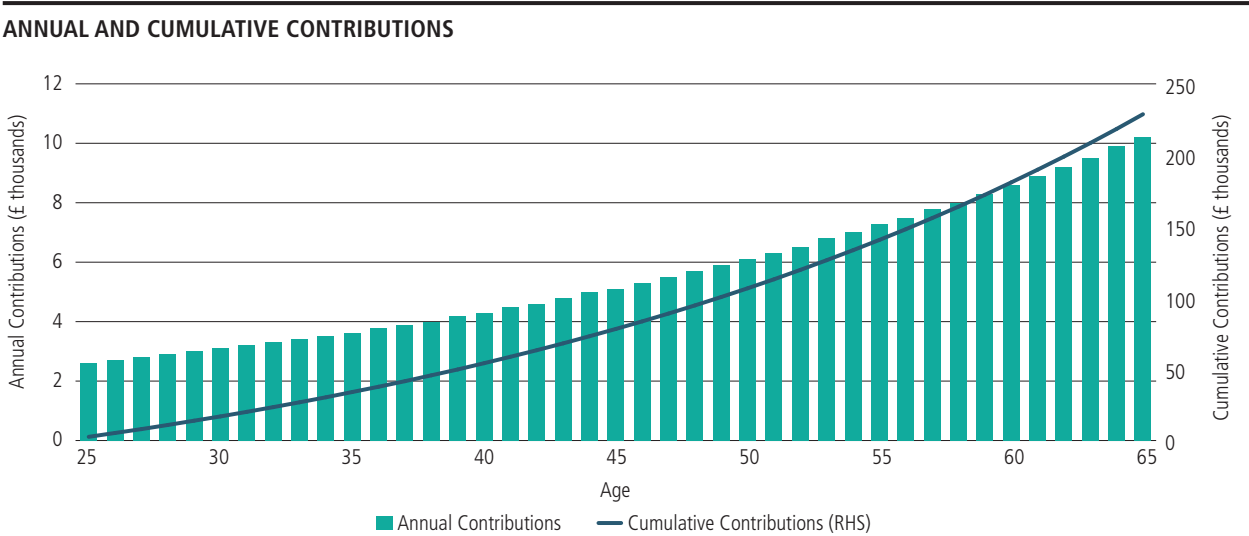
- **Value for Money:** Focus on achieving the best investment outcomes within existing cost structures at the same time as ensuring complete alignment with the private markets manager on the structure of the investment strategy.
- **Liquidity Matching:** Schemes need to thoughtfully manage the liquidity mismatch between their own needs and underlying private market funds. Some will handle this at the master fund or scheme level, while others may use evergreen or semi-liquid vehicles; understanding the trade-offs of each approach is essential.
- **Robust Valuation Framework:** DC schemes often need private market valuations that go beyond the typical quarterly cadence. Partnering with a manager whose proven valuation methodology can be tailored to scheme-specific criteria is key.

- **Return Dispersion:** Together with a wide array of private debt asset classes, there is also a large and growing number of asset managers active in the market and performance can vary significantly. Private debt fund returns can range between 6% and 20% between strategies and managers.<sup>4</sup> Therefore it is important to select managers with a strong track record and origination capabilities.
- **Diversification:** Private debt is a fast-growing, diverse asset class, varying widely by lender type, geography, maturity, structure and covenants. Partnering with a manager that provides broad platform access globally to diversified private debt is crucial.

**Additional Disclosures**

**Participant Savings Assumptions: Steady Contributions Over Time**

In the study, we simulated retirement savings for a hypothetical person aged 25 to 65, with an initial gross annual salary of £32,292, which grows by 3.5% per year, or roughly a 0.34% real growth rate (over inflation). The participant contributes 8% of salary annually, with 5% from earnings and 3% from an employer match. The accumulation of these contributions is tracked below. Note that the contribution amounts are below the maximums, which is consistent with the savings patterns of many participants.



Source: Neuberger. Salary growth of 3.5% is equal to 0.34% plus 3.16%, which was the 30-year breakeven inflation rate as at December 2024. Data provided is hypothetical. **Please see important disclosures relating to [Asset Class Assumptions & Estimates](#) at the end of this document.**

**Fee Assumptions**

Management fees are a central issue for most DC schemes and have sometimes represented a stumbling block to the inclusion of private debt strategies in portfolios. As part of our study, we wanted to show the potential benefits of private debt in terms of return and diversification relative to their higher costs. Our analysis considered the impact of management fees on asset class returns and portfolio accumulation, with the following assumptions:

- Cash and short-term bonds: 2 basis points (bps)
- Public fixed income: 10 bps
- Public equity: 15 bps
- Real Estate: 50 bps
- Private debt: 200 bps (including management and performance fees)

<sup>4</sup> Source: CLI Private Credit, CLI Group Research, August 2025.

In our study, shifting the allocation from public fixed income to private debt caused higher fees overall, but those additional fees were small relative to the return boost provided to the total hypothetical portfolio. Specifically, with a 10% reallocation, overall portfolio fees increased by 19 bps, which gradually decrease down to zero at retirement.

## THE PRIVATE DEBT COST VS. BENEFIT

		>=15	13	10	7	5	3	At Retirement
Model Portfolio (no private debt)	1-Year Expected Net Return	6.75%	6.56%	6.28%	6.00%	5.81%	5.62%	5.34%
	Fee (bps)	14.7	14.8	15.0	13.9	13.2	12.5	11.5
Model Portfolio (including private debt)	1-Year Expected Net Return	7.02%	6.84%	6.56%	6.19%	5.95%	5.71%	5.34%
	Fee (bps)	33.7	33.8	34.0	27.2	22.7	18.2	11.5
<b>Difference</b>	<b>1-Year Expected Net Return (bps)</b>	<b>26.8</b>	<b>27.4</b>	<b>27.7</b>	<b>19.4</b>	<b>13.8</b>	<b>8.3</b>	<b>0.0</b>
	<b>Fee (bps)</b>	<b>19.0</b>	<b>19.0</b>	<b>19.0</b>	<b>13.3</b>	<b>9.5</b>	<b>5.7</b>	<b>0.0</b>

### Past performance is no guarantee of future results.

Source: Neuberger. Model portfolios are provided for illustrative and discussion purposes only. They do not constitute research, investment advice or investment recommendation. Because of the inherent limitations of all models, potential investors should not rely exclusively on the model when making an investment decision. The model cannot account for the impact that economic, market, and other factors may have on the implementation and ongoing management of an actual investment portfolio. Unlike actual portfolio outcomes, the model outcomes do not reflect actual trading, liquidity constraints, fees, expenses, taxes and other factors that could impact future returns.

## HYPOTHETICAL PORTFOLIO ASSET ALLOCATIONS

No Private Debt (modelled on the typical glide paths followed by DC default funds currently on the market)

	>=15	13	10	7	5	3	At Retirement
Cash	0.0%	0.5%	1.2%	1.7%	2.0%	2.4%	2.9%
<b>Cash</b>	<b>0.0%</b>	<b>0.5%</b>	<b>1.2%</b>	<b>1.7%</b>	<b>2.0%</b>	<b>2.4%</b>	<b>2.9%</b>
UK Government Bond	0.0%	2.1%	5.2%	9.1%	11.7%	14.3%	18.3%
UK Corporate Bond	5.8%	6.5%	7.6%	14.5%	19.1%	23.7%	30.6%
	4.4%	4.9%	5.6%	8.1%	9.8%	11.4%	14.0%
Global IG Bond	0.2%	1.9%	4.4%	3.9%	3.6%	3.3%	2.8%
EMD	0.0%	1.8%	4.4%	4.0%	3.7%	3.4%	2.9%
Global HY	0.0%	0.4%	0.9%	1.0%	1.0%	1.0%	1.1%
<b>Fixed Income</b>	<b>10.4%</b>	<b>17.4%</b>	<b>28.1%</b>	<b>40.5%</b>	<b>48.8%</b>	<b>57.1%</b>	<b>69.6%</b>
US Equity	47.5%	43.6%	37.8%	31.3%	26.9%	22.6%	16.0%
Europe Equity	27.4%	24.0%	19.0%	15.5%	13.3%	11.0%	7.5%
UK Equity	7.9%	6.9%	5.4%	4.3%	3.5%	2.8%	1.6%
EM Equity	6.4%	5.5%	4.1%	3.3%	2.8%	2.3%	1.6%
<b>Public Equity</b>	<b>89.1%</b>	<b>80.0%</b>	<b>66.3%</b>	<b>54.4%</b>	<b>46.5%</b>	<b>38.6%</b>	<b>26.7%</b>
UK Real Estate	0.6%	2.1%	4.4%	3.4%	2.7%	2.0%	0.9%
<b>Real Estate</b>	<b>0.6%</b>	<b>2.1%</b>	<b>4.4%</b>	<b>3.4%</b>	<b>2.7%</b>	<b>2.0%</b>	<b>0.9%</b>
Private Debt	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Private Debt</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
1-Year Expected Gross Return	6.90%	6.71%	6.43%	6.14%	5.94%	5.75%	5.46%
1-Year Expected Net Return	6.75%	6.56%	6.28%	6.00%	5.81%	5.62%	5.34%
1-Year Asset Volatility	13.3%	12.4%	11.1%	9.8%	9.0%	8.2%	7.2%

Source: Neuberger. Data provided is hypothetical. Please see important disclosures relating to [Asset Class Assumptions & Estimates](#) at the end of this document.

**WITH PRIVATE DEBT (REPLACING PUBLIC FIXED INCOME SUB-ASSET CLASSES PROPORTIONALLY)**

	<b>&gt;=15</b>	<b>13</b>	<b>10</b>	<b>7</b>	<b>5</b>	<b>3</b>	<b>At Retirement</b>
Cash	0.0%	0.5%	1.2%	1.7%	2.0%	2.4%	2.9%
<b>Cash</b>	<b>0.0%</b>	<b>0.5%</b>	<b>1.2%</b>	<b>1.7%</b>	<b>2.0%</b>	<b>2.4%</b>	<b>2.9%</b>
UK Government Bond	0.0%	0.9%	3.3%	7.5%	10.5%	13.6%	18.3%
UK Corporate Bond	0.2%	2.8%	4.9%	12.0%	17.1%	22.4%	30.6%
Global Government Bond	0.1%	2.1%	3.6%	6.7%	8.8%	10.8%	14.0%
Global IG Bond	0.0%	0.8%	2.9%	3.3%	3.2%	3.1%	2.8%
EMD	0.0%	0.8%	2.8%	3.3%	3.3%	3.2%	2.9%
Global HY	0.0%	0.2%	0.6%	0.8%	0.9%	1.0%	1.1%
<b>Fixed Income</b>	<b>0.3%</b>	<b>7.4%</b>	<b>18.1%</b>	<b>33.5%</b>	<b>43.8%</b>	<b>54.1%</b>	<b>69.6%</b>
US Equity	47.5%	43.6%	37.8%	31.3%	26.9%	22.6%	16.0%
Europe Equity	27.4%	24.0%	19.0%	15.5%	13.3%	11.0%	7.5%
UK Equity	7.9%	6.9%	5.4%	4.3%	3.5%	2.8%	1.6%
EM Equity	6.4%	5.5%	4.1%	3.3%	2.8%	2.3%	1.6%
<b>Public Equity</b>	<b>89.1%</b>	<b>80.0%</b>	<b>66.3%</b>	<b>54.4%</b>	<b>46.5%</b>	<b>38.6%</b>	<b>26.7%</b>
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<b>Real Estate</b>	<b>0.6%</b>	<b>2.1%</b>	<b>4.4%</b>	<b>3.4%</b>	<b>2.7%</b>	<b>2.0%</b>	<b>0.9%</b>
Private Debt	10.0%	10.0%	10.0%	7.0%	5.0%	3.0%	0.0%
<b>Private Debt</b>	<b>10.0%</b>	<b>10.0%</b>	<b>10.0%</b>	<b>7.0%</b>	<b>5.0%</b>	<b>3.0%</b>	<b>0.0%</b>
1-Year Expected Gross Return	7.36%	7.18%	6.90%	6.47%	6.18%	5.89%	5.46%
1-Year Expected Net Return	7.02%	6.84%	6.56%	6.19%	5.95%	5.71%	5.34%
1-Year Asset Volatility	13.7%	12.8%	11.4%	10.0%	9.1%	8.3%	7.2%

Source: Neuberger. Data provided is hypothetical. Please see important disclosures relating to [Asset Class Assumptions & Estimates](#) at the end of this document.

## Indices Used and Index Definitions

Asset Class	Benchmark Index	Index Definition
Cash	Bloomberg Sterling Gilts Index	The <b>Bloomberg Sterling Gilt Index</b> is a measure of the GBP-denominated, fixed-rate, investment-grade public obligations of the United Kingdom.
UK Government Bond	Bloomberg Sterling Gilts Index	The <b>Bloomberg Sterling Gilt Index</b> is a measure of the GBP-denominated, fixed-rate, investment-grade public obligations of the United Kingdom.
UK Corporate Bond	Bloomberg Sterling Credit Corporate Bond Index	The <b>Bloomberg Sterling Credit Corporate Bond Index</b> tracks the performance of fixed-rate, investment-grade, sterling-denominated corporate bonds.
Global Government Bond	Bloomberg Global Treasury Index	The Bloomberg Global Treasury Index is a benchmark that tracks the performance of fixed-rate, investment-grade, local currency government bonds from developed and emerging markets. It is a sub-index of the <b>Bloomberg Global Aggregate Index</b> .
Global IG Bond	Bloomberg Aggregate Bond Index	The <b>Bloomberg Global Aggregate Bond Index</b> , is a broad base, market capitalization-weighted bond market index representing intermediate term investment grade bonds traded worldwide.
EMD	50% JPMorgan EMBI / 50% JPMorgan CEMBI	The JPMorgan Emerging Markets Bond Global Diversified Index (EMBI GD) includes U.S. dollar-denominated Brady bonds, Eurobonds, and traded loans issued by emerging markets sovereign and quasi-sovereign entities. The <b>JPMorgan Corporate Emerging Markets Bond Index (CEMBI)</b> is a market-capitalization weighted index of corporate bonds issued by entities in emerging countries.
Global HY	Bloomberg Global High Yield Bond Index	The <b>Bloomberg Global High Yield Index</b> is a multi-currency measure of the performance of the global high yield debt market which brings together the Bloomberg U.S. High Yield, Pan-European High Yield, Emerging Markets Hard Currency High Yield Indices.
US Equity	S&P 500 Index	The <b>S&amp;P 500 Index</b> consists of 500 U.S. stocks chosen for market size, liquidity and industry group representation. It is a market value-weighted index (stock price times number of shares outstanding), with each stock's weight in the Index proportionate to its market value.
Europe Equity	MSCI Europe Index	The <b>MSCI Europe Index</b> captures large and mid cap representation across 15 Developed Markets countries in Europe. With 427 constituents, the index covers approximately 85% of the free float-adjusted market capitalization across the European Developed Markets equity universe.
UK Equity	MSCI UK Index	<b>MSCI United Kingdom Index</b> is designed to measure the performance of the large and mid cap segments of the UK market. With 82 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the UK.
EM Equity	MSCI Emerging Markets Index	The <b>MSCI Emerging Markets Index</b> is a market-value weighted index designed to represent the performance of large- and mid-cap securities in 26 emerging markets.
UK Real Estate	FTSE/S&P Global UK Real Estate Index	The <b>FTSE/S&amp;P Global UK Real Estate Index</b> tracks the performance of stocks classified as members of the GICS Real Estate Sector that are included in the S&P UK Broad Market Index.
Direct Lending	Burgiss Debt Index	The <b>Burgiss Debt Index</b> tracks debt investments comprised of loans, bonds, credit derivatives and other related securities of companies, government entities, or tangible assets.
Asset-Based Finance	JPM ABS Index /Morningstar LSTA US Loan Index	A combination of <b>JPM ABS Index</b> and <b>Morningstar LSTA US Loan Index</b> and are used to model a proxy Asset Based Finance index. The <b>Morningstar LSTA US Loan Index</b> is a market-value weighted index designed to measure the performance of the US leveraged loan market for loans ratings as rated by S&P Global Ratings. The <b>JPM ABS Index</b> tracks the USD-denominated ABS debt market of both fixed and floating rates.
Residential Transitional Loans	Citi New Issue NA RMBS Prime 2.0 index/US MBS Index	A combination of <b>Bloomberg Barclays Capital US MBS Index</b> and <b>Citi New Issue NA RMBS Prime 2.0 index</b> are used to model a proxy Residential Transitional Loans index. The <b>US MBS Index</b> covers agency mortgage-backed passthrough securities (both fixed-rate and hybrid ARM) issued by Ginnie Mae (GNMA), Fannie Mae (FNMA) and Freddie Mac (FHLMC). The <b>Citi New Issue NA RMBS Prime 2.0 index</b> tracks new issues post-2008 in US non-agency RMBS market.

Source: Neuberger. Analytics as at 31 August 2025. Volatility and correlations are estimated based on the historical time series from January 2007 to August 2025.

## CAPITAL MARKET ASSUMPTIONS

Estimated Return, Volatility and Correlations

Asset Class	Rating	Est. Gross Return (%)	Fee (bps)	Exp. Net Return (%)	Ann. Vol (%)	Income (%)
Cash	AAA	3.96	2	3.86	0.6	4.0
UK Government Bond	AA3	4.48	10	4.23	8.1	4.5
UK Corporate Bond	A3/BAA1	5.21	10	4.96	8.1	5.2
Global Government Bond	AA3/A1	4.59	10	4.34	3.0	4.6
Global IG Bond	A3/BAA1	4.95	10	4.70	6.0	4.9
EMD	BAA3/BA1	5.06	10	4.81	8.5	5.0
Global HY	BA3/B1	4.22	10	3.97	7.7	4.2
US Equity	NA	7.34	15	7.24	16.4	1.5
Europe Equity	NA	6.22	15	6.12	14.2	3.2
UK Equity	NA	7.45	15	7.35	13.2	3.4
EM Equity	NA	9.04	15	8.94	19.8	2.7
UK Real Estate	NA	6.68	50	6.18	11.4	6.7
Private Debt	NR	9.52	200	7.52	11.0	9.5

Source: Neuberger.

	Cash	UK Government Bond	UK Corporate Bond	Global Government Bond	Global IG Bond	EMD	Global HY	US Equity	Europe Equity	UK Equity	EM Equity	UK Real Estate	Private Debt
Cash	1.00												
UK Government Bond	0.03	1.00											
UK Corporate Bond	0.01	0.77	1.00										
Global Government Bond	0.15	0.85	0.73	1.00									
Global IG Bond	0.06	0.63	0.86	0.81	1.00								
EMD	0.05	0.33	0.68	0.53	0.84	1.00							
Global HY	0.08	0.16	0.43	0.25	0.47	0.49	1.00						
US Equity	-0.03	0.21	0.54	0.28	0.58	0.64	0.47	1.00					
Europe Equity	-0.04	0.13	0.52	0.18	0.52	0.61	0.48	0.81	1.00				
UK Equity	-0.02	0.08	0.44	0.08	0.40	0.55	0.40	0.67	0.88	1.00			
EM Equity	0.01	0.09	0.45	0.21	0.56	0.73	0.45	0.70	0.66	0.60	1.00		
UK Real Estate	-0.04	0.54	0.79	0.52	0.71	0.62	0.50	0.70	0.76	0.69	0.55	1.00	
Private Debt	-0.11	-0.01	0.46	0.07	0.52	0.67	0.47	0.53	0.61	0.57	0.68	0.50	1.00

Source: Neuberger. Analytics as at 31 August 2025. Volatility and correlations are estimated based on the historical time series from January 2007 to August 2025.

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**Arithmetic Mean Estimate:** Arithmetic mean or average return is calculated by dividing the sum of a series of numbers by the number of overall items. This is more typically thought of as an "average" of the data set. Arithmetic mean or average return ignores the impact of compounding in the context of analyzing investment returns and is the simple average of returns observed over a period of time. Arithmetic mean returns are used in this material and, if applicable, the Efficient Frontier, because, through randomization, losses and gains are being accounted for each year.

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