



LGIM pooled risk management solutions

Tailored liability-aware solutions



For professional investors

Could your pension strategy be more efficient?

Changes in longevity assumptions, high transfer values and sustained growth in asset prices have provided a relatively positive backdrop for the funding levels of defined benefit pension schemes in recent years.

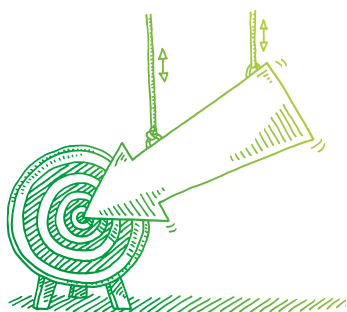
We know that your scheme assets may need to remain invested for growth, but we also understand the importance of managing risk by diversifying sources of leverage and seeking to protect asset price gains ahead of your scheme's endgame.

The use of traditional liability-driven investment (LDI) strategies to manage the risks presented by changes in inflation and interest rates is well known. But have you considered what else might be available to improve the efficiency of your pension scheme?

At LGIM, we are focused on offering two main outcomes for your pension scheme: **greater efficiency** and **better scheme governance**.

To help with this, we have a range of specialist risk management tools that can be tailored to your scheme's bespoke needs.

How can you use these funds to meet your objectives?

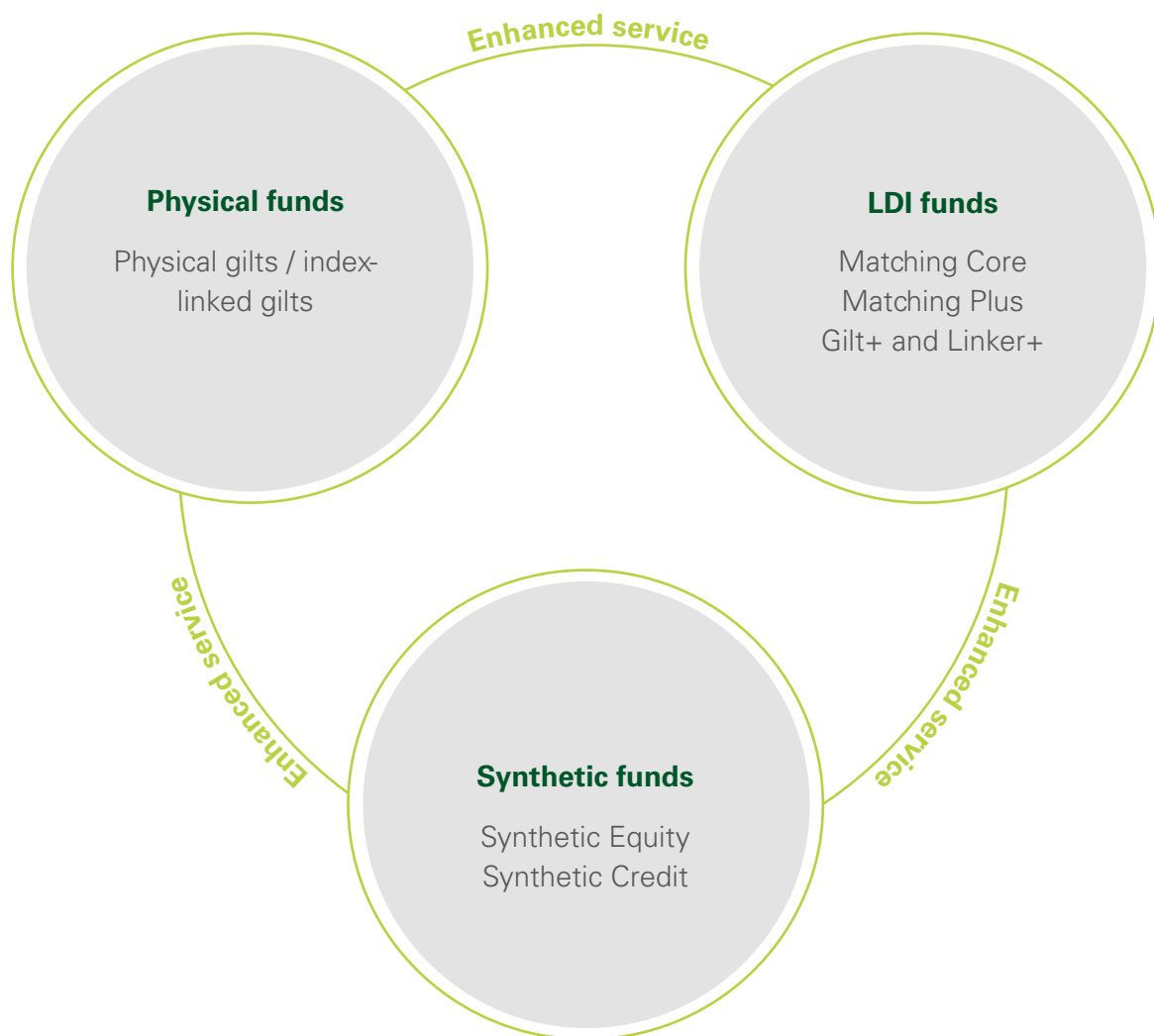


The pooled risk management solutions fund range can help pension schemes to better meet their needs. The physical and LDI fund ranges provide protection from interest rates and inflation in a tailored and potentially highly capital-efficient manner. The Synthetic fund range enables pension schemes to access equity and credit markets in the same capital-efficient manner, releasing cash which can be better used elsewhere. Overall, the pooled risk management solutions fund range gives pension schemes the flexibility to increase their hedge ratio or growth allocation through additional sources of leverage as well as improving operational efficiency and visibility in a low governance way.

Our pooled risk management solutions fund range – at a glance

Physical UK government bond funds are available within our pooled risk management solutions fund range for schemes looking to hedge their interest and inflation risks without a requirement for leverage.

Our suite of capital-efficient LDI funds use leverage to help pension schemes hedge interest and inflation risks in a highly capital-efficient manner, all within in a robust risk management framework.



In addition, we have a set of synthetically replicated funds within the range, which allow pension schemes to efficiently gain access to equity and fixed income market exposure under the same risk management framework as the LDI funds.

Physical funds

Manage your interest rate and inflation risks

Physical funds

We have a range of physical pooled funds available for pension schemes looking to manage their interest rate and inflation risks. Our physical LDI funds provide unleveraged exposure to UK government bonds to help schemes manage their interest rate and inflation risks.

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**single stock
fixed gilt funds**

Sep 2019
2020
Mar 2022
Sep 2022
2023
2024
2027
2034
2038
2042
2046
2047
2049
2055
2060
2065
2068
2071

5

**indexed fixed
gilt funds**

All Stocks Gilts
0-5 Year
5-15 Year
Under 15 Year
Over 15 Year

15

**single stock index-
linked gilt funds**

2019
2024
2027
2030
2032
2035
2037
2040
2042
2047
2050
2055
2058
2062
2068

6

**index-linked
gilt funds**

All Stocks
Under 5 Year
Over 5 Year
5-15 Year
Under 15 Year
Over 15 Year

LDI funds

Hedging interest and inflation risks in a highly capital-efficient manner

Matching Core

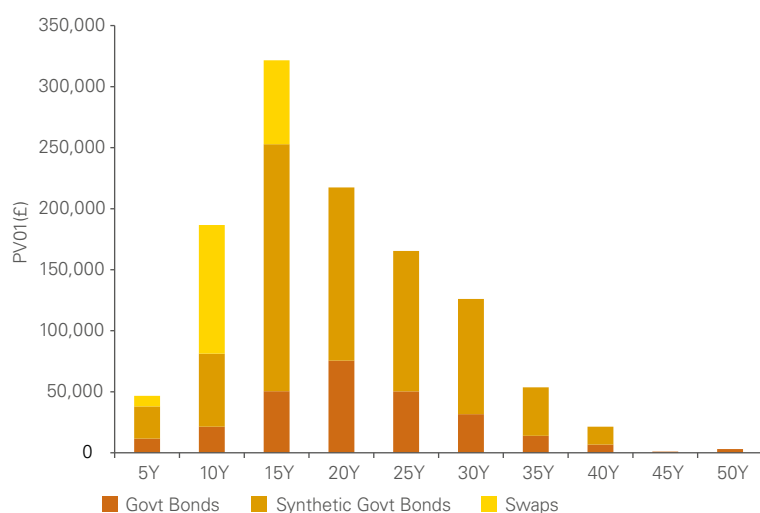
Changes in interest rates and inflation puts pension schemes funding levels at risk. The Matching Core funds have been designed to provide protection against inflation and interest rate risks. Our Matching Core fund range is designed to help clients meet their de-risking objectives, in a simple, cost-effective way.

These four building blocks aim to invest in the highest yielding hedging instruments (either gilts or swaps). To aid long-term monitoring, the funds have an intelligent benchmark that switches between swaps and gilts depending on which is offering the higher yield at any given time.

The Matching Core 'Real' funds provide interest rate and inflation protection and the 'Fixed' funds provide interest rate protection only. These profile funds give pension schemes flexibility to protect against fixed and real liabilities increasing over time. The liability profiles of the funds aim to match those of a typical pension scheme's liabilities.

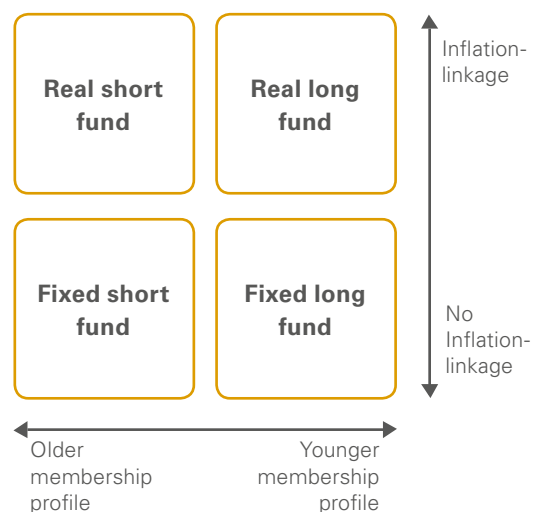
The Matching Core funds provide ready made liability profiles for pensioners (short duration) and non-pensioners (long duration); thereby providing simple access to LDI which can be easily tailored to a scheme's duration.

Matching Core fixed short duration fund - risk ladder



Source: LGIM as at 31 December 2018

Four profile funds



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LDI Swap funds

2020 Fixed (6.7x)
2020 Inflation (6.7x)
2020 Real (6.7x)

2025 Fixed (5.7x)
2025 Inflation (5.7x)
2025 Real (5.7x)

2030 Fixed (4.7x)
2030 Inflation (4.7x)
2030 Real (4.7x)

2035 Fixed (3.9x)
2035 Inflation (3.9x)
2035 Real (3.9x)

2040 Fixed (3.4x)
2040 Inflation (3.4x)
2040 Real (3.4x)

2045 Fixed (2.9x)
2045 Real (2.9x)

2050 Fixed (2.4x)
2050 Inflation (2.4x)
2050 Real (2.4x)

2055 Fixed (2.0x)
2055 Real (2.0x)

2060 Fixed (1.7x)
2060 Inflation (1.7x)
2060 Real (1.7x)

18

LDI Gilt funds

2024 ILG (4.7x)

2024 ILG (4.5x)

2034 ILG (4.0x)

2037 ILG (3.7x)
2040 ILG (3.5x)
2038 Gilt (4.1x)

2042 ILG (3.2x)
2042 Gilt (3.8x)

2047 ILG (2.8x)
2050 ILG (2.5x)
2045 Gilt (3.7x)
2049 Gilt (3.5x)

2055 ILG (2.2x)
2055 Gilt (3.2x)

2060 Gilt (3.0x)

2062 ILG (1.5x)

2068 ILG (1.5x)
2068 Gilt (2.7x)

Matching Plus

The Matching Plus fund range is designed to provide a comprehensive platform for hedging the liabilities of a pension scheme through a range of liability hedging pooled funds (2020–2068).

The Matching Plus funds give pension schemes flexibility to tailor their approach to their required objectives. The Matching Plus funds are designed for pension schemes to achieve a closer match to their liability curve by investing in a range of bullet funds as shown.

The fund range provides full access to a mix of underlying building blocks to match schemes' hedging requirements. The range also offers choice of hedging instruments, with both swap or gilt-based funds covering a range of sensitivities. These funds are typically two to three times leveraged.

For example, for every £1 invested in the 2045 Fixed Fund (2.9 times), you will receive £2.90 worth of exposure. These capital-efficient funds allow schemes to free up capital that can be used to increase hedging or be invested elsewhere.

Source: LGIM: As at 31 December 2018 – hedging multiple shown in brackets

Gilt+ and Linker+

Access higher leverage to achieve higher hedge ratios.

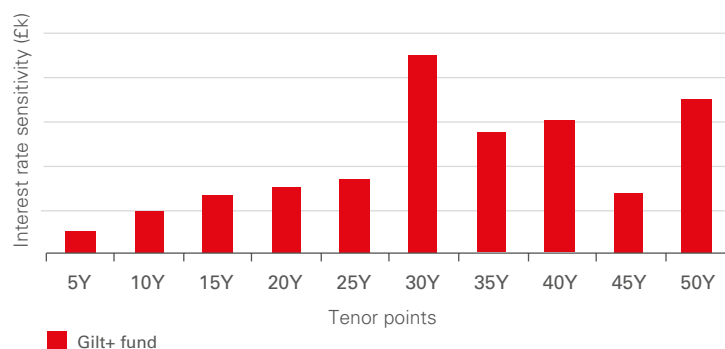
Our Gilt Plus and Linker Plus funds are approximately twice as leveraged as the equivalent Matching Plus funds. Used in conjunction with the physical and LDI fund ranges, these two funds allow schemes to further tailor a hedge to their requirements. Due to the greater governance required, these funds are only available to our Enhanced Service clients.



Gilt+

Bond	Notional %
UKT 4.25% 07-Dec-2049	39%
UKT 4.25% 07-Dec-2055	13%
UKT 4% 22-Jan-2060	18%
UKT 3.5% 22-Jul-2068	30%

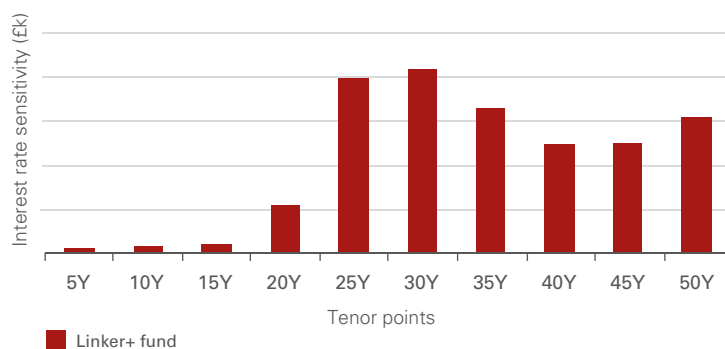
	Hedging Multiple
Lower	4.9x
Optimal	5.9x
Upper	8.1x



Linker+

Bond	Notional %
UKTI 3MO 0.625% 22-Nov-2042	33%
UKTI 3MO 0.75% 22-Nov-2047	9%
UKTI 3MO 0.5% 22-Mar-2050	21%
UKTI 3MO 1.25% 22-Nov-2055	14%
UKTI 3MO 0.375% 22-Mar-2062	11%
UKTI 3MO 0.125% 22-Mar-2068	11%

	Hedging Multiple
Lower	4.0x
Optimal	4.9x
Upper	6.8x



Source: LGIM as at 31 December 2018

Synthetic funds

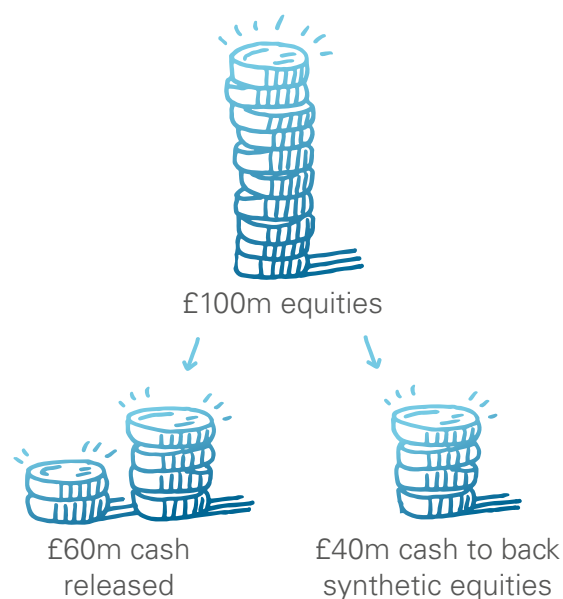
Designed to complement your investment in LDI funds

Synthetic Equity

Our Synthetic Equity funds provide leveraged exposure to global equity markets. For every £1 invested in the funds, the scheme will access £2.50 worth of exposure to the MSCI World Equity Index. Sterling hedged and unhedged versions of the funds are available to enable pension schemes to replicate their own global equity portfolio.

By using these Synthetic Equity funds, schemes are able to free up capital that can be used elsewhere to increase growth holdings, hedging, or both. The Synthetic Equity funds can also be used for schemes that don't currently have equity holdings but require exposure to grow their assets. Replacing physical equity funds with synthetic equity funds can also help to lower transaction costs over the long term.

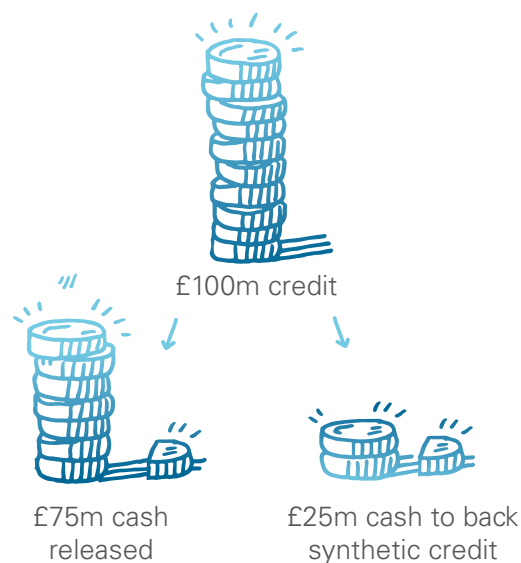
How it works in practice



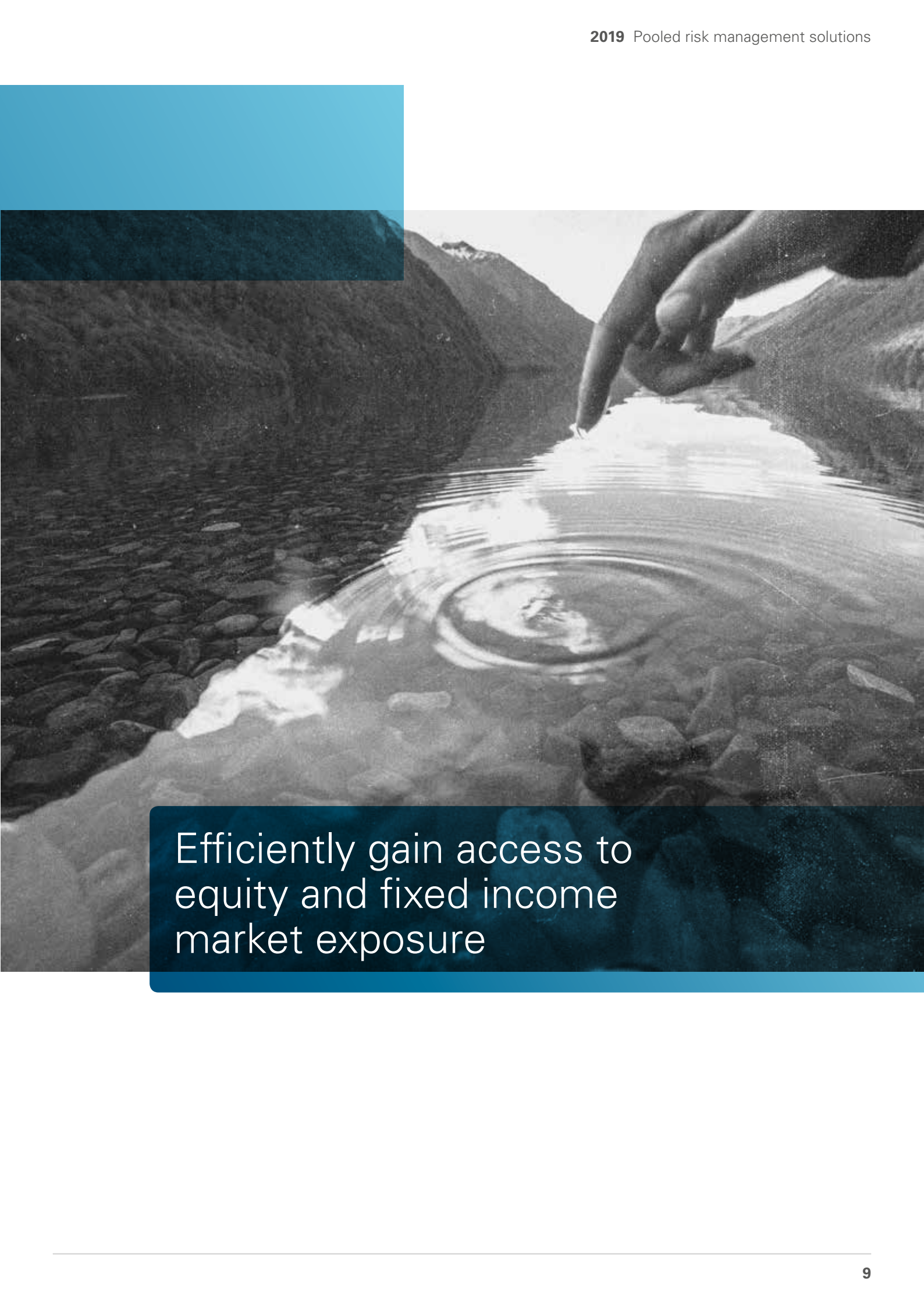
Retain exposure to £100m of equities throughout

Synthetic Credit

Designed with defined benefit pension schemes in mind, the Synthetic Credit fund provides leveraged exposure to credit markets by investing in European and US credit default swaps (CDS). The fund can be used alone, or as part of a wider LDI strategy and provides around £4 worth of credit market exposure for every £1 invested. The fund is capital-efficient as it uses leverage to maintain credit spread exposure, allowing pension schemes to invest cash into other assets like growth. It also seeks to reduce unrewarded risk by investing in a mix of assets diversified by geography and sector and to provide better liquidity at a lower cost than physical holdings.



Retain exposure to £100m of credit throughout

A black and white photograph of a hand dropping a coin into a stream. The coin is in mid-air, just above the water, creating a series of concentric ripples. The stream flows over a bed of dark, smooth stones. The background shows a steep, rocky bank. The image is partially covered by a blue rectangle in the top left and a dark blue rectangle at the bottom where the text is located.

Efficiently gain access to
equity and fixed income
market exposure

Our Enhanced Service

Designed to complement your investment in LDI funds

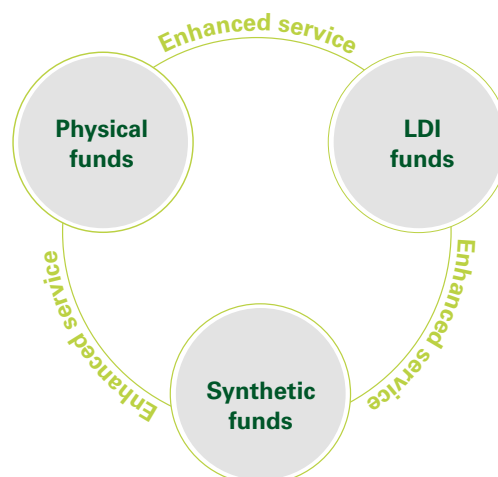
Our preferred approach for implementing pooled LDI solutions is through our Enhanced Service, whereby we take responsibility for managing a scheme's matching portfolio to achieve a target hedge ratio in the most efficient way possible (all within parameters defined by the scheme and its investment consultant).

As part of this service we take account of all the matching assets held within the portfolio, and as well as implementing an initial solution, we will monitor and restructure the matching portfolio to ensure it continues to meet this objective throughout the de-risking journey.

Holistic management of your LDI portfolio - enhanced service

- Oversees your portfolio of pooled building blocks
- Changes allocation to better match your liabilities and increase yield
- Phases implementation, including use of triggers
- Manages collateral requirements
- Releases/invests cash when you need it

Your LDI portfolio



On-going management to match your liabilities

Meet the team



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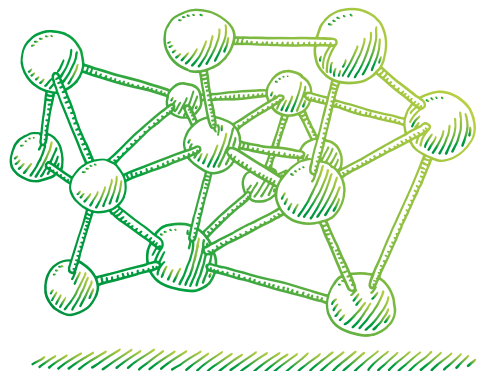
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For further information about LGIM, please visit lgim.com



Important notice

The value of an investment and any income taken from it is not guaranteed and can go down as well as up, you may not get back the amount you originally invested.

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