Pooled liability driven investment solutions.

For defined benefit schemes and their advisors

With unrivalled scale and experience in the UK pension market, Legal & General Investment Management offers pooled and leveraged investment solutions that are specifically designed to hedge interest rate and inflation risk.

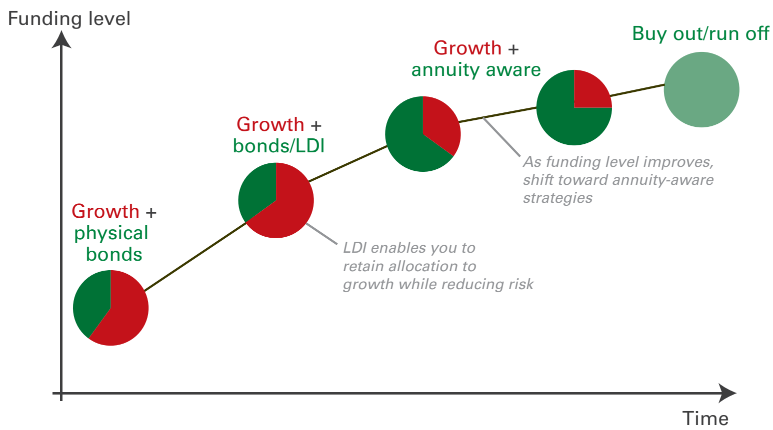
Legal & General
INVESTMENT MANAGEMENT

Legal & General Investment Management (LGIM)

LGIM is the largest investment manager of UK pension schemes assets (Pension fund management survey 2014, FT research). We see asset management for pension schemes as a holistic process, rather than a collection of unconnected investments. We focus on the broader picture and how we can help pension schemes to meet their ultimate goal – ensuring that scheme members are paid their pensions.

Trustees' investment strategies must provide the growth needed to improve the funding level, the hedging needed to lock-in gains and, in some cases, the ability to transfer the risk entirely by entering into a buy-in or buy-out arrangement. At every step of a pension scheme life cycle, we have the investment solutions to help.

Typical life cycle of DB pension schemes



LGIM is one of the only investment managers to offer investment solutions at every stage of a pension scheme's life cycle

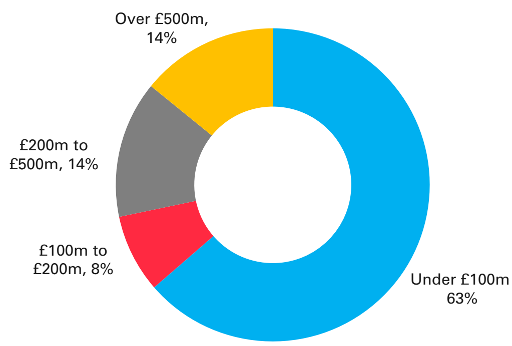
LIABILITY DRIVEN INVESTMENT AT LGIM

We were one of the first managers to offer Liability Driven Investment (LDI) strategies and in 2014 were independently accredited as being the largest LDI manager in the UK, across both pooled and segregated mandates, for the second year running (Source: KPMG LDI survey).

We work with some of the largest and most complex pension schemes in the market and use the experience gained to design pooled LDI solutions that are both easily accessible and flexible enough to help meet trustees' investment objectives.

Clients with assets under £100m form a significant part of our client base. We are committed to providing these clients with the right LDI solutions in a way that suits them.

LGIM LDI mandates split by size



Source: LGIM as at 31 December 2013

AWARDS

PENSIONSAge AWARDS 2014 WINNER
LDI MANAGER OF THE YEAR

PENSIONSAge AWARDS 2014 WINNER
RISK MANAGEMENT PROVIDER OF THE YEAR

Professional Pensions UK PENSIONS AWARDS 2014 WINNER
Risk Reduction Provider of the Year

Professional Pensions UK Pensions AWARDS 2013 WINNER
Risk Reduction Provider of the Year

LDI focus

Every pension scheme has the same objective - to pay members' pensions (or their liabilities). LDI aims to help pension schemes reduce volatility surrounding their funding levels and contribution requirements. Changes in both interest rates and inflation represent two of the largest risks to scheme funding levels.

Increase in current value of liabilities

- Fall in interest rates
- Increase in expected inflation

Decrease in current value of liabilities

- Rise in interest rates
- Decrease in expected inflation

INVESTING IN ASSETS TO HEDGE INTEREST RATE AND INFLATION RISKS

A pension scheme's liabilities can be thought of as a series of expected future payments cashflows.

- Interest Rates: If interest rates increase/decrease, this will not have an impact on the amount of expected cashflows, but will decrease/increase their current value
- Inflation: If expected inflation increases/decreases, this will increase/decrease the value of those expected cashflows and consequently increase/decrease their current value

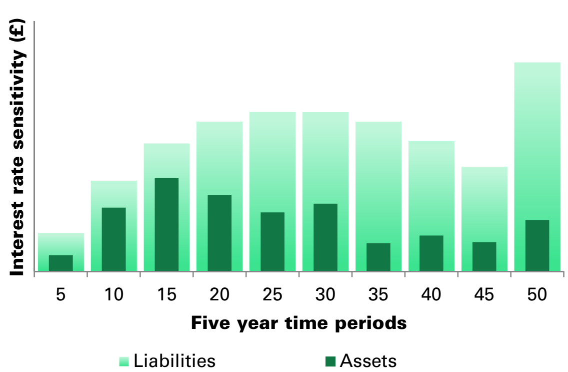
If a scheme invests in assets that have similar interest rate and inflation characteristics (or sensitivities) as the liabilities changes in the current value of the liabilities due to movement in interest rates/inflation will be offset by changes in the value of the assets, reducing the volatility of the scheme's funding level.

The relevant interest rates and inflation are different depending on the timing of the cashflow – e.g. the 20 year interest rate is different to the 5 year interest rate – and fluctuate in value differently. Consequently, it is often desirable to hedge characteristics (or sensitivities) for a range of different time periods to better match the liabilities.

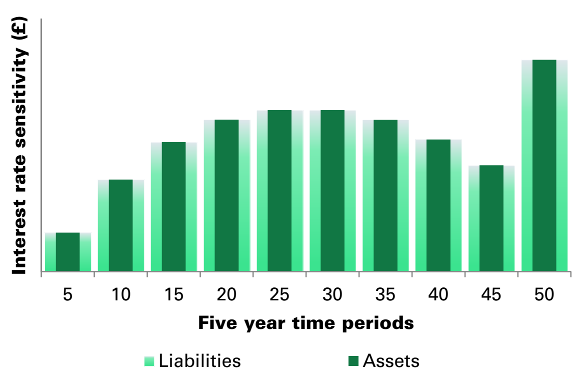
For simplicity, we measure this sensitivity (being the amount that the current value of the liabilities changes for a 0.01% movement in interest rates or inflation), for each five year time period.

Ideally, a pension scheme would invest in assets that match sensitivity in each five year time period, as set out in the right hand side chart below.

Before LDI solution



After LDI solution



Source: LGIM

What matters most?

Every pension scheme will have unique characteristics such as liability profiles, assets, sponsor attitudes and strength. However, we believe that the following four factors should be borne in mind by every scheme when considering implementing an LDI solution.

- Capital efficiency
- Efficient tools
- Governance efficiency
- Cost efficiency

CAPITAL EFFICIENCY

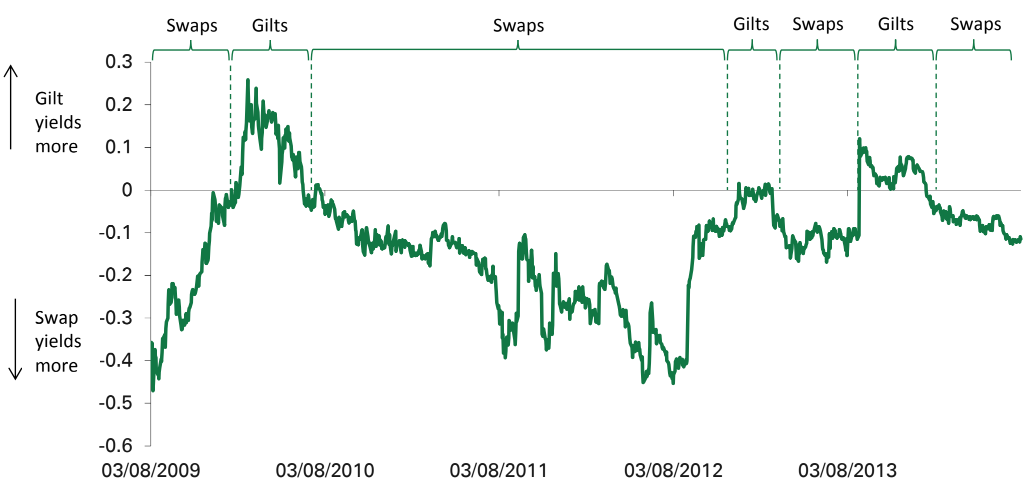
Schemes can purchase gilts and index-linked gilts in order to better align the sensitivity of assets with future liabilities. As purchasing gilts requires a significant initial asset outlay, using gilts to hedge can be unaffordable for many schemes.

As a result, some schemes gain protection using derivatives. The leverage available through derivatives enables schemes to reduce liability risk without changing their investment in return-seeking assets elsewhere. This can help ensure that plans to reduce funding deficits are unaffected.

EFFICIENT TOOLS

Selecting the right liability hedging instrument can matter. The relative yield (z-spread) which measures the difference between yields on swaps and gilts, for the same maturity, will change over time. This means that at different times, it will be cheaper to hedge using one instrument over another. Even taking advantage of a small yield differential can have a significant impact over the long term. An LDI solution will generally use the instrument that provides the most efficient hedge, and may also aim to switch between instruments in order to hedge efficiently over time.

10 year nominal gilt yields minus 10 year swap yields



A 0.3% yield difference equates to 6% over 20 years.

Source: LGIM, for illustrative purposes only.

GOVERNANCE EFFICIENCY

Trustees' time has never been so constrained; making it more important to access simple and transparent investment solutions that meet the needs of a scheme appropriately. For example, some trustees may find that a solution which switches between hedging instruments or a service that monitors their scheme's funding level can be helpful in managing a constrained governance budget. In addition, trustees may find it helpful when providers manage the response to regulatory changes, such as the implications of the latest central clearing regulations.

COST EFFICIENCY

We believe that cost should never be the sole criteria for choosing a particular investment solution, but if a desired solution is available at a lower cost, then it may avoid the unnecessary erosion of the funding level over time through the payment of higher fees.

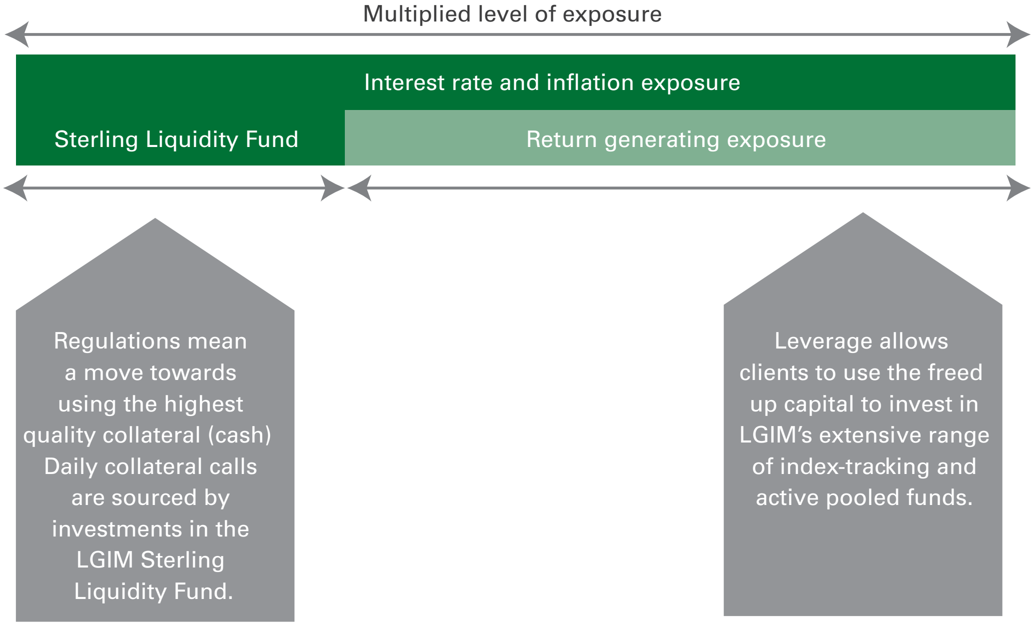
How we address these needs

At LGIM we offer two distinct pooled options, LGIM Matching Core and LGIM Matching Plus, as part of our wider hedging solutions.

Offering different levels of customisation, each option will have a different appeal to pension schemes, depending on preferences and circumstances. However, there are several common advantages across both LGIM Matching Core and LGIM Matching Plus.

CAPITAL EFFICIENCY

Leverage allows schemes to reduce risk while maintaining exposure to return seeking assets. In practice this means that a smaller initial investment provides a multiplied level of interest rate and inflation hedging, freeing up cash for investment in return generating funds. As a result our pooled LDI solutions provide around three times more efficient use of assets than a bond portfolio. We ask clients to sign an instruction letter in order to specify the source or destination for additional assets to be used to maintain the liability hedge in the event of any rebalancing. These assets should be held with LGIM to ensure a robust process is in place to manage leverage. This process is automated and put in place to lower the governance burden for clients.



Typical scheme exposure for illustrative purposes only.

PENSION SOLUTIONS AT THE HEART OF OUR BUSINESS

We are the largest LDI manager in the UK (KPMG 2014) which we believe is a reflection of our expertise and our ability to provide clients with the most comprehensive and flexible pooled LDI options available. Our entire pooled range is compliant with the most recent central clearing regulations. We were the first manager to centrally clear interest rate swaps in the UK and aim to help our clients keep on top of future regulatory and market changes that affect pension schemes.

COST EFFICIENCY

Not only are our pooled LDI solutions offered at attractive fee levels, our ability to manage pension scheme assets across the entire life cycle enables us to reduce costs over the life of de-risking mandates. For example, we have a good track record of minimising transaction costs on entering an LDI solution.

ACCESS TO LGIM EXPERTISE

As the largest LDI manager in the UK, we are confident of the strength of our expertise and believe that we provide clients with the most comprehensive and flexible range of pooled LDI options.

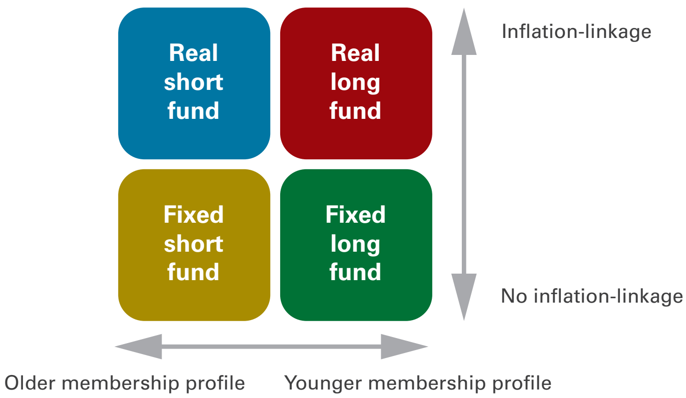
LGIM Matching Core

LGIM Matching Core is designed for pension schemes seeking simple access to an LDI solution in order to reduce funding level volatility caused by changes in interest rates and inflation.

Key benefits

- Instrument efficient - we aim to invest in the highest yielding instrument (either gilts or swaps) subject to funding costs at outset and on an ongoing basis
- Simple access - four building blocks
- Clarity - external benchmark aides monitoring over the long term as we intelligently implement the index

LGIM Matching Core has four building blocks that help schemes manage their funding level volatility.



These funds provide clients with access to a pooled LDI solution, with the benefit of ongoing efficient instrument selection.

The real funds provide interest rate and inflation protection. The fixed funds provide interest rate protection only.

Typical liability profiles

Each of the four LGIM Matching Core funds* are managed with respect to a liability benchmark designed to reflect a generic pension liability profile. A scheme can alter the mix of funds according to the proportion of its liabilities that are real (i.e. inflation-linked) or fixed (i.e. with no inflation linkage) as well as the age profile and life expectancy of its membership profile, measured by the average expected period (or 'duration') over which the scheme will pay benefits.

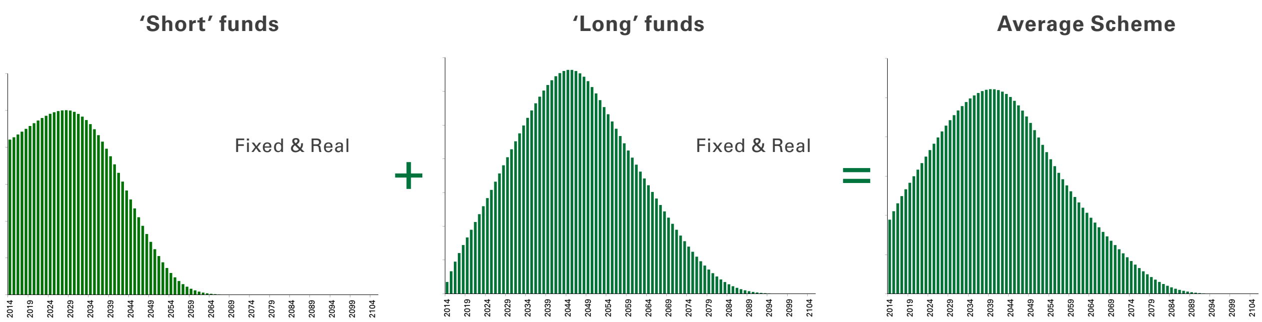
These benchmark profiles will shorten in maturity just like a pension schemes' liabilities on each year benefits are paid out (i.e. in 'run-off'). In addition, LGIM automatically implements and manages the solution using the most efficient instruments, giving trustees one less thing to worry about.

Simple solution

The client, in conjunction with their adviser, can determine the allocation to the four funds to reflect some basic liability data of the scheme. No liability cashflows need to be provided in order for schemes to access this tailored solution.

Example liability profile

The following charts illustrate how an investment of 40% in the 'short' funds and 60% in the 'long' funds can replicate an 'average' scheme profile.



*Matching Core Fixed Short (Series 1) Fund, Matching Core Fixed Long (Series 1) Fund, Matching Core Real Short (Series 1) Fund, Matching Core Real Long (Series 1) Fund

LGIM Matching Plus

LGIM Matching Plus range and single stock gilt and index-linked gilt funds are designed for pension schemes seeking a tailored LDI solution to reduce funding level volatility caused by changes in interest rates and inflation.

Key benefits

- Tailored solution using a full range of physical gilt and index-linked gilts funds and derivative-based LDI funds
- Wide range of hedging options through swaps or gilt-based funds
- Complementary modelling of solution(s) based on client's objectives

LGIM Matching Plus offers a fully tailored LDI solution to clients in a pooled structure, providing a range of hedging options through both swap and gilt-based funds.

LGIM Matching Plus						
Leveraged swap funds*			Leveraged gilt funds*		Single stock funds	
Fixed	Inflation	Real	Index-linked gilts	Gilt	Index-linked gilts	Gilt

*Leverage varies by each maturity and is monitored on a weekly basis. In the case of either the upper or lower parameters being breached, the funds will be rebalanced.

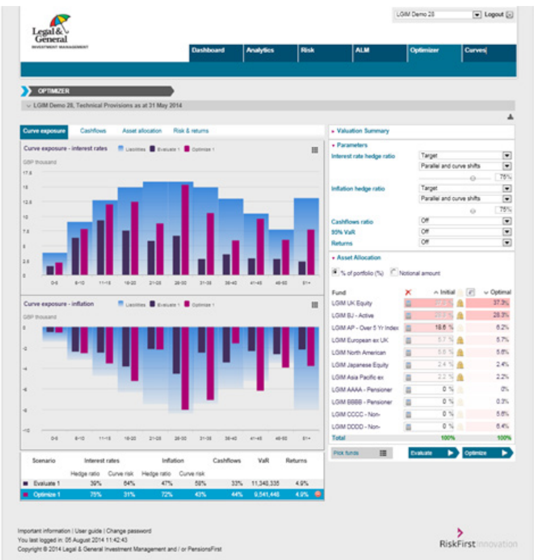
Tailored solution

Our tailored solution can also take into account any bond assets held by the pension scheme and can incorporate investments in our Matching Core funds.

Investing in Matching Plus requires the scheme (working with their adviser) to provide specific liability data. LGIM can then model this data (for free) enabling the client to determine the most efficient solution which meets the scheme objectives and reduces funding level volatility.

Enhanced LDI understanding

Legal & General Prism is a simple to use, web-based, risk management and analytics platform which helps our clients to assess the potential impact on the scheme risk profile of implementing an LDI solution. Legal & General Prism can quickly and easily illustrate the effect on risk and return of reallocating assets to new funds and strategies.



We believe Legal & General Prism is an advanced tool for clients that can enhance the robustness of strategic investment decisions and improve understanding across the entire pension scheme life cycle.

CONTACT US

For further information about our capabilities please contact:

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KEY CONSIDERATIONS AND RISKS

The underlying investments will not exactly match changes in the value of a pension scheme's liabilities and schemes will need to be able to generate sufficient return in order to meet liability cashflows (typically LIBOR). Leverage means that for every £1 invested more than £1 of exposure is obtained to interest rates and/ or inflation. Therefore, large moves in interest rates or inflation rates could mean these funds do not hold sufficient collateral. To minimise the risk of this, we have imposed limits on the amount of leverage allowed. These limits are independently monitored by our Investment Risk team.

In the event that there is a significant reduction in liquidity of the repo and/or the total return swap market, then the cost of funding this leverage increases. Under these circumstances, the Directors of the QIF, in their sole discretion, may elect to close the sub-funds in the manner set out under the heading "WINDING UP" in the prospectus. Trustees should consider and understand the risks associated with these funds prior to any investment. These funds are designed to be held as part of a long term LDI strategy.

The manager will seek to minimise counterparty risk by centrally clearing new derivative positions. The funds will remain exposed to the risk that the clearing house defaults but will no longer be exposed to the risk that a counterparty bank defaults.

The funds will have reference to a benchmark for monitoring purposes. The benchmark is designed to invest in the higher yielding assets from a selection of swaps and gilts and is inclusive of typical transaction costs that would be incurred when switching between these assets. The constituents of this benchmark will fluctuate from time to time but will at all times be implemented within the parameters of the Fund's stated investment objective. Further details on the benchmark can be obtained from your usual LGIM representative.

Further details (including relevant risk factors and fund specific risks) are available in the Description of Funds document which can be obtained from your usual LGIM contact or by visiting www.lgim.com/descriptionoffunds.

IMPORTANT INFORMATION

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