FUND RANGE

RSMR

LEGAL & GENERAL INVESTMENT MANAGEMENT

MULTI-INDEX FUNDS REVIEW

May 2021

RSMR FUND RANGE

OUR RESEARCH. YOUR SUCCESS

CONTENTS

FUND RANGE PROFILE – LEGAL & GENERAL MULTI-INDEX FUNDS

OUR FUND RANGE PROFILES provide an in-depth review of our leading rated funds and are designed to give advisers, paraplanners and analysts an 'under the bonnet' view of the fund.

In providing more detailed commentary than a standard fund factsheet we believe our fund profiles set the standard for the next generation of research notes, aiding in fund selection and in meeting the ongoing suitability requirements expected by the FCA, and helping ensure firms deliver good client outcomes.

All of our rated funds are subject to rigorous and ongoing scrutiny on both a qualitative and quantitative basis. Our fund methodology is available for download from the RSMR Hub – http://rsmr.co.uk.

The **Legal & General (L&G) Multi-Index funds** have been an RSMR Rated Fund Range since May 2014. The funds provide investors across different risk levels with options for a one-stop investment solution, or a base for a more diversified portfolio, linked to Distribution Technology's maximum expected volatility parameters. They are managed by an experienced and well-resourced fund management team who have built a strong risk-adjusted performance record.

We believe that the L&G Multi-Index funds are a strong proposition for UK retail investors and have confidence that they will perform well against their risk-targeted peer group over the medium to long-term.

Andrew Robinson, Senior Investment Analyst, RSMR

Andrew is a member of the research team, providing detailed analysis to support the research managers. Andrew joined RSMR after working in industry where he continued to maintain a close interest in the financial world, studying for and completing exams for the Chartered Institute for Securities & Investment (CISI). Prior to that Andrew worked in the Strategic Planning & Group Treasury teams at the former Halifax/HBOS bank. He is currently a Chartered Member of the CISI and holds the Investment Management Certificate (IMC).

EXECUTIVE SUMMARY

- The L&G Multi-Index funds are five multi-asset, risk targeted, fund of funds that operate using the same asset allocation process. They invest primarily into Legal & General Investment Management's (LGIM) own funds – particularly its passive index-tracking funds, but active funds, both internal and external, can be used where deemed appropriate.

- LGIM has a significant index tracking business and the Multi-Index funds are able to leverage this through their investment process.

- The funds within the range are managed to remain within the risk profiles determined by Distribution Technology.

- The use of internal LGIM index or active funds means that the overall costs of the Multi-Index funds are extremely competitive, particularly as they do not double charge on these funds.

- The funds are managed by the Asset Allocation team. The fund managers have access to significant resources to help implement the investment process.

- The funds combine a long-term asset allocation (five-to-ten-year view) and a dynamic asset allocation (one-to-five-year view) and they are likely to differ from the equivalent Distribution Technology asset allocations.

- The L&G Multi-Index funds are a strong solution for advisers looking for cost competitive, multi-asset solutions.

MULTI ASSET INVESTING

The recent environment for the provision of financial advice has delivered a number of changes that have altered the way many advisers operate. The implementation of the RDR back in 2012 has been at the heart of this change but other subsequent reviews into the selection of investment solutions and the requirement to understand different types of client risk have all contributed to the current regime. Indeed, we have seen a move by many advisers to outsource investment solutions to multi-asset portfolios, relying on the fund manager to maintain the portfolio rather than the adviser. The rise of targeted investing, with either risk or return targets being used to manage investments, has also been a feature of recent product offerings in the UK and has resulted in a number of new solutions that have strict investment parameters. Overall the market for this type of solution has widened and with the pension freedom regulations adding flexibility to an investor's retirement choices the need for such solutions can only grow further.

Looking at the investment background for multi-asset investing, the last fifteen years have been mixed. Although figures will show that equities have outperformed government bond markets over this period, it has certainly not been straight-forward or predictable with short-term periods such as Q3 2007 to Q1 2009, Q3 2011, Q2 2015 to Q1 2016 and of course Q1, Q2 and Q3 of 2020 being prime examples of this. This background has made it very difficult for most investors, professional or otherwise, and requires a significant amount of patience and skill to seek out those areas that can offer some return in an ever-rotating economic environment.

Managed investment solutions are one way of helping to take away some of the stress of selecting assets in this environment, allowing the adviser to focus on the many other areas of financial planning whilst the assets are managed on their behalf. It can be argued that these funds are simple solutions to most investment selection and monitoring issues, and they are clearly a popular choice. The challenge is that, whilst it always seems advantageous to have more choice, selecting the right option from an ever-increasing list is increasingly difficult and taking account of the increasing number of complex investment instruments that can be used to form portfolios, the apparently simple solutions become all the more complex.

The changing regulatory environment is also adding to the difficulty in building an appropriate solution that takes a client from risk assessment through to investment solution. The advisory market has an equally expanding range of choices to take an investor through this process and guidance is needed to bring all the elements together to form an acceptable solution.

To try and simplify the choices but provide enough options to cover most investors' requirements is a difficult task. This review looks in detail at the L&G Multi-Index fund range, which we believe can go a long way to helping overcome many of these issues and difficulties.

LEGAL & GENERAL INVESTMENT MANAGEMENT

LGIM is the investment management arm of Legal & General Group plc, which was founded in 1836. It is a publicly traded company (and a constituent of the FTSE 100 Index) based in London with operations extending across the globe. It is one of Europe's largest asset managers and a major global investor, with assets under management of £1.3tn* (as at 31st December 2020).

LGIM offers strategies across the full spectrum of asset classes, including equities, bonds, property, alternatives and cash, as well as multi-asset strategies tailored to the needs of institutional and retail investors.

LGIM is one of the world's leading providers of index fund management. It develops liability-driven risk management solutions for defined benefit pension schemes, it is a leading provider of defined contribution solutions and also offers a wide range of strategies to help its clients manage their investment objectives.

LGIM has a leading position in the UK, and has expanded into new markets across Europe, the Middle East, Asia, and the US. It is one of the largest providers of index funds in the UK managing more than £429 billion* in index-tracking investments.

*Source: LGIM internal data as at 31st December 2020.

PORTFOLIOS CONCEPT & OVERVIEW

The L&G Multi-Index funds are a range of multi-asset, risk-targeted, fund of funds operating within the same asset allocation process. Investment is primarily into LGIM's own funds, particularly its passive index tracking funds but active funds, both internal and external, can be used where deemed appropriate, e.g. to obtain exposure to commercial property or high yield bonds.

When LGIM launched its multi–asset strategies, it considered the objective from the adviser's point of view. Each product is built upon five pillars:

Suitability: The feedback from advisers was that they require a range of funds which remain in line with their client attitude to risk, therefore the Multi-Index funds are risk targeted, and will remain so throughout the life of the product.

Cost effectiveness: LGIM believes that over the long term, costs detract from performance, so every trade it carries out must contribute from a value perspective and be cost effective.

Diversification: LGIM believes diversification is central to all the strategies that it manages. The range of assets that it invests in is possibly one of the widest in the risk targeted sector. This means that volatility is smoothed in the weak periods, but performance may lag if one asset particularly outperforms.

Active asset allocation: LGIM takes an active valuation view of the asset allocation over the medium term, rather than making short term, tactical trades.

Engagement: LGIM acts as shareholders on its clients' behalf to influence company actions through voting power. It ensures its clients' voices are heard loud and clear to drive meaningful change on ESG matters.

The Multi-Index fund range was launched in August 2013 and provides financial advisers with a range of outsourced investment solutions for their client base at a very competitive cost. The five risk targeted funds (numbered 3 to 7) are managed to stay within the relevant Distribution Technology (DT) risk profile bands with a 5 to 10-year view. The investment objectives are as follows:

Fund Name	Investment Objective and Policy	Distribution Technology Risk Profile*
Multi-Index 3	The aim of the fund is to generate capital growth and income and to keep the fund within a pre-determined risk profile. The fund's potential gains and losses are likely to be constrained by the aim to stay within the risk profile. The fund will have exposure mainly to fixed income securities (both government and non-government) and cash with some exposure to equities and property. To obtain this exposure the fund will invest predominantly in collective investment schemes, which may also provide an indirect exposure to money market instruments, deposits, near cash and alternative asset classes (such as commodities). The fund will mainly invest in index tracker schemes, which are operated by LGIM.	DT 3 (Volatility 4.2% - 6.3%)
Multi-Index 4	The aim of the fund is to generate capital growth and income and to keep the fund within a pre-determined risk profile. The fund's potential gains and losses are likely to be constrained by the aim to stay within the risk profile. The fund will have exposure mainly to fixed income securities (both government and non-government), cash and equities with some exposure to property. To obtain this exposure the fund will invest predominantly in collective investment schemes, which may also provide an indirect exposure to money market instruments, deposits, near cash and alternative asset classes (such as commodities). The fund will mainly invest in index tracker schemes, which are operated by LGIM.	DT 4 (Volatility 6.3% - 8.4%)
Multi-Index 5	The aim of the fund is to generate capital growth and income and to keep the fund within a pre-determined risk profile. The fund's potential gains and losses are likely to be constrained by the aim to stay within the risk profile. The fund will have exposure mainly to equities with some exposure to fixed income securities (both government and non-government), cash and property. To obtain this exposure the fund will invest predominantly in collective investment schemes, which may also provide an indirect exposure to money market instruments, deposits, near cash and alternative asset classes (such as commodities). The fund will mainly invest in index tracker schemes, which are operated by LGIM.	DT 5 (Volatility 8.4% - 10.5%)
Multi-Index 6	The aim of the fund is to generate capital growth and income and to keep the fund within a pre-determined risk profile. The fund's potential gains and losses are likely to be constrained by the aim to stay within the risk profile. The fund will have exposure primarily to equities with some exposure to fixed income securities (both government and non-government), cash and property. To obtain this exposure the fund will invest predominantly in collective investment schemes, which may also provide an indirect exposure to money market instruments, deposits, near cash and alternative asset classes (such as commodities). The fund will mainly invest in index tracker schemes, which are operated by LGIM.	DT 6 (Volatility 10.5% - 12.6%)
Multi-Index 7	The aim of the fund is to generate capital growth and income and to keep the fund within a pre-determined risk profile. The fund's potential gains and losses are likely to be constrained by the aim to stay within the risk profile. The fund will have exposure primarily to equities with minor exposure to fixed income securities (both government and non-government) and cash. To obtain this exposure the fund will invest predominantly in collective investment schemes, which may also provide an indirect exposure to money market instruments, deposits, near cash and alternative asset classes (such as commodities). The fund will mainly invest in index tracker schemes, which are operated by LGIM	DT 7 Volatility (12.6% - 14.7%)

THE ASSET ALLOCATION TEAM

The range of assets run by the LGIM Asset Allocation Team, headed by Emiel van den Heiligenberg, relies heavily on a multi team process. There are three sub teams that are involved, with LGIM's five-member Macro Economic Research Team starting the process. Decision making is then passed to the Investment Research and Strategy Team, which decides how the base case impacts the different asset classes. Finally, the fund managers sit within the Multi-Asset Funds Team (MAF), who populate the portfolios by selecting the mix of investments to fulfil the funds' objectives. They also manage the risk budgets.

The team that runs the Multi-Index funds range is able to draw on the capabilities and resources within the wider Asset Allocation Team, who assist with the analysis of economies and markets, the management of risk within portfolios, and efficient and cost-effective implementation of strategy.

Emiel van den Heiligenberg – Head of Asset Allocation

Emiel joined LGIM in August 2013 as Head of Asset Allocation with responsibility for asset allocation strategy and macro research. Prior to joining LGIM, Emiel was CIO of the Multi-Asset Solutions Group at BNP Paribas Investment Partners, and responsible for managing a range of multi-asset strategies including absolute return, diversified growth funds, LDI and fiduciary, balanced mandates and multi-manager mandates. Emiel joined the asset allocation team at Fortis Investment (now BNP Paribas) in April 2000, as a strategist and portfolio manager, becoming head of the team in 2002. Prior to joining BNP Paribas, he worked as a portfolio manager at ING Investment Management, joining the company after working as a policy adviser in the Dutch Ministry of Finance. Emiel graduated from Tilburg University with a master's degree in Economics and holds a postgraduate qualification from VBA/EFFAS (the European Federation of Financial Analysts Societies).

Macro-Economic Research Team

The Macro-Economic Research team reports into the Head of Asset Allocation, Emiel van den Heiligenberg. As the name suggests, it provides economic and strategic input into the asset allocation for the Multi-Index fund range, although ultimate responsibility for the funds' asset allocations lies with the MAF team. It considers the macroeconomic scene, setting the base case assumptions for the central investment case.

Investment Research & Strategy Analytics Team

This six-member team again reports into Emiel and receives the base case assumptions from the Macro team. It looks at how the base case impacts the different asset classes and also how short-term or tactical assumptions can change the asset class decision. It can set the short-term tactical asset allocation (TAA) for situations that play out over a shorter expected time frame than the central long-term asset allocation assumptions.

Multi-Asset Funds (MAF) Team

John Roe – Head of Multi-Asset Funds

John has been leading LGIM's multi-asset fund management team since 2013. The team manages a range of award-winning macro strategies as well as factor-based investment strategies, working closely with the rest of the Asset Allocation team. After joining LGIM in multi-asset solutions in 2009, John developed LGIM's diversified growth fund range, which he continues to co-manage. Until late 2016, John was also a director of Legal & General Assurance (Pensions Management) Limited. Prior to joining LGIM, John worked in insurance advisory at Royal Bank of Scotland and Tillinghast Towers Perrin. He is a fellow of the Institute of Actuaries and has a first class BSc in Economics and econometrics from the University of Nottingham.

The L&G Multi-Index Fund range is collectively managed by Justin Onuekwusi, Andrzej Pioch, and Francis Chua.

NAME	MANAGER WITH LGIM SINCE	OVERALL SERVICE WITH LGIM	OVERALL EXPERIENCE AS A FUND MANAGER
Justin Onuekwusi	27 August 2013	7 years	17 years
Andrzej Pioch	21 July 2014	6 years	11 years
Francis Chua	04 October 2016	4 Years	13 years

Source: LGIM, as at 30 January 2021

Justin Onuekwusi – Head of Retail Multi-Asset Funds

Justin is a fund manager within the Multi-Asset Funds team, leading the management of the team's retail and risk-profiled multi-asset funds. Prior to joining LGIM in August 2013, Justin was a fund manager with Aviva Investors' multi-asset team combining both strategic and dynamic asset allocation with manager selection in the construction of multi-asset portfolios. He was lead fund manager on a range of risk-targeting multi-asset funds and co-lead fund manager on a number of unit-linked Life and

Pension funds, as well as manager of manager offerings. Justin previously worked as a fund research analyst at Merrill Lynch and an investment consultant for Aon Consulting. Justin is a CFA Charterholder and holds a degree in Economics from the University of Warwick and the Investment Management Certificate.

Andrzej Pioch – Fund Manager

Andrzej is a fund manager in the Multi-Asset Funds team. His responsibilities cover the portfolio management and ongoing development of both institutional and retail multi-asset funds, including multi-factor funds. Prior to joining LGIM in July 2014, he was a fund manager at Aviva Investors. He is a CFA charterholder and completed the MSc programme in Finance at Bocconi University in Milan. He also holds a bachelor's degree in Economics and Social Science from Utrecht University.

Francis Chua – Fund Manager

Francis is responsible for LGIM's multi manager funds and assists in the management of the multi-index funds. Francis joined LGIM in October 2016 from Aviva where he was a senior investment analyst. At Aviva, Francis was responsible for the Aviva pension schemes, assisting in the implementation of the investment strategies, which had emphasis on financial risk management, investment manager selection as well as asset class and manager research. Prior to that, he was an investment consultant at JLT. Francis started his career with Mercer Investment Consulting. Francis graduated from the University of Warwick and is a qualified actuary and a CFA charterholder.

THE FUND MANAGEMENT PROCESS

The overall investment process starts with the pre-determined risk profiles, as advised by Distribution Technology (DT), and the aim is to produce the highest possible return for the risk being taken whilst maintaining a high level of diversification. A long-term asset allocation is blended with a medium-term dynamic asset allocation and funds are then selected to match this asset allocation.

Asset Allocation

LGIM's Multi-Asset Fund (MAF) team works together with the Macro Economics and Investment Research teams to design a long-term asset allocation for each Multi-Index fund using their strategic asset allocation process. In this context long-term is described as a five-to-ten-year period.

This long-term asset allocation (LTAA) is designed to be consistent, with each Multi-Index fund maintaining a specific risk rating (as determined by DT's methodology). LGIM's LTAA is therefore designed to be broadly consistent with the long-term risk established by DT's strategic asset allocation and to remain within the specified volatility bands. The DT risk bands are derived by considering 15 years of risk and returns for each asset class, however the LGIM LTAA is forward looking on a 10-year time horizon.

The LGIM's LTAA acts as a reference point and an initial starting point from which the dynamic asset allocation (DAA) is applied to create the target allocation; it is not a benchmark that is rigidly adhered to. The team designs the most diversified portfolio of assets which is deemed to be the most efficient and therefore able to maximise the return for a given level of risk.

The team is always looking at ways to enhance the long-term asset allocation and it believes sectoral positioning over regional positioning will be one factor that will become increasingly relevant in the years ahead. When building long-term asset allocation, it is becoming increasingly important to understand what the sectoral bias is within regions. A good example being the US where, due to the rapid rise of some prominent technology stocks, a small number of these types of companies now dominate the US indices – the US index is now totally different in terms of sector weightings to how it looked five years ago.

The LTAA of the funds is reviewed on at least an annual basis, or more frequently in the event of a structural change to markets or if there is a change in DT's risk profile volatility parameters.

There are two stages in the design of each of the funds' long-term asset allocation.

Quantitative Selection

In this process, MAF and the other teams consider all possible portfolios that could be established with similar risk characteristics to the DT strategic asset allocation, which will typically be positioned at the mid-point of the volatility band. Following this, each possible portfolio's volatility and expected return is then estimated. Filters are applied to screen out those portfolios with unattractive risk/return characteristics. This essentially selects what the MAF and Strategy Analytics teams regard as the 'cream of the crop' portfolios that meet the team's requirements, including the DT elements. The MAF and Strategy Analytics teams then take an average of these portfolios (after applying sensitivity tests); which represents the mix of broad asset classes that offers the best risk/return combination from a quantitative perspective.

The analysis of each portfolio takes into account the expected volatility as well as the possible downside risks (tail risks) that each portfolio presents.

The MAF approach aims to preserve the historical relationships between different asset classes in different possible environments. It should therefore be complementary to the use of mean-variance risk that determines the DT strategic asset allocation.

LGIM does not use correlations in the long-term asset allocations, it uses co-behaviours. At times of market stress asset classes behave very similarly, so LGIM execute Monte Carlo simulations with different sampling periods of 1, 3, and 5 years going back nearly 40 years to demonstrate how asset classes performed relative to each other. It does not carry out mean variance optimisation as the expected return can drive a significant and disproportionate change in the asset allocation.

Qualitative Consideration of Other Factors

In this stage of the LTAA process, the mix within each broad asset class is considered.

The MAF and Strategy Analytics teams work together to try and achieve a well-diversified portfolio that does not unduly concentrate risk in any one geographical region or provide too much exposure to any one source of risk. Considering this from a qualitative perspective, the high correlation between different equity markets or bond markets can make quantitative analysis less effective in identifying how to achieve genuine diversification.

Currency Allocation

The amount of currency exposure is also considered with reference to each of the funds' objectives. If the managers wish to tilt toward a region's currency, they will use currency forwards and futures to increase or decrease exposure. The strategic asset allocation (SAA) of both the asset class and currency is deliberately set annually as part of the SAA review process and these do not have to be same, therefore in addition to the specific asset class allocation they can put in place a currency overlay.

Currency decisions are made at both at the LTAA and DAA levels, but there is a recognition that the currency movements can play out over much shorter time horizons. LGIM sees the way it manages the currency strategy as a value-added differentiator compared to its peers.

Current Long-Term Asset Allocations

The target asset allocations for the Multi-Index funds, as at the end of January 2021 were:

Asset Class	Holding	Style	Multi-Index 3	Multi-Index 4	Multi-Index 5	Multi-Index 6	Multi-Index 7
Equities			20.50%	37.50%	54.00%	70.25%	85.50%
UK Equity	L&G UK Index	Index	4.00%	6.50%	10.00%	13.00%	13.00%
UK Mid-Cap	L&G UK Mid-Cap Index	Index	1.50%	2.00%	2.00%	3.00%	5.00%
Europe - Ex UK	L&G European Index	Index	0.00%	3.00%	5.75%	7.50%	8.25%
Europe Autos	Stoxx Europe 600 Automobiles & Parts	Index	0.00%	0.00%	0.00%	0.00%	0.00%
Europe Value	MSCI Europe Value Index	Index	0.50%	0.50%	0.75%	0.75%	1.00%
Europe Telecoms	Stoxx Europe 600 Telecommunications	Index	0.00%	0.50%	0.50%	0.50%	0.75%
North American Equity	L&G US Index	Index	5.75%	8.50%	12.75%	17.00%	19.00%
NASDAQ	NASDAQ 100 Index	Index	0.50%	1.25%	1.25%	1.50%	2.00%
US Utilities	S&P Utilities	Index	0.00%	0.00%	0.00%	0.50%	0.50%
Japanese Equity	L&G Japan Index	Index	3.50%	5.50%	6.50%	6.00%	8.50%
Pacific Ex Japan	L&G Pacific Index	Index	1.00%	2.50%	4.00%	6.00%	6.50%
Emerging Market Equities	L&G Global EM Index	Index	2.00%	4.00%	5.50%	8.50%	12.50%
Frontier Markets	L&G Frontier Markets	Index	0.50%	1.00%	1.50%	2.00%	2.00%
Global Small Cap	Russell 2000 Index	Index	1.00%	1.75%	2.50%	2.75%	5.00%
Artificial Intelligence	L&G Artficial Intelligence	Index	0.25%	0.50%	1.00%	1.25%	1.50%
Credit & EMD			**30.50%**	**30.00%**	**24.50%**	**14.00%**	**8.00%**
Global High Yield	L&G High Income	Active	5.50%	5.00%	5.00%	5.00%	4.00%
EM Debt (USD)	L&G EM Gov Bd $ Idx	Index	2.50%	3.50%	3.00%	2.50%	2.00%
EM Debt (short duration)	L&G EM SD Bond Fund	Active	0.50%	0.50%	0.50%	0.50%	1.00%
EM Debt (local)	L&G EM Gov Bd LC Index	Index	1.00%	2.00%	2.00%	1.00%	1.00%
UK Credit	L&G £ Corp Bd Index	Index	12.00%	11.00%	9.00%	2.00%	0.00%
UK Credit Short Duration	L&G SD Corp Bd Index	Index	2.00%	3.00%	1.50%	1.00%	0.00%
Global Credit	LGIM Global Credit	Active	7.00%	5.00%	3.50%	2.00%	0.00%
Government Bonds			**31.25%**	**20.50%**	**10.50%**	**6.50%**	**0.00%**
UK	L&G All Stocks Gilt Index	Index	6.50%	1.50%	1.50%	0.00%	0.00%
Eurozone	L&G Euro Tr Stocks Index	Index	1.00%	1.00%	0.00%	0.00%	0.00%
Global Inflation Linked	L&G Global Inflation Linked Bond Index	Index	10.50%	3.50%	0.00%	0.00%	0.00%
South Korea	Korean Govt Bond	Index	1.50%	1.25%	1.00%	1.00%	0.00%
United States	US Treasuries	Index	7.75%	9.50%	5.00%	3.00%	0.00%
New Zealand	NZ Govt Bonds	Direct	1.00%	0.75%	0.50%	0.50%	0.00%
Austrailia	AU Govt Bonds	Index	3.00%	3.00%	2.50%	2.00%	0.00%
Alternatives			**7.00%**	**8.50%**	**8.50%**	**8.50%**	**6.50%**
Direct Property	L&G UK Property	Active	1.50%	1.50%	1.50%	1.50%	1.00%
Global Property (REITs)	L&G Glb Real Estate Div Idx	Index	1.50%	2.00%	2.00%	1.50%	1.00%
Global Infrastructure	L&G Glb Infrastructure Idx/Jpn Rail Stks	Idx/Direct	2.00%	3.00%	3.00%	3.50%	2.50%
Commodities	L&G Commodities Index	Index	1.00%	1.00%	1.00%	1.00%	1.00%
Forestry	Forestry Stocks	Direct	1.00%	1.00%	1.00%	1.00%	1.00%
Cash			**10.75%**	**3.50%**	**2.50%**	**0.75%**	**0.00%**
			100.00%	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Source: Legal & General Investment Management

Dynamic Asset Allocation (DAA)

The dynamic asset allocation (DAA) is set by the MAF team and considers factors that are likely to influence asset markets over the medium term but are not reflected in the long-term asset allocation. For example, if equity markets were in a bubble and valuations were deemed expensive the DAA process would consider whether a lower equity allocation relative to the assumptions made in the LTAA should be held.

The DAA will consider a medium-term investment horizon, typically a one-to-five-year period, rather than the tactical asset allocation (TAA), which tends to focus on a short-term investment horizon, such as a few weeks or months.

The research team takes an innovative approach in the quantitative analysis of possible long-term vs short-term asset allocation decisions. In the 're-calibration' process the team looks at historical asset market returns in the context of current economic conditions. For example, as government bond yields are considerably lower than they have been in the past, and assuming nominal yields can't fall below zero, the potential upside return on bonds is limited, so the history of bond returns is adjusted to reflect the current level of yields. The current risk premium or the expected return is the premium on top of the recalibrated bond curve.

There are three main factors considered as part of the DAA:

Fundamental Returns – Rather than assume that markets offer a 'fair' expected return on each asset class, fundamental returns directly estimate the expected return on asset classes by examining current yields and other indicators. For example, the expected return on investment grade bonds is estimated as the current yield less an allowance for downgrades and defaults; the expected return on equities considers dividend yields, earnings yields (the inverse of the PE ratio) and expectations for long-term earnings per share growth. The estimates of prospective returns from each asset class are blended with the long-term asset allocation using the MAF and the Analytics teams' risk allocation model, derived from the Black-Litterman model.

Medium-Term Views – The Asset Allocation team also considers the prospective return on asset classes by looking at those factors that will influence markets over a medium-term horizon. This could be major macro-economic trends or themes, significant mispricing of asset classes, or significant policy actions, for example quantitative easing.

Tail Risk – The MAF team considers potential threats to the performance of markets on a prospective basis, for example the impact of a China hard landing, or Eurozone breakup. Both forward-looking risk scenarios and historical risk scenarios are provided by the tail risk engine.

The Asset Allocation team provides the target asset allocations to the Implementation Strategy Management team for it to implement and manage the cash flows in order to maintain the target asset allocation. There are natural synergies between implementing the asset allocation and the investment in underlying LGIM index funds.

Fund Selection

The MAF team has responsibility for the fund and stock selection, and it will generally use a passive index fund. A benefit of being part of LGIM's Asset Allocation team is that it has a wide and varied universe of in-house index funds to select from. In addition, LGIM has the size to be able to manufacture a fund to use if there is not one available. The managers do have scope to use active managers when they believe that the asset class diversification exposure is best served by an active fund or where there is no suitable index to track, for example for direct UK property, the MAF team uses the in-house L&G UK Property fund. The managers also use active funds in asset classes that lend themselves to active management, for example global high yield and global credit strategies.

The fund managers have the ability to use external managers, however the hurdle is quite high. The funds have a cost-conscious philosophy, and they find that in the vast majority of cases, the costs of using an external fund are too high.

An example of the dynamic asset allocation process in practice was with the fund's Indian equity exposure.

The first stage was for the Macro-Economic Research team to make an assessment of the macro environment and outlook. Tim Drayson's team highlighted that the country has a number of short-term headwinds, but Prime Minister Modi also had a positive structural reform agenda which could transform the economy. The areas of reform already completed included extending industrial licencing, clearer financial regulation and increasing the country's tax base. Progress still needed to be made in foreign direct investment across a range of sectors, and the cessation of retrospective banking FDI taxation, but reforms had commenced. The team felt that India was better insulated from President Trump's protectionist policies compared to other emerging market countries, creating positive medium-term prospects for investment.

The Indian economic backdrop views were passed to the Investment Research and Strategy team who analysed the macro economic impact of the economist's output at the asset class level. It was determined that there was a degree of bearish sentiment due to the short-term growth hit from demonetarisation. On the plus side however, the Indian equity markets have a low beta compared to other emerging equity markets and have outperformed emerging market equities since 2013. These factors presented an attractive entry point into the country.

Justin Onuekwusi and his team then translated the asset class views into specific investment plays by changing the funds' target exposure. Although the team was generally cautious on emerging market equities and so reduced the broad EM equity index exposure, it bought Indian equity and currency futures as these were seen as attractive.

ESG

LGIM has a long-standing commitment to addressing ESG issues, believing that well-governed companies that manage their relationships and impacts on the environment and society are more likely to deliver sustainable long-term returns. It views the consideration of ESG issues as part of risk management, and therefore part of fiduciary duty. LGIM has won a number of industry awards for ESG-related factors with accolades from 2020 including being rated top for responsible investment compared to the world's 15 largest asset managers by ShareAction and being named Best ESG Asset Manager at the Corporate Adviser Awards.

A key pillar of its approach is active ownership where it uses its scale as a major investor to encourage the companies in which it invests to develop resilient strategies, think longer-term and consider its stakeholders. LGIM's Investment Stewardship team engages with companies from an ESG perspective and exercises voting rights globally, across LGIM's active and index funds, holding companies to account on issues such as climate change, remuneration, board independence, and diversity. At the same time, the team works with regulators, policy makers and industry peers to tackle systemic issues.

Whilst the strategies covered as part of this review are not managed to a specific sustainable mandate, the underlying LGIM fund holdings are subject to LGIM's ESG engagement policy and the company's commitment to addressing ESG issues is at the core of the organisation, and as such is also integrated into the investment process of the Multi-Index range. The funds are managed on a top-down basis and so material ESG risks are more likely to come from sector, country, or global risk factors (e.g. climate) and so ESG factors are taken into account when constructing the strategic asset allocation for the funds.

Justin Onuekwusi is one of the co-founders of the #talkaboutblack movement and has been instrumental in a number of events and initiatives to encourage inclusivity with the financial services industry such as the Diversity Project which connected 100 students of Black, Asian and minority ethnic backgrounds to 30 different asset managers. In June 2020, Justin was awarded the Freedom of the City of London in recognition of his work promoting inclusivity within the asset management industry.

PERFORMANCE AND FUND CHARACTERISTICS

The team continually monitors the portfolios and dynamically adjust the allocation in line with its medium to long-term views to ensure that the funds' risk profiles do not change. As such, the funds do not have an absolute performance objective, but will always aim to maximise performance within the scope of the risk objective. The lower risk funds, which have lower exposure to equity markets, are likely to benefit most when we see falling bond yields, often in a defensive market, and the higher risk funds will find a risk-on sentiment more favourable when equities and credit are performing well.

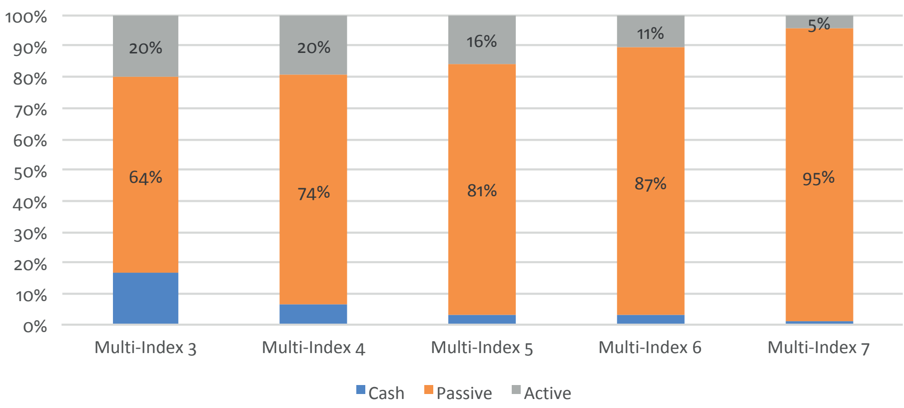
Fund Name	3 Months	1 Year	3 Years (p.a.)	SI (p.a.)
Legal & General Multi-Index 3 I Acc	-1.15	11.55	4.68	5.2
Peer group median	-1.15	9.96	3.41	3.34
Quartile	2	2	1	1
Legal & General Multi-Index 4 I Acc	-0.05	17.9	5.77	6.26
Peer group median	0.02	16.89	4.84	5.29
Quartile	3	2	1	1
Legal & General Multi-Index 5 I Acc	1.37	24.02	6.97	7.33
Peer group median	1.39	23.63	5.6	5.78
Quartile	3	2	1	1
Legal & General Multi-Index 6 I Acc	2.88	30.9	8.21	8.14
Peer group median	2.83	28.97	5.88	6.78
Quartile	2	2	1	1
Legal & General Multi-Index 7 I Acc	4.23	37.97	9.61	8.85
Peer group median	4	34.22	6.66	7.21
Quartile	2	1	1	1

Lipper, LGIM 31 March 2021
Peer group average is the average performance of funds targeting the same DT risk profiler.

The table sets out the performance of the Multi-Index fund range. Performance has been positive over most time periods, which includes periods of declining markets such as in 2015 and Q4 2018. During the severe market sell-off in Q1 2020, the funds did fall in value however this is to be expected as over that period, almost all asset classes experienced a significant sell-off and the funds remained competitive on a relative basis against strategies within their peer group. Relative performance overall has also been strong across the board, with each portfolio outperforming its peers that target the same DT risk profile bands. In each case the funds are first or second quartile over all periods.

The degree to which the managers utilise active or passive investment solutions is dependent on whether they think an active strategy will provide an advantage over a passive solution. Global credit and global high yield are such areas, and account for the higher level of active funds used in the Multi-Index range.

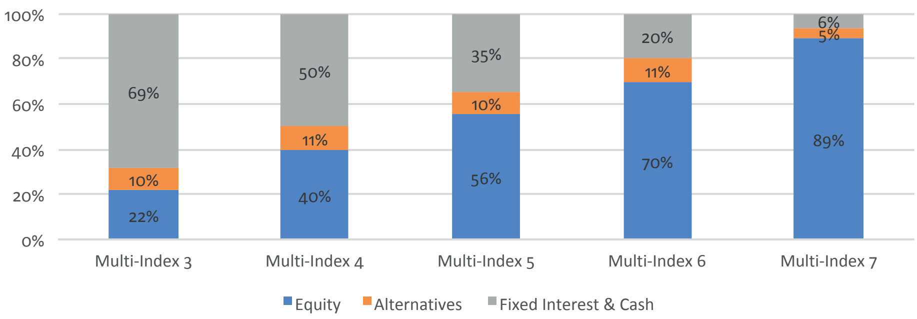
Investment Style Type



Source: LGIM

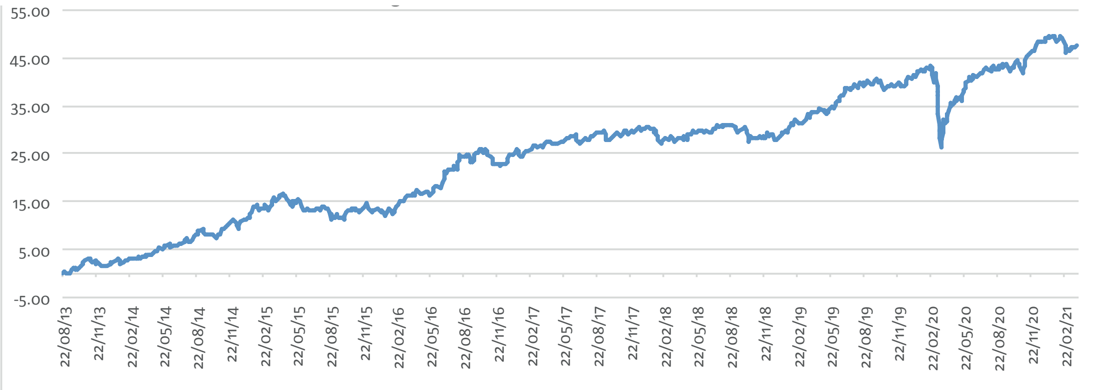
Four of the funds in the Multi-Index range hold cash to some degree and this is at a higher level than the comparable Multi-Index Income fund. These funds have a lower exposure to fixed interest securities overall as there is not a requirement to generate an income yield. Equities increase across the fund range from 22% in Multi-Index 3 to around 89% in fund Multi-Index 7. In the lower risk funds, there is no or lower exposure to frontier / Mexican and US energy equities. In the higher risk funds, there is significant allocation to North American and global emerging market equities and all of these are through the use of passive index funds.

Asset Allocation



Source: LGIM

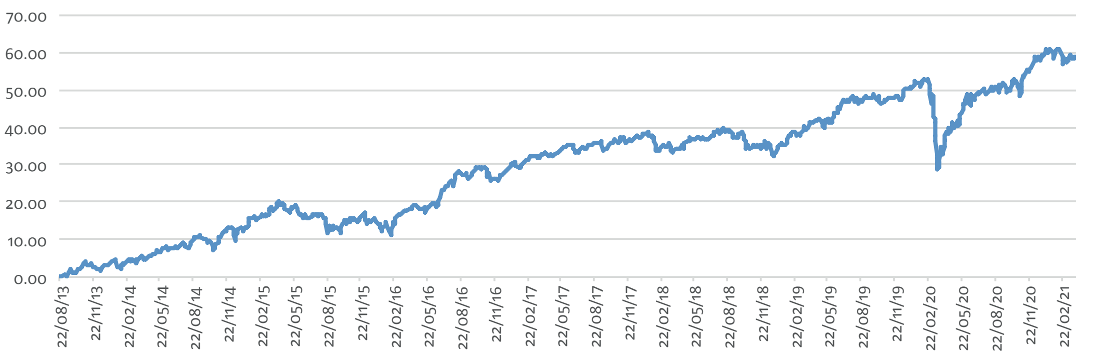
LGIM Multi-Index 3 (since Sept 2013)



Source: LGIM

As you would expect from the lowest risk fund within the range, the chart shows a steady rise in returns since launch with relatively low drawdown levels during more difficult market conditions (e.g. 2015 and 2018, although these were greater during the severe market sell-off in Q1 2020) and steady recovery following equity market downturns. Equity weightings are the lowest in this strategy therefore returns and volatility are lower. Government bond exposure makes up a significant proportion of the fixed interest allocation which has performed well against the backdrop of falling interest rates. Overall performance has been above the benchmark target, although this is to be expected given the positive returns seen across the majority of asset classes.

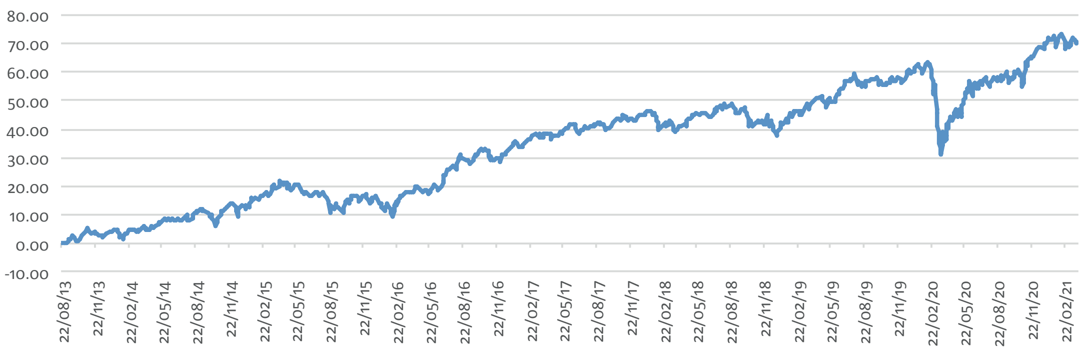
LGIM Multi-Index 4 (since Sept 2013)



Source: LGIM

As you would expect from a relatively low risk fund, the chart shows a steady rise in returns since launch with lower drawdown levels during more difficult market conditions (e.g. 2015 and Q4 2018, although these were greater during the severe market sell-off in Q1 2020) and steady recovery following equity market downturns. As you would also expect, drawdown and volatility levels have been higher than the lower risk Multi-Index 3 fund, but the overall performance has also been higher. Overall performance has been comfortably above the comparative benchmark.

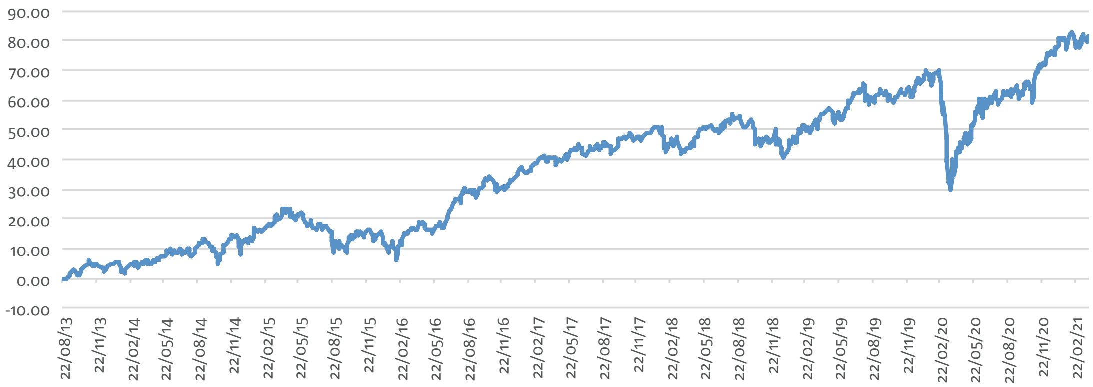
LGIM Multi-Index 5 (since Sept 2013)



Source: LGIM

This is the median risk fund within the range and, as you would expect, the chart shows a more volatile performance pattern than the lower risk funds since launch, with higher drawdown levels during more difficult market conditions (2015 and 2018, although these were greater during the severe market sell-off in Q1 2020) but stronger recovery following equity market downturns. The portfolio has greater regional specific equity exposure, particularly to the US which has performed well over the period. The overall performance has been commensurately higher and comfortably above the comparative benchmark, although this is to be expected given the positive returns seen across the majority of asset classes, particularly equities, which the fund typically has reasonable exposure to.

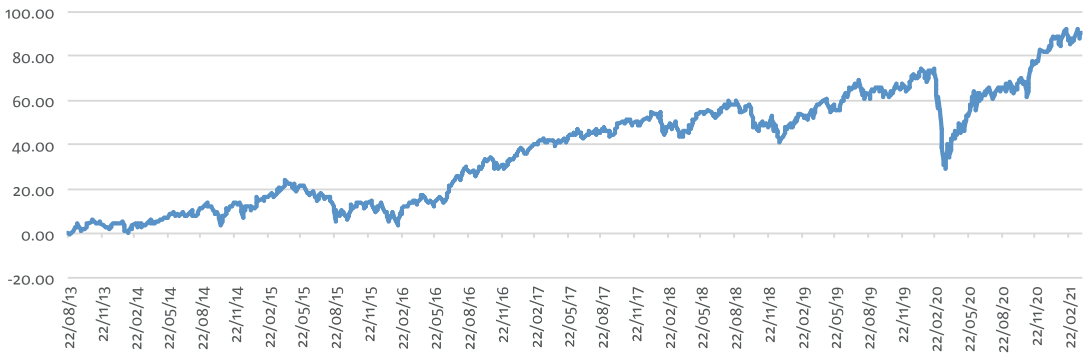
LGIM Multi-Index 6 (since Sept 2013)



Source: LGIM

This fund was launched in September 2013 and has a significant equity weighting including to the overseas markets. The exposure is diversified to include the US technology and there is an increased allocation to Asia and emerging markets in this portfolio, both of which have performed well but also increased the level of volatility. The outperformance of the comparative benchmark has been through superior performance on the upside and similar drawdowns in the weaker markets.

LGIM Multi-Index 7 (since Sept 2013)



Source: LGIM

This is the highest risk fund within the range and, as you would expect, the chart shows a more volatile performance pattern than the lower risk funds since launch with higher drawdown levels during more difficult market conditions (2015, 2018 and Q1 2020) but a stronger recovery following equity market downturns and the overall performance has been commensurately higher. Overall performance has been significantly above the performance target, although this is to be expected given the strong returns seen across equities, which the fund typically has reasonably high exposure to.

RISK MANAGEMENT

Managing risk is a core consideration for the fund range as each fund is managed to adhere to a particular risk profile. The target risk profiles for the funds are set by Distribution Technology (DT) and are based on the historic return and volatility of different asset types. LGIM use its experience and in-house assumptions for expected risk and return, together with research and allocation guidelines from DT to set a diversified asset allocation for each fund to ensure they have broad risk stability to remain inside the risk profile.

LGIM uses standard deviation, measures of value at risk (VAR) and scenario analysis to measure risk. There are two sources of risk measurement for the funds: The first is the risk measurement and management tools built and applied by the Asset Allocation team, a key risk tool being the Tail Risk Engine which is a proprietary analytical tool used to estimate a portfolio's downside risk. The Asset Allocation team also calculates the ex-ante (forward looking) standard deviation of each fund using both parametric and non-parametric methods. Due to the importance of maintaining the targeted risk profiles, the team monitors the estimated standard deviation for each fund on a daily basis.

The risk of each fund is also measured by LGIM's independent Investment Risk team. This risk is calculated using security level look-through of fund holdings using UBS Delta, an award-winning portfolio analysis and risk management system.

CURRENT FUND POSITIONING

As we entered 2020, the first quarter of the year proved to be one of the most difficult periods in history for all asset classes, given the speed and size of the decline in valuations. Equity markets saw falls of up to 40% at the height of the crisis. The beginning of 2020 had been met with some optimism after a strong set of market returns in 2019 led us to believe that global growth, although low, was stable despite some fragility, underpinned by accommodative monetary and fiscal policy.

At the start of 2020, the L&G Multi Index funds were broadly neutral to risks assets but as the crisis unfolded, the management moved the strategies to an underweight position which helped to stem some of the losses as the markets declined further and correlation between assets classes broke down – assets which had previously been considered defensive in nature also fell in value. Central banks responded quickly by pumping huge amounts of liquidity into the system and as this was happening, the managers moved to an overweight position in risk, increasing equity exposure but adding significantly more to credit believing that high yield was looking particularly attractive. At this time, Justin Onuekwusi was quoted in the financial press stating that the current valuations on high yield represented 'the buying opportunity of a lifetime'. The move proved timely as high yield strategies recovered very strongly and generated some excellent returns over the following months.

Additionally, the team further diversified its fixed income exposure, moving away from the traditional government bond exposure of UK gilts and treasuries by allocating to South Korean government bonds in the expectation of more expansive monetary policy by the country's central bank, and also allocating to New Zealander and Swedish government bonds due to their attractive yield carry.

Markets recovered over the second quarter of the year as policy makers calmed investors with stimulus measures. Risk assets produced some exceptionally strong returns during this period with regional equities producing between 11% and 25%, reversing much of the losses from the first quarter. The managers had some slight concerns on being underweight to technology, although they could not see value in some of the large technology companies dominating the market. They introduced artificial intelligence (AI) exposure into the funds through an ETF as they saw great potential in the technology and with the ETF, they gained exposure to a diverse range of companies in this field (around 50 stocks within the product). They also bought a small position in European value stocks where they saw potential for catch up with small downside risk in case of further equity market falls. These stocks all had attractive valuations, negative sentiment, and a sensitivity to improving macro that had not been reflected in prices.

Over the third quarter of the year, performance was driven by risk assets with US equities continuing their surge upwards as the main index hit record highs in that period. There was however a sell-off in US tech sector towards the end of the quarter which was followed by a wider sell-off in global equities.

Over this period, they became more negative on high yield which had produced some very strong returns for the funds over the last few months but as spreads tightened, they took some profits. The managers disposed of New Zealand government bonds following strong outperformance relative to other developed markets and increased exposure to Australian government bonds as they believed yields had the potential to fall in the medium term which would boost returns. The team also added a position in timber companies as they had a positive view on forestry which has a different return profile to broad market equities and therefore adds diversification to the portfolios. They also bought a position in European telecommunications companies as the stocks have underperformed for many years and were now seen as deep value.

The final quarter of 2020 saw further strong returns from global equity markets, extending the rebound seen during the previous two quarters, despite the very challenging economic and social backdrop of the pandemic. This quarter there was a strong recovery in value stocks and sectors, which particularly benefited the UK and Europe but was less impactful to the US. Over the period, the managers added New Zealand government bonds having recently taken profits, whilst adding other developed market government bonds. The managers sold the European auto stocks and added Japanese railway stocks.

Overall, most of the changes made over the last year were within the fixed income space, however they have been underweight to UK commercial property, an asset class they have not added to since 2016. Not having meaningful exposure to commercial property had initially proved a laggard however more recently this has proved a benefit as the sector was badly impacted by the effects of the pandemic and, unlike most other asset classes, has yet to stage a meaningful recovery.

Over the first quarter of 2021 performance was driven by risk assets, with US and UK equities providing a positive boost to performance across all risk profiles, and global small caps adding value in the high-risk solutions and European equities in the mid risk portfolios. The main detractors were UK and US government bonds, UK corporates and EM hard currency debt. The managers reduced exposure to bonds across all risk levels, particularly to global high yield bonds and UK investment grade credit as they believe credit spreads have tightened to a level where exposure is not very well rewarded.

The team are marginally positive on risk assets, believing that the current position in the economic cycle is one which historically has proven to be the best time to invest in equities, and that the ongoing large stimulus packages should continue to provide support to risk assets. It also believes that valuations in parts of the market, such as European value, still look attractive and have therefore increased equity exposure to areas such as European travel and leisure stocks, sectors that were badly affected by the pandemic last year. This year, as economies reopen and consumer behaviours begin to normalise, they believe these companies should benefit disproportionately. The team also marginally increased exposure to alternative investments such as listed infrastructure and global REITs.

Charges

The L&G Multi-Index fund range has generally lower charges when compared to other multi asset fund ranges owing to the index based nature of its constituent funds, however it is slightly more expensive when compared to its pure passive counterparts.

The majority of exposure is obtained through LGIM's index-tracking funds, and the team will only look to change the selected funds when it believes the benefits are in excess of the costs involved. Where appropriate, LGIM selectively incorporates actively managed funds such as direct property, global high yield and global credit. Overall the principle is to access the asset class in the most cost-efficient way possible for the fund range.

It is important to note that LGIM does not double charge on holding its own internal funds and if you consider that the investment process involves active asset allocation and the performance track record, this fund range is attractively priced.

The annual charges and estimated ongoing charges for the funds are as follows (no initial charges apply):

Name	On-going Charge estimated	
	Class I	Class F
Legal & General – Multi-Index 3	0.31	0.50
Legal & General – Multi-Index 4	0.31	0.50
Legal & General – Multi-Index 5	0.31	0.50
Legal & General – Multi-Index 6	0.31	0.50
Legal & General – Multi-Index 7	0.31	0.50

(Source: Legal & General Investment Management)

CONCLUSION

Legal & General is the UK's largest pension fund manager and has significant scale within the index tracking part of its business.

The L&G Multi-Index fund range was launched in August 2013 and provides advisers with a range of multi-asset, risk-targeted solutions to cater for different types of investors whilst operating within the same asset allocation process. LGIM has specifically set out the type of investor each fund is aimed at and the fund's risk profiles are directly linked to the Distribution Technology (DT) risk profiles. As the funds are managed to these risk profiles, they are expected to remain within the long-term volatility parameters (e.g. Multi-Index 3 is expected to remain within the DT 3 volatility parameters over the long-term).

The vast majority of the underlying funds selected are passive funds managed internally by LGIM, thereby taking advantage of the scale of its index tracking business. Active funds are used for specific asset class exposure with property exposure gained through investment in the L&G UK Property Trust, global high yield exposure gained through the L&G High Income Trust and global credit exposure through the L&G Global Corporate Bond fund. The charges for doing so are taken into account within the funds' overall ongoing charges (OCF). These factors help to keep down fund costs to an extremely competitive level, particularly for the 'I' unit class.

The investment process is well-defined and draws upon the experience and resources within the Multi-Asset Funds team. Asset allocation is the key driver of returns for the funds, so a strong process is required. The long-term asset allocation looks at a five-to-ten-year time horizon, which is a longer term than many investors typically look at, and the filtering process, using return forecasting, risk, and asset class co-behaviour, is very comprehensive, forward looking and has the flexibility to make specific factor adjustments. This provides the fund range with a very solid base. The dynamic asset allocation element provides a further degree of flexibility and allows for medium-term factors to be taken into account. There are other strong teams feeding into this part of the process, including the Macro Economic Research and Investment Research & Strategy Analytics teams and the outputs allow the fund managers to take a number of different risks and opportunities into account within their portfolio construction. Fund selection has less importance than asset allocation due to the predominant use of LGIM index tracking funds.

Since launch, the long-term performance has been strong, with each fund outperforming their peer group median. The philosophy, structure and investment process of the Multi-Index funds is designed to keep the funds within their respective risk profiles and provide the attractive level of return for that particular level of risk.

The funds were very competitive over 2020, a year which experienced some extreme volatility in asset prices, with a very severe sell-off in the first quarter being followed by a strong recovery over the remaining months of the year. The asset allocation positioning ensured the funds generated some good positive returns for the year as a whole and were very competitive against their peer group, particularly in the lower risk strategies which gained greater benefit from the more active adjustments within fixed income exposure.

In our opinion, the L&G Multi-Index funds provide a strong option for advisers and investors looking for a range of cost-competitive, risk-based solutions. They operate within a comprehensive framework, managed by a large and experienced team with excellent resources at their disposal.

ABOUT US

RSMR

Established in 2004 RSMR provides research and analysis to firms working across the UK's personal financial services marketplace.

Our work is completed with total impartiality and without any conflict of interest and delivered to a high professional standard by a team of experienced and highly qualified people.

Working with advisers

We provide specialist research, analysis and support to a diverse range of financial advisers and planners helping them to deliver sound advice to their clients backed by rigorous and structured research and due diligence.

The main regulatory body in the UK, the FCA, states that personal recommendations made by advisers should be 'based on a comprehensive and fair analysis of the relevant market' and this has led to closer scrutiny of the whole advice process. Our solutions are designed to help advisers meet these challenges whilst recognising that advisory firms require a range of flexible options that best meet their own business needs and those of their clients.

Working with providers

We work with all the leading fund groups, life and pension companies and platform operators across the financial services sector offering straight forward and pragmatic advice to help add value and improve their business performance and efficiency whilst treating customers fairly in line with FCA requirements.

Ratings

Our innovative range of ratings are now recognised as market leading and cover a broad area of investment solutions including single strategy funds, SRI funds, Multimanager and multi-asset funds, DFMs and investment trusts. Our familiar 'R' logo is now recognised as a trusted badge of quality by advisers and providers alike and a 'must-have' when selecting funds. Our ratings are founded on a strict methodology that considers performance and risk measures but places a greater emphasis on the ability of fund managers to continue to deliver performance in the years ahead based on our in-depth face-to-face meetings with fund managers across the globe.

We understand financial services and we will work alongside you to deliver tailored solutions that are right for your clients and your business.

Our research. Your success.

The data and information in this document does not constitute advice or recommendation. We do not warrant that any data collected by us, or supplied by any third party is wholly accurate or complete and we will not be liable for any actions taken on the basis of the content or for any errors or omissions in the content supplied.

All opinions included in this document and/or associated documents constitute our judgement as at the date indicated and may be changed at any time without notice and do not establish suitability in any individual regard.

Number 20
Ryefield Business Park
Belton Road
Silsden
West Yorkshire
BD20 0EE

Tel: 01535 656 555
Email: enquiries@rsmgroup.co.uk
www.rsmr.co.uk

OUR RESEARCH. YOUR SUCCESS