



Sequencing Risk "Managing downside risks can have a significant impact on long term investment outcomes"

OUR PEOPLE



Over 25 years experience

Director – Global Institutional Distribution

Colin joined ILIM in 2017 to build on Irish Life's de-risking solutions for Irish pension funds.

Colin has unique experience as Chairman of Danske Bank DB pension scheme that has pursued an aggressive de-risking strategy, while managing an in-house LDI solution for over 10 years.

Prior to joining ILIM, Colin was Treasurer & Head of Danske Bank Markets in Ireland. Colin has over 25 years' executive management and execution experience in treasury, capital markets and investment banking transactions. Colin has a MBA from Smurfit Business School, is a Certified Bank Director, Certified Investment Fund Director and completed the Stanford LEAD program.

Irish Life



Anthony MacGuinness Over 19 years experience

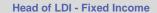
Deputy CIO & Head of Quantitative Strategies Group

Anthony is a member of the Executive Management team and the FundManagement Executive, holding overall responsibility as Head of theQuantitative Strategies Group. He leads the research and development of ILIM'squantitative investment strategies and portfolio solutions for theinstitutional and retail market.

In recent years, Anthony and his team have been responsible fordeveloping ILIM's range of multi-factor active equity funds and risk managementstrategies, including the Dynamic Share to Cash and Global Low Volatility Strategies.In addition, his team is responsible for ILIM's flagship multi-asset fund range(MAPS).



John Thornton Over 15 years experience



John joined ILIM in 2011 as a Senior Active Fixed Income Fund Manager and is a member of the Asset Allocation Committee.

John is responsible for managing ILIM's LDI product, advising defined benefit pension schemes on their liability matching strategies. He also manages discretionary active fixed income strategies for institutional, retail and defined benefit pension scheme clients.

Prior to joining ILIM, John worked as an executive director within the UBS London credit trading department, having previously worked with RBS and JP Morgan. John is a fellow of the Society of Actuaries in Ireland having qualified while working for Canada Life in Dublin.



Lenny McLoughlin Over 30 years experience

Chief Economist

Lenny was appointed Fund Management Economist in August 2012 and is amember of the asset allocation committee. Previously, he was responsible formanaging the financial and retail sectors in ILIM's active global equity funds.Lenny has over 25 years' experience in the financial industry.

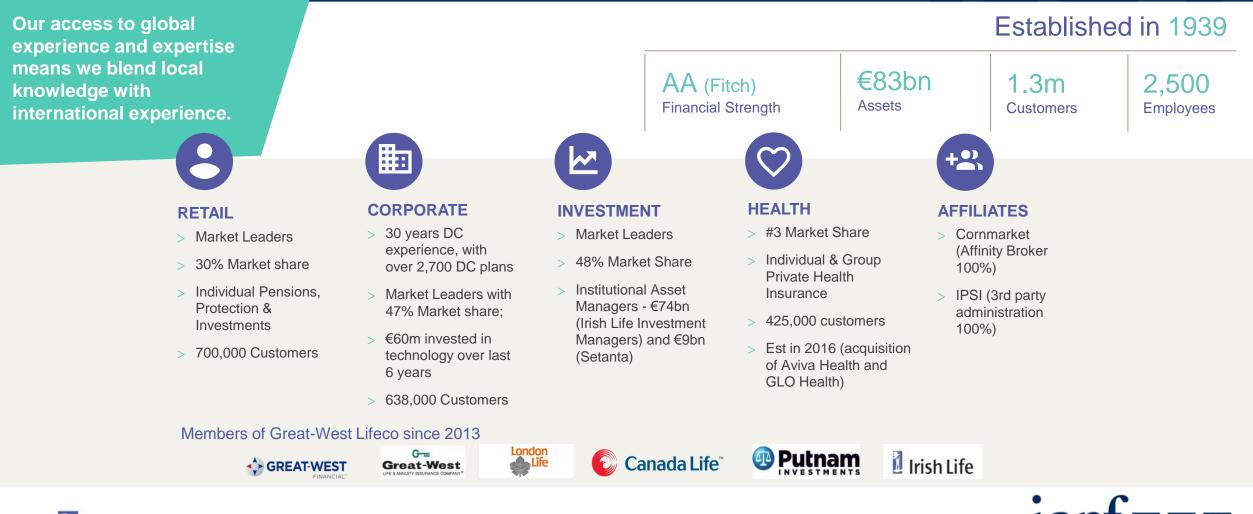
Prior to joining ILIM in July 2005, Lenny worked for Zurich, AIB andAviva Investors in equity research and investment management roles.

Lenny graduated with a B.A. in Economics from Trinity College Dublin in1986, and became an Associate Member of the Institute of Investment Management& Research in 1990.



IRISH LIFE GROUP OVERVIEW

Irish Life

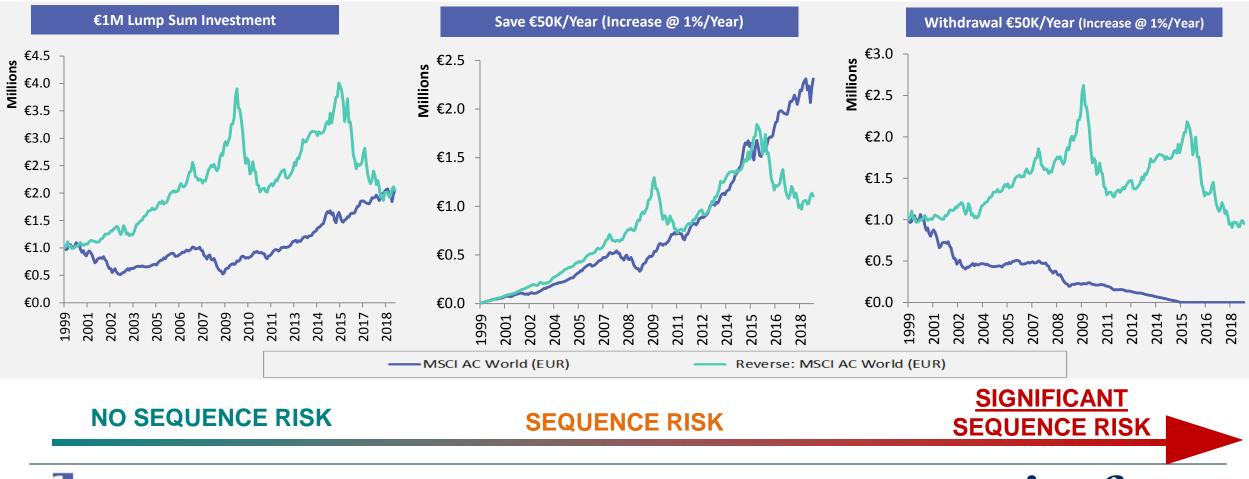


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WHAT IS SEQUENCE RISK?

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• Consider the following investments in Global Equities for a EURO investor:



HOW CAN WE MANAGE SEQUENCE RISK?

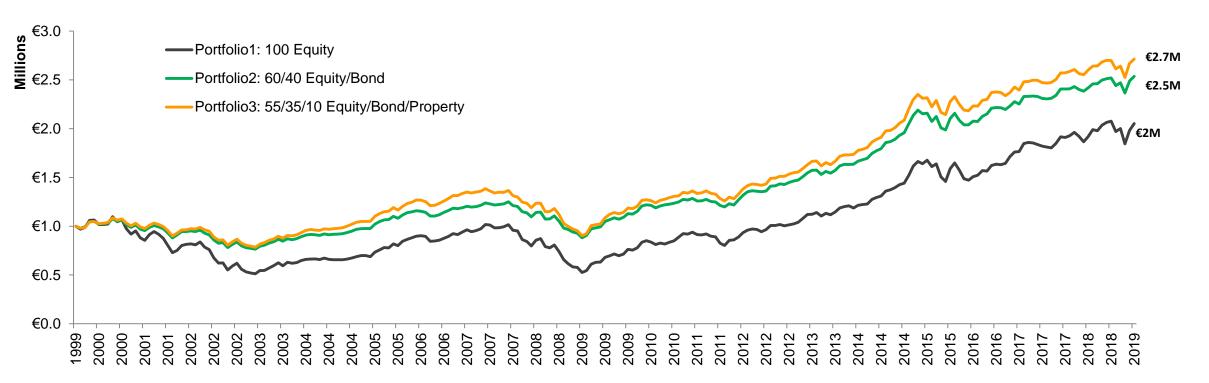






MANAGING THE DIPS

DIVERSIFICATION REALLY WORKS...

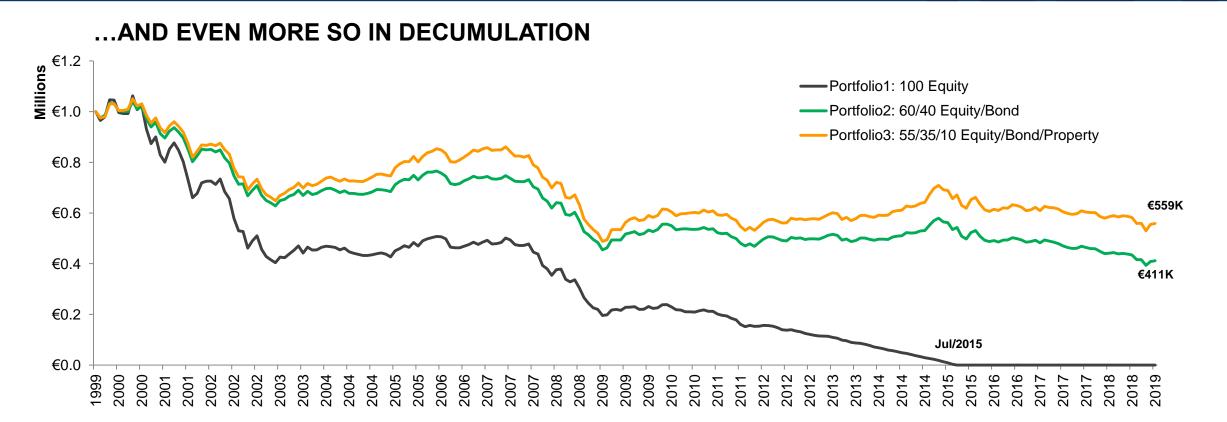


Source: Time Horizon:	Factset Dec/1999 – Feb/2019	For illustrative purposes only. Past performance is not a guide to future performance. The value of investments can go down as well as up and is not guaranteed.
Equity: Bond:	MSCI AC World Index TR (EUR) ICE BofAML Euro Government (5+ Y) (EUR)	Total Return: €1M (EUR) hypothetical portfolio entering investment in 31 st /Dec/1999.
Property:	FTSE EPRA Nareit Developed Europe (EUR)	





MANAGING THE DIPS



Source:	Factset
Time Horizon:	Dec/1999 – Feb/2019
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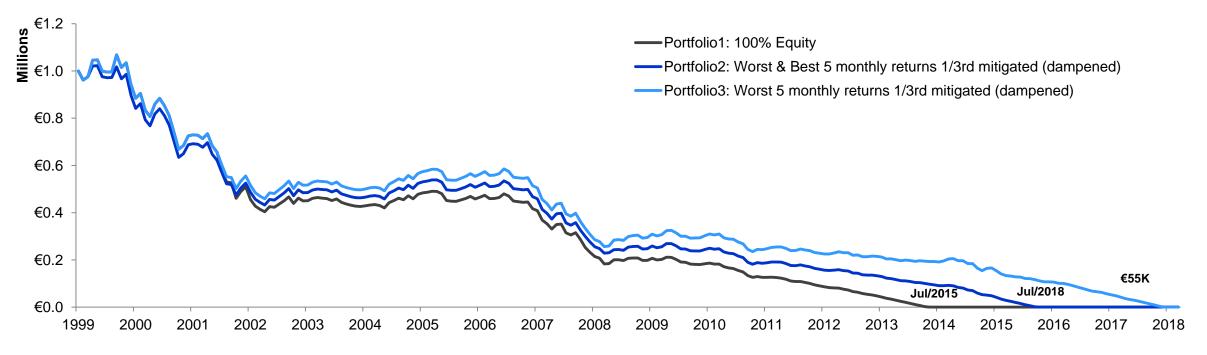
Income drawdown: €1M (EUR) hypothetical portfolio entering an income drawdown arrangement in 31st/Dec/1999. 5% p.a. withdrawal, escalating by 1% (annualised) inflation, monthly withdrawals. 18-year period incorporating a whole range of equity market conditions.



DOWNSIDE PROTECTION IS IMPORTANT

Downside Risk Management

CUSHIONING THE DROPS...



Source:FactsetTime Horizon:Dec/1999 – Feb/2019Equity:MSCI AC World TR (EUR)

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THE DB PENSION JOURNEY PLAN

80% of UK DB Pension Funds are cashflow negative as of 2017 (Source PwC 2018)

SEQUENCING RISK RELEVANT FUNDING PROPOSAL WELL FUNDED **FULLY FUNDED** Aggressive Less Aggressive Investment Investment Strategy Buy-In Strategy Reduce Funding Ratio Risk Funding **Buy-Out** Ratio Risk CDI & Liquidity Longevity Concerns Annuities Solution **MEET PENSION PROMISE GROWTH TARGETS** JOURNEY PLAN





Cashflow Aware

ANNUITIES ARE THE ULTIMATE CASHFLOW OPTION

Cashflow Aware

2013 – 2016 Buy-out due to scheme wind-Up

2017 onwards Key de-risking tool for schemes

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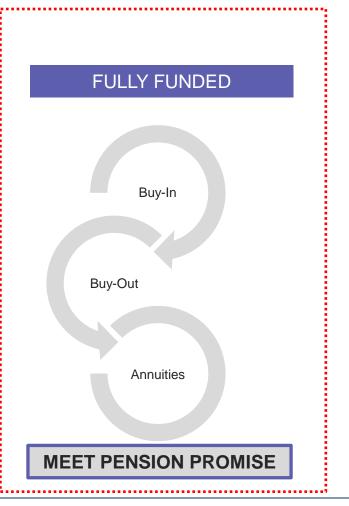
€400M of transactions per year over the last 6 years

Significant discounts now evident on transactions

Mortality risk pooling benefits as schemes mature

Key Pricing Drivers

- Aggressive asset mixes underpinning insurer quotations
- Slowdown in Irish mortality improvements reducing costs
- Innovative reinsurance solutions make deals capital efficient

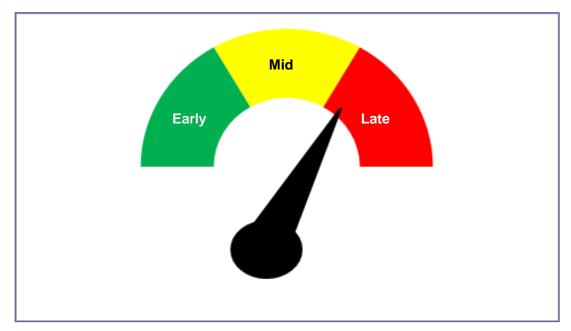




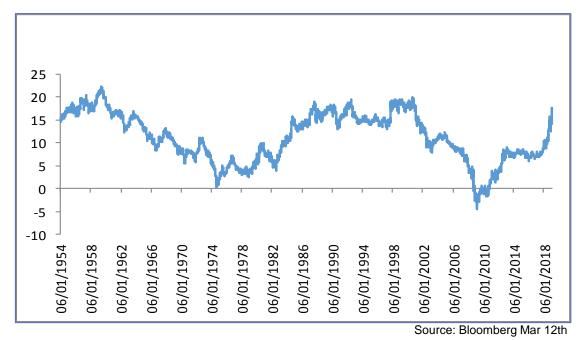
INVESTMENT CYCLE

Investment Cycle

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S&P 500 Annualised 10 Year Returns %



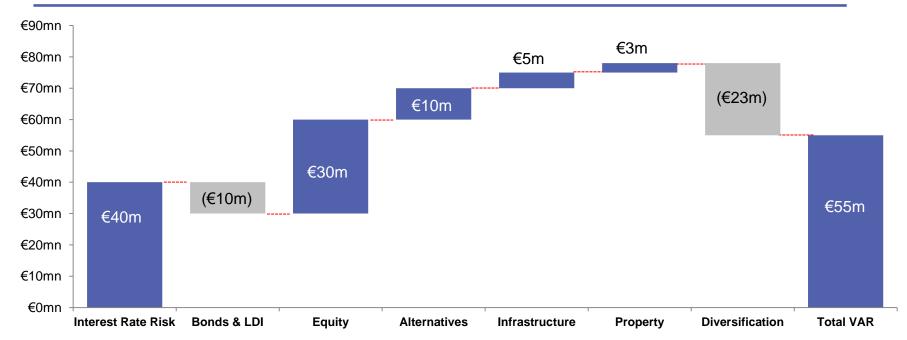
- Where are we in the current investment cycle?
- Returns have been strong in historic context
- Probably entering late stage cycle where volatility and drawdowns could become more frequent



UNDERSTANDING INVESTMENT RISK

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Most DB Scheme measure risk using a 95% VAR metric. This measures the potential negative impact on a Scheme's funding position over a 1 year period. Diversification & risk mitigation strategies can lead to lower levels of risk for investors (as measured by VAR), which will lead to better outcomes over the longer term.

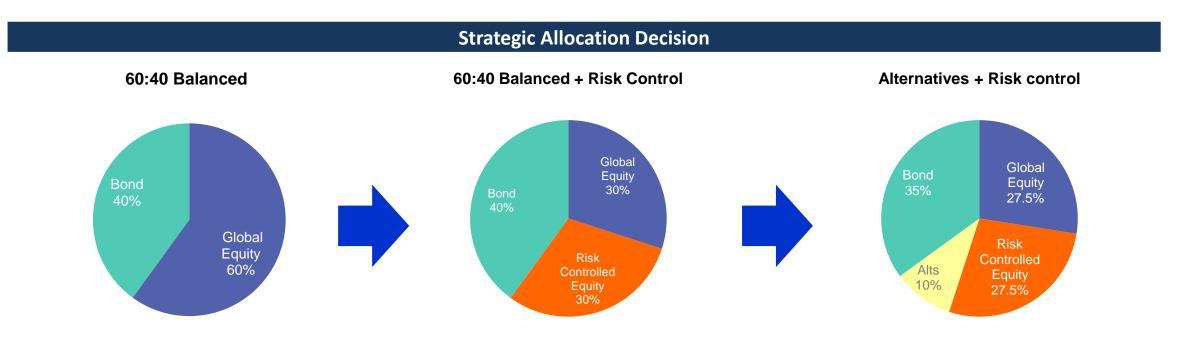


1Y 95% VAR ANALYSIS: ILLUSTRATIVE IMPACT OF DIVERSIFICATION

Data is for illustrative purposes only



MODEL PORTFOLIO – IMPACT OF RISK CONTROL



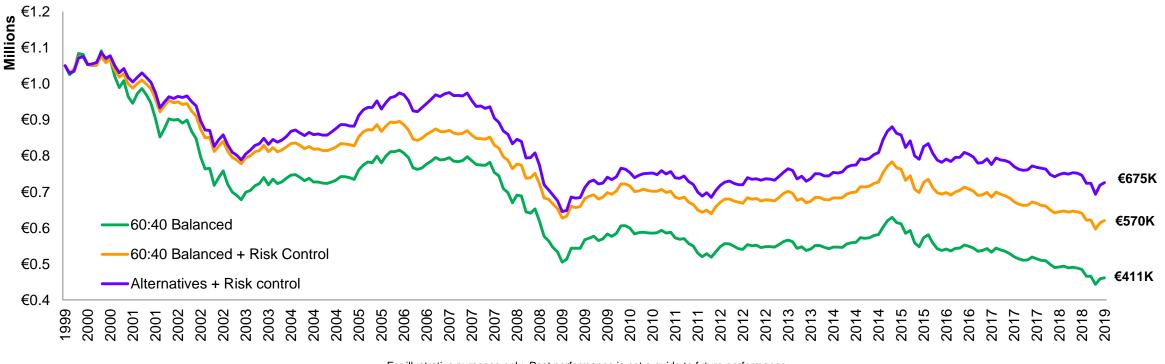
5-Year Forward Looking:	60:40 Balanced	60:40 Balanced + Risk Control	Alternatives + Risk Control
Expected Returns	3.2%	3.1%	3.1%
Expected Volatility	9.5%	7.6%	6.6%
Probability 20% Loss	7.2%	3.3%	2.3%

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DIVERSIFICATION + DOWNSIDE RISK CONTROL





Source: Factset/ Irish Life Investment Managers Time Horizon: Dec/1999 – Feb/2019

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Income drawdown: €1M (EUR) hypothetical portfolio entering an income drawdown arrangement in 31st/Dec/1999. 5% p.a. withdrawal, escalating by 1% (annualised) inflation, monthly withdrawals. 18-year period incorporating a whole range of equity market conditions.

The Alphas against MSCI ACWI for certain Risk Managed Equities are removed to illustrate the benefit of risk management in a clearer manner.



TAKE-AWAY FOR TRUSTEES



Sequencing Risk is becoming more prominent for investors, as DC Members approach retirement or DB Schemes shift gear to cashflow negative. The investment strategy needs to consider how risk controlled strategies can assist in maintaining portfolio return, while reducing volatility.

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THANK YOU

