



AHL TargetRisk Programme Dynamic multi-asset allocation investing

June 2021

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### Investor considerations



One should carefully consider the risks associated with investing, whether the strategy suits your investment requirements and whether you have sufficient resources to bear any losses which may result from an investment:

**Market Risk:** The Strategy is subject to normal market fluctuations and the risks associated with investing in international securities markets and therefore the value of your investment and the income from it may rise as well as fall and you may not get back the amount originally invested.

**Counterparty Risk:** The Strategy will be exposed to credit risk on counterparties with which it trades in relation to on-exchange traded instruments such as futures and options and where applicable, 'over-the- counter' ('OTC', 'non-exchange') transactions. OTC instruments may also be less liquid and are not afforded the same protections that may apply to participants trading instruments on an organised exchange.

**Currency Risk:** The value of investments designated in another currency may rise and fall due to exchange rate fluctuations. Adverse movements in currency exchange rates may result in a decrease in return and a loss of capital. It may not be possible or practicable to successfully hedge against the currency risk exposure in all circumstances.

**Liquidity Risk:** The Strategy may make investments or hold trading positions in markets that are volatile and which may become illiquid. Timely and cost efficient sale of trading positions can be impaired by decreased trading volume and/or increased price volatility.

**Financial Derivatives:** The Strategy will invest financial derivative instruments ('FDI') (instruments whose prices are dependent on one or more underlying asset) to achieve its investment objective. The use of FDI involves additional risks such as high sensitivity to price movements of the asset on which it is based. The extensive use of FDI may significantly multiply the gains or losses.

Leverage: The Strategy's use of FDI may result in increased leverage which may lead to significant losses.

**Model and Data Risk:** The Investment Manager relies on quantitative trading models and data supplied by third parties. If models or data prove to be incorrect or incomplete, the Strategy may be exposed to potential losses. Models can be affected by unforeseen market disruptions and/or government or regulatory intervention, leading to potential losses.

**Commodity Risk:** The Strategy may have exposure to commodities, the value of which can be volatile may carry additional risk. Commodity prices can also be influenced by the prevailing political climate and government stability in commodity producing nations.

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## An overview of Man Group<sup>1</sup>



- A global investment management firm focused on delivering performance for clients through a diverse spectrum of specialist active investment disciplines, empowered by the latest technology
- Individual performance-driven investment engines with centralised operations and services, managing around USD 127.0 billion¹
- Large institutional client base, including sovereign wealth funds, endowments and pension funds
- Headquarters in London, with offices in the major regions
- Actively engaged industry leader, a signatory of the UN-supported PRI and founding member of the Standards Board for Alternative Investments (former HFSB)

Man AHL	Man numeric	Man GLG	Man GPM	Man FRM
<ul><li>Systematic investment manager</li><li>Offering absolute return and long-only quantitative funds</li></ul>	<ul> <li>Fundamentally driven quantitative asset manager</li> <li>Offering long-only, active extension and alternative</li> </ul>	<ul> <li>Discretionary investment manager</li> <li>Offering absolute return and long-only funds across asset</li> </ul>	<ul> <li>Private markets investment manager</li> <li>Offering residential real estate equity and debt and specialty</li> </ul>	<ul> <li>Global alternative investment specialist</li> <li>Flexible approach to building alternatives portfolio solutions</li> </ul>
<ul> <li>One of the longest running systematic traders with over 30 years' experience</li> <li>AuM USD 45.3 billion</li> <li>Founded in 1987</li> <li>91 investment professionals</li> </ul>	equity and credit strategies across geographic regions, investment styles and capitalisation strata  Focus on risk adjusted alpha Total assets USD 33.5 billion <sup>2</sup> Founded in 1989  42 investment professionals	classes, sectors and geographies  Investment teams benefit from a collaborative environment and are unconstrained by a house view  AuM USD 31.6 billion  Founded in 1995  106 investment professionals	<ul> <li>Investing across the capital structure in the US, UK and Europe</li> <li>AuM USD 3.1 billion<sup>3</sup></li> <li>Founded in 2010</li> <li>25 investment professionals</li> </ul>	through managed accounts, commingled strategies and advisory relationships  Operates one of the largest independent dedicated managed account platforms  AuM USD 14.1 billion <sup>4</sup> Founded in 1991  28 investment professionals
		lan Solutions	<b>&gt;&gt;&gt;&gt;</b>	

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1. As at 31 March 2021. Throughout this presentation reference to 'Man' refers to all Man Group plc and its subsidiaries. Combined AUM of all affiliated Man investment managers. All investment management services are offered through Man affiliated investment managers. 2. Man Numeric firm total assets are USD 32.3 billion (Total assets exclude approximately USD 1.2 billion in leveraged assets which are included on Man Group's trading statement). Total assets combines both assets under management and assets under advisement. Assets under management represent the aggregate fair value of all discretionary and non-discretionary assets, including fee paying and non-fee paying portfolios. Assets under advisement represent advisory-only assets where the firm provides a model portfolio and does not have decision making or trading authority over the assets. 3. Including commitments. This figure differs from Man Group's trading statement which excludes commitments. 4. Man FRM firm total used here (USD 14.1 billion) is different from that quoted in the Q1 2021 trading statement (USD 13.9 billion) released by Man Group on 16 April 2021. The former represents aggregate FUM at the product fund/strategy level while the latter breaks down FUM across the underlying related investment managers within a fund/strategy/product. The FUM includes dedicated managed account platform clients for which Man FRM provides platform and risk management services but does not act as investment manager.

## Features of investing in systematic multi-asset portfolios



#### Balanced, long-only approach

- Actively managed, long-only, multiasset approach
- Applies systematic techniques, honed through AHL's 30-year experience, to reduce overall drawdowns and boost long term performance

#### **Active risk management**

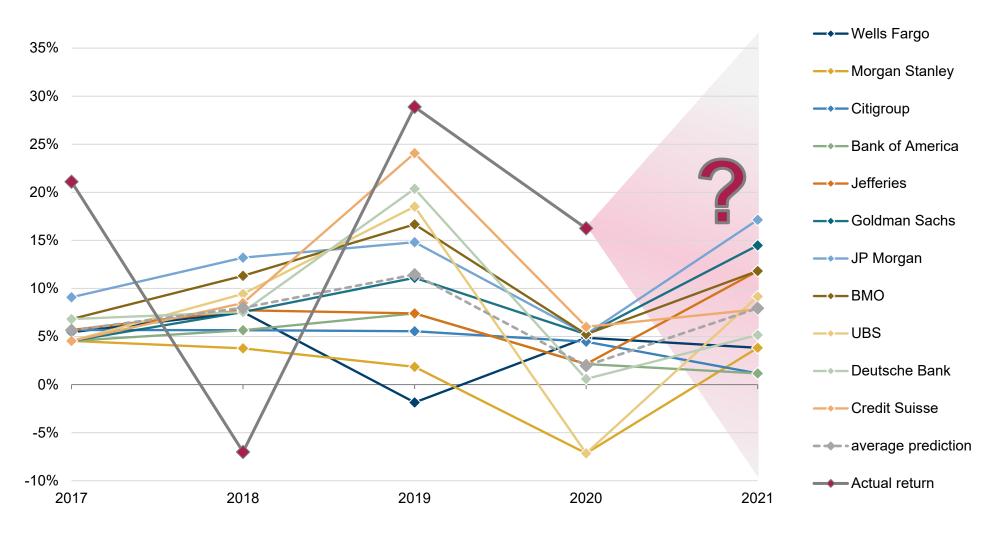
- Momentum overlay to reduce exposure during market sell-offs
- Reduce exposure when markets become increasingly correlated
- Dynamic risk control for volatility targeting and downside protection

#### **Diversification**

- Systematic process leads to scalability across many markets
- Diversification across a broad range of markets, covering global equities, corporate credit, inflation, and commodities



#### **S&P 500 forecasts**



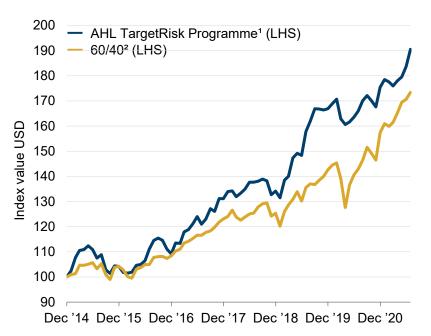
## AHL TargetRisk Programme<sup>1</sup>

**Performance since inception** 



Annual

COLAD2



11 December 2014 to 30 June 2021	AHL TargetRisk Programme¹	60/40²
Total return	90.5%	73.4%
Annualised return	10.3%	8.7%
Annualised volatility	8.0%	8.3%
Sharpe ratio <sup>4</sup>	1.15	0.91
Sortino ratio	2.08	1.42
Correlation	1.00	0.66

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	return	return
2021	-0.5%	-0.9%	1.2%	0.9%	2.3%	3.7%							6.7%³	7.7%³
2020	1.1%	-4.6%	-1.4%	0.6%	1.2%	1.5%	2.5%	1.2%	-1.2%	-1.5%	4.7%	1.7%	5.7%	11.4%
2019	5.3%	1.1%	5.2%	1.2%	-0.6%	6.4%	2.6%	3.0%	-0.1%	-0.2%	0.3%	1.2%	28.4%	20.2%
2018	0.2%	-1.7%	1.1%	1.2%	2.1%	0.0%	0.3%	0.6%	-0.5%	-4.0%	1.1%	-2.0%	-1.9%	-3.1%
2017	-0.1%	4.0%	0.8%	1.9%	2.4%	-2.4%	1.7%	3.3%	-0.9%	4.0%	0.0%	2.2%	18.0%	12.4%
2016	-0.3%	0.4%	2.7%	0.3%	1.4%	4.3%	3.1%	0.8%	-0.7%	-3.0%	-1.7%	4.0%	11.5%	7.3%
2015	5.2%	2.6%	0.3%	1.3%	-1.3%	-3.1%	1.3%	-5.5%	-1.4%	3.0%	-0.2%	-2.3%	-0.7%	1.8%
2014												2.5%	2.5%³	0.9%³

Past performance is not indicative of future results. Returns may increase or decrease as a result of currency fluctuations.

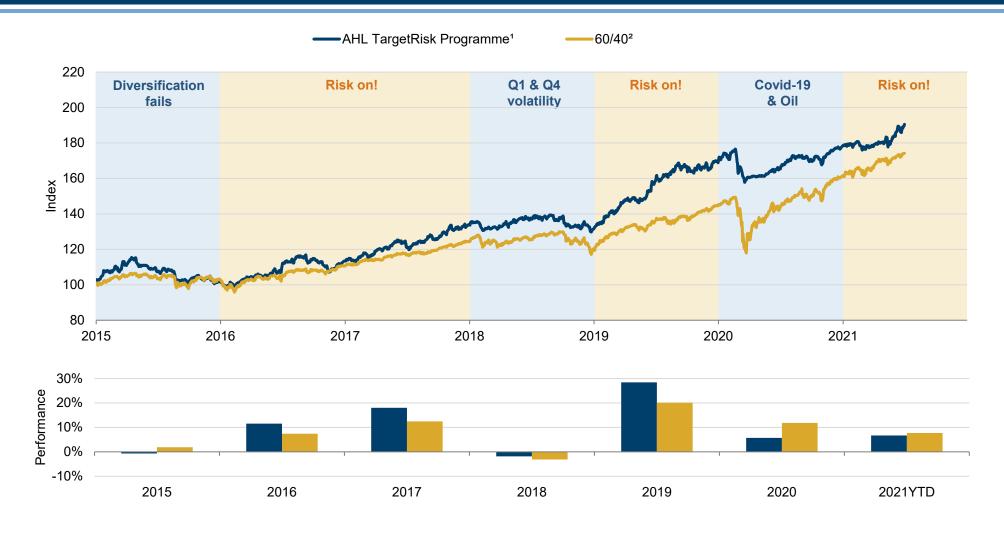
Please note that the performance data is not intended to represent actual past or simulated past performance of an investment product. 1 The data is based on a representative investment product or products that fully invest in the Programme. TargetRisk Programme is net of estimated fees and service cost of 0.95% in USD. 2. 60/40 Portfolio is based on 60% MSCI World Net Total Return and 40% Barclay Capital Global Aggregate Bond index rebalanced monthly. The composite is an official benchmark for the programme. 3. Part year. 4. Sharpe ratio is a measure of risk-adjusted performance that indicates the level of excess return per unit of risk. It is calculated using the risk-free rate (3 month interbank rate) in the appropriate currency over the period analysed. Where an investment has underperformed the risk-free rate, the Sharpe ratio will be negative. As the Sharpe ratio is an absolute measure of risk-adjusted return, negative Sharpe ratios can be misleading and are therefore shown as n/a.

Source: Man Group database and Bloomberg.

## TargetRisk has faced very different market regimes

Yet has typically outperformed in both up- and down-markets





Past performance is not indicative of future results. Returns may increase or decrease as a result of currency fluctuations.

Please see the end of this presentation for additional information regarding estimated performance.

Date range: Inception, 11 December 2014 to 30 June 2021. Please note that the performance data is not intended to represent actual past or simulated past performance of an investment product.

1 The data is based on a representative investment product or products that fully invest in the Programme. TargetRisk Programme is net of estimated fees and service cost of 0.95% in USD.

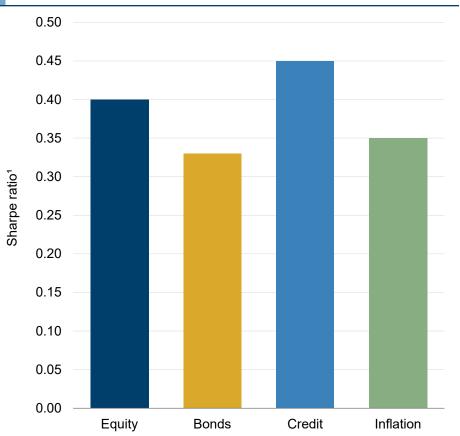
2. 60/40 composite index is represented by monthly rebalancing of 60% MSCI World Net Total Return Index and 40% of Barclays Capital Global Aggregate Bond Index hedged to USD. The composite is an appropriate benchmark for the programme for performance comparison purposes.

## Systematic investing can harvest a wider set of market exposure

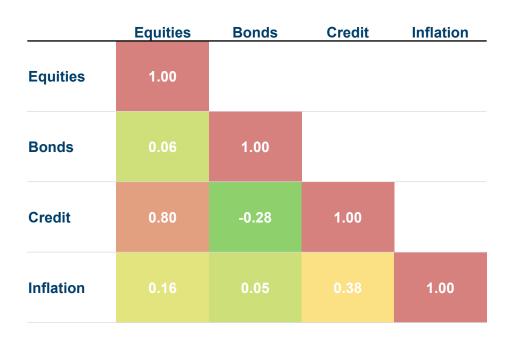
Trading broader range of asset classes increases opportunities and diversification



#### Positive returns in all assets...



#### ...and diversification helps

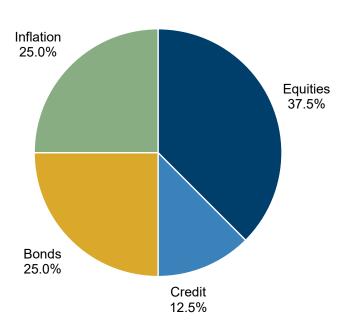


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Date range for all asset classes from January 1970 to December 2020. Asset classes shown are all part of the AHL TargetRisk Programme, using representative time series. 1. Sharpe ratio is a measure of risk-adjusted performance that indicates the level of excess return per unit of risk. It is calculated using the risk-free rate (3 month interbank rate) in the appropriate currency over the period analysed. Where an investment has underperformed the risk-free rate, the Sharpe ratio will be negative. As the Sharpe ratio is an absolute measure of risk-adjusted return, negative Sharpe ratios can be misleading and are therefore shown as n/a. Equity = MSCI World Net Total Return Index hedged to USD; Bonds = US Bond Index, switching to Bloomberg Barclays Global Aggregate Bond Index Hedged USD when that launched; Credit = US IG Credit Index; Inflation = 50/50 risk-weighted average of Bloomberg Barclays Global Inflation-linked (TR) USD Hedged and S&P GSCI Excess return index. Certain indices/measures mentioned on this page have been provided for information purposes only. They are intended to provide a market backdrop. Unless indicated otherwise, the investment process of the Programme is independent of these indices/measures. Source: Man Group database and Bloomberg.



#### AHL TargetRisk Programme long-term risk allocation



#### Strategic asset allocation philosophy

- Asset allocation based on risk budgeting approach
- Seeks to capture positive expected returns in each asset class
- Diversification seeks to preserve capital and improve performance
- Balanced portfolio aims to perform positively in a range of market environments

#### **Tactical risk management overlays**

- Risk management overlays modulate strategic allocations
  - Overall risk (decrease only)
  - Asset class mix

# AHL TargetRisk Programme invests into four global asset classes Global diversification helps perform in many different types of market environments

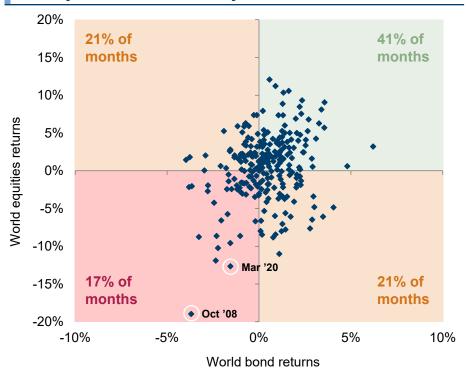


	Equities 37.5% of risk	Credit 12.5% of risk	Bonds & rates 25.0% of risk	Inflation 25.0% of risk
Region:				
US / Canada	4 markets	2 markets	6 markets	2 US TIPS,
Europe	10 markets	2 markets	6 markets	3 European markets and diversified commodities
Japan	2 markets	<u>-</u>	1 market	index exposure (ex
Asia ex-Japan	8 markets	<u>-</u>	4 markets	Agriculturals and Livestock)
RoW	1 markets	-	-	
Benefit from:				
Inflationary growth		✓		✓
Non-inflationary growth	✓			
Recession			✓	✓

## Targeting the protection of wealth



#### Monthly returns from January 2000 to June 2021



- A global balanced strategy works well in most environments:
  - 41% both risk on and risk off markets rally
  - 42% of the time, risk on and risk off act as hedging
- However, 17% of months both bonds and equities fall
- > Apply proprietary risk management techniques...

## AHL's proprietary risk management approach



AHL's dynamic risk management is based on three distinct overlays.

Our proprietary risk management techniques are applied, depending on the type of risk.

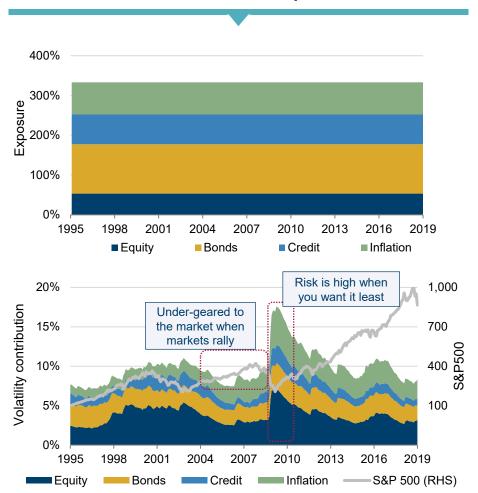
#### **Scenario Signal Action** Volatility overlay Sudden Models that monitor market volatility Quickly adjusts the portfolio exposure increase in according to the unfolding market, volatility or seeking a consistent level of volatility correlation **Momentum overlay Sustained** Models designed to detect downward May reduce the exposure by up to negative 50% by market when prices are falling trends market performance **Correlation overlay Contagion risk** Can reduce the portfolio exposure by Seeks to identify periods where bonds and from bondequities become positively correlated and up to 50% driven sell-off hence lose their hedging properties

### Volatility scaling: Dynamic exposures for a more stable risk profile Simulated exposure examples

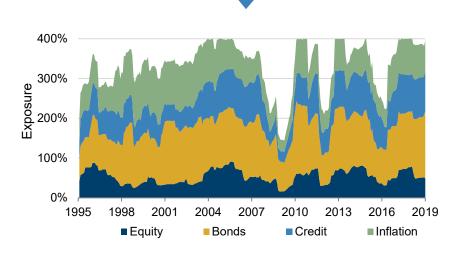


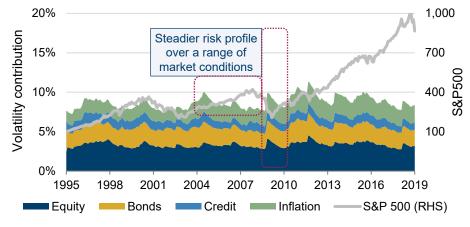


#### Traditional balanced portfolio



#### Man AHL risk-based approach

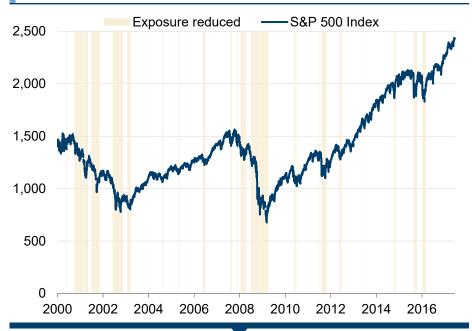




Schematic illustration. Exposure and volatility contribution has been created by selecting example portfolios from representative investment strategies. The allocations are applied retrospectively over the period to provide an illustration of what the volatility contribution and exposure of the portfolio would have been if that particular portfolio combination had existed. The data is simulated to this extent and does not represent the actual performance of an investment strategy and is shown for information purposes only. Exposure and volatility contribution for the Balanced multi-asset portfolio has been derived from the simulated track record of the underlying components of the AHL TargetRisk Programme, scaled to the same initial investment value. Exposure and volatility contribution for the Active multi-asset portfolio has been derived from the simulated track record of the underlying components of the AHL TargetRisk Programme, without using overlays or switching, scaled to the same initial investment value. Date range: 1 January 1995 to 31 December 2019. Calculations are available upon request.

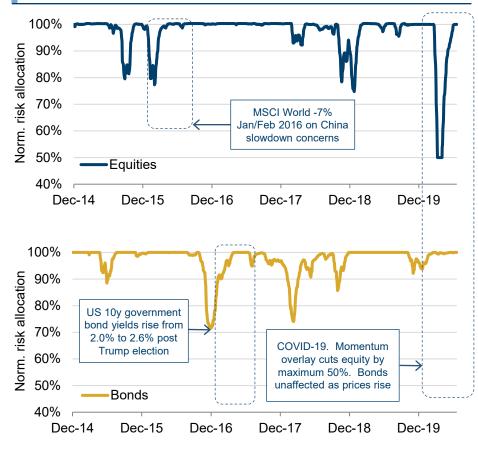


#### **Trending markets**



- Markets tend to have prolonged periods of sell offs and can be painful for traditional multi-asset funds
- Suggests the potential use of trend following strategies to reduce exposure during market sell offs

#### Can be applied to all asset classes

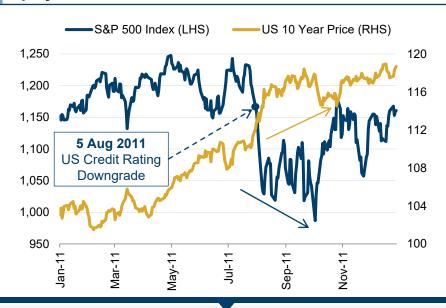


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S&P500 Index future price adjusted for contract rolls. Certain indices/measures mentioned on this page have been provided for information purposes only. They are intended to provide a comparative indication of particular asset classes, investment sectors, or financial markets more widely ("market backdrop"). Unless indicated otherwise, the investment process of the Programme is independent of these indices/measures.

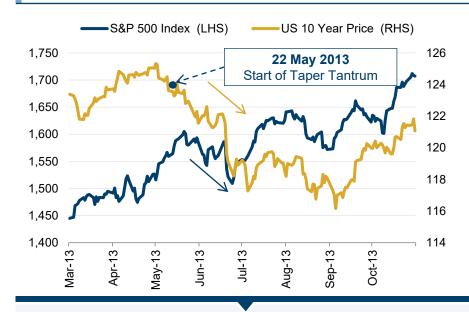


#### **Equity-driven sell off**



- In past market crisis environments, bonds typically acted as a hedge to equities. A 'flight to quality' saw money move out of risk assets including equities, and into safe havens such as sovereign bonds
- Multi-asset portfolios aim to offer some protection in such environments

#### Bond-driven sell off



- However, when a sell-off driven by the bond market begins, the dynamics have been quite different.
   This environment has been characterised by a rise in correlations between bonds and equities, indicating that no part of the portfolio offers protection
- This may potentially be a challenging situation for multi-asset portfolios

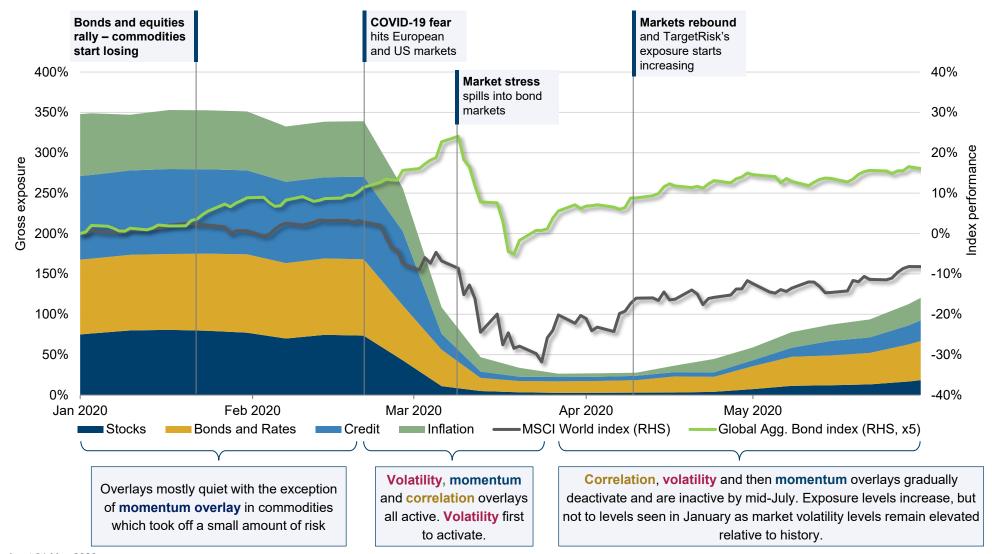
#### HEAVY¹ model seeks to mitigate bond-driven sell off

S&P500 Index and US 10 Year Price are adjusted for contract rolls. Certain indices/measures mentioned on this page have been provided for information purposes only. They are intended to provide a market backdrop. Unless indicated otherwise, the investment process of the Programme is independent of these indices/measures.

## AHL TargetRisk Programme – Case Study: COVID-19

1 January to 31 May 2020





As at 31 May 2020.

For illustration purposes only. Please note that the weightings shown are indicative, correct as at the date of this presentation and are subject to change without notice.

The period selected is exceptional and is not representative of typical performance. Certain indices/measures mentioned on this page have been provided for information purposes only. They are intended to provide a market backdrop. Unless indicated otherwise, the investment process of the Programme is independent of these indices/measures. MSCI World index: MSCI World Net Total Return index (hedged to USD). Global Agg. Bond index: Bloomberg Barclays Global Aggregate Bond Index (hedged to USD).

### **Performance**

Participating in the good times, while protecting in the bad



#### **Upside/downside capture analysis**

- This chart shows the average monthly return of the AHL TargetRisk Programme and a 60/40 portfolio during both positive and negative return months for the MSCI World Index
- It illustrates the asymmetric return profile experienced by investors in the Programme or 'Capturing the upside while protecting on the downside'
- In the times where equities were up, TargetRisk captured ~82% of the upside
- In the times where equities were down, TargetRisk captured just 36% of the downside

#### 11 December 2014 to 30 June 2021



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The data is based on a representative investment product or products that fully invest in the Programme. Target Risk Programme is net of estimated fees and service cost of 0.95% in USD. 60/40 Portfolio is based on 60% MSCI World Net Total Return (hedged to USD) and 40% Barclay Capital Global Aggregate Bond (hedged to USD) index rebalanced monthly. The composite is an appropriate benchmark for the programme for performance comparison purposes.

MSCI World: MSCI World Net Total Return Index hedged to USD. Certain indices/measures mentioned on this page have been provided for information purposes only. They are intended to provide a market backdrop. Unless indicated otherwise, the investment process of the Programme is independent of these indices/measures.

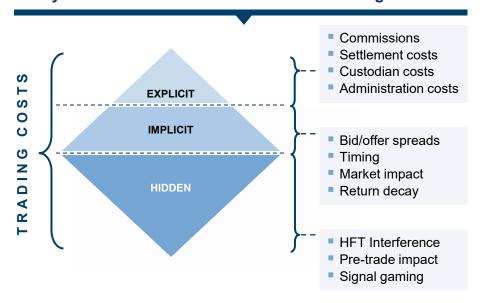
## Trading execution

In-house trading platform seeks to help protect clients' returns from hidden costs

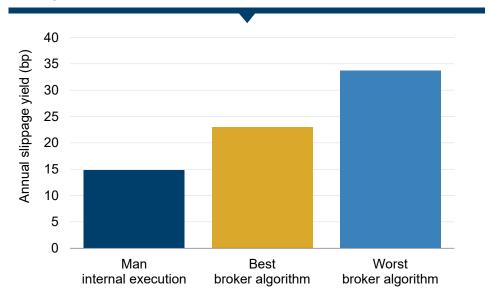


- Reactive models and active risk management only possible with efficient execution
- Man has three decades of experience in developing systematic trading methodologies
- Institutional scale helps sustain investment in in-house developed global execution
- Continuous R&D to improve platform and rigorous benchmarking with external brokers

#### Why execution matters: total cost of accessing a market



#### Example of Man's execution costs for futures markets in 2019<sup>1</sup>



<sup>1.</sup> The AHL slippage yields above are the realised annual costs to the programme during 2019 of electronically executed transactions. AHL executes a portion of its trades using broker algorithms for benchmarking purposes. The Best/Worst algo slippage numbers apply statistics derived from this portion of the flow to all electronically executed trades. A weighted average of equities, commodities and fixed income is used.

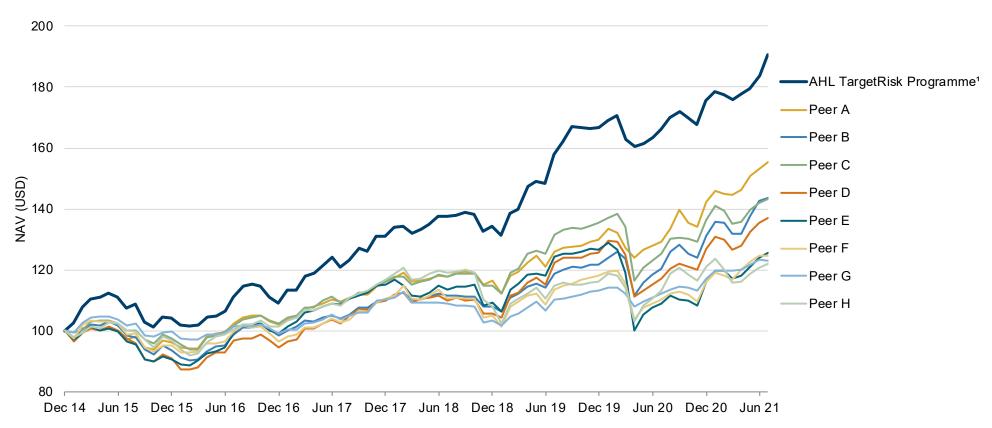
Any descriptions or information involving investment process or strategies is provided for illustration purposes only, may not be fully indicative of any present or future investments, may be changed in the discretion of the investment manager and are not intended to reflect performance. See Important Information at the beginning of this document.

Source: Man Group Database.

## AHL TargetRisk Programme comparative performance:

11 December 2014 to 30 June 2021





Past performance is not indicative of future results. Returns may increase or decrease as a result of currency fluctuations.

Please note that performance data for third party funds has been sourced from Bloomberg as at 30 June 2021. Performance data is displayed net of fees which may be higher or lower than the fee load applied to AHL TargetRisk Programme. AHL does not have access to records or data that form the basis for or demonstrate the calculation of the performance data. Performance shown is of the constituents of the HFR Risk Parity 10vol index that have live track records of the same length or longer than TargetRisk – nothing else has been excluded. For more information on the constituents please visit <a href="https://www.hedgefundresearch.com/hfr-risk-parity-indices%E2%84%A2-index-descriptions">https://www.hedgefundresearch.com/hfr-risk-parity-indices%E2%84%A2-index-descriptions</a>. The performance data is shown to illustrate differences in the performance of the selected third party strategies between 11 December 2014 (inception of AHL Target Risk Programme) and 30 June 2021. The investment objectives, risk limits and/or regulatory investment limits applied to any of the strategies to which third party performance data relates, may be materially different to those applied to AHL TargetRisk Programme and therefore the performance data is not intended to provide a direct comparison of performance. Further information in relation to the content of this slide is available upon request.

1. The data is based on a representative investment product or products that fully invest in the Programme. Performance is net of example fees and service cost of 0.95% in USD. Source: Bloomberg and Man Group database.

## AHL TargetRisk Programme comparative performance (USD):

11 December 2014 to 30 June 2021



11 December 2014 to 30 June 2021 (monthly data)	AHL TargetRisk Programme <sup>1</sup>	Peer A	Peer B	Peer C	Peer D	Peer E	Peer F	Peer G	Peer H
Total return	90.5%	55.4%	43.7%	43.4%	37.0%	25.6%	24.7%	23.1%	21.9%
Annualised return	10.3%	7.0%	5.7%	5.7%	4.9%	3.5%	3.4%	3.2%	3.1%
Annualised volatility	8.0%	7.0%	8.0%	8.5%	9.2%	10.4%	8.8%	5.5%	9.0%
Worst drawdown	-9.8%	-7.7%	-12.5%	-15.8%	-14.2%	-22.3%	-13.5%	-9.7%	-15.3%
Sharpe ratio <sup>2</sup>	1.14	0.82	0.56	0.52	0.41	0.23	0.25	0.37	0.21
Year to date	6.7%	6.5%	5.9%	1.8%	4.7%	5.0%	4.7%	2.9%	-1.4%
Quarterly return	7.0%	6.4%	9.0%	5.7%	7.0%	6.5%	3.7%	2.5%	5.0%
Return for last 12 months	14.8%	20.2%	19.2%	14.5%	16.9%	15.3%	13.1%	9.8%	7.8%
Return for 2020	5.7%	9.5%	9.5%	2.8%	1.0%	-7.2%	-0.2%	4.7%	4.1%
Return for 2019	28.4%	18.9%	16.6%	22.1%	24.2%	21.2%	17.8%	12.1%	16.1%
Return for 2018	-1.9%	-4.5%	-5.1%	-4.7%	-6.8%	-8.9%	-9.2%	-8.2%	-13.9%
Return for 2017	18.0%	13.3%	11.8%	12.8%	16.0%	15.0%	13.8%	10.5%	14.8%
Return for 2016	11.5%	9.6%	9.8%	9.2%	10.4%	14.1%	5.5%	3.1%	10.2%
Return for 2015	-0.7%	-4.9%	-6.9%	-3.8%	-9.4%	-8.5%	-4.7%	-2.0%	-4.1%
Return for 2014 <sup>3</sup>	2.5%	-0.5%	-2.0%	-0.7%	-3.6%	-2.8%	-2.5%	-0.5%	-2.1%
Drawdown dates	Apr 15 to Sep 15	Feb 15 to Sep 15	Apr 15 to Jan 16	Jan 20 to Mar 20	Dec 19 to Mar 20	Dec 19 to present	Jan 20 to Mar 20	Jan 18 to Dec 18	Jan 18 to Dec 18
Drawdown recovery (months)	10	9	13	9	9	N/A	12	10	23
Sortino ratio	2.07	1.40	0.83	0.72	0.58	0.29	0.35	0.51	0.28
Correlation to AHL TargetRisk Programme	1.00	0.80	0.73	0.72	0.76	0.69	0.78	0.83	0.69

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Please note that performance data for third party funds has been sourced from Bloomberg as at 30 June 2021. Performance data is displayed net of fees which may be higher or lower than the fee load applied to AHL TargetRisk Programme. AHL does not have access to records or data that form the basis for or demonstrate the calculation of the performance data. Performance shown is of the constituents of the HFR Risk Parity 10vol index that have live track records of the same length or longer than TargetRisk – nothing else has been excluded. For more information on the constituents please visit <a href="https://www.hedgefundresearch.com/hfr-risk-parity-indices%E2%84%A2-index-descriptions">https://www.hedgefundresearch.com/hfr-risk-parity-indices%E2%84%A2-index-descriptions</a>. The performance data is shown to illustrate differences in the performance of the selected third party strategies between 11 December 2014 (inception of AHL Target Risk Programme) and 30 June 2021. The investment objectives, risk limits and/or regulatory investment limits applied to any of the strategies to which third party performance data relates, may be materially different to those applied to AHL TargetRisk Programme and therefore the performance data is not intended to provide a direct comparison of performance. Further information in relation to the content of this slide is available upon request. 1. The data is based on a representative investment product or products that fully invest in the Programme. Performance is net of example fees and service cost of 0.95% in USD. 2. Sharpe ratio is a measure of risk-adjusted performance that indicates the level of excess return per unit of risk. It is calculated using the risk-free rate (3 month interbank rate) in the appropriate currency over the period analysed. Where an investment has underperformed the risk-free rate, the Sharpe ratio will be negative. As the Sharpe ratio is an absolute measure of risk-adjusted return, negative Sharpe ratios can be misleading and are therefore shown as n/a.



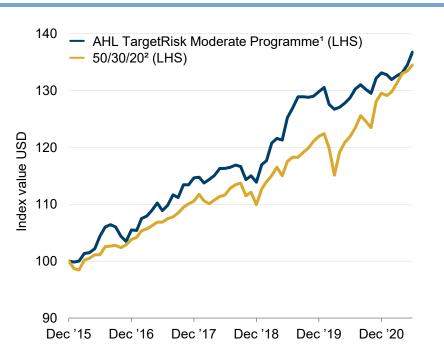
**Appendix** 

## AHL TargetRisk Moderate Programme<sup>1</sup>

Simulated performance for the last five calendar years



Annual



1 January 2016 to 30 June 2021	AHL TargetRisk Moderate Programme <sup>1</sup>	50/30/20 <sup>2</sup>
Total return	36.8%	34.5%
Annualised return	5.9%	5.5%
Annualised volatility	3.7%	4.1%
Sharpe ratio <sup>3</sup>	1.21	1.02
Sortino ratio	2.29	1.58
Correlation	1.00	0.62

													Ailiidai	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	return	50/30/20 <sup>2</sup>
2021	-0.3%	-0.6%	0.5%	0.4%	1.0%	1.7%							2.7%⁴	3.8%4
2020	0.6%	-2.3%	-0.7%	0.3%	0.6%	0.7%	1.2%	0.6%	-0.6%	-0.5%	2.1%	0.7%	2.6%	6.2%
2019	2.7%	0.6%	2.7%	0.7%	-0.2%	3.2%	1.4%	1.6%	0.0%	-0.1%	0.2%	0.6%	14.0%	11.0%
2018	0.1%	-0.9%	0.5%	0.6%	1.1%	0.0%	0.2%	0.3%	-0.2%	-2.0%	0.6%	-1.0%	-0.7%	-0.6%
2017	-0.1%	2.0%	0.4%	0.9%	1.2%	-1.2%	0.9%	1.7%	-0.4%	2.0%	0.0%	1.1%	8.7%	6.5%
2016	-0.2%	0.2%	1.3%	0.1%	0.7%	2.1%	1.6%	0.4%	-0.4%	-1.5%	-0.9%	2.0%	5.5%	3.8%

Simulated performance is not indicative of future results. Returns may increase or decrease as a result of currency fluctuations.

The performance, volatility, exposure and/or other information on the AHL TargetRisk Moderate Programme is simulated. The simulation has been created by 'back testing' a systematic trading model to historic data. The synthetic track record is subject to change without notice as models develop over time. The performance results provided herein were based on simulations with trading costs estimated using internal slippage models. TargetRisk Moderate Programme is net of estimated fees and service cost of 0.80%. This approach has inherent limitations, including that results may not reflect the impact material economic and market factors might have had on the investment manager's decision-making had the strategy been managed throughout the period over which the simulated performance is illustrated. The simulated performance is shown for comparison purposes and has been adjusted for fees and costs in order to better represent the fee and cost structure of an example fund and since the trades have not been executed, the published results may have under-or-over compensated for the impact, if any, of certain market factors, such as lack of liquidity. 2. 50/30/20 Portfolio is based on 50% BofA Merrill Lynch US 3-Month Treasury Bill Index, 30% MSCI World Net Total Return and 20% Barclay Capital Global Aggregate Bond index rebalanced monthly. The composite is an appropriate benchmark for the programme for performance comparison purposes. 3. Sharpe ratio is a measure of risk-adjusted performance that indicates the level of excess return per unit of risk. It is calculated using the risk-free rate (3 month interbank rate) in the appropriate currency over the period analysed. Where an investment has underperformed the risk-free rate, the Sharpe ratio will be negative. As the Sharpe ratio is an absolute measure of risk-adjusted return, negative Sharpe ratios can be misleading and are therefore shown as n/a. 4. Part year. Source: Man Group database and Bloomberg.

## Performance comparison

Simulation (net of fees)



#### 31 December 1994 to 31 March 2021

Source: Man Group database, MSCI and Bloomberg.

		60/40 portfolio <sup>1</sup>	Simple multi-asset <sup>1</sup>		Add risk management overlays: AHL TargetRisk Programme <sup>2</sup>
Sharpe ratio <sup>3</sup>	<b>&gt;</b>	0.57	0.81	>	1.09
Sortino ratio	<b>&gt;</b>	0.82	1.24	>	1.91
Maximum drawdown	<b>&gt;</b>	-32.1%	-19.9%	<b>&gt;</b>	-20.0%
Skewness	<b>&gt;</b>	-0.76	-0.74		-0.17
Annualised return	>	7.5%	10.7%	>	13.7% (simulated performance)

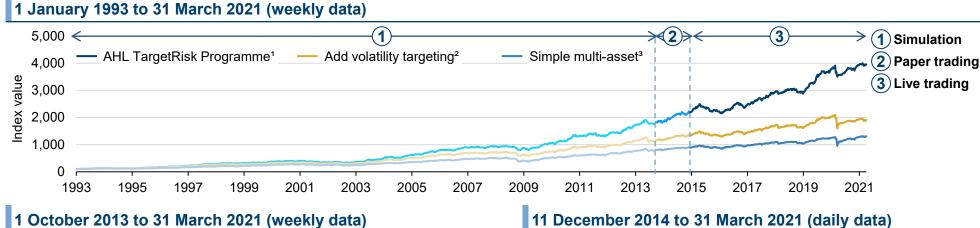
Simulated past performance is not indicative of future results. Returns may increase or decrease as a result of currency fluctuations.

<sup>1. 60/40</sup> portfolio is represented by monthly rebalancing of 60% MSCI World Net Total Return Index and 40% of Barclays Capital Global Aggregate Bond Index hedged to USD. Simple multi-asset is represented with the same volatility targeting and the same asset class allocation as AHL TargetRisk Programme. Simple multi-asset uses annual rebalancing with a three year volatility look back and is adjusted for the same fees as AHL TargetRisk Programme. 2. The performance, volatility, exposure and/or other information on the AHL TargetRisk Programme is simulated. The simulation has been created by 'back testing' a systematic trading model to historic data. The synthetic track record is subject to change without notice as models develop over time. The performance results provided herein were based on simulations with trading costs estimated using internal slippage models. This approach has inherent limitations, including that results may not reflect the impact material economic and market factors might have had on the investment manager's decision-making had the strategy been managed throughout the period over which the simulated performance is illustrated. The simulated performance is shown for comparison purposes and has been adjusted for fees and costs in order to better represent the fee and cost structure of an example fund and since the trades have not been executed, the published results may have under-or-over compensated for the impact, if any, of certain market factors, such as lack of liquidity. 3. Sharpe ratio is a measure of risk-adjusted performance that indicates the level of excess return per unit of risk. It is calculated using the risk-free rate (3 month interbank rate) in the appropriate currency over the period analysed. Where an investment has underperformed the risk-free rate, the Sharpe ratio will be negative. As the Sharpe ratio is an absolute measure of risk-adjusted return, negative Sharpe ratios can be misleading and are therefore shown as n/a.

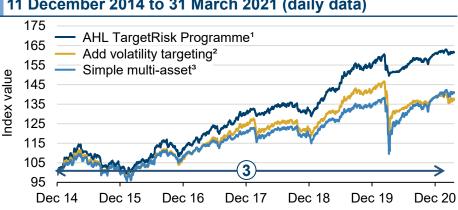
## Overlays adding value











Simulated past performance is not indicative of future results. Returns may increase or decrease as a result of currency fluctuations.

<sup>1.</sup> The performance, volatility, exposure and/or other information on the AHL TargetRisk Programme is simulated. The simulation has been created by 'back testing' a systematic trading model to historic data. The synthetic track record is subject to change without notice as models develop over time. The performance results provided herein were based on simulations with trading costs estimated using internal slippage models. This approach has inherent limitations, including that results may not reflect the impact material economic and market factors might have had on the investment manager's decision-making had the strategy been managed throughout the period over which the simulated performance is illustrated. The simulated performance is shown for comparison purposes and has not been adjusted for fees and costs and since the trades have not been executed, the published results may have under-or-over compensated for the impact, if any, of certain market factors, such as lack of liquidity. 2. Volatility targeting uses daily rebalancing and is normalised for volatility. 3. Simple multi-asset is represented with the same volatility targeting and the same asset class allocation as AHL TargetRisk Programme. Simple multi-asset uses annual rebalancing with a three year volatility look back. Source: Man Group database.

# Seeking to mitigate the risks of a bond-driven sell off Intraday correlation monitor



#### Detecting a bond-driven sell off

- 1 Sharp sell-off in Bonds
- (2) Increasingly positive correlation between Bonds and Equities

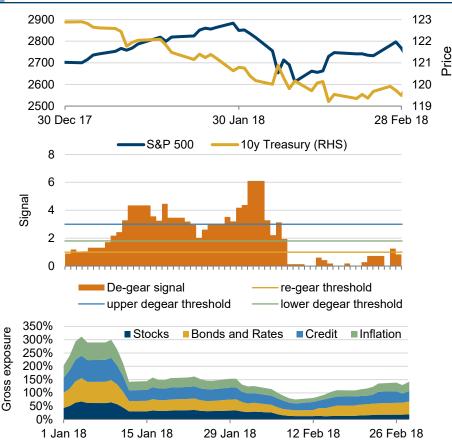
#### **Conditions normalize:**

3 Correlations start to fall and bond prices stabilize

#### Sensible risk control

- We have a risk management system in place which has been designed with the aim to detect the start of a bond-driven sell off which uses intraday data to monitor bonds/equities correlation
- Based on 'HEAVY' model<sup>1</sup> which was developed in collaboration with University of Oxford
- Triggers 'alarm signal' when normal hedge relationship collapses, and yields rise. Cuts portfolio exposure by 50%, re-enters when conditions normalise

#### Case study: January/February 2018 Sell-Off

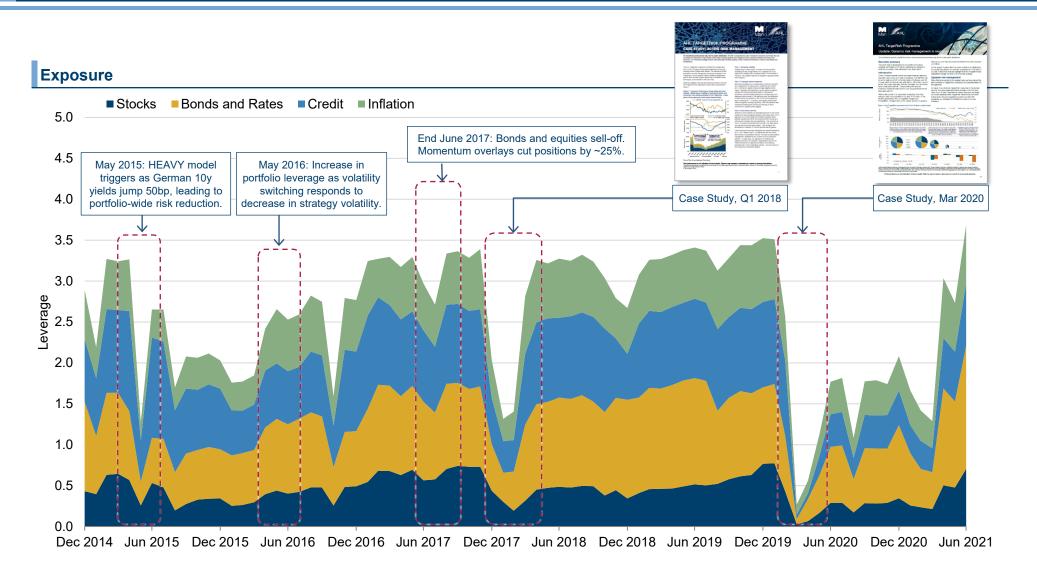


<sup>1.</sup> Noureldin, D., Shephard, N., Sheppard, K. (2011): Multivariate High-Frequency-Based Volatility (HEAVY) Models, Journal of Applied Econometrics.

## AHL TargetRisk Programme Tactical Asset Allocation

Systematic methodologies reduce exposure to asset classes

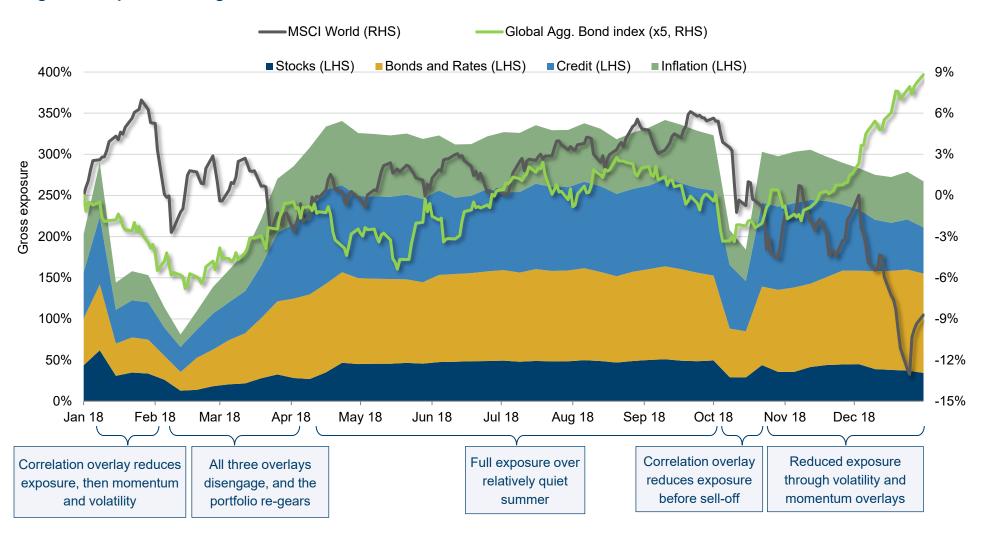




## Case study: AHL TargetRisk Programme – 2018



#### TargetRisk exposure during 2018



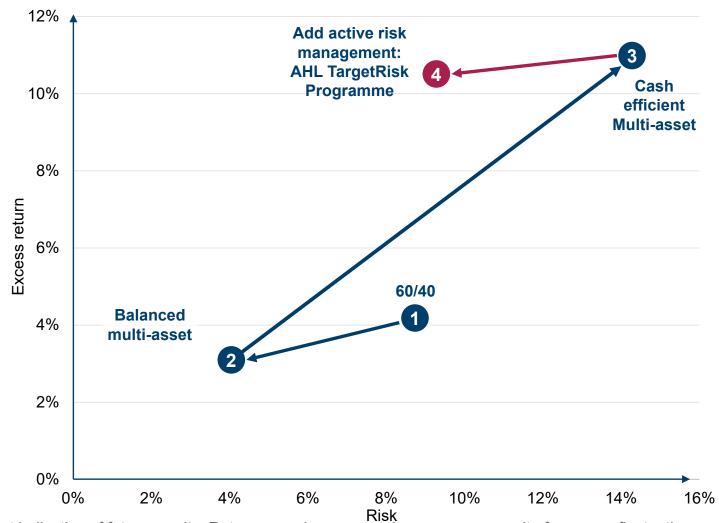
Data as at 31 December 2018. The period selected is exceptional and is not representative of typical performance. Certain indices/measures mentioned on this page have been provided for information purposes only. They are intended to provide a market backdrop. Unless indicated otherwise, the investment process of the Programme is independent of these indices/measures. MSCI World index: MSCI World Net Total Return index (hedged to USD). Global Agg. Bond index: Bloomberg Barclays Global Aggregate Bond Index (hedged to USD).

## From 60/40 to a dynamic multi-asset portfolio

Using the simulated performance comparison



- 1. Traditional portfolio
- 2. Add diversification
- 3. Add cash efficiency
- 4. Actively manage risks



Simulated past performance is not indicative of future results. Returns may increase or decrease as a result of currency fluctuations.

For illustrative purposes only. Performance has been created by selecting example portfolios from representative investment strategies. The allocations are applied retrospectively over the period to provide an illustration of what the performance of the portfolio would have been if that particular portfolio combination had existed. The performance data is simulated to this extent and does not represent the actual performance of an investment strategy and is shown for information purposes only. Performance for the various example portfolios has been derived from the simulated track record of the underlying components of the AHL TargetRisk Programme, scaled to the same initial investment value and adjusted accordingly: 60/40 portfolio uses just the bond and equity components of the Programme; Balanced multi-asset uses the same components as the Programme, without leverage and with static exposure; Cash efficient multi-asset is Balanced multi-asset with leverage. Performance is calculated in USD, from 1 Jan 1995 to 31 Dec 2018. Investment product charges have not been applied. Calculations are available upon request. Source: Man Group Database.

## Leverage does not equal Risk

Global Financial Crisis ('GFC') – 2008/2009

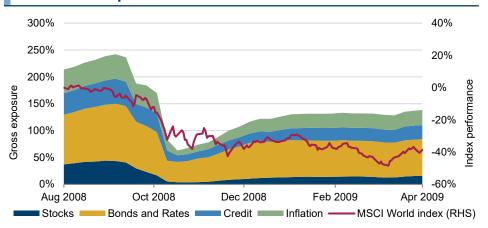


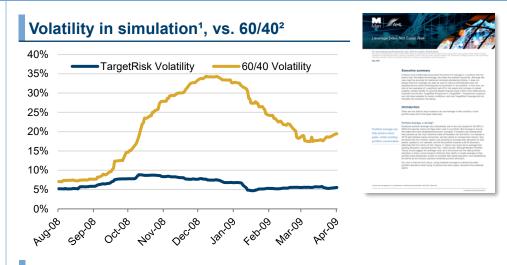
- TargetRisk allocates across asset classes, gaining diversification relative to 60/40
  - This diversification mitigates risk, but decreases returns
- TargetRisk utilizes leverage to obtain similar levels of portfolio volatility as unlevered 60/40

#### Key question: Is this leverage justified?

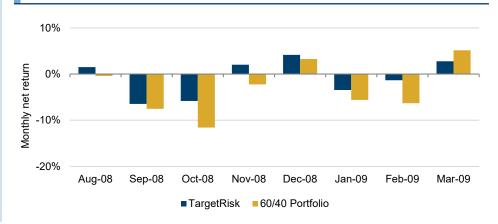
- Yes. During COVID-19 crisis, sell-off in Q1 2018, and GFC in 2008 (simulated, below), TargetRisk outperformed unlevered 60/40
- Why? Diversification and the risk overlays seek to mitigate risk

#### GFC 2008: Exposure in simulation





#### Performance in simulation<sup>1</sup>, vs. 60/40<sup>2</sup>



Simulated performance is not indicative of future results. Returns may increase or decrease as a result of currency fluctuations.

1. The strategy performance data is simulated and is shown for information purposes only. The simulated data does not represent actual performance of the strategy or of a fund and it should not be used as a guide to the future. This approach has inherent limitations, including that results may not reflect the impact material economic and market factors might have had on the investment manager's decision-making and/or the application of any trading models had the strategy been managed throughout the period over which the simulated performance is illustrated. The above example is intended as an illustration of typical investment considerations and strategy implementation. It should not be construed as indicative of potential performance of a fund or strategy or of any investment made by a fund or strategy. An example fee load of 0.95% management fee has been applied. 2. A 60/40 composite index made of 60% MSCI World Net Total Return index and 40% Barclays Capital Global Aggregate bond index (hedged to USD) is the official benchmark for this strategy. This benchmark is used for performance comparisons purposes.

All returns are net of fees. The periods selected are exceptional and the results do not reflect typical performance. Certain indices/measures mentioned on this page have been provided for information purposes only. They are intended to provide a market backdrop. Unless indicated otherwise, the investment process of the Programme is independent of these indices/measures. Source Man Group.

# Leverage does not equal Risk covid-19 crisis, Q1 2020

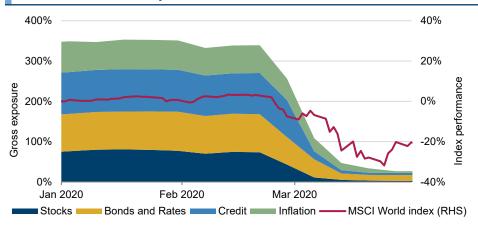


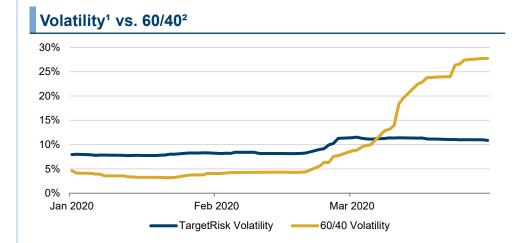
- TargetRisk allocates across asset classes, gaining diversification relative to 60/40
  - This diversification mitigates risk, but decreases returns
- TargetRisk utilizes leverage to obtain similar levels of portfolio volatility as unlevered 60/40

#### Key question: Is this leverage justified?

- Yes. During COVID-19 crisis (simulated, below), sell-off in Q1 2018, and GFC in 2008, TargetRisk outperformed unlevered 60/40
- Why? Diversification and the risk overlays seek to mitigate risk

#### Covid-19 crisis: Exposure





#### Performance<sup>1</sup> vs. 60/40<sup>2</sup>



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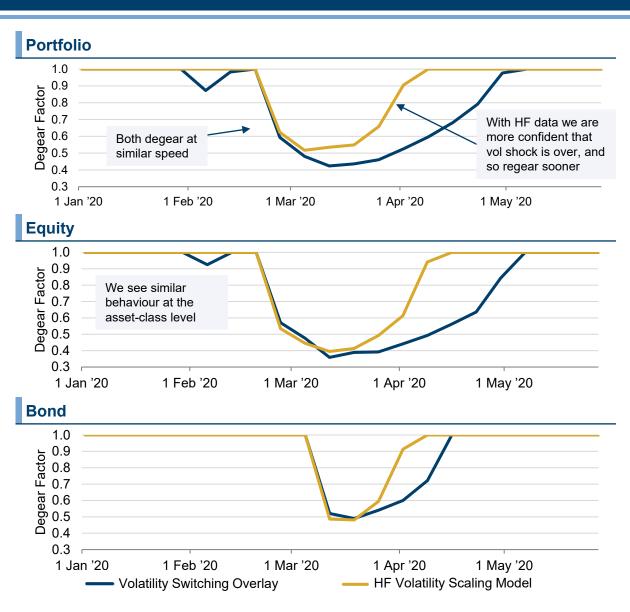
<sup>1.</sup> Please note that the performance data is not intended to represent actual past or simulated past performance of an investment product. The data is based on a representative investment product or products that fully invest in the Programme. TargetRisk Programme is net of estimated fees and service cost of 0.95% in USD. 2. A 60/40 composite index made of 60% MSCI World Net Total Return index and 40% Barclays Capital Global Aggregate bond index (hedged to USD) is the official benchmark for this strategy. This benchmark is used for performance comparisons purposes.

# Volatility switching simulations COVID-19 pandemic



## Incorporating high frequency (HF) data in portfolio construction and volatility switching

- Simulations of AHL TargetRisk Core Programme¹
  - Just focusing on dynamic risk parity and volatility switching
  - Some features and risk overlays have been disabled to focus on impact of HF data
- The blue line uses only daily data while the yellow line uses daily data and HF data
- With HF data as an addition to our existing volatility switching overlay:
  - We believe we can be as reactive in degear
  - We believe we can regear faster because we infer the end of the volatility shock sooner

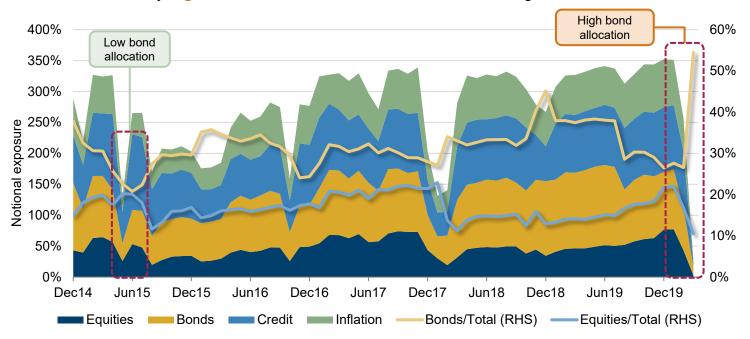


## Outstanding question: Bonds

What happens if bonds sell-off from here?



- Asset class allocations are determined by a core allocation modulated by three risk management overlays
- This means allocations adapt to the market environment
  - We saw relatively low allocations to bonds in 2015 when fixed income sold off
  - We saw relatively high allocations to bonds in March 2020 at the height of the Covid-19 scare



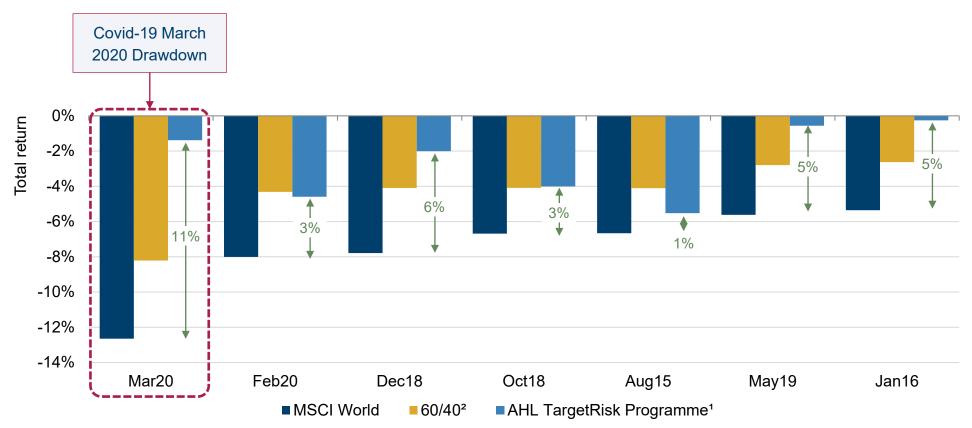
- In a scenario where yields steadily rise in the future we believe, all else equal
  - Declining prices might lead to the momentum overlay taking off risk in fixed income
  - There is more likelihood of the correlation overlay reducing risk, as declining bond prices is a pre-condition



## TargetRisk's risk models have helped mitigate drawdowns



#### AHL TargetRisk in months where the MSCI World lost more than 5%



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<sup>1.</sup> The data is based on a representative investment product or products that fully invest in the Programme. TargetRisk Programme is net of estimated fees and service cost of 0.95% in USD.

<sup>2. 60/40</sup> Portfolio is based on 60% MSCI World Net Total Return (hedged to USD) and 40% Barclay Capital Global Aggregate Bond (hedged to USD) index rebalanced monthly. The composite is an appropriate benchmark for the programme for performance comparison purposes.

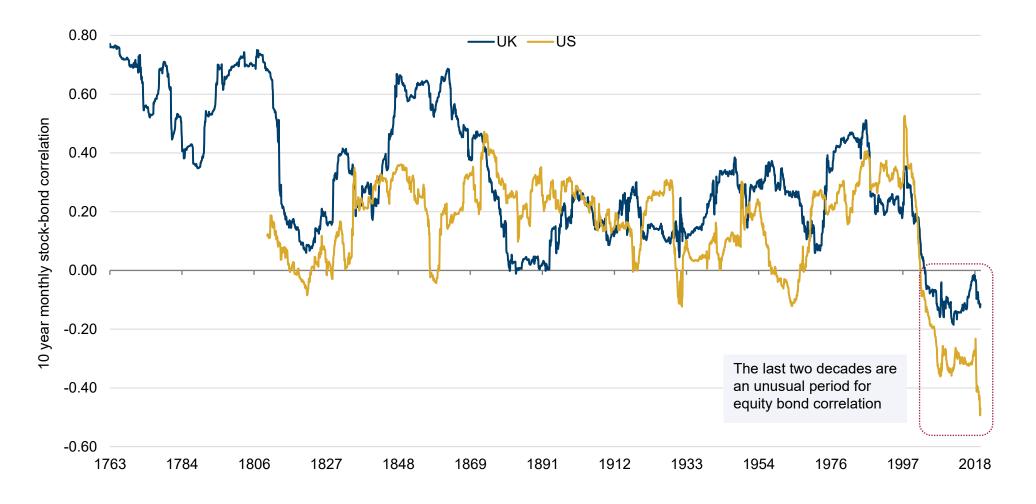
 $<sup>\</sup>ensuremath{\mathsf{MSCI}}$  World represented by  $\ensuremath{\mathsf{MSCI}}$  World Net Total Return (hedged to USD) .

The periods selected are exceptional and are not representative of typical performance. Certain indices/measures mentioned on this page have been provided for information purposes only. They are intended to provide a market backdrop. Unless indicated otherwise, the investment process of the Programme is independent of these indices/measures.

## UK and US Stock-Bond Correlations (1763–2020)



#### Stock-bond correlations are generally positive, despite the significant negative readings of the past two decades



### AHL TargetRisk Programme<sup>1</sup>

Simulated net monthly returns



Based on paper trading performance

Simulated performance

Dan   Feb   Mar   Apr   May   Jun   Jul   Aug   Sep   Oct   Nov   Dec   Peturn														<b>Annual</b>
2013         0.4%         1.5%         4.0%         3.5%         -1.8%         -3.3%         0.7%         -1.0%         3.5%         3.4%         0.1%         -1.1%         10.1%           2012         3.9%         1.7%         -0.7%         0.7%         -0.9%         0.8%         5.3%         1.6%         3.2%         -0.9%         4.0%         1.4%         21.8%           2011         -0.5%         2.7%         -0.7%         5.8%         0.2%         -1.7%         3.8%         -6.2%         -1.1%         2.1%         -1.5%         1.9%         4.2%           2010         -1.9%         1.9%         4.8%         3.0%         -1.7%         0.3%         4.2%         4.4%         5.3%         1.5%         -0.8%         1.4%         24.6%           2009         -3.5%         -1.4%         2.7%         1.2%         0.8%         0.7%         3.9%         2.6%         2.6%         0.4%         3.4%         -0.3%         1.4%         24.6%           2008         -1.5%         1.6%         -0.2%         0.7%         -1.9%         -1.5%         1.4%         2.6%         2.6%         0.4%         3.4%         0.4%         -1.0%           2007		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	return
2012         3.9%         1.7%         -0.7%         0.7%         -0.9%         0.8%         5.3%         1.6%         3.2%         -0.9%         4.0%         1.4%         21.8%           2011         -0.5%         2.7%         -0.7%         5.8%         0.2%         -1.7%         3.8%         -6.2%         -1.1%         2.1%         -1.5%         1.9%         4.2%           2010         -1.9%         1.9%         4.8%         3.0%         -1.7%         0.3%         4.2%         4.4%         5.3%         1.5%         -0.8%         1.4%         24.6%           2009         -3.5%         -1.4%         2.7%         1.2%         0.8%         0.7%         3.9%         2.6%         2.6%         0.4%         3.4%         -0.3%         13.6%           2008         -1.5%         1.6%         -0.2%         0.7%         -0.4%         -1.5%         -1.1%         1.4%         -6.1%         -5.6%         2.1%         4.1%         -7.0%           2007         -0.3%         1.8%         -1.3%         -2.7%         -1.9%         0.5%         2.4%         2.6%         0.3%         -0.7%         1.0%           2006         2.3%         -0.1%         -2.1% </th <th>2014</th> <th>0.3%</th> <th>5.1%</th> <th>0.1%</th> <th>2.3%</th> <th>3.6%</th> <th>1.8%</th> <th>-0.7%</th> <th>3.8%</th> <th>-2.7%</th> <th>0.4%</th> <th>4.4%</th> <th>0.1%</th> <th>19.8%</th>	2014	0.3%	5.1%	0.1%	2.3%	3.6%	1.8%	-0.7%	3.8%	-2.7%	0.4%	4.4%	0.1%	19.8%
2011         -0.5%         2.7%         -0.7%         5.8%         0.2%         -1.7%         3.8%         -6.2%         -1.1%         2.1%         -1.5%         1.9%         4.2%           2010         -1.9%         1.9%         4.8%         3.0%         -1.7%         0.3%         4.2%         4.4%         5.3%         1.5%         -0.8%         1.4%         24.6%           2009         -3.5%         -1.4%         2.7%         1.2%         0.8%         0.7%         3.9%         2.6%         2.6%         0.4%         3.4%         -0.3%         13.6%           2008         -1.5%         1.6%         -0.2%         0.7%         -0.4%         -1.5%         -1.1%         1.4%         -6.1%         -5.6%         2.1%         4.1%         -7.0%           2007         -0.3%         1.8%         -1.3%         1.8%         -1.3%         -2.7%         -1.9%         0.5%         2.4%         2.6%         0.3%         -0.7%         1.0%           2006         2.3%         -1.0%         -0.2%         0.7%         -1.9%         -0.4%         2.4%         3.8%         0.4%         2.3%         1.8%         -1.4%         8.9%           2005         0.2% </th <th>2013</th> <th>0.4%</th> <th>1.5%</th> <th>4.0%</th> <th>3.5%</th> <th>-1.8%</th> <th>-3.3%</th> <th>0.7%</th> <th>-1.0%</th> <th>3.5%</th> <th>3.4%</th> <th>0.1%</th> <th>-1.1%</th> <th>10.1%</th>	2013	0.4%	1.5%	4.0%	3.5%	-1.8%	-3.3%	0.7%	-1.0%	3.5%	3.4%	0.1%	-1.1%	10.1%
2010         -1.9%         1.9%         4.8%         3.0%         -1.7%         0.3%         4.2%         4.4%         5.3%         1.5%         -0.8%         1.4%         24.6%           2009         -3.5%         -1.4%         2.7%         1.2%         0.8%         0.7%         3.9%         2.6%         2.6%         0.4%         3.4%         -0.3%         13.6%           2008         -1.5%         1.6%         -0.2%         0.7%         -0.4%         -1.5%         -1.1%         1.4%         -6.1%         -5.6%         2.1%         4.1%         -7.0%           2007         -0.3%         1.8%         -1.3%         1.8%         -1.3%         -2.7%         -1.9%         0.5%         2.4%         2.6%         0.3%         -0.7%         1.0%           2006         2.3%         -1.0%         -0.2%         0.7%         -1.4%         3.9%         3.0%         3.7%         2.3%         -4.8%         3.2%         4.3%         21.5%           2005         0.2%         1.8%         -0.1%         -2.1%         4.7%         3.9%         3.0%         3.7%         2.3%         -4.8%         3.2%         4.3%         21.5%           2004         2.5% <th>2012</th> <th>3.9%</th> <th>1.7%</th> <th>-0.7%</th> <th>0.7%</th> <th>-0.9%</th> <th>0.8%</th> <th>5.3%</th> <th>1.6%</th> <th>3.2%</th> <th>-0.9%</th> <th>4.0%</th> <th>1.4%</th> <th>21.8%</th>	2012	3.9%	1.7%	-0.7%	0.7%	-0.9%	0.8%	5.3%	1.6%	3.2%	-0.9%	4.0%	1.4%	21.8%
2009         -3.5%         -1.4%         2.7%         1.2%         0.8%         0.7%         3.9%         2.6%         2.6%         0.4%         3.4%         -0.3%         13.6%           2008         -1.5%         1.6%         -0.2%         0.7%         -0.4%         -1.5%         -1.1%         1.4%         -6.1%         -5.6%         2.1%         4.1%         -7.0%           2007         -0.3%         1.8%         -1.3%         1.8%         -1.3%         -2.7%         -1.9%         0.5%         2.4%         2.6%         0.3%         -0.7%         1.0%           2006         2.3%         -1.0%         -0.2%         0.7%         -1.9%         -0.4%         2.4%         3.8%         0.4%         2.3%         1.8%         -1.4%         8.9%           2005         0.2%         1.8%         -0.1%         -2.1%         4.7%         3.9%         3.0%         3.7%         2.3%         -4.8%         3.2%         4.3%         21.5%           2004         2.5%         3.9%         -0.1%         -3.3%         -0.9%         0.6%         -0.6%         2.7%         4.6%         3.1%         3.9%         3.0%         21.5%           2003         1.8% <th>2011</th> <th>-0.5%</th> <th>2.7%</th> <th>-0.7%</th> <th>5.8%</th> <th>0.2%</th> <th>-1.7%</th> <th>3.8%</th> <th>-6.2%</th> <th>-1.1%</th> <th>2.1%</th> <th>-1.5%</th> <th>1.9%</th> <th>4.2%</th>	2011	-0.5%	2.7%	-0.7%	5.8%	0.2%	-1.7%	3.8%	-6.2%	-1.1%	2.1%	-1.5%	1.9%	4.2%
2008         -1.5%         1.6%         -0.2%         0.7%         -0.4%         -1.5%         -1.1%         1.4%         -6.1%         -5.6%         2.1%         4.1%         -7.0%           2007         -0.3%         1.8%         -1.3%         1.8%         -1.3%         -2.7%         -1.9%         0.5%         2.4%         2.6%         0.3%         -0.7%         1.0%           2006         2.3%         -1.0%         -0.2%         0.7%         -1.9%         -0.4%         2.4%         3.8%         0.4%         2.3%         1.8%         -1.4%         8.9%           2005         0.2%         1.8%         -0.1%         -2.1%         4.7%         3.9%         3.0%         3.7%         2.3%         -4.8%         3.2%         4.3%         21.5%           2004         2.5%         3.9%         -0.1%         -3.3%         -0.9%         0.6%         -0.6%         2.7%         4.6%         3.1%         3.9%         3.0%         21.5%           2003         1.8%         2.9%         -1.8%         -5.3%         -2.4%         1.7%         -0.9%         0.5%         2.8%         1.8%         -1.9%           2001         2.8%         -4.0%         -2.6%	2010	-1.9%	1.9%	4.8%	3.0%	-1.7%	0.3%	4.2%	4.4%	5.3%	1.5%	-0.8%	1.4%	24.6%
2007         -0.3%         1.8%         -1.3%         1.8%         -1.3%         -2.7%         -1.9%         0.5%         2.4%         2.6%         0.3%         -0.7%         1.0%           2006         2.3%         -1.0%         -0.2%         0.7%         -1.9%         -0.4%         2.4%         3.8%         0.4%         2.3%         1.8%         -1.4%         8.9%           2005         0.2%         1.8%         -0.1%         -2.1%         4.7%         3.9%         3.0%         3.7%         2.3%         -4.8%         3.2%         4.3%         21.5%           2004         2.5%         3.9%         -0.1%         -3.3%         -0.9%         0.6%         -0.6%         2.7%         4.6%         3.1%         3.9%         3.0%         21.0%           2003         1.8%         2.9%         -1.8%         4.8%         7.6%         0.3%         -0.8%         1.1%         -0.4%         3.7%         1.3%         8.3%         32.5%           2002         -1.4%         0.4%         3.6%         -0.5%         -1.8%         -5.3%         -2.4%         1.7%         -0.9%         0.5%         2.8%         1.8%         -1.9%         2.9%         1.1%         -0.9%	2009	-3.5%	-1.4%	2.7%	1.2%	0.8%	0.7%	3.9%	2.6%	2.6%	0.4%	3.4%	-0.3%	13.6%
2006         2.3%         -1.0%         -0.2%         0.7%         -1.9%         -0.4%         2.4%         3.8%         0.4%         2.3%         1.8%         -1.4%         8.9%           2005         0.2%         1.8%         -0.1%         -2.1%         4.7%         3.9%         3.0%         3.7%         2.3%         -4.8%         3.2%         4.3%         21.5%           2004         2.5%         3.9%         -0.1%         -3.3%         -0.9%         0.6%         -0.6%         2.7%         4.6%         3.1%         3.9%         3.0%         21.0%           2003         1.8%         2.9%         -1.8%         4.8%         7.6%         0.3%         -0.8%         1.1%         -0.4%         3.7%         1.3%         8.3%         32.5%           2002         -1.4%         0.4%         3.6%         -0.5%         -1.8%         -5.3%         -2.4%         1.7%         -0.9%         0.5%         2.8%         1.8%         -1.9%           2001         2.8%         -4.0%         -2.6%         0.4%         -0.3%         -2.9%         1.5%         -1.7%         -7.0%         3.9%         1.6%         -1.2%         -9.9%           2001         -3.8%<	2008	-1.5%	1.6%	-0.2%	0.7%	-0.4%	-1.5%	-1.1%	1.4%	-6.1%	-5.6%	2.1%	4.1%	-7.0%
2005         0.2%         1.8%         -0.1%         -2.1%         4.7%         3.9%         3.0%         3.7%         2.3%         -4.8%         3.2%         4.3%         21.5%           2004         2.5%         3.9%         -0.1%         -3.3%         -0.9%         0.6%         -0.6%         2.7%         4.6%         3.1%         3.9%         3.0%         21.0%           2003         1.8%         2.9%         -1.8%         4.8%         7.6%         0.3%         -0.8%         1.1%         -0.4%         3.7%         1.3%         8.3%         32.5%           2002         -1.4%         0.4%         3.6%         -0.5%         -1.8%         -5.3%         -2.4%         1.7%         -0.9%         0.5%         2.8%         1.8%         -1.9%           2001         2.8%         -4.0%         -2.6%         0.4%         -0.3%         -2.9%         1.5%         -1.7%         -7.0%         3.9%         1.6%         -1.2%         -9.9%           2000         -3.8%         2.7%         2.5%         0.2%         2.5%         -0.9%         2.8%         -1.7%         -2.0%         1.1%         1.9%         1.5%           1999         2.6%         -3.1% </th <th>2007</th> <th>-0.3%</th> <th>1.8%</th> <th>-1.3%</th> <th>1.8%</th> <th>-1.3%</th> <th>-2.7%</th> <th>-1.9%</th> <th>0.5%</th> <th>2.4%</th> <th>2.6%</th> <th>0.3%</th> <th>-0.7%</th> <th>1.0%</th>	2007	-0.3%	1.8%	-1.3%	1.8%	-1.3%	-2.7%	-1.9%	0.5%	2.4%	2.6%	0.3%	-0.7%	1.0%
2004         2.5%         3.9%         -0.1%         -3.3%         -0.9%         0.6%         -0.6%         2.7%         4.6%         3.1%         3.9%         3.0%         21.0%           2003         1.8%         2.9%         -1.8%         4.8%         7.6%         0.3%         -0.8%         1.1%         -0.4%         3.7%         1.3%         8.3%         32.5%           2002         -1.4%         0.4%         3.6%         -0.5%         -1.8%         -5.3%         -2.4%         1.7%         -0.9%         0.5%         2.8%         1.8%         -1.9%           2001         2.8%         -4.0%         -2.6%         0.4%         -0.3%         -2.9%         1.5%         -1.7%         -7.0%         3.9%         1.6%         -1.2%         -9.9%           2000         -3.8%         2.7%         2.5%         0.2%         2.5%         -0.9%         2.8%         -1.7%         -2.0%         1.1%         1.9%         1.5%           1999         2.6%         -3.1%         3.4%         3.9%         -4.3%         1.6%         -1.1%         1.0%         -0.2%         2.0%         3.6%         4.7%         14.5%           1998         5.4%         0.5% </th <th>2006</th> <th>2.3%</th> <th>-1.0%</th> <th>-0.2%</th> <th>0.7%</th> <th>-1.9%</th> <th>-0.4%</th> <th>2.4%</th> <th>3.8%</th> <th>0.4%</th> <th>2.3%</th> <th>1.8%</th> <th>-1.4%</th> <th>8.9%</th>	2006	2.3%	-1.0%	-0.2%	0.7%	-1.9%	-0.4%	2.4%	3.8%	0.4%	2.3%	1.8%	-1.4%	8.9%
2003         1.8%         2.9%         -1.8%         4.8%         7.6%         0.3%         -0.8%         1.1%         -0.4%         3.7%         1.3%         8.3%         32.5%           2002         -1.4%         0.4%         3.6%         -0.5%         -1.8%         -5.3%         -2.4%         1.7%         -0.9%         0.5%         2.8%         1.8%         -1.9%           2001         2.8%         -4.0%         -2.6%         0.4%         -0.3%         -2.9%         1.5%         -1.7%         -7.0%         3.9%         1.6%         -1.2%         -9.9%           2000         -3.8%         2.7%         2.5%         0.2%         2.5%         -0.9%         2.8%         -1.7%         -2.0%         1.1%         1.9%         1.5%           1999         2.6%         -3.1%         3.4%         3.9%         -4.3%         1.6%         -1.1%         1.0%         -0.2%         2.0%         3.6%         4.7%         14.5%           1998         5.4%         0.5%         2.9%         -1.1%         -0.4%         0.8%         0.1%         -5.6%         2.9%         -1.1%         2.9%         0.2%         7.3%           1997         4.2%         1.2% <th>2005</th> <th>0.2%</th> <th>1.8%</th> <th>-0.1%</th> <th>-2.1%</th> <th>4.7%</th> <th>3.9%</th> <th>3.0%</th> <th>3.7%</th> <th>2.3%</th> <th>-4.8%</th> <th>3.2%</th> <th>4.3%</th> <th>21.5%</th>	2005	0.2%	1.8%	-0.1%	-2.1%	4.7%	3.9%	3.0%	3.7%	2.3%	-4.8%	3.2%	4.3%	21.5%
2002         -1.4%         0.4%         3.6%         -0.5%         -1.8%         -5.3%         -2.4%         1.7%         -0.9%         0.5%         2.8%         1.8%         -1.9%           2001         2.8%         -4.0%         -2.6%         0.4%         -0.3%         -2.9%         1.5%         -1.7%         -7.0%         3.9%         1.6%         -1.2%         -9.9%           2000         -3.8%         2.7%         2.7%         -3.5%         0.2%         2.5%         -0.9%         2.8%         -1.7%         -2.0%         1.1%         1.9%         1.5%           1999         2.6%         -3.1%         3.4%         3.9%         -4.3%         1.6%         -1.1%         1.0%         -0.2%         2.0%         3.6%         4.7%         14.5%           1998         5.4%         0.5%         2.9%         -1.1%         -0.4%         0.8%         0.1%         -5.6%         2.9%         -1.1%         2.9%         0.2%         7.3%           1997         4.2%         1.2%         -1.9%         3.4%         4.6%         2.0%         8.1%         -4.0%         7.1%         -3.2%         -0.8%         0.9%         22.8%           1996         4.1%<	2004	2.5%	3.9%	-0.1%	-3.3%	-0.9%	0.6%	-0.6%	2.7%	4.6%	3.1%	3.9%	3.0%	21.0%
2001         2.8%         -4.0%         -2.6%         0.4%         -0.3%         -2.9%         1.5%         -1.7%         -7.0%         3.9%         1.6%         -1.2%         -9.9%           2000         -3.8%         2.7%         2.7%         -3.5%         0.2%         2.5%         -0.9%         2.8%         -1.7%         -2.0%         1.1%         1.9%         1.5%           1999         2.6%         -3.1%         3.4%         3.9%         -4.3%         1.6%         -1.1%         1.0%         -0.2%         2.0%         3.6%         4.7%         14.5%           1998         5.4%         0.5%         2.9%         -1.1%         -0.4%         0.8%         0.1%         -5.6%         2.9%         -1.1%         2.9%         0.2%         7.3%           1997         4.2%         1.2%         -1.9%         3.4%         4.6%         2.0%         8.1%         -4.0%         7.1%         -3.2%         -0.8%         0.9%         22.8%           1996         4.1%         -2.6%         1.3%         2.8%         0.8%         0.5%         -3.8%         1.6%         6.0%         2.1%         6.2%         -1.6%         18.1%           1995         -0.7% <th>2003</th> <th>1.8%</th> <th>2.9%</th> <th>-1.8%</th> <th>4.8%</th> <th>7.6%</th> <th>0.3%</th> <th>-0.8%</th> <th>1.1%</th> <th>-0.4%</th> <th>3.7%</th> <th>1.3%</th> <th>8.3%</th> <th>32.5%</th>	2003	1.8%	2.9%	-1.8%	4.8%	7.6%	0.3%	-0.8%	1.1%	-0.4%	3.7%	1.3%	8.3%	32.5%
2000         -3.8%         2.7%         2.7%         -3.5%         0.2%         2.5%         -0.9%         2.8%         -1.7%         -2.0%         1.1%         1.9%         1.5%           1999         2.6%         -3.1%         3.4%         3.9%         -4.3%         1.6%         -1.1%         1.0%         -0.2%         2.0%         3.6%         4.7%         14.5%           1998         5.4%         0.5%         2.9%         -1.1%         -0.4%         0.8%         0.1%         -5.6%         2.9%         -1.1%         2.9%         0.2%         7.3%           1997         4.2%         1.2%         -1.9%         3.4%         4.6%         2.0%         8.1%         -4.0%         7.1%         -3.2%         -0.8%         0.9%         22.8%           1996         4.1%         -2.6%         1.3%         2.8%         0.8%         0.5%         -3.8%         1.6%         6.0%         2.1%         6.2%         -1.6%         18.1%           1995         -0.7%         1.4%         4.0%         3.3%         4.1%         -1.5%         3.8%         0.9%         2.4%         1.3%         -0.5%         6.3%         2.9%         29.2%           1994	2002	-1.4%	0.4%	3.6%	-0.5%	-1.8%	-5.3%	-2.4%	1.7%	-0.9%	0.5%	2.8%	1.8%	-1.9%
1999       2.6%       -3.1%       3.4%       3.9%       -4.3%       1.6%       -1.1%       1.0%       -0.2%       2.0%       3.6%       4.7%       14.5%         1998       5.4%       0.5%       2.9%       -1.1%       -0.4%       0.8%       0.1%       -5.6%       2.9%       -1.1%       2.9%       0.2%       7.3%         1997       4.2%       1.2%       -1.9%       3.4%       4.6%       2.0%       8.1%       -4.0%       7.1%       -3.2%       -0.8%       0.9%       22.8%         1996       4.1%       -2.6%       1.3%       2.8%       0.8%       0.5%       -3.8%       1.6%       6.0%       2.1%       6.2%       -1.6%       18.1%         1995       -0.7%       1.4%       4.0%       3.3%       4.1%       -1.5%       3.8%       0.9%       2.1%       -0.5%       6.3%       2.9%       29.2%         1994       2.9%       -3.8%       -2.9%       0.1%       -0.7%       -1.5%       2.7%       0.9%       -2.4%       1.3%       -0.5%       0.2%       -3.9%	2001	2.8%	-4.0%	-2.6%	0.4%	-0.3%	-2.9%	1.5%	-1.7%	-7.0%	3.9%	1.6%	-1.2%	-9.9%
1998       5.4%       0.5%       2.9%       -1.1%       -0.4%       0.8%       0.1%       -5.6%       2.9%       -1.1%       2.9%       0.2%       7.3%         1997       4.2%       1.2%       -1.9%       3.4%       4.6%       2.0%       8.1%       -4.0%       7.1%       -3.2%       -0.8%       0.9%       22.8%         1996       4.1%       -2.6%       1.3%       2.8%       0.8%       0.5%       -3.8%       1.6%       6.0%       2.1%       6.2%       -1.6%       18.1%         1995       -0.7%       1.4%       4.0%       3.3%       4.1%       -1.5%       3.8%       0.9%       2.1%       -0.5%       6.3%       2.9%       29.2%         1994       2.9%       -3.8%       -2.9%       0.1%       -0.7%       -1.5%       2.7%       0.9%       -2.4%       1.3%       -0.5%       0.2%       -3.9%	2000	-3.8%	2.7%	2.7%	-3.5%	0.2%	2.5%	-0.9%	2.8%	-1.7%	-2.0%	1.1%	1.9%	1.5%
1997       4.2%       1.2%       -1.9%       3.4%       4.6%       2.0%       8.1%       -4.0%       7.1%       -3.2%       -0.8%       0.9%       22.8%         1996       4.1%       -2.6%       1.3%       2.8%       0.8%       0.5%       -3.8%       1.6%       6.0%       2.1%       6.2%       -1.6%       18.1%         1995       -0.7%       1.4%       4.0%       3.3%       4.1%       -1.5%       3.8%       0.9%       2.1%       -0.5%       6.3%       2.9%       29.2%         1994       2.9%       -3.8%       -2.9%       0.1%       -0.7%       -1.5%       2.7%       0.9%       -2.4%       1.3%       -0.5%       0.2%       -3.9%	1999	2.6%	-3.1%	3.4%	3.9%	-4.3%	1.6%	-1.1%	1.0%	-0.2%	2.0%	3.6%	4.7%	14.5%
1996       4.1%       -2.6%       1.3%       2.8%       0.8%       0.5%       -3.8%       1.6%       6.0%       2.1%       6.2%       -1.6%       18.1%         1995       -0.7%       1.4%       4.0%       3.3%       4.1%       -1.5%       3.8%       0.9%       2.1%       -0.5%       6.3%       2.9%       29.2%         1994       2.9%       -3.8%       -2.9%       0.1%       -0.7%       -1.5%       2.7%       0.9%       -2.4%       1.3%       -0.5%       0.2%       -3.9%	1998	5.4%	0.5%	2.9%	-1.1%	-0.4%	0.8%	0.1%	-5.6%	2.9%	-1.1%	2.9%	0.2%	7.3%
1995       -0.7%       1.4%       4.0%       3.3%       4.1%       -1.5%       3.8%       0.9%       2.1%       -0.5%       6.3%       2.9%       29.2%         1994       2.9%       -3.8%       -2.9%       0.1%       -0.7%       -1.5%       2.7%       0.9%       -2.4%       1.3%       -0.5%       0.2%       -3.9%	1997	4.2%	1.2%	-1.9%	3.4%	4.6%	2.0%	8.1%	-4.0%	7.1%	-3.2%	-0.8%	0.9%	22.8%
<b>1994</b> 2.9% -3.8% -2.9% 0.1% -0.7% -1.5% 2.7% 0.9% -2.4% 1.3% -0.5% 0.2% <b>-3.9%</b>	1996	4.1%	-2.6%	1.3%	2.8%	0.8%	0.5%	-3.8%	1.6%	6.0%	2.1%	6.2%	-1.6%	18.1%
	1995	-0.7%	1.4%	4.0%	3.3%	4.1%	-1.5%	3.8%	0.9%	2.1%	-0.5%	6.3%	2.9%	29.2%
	1994	2.9%	-3.8%	-2.9%	0.1%	-0.7%	-1.5%	2.7%	0.9%	-2.4%	1.3%	-0.5%	0.2%	-3.9%
<b>1993</b> 1.0% 3.7% 1.8% -0.2% 0.8% 3.4% 3.4% 6.7% -3.5% 5.0% -3.3% 4.1% <b>24.9%</b>	1993	1.0%	3.7%	1.8%	-0.2%	0.8%	3.4%	3.4%	6.7%	-3.5%	5.0%	-3.3%	4.1%	24.9%

Simulated past performance is not indicative of future results. Returns may increase or decrease as a result of currency fluctuations.

<sup>1.</sup> The performance, volatility, exposure and/or other information on the AHL TargetRisk Programme is simulated. The simulation has been created by 'back testing' a systematic trading model to historic data. The synthetic track record is subject to change without notice as models develop over time. The performance results provided herein were based on simulations with trading costs estimated using internal slippage models. TargetRisk Programme is net of estimated fees and service cost of 0.95%. This approach has inherent limitations, including that results may not reflect the impact material economic and market factors might have had on the investment manager's decision-making had the strategy been managed throughout the period over which the simulated performance is illustrated. The simulated performance is shown for comparison purposes and has been adjusted for fees and costs in order to better represent the fee and cost structure of an example fund and since the trades have not been executed, the published results may have under-or-over compensated for the impact, if any, of certain market factors, such as lack of liquidity. Paper trading is defined as the process whereby a systematic trading strategy is run in real time, generating trade orders as if live. However, these orders are not sent to the market, and instead fill prices are estimated using an internal cost model. It does not involve the running of a live fund, but unlike backtest it is not influenced by hindsight bias. 2. part year.

## Man Group's Commitment to Responsible Investment ('RI')

Upholding and promoting the highest standards of stewardship



#### Our approach

Our significant breadth of capabilities means that there is no single environmental, social and governance ('ESG') framework which can be applied uniformly across strategies. Each of our investment engines applies the best practices of responsible investment in the way that is most relevant to their fields of research – there is no 'one size fits all'.

#### **Stewardship**

Seeking to enhance the value and interests of our clients' assets through voting and active engagement

#### **ESG** factors

Considering and/or applying ESG criteria in the investment decision-making process

#### **Promotion & Education**

Participating, promoting & educating on responsible investment within the investment community

- Man Group is a proud signatory of the Principles for Responsible Investment and has long recognised how responsible investment is fundamental to the firm's fiduciary duty
- We maintain a Responsible Investment Committee and firm-wide responsible investment policies that support globally-recognised norms
- We strive to meet the evolving needs of our clients in the context of a rapidly changing regulatory environment
- ESG criteria are a key part of our stewardship responsibility, and we are committed to furthering the interests of our clients in this area
- We understand the importance of a robust infrastructure when it comes to investing responsibly

Schematic illustration. Any descriptions or information involving investment process or strategies is provided for illustration purposes only, may not be fully indicative of any present or future investments, may be changed at the discretion of the investment manager and are not intended to reflect performance.















## Man Group's RI Capabilities





We recognise that responsible investment is fundamental to our fiduciary duty. Sound stewardship is extremely important in managing investors' capital, and our approach to responsible investment closely aligns us with the values of our clients, shareholders, and other stakeholders.

Find out more: <a href="https://www.man.com/responsible-investment">https://www.man.com/responsible-investment</a>







**Man AHL** is one of the longest running systematic traders, bringing a scientific, empirical mind-set to investing. Man AHL has integrated RI into the investment process via a proprietary RI exclusion list. This list supports the exclusion of 4 areas across our single name universe, namely: controversial arms and munitions, nuclear weapons, tobacco and companies that derive over 50% of their revenue from coal production. In addition, we are looking at innovative new ways to incorporate RI into our systematic portfolios, such as investment in ESG friendly futures.







**Man Numeric** is a quantitative manager that employs systematic security-selection processes underpinned by a bottom-up, fundamental approach, offering long-only and alternative strategies across geographic regions.

Man Numeric's ESG integration is consistent with their existing investment philosophy: a principles-based approach that focuses on data and academic research rather than datamining factors. Man Numeric has the capabilities to adopt quantitative RI integration efforts at portfolio levels by assigning a proprietary developed ESG model in the alpha level. Using data science techniques, Man Numeric has created a fundamentally-based framework anchored by 15 key pillars representing E, S and G. Man Numeric believes that incorporating ESG signals will be a benefit to their portfolios going forward from both a risk and return perspective.







**Man GLG** is a discretionary investment manager that seeks to deliver absolute return and long-only investment strategies across asset classes, sectors and geographies.

Man GLG's product offering is highly diverse and, as such, the methods and approaches to RI integration vary between strategies while at a top-down level Man GLG focuses on empowering each investment team to incorporate RI in a way that is most relevant to their fields of research. Man GLG seeks to ensure that investment teams have the resources to analyse a company from both a financial and a non-financial perspective. Stewardship is core to Man GLG's philosophy as asset owners and investment teams are encouraged to engage with corporate management teams on relevant ESG issues and push for best practices.







Man Global Private Markets ('Man GPM') focuses on investment in less liquid assets, including real estate equity and debt, and specialty finance. Man GPM aspires to be a leader in integrating ESG and responsible investment ('RI') principles across its range of strategies. Man GPM strongly believe in the importance of delivering both financial and social returns through its real estate equity strategies; seeking to make a positive social impact by delivering new affordable housing units to under-served markets.







**Man FRM** as a hedge fund investment specialist, engages its sub-managers to promote the inclusion of ESG factors into their investment processes, policies and practices.

Man FRM's investment process requires them to exercise professional judgement regarding drivers of value for clients and we recognise that a broad range of financial and non-financial factors may be relevant in making investment decisions. Man FRM believes that responsible investment involves including ESG information as part of investment decision making, to ensure all relevant factors are accounted for when assessing risk and return.

### Investment solutions

#### Tailored and optimised to meet specific client needs



- We offer a comprehensive suite of investment solutions and formats that can be tailored and optimised to meet specific client needs1:
- Investment solutions offer optionality including; liquidity, control, investment restrictions, investor customisation and transparency



**UCITS** 

Alternative investment funds

US 40 Act funds

Regional funds<sup>2</sup>

Separate accounts

Advisory mandates

Bespoke fund vehicles

<sup>1.</sup> Access to investment products and mandate solutions are subject to applicable laws and regulations including selling restrictions and licensing requirements. Investment solutions listed above may not be compatible for all investment strategies and may be subject to minimum subscription requirements.

<sup>2.</sup> In addition to UCITS and AIFs registered across the EEA, a number of investment strategies are available in vehicles registered in Chile, Netherlands, Hong Kong, Japan, Singapore, South Korea and Switzerland.





#### Russell Korgaonkar

Russell Korgaonkar is Chief Investment Officer of Man AHL, with overall responsibility for investment management and research, and a member of Man AHL's management and investment committees. He was previously Director of Investment Strategies of Man AHL, responsible for Man AHL's Liquid Strategies unit, which creates and runs scalable systematic strategies, as well as the Institutional Solutions business. Russell joined the firm in 2001 as a researcher and later portfolio manager focused on systematic cash equity strategies, and was instrumental in building up AHL's expertise in this space. In 2011 he became Head of Portfolio Management, responsible for constructing and managing Man AHL's growing range of portfolios, and was promoted in June 2017. Russell holds a BA/MA (First Class) in Physics from the University of Oxford.



#### **Tom Bowles**

Tom Bowles is Head of Liquid Strategies at Man AHL. He has been at the core of Man AHL's research in various roles since joining in 2007, and from 2012 to 2017 worked within the AHL Dimension team. He holds a PhD in Signal Processing from Cardiff University and a First Class MEng degree in Automatic Control and Systems Engineering from the University of Sheffield.



#### **Graham Robertson**

Graham Robertson is a partner at Man AHL and the Head of Client Portfolio Management at Man AHL and is a member of the investment committee. He has overall responsibility for client communication across Man AHL's range of quantitative strategies. Prior to joining Man AHL in 2011, Graham developed capital structure arbitrage strategies at KBC Alternative Investment Management and equity derivative relative value models for Vicis Capital. He started his career at Credit Suisse in fixed income before moving to Commerzbank, where he established the relative value team and subsequently became Head of Credit Strategy. Graham holds a DPhil from the University of Oxford in Seismology and a BSc in Geophysics from the University of Edinburgh.



#### Larry Kissko

Larry Kissko is a Client Portfolio Manager for Man AHL and Man Solutions. Larry joined Man AHL in July 2014. Prior to this he was at Hermes BPK Partners where he was a partner, member of the Investment Committee and Head of Macro and Systematic strategies. Before Hermes BPK Partners, Larry was at BlackRock where he was a Director within the Alternative Advisors team with due diligence coverage of CTA, macro and quantitative strategies. Larry joined BlackRock via a merger with Merrill Lynch Investment Advisors where he held a similar role with due diligence responsibilities for CTA and macro strategies. Prior to that he was an Associate at Deutsche Bank in both the Deutsche Bank Advisors and Strategic Equity Transactions groups. Prior to that he worked at PaineWebber Incorporated as an investment banking Analyst within the Commercial Real Estate Group. Larry holds an MBA from Duke University and a Bachelor of Science in Economics from the Wharton School at the University of Pennsylvania.



#### Tarek Abou Zeid

Tarek Abou Zeid is a Principal and Senior Client Portfolio Manager at Man AHL with principal responsibility for client communication. Prior to joining Man AHL, Tarek was at Amundi/Pioneer, where he advised clients on cross-asset portfolio construction and institutional solutions. Before that, Tarek worked for Quant Capital researching and implementing systematic strategies. He holds a degree in electrical engineering, majoring in signal processing and optical communication, from RWTH Aachen University and has worked at Stanford University researching optical modulation techniques.



#### Adi Mackic

Adi Mackic is a Senior Client Portfolio Manager at Man AHL with principal responsibility for communication of Man AHL's strategies to clients. Prior to joining Man AHL in 2015, he worked at IMC Asset Management where he was responsible for sales and marketing of systematic macro and credit hedge funds. Adi holds an MSc in Finance and Investments and a BSc in International Business Administration from the Rotterdam School of Management, Erasmus University.

# Biographies Management Committee





#### **Matthew Sargaison**

Matthew Sargaison is Co-Chief Executive Officer at Man AHL and a member of the Man Group Executive Committee. Before assuming the co-CEO role, Matthew held numerous positions within Man AHL, including Chief Investment Officer, with overall responsibility for investment management and research from 2012 and 2017, as well as Chief Risk Officer between 2009 and 2012. Before re-joining Man AHL in 2009, he spent 13 years working at Deutsche Bank, Barclays Capital and UBS. Matthew originally worked for Man AHL from 1992 to 1995 as a trading system researcher and institutional product designer. Matthew holds a degree in mathematics from the University of Cambridge and a Master's degree in advanced computer science from the University of Sheffield.



#### **Antoine Forterre**

Antoine Forterre is Co-Chief Executive Officer of Man AHL and a member of the Man Group Executive Committee. He is also a member of Man Group's Responsible Investment Committee. Antoine was previously Man AHL's Chief Operating Officer, with overall responsibility for technology and other non-investment functions. Prior to this, he was Head of Corporate Development and Group Treasurer of Man Group, with responsibility for sourcing and executing acquisitions, as well as managing the firm's capital markets activities. Before joining Man Group in 2011, Antoine worked at Goldman Sachs in London and Paris. Antoine holds a Master's Degree in Finance and Strategy from ESSEC Business School. He is a Trustee of the Man Charitable Trust and a participant in the Franco-British Young Leaders programme.



#### **Otto van Hemert**

Otto van Hemert is Director of Core Strategies and a member of Man AHL's management and investment committees. He was previously Head of Macro at Man AHL. Prior to joining Man AHL in 2015, Otto ran a systematic global macro fund at IMC for over three years. Before that he headed Fixed Income Arbitrage, Credit, and Volatility strategies at AQR, and was on the Finance Faculty at the New York University Stern School of Business where he published papers in leading academic finance journals. Otto holds a PhD in Economics and Masters Degrees in Mathematics and Economics.



#### Giuliana Bordigoni

Giuliana Bordigoni is Director of Specialist Strategies and a member of Man AHL's management and investment committees. She is also Co-Portfolio Manager for both AHL Evolution and AHL Evolution Frontier. She has held several positions since joining Man AHL in 2007, including Head of Alternative Markets and Director of Fixed Income, where she has made significant contributions to Man AHL's managed futures and Evolution portfolios. Giuliana holds a PhD in Mathematics and Applications from Politecnico of Milan and a Master of Advanced studies in Finance from ETH and University of Zurich.



#### **Kate Straker**

Kate Straker is Chief Operating Officer of Man AHL. She is responsible for Man AHL's non-investment functions, including product strategy, project management, trade monitoring and the implementation of changes to the trading system. Kate joined Man Group in 2006 and has worked in a number of different roles, including product development and operations. Kate qualified as an ACA with PKF (UK) LLP, which is now part of BDO LLP, and holds a BSc (First Class) in Pathology and Microbiology from the University of Bristol.



#### **James Munro**

James Munro is Chief Technology Officer of Man AHL. James leads Man AHL's technology team and is responsible for Man AHL's Research and Trading Systems. He works with Man Group's central trading technology and quant platform teams along with the research and operations teams within Man AHL to deliver and maintain the outcomes of our quant research process in trading. James has been an Engineer at Man AHL since 2011 and holds a PhD in Theoretical Physics from University College London.

## Important information



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