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Risk management within a multi-asset strategy

July/August 2018

Part of  BNY MELLON

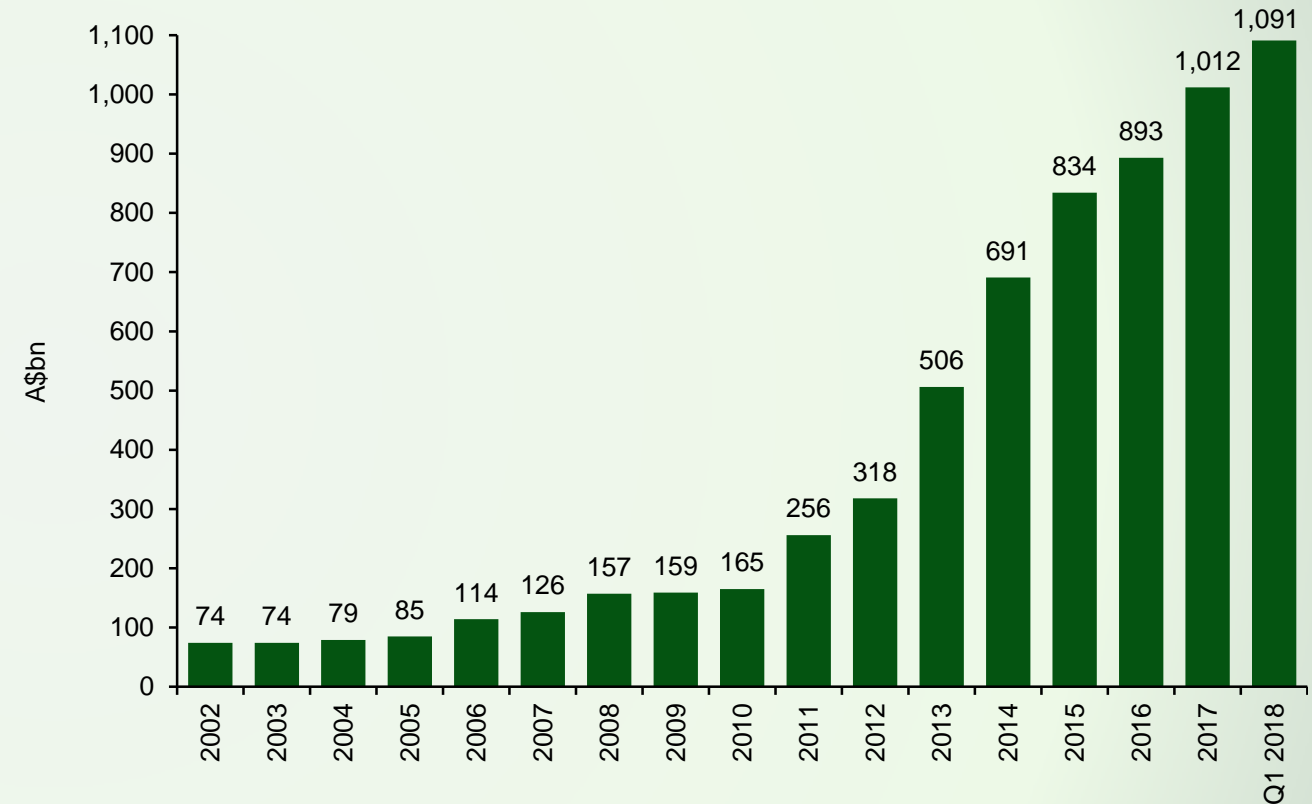


Who is Insight Investment?



- Asset manager owned by BNY Mellon:
 - based in London, New York, Sydney and Tokyo
 - over A\$1trn in assets under management
 - 226 investment professionals, 778 total staff
- Key ingredients of our success:
 - differentiated investment proposition
 - outcome focused investing
 - partnering with our clients
 - a culture of ownership
- Key areas of specialisation:
 - risk management solutions
 - fixed income
 - multi-asset

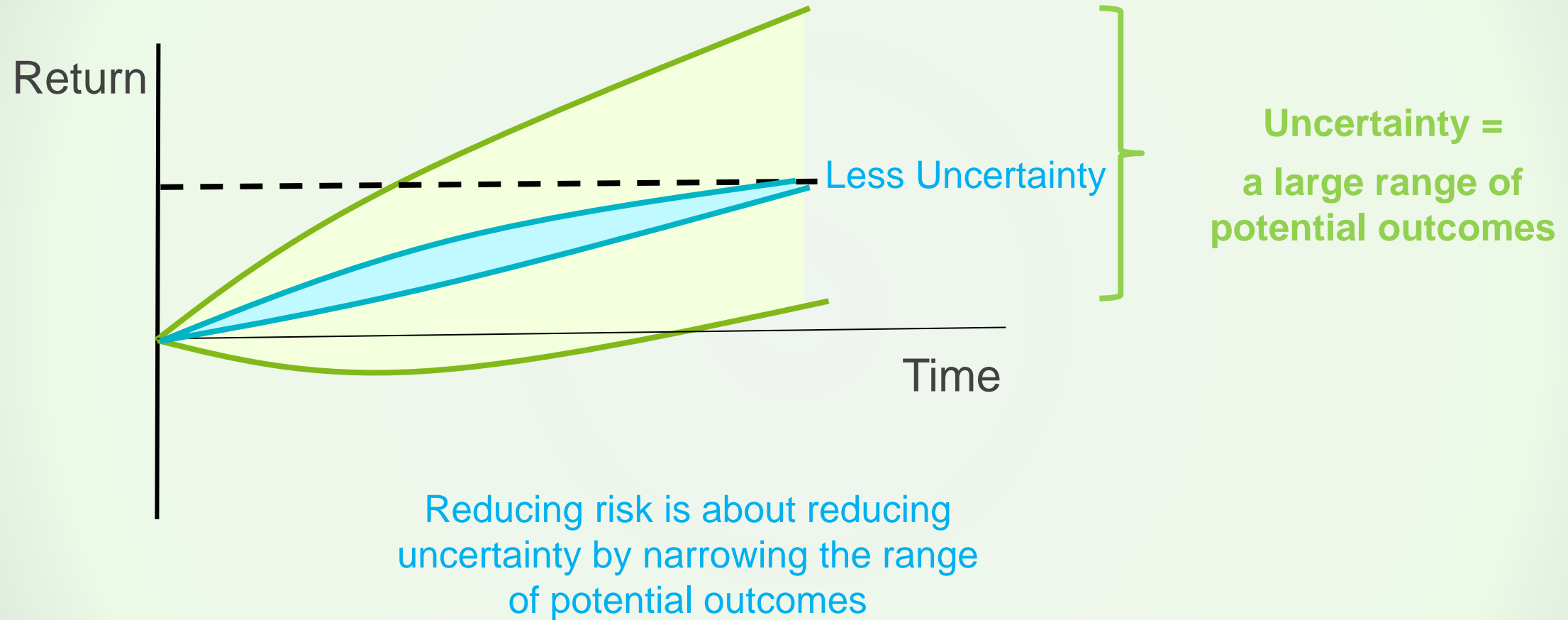
Assets under management¹



As at 31 March 2018. Assets under management (AUM) are represented by the value of cash securities and other economic exposure managed for clients. Figures shown in AUD. FX rates as per WM Reuters 4pm spot rates. Reflects the AUM of Insight, the corporate brand for certain companies operated by Insight Investment Management Limited (IIML). Insight includes, among others, Insight Investment Management (Global) Limited (IIMG), Insight Investment International Limited (IIL), Cutwater Asset Management Corp. (CAMC), Cutwater Investor Services Corp. (CISC) and Insight North America LLC (INA), each of which provides asset management services.

¹ Excludes previous parent introduced assets prior to 2009.

The “Holy Grail”...



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Three key investment management tools



- **Diversification**
 - Access as many different sources of returns as possible
- **Dynamic Asset Allocation**
 - Steer towards investments when the environment is favourable
- **Downside Risk Control**
 - Have a process that reduces risk when things go wrong – for example a risk budgeting approach

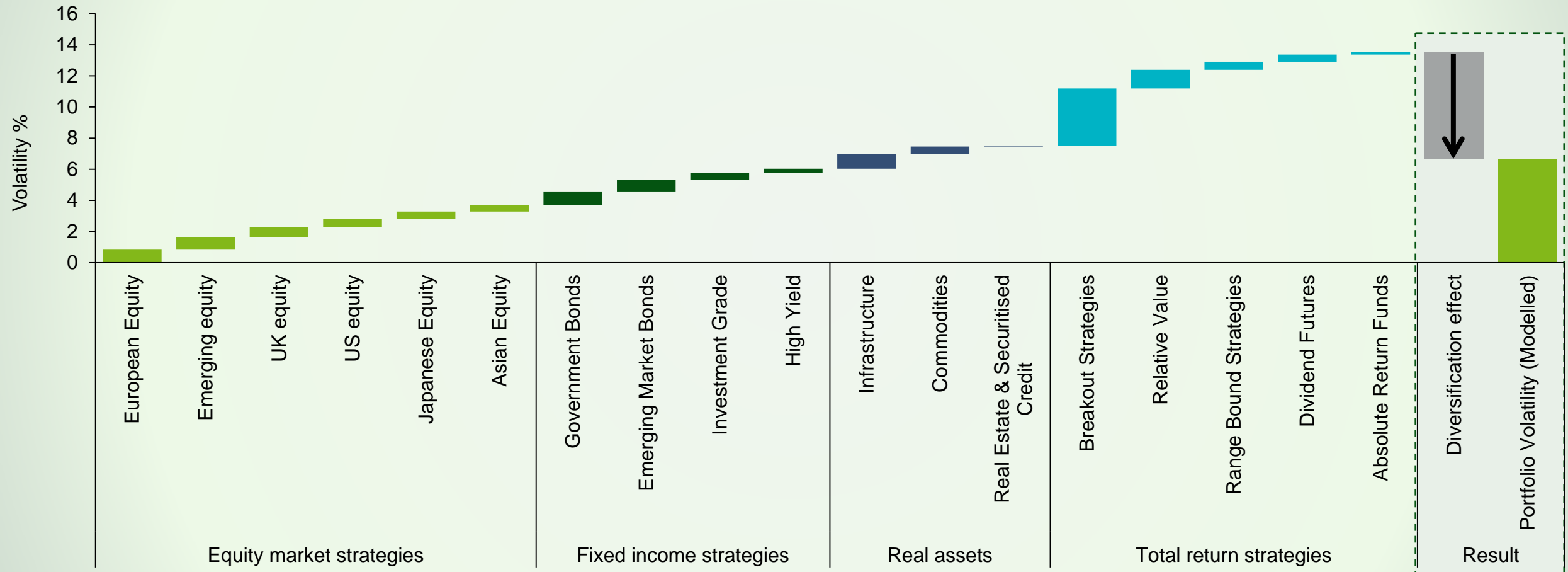
Diversification: access different sources of return



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Diversification at work

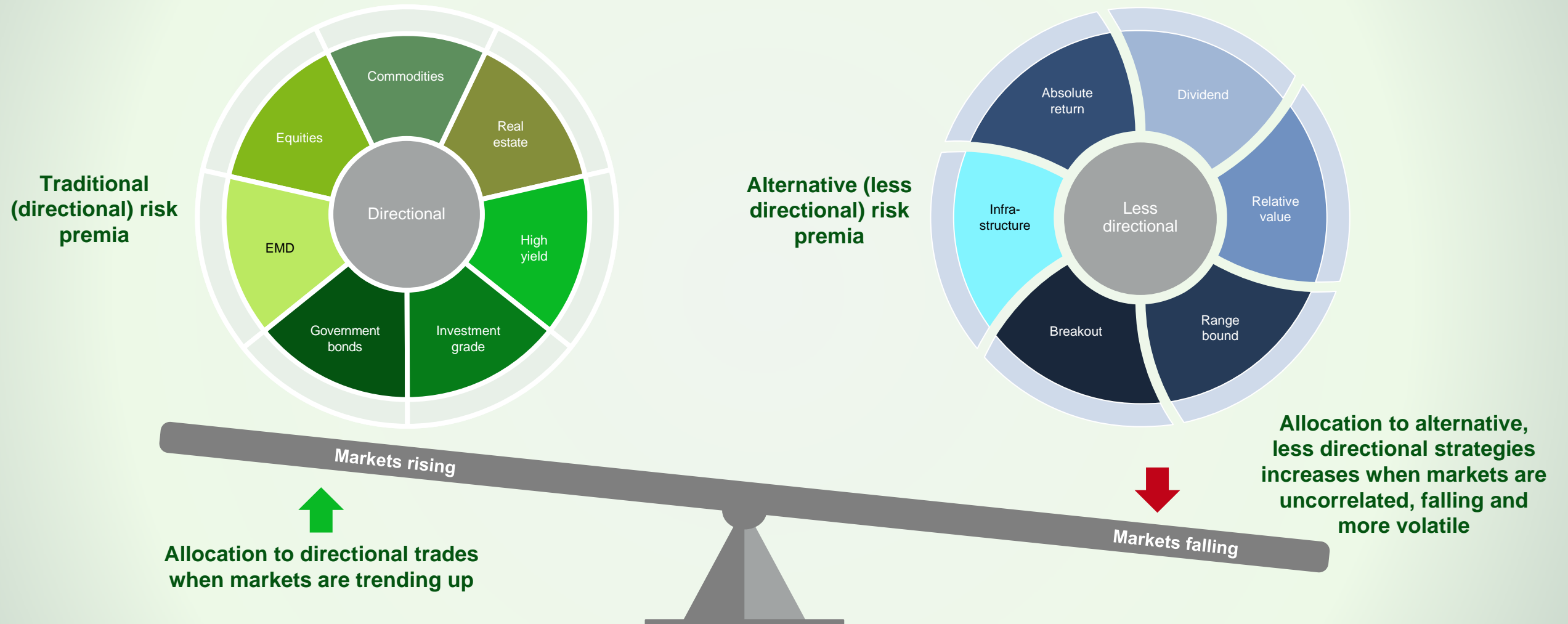
Portfolio risk profile



Source: Insight. Data is for the Insight Diversified Inflation Plus Fund as at 31 March 2018. 3-years of weekly data for realised annualised volatility of current individual positions compared to the fund's expected annualised volatility.

Dynamic Asset Allocation

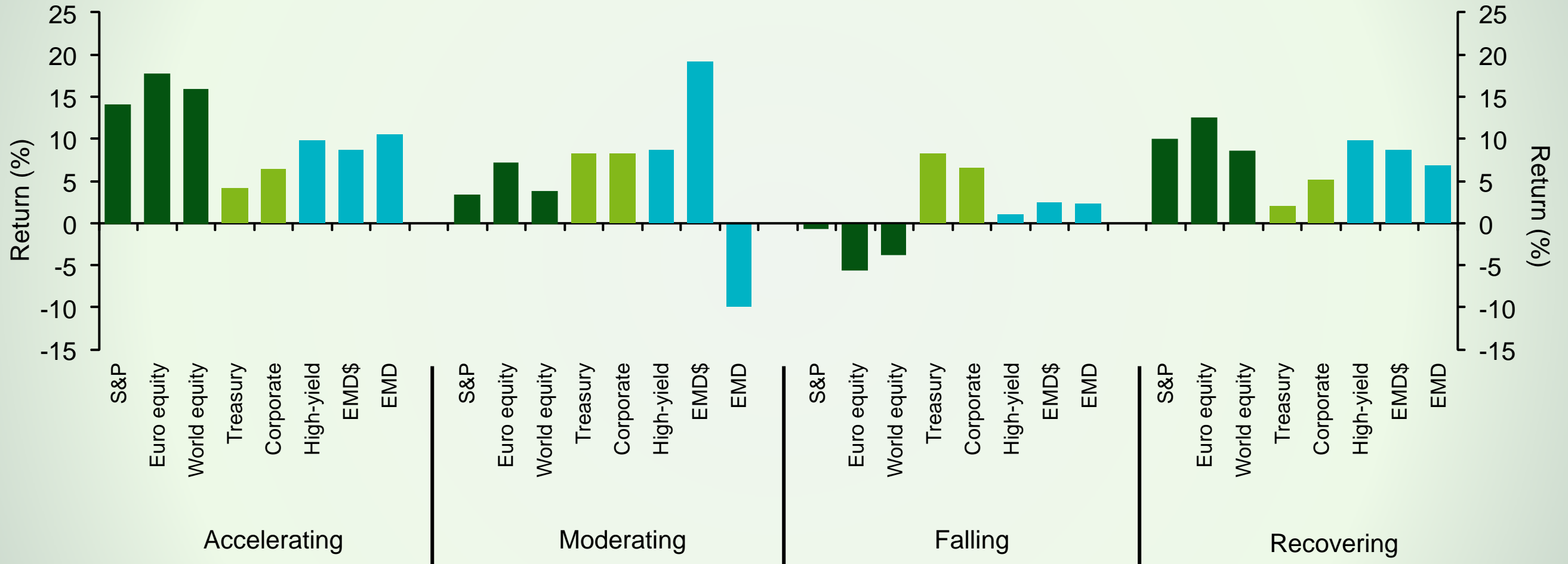
Directional v non-directional exposures



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Dynamic Asset Allocation

Shift your asset allocation to reflect the economic and market cycle



Source: Bloomberg, Thomson Reuters and Insight Investment as at January 2018. Equity market data is from 1973. Treasury and corporate bond data is from 1973. High-yield bond data is from 1986. EM USD debt data is from 1987. EM local currency debt data is from 2008.

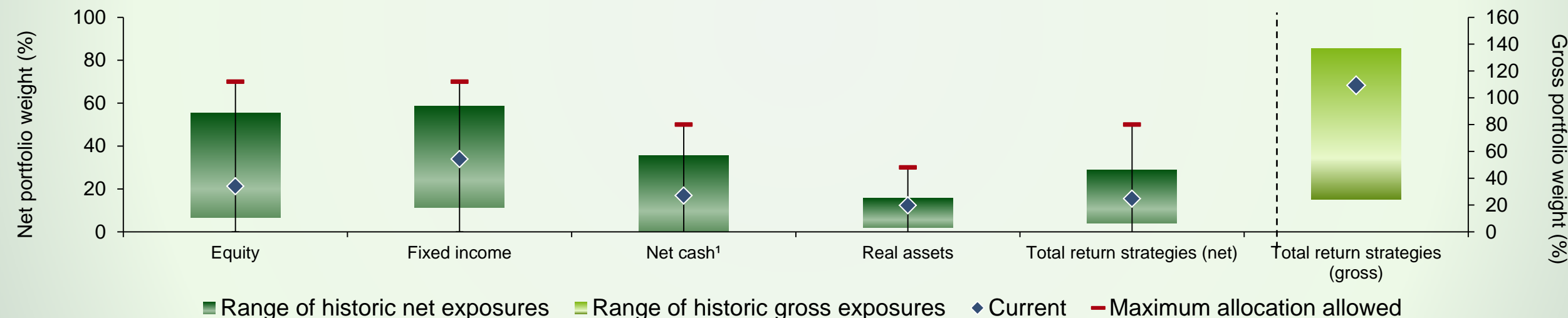
Dynamic Asset Allocation

Maximum and minimum asset allocations



Asset allocation range over time

	Equity	Fixed income	Net cash	Real assets	Total return strategies (net)	Total return strategies (gross)
Max allocation (%)	70.0	70.0	50.0	30.0	50.0	na
Max realised (%)	55.4	58.5	35.7	15.6	28.9	136.8
Min allocation (%)	0.0	0.0	0.0	0.0	0.0	0.0
Min realised (%)	6.8	11.3	0.0	2.0	3.9	24.3
Current allocation (%)	22.2	36.1	9.2	14.1	18.4	125.5



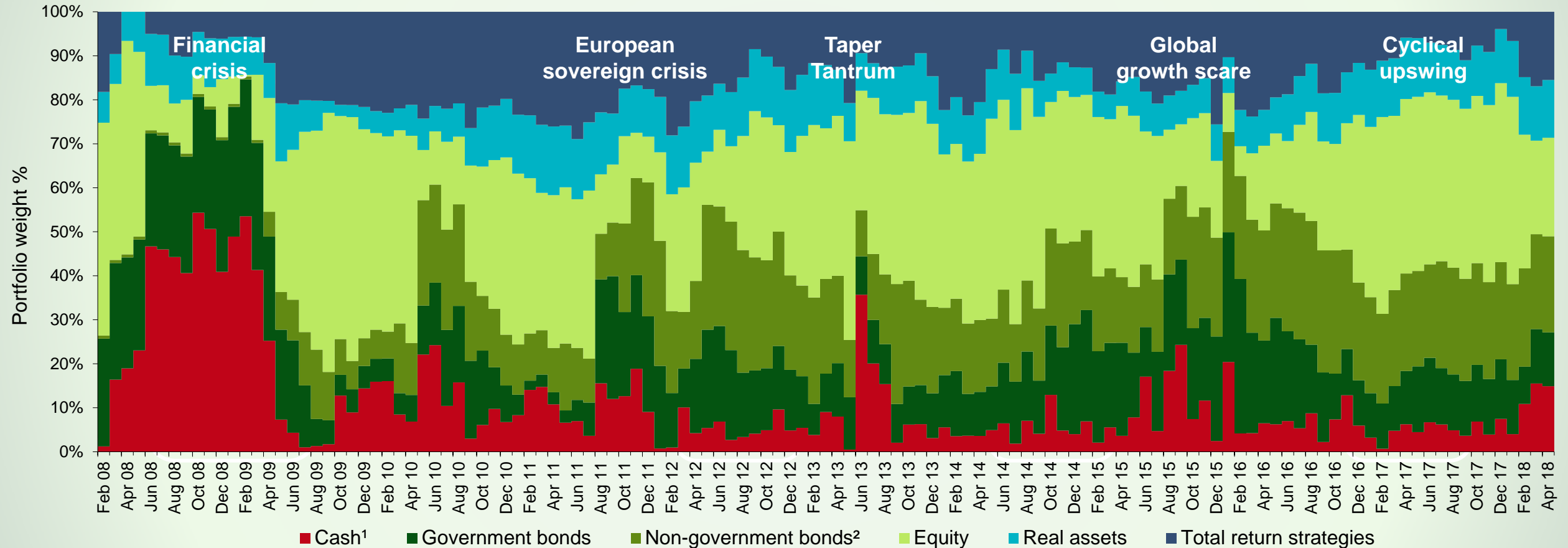
Source: Insight. Represents asset allocation from Insight Broad Opportunities Strategy from 1 October 2009 to 31 March 2018. Positions are shown on a net basis apart from total return strategies which are shown both net and gross. ¹ Cash: Includes cash at bank, FX forwards and money market instruments.

Dynamic Asset Allocation

Historical perspective



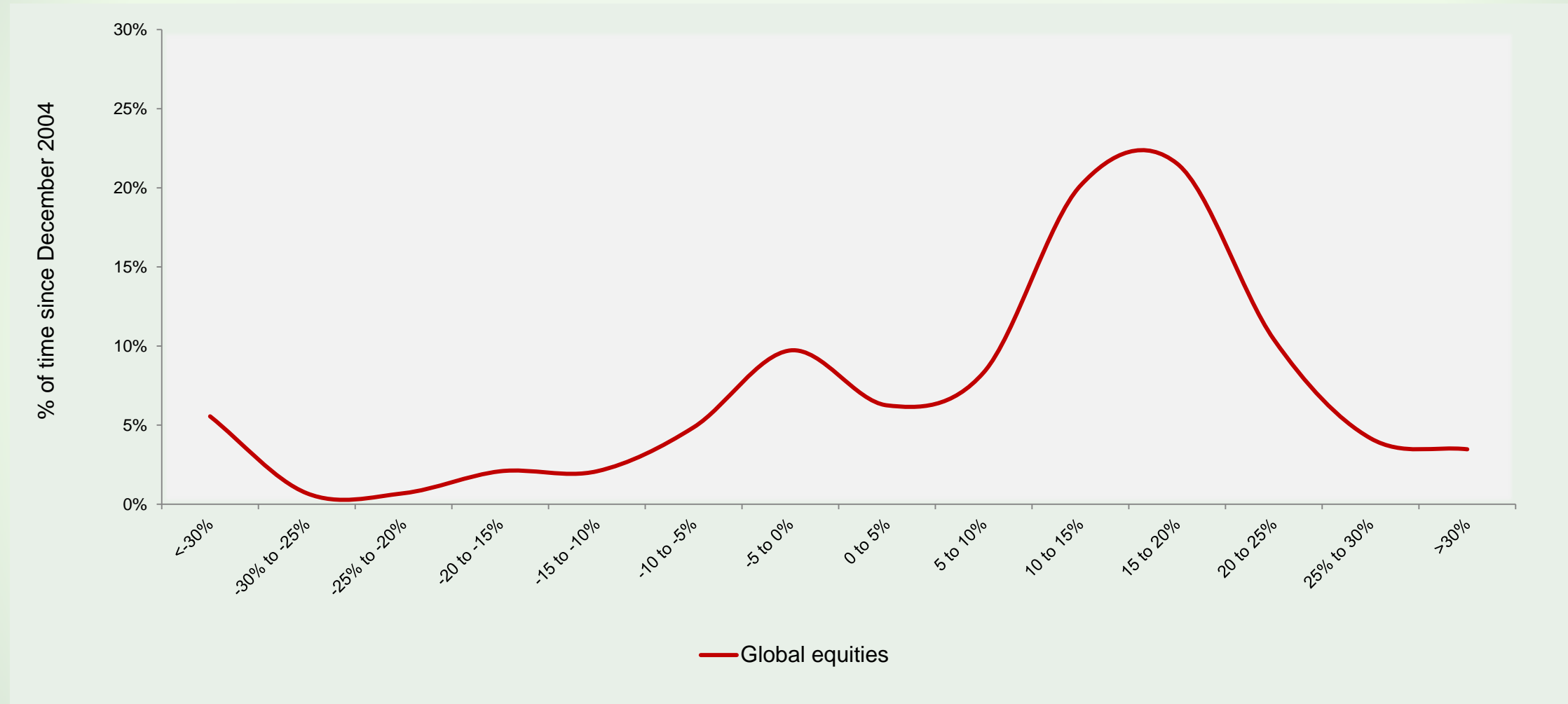
Asset allocation over time



Source: Insight. Represents Insight Broad Opportunities Strategy from 1 February 2008 at 30 April 2018. Positions are shown on a net basis. ¹ Cash: Includes cash at bank, FX forwards and money market instruments. ² Non-government bonds represents high yield, investment grade and emerging market bonds. Allocations are subject to review and may change without notice.

Downside Risk Control

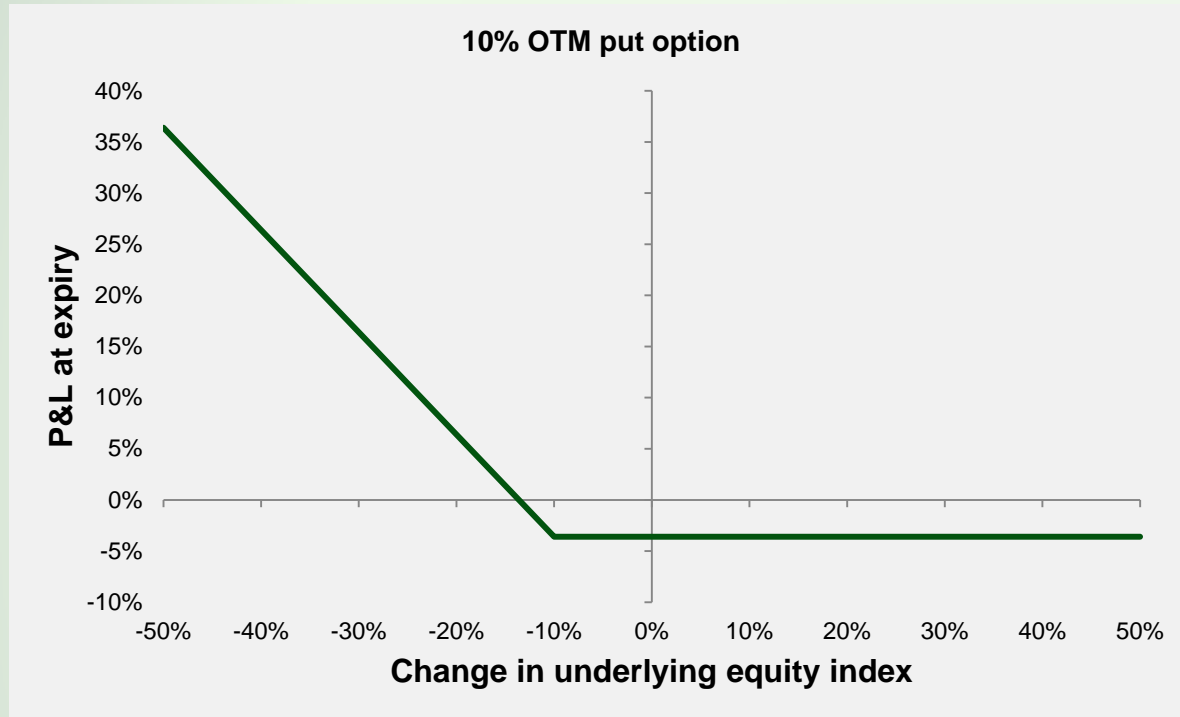
Global equities have a nasty left hand tail



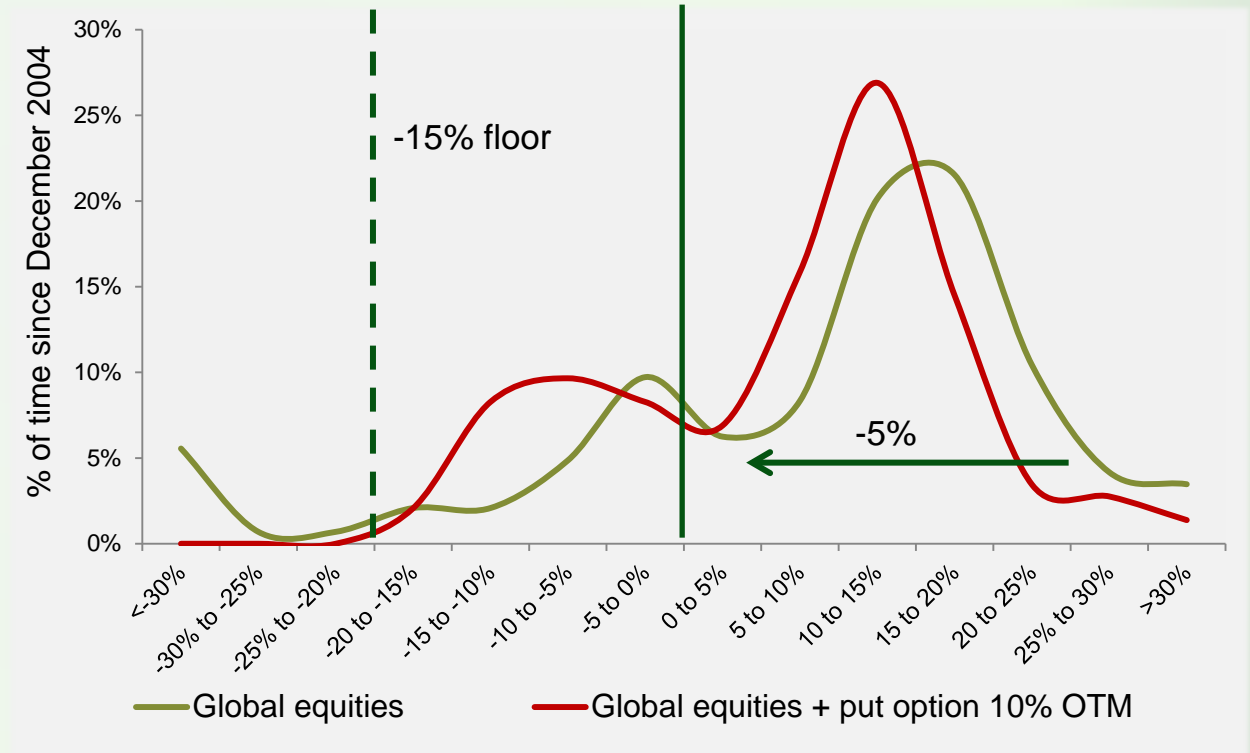
Source: Insight for period 01/12/2004–31/12/2017. Global equities represented by MSCI World Index, in gross, local currency terms.

Downside Risk Control

Simple put protection – it can be expensive!



Buying put protection is the simplest method of reducing risk, but it can be very expensive



Source: Insight – Put chart for illustrative purposes only. Insight as at 01/12/2004-31/12/2017. Global equities represented by MSCI World Index, in gross, local currency terms.

Downside Risk Control

Example of Dynamic Risk Management

Scenario 1: markets rise

- Fund makes gains
- Loss tolerance increases
- Risk budget expands



Starting point

How much can equity markets fall in extreme events?

What is our one-year loss tolerance?

=

Initial Risk Budget



Risk Budget 1



Risk budget split into four components which re-set annually at different quarter-ends

- Harvest gains from rising markets
- Allow re-investment after market falls

Team discretionary overlay

- Risk budget provides the anchor around which team can express their forward looking views

Scenario 2: markets fall

- Fund makes losses
- Loss tolerance reduces
- Risk budget contracts



Risk Budget 2



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Downside Risk Control

Hypothetical example



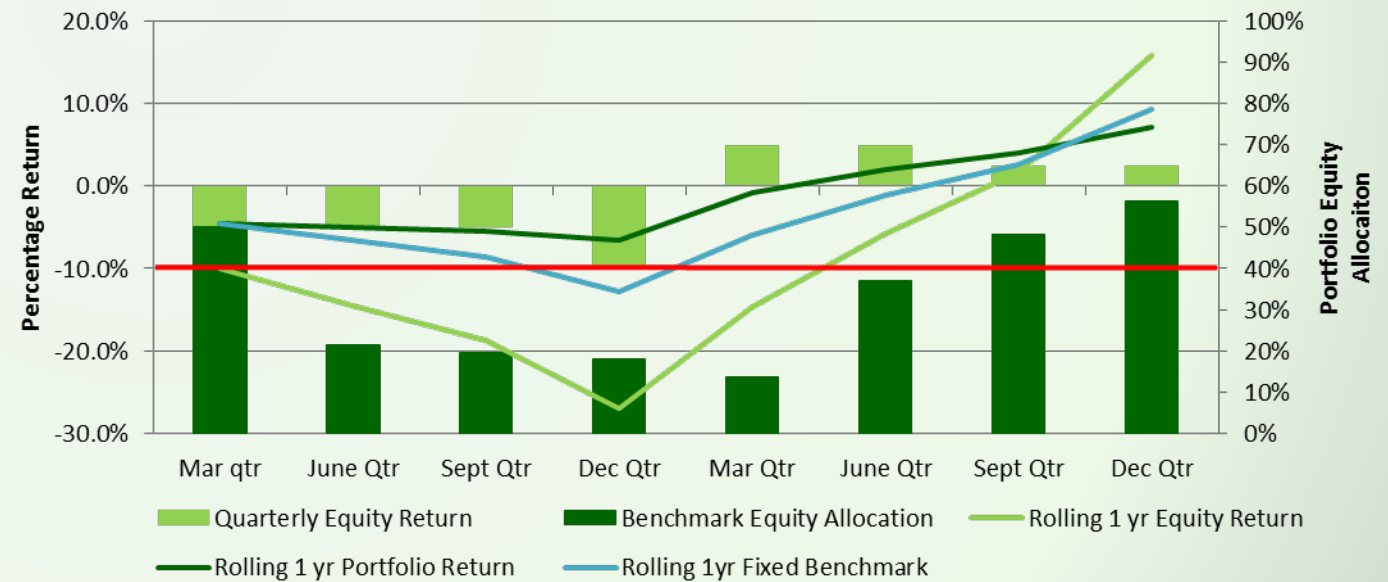
Scenario

- 2 year investment period
- Fixed Benchmark allocation 50% equity / 50% fixed Income
- Equity markets fall 30% in year 1 and recover 15% in year 2
- 3%pa yield on fixed income
- Primary Objective: control losses to -10% on a 1 year basis

Results

- Total Performance over 2 years
 - Equities : -15.3%
 - Fixed Benchmark: -4.8%
 - Using Downside Risk Control: 0.1%
- Largest drawdown over 1 year
 - Equities : -26.9%
 - Fixed Benchmark: -12.9%
 - Using Downside Risk Control: -6.6%

	Year 1				Year 2			
	Mar qtr	June Qtr	Sept Qtr	Dec Qtr	Mar Qtr	June Qtr	Sept Qtr	Dec Qtr
Benchmark Equity Allocation	50%	22%	20%	18%	14%	37%	48%	56%
Tolerable loss	-10.0%	-5.4%	-4.9%	-4.6%	-3.4%	-9.2%	-12.0%	-14.1%
Quarterly Equity Return	-10.0%	-5.0%	-5.0%	-10.0%	5.0%	5.0%	2.5%	2.5%
Rolling 1 yr Equity Return	-10.0%	-14.5%	-18.8%	-26.9%	-14.7%	-5.7%	1.7%	15.8%
Quarterly Portfolio Return	-4.6%	-0.5%	-0.4%	-1.2%	1.3%	2.3%	1.6%	1.7%
Rolling 1 yr Portfolio Return	-4.6%	-5.1%	-5.4%	-6.6%	-0.8%	2.0%	4.1%	7.2%



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Downside Risk Control

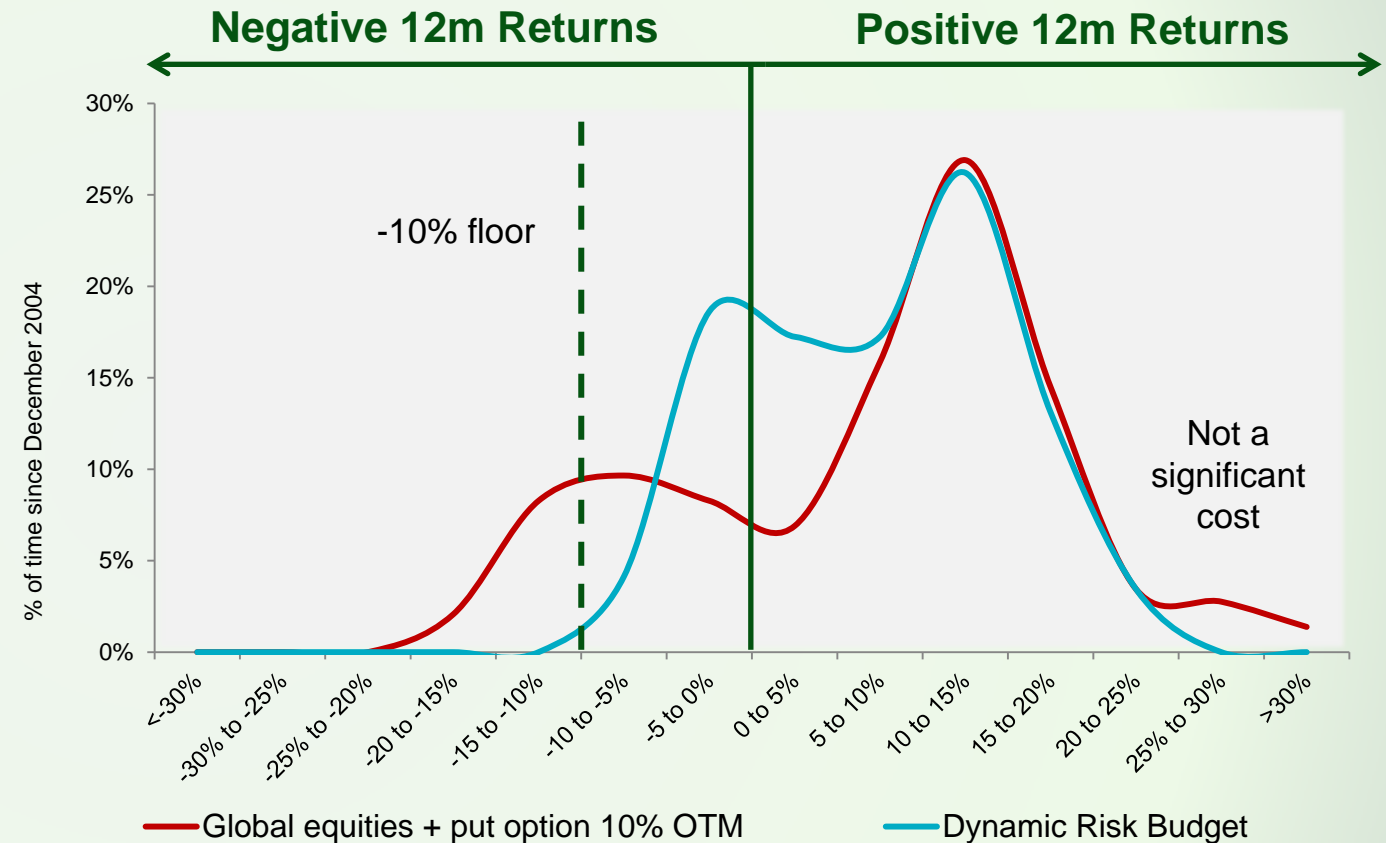
Implement a simple Dynamic Risk Management process



A simple risk budgeting process takes on more risk as equity markets produce positive returns and reduces risk as markets produce negative returns.

Compared to consistently buying put options:

- Greater reduction in negative tail
- Only slightly reduced positive tail



Source: Insight – Put chart for illustrative purposes only. Insight as at 01/12/2004 – 31/12/2017. Global equities represented by MSCI World Index, in gross, local currency terms.

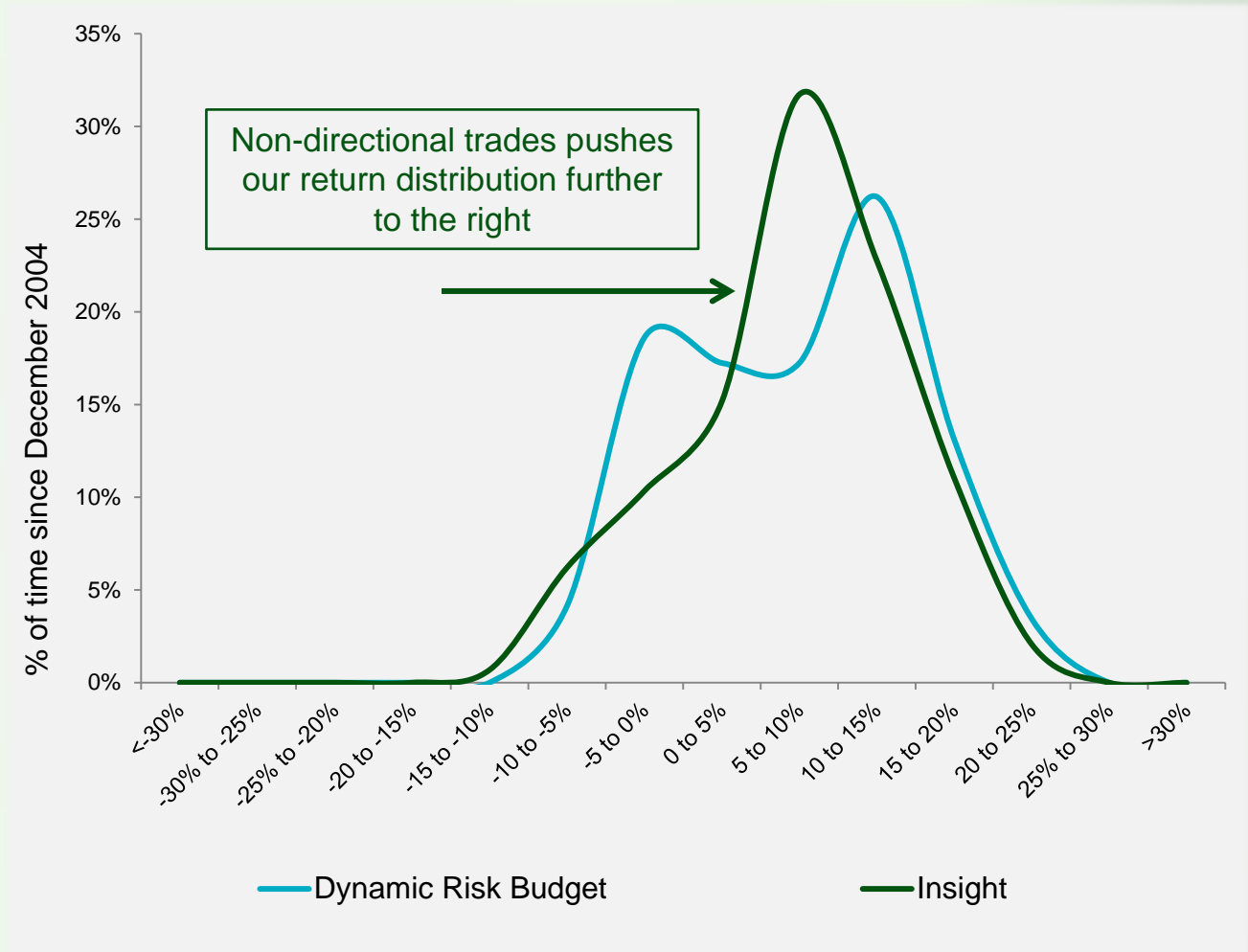
Targeting Incremental Returns

Allocate risk to less directional trades



Allocate to more opportunistic trades that may be less directional and less correlated to traditional markets. Some examples include:

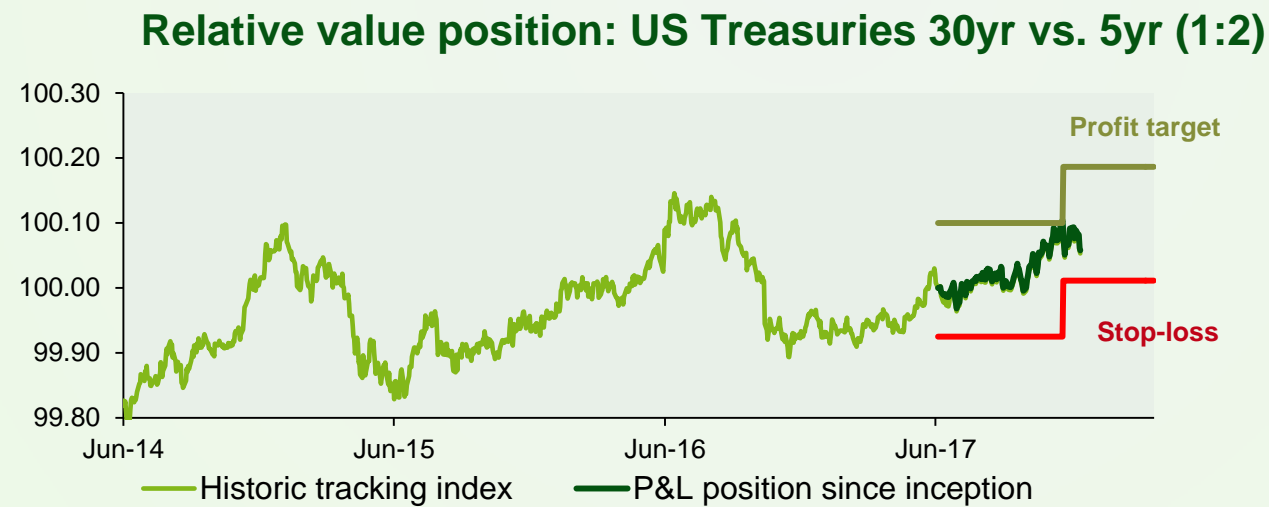
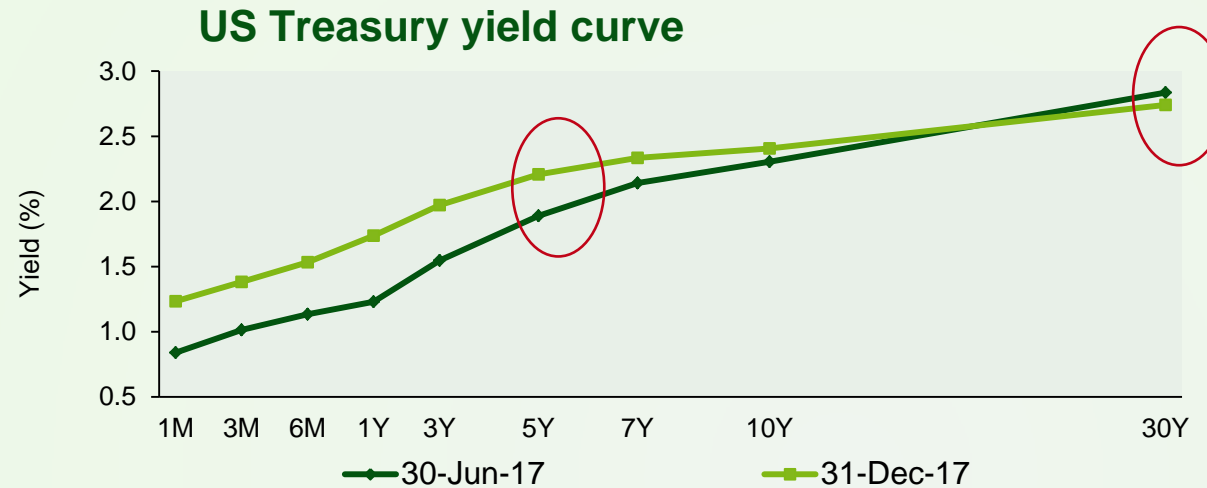
- Market neutral, relative value trades such as:
 - Yield curve trades
 - Long/short trades across different equity markets
- Diversifying trades
 - Buy assets that may potentially perform well when equities fall e.g. Japanese yen
- Volatility spikes
 - Create payoffs where probability of loss is low



Source: Insight as at 31 December 2017. Returns from the Insight broad opportunities strategy are provided gross of fees.

Targeting Incremental Returns

Relative value example: US Treasury yield curve flattener



Source: Bloomberg; Insight as at 31 December 2017.

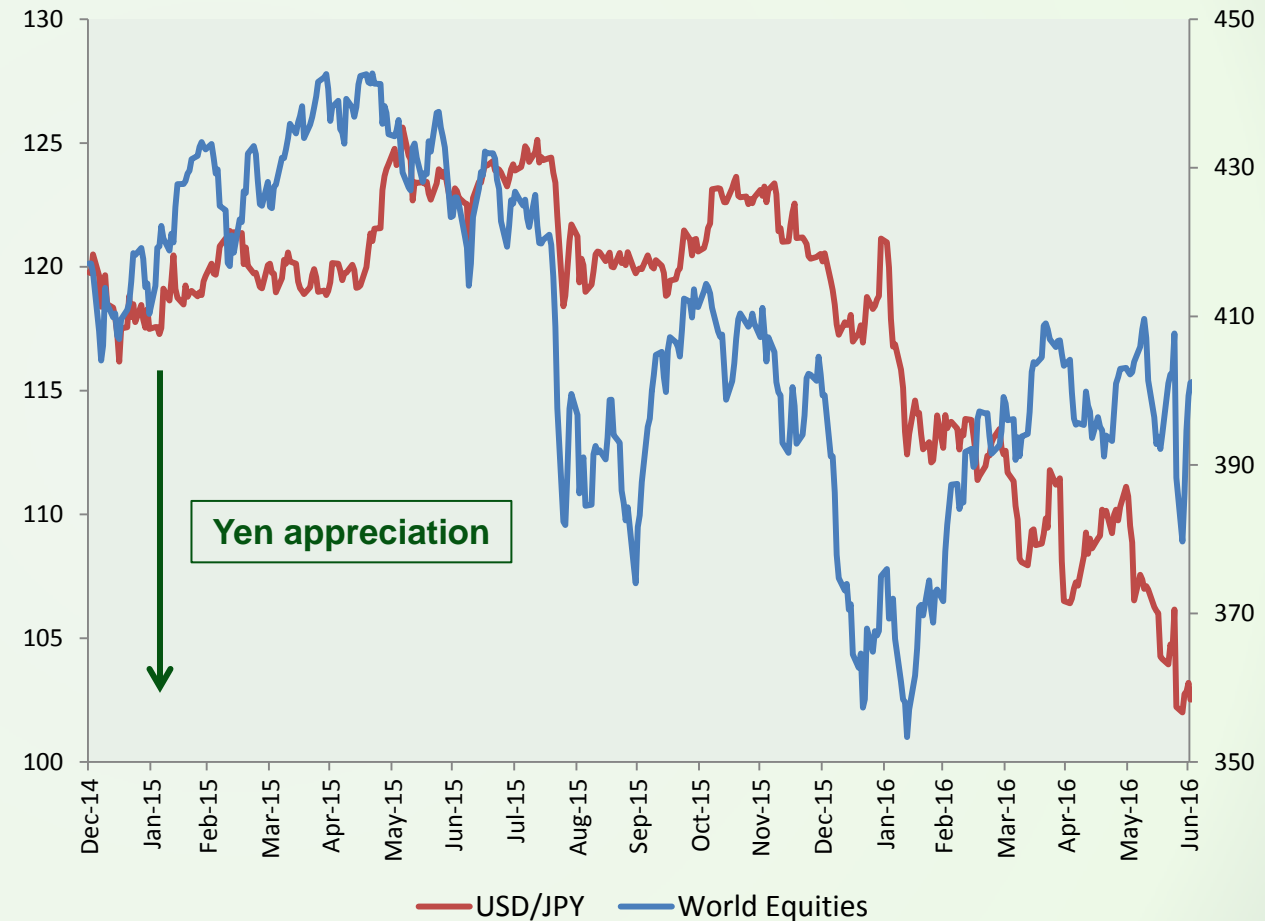
Targeting Incremental Returns

Diversifying Trades: Japanese yen



Diversifying trades may add value when equity markets are performing poorly

- Relying on correlations remaining “normal”
- Common diversifying trades are:
 - Gold
 - Long duration sovereign bonds
 - Japanese yen and Swiss franc



Source: Bloomberg; Insight

Targeting Incremental Returns

Why spikes in implied volatility can present opportunity



Investor fear / loss aversion
drives down risk appetite



Volatility Spike

Fear leads to elevated risk
premia or return potential for
new option based strategies

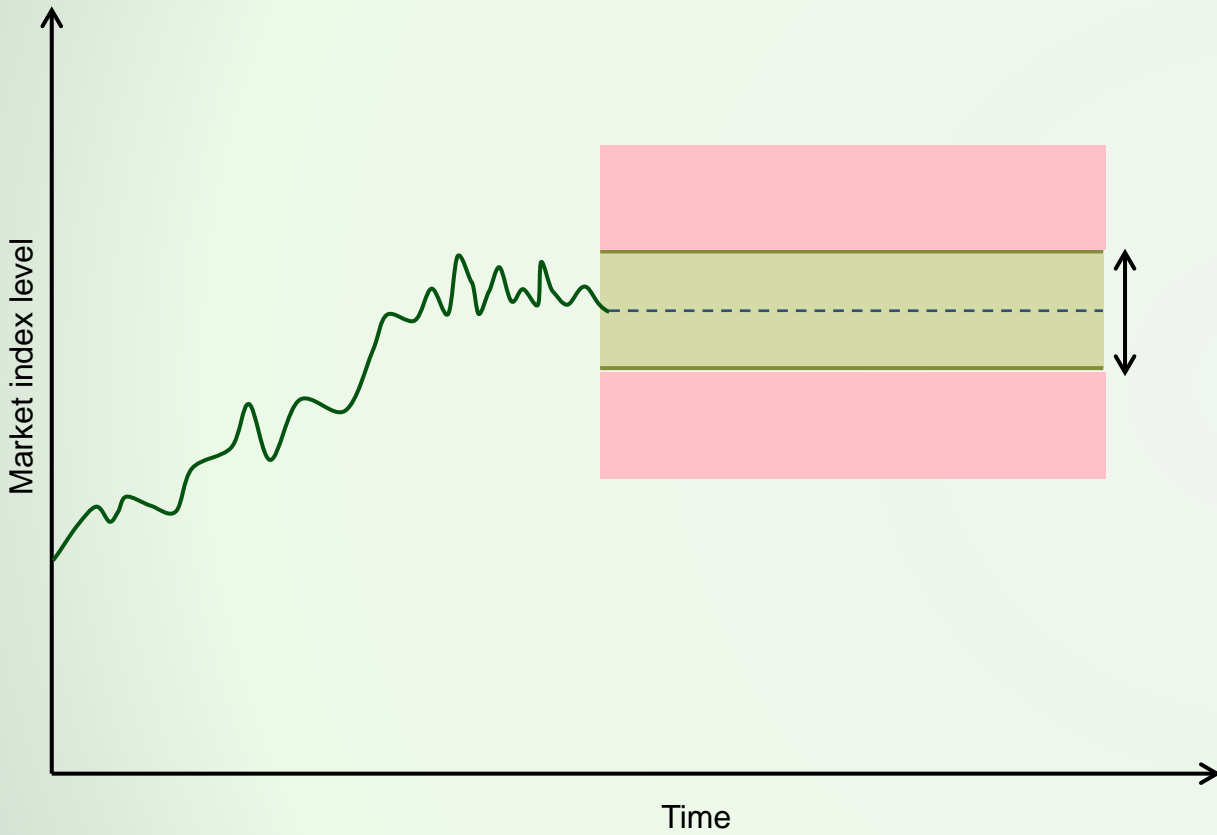
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Capturing opportunities from elevated volatility

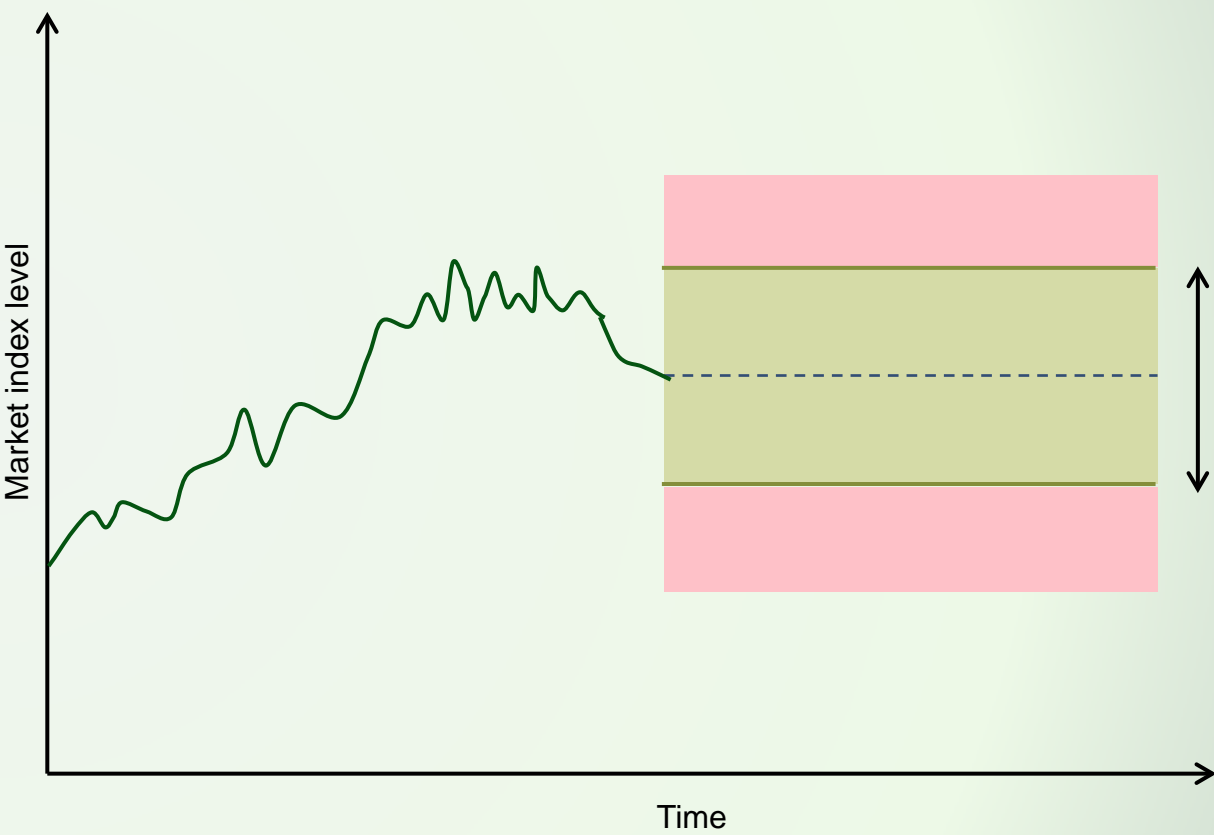
Illustrative example: range-bound strategies



Pre volatility spike



Post volatility spike



----- Market level ■ Profit zone ■ Loss zone

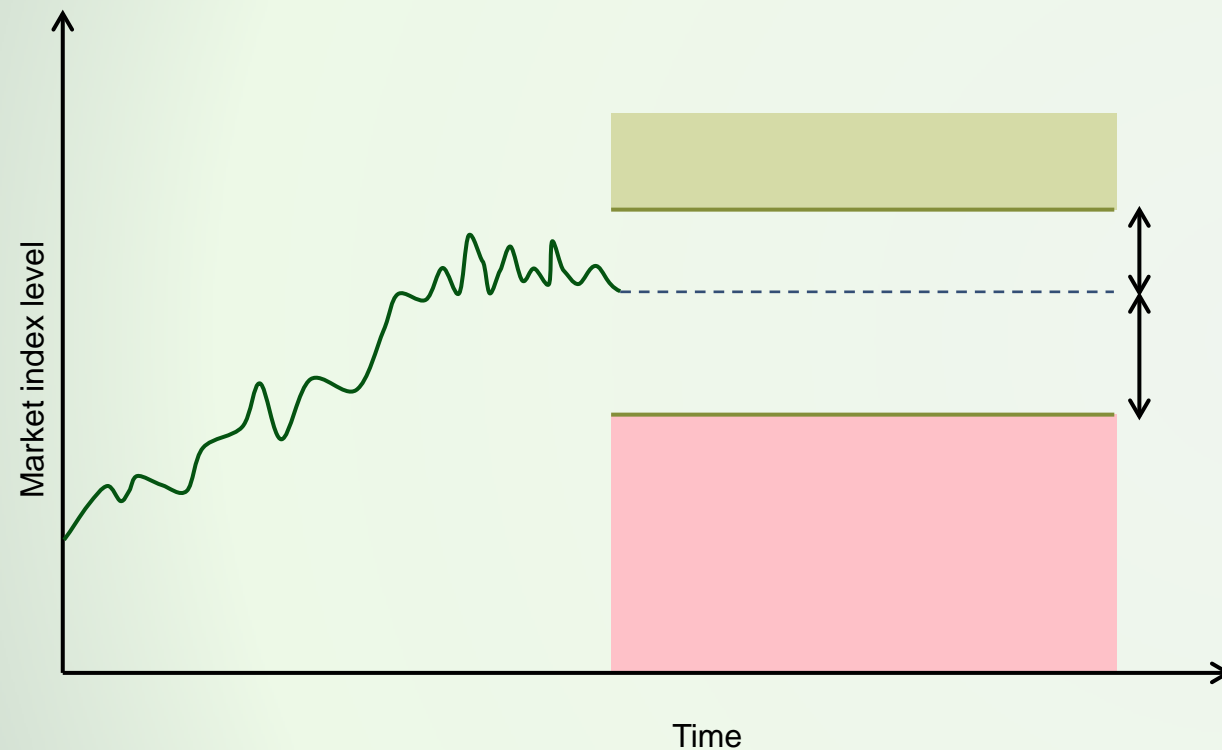
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Capturing opportunities from elevated volatility

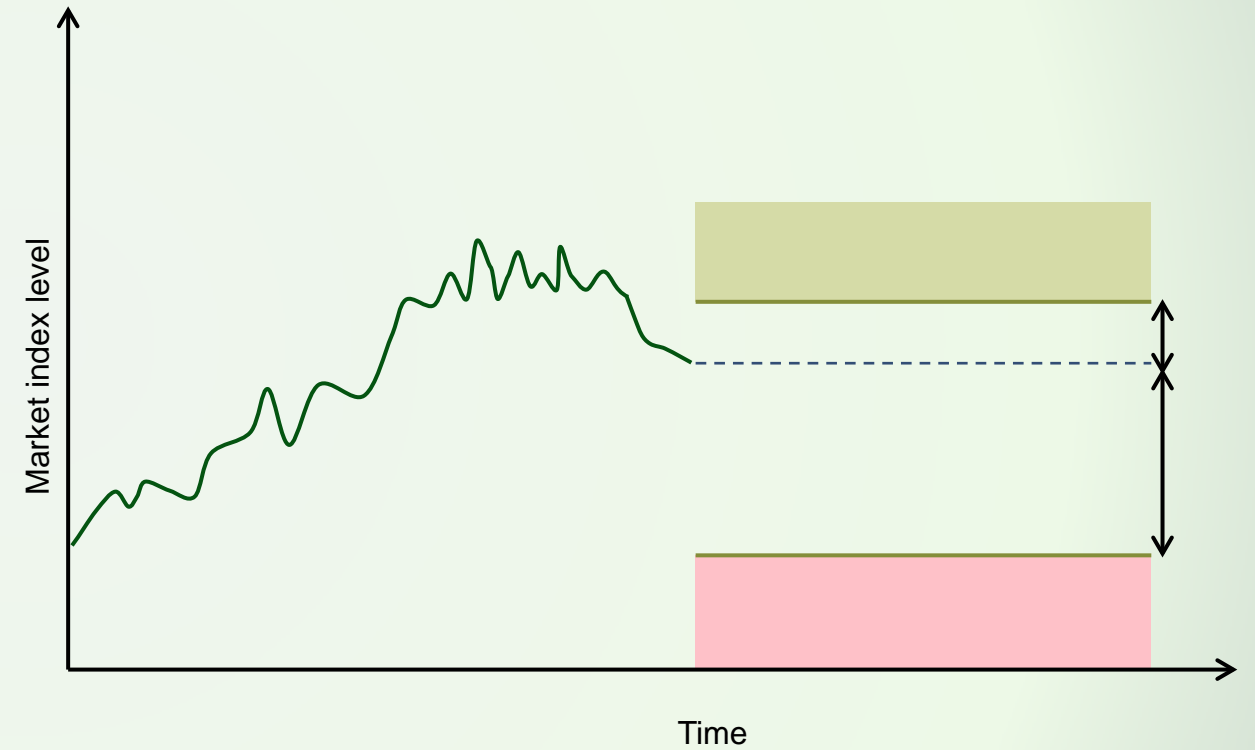
Illustrative example: upside breakout strategies



Pre volatility spike



Post volatility spike



----- Market level ■ Profit zone ■ Loss zone

For illustrative purposes only. Forecasts and forecast returns shown are intended to show investment techniques and are not indicative of actual results. As such, they are not a reliable indicator of future performance.

Result!

better distribution of returns = less uncertainty of outcome



Diversification

- Not just across traditional asset classes but also by blending directional and less-directional sources of return

Dynamic asset allocation

- To benefit from directional trends in asset classes when the investment environment is conducive to good performance and avoid assets when the opposite is true

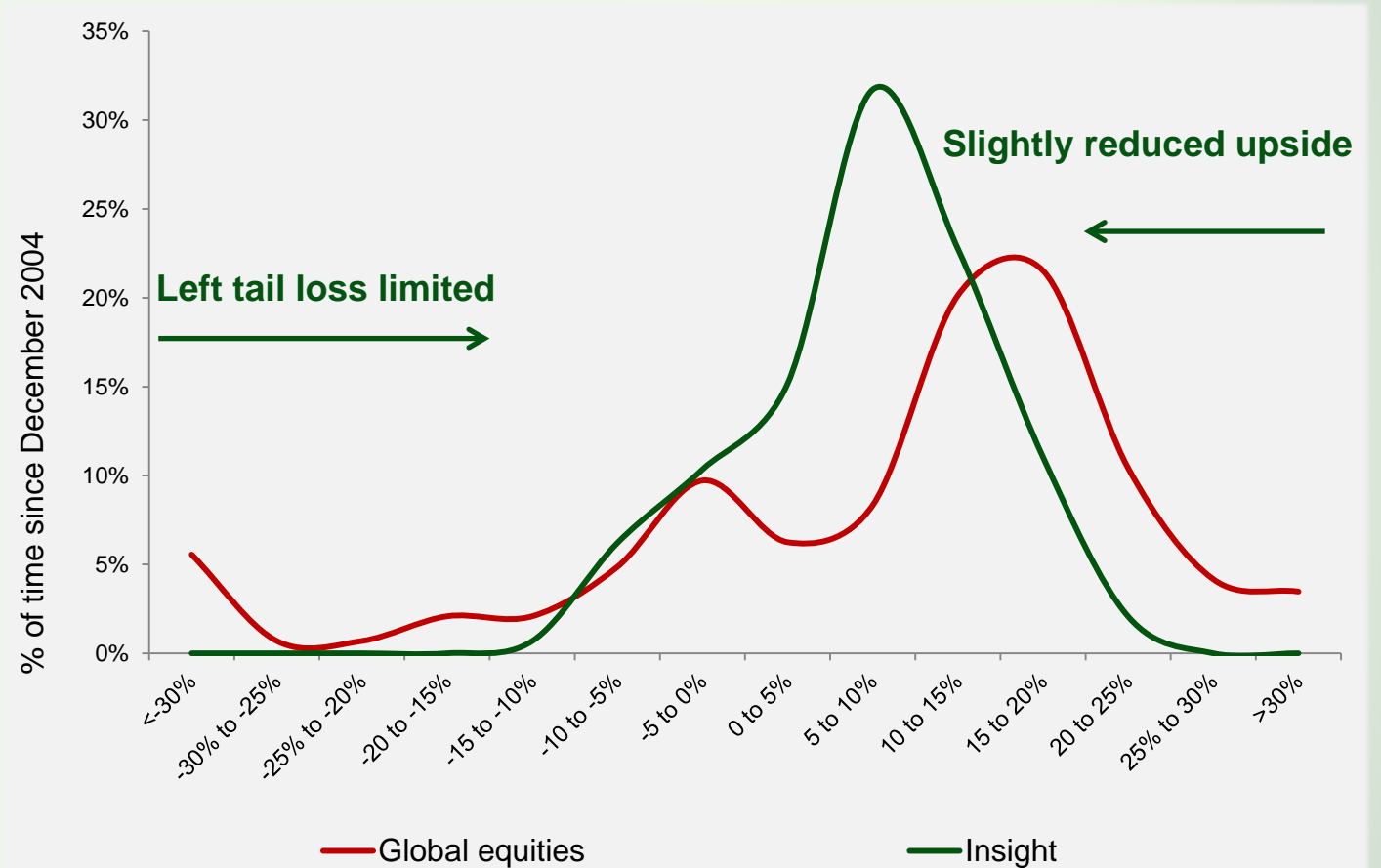
Downside risk management

- Aims to preserve capital and thereby improve the distribution of our returns

Outcome

- Narrower range of outcomes and better risk adjusted returns

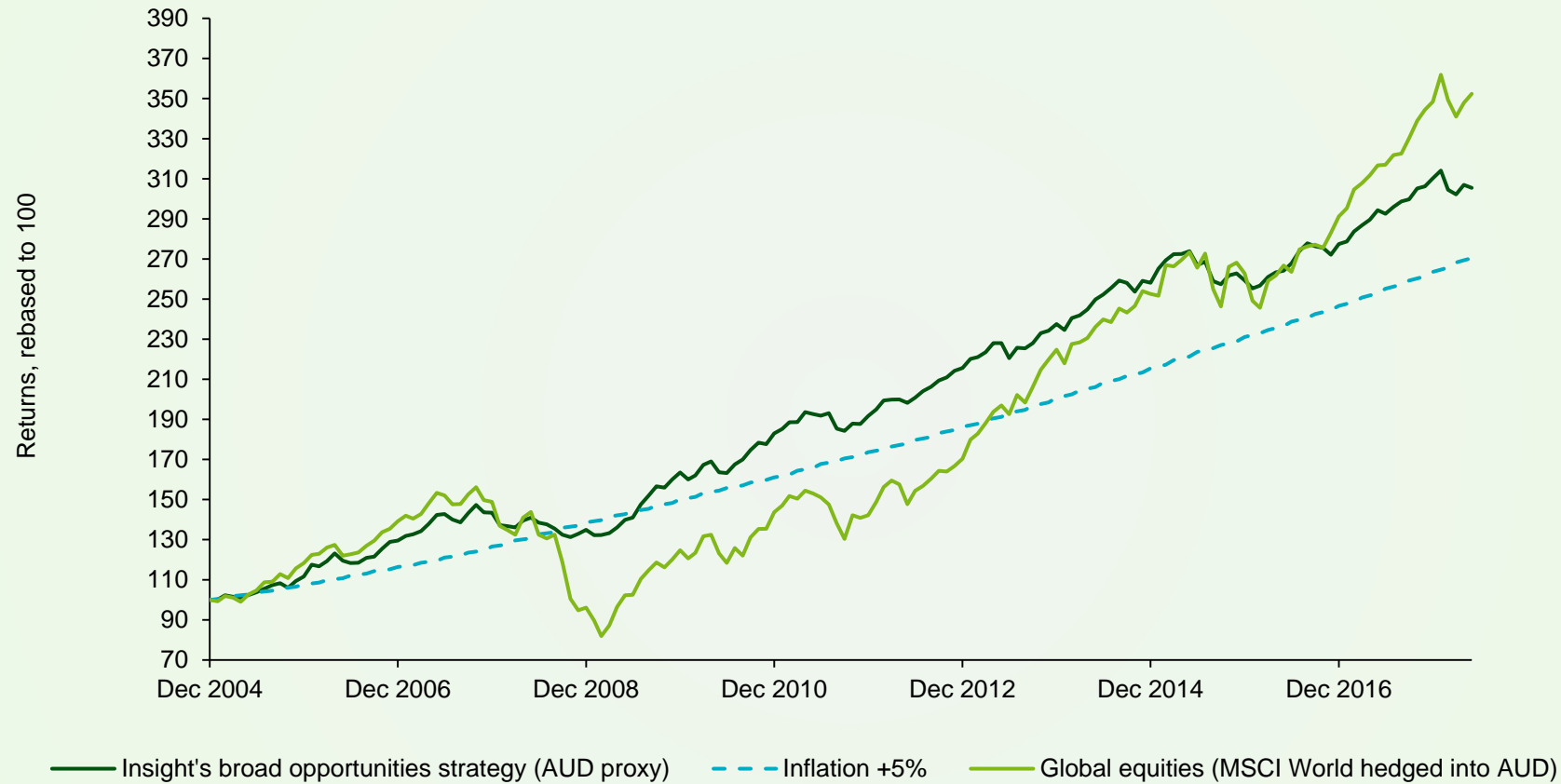
-10% pa defined as loss tolerance



Source: Insight as at 31 December 2017. Global equities represented by MSCI World Index, in gross, local currency terms. Returns from the Insight broad opportunities strategy are provided gross of fees.

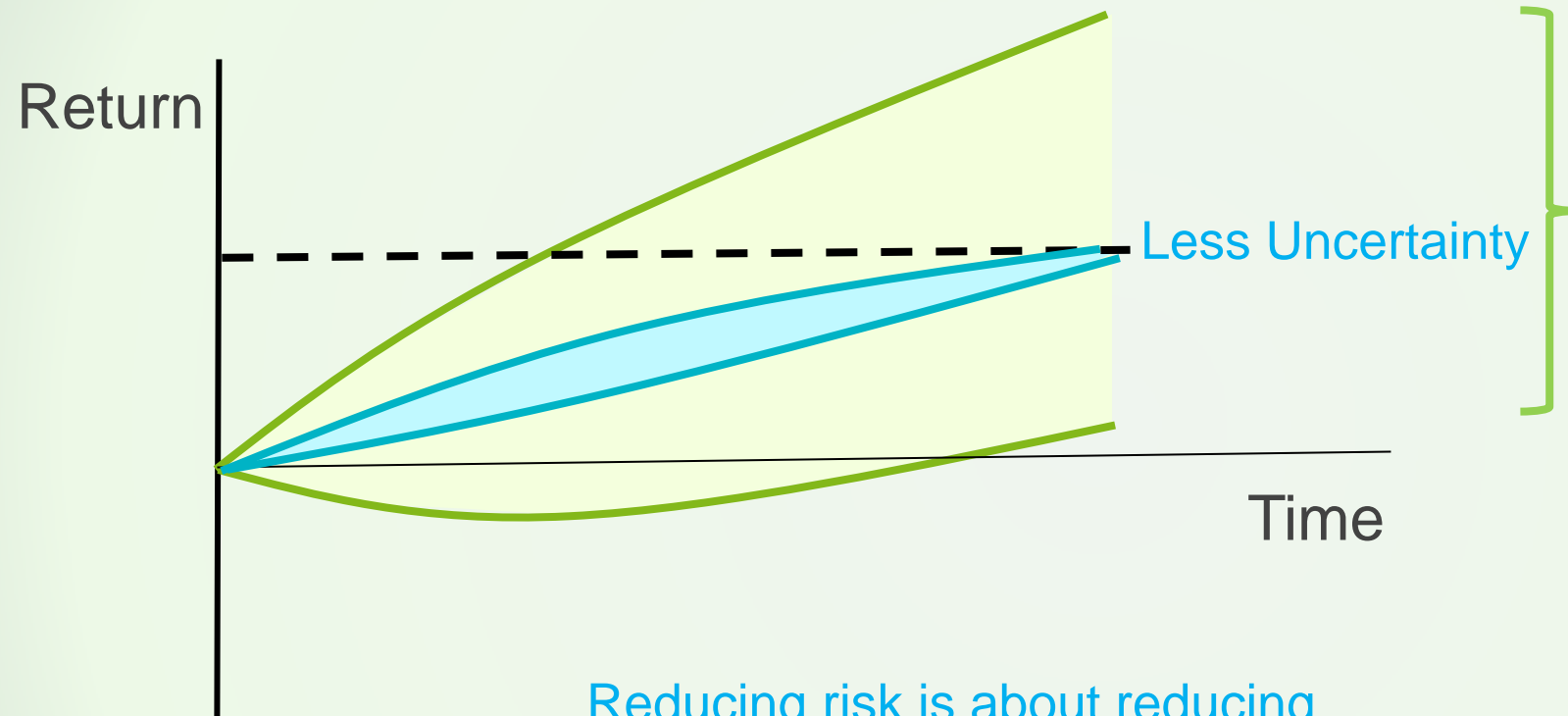
Insight's broad opportunities strategy

Targeting a smoother journey towards inflation* +5% (pa) returns



Source: Insight. As at 30 April 2018. No investment strategy or risk management technique can guarantee gross returns or eliminate risk in any market environment. Chart shows distribution of returns for the long-term strategy, since 31 December 2004. This investment strategy shown is used to illustrate Insight's skills and experience. The long term track record of the Insight broad opportunities strategy has a base currency of USD. This performance record has been adjusted by interest rate differentials to derive an AUD proxy. No currency adjustments have been made to the underlying investments. Global equities represents MSCI World hedged into AUD. *Inflation represents RBA CPI Trimmed Mean.

The “Holy Grail”...



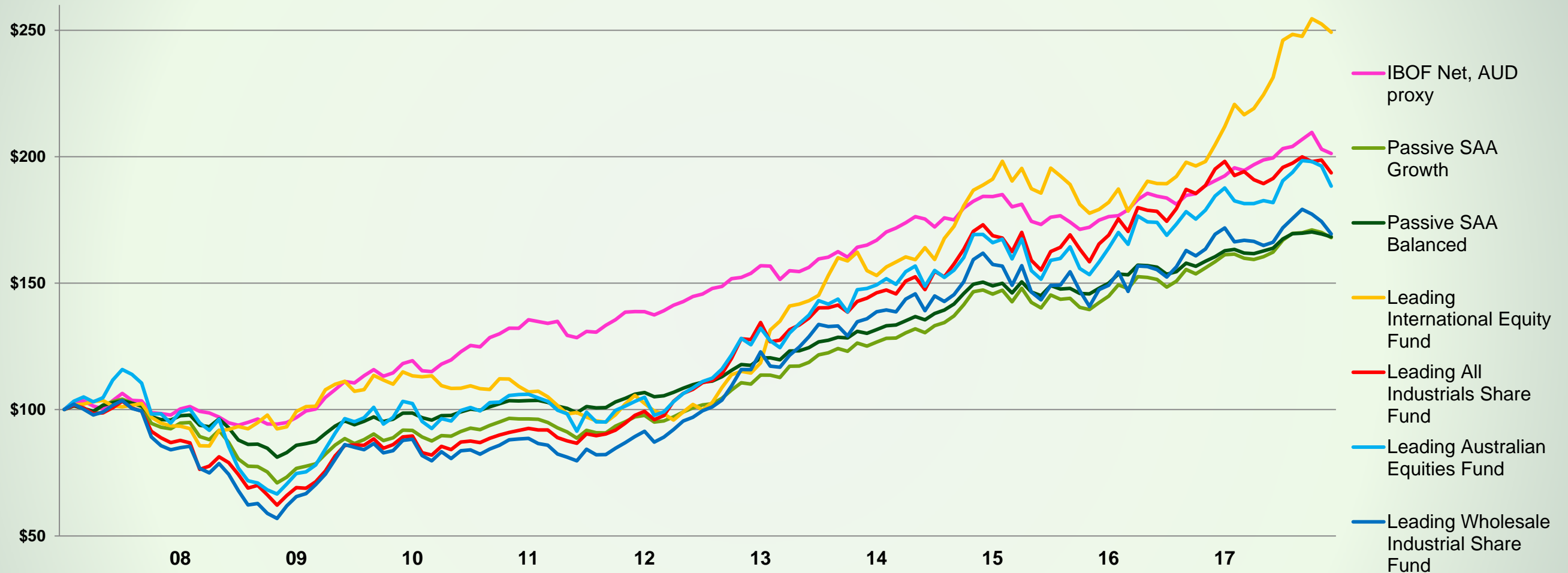
**Uncertainty =
a large range of
potential outcomes**

Reducing risk is about reducing
uncertainty by narrowing the range
of potential outcomes

For illustrative purposes only.

Conclusion – a smoother return path

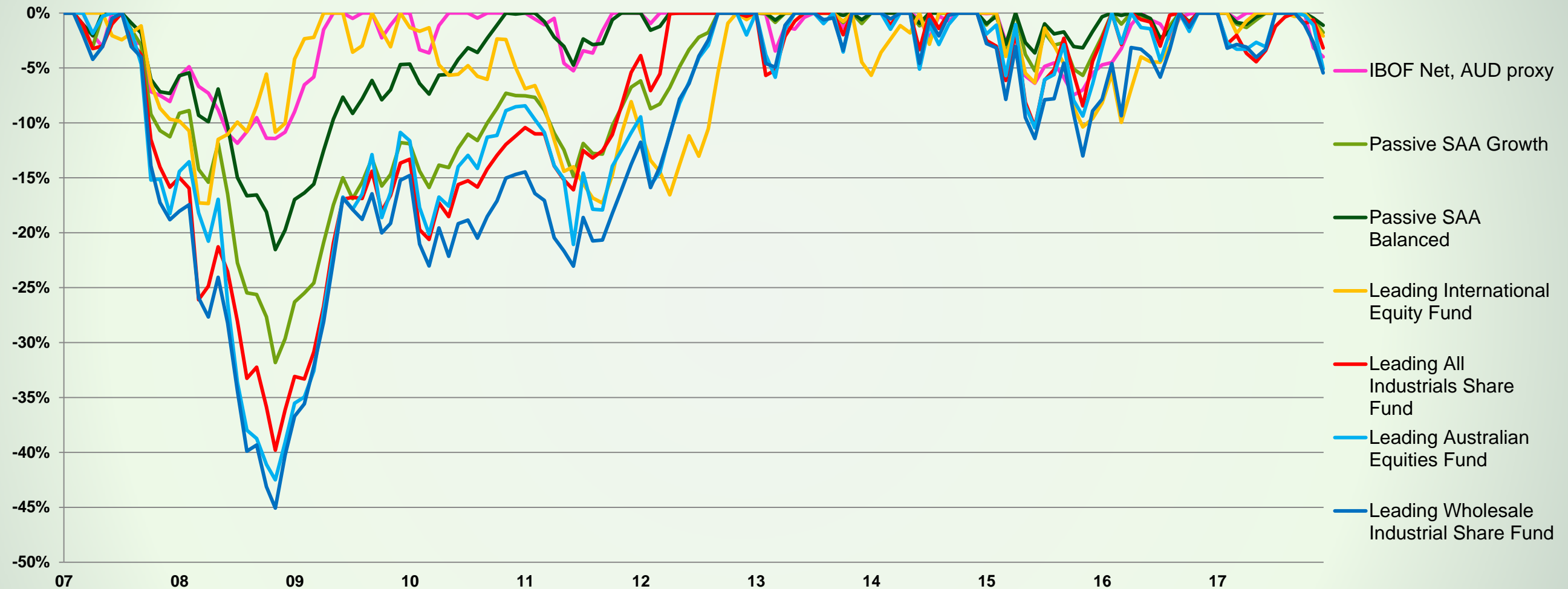
Value of \$100 invested as at 01/05/2007 to 31/03/2018



Source: Morningstar Direct, Insight Investment. IBOF (Insight broad opportunities strategy) returns are net of fees, converted to AUD, 01/05/2007-31/03/2018. No investment strategy or risk management technique can guarantee gross returns or eliminate risk in any market environment. Chart shows monthly cumulative returns for the long-term strategy, since 31 December 2004. This investment strategy shown is used to illustrate Insight's skills and experience. The long term track record of the Insight broad opportunities strategy has a base currency of USD. This performance record has been adjusted by interest rate differentials to derive an AUD proxy. No currency adjustments have been made to the underlying investments.

Conclusion – a smoother return path

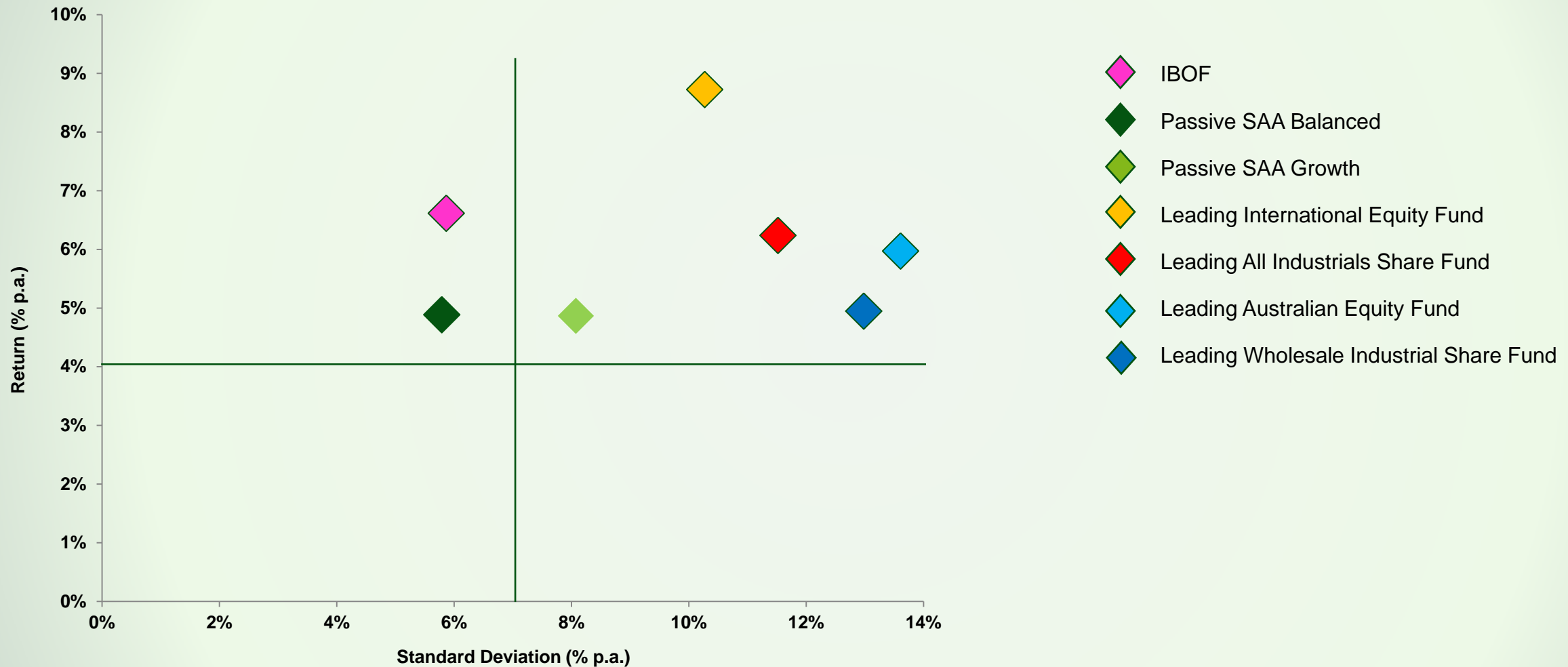
Percentage drawdowns from 01/05/2007 to 31/03/2018



Source: Morningstar Direct, Insight Investment. IBOF (Insight broad opportunities strategy) returns are net of fees, converted to AUD, 01/05/2007-31/03/2018. No investment strategy or risk management technique can guarantee gross returns or eliminate risk in any market environment. Chart shows percentage drawdowns of returns for the long-term strategy, since 31 December 2004. This investment strategy shown is used to illustrate Insight's skills and experience. The long term track record of the Insight broad opportunities strategy has a base currency of USD. This performance record has been adjusted by interest rate differentials to derive an AUD proxy. No currency adjustments have been made to the underlying investments.

Conclusion – a smoother return path

Risk/return profile from 01/05/2007 to 31/03/2018




Source: Morningstar Direct, Insight Investment. IBOF (Insight broad opportunities strategy) returns are net of fees, converted to AUD, 01/05/2007-31/03/2018. No investment strategy or risk management technique can guarantee gross returns or eliminate risk in any market environment. Chart shows the risk/return profile for the long-term strategy, since 31 December 2004. This investment strategy shown is used to illustrate Insight’s skills and experience. The long term track record of the Insight broad opportunities strategy has a base currency of USD. This performance record has been adjusted by interest rate differentials to derive an AUD proxy. No currency adjustments have been made to the underlying investments.



Thank you

Adam Kibble
Product Specialist

www.insightinvestment.com 

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Multi-asset

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- Investments in bonds are affected by interest rates and inflation trends which may affect the value of the portfolio.
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