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# Achieving long-term, capital efficient growth for Insurers

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Insight Investment

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## E3: Achieving long-term capital efficient growth for insurers

**Agenda:**

- Abstract
- Managing assets for insurers
- Why equities?
- Introduction to Diversified Growth strategies (DGS)
- Risk analysis and performance
- DGS within a regulatory framework
- Conclusions
- Q&A

## Abstract


- Key points:
  1. Risk assets such as equities are expected to provide attractive returns over the long-term but can show significant volatility at certain times and are subject to large drawdown events
  2. Protection strategies can be used to mitigate some of the downside risk but often cause a significant performance drag
- Presentation:
  – We take a closer look at diversified growth strategies which aim to actively allocate between asset classes to provide the benefits of diversification whilst seeking to mitigate against significant downside events
  – We discuss the practical problems for insurers seeking to monitor these strategies, including the complex exposures and the appropriate regulatory treatment

## Managing assets for insurers

**1. Liquidity management portfolio: Cash flow management**

Cash

Money market funds

- Managing day-to-day and unexpected cash flows
- Money market funds offer liquidity and capital efficiency

**2. Core portfolio: Liability management**

Gov bonds

High yield

IG corporate bonds

Illiquid credit

Emerging markets

- Portfolio tailored to client's liabilities and objectives
- Low yield environment means need to increase risk profile

**3. Growth portfolio: Volatility management**

Equities

Property

Absolute return

Other

- Capital efficient long-term growth with low volatility
- Increased diversification and capital efficiency

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Diversified growth strategies

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## Why equities?

- Asset class performance 1998-2018, using suitable proxies for:
  1. Cash (USD)
  2. US bonds
  3. US TIPS
  4. US high yield
  5. Emerging markets (USD)
  6. US equities
  7. Developed market equities
  8. Emerging market equities
  9. Commodities
  10. Property

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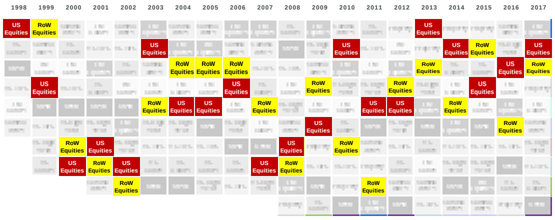
## Introduction to DGS




Source: Insight, annualised returns. For illustrative purposes only.

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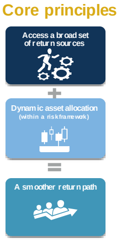
## Introduction to DGS

### Core principles




- Diversification across asset classes
- Active management across asset classes over time
- Reduced volatility and more stable outcomes for insurers

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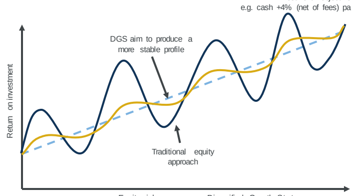
## DGS seek a more stable growth profile

- The challenges of equity investment:
  - Dependant on a narrow set of drivers of return
  - Reliance on market direction to be the primary driver of return
  - Dependant on (limited) diversification to help protect downside
  - Long-term outcome highly variable based on timing
  - Inherent volatility built into strategy

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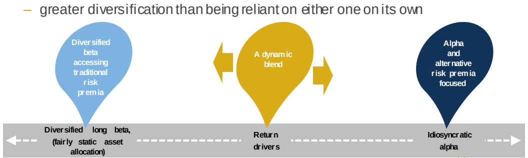
## Introduction
### Variations of DGS

- Blending 'traditional' risk premia with alternative sources of potential return provides:
  - a broader opportunity-set from which to generate potential return
  - greater diversification than being reliant on either one on its own

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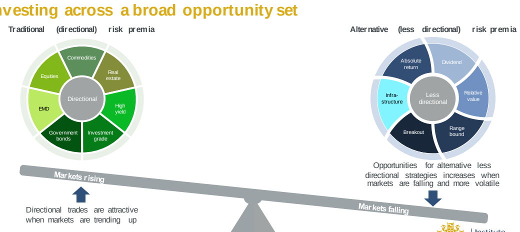
## Introduction to DGS
### Investing across a broad opportunity set

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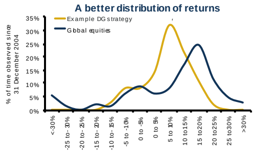
## Example DG strategy
### Targeting attractive returns

- Diversification
  - Not just across traditional asset classes but also by blending directional and less-directional sources of potential return
- Dynamic asset allocation
  - Aiming 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
  - Attractive risk-adjusted returns over the medium term




- **Disciplined strategy offering flexibility, transparency and rigorous risk control**

**Please refer to the risk disclosures at the back of this document.** As at 28 February 2018. No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment. Chart shows distribution of gross returns for an example Diversified Growth strategy, since 31 December 2004. Returns shown as gross in USD. Global equities represents MSCI World (Total Return, local currency).

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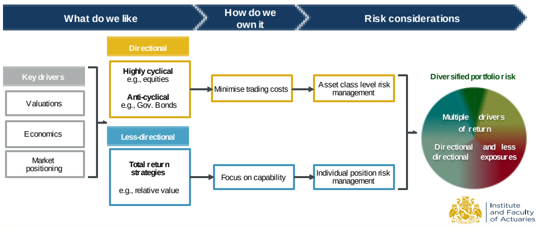
## Investment process

### A robust, transparent investment process

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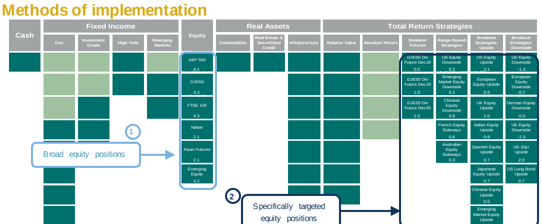
## Expressing equity market views

### Methods of implementation




**Please refer to the risk disclosures at the back of this document.** Note: Example DG strategy. Numbers in brackets are used to denote gross exposure values. Cash: Includes cash at bank, FX forwards and money market instruments. Positions shown at the end of March 2018.

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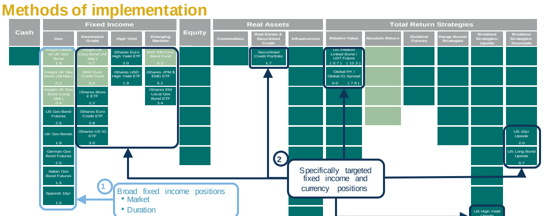
## Expressing bond and currency market views

### Methods of implementation




**Please refer to the risk disclosures at the back of this document.** Note: Example DG strategy. Numbers in brackets are used to denote gross exposure values. Cash: Includes cash at bank, FX forwards and money market instruments. Positions shown at the end of March 2018.

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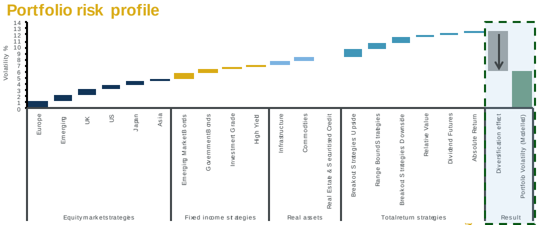
## Diversified sources of risk

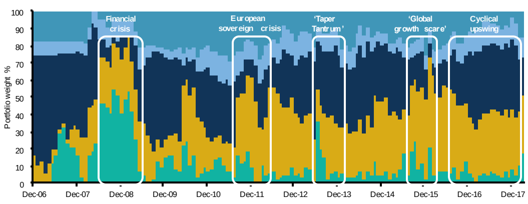
### Portfolio risk profile




**Please refer to the risk disclosures at the back of this document.** Source: Insight as at 31 March 2018. Three years of daily data for realised annualised volatility of current individual positions compared to the strategy's expected annualised volatility.

## Dynamic asset allocation

### Asset allocation can change significantly over time

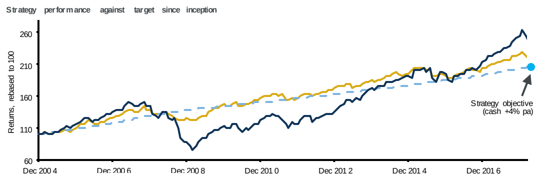



**Please refer to the risk disclosures at the back of this document.** Positions are shown on a net basis as at 31 March 2018. [1] Cash: Includes cash at bank, FX forwards and money market instruments.

## Example DG strategy

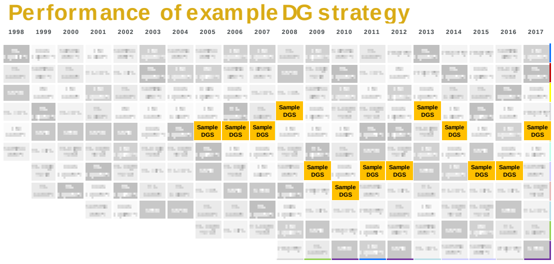
### Targeting a smoother journey towards cash +4% (pa) returns

Strategy performance against target since inception



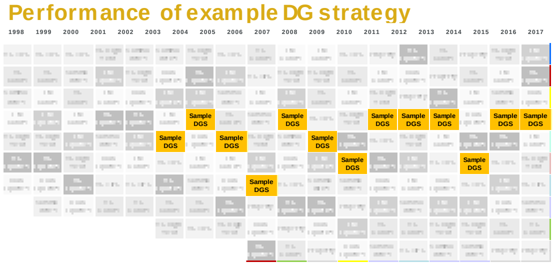

**Please refer to the risk disclosures at the back of this document.** As at 31 March 2018. Gross returns, rebased to 31 December 2004, when example strategy was initiated. The long-term track record of the example strategy has a base currency of USD. Cash represents 3 Month USD Libid. Indices shown as Total Return. The global equities index is shown to illustrate the strategy's volatility against equities.

## Performance of example DG strategy




Source: Insight, annualised returns.

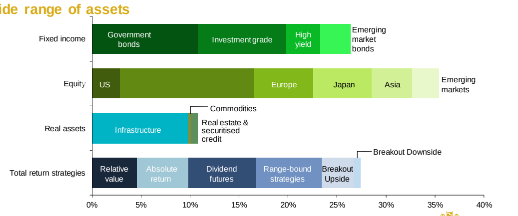
## Performance of example DG strategy




Source: Insight, annualised risk-adjusted returns.

## Diversified sources of return

### Attribution of return illustrates the potential benefit of investing across a wide range of assets



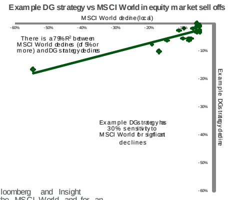

Please refer to the risk disclosures at the back of this document. This attribution is for the period 7 September 2009 to 31 March 2018 (numbers are gross, based on GBP performance). Data is weighted absolute performance in %.

## DG strategy performance characteristics

### Peak to trough analysis

- How has the DG strategy behaved during large global equity market declines? (defined as falls in excess of 5%)
- The dynamic asset allocation of DG strategy steers investments away from poorly performing assets, helping reduce drawdowns
- There is a high 79% $R^2$* between MSCI World peak to trough declines of 5% or more for the past 10 years suggesting a high correlation between large equity market falls and negative returns in the strategy
- However, the extent of the DG strategy declines is much reduced
- As the chart opposite illustrates, the slope of the trend line between equity market declines and DG strategy declines 'only' has a slope of 30%
  - Over the 19 occasions in the last 10 years that we have experienced these large declines, our sensitivity has averaged 30%

**Example DG strategy vs MSCI World in equity market sell offs**




**Please refer to the risk disclosures at the back of this document.** Source: Bloomberg and Insight Investment as at 4 October 2017. Declines are measured as peak to trough for the MSCI World and for an example DG strategy separately to maximise declines and provide an unbiased comparison. * R-squared is a statistical measure of how close the data are to the fitted regression line. 0% indicates that the model explains none of the variability of the response data around its mean. 100% indicates that the model explains all the variability of the response data around its mean.

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## DG for Insurers

**Ongoing reporting:**

- Full look-through at all levels:
  - factsheets for external exposures
  - table of market volatility and correlation parameters
  - stress testing
  - indicative SCR calculation under Solvency II standard formula approach

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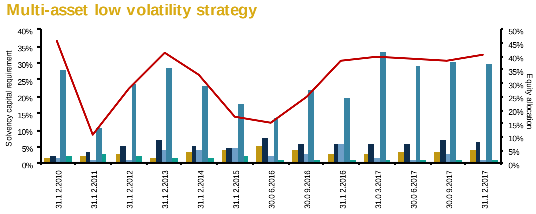
## Example DG strategy: Solvency II SCR analysis

### Multi-asset low volatility strategy




As at 31 December 2017. These estimates are based on Insight's interpretation of Solvency II regulation. These estimates are indicative and cannot be used for the purpose of determining actual capital requirements.

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## Supporting our insurance clients

| | Quantify risk | Manage risk | Report risk |
|---|---|---|---|
| Investment risk | • Technical provisions<br>• Minimum Capital Requirements Solvency Capital Requirements | • Internal controls<br>• Own Risk and Solvency Assessment (ORSA)<br>• Supervisory review | • Disclosure requirements<br>• Transparency<br>• Information flows |
| Investment strategy implications and requirements | • Our understanding of your business and the regulatory environment<br>• Capital efficiency<br>• Mandate constraints<br>• Data flows | • Governance process and controls<br>• Insight risk management capabilities<br>• Transparency | • Examples:<br>– Quantitative Reporting Template (QRT)<br>– Tripartite template (TPT)<br>• Look-through on collective investments |

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## Conclusions

- Equities have the potential to produce attractive returns, particularly over the long term
- However, equity return distributions have long tails:
  …and annual returns can be volatile from year to year
- There is significant drawdown risk in the short term:
  …which might be reflected in regulatory / rating agency / risk capital models
- Diversified Growth strategies aim to produce similar long-term returns to equities:
  …but with lower volatility and reduced downside risk
  …by investing in a much more diversified portfolio
  …and actively managing the allocations over time
  …and which has the potential to deliver better returns on a risk-adjusted basis

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## Questions

## Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

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04 May 2018

## Biography

**Simon Richards, FIA – Head of Insurance Solutions**

Simon joined Insight's Financial Solutions Group in June 2008. He is now Head of Insurance Solutions in the Client Solutions Group and has overall responsibility for the design, implementation and monitoring of investment strategies for insurance clients.

Simon works closely with the relevant portfolio managers to ensure that the investment solutions are tailored to the needs of each client and remain efficient and appropriate given changing market conditions and evolving regulatory requirements. He began his career in 1994 and has held actuarial positions at NPI, Pearl Group and at JPMorgan, where he was responsible for structuring derivative solutions to UK and European insurance companies.

Simon holds a BSc (Hons) in Mathematics from the University of Exeter and is a Fellow of the Institute of Actuaries in the UK.

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- Any target performance aims are not a guarantee, may not be achieved and a capital loss may occur. Strategies which have a higher performance aim generally take more risk to achieve this and so have a greater potential for the returns to be significantly different than expected.
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**Multi-asset**

- Derivatives may be used to generate returns as well as to reduce costs and/or the overall risk of the portfolio. Using derivatives can involve a higher level of risk. A small movement in the price of an underlying investment may result in a disproportionately large movement in the price of the derivative investment.
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