

Fact Sheet

# Defined Benefit Pension ALM

barrie+hibbert

Powering objectivity in the global financial services industry



## Defined Benefit ALM (DBALM)

Defined benefit pension funds have faced significant challenges over the last decade due to factors such as volatile equity returns, low bond yields, the exposure to alternative asset classes and pensioner longevity improving faster than expected.

This has led to the introduction of more sophisticated techniques for managing the risks inherent within a pension fund and a growing trend towards market-based measures of economic valuation.

The demands of stakeholders such as sponsors, trustees and members have resulted in a more active approach to managing their respective interests within pension funds.

Without a robust measurement of risk and potential reward, it is difficult to assess the merits of a fund's current strategy and any potential risk management strategy, especially as the potential investment solutions available to pension funds are numerous and complex.

### Addressing the industry's challenges

The DBALM from Barrie & Hibbert gives our clients' access to a proven tool that will help them measure and manage the risks facing their pension fund.

Powered by our Economic Scenario Generator, our solution is a sophisticated asset-liability model that takes a holistic approach to analysing the risks underlying pension funds.

### Key Benefits of the Barrie & Hibbert approach

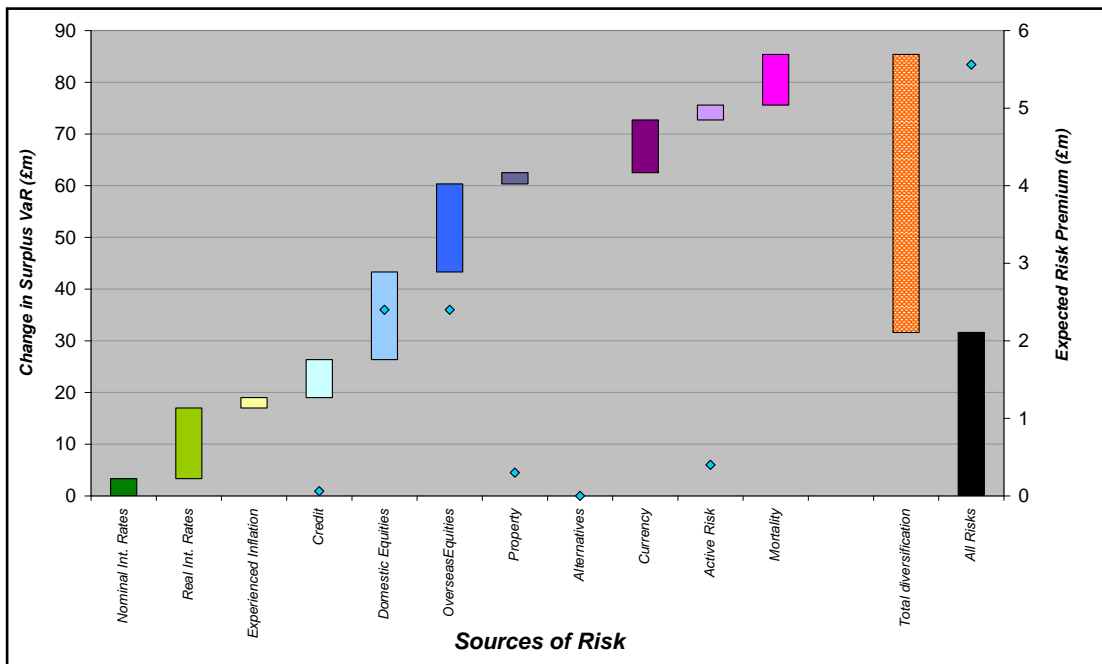
- Integrated stochastic asset-liability modelling tool that covers interest rates, multiple equity and property indices, credit risk and alternative asset classes.
- Ability to model a variety of equity and interest rate derivatives.
- Aids the understanding of key risk drivers and their significance.
- Investigate the expected impact on the risk and return of the pension fund under different investment strategies.
- Understand the significance of individual risks and their contribution to the aggregate risk.
- Assess how the investment strategy can influence deficit recovery schedules and the level of contributions.
- Supports distributed processing and grid computing technology.

## Example Output

Pension fund stakeholders can be surprised to see where their key risks emanate, and can sometimes be taken aback to find that the risks they worry about most are not always the significant ones they are exposed to.

Our risk analysis model offers a distinguished view of measuring risk and return, which is not only comprehensive in its approach but delivered in a manner that aids the communication of the results to key stakeholders.

Shown below is an example of one of the outputs of the model, which highlights our approach to risk measurement. It shows the disaggregation of the total value at risk of the fund's surplus (the black bar on the right) into its constituent parts (the coloured bars, except the orange one) and the diversification of these risks (the orange bar). This approach provides an intuitive way to manage risks and can illustrate how tackling a risk in isolation can result in little effect due to a reduction in the diversification benefits.



## Unrivalled Expertise

As part of our service, our team of economists, actuaries and quantitative analysts constantly review and recalibrate the economic models every quarter. This ensures our clients have the most up to date views on the economic variables that will impact them.

With a team dedicated to research and building financial models, our clients can be sure they will have a future proofed solution.

## Why Barrie & Hibbert?

Barrie & Hibbert was established in 1995 by John Hibbert and Andrew Barrie. We provide a range of software modeling tools, research and consulting services to a wide range of financial institutions and strategic partners.

Barrie & Hibbert's primary focus is the identification, quantification and management of financial risk in savings and investment products, institutional portfolios and life and pensions balance sheets. Barrie & Hibbert has developed a powerful library of financial models that can be used to understand the complicated joint financial relationships that drive uncertainty in long-term financial plans.

Collectively our staff of leading academics, quantitative analysts, actuaries and software engineers offer a depth and breadth of expertise combined with an unrivalled track record of experience in implementing risk solution for financial institutions around the world.

Our asset and product modeling capability has been developed over the last 13 years resulting in Barrie & Hibbert becoming a global market leader in stochastic asset modeling services.

Barrie & Hibbert is privately owned and employs around 100 staff across locations in the UK, North America and Asia.

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