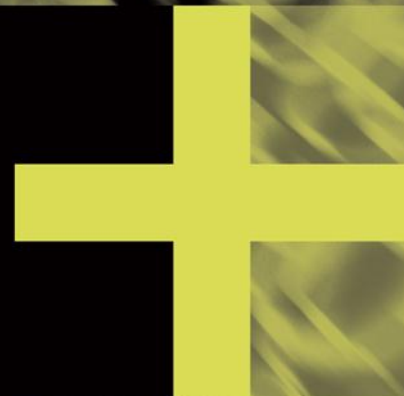


Fact Sheet

# Factor Model & Correlation Tool Kit

barrie+hibbert

Powering objectivity in the global financial services industry



## Factor Model & Correlation Tool Kit

The events of 2008 have emphasized the importance of joint movements in asset prices, both across geographical regions and asset class. In order to capture these joint movements across asset portfolios, we must accurately specify the equity-equity correlation and volatility structure.

While calibration of a handful of assets is straightforward, accurately targeting correlations between asset-classes, as well as correlations between many equity assets, can be challenging, often requiring expert judgement and possibly trial and error.

With the **Barrie & Hibbert Factor Model & Correlation Tool Kit**, this previously non-trivial task becomes accessible to all ESG users.

The Toolkit allows users to easily take advantage of the flexibility of the ESG's Equity Factor Model and Correlation Matrix to perform a range of key calibrations and calculations including:

- Simultaneously target correlation and volatility targets across as many as **50 equity type assets** using Principal Components Analysis (PCA).
- Introduce additional assets to an existing PCA calibration using numerical optimisation.
- Ensure validity of target covariance matrix using analytic calculations.
- Target *equity-bond* and *equity-short rate* correlations using numerical optimisation of correlation matrix parameters.
- Both equity-equity and equity-bond calibrations can be performed simultaneously or on a stand-alone basis.

## Find out more

If you would like more information about the Barrie & Hibbert Factor Model & Correlation Tool Kit, then please do not hesitate to contact us. Details of our regional offices can be found below.

## Why Barrie & Hibbert?

Barrie & Hibbert was established in 1995 by John Hibbert and Andrew Barrie. We provide a range of software modelling 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 solutions for financial institutions around the world.

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

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

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