



## Cambridge Risk Industry Forum

### Portfolios of Everything (POE)

Presented by Morningstar Europe Ltd. and AnalyCorp Inc.

Cambridge Judge Business School – LT3

Monday 3 May 2010: 12:30-13:30

**Abstract:** Physicists have long sought a Theory of Everything (TOE), which links together all known physical phenomena from quantum mechanics to relativity. POE expands modern portfolio theory, originally formulated for stock investments with roughly normal distributions, to include investments in R&D portfolios, assets with fat-tailed distributions, options, and much more. Furthermore, it takes advantage of the latest interactive visualisation tools, make its results comprehensible to the man in the street.



#### Paul D. Kaplan, PhD, CFA

#### Quantitative Research Director, Morningstar Europe

Dr Kaplan is responsible for the quantitative methodologies behind Morningstar's fund analysis, indexes, advisor tools, and other services. In the U.S., he has served as vice president of quantitative research of Morningstar Inc. and as chief investment officer of Morningstar Associates LLC (a registered investment advisor and wholly owned subsidiary of Morningstar Inc.) where he developed and managed the investment methodology for Morningstar's retirement planning and advice services. Before joining Morningstar in 1999, he was a vice president

of Ibbotson Associates and served as the firm's chief economist and director of research. (Morningstar acquired Ibbotson in March 2006). Prior to that, he served on the economics faculty of Northwestern University where he taught international finance and statistics. Dr Kaplan holds a bachelor's degree from New York University and a master's degree and doctorate in economics from Northwestern University. He received the 2008 Graham and Dodd Award, the highest honor given by the *Financial Analysts Journal*, and was a Graham and Dodd Award of Excellence winner in 2000.



#### Sam Savage, PhD - Author, *The Flaw of Averages*

#### Consulting Professor, Stanford University

After receiving his PhD in the field of computer science from Yale University in 1973, Dr Savage spent a year at General Motors Research Laboratory, and then joined the Management Science faculty of the University of Chicago Graduate School of Business. In 1985 Dr Savage led the development of a software package called What'sBest!®, winning *PC Magazine's* Technical Excellence Award in 1986. He has been a Visiting Professor at Northwestern University's Kellogg School and the Naval Postgraduate School in Monterey, and is a Fellow at Cambridge Judge Business

School at the University of Cambridge. In 2006 Dr Savage formalised the concept of Probability Management with Stefan Scholtes of Cambridge, and Daniel Zweidler, then with Royal Dutch Shell, and now at Merck & Co. In 2008, in collaboration with Oracle Corp., SAS Institute, and Frontline Systems, he developed the Distribution String, a new, additive representation for probability distributions, Dr. Savage's book on *The Flaw of Averages* was published by John Wiley & Sons in June 2009.