

About Helyette Geman

Helyette Geman is a Research Professor of Mathematical Finance at Johns Hopkins University in the Department of Applied Mathematics and the Director of the Commodity Finance Centre at Birkbeck – University of London. She is a Member of the Board of the Bloomberg Commodity Index.

Helyette is a Graduate of Ecole Normale Supérieure in Mathematics, holds a Master's degree in Theoretical Physics, a PhD in Probability from the University Pierre et Marie Curie and a PhD in Finance from the University Pantheon Sorbonne. She is also a Member of Honor of the French Society of Actuaries.

Her books include '*Commodities and Commodity Derivatives: Modeling and Pricing for Energy, Metals and Agriculture*' - Wiley Finance; '*Insurance, Weather and Electricity Derivatives*' - RISK Books; '*Agricultural Finance: from Crops to Land, Water and Infrastructure*' - Wiley Finance.

From 1988 to 1995, Helyette Geman was Chair of the Finance Department at ESSEC Business School; from 1995 to 2005, she was the Director of the Master 203 '*Security Markets, Commodity Markets and Risk Management*' at the University Paris Dauphine where she supervised, among others, the PhD dissertation of Nassim Taleb on '*The Microstructure of Dynamic Hedging*' defended in 1998.

Professor Geman was the second President of the Bachelier Finance Society and organized in 2000 at College de France its first International Congress, with Professors Paul Samuelson, Robert Merton and Henry McKean as Keynote Speakers. She was in 2010 the Wilmar Invited Professor of Commodities Business at Singapore Management University.

Helyette has published more than 100 papers in top international Finance and Insurance Journals which include *Journal of Financial Economics, Management Science, Resources Policy or Journal of Risk and Insurance*. Her research includes stochastic interest rates, for which she introduced the 'Forward Measure' together with a Change of Numeraire; Bessel Processes and Stochastic Time Changes for Asian Options in the BSM setting, for which she got in 1995 the First Prize of the Merrill Lynch Awards; novel work on the price of CAT bonds and insurance of extreme events by replication of reinsurance treaties, for which she got the first AFIR Prize in 1994; Order Flow, Transaction

Clock, Stochastic and Normality of Asset Returns in *The Journal of Finance* in 2000. Her work with Peter Carr, Dilip Madan and Marc Yor on pure jump Levy Processes in Finance, the CGMY model and numerous extensions obtained for its authors in 2008 the Medal for Sciences of the Institute for Advanced Studies of the University of Bologna.

Helyette Geman has dedicated since the late 1990s a large amount of her research, in theory and practice, to Crude Oil, Natural Gas and Electricity and was named in 2004 in the Hall of Fame of Energy Risk. She was the founder in 2020 of the Society ' *Women for Climate Sciences* ' and is a member of the Ralph O'Connors Sustainable Research Institute at Johns Hopkins University. She is a Senior Fellow at the think tank ' *Policy Centre for the New South in Rabat (Morocco)* '.

Helyette Geman was the first woman in 31 years of existence of the Award to have been chosen by the International Association of Quantitative Finance as the 'Financial Engineer of the Year 2022'.