Quantitative Hedge-Funds and Strategies: Myths and Realities

Quantitative strategies which, at certain points in recent history, have generated positive returns for investors are reviewed. These are: (1) statistical arbitrage, (2) long volatility/variance, (3) commodities yield-curve trading and (4) ETF arbitrage and high-frequency trading. The profitability of these quantitative strategies will be analyzed across the economic cycle. The conclusion is that, aside from (3), "quant" strategies are appropriate when markets are volatile and "trend-less". In contrast, commodity yield-curve strategies work well in trending markets, particularly when trending to the upside. Following this, the broader question of profitability of hedge-funds is addressed. Some myths and realities associated with them are discussed, and, in particular, empirical findings which predict the overall size of the hedge-fund industry compared with all investments.

Biography

Dr. Marco Avellaneda is a Professor of Mathematics at the Courant Institute of Mathematical Sciences at New York University. Since 1998 he has been the director of the Division of Financial Mathematics. His research interests include probability, partial differential equations, applied mathematics, quantitative modeling in finance, homogenization, and turbulence theory. He wrote "Quantitative Modeling of Derivative Securities: From Theory to Practice," and Risk Magazine named him their 2010 Quant of the Year.