Istituto Metodi Quantitativi - Università L. Bocconi
Viale Isonzo, 25 - 20135 Milano
Tel. 02-58365632 - Fax 02-58365630

SEMINARIO

"Beyond Black-Litterman: Views on Non-Normal Markets the Copula-Opinion Pooling Approach"

Attilio Meucci

(Lehman Brothers, NY)

Giovedì, 21 Dicembre 2006 – ore 16.30
Aula 137 – Viale Isonzo 25

Abstract:
The Black-Litterman technique allows portfolio managers to smoothly blend their subjective views on the market with a prior market distribution.
Nevertheless, the BL approach suffers from two drawbacks. In the first place, in BL both the market prior and the manager's views are normally distributed.
For most markets the normal assumption is too strong: fat tails, skewness and high dependence among extreme events characterize the joint distribution of market risk factors in many contexts. Secondly, in BL managers express views on the parameters that determine the market distribution. In reality, practitioners express views directly on the possible realizations of the market.
We rely on the opinion pooling, rather than Bayesian, theory to improve on BL in the above directions. We use opinion pooling criteria to determine the marginal distribution of each view separately, whereas the joint co-dependence, i.e. the copula, among the views is directly inherited from the prior market structure. Finally, a suitable change of coordinates allows us to translate the joint distribution of the views into a joint posterior distribution for the market.
First we introduce the theory behind the copula-opinion pooling approach; then we detail an algorithm to implement the COP approach under virtually any distributional assumption on the market and the views; we conclude with an application to the management of a fixed-income portfolio.
JEL Classification Numbers: C1, G11