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To what extent do marginal distributions and correlations determine the prices of basket credit derivatives?

A well established approach to pricing basket credit derivatives consists in using a copula model with the following input data:

(i) marginal distribution of default time for each company, and

(ii) one or several implied parameters, so-called "implied correlations", which are calibrated to the existing market data and are responsible for the dependence structure.

However, different choices of copulas often lead to dramatic changes in resulting prices, which is clearly a result of the incompleteness of credit risk models. We study the following question: what is the variability in arbitrage free prices if we fix all marginal distributions and also some parameters responsible for the dependence structure (such as the correlation between defaults). More specifically, we analyze the incompleteness of the market by computing the spread between buyer's and seller's price for "n-th to default" credit default swap in a dynamic lattice model. We will present results from several numerical experiments and some (preliminary) conclusions and conjectures.