Pricing Portfolio Credit Derivatives By Means Of Evolutionary Algorithms

With the recent development of non-standard credit derivatives, it has become increasingly important to develop pricing models for these illiquid products which are consistent with the pricing models and the market quotes of related liquid instruments. Svenja Hager aims at pricing non-standard illiquid portfolio credit derivatives which are related to standard CDO tranches with the same underlying portfolio of obligors. Instead of assuming a homogeneous dependence structure between the default times of different obligors, as it is assumed in the standard market model, the author focuses on the use of heterogeneous correlation structures. The intention is to find a correlation matrix sufficiently flexible so that all tranche spreads of a CDO structure can be reproduced simultaneously. This allows for consistent pricing. The calibrated model can then be used to determine the price of non-standard contracts. As there is no standard optimization technique to derive the correlation structure from market prices, Evolutionary Algorithms are applied. EAN/ISBN : 9783834997029 Publisher(s): Gabler Discussed keywords: Kreditderivate Format: ePub/PDF Author(s): Hager, Svenja

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