THE CORPORATE DEBT ESTIMATION AND CREDIT DERIVATIVE TRANCHES RISK MATHEMATICAL MODELS

Stikhova O.

Moscow State Technological University "STANKIN", chair " The Applied Mathematics
Vadkovsky lane 1a, Moscow, 127055, Russia, +7(499)972-95-20, E-mail: olgitast@smtp.ru

Currently credit risks are associated with default assets and only one emitter occasionaly. Mass defaults are possible at any influencing default condition national measures, such, as the branch or regional factor, or general economy condition, including industrial sector. The credit derivatives such the collateralized debt obligation (CDO) and the credit default swaps (CDS) being the developed countries economy condition changes indicators are investigated in this work [1]. The earlier industrial models were essentially static, as they simulated only the certain time interval default risk and were not capable to demonstrate distributed in time default risk, which is an essential risk in all liabilities, cash flow associated with. More perfect methods of default time and tranches distribution dynamics modeling are necessary. There is a new adequate estimation model construction tasks complex of the industrial sector companies [2]. The credit derivative popularity has increased recently, that considerably well-known synthetic indexes imposition has affected.

For an estimation CDO task solution the synthetic CDO estimation is considered. To quote the base portofolio CDS and CDO tranches our single and multiple name default probability developed models are used respectively. The default time distribution was calibrated according to the basis CDS rates [3]. Credit portofolio market cost influence on the future option expiration date and also on other firms credit spreads depends on which basic firm, if those exist in general, are not carry out obligations to this date. The calculations findings for the various activity field enterprises have shown the developed models and algorithms high efficiency.

References

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