

REINSURANCE CREDIT RISK MODELLING — DFA APPROACH —

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This paper presents a unifying stochastic approach to modelling the reinsurance credit risk in a DFA environment. The approach relies on the key ideas of defining the reinsurer default as the outcome of an asset impairment event and modelling default events being dependant on the current state of global reinsurance market. In this modelling approach the state-conditional default rates based on reinsurance credit rating are calibrated by using industry available impairment rates for reinsurers and matching the model implied default dependency structure to the target one of the underlying assets. The proposed model overcomes common issues arising from applying existing investment banking concepts to calibrating credit risk in (re)insurance sector. This paper proposes and discusses a DFA model setup to quantify the costs for reinsurance credit risk.

Keywords: reinsurance credit risk, copula and reinsurance default dependency structure, DFA simulation model.

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