## ENHANCING INSURER VALUE THROUGH REINSURANCE OPTIMIZATION

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## Abstract

The paper investigates the demand for change-loss reinsurance in insurer value creation. It is assumed that the insurer's objective is to maximize shareholder value under a solvency constraint imposed by a regulatory authority. In one period model of regulated market where the required solvency level is fixed an insurer can maintain this level by two control variables: reinsurance and risk capital supplied by shareholders. Two alternatives are considered in the paper. In the first one (conservative model) the required risk capital is determined at the beginning of the period and does not depend on the reinsurance decision. In the second model insurers can reduce the required minimal level of the risk capital taking into account the purchase of reinsurance. It is shown that the first model does not create a demand for reinsurance in a frictionless market, however, there is demand for reinsurance in this model under the presence of corporate tax. There is always an optimal tradeoff between the required minimal level of the risk capital and purchase of reinsurance. In those cases where there exists a demand for change-loss reinsurance the optimal reinsurance contract is stop-loss.

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