

CREDIT RISK MEASUREMENT AND MANAGEMENT OF INSURANCE COMPANY

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This paper is dedicated to credit risk measurement and management of insurance company risk management policy. We define and identified credit risk in the system of other enterprises risks. Classification of credit risk is presented in the article. Credit risk function is given as an important part of the development, selection, implementation and verification of rating models. Essential role of risk monitoring in the risk management policy is described in the paper.

The economic, political, social and environmental changes that have taken place around the world in the previous years have been difficult for everyone. Most of these changes were on the higher difficulty after the financial crisis and global economic downturn in the last five years.

Insurance companies – risk managers, risk carriers and major investors – are in the front line in dealing with the shock and the problems it create. The role of insurance is to bring predictability, controllability and stability.

Insurers are themselves subject to the same shocks and problems like everyone else. But who creates order out of chaos for them? Of course, they are well equipped to manage their risk, because risk management is their core business and their vital skills.

The turbulence in the financial markets is stretched insurers risk management policies and procedures. They held up well compared to those banks, but they have nevertheless been revised and enhanced, if necessary, in all key areas: insurance, liquidity, operational, credit, market, and other relevant risks identification.

Any approach to risk management should be a corporate – it must be stated at the center, integrated across the organization and applies the heads of each line of business. Effective corporate risk governance at the top of the organization is essential.

For most insurers, lending through investment and lending activity includes in their business as an important part. Thus, the quality of the loan portfolio of the insurer affects the risk is borne by policyholders and shareholders. Credit risks arising from reinsurers, brokers, agents and customers are not included in "Investment Risks."

Credit risk is the risk of financial loss resulting from default or movement in the credit quality of issuers of securities (in the company's investment portfolio), debtors (for example, mortgagors), or counterparties (for example, on reinsurance contracts, derivative contracts or deposits given) and intermediaries, to whom the company has an exposure. Credit risk includes:

- default risk: risk that an insurer will not receive, or receives delayed, or partially, the cash flows or assets to which it is entitled because a party with which the insurer has a bilateral contract defaults on one or more obligations
- downgrade or migration risk: risk that changes in the probability of a future default by an obligor will adversely affect the present value of the contract with the obligor today
- indirect credit or spread risk: risk due to market perception of increased risk on either a macro or micro basis
- concentration risk: risk of increased exposure to losses due to concentration of investments in a geographical area, economic sector, counterparty, or connected parties.

The accepting of credit, in the context of an insurer's claims management, hedging, investment and lending activities, is the provision of funds on agreed terms and conditions to a counterparty (or borrower) who is obliged to repay the amounts owing (often but not always, together with any interest thereon). Credit may be extended, on a secured or unsecured basis, by way of instruments such as reinsurance ceded, premiums for hedging vehicles, mortgages, bonds, asset-backed securities, private placements, leases, and stock lending (from both a quantitative and qualitative perspective), derivatives, and structured products that have the effect of derivatives. Some of these instruments may lead to potential future exposures.

Common areas of credit risk, in which the insurer is willing to do, must be specified in the investment policy. Type of credit activity, the type of collateral or real estate, as well as types of borrowers, in which the insurer can focus should be specified. Particular attention should be paid to the built-in operations of credit risk (such as credit derivatives). In addition, the credit risk of the investment activities should be consistent with the credit risk of other activities of the insurer (i.e. an insurer is exposed to additional risk of the counterparty credit rating when working with reinsurers and brokers).

Operations and exposures involving persons who are related and not related to each other require special attention. These operations and the effects can lead to non-market conditions, concentration risk or liquidity risk, or a combination of them. Therefore, the insurer should have policies on connected exposures, as well as policies on intra-group exposures that ensure:

- connected exposures are viewed at group level and consider potential exposures to all assets and liabilities, as well as reinsurance
- where an insurer is a member of a conglomerate or group, the insurer has policies on its transactions
- with and its exposures to the group.

Credit exposure limits should be set in accordance with the investment policy of the insurer. Measurement of compliance with these standards will include developing the ability to impact the total investment of the insurer under each specific risk classification. These could include exposure limits on the following risk classifications:

- type of collateral security or real estate
- single counterparties and connected counterparties (such as through legal, economic or managerial basis)
- industries or economic sectors
- geographic regions.

The rules for the aggregation of individual exposures within the general classification of the risk, such as conglomerate, industry and geography, should be established and clearly defined in the credit policy.

Measurement tools to be used to determine the insurer's credit risk exposure should include:

- internal ratings
- external ratings
- results of stress testing
- concentration aggregations (geography, issuer, group of issuers)
- concentrations within the insurer's group of affiliated companies.

Credit risk limits defined investment policy of the insurer shall be expressed in accordance with the risk measures that will be used to monitor credit risk insurer activity. Thus, limits and monitoring should be determined in conjunction with each other. The measured values of credit risk will be compared with the limits set out in the investment policy. For example, the policies may impose a credit limit on the insurer's investing activities defined as:

- a maximum amount or percentage of investment exposure to a single issuer, industry, geographic region, or some other risk classification
- a limit on the amount or percentage of investment exposure to certain levels of credit ratings (external or internal or a combination of these)
- more sophisticated measures may be developed, such as a maximum value at risk, according to the insurer's stress testing capabilities.

In order to track the performance of portfolio diversification, insurers must have a system that allows credits to be grouped according to characteristics such as type of credit activity, taking on value of credit risk of the counterparty credit ratings, the type of collateral or property, the type of borrower, type of industry and geographic regions.

Credit risk management function should be actively involved in the development, selection, implementation and verification of rating models. It has to take control and supervision responsibilities for any models used in the rating process, and ultimate responsibility for the ongoing review and change in the rating models.

Insurers should take into account potential changes in financial and economic conditions in the evaluation of individual loans and loan portfolios, and should assess their credit risk in stressful conditions.

Although the determination of whether or not a certain concentration is excessive is a matter of judgment, it must satisfy the statutory requirements, to be compared with industry standards (if any), and to consider them in the light of the insurer's own resources and the results of stress tests. At a time when credit risk of the insurer becoming too concentrated, the insurer must take early action and the options available to the diversification of its loan portfolio. This includes the estimation on both sides of balance sheet.

The insurer should measure and monitor its risk as to the transaction and portfolio levels at the appropriate time horizon. Insurers must regularly monitor the condition of the main contractors and safety and to review individual loans, liabilities, and their credit ratings. Failure to do so may lead to undetected deterioration of the loan portfolio. Depending on the type of credit and market instruments, credit risk management program of each insurer shall include procedures for the regular formal review and, if necessary, re-rating of credit.

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