Credit risk management

Why it matters and how insurers can enhance their capabilities
As enterprise risk management has moved up the strategic agenda for insurance executives in the years since the global financial crisis, insurers have formalized and standardized policies and processes for managing different types of risks. In many cases, the role of risk management groups is clearly defined. When it comes to credit risk management, however, insurers have varying approaches. At some carriers, the risk management group plays a basic oversight role, while at other firms it more broadly and deeply involves credit and portfolio risk monitoring.

With increasing regulatory pressure and ongoing economic turbulence, credit risk management is moving up the agenda for senior management. In fact, many insurers are making significant investments to strengthen their credit risk management capabilities and infrastructure. Specifically, they are seeking to use data and analytics to gain more insight into the exposure to different types of credit risks and to make “smarter” credit risk decisions. Some insurers are likely to find that they are not investing aggressively enough to boost their risk-adjusted returns.
The meaning and types of credit risk in insurance

Credit risk is usually defined as the risk of loss due to the inability or limited willingness of a borrower (obligor), issuer or counterparty to meet its financial obligations. For insurers, the sources of credit risk may include:

1. **Investment portfolio risk**
   Generally, this is the largest and most prevalent type of credit risk for insurers. Investment portfolios typically include bonds, structured transactions and secured lending (i.e., mortgage loans), among others. The risk for the investment portfolio involves the likelihood that investments will fall in value as a result of rating downgrades, issuer (or borrower) default, credit spread changes, macroeconomic cycles or conditions, or other factors. The extent of the risk varies based on the quality, value and volatility of assets in an insurer’s investment portfolio.

2. **Counterparty risk**
   Transactions involving financial derivatives present unique risks to insurers, starting with the possibility that counterparties will be unable to meet their obligations, requiring replacement with a different counterparty and potentially resulting in a loss depending on market rates at the time of the transaction.

3. **Reinsurance counterparty risk**
   When an insurance company cedes risks to a reinsurer, it assumes the risk that the reinsurance company defaults and will be unable to fulfill its obligations. In such an event, the insurance company will then need to fund and maintain adequate reserves.

4. **Country risk or transfer risk**
   Country risk primarily arises from the socioeconomic turbulence or political uncertainty in a foreign country. Transfer risk results mainly from a lack or restriction of foreign exchange required to fulfill obligations. Given the interconnected global economy, and the solid returns that some emerging markets can provide, country risk must be on the agenda of risk management groups.
Why credit risk matters for insurers

Credit risk is an increasingly important matter in the insurance industry because of the central role it plays in the investment portfolios in the industry. Given that insurers accept premiums and maintain capital reserves to cover the potential cost of future claims, credit risk speaks to the very heart of the insurance business. Insurers also face increased credit risk in terms of their investments, especially now that:

- More insurers have turned to high-risk assets in search of higher yields and better investment results.
- The prospect of a national government defaulting on its obligations seems more likely today than just a few years ago.
- A number of once-stable industries (utilities and telecoms, among others) have been downgraded.
- Globalization and other macroeconomic trends make it harder to “quarantine” downgrades or defaults to one sector or region.

Regulatory constraints – including the way that National Association of Insurance Commissioners (NAIC) and local regulatory regimes skew exposure to sovereigns and financial institutions – can exacerbate credit risk issues. For instance, concentration risk refers to any single exposure or group of similar exposures that have the potential to produce losses large enough to threaten the insurance company’s creditworthiness or ability to maintain its core operations (relative to an insurer’s earnings, capital, total assets or overall risk level).

Concentration risk may include exposures to a specific counterparty, an industry or economic sector or a geographic region. Concentration risk may also arise from credit risk mitigation techniques and exposures to counterparties used for execution or processing (such as hedge funds and hedge counterparties).

Then there are relatedness risks, which exist when the size of exposure is correlated to the creditworthiness of the counterparty. Right-way exposure means exposure increases as a counterparty’s creditworthiness improves, while wrong-way exposure means exposure increases when a counterparty’s creditworthiness decreases. Relatedness risks may arise from foreign exchange fluctuations, interest rate swaps, equity derivatives and collateral, as well as through exposure to systemically important financial institutions (SIFIs) and sovereign wealth funds.
Insurers were made all too painfully aware of these and other risks during the financial crisis of 2008–2009, as well as the “dotcom bust” of the early 2000s. In both of these cases, many insurers only realized too late the depth and breadth of their sector-specific exposures. For example, ambiguous contracts concealed just how many different industries would be affected or damaged by the mortgage crisis. Lacking sufficient stress-testing programs, scenario modeling capabilities or a system of triggers to alert them to these risks, insurers failed to see the underlying interdependencies and suffered severe economic consequences as a result.

The industry supervisory groups and global regulators that have studied the crisis have concluded that a major cause was the lack of forward-looking views of credit risk. Today, insurers may have similarly serious concerns about overexposure to the oil industry or certain government debt.

The imperatives to avoid similar scenarios in the future and to improve portfolio performance are driving many insurers’ investments in more robust credit risk management capabilities today. They are also leading many insurers to go beyond minimum standards for regulatory compliance as a means to gain much deeper and more precise views of their credit risk.

The need and business case for credit risk management varies by type of insurance company.

**Life insurers and annuity providers**

These carriers need insight into credit risk to avoid overexposing their investments to one asset class or sector - a critical consideration with interest rates remaining at or near record lows. Credit risk is typically the second-largest risk faced by life insurance and annuity companies, after only market risk (interest rate and equity price changes), and thus should be viewed in context of long-term exposures.

**Property and casualty (P&C) insurers**

P&C carriers make their money on underwriting loss ratios, but they still have a large asset base to invest. Many P&C carriers may not be taking on enough risks in their investments. Still, credit risk is usually the second-largest risk faced by P&C firms, behind the risk of catastrophes causing claims to spike.

By better understanding their credit risk exposures, all types of insurers will be able to more effectively manage and diversify risks with a significant potential upside for their bottom line. Mutual companies can return money to policyholders, while publicly traded firms can improve the return on equity. Thus, credit risk management should be focused on implementing and maintaining the right guardrails so that the business can take appropriate risks in pursuit of better risk-adjusted returns.

**Lessons from banking**

Insurers can apply the lessons learned from experience of the banking sector with credit risk management. First and foremost, because of the nature of their business, banks must be extraordinarily effective and disciplined in credit risk management. Secondarily, banking executives have learned to view regulatory and supervisory guidance as a source for good business practices. Neither banks nor insurers like regulation, but there is value for those firms and executives who know where to find it.
The credit risk management road map: a proven approach

A “building-block” approach to credit risk management has proven effective at many firms. The foundational building blocks must be in place before more essential and advanced capabilities can be established to support various levels of risk management activities. The primary steps insurers should follow are outlined below.

Define the right credit risk appetite and credit risk limits

Multiple stakeholders across the company should be involved in the broad-based process for determining the parameters for investment decisions, including tolerable credit exposures, the likelihood of losses and the risk profiles of specific investments. In this sense, a clearly defined risk appetite statement can be a very powerful tool to manage credit risk. The key is for executive leadership, including the board, to clearly state how much risk they are willing to take. Communicating that guidance and positioning it as a requirement for investing the firm’s assets is the first step to managing credit risk exposure.

Starting from the risk appetite statement, insurers will then typically seek to set credit risk limits by several categories, including:

- Rating class or average rating
- Name-level credit risk exposures
- Industry or economic sectors
- Geographical limits

When it comes to setting limits for economic capital, these thresholds will trigger discussions or actions based on predetermined governance guidelines, oversight policies and exception management processes. These must be enabled by a system of triggers and escalations that highlight when credit risks run afoul of the stated risk appetite. See figure 1.
Use better metrics to address management challenges around credit risk

Insurers typically use a range of metrics used to manage their credit risk and define limits. These include book values, such as those defined by generally accepted accounting principles (GAAP), statutory reporting requirements, market value or notional limits.

Insurers should enhance these frameworks with risk-based metrics, linking to a consistent matrix of probabilities of default (PD), loss-given defaults (LGD) among other measures. Collectively, these metrics help provide both a broader perspective on overall exposures and more detailed insights into specific risks.

Spread and reinvestment risks are other considerations for management, given that insurers cannot generate profits in a zero-interest rate or negative-interest rate environments. The amount of incremental risk that has to be taken in order to profitably operate a spread business is simply too high, or cannot be taken on.

Leverage data and analytics to enhance credit risk management processes

To “activate” these metrics as part of standard operating procedures, companies need highly granular data to see correlations across different types of exposures and to develop and enable early warning systems to work as designed. See figure 2.

Specifically, better data and more robust analytics must drive more effective scenario modeling so risk managers can ask more “what if” questions relative to credit risks. Extracting and compiling the data necessary to provide senior management of the business risk summaries are critical steps for ongoing reporting and monitoring. Among the types of data that regulators recommend including in credit risk reports are:

- Exposure information for all significant risk areas and all significant components of those risk areas
- Risk-related measures
- Stress testing results
- Emerging risk concentrations
- Information in the context of limits and risk appetite/tolerance
- Recommendations for action where appropriate

This data can be included in a range of different reports for different stakeholders. Typically, these will include:

- Management reports: weekly, monthly, or quarterly risk exposures and explanations of key drivers of change
- Regional or legal entity-specific reports: monthly or ad hoc
- Senior management and risk committee briefings: as needed
- Board committee presentations: quarterly

Figure 2: Data required for effective credit risk management monitoring
The future of credit risk management in insurance

Among the capabilities that insurers will seek to achieve in the future:

- Automation, simplification and controllership of key credit risk management data and processes
- Standardization of major process models and workflows with modular customization for different geographic, product and line-of-business needs
- Online risk rating management: calculations, surveillance, approvals, model performance
- Online limit management and controls, early warnings, escalations and exception management
- Counterparty hierarchy maintenance and controls to facilitate exposure aggregation and reporting
- Automated credit risk reporting dashboards with sophisticated capabilities to “drill down,” “roll up” and correlate across
- Enhanced analytics: trend, migration, scenario “what-if” and sensitivity analyses; results storage
- Reconciliation and controllership of critical credit risk data; automated linkages to external market and other reference data
- Rules engine to enforce corporate, line of business (LOB) and product policies, as well as linkage to finance, treasury and portfolio management data
- Incorporate complex and evolving regulatory rules, including increased expectations for senior management and board involvement

Strike a balance in the credit risk limit framework

Again, credit risk management is not a defensive or strictly regulatory activity, but rather should be a proactive, strategic and business-driven discipline. As such, it’s about building models, defining the metrics and putting in place the triggers that will enable the business to make better investment decisions. The balance is achieved when the company has a system for taking on the right amount and types of risks.

Adopt stress testing (including determining backtest limits)

While many insurance executives initially (and understandably) resisted regulatory calls for stress testing, there is clear and compelling value for the business. In fact, stress testing should be viewed as an essential and highly useful element of the credit risk management toolkit. Indeed, regulations can serve as something of a template for risk managers to follow as they seek improvements. For instance, doing value-at-risk calculations can make loss projections look like non-threatening curves, when they actually function more like dangerous cliffs from the perspective of the business. Further, credit risk assessments should align with Federal Reserve guidance relative to stress testing by taking into account those risks that may be produced by or only become apparent under stressful conditions.

Get credit risk on the board agenda

At a minimum, credit risk matters should be discussed by the risk committee on the corporate board. Clear links between credit risk management and portfolio management strategies must also be established, and the board is the natural forum for forging such links.
The bottom line: enhancing credit risk management for a new era

Given the impact of the global financial crisis, it is no wonder that insurers are conducting a fundamental rethink of their credit risk management capabilities. The increased awareness of the seriousness and variety of credit risks faced by insurers is the first step toward more robust capabilities. But there is much work to be done (especially in the realm of data and analytics) if insurers are to create the capabilities, they need to understand, model and manage their risks more effectively than in the past. The good news is that the considerable business value – including improved portfolio performance – can reward their efforts and investments.
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