Background on: Reinsurance

Insurance Industry

November 24, 2020

IN THIS ARTICLE

Overview

Reinsurance is insurance for insurance companies. It's a way of transferring some of the financial risk insurance companies assume in insuring cars, homes and businesses to another insurance company, the reinsurer.

When an insurance company issues an insurance policy, an auto insurance policy, for example, it assumes responsibility for paying for the cost of any accidents that occur, within the parameters set out in the policy. By law, an insurer must have sufficient capital to ensure it will be able to pay all potential future claims related to the policies it issues. This requirement protects consumers but limits the amount of business an insurer can take on. However, if the insurer can reduce its responsibility, or liability, for these claims by transferring a part of the liability to another insurer, it can lower the amount of capital it must maintain to satisfy regulators that it is in good financial health and will be able to pay the claims of its policyholders. Capital freed up in this way can support more or larger insurance policies. The company that issues the policy initially is known as the primary insurer. The company that assumes liability from the primary insurer is known as the reinsurer. Primary companies are said to "cede" business to a reinsurer.

The reinsurance business is evolving. Traditionally, reinsurance transactions were between two insurance entities: the primary insurer that sold the original insurance policies and the reinsurer. Most still are. Primary insurers and reinsurers can share both the premiums and losses, or reinsurers may assume the primary company's losses above a certain dollar limit in return for a fee. However, risks of various kinds, particularly of natural disasters, are now being sold by insurers and reinsurers to institutional investors in the form of catastrophe bonds and other alternative risk-spreading mechanisms. Increasingly, new products reflect a gradual blending of reinsurance and investment banking.

Types of Reinsurance

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Reinsurance can be divided into two basic categories: treaty and facultative. Treaties are agreements that cover broad groups of policies such as all of a primary insurer's auto business. Facultative covers specific individual, generally high-value or hazardous risks, such as a hospital, that would not be accepted under a treaty.

In most treaty agreements, once the terms of the contract, including the categories of risks covered, have been established, all policies that fall within those terms – in many cases both new and existing business—are covered, usually automatically, until the agreement is cancelled.

With facultative reinsurance, the reinsurer must underwrite the individual "risk," say a hospital, just as a primary company would, looking at all aspects of the operation and the hospital's attitude to and record on safety. In addition, the reinsurer would also consider the attitude and management of the primary insurer seeking reinsurance coverage. This type of reinsurance is called facultative because the reinsurer has the power or "faculty" to accept or reject all or a part of any policy offered to it in contrast to treaty reinsurance, under which it must accept all applicable policies once the agreement is signed.

Treaty and facultative reinsurance agreements can be structured on a "pro rata" (proportional) or "excess-of-loss" (non-proportional) basis, depending on the arrangement by which losses are apportioned between the two insurers.

In a proportional agreement, most often applied to property coverages, the reinsurer and the primary company share both the premium from the policyholder and the potential losses.

In an excess of loss agreement, the primary company retains a certain amount of liability for losses (known as the ceding company's retention) and pays a fee to the reinsurer for coverage above that amount, generally subject to a fixed upper limit. Excess of loss agreements may apply to individual policies, to an event such as a hurricane that affects many policyholders or to the primary insurer's aggregate losses above a certain amount, per policy or per year.

A primary company's reinsurance program can be very complex. Simply put, if it were diagrammed, it might look like a pyramid with ascending dollar levels of coverage for increasingly remote events, split among a number of reinsurance companies each assuming a portion. It would include layers of proportional and excess of loss treaties and possibly a facultative excess of loss layer at the top.

Regulation

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As an industry, reinsurance is less highly regulated than insurance for individual consumers because the purchasers of reinsurance, mostly primary companies that sell car, home and commercial insurance, are considered sophisticated buyers. However, in the early 1980s, state insurance officials became increasingly concerned about the reliability of reinsurance contracts – the ability of the reinsurer to meet its contractual obligations — and a primary company's use of them. Following the June 1982 annual meeting of the National Association of Insurance Commissioners (NAIC) in Philadelphia, an advisory committee was formed to review the regulation of reinsurance transactions and parties to those transactions. A model Credit for Reinsurance Act was adopted in 1984.

All insurers submit financial statements to regulators who monitor their financial health. Financial health includes not assuming more risk or liability for future claims than is prudent, given the amount of capital available to support it, i.e., to pay claims. The principal value of reinsurance to a ceding company (the purchaser of reinsurance) for regulatory purposes is the recognition on the ceding company's financial statement of a reduction in its liabilities in terms of two accounts: its unearned premium reserve and its loss reserve. The unearned premium reserve is the amount of premiums equal to the unexpired portion of insurance policies, i.e., insurance protection that is still "owed" to the policyholder and for which funds would have to be returned to the policyholder should the policyholder cancel the policy before it expired. The loss reserve is made up of funds set aside to pay future claims. The transfer of part of the insurance company's business to the reinsurer reduces its liability for future claims and for return of the unexpired portion of the policy. The reduction in these two accounts is commensurate with the payments that can be recovered from reinsurers, known as recoverables.

The insurer's financial statement recognizes as assets on the balance sheet any payments that are due from the reinsurer for coverage paid for by the ceding company.

By statute or administrative practice, all states (but with considerable variation) recognize and grant credit on the financial statement for the reduced financial responsibility that reinsurance transactions provide. When reinsurers are not licensed in the United States, (these are known as "alien" or offshore companies) they must post collateral (such as trust funds, letters of credit, funds withheld) to secure the transaction. An alien company can also participate in the U.S.

marketplace by becoming licensed in the states in which it wishes to do business.

For many years, few people outside the insurance industry were aware that such a mechanism as reinsurance existed. The public was first introduced to reinsurance in the mid-1980s, during what has now become known as the liability crisis. A shortage of reinsurance was widely reported to be one of the factors contributing to the availability problems and high price of various kinds of liability insurance. A few years later, in 1989, the reinsurance business once again became a topic of interest outside the insurance industry as Congress investigated the insolvencies of several large property/casualty insurers.

These investigations culminated in a widely read report, "Failed Promises: Insurance Company Insolvencies," published in February 1990. The publicity surrounding the investigations and the poor financial condition of several major life insurance companies prompted proposals for some federal oversight of the insurance industry, particularly insurers and reinsurers based outside the United States. However, no federal law was enacted.

While a large portion of the insurance industry opposes federal regulatory oversight, many U.S. reinsurers and large commercial insurers view compliance with a single federal law as preferable to compliance with the laws of 51 state jurisdictions.

A critical tool for evaluating solvency is the annual "convention" statement, the detailed financial statement submitted by all insurance companies to the NAIC. In 1984, for the first time, the annual statement required insurers ceding liability to unauthorized reinsurers (those not licensed or approved in a designated jurisdiction) to include the amount of incurred but not reported (IBNR) losses in addition to known and reported losses. (IBNR losses are losses associated with events that have already occurred where the full cost will not be known and reported to the insurer until some later date.) This requirement reflects regulators' concern that all liabilities are identified and determined actuarially, including IBNR losses, and that IBNR losses are secured by the reinsurer with additional funds or a larger letter of credit than otherwise would have been required.

Related to solvency is the issue of reinsurance "recoverables," payments due from the reinsurer. In the mid-1980s, some reinsurance companies that had entered the reinsurance business during the period of high interest rates in the early 1980s left the market, due to insolvency or other problems. (When interest rates are high, some insurance/reinsurance companies seek to increase market share in order to have more premiums to invest. Those that fail to pay attention to the riskiness of the business they are underwriting may end up undercharging for coverage and going bankrupt as a result.) Consequently, some of the insurers that reinsured their business with these now-defunct companies were unable to recover monies due to them on their reinsurance contracts.

To enable regulators, policyholders and investors to assess a company's financial condition more accurately, the NAIC now requires insurance companies to deduct 20 percent of anticipated reinsurance recoverables from their policyholders’ surplus on their financial statements—surplus is roughly equivalent to capital—when amounts are overdue by more than

90 days. The rule helps regulators identify problem reinsurers for regulatory actions and encourages insurers to purchase reinsurance from companies that are willing and able to pay reinsured losses promptly.

Concern about reinsurance recoverables led to other changes in the annual financial statement filed with state regulators, including changes that improve the quality and quantity of reinsurance data available to enhance regulatory oversight of the reinsurance business.

After Hurricane Andrew hit Southern Florida in 1992, causing $15.5 billion in insured losses at the time, it became clear that U.S. insurers had seriously underestimated the extent of their liability for property losses in a megadisaster. Until Hurricane Andrew, the industry had thought $8 billion was the largest possible catastrophe loss. Reinsurers subsequently reassessed their position, which in turn caused primary companies to reconsider their catastrophe reinsurance needs.

When reinsurance prices were high and capacity scarce because of the high risk of natural disasters, some primary companies turned to the capital markets for innovative financing arrangements.

Catastrophe Bonds and Other Alternative Risk Financing Tools

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The shortage and high cost of traditional catastrophe reinsurance precipitated by Hurricane Andrew and declining interest rates, which sent investors looking for higher yields, prompted interest in securitization of insurance risk. Among the precursors to so-called true securitization were contingency financing bonds such as those issued for the Florida Windstorm Association in 1996, which provided cash in the event of a catastrophe but had to be repaid after a loss, and contingent surplus notes — an agreement with a bank or other lender that in the event of a megadisaster that would significantly reduce policyholders' surplus, funds would be made available at a predetermined price. Funds to pay for the transaction should money be needed, are held in U.S. Treasuries. Surplus notes are not considered debt, therefore do not hamper an insurer's ability to write additional insurance. In addition, there were equity puts, through which an insurer would receive a sum of money in the event of a catastrophic loss in exchange for stock or other options.

A catastrophe bond is a specialized security that increases insurers' ability to provide insurance protection by transferring the risk to bond investors. Commercial banks and other lenders have been securitizing mortgages for years, freeing up capital to expand their mortgage business. Insurers and reinsurers issue catastrophe bonds to the securities market through an issuer known as a special purpose reinsurance vehicle (SPRV) set up specifically for this purpose. These bonds have complicated structures and are typically created offshore, where tax and regulatory treatment may be more favorable. SPRVs collect the premium from the insurance or reinsurance company and the principal from investors and hold them in a trust in the form of U.S. Treasuries or other highly rated assets, using the investment income to pay interest on the principal. Catastrophe bonds pay high interest rates but if the trigger event occurs, investors lose the interest and sometimes the principal, depending on the structure of the bond, both of which may be used to cover the insurer's disaster losses. Bonds may be issued for a one-year term or multiple years, often three.

Increasingly, catastrophe bonds are being developed for residual market government entities and state-backed wind pools. Taking advantage of the growing popularity of catastrophe bonds as investments, Florida's Citizens Property Insurance Corp. issued bonds through the special purpose vehicle, Everglades Re. Bonds were issued by the Massachusetts Property Insurance Underwriting Association, two North Carolina pools (the Fair Plan and Beach Plan) and the Alabama wind pool. In addition, the California State Compensation Insurance Fund issued a bond to cover workers compensation losses in the event of a catastrophic earthquake. Other bonds have been created to cover extreme mortality and medical benefit claim levels.

The catastrophe bond market, which was largely pioneered by reinsurers, has begun to change. In 2009, for the first time, primary insurance companies were sponsors of the majority of bond issues–about 60 percent. Industry observers say primary companies are increasingly integrating cat bonds into their core reinsurance programs as a way to diversify and increase flexibility. Whereas traditional reinsurance is mostly purchased on an annual basis, cat bonds generally provide multiyear coverage and may be structured in tranches that mature in successive years.

Of the many new ways of financing catastrophe risk that have been developed over the past decade or two, catastrophe bonds are best known outside the insurance industry. One lesser-known alternative is the industry loss warranty contract (ILW). Unlike traditional reinsurance, where the reinsurer pays a portion of the primary company's losses according to an agreed upon formula, the ILW is triggered by an agreed-upon industry loss. The contract "warrants" that the reinsurer will pay up to $100 million toward the buyer's losses if the industry suffers a predetermined loss amount, say $5 billion or more.

Another recent innovation is the side-car. These are relatively simple agreements that allow a reinsurer to transfer to another reinsurer or group of investors, such as hedge funds, a limited and specific risk, such as the risk of an earthquake or hurricane in a given geographic area over a specific period of time. Side-car deals are much smaller and less complex than catastrophe bonds and are usually privately placed rather than tradable securities. In side-cars, investors share in the profit or loss the business produces along with the reinsurer. While a catastrophe bond could be considered excess of loss reinsurance, assuming the higher layers of loss for an infrequent but potentially highly destructive event, side-cars are similar to reinsurance treaties where the reinsurer and primary insurer share in the results.

An insurance company's willingness to offer disaster coverage is often determined by the availability of reinsurance. When catastrophe bonds were first issued after Hurricane Andrew, they were expected to gain industrywide acceptance as an alternative to traditional catastrophe reinsurance, which was then in short supply, but they still represent a small, albeit growing, portion of the worldwide catastrophe reinsurance market.

Several of the first attempts at true securitization were withdrawn because of time constraints — the hurricane season had begun before work on the transaction could be completed, for example — and lack of sufficient interest on the part of investors. The first deals were consummated in December 1996, one by a U.S. reinsurer, St Paul Re, and the second by Winterthur, a Swiss insurer which issued convertible bonds to pay auto damage claims stemming from hailstorms. This was the first large transaction in which insurance risk was sold to the public markets. The company said that it did not need to finance hailstorm damage in this way but sold the bonds to test the market for securitizing insurance risks. Six months later there was strong investor interest in a bond offering that provided USAA with catastrophe reinsurance to pay homeowners losses arising from a single hurricane in eastern coastal states, proving for the first time that insurance risk could be sold to institutional investors on a large scale.

The field has gradually evolved to the point where some investors and insurance company issuers are beginning to feel comfortable with the concept, with some coming back to the capital markets each year. In addition to the high interest rates catastrophe bonds pay, their attraction to investors is that they diversify investment portfolio risk, thus reducing the volatility of returns. The returns on most other securities are tied to economic activity rather than natural disasters.

The National Association of Insurance Commissioners (NAIC), which oversees insurance company investments and sets the rules that influence insurers' investment strategies, classifies these new types of catastrophe risk securities as bonds rather than equities. Equities are considered riskier under formulas that dictate how much capital must be set aside to support various liabilities. In addition, at its June 1999 meeting, the NAIC approved a so-called "protected cell" model act that makes it easier to transact deals in the United States. Up to then, most securitization deals had been conducted offshore through special entities created for this purpose. The protected cells, separate units within an insurance company, protect investors from losses incurred by the insurer.

In addition to catastrophe bonds, catastrophe options were developed but the market for these options never took off. Another alternative is the exchange of risk where individual companies in different parts of the world swap a certain amount of losses. Payment is triggered by the occurrence of an agreed upon event at a certain level of magnitude.

Disaster Recovery Bonds and Regional Pools

Disaster recovery bonds serve much the same purpose as a business income insurance policy, helping the government entity/policyholder get back on track after a catastrophic event.

In developing countries insurance penetration is low, meaning that few individuals and businesses have insurance, so the burden of recovering from a disaster falls almost entirely on the government. Traditionally, developing countries have relied on post-disaster funding to finance recovery efforts, including donations from developed countries, international emergency aid and humanitarian relief organizations. A faster and more reliable way to fund the recovery is prefinancing in the form of reinsurance, catastrophe bonds or other alternative risk transfer mechanisms.

One example of prefunding is the Caribbean Catastrophe Risk Insurance Facility, the first regional insurance fund. CCRIF provides hurricane and earthquake catastrophe coverage to its member nations, so that in the aftermath of a disaster they can quickly fund immediate recovery needs and continue providing essential services.

In 2004 hurricanes severely damaged the economy of several small Caribbean islands, causing losses in excess of $4 billion. This prompted Caribbean governments to request the help of the World Bank in facilitating access to catastrophe insurance. The CCRIF started operations in June 2007, after two years of planning.

The CCRIF acts as a mutual insurance company, allowing member nations to combine their risks into a diversified portfolio and purchase reinsurance or other risk transfer products on the international financial markets at a saving of up to 50 percent over what it would cost each country if they purchased catastrophe protection individually. In addition, since a hurricane or earthquake only affects one to three countries in the Caribbean on average in any given year, each country contributes less to the reserve pool than would be required if each had its own reserves.

The CCRIF was initially capitalized by its members with help from donor partners — developed countries, the World Bank and the Caribbean Development Bank. Its members pay premiums based on their probable use of the pool's funds. As countries raise building standards to provide better protection against disasters, premiums will decrease.

Because the CCRIF uses what has become known as parametric insurance to calculate claim payments, claims are paid quickly. Under a parametric system, claim payments are triggered by the occurrence of a specific event that can be objectively verified, such as a hurricane reaching a certain wind speed or an earthquake reaching a certain ground shaking threshold, rather than by actual losses measured by an adjuster, a process that can take months to complete.

Payout amounts are derived from models that estimate the financial impact of the disaster. As a form of deductible that encourages risk mitigation, participating governments are only allowed to purchase coverage for up to 20 percent of their estimated losses, an amount believed to be sufficient to cover initial needs.

Additional resources

Reinsurance Association of America

National Association of Insurance Commissioners' Reinsurance Page

The Essential Guide to Reinsurance: Solutions to 21st Century Challenges. Swiss Re, 2012. A guide to the concepts of reinsurance and its contributions to the economy and society.

"Reinsurance: Fundamentals and New Challenges," Insurance Information Institute, 2004.

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