# $oldsymbol{6}$ reinsurance

Reinsurance is a risk management tool used by insurers to spread risk and manage capital. The insurer transfers some or all of an insurance risk to another insurer. The insurer transferring the risk is called the "ceding insurer". The insurer accepting the risk is called the "assuming insurer" or "reinsurer". For life insurers, the risk transferred may be mortality, longevity or morbidity risk, surrender or expense risk, investment risk, or a combination of these risks.

Reinsurance has made possible the protection of a wider array of individuals and groups than would otherwise be feasible. An insurer who is approached by an applicant who presents an unusual risk—or who needs an amount of life insurance policy that is larger than the insurer's retention limit (the amount of risk an insurer has determined it can judiciously retain)—may still be able to offer the policy to the consumer if part of the risk is transferred to a reinsurer. A ceding insurer also uses reinsurance to limit its risk on a group of policies to avoid fluctuations in claim levels or to lower the risk of claims involving multiple deaths from single events.

Virtually all life insurers buy reinsurance to improve their risk profile. In 2016, 89 percent of life insurers with life premiums ceded at least some of those premiums as reinsurance. Among insurers with accident and health premiums, 85 percent ceded accident and health premiums as reinsurance. Forty four percent of insurers doing annuity business in 2016 ceded annuity considerations, excluding deposit-type funds. The Society of Actuaries annually publishes more detailed data on the life reinsurance marketplace in the *Reinsurance News*.

#### **ALLOCATING RISK**

In order for families to have peace of mind and for economies to thrive, there must be a mechanism to deal with large financial risk. Life insurers provide that financial security. Reinsurance spreads the risk of loss between two insurance companies. The risk can be spread even further if the ceding insurer uses more than one reinsurer, or the reinsurer in turn transfers some of that risk to another reinsurer, or retrocessionaire.

In the most basic reinsurance arrangement, a single insurer issuing policies to the public cedes business to a single reinsurer, usually an independent firm operating in the open marketplace. Insurers sometimes cede business to affiliates to aggregate similar risks in one entity for efficient risk management. Insurance groups also use captive reinsurers to reinsure risks exclusively from affiliated companies to access capital markets.

When reinsurance exists, the ceding insurer transferring the risk retains its financial relationship with, and legal obligation to pay claims to, the policyholder. The policyholder will not even be aware that part of the risk in their policy is covered by a reinsurer. The reinsurer indemnifies, or reim4burses, the ceding insurer for losses incurred on the reinsured policies.

Reinsurance is now a global business. Of the \$197 billion total reinsurance premiums paid by U.S. life insurers in 2016, 61 percent was paid to reinsurers domiciled in the U.S. and 39 percent to reinsurers domiciled in other countries.

### REINSURANCE RELATIONSHIP

## **Underwriting Strength**

A closely related motivation for reinsurance is obtaining the reinsurer's underwriting assistance and proficiency. Reinsurers review and maintain policy and claim records on a large volume of risks from many ceding companies whose policyholders are diverse and geographically distributed. The risk pool from which they develop and provide underwriting knowledge is larger and wider than is normally available to a single primary insurer.

Underwriting is further strengthened when risk is spread to more than one reinsurer or retrocessionaire, because of the exposure to an even broader range of policies and claims. Confidence that underwriters are competently and professionally meeting its underwriting needs allows a ceding insurer to concentrate on other activities to expand its business.

# **Product Flexibility**

Another reason to reinsure is the opportunity it gives a ceding insurer to exit from some product lines and enter others. If an insurer has issued policies in a particular product line that it wishes to discontinue, the insurer can reinsure most or all of the risk on those policies.

Conversely, if an insurer wants to enter a particular product line, reinsurers can help with product development and assume some of the product's risk. Later, as the primary insurer gains more confidence in its ability to underwrite and develop the product, the insurer might retain more of the risk on new business and recapture provisions in the reinsurance treaty might allow it to take back some of the risk the reinsurer assumed.

# **Capital Management**

Reinsurance also helps a ceding insurer manage its capital efficiently. This is especially helpful to a life insurer issuing new policies because initial costs (expenses plus reserves) are often higher than premiums received. Sharing those initial costs and risks with a reinsurer helps the ceding insurer manage its cash flows.

#### **TYPES OF REINSURANCE**

Various reinsurance plans are available based on ceding companies' needs and their reasons for reinsuring. Plans can be broadly classified as either proportional reinsurance, specifying in advance the amounts or percentages of risk for which the reinsurer is liable, or nonproportional, specifying instead the loss limits, time limits, or conditions beyond which a reinsurer will reimburse some or all of the ceding insurer's benefit payments.

## **Proportional Reinsurance**

Specified amounts or percentages are shared between ceding companies and reinsurers in proportional reinsurance. Excess of retention allocates risk by amount. The ceding insurer establishes a dollar amount beyond which it is unwilling to retain risk, and the reinsurer assumes risk over this amount, up to the reinsurer's retention limit. In contrast, quota share allocates by percentage, where the ceding insurer and reinsurer establish the percentage of risk for which each will retain or assume responsibility.

Proportional plans, commonly used in life insurance include:

■ Yearly renewable term (YRT) In this type, mortality risk is the only risk transferred to the reinsurer. The reinsurance premium varies each year with the age of the insured. YRT reinsurance allows a ceding insurer to transfer mortality risk, but it leaves the insurer responsible for establishing reserves for the remainder of the policy benefits. Despite its name, YRT is not yearly renewable. The reinsurer may not terminate coverage until the original insurance policy terminates.

- Coinsurance The ceding insurer transfers a proportionate share of all the policy risks and cash flows. The reinsurer re-ceives its share of premiums, pays its share of benefits, sets up its share of reserves, and pays an allowance to the ceding insurer to cover its share of the costs of administering the policy.
- Modified coinsurance The reinsurer transfers its share of reserves back to the ceding insurer while the risk remains with the reinsurer. The ceding insurer, however, must pay interest to replace what the reinsurer would have earned had it retained its share of the reserve. This arrangement allows the ceding insurer to reduce potential credit risk and to retain control over investments. The latter is particularly important where the insurer is using a unique investment strategy.

## Nonproportional reinsurance

Nonproportional plans can be used for all types of insurance. Common uses include:

- *Stop loss* The reinsurer remits some or all of a ceding company's aggregate claims above a predetermined dollar amount (the attachment point), or above a percentage of premiums during a specified period.
- Excess of time Most often used for disability or longterm care reinsurance, this type of plan specifies the time after which a reinsurer pays some or all of the claims.
- Catastrophe The reinsurer covers claims that exceed a specified amount or number of insureds due to a single event resulting in more than one loss, as in an accident or natural disaster.

Table 6.1

	Millions			Average annual percentage change		
	2006	2015	2016	2006/2016	2015/2016	
PREMIUMS PAID ON CEDED BU	SINESS					
Life insurance						
Individual	\$44,759	\$122,130	\$110,823	9.5	-9.3	
Affiliates	18,464	72,531	51,229	10.7	-29.4	
Non-Affiliates	26,295	49,599	59,594	8.5	20.2	
Group	4,887	12,650	15,254	12.1	20.6	
Affiliates	1,645	8,289	6,164	14.1	-25.6	
Non-Affiliates	3,242	4,360	9,090	10.9	108.5	
Credit	823	380	344	-8.4	-9.5	
Total	50,469	135,160	126,421	9.6	-6.5	
Annuity considerations <sup>1</sup>						
Individual	20,877	13,407	17,911	-1.5	33.6	
Affiliates	17,340	8,574	11,956	-3.6	39.5	
Non-Affiliates	3,537	4,833	5,955	5.3	23.2	
Group	5,463	7,015	10,298	6.5	46.8	
Affiliates	1,539	4,339	5,911	14.4	36.2	
Non-Affiliates	3,924	2,676	4,387	1.1	63.9	
Total	26,340	20,422	28,210	0.7	38.	
Accident and health insurance						
Individual	7,997	13,310	14,279	6.0	7.3	
Affiliates	2,109	7,960	7,123	12.9	-10.5	
Non-Affiliates	5,888	5,350	7,156	2.0	33.8	
Group	10,475	20,145	28,076	10.4	39.4	
Affiliates	3,971	11,523	15,627	14.7	35.6	
Non-Affiliates	6,504	8,622	12,449	6.7	44.4	
Credit	804	330	282	-9.9	-14.5	
Total	19,276	33,785	42,637	8.3	26.2	
Aggregate total	96,086	189,367	197,268	7.5	4.2	
PREMIUMS FROM ASSUMED BU	SINESS					
Life insurance	¢27,007	\$106,180	<b>CE</b> ( 740	0.1	-46.6	
Individual	\$26,007	The state of the s	\$56,748 347	8.1	-46.0 -99.5	
Affiliates Non-Affiliates	6,071 19,936	63,591 42,590	56,401	-24.9 11.0	32.4	
Group	3,793	5,522	7,441	7.0	34.7	
Affiliates	3,773 840	471	750	7.0 -1.1	59.(	
Non-Affiliates	2,953	5,050	6,691	8.5	32.5	
Credit	359	129	128	-9.8	-0.5	
Total	30,159	111,831	64,316	7.9	-42.5	
Annuity considerations <sup>1</sup>		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- ,			
Individual	10,267	6,311	14,622	3.6	131.7	
Affiliates	4,027	3,705	12,765	12.2	244.6	
Non-Affiliates	6,240	2,606	1,857	-11.4	-28.8	
Group	3,955	4,104	5,450	3.3	32.8	
Affiliates	516	1,013	562	0.9	-44.6	
Non-Affiliates	3,440	3,091	4,889	3.6	58.2	
Total	14,222	10,415	20,072	3.5	92.7	
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Table 6.1

Reinsurance Assumed and Ceded—Premiums continued						
	Millions			Average annual percentage change		
	2006	2015	2016	2006/2016	2015/2015	
PREMIUMS FROM ASSUME	D BUSINESS continued					
Accident and health insura	nce					
Individual	5,446	8,720	9,158	5.3	5.0	
Affiliates	1,107	3,675	4,003	13.7	8.9	
Non-Affiliates	4,338	5,045	5,156	1.7	2.2	
Group	11,183	12,372	16,957	4.3	37.1	
Affiliates	5,176	4,834	5,236	0.1	8.3	
Non-Affiliates	6,007	7,537	11,721	6.9	55.5	
Credit	386	136	109	-11.9	-19.8	
Total	17,014	21,228	26,224	4.4	23.5	
Aggregate total	61,396	143,474	110,613	6.1	-22.9	

Source: ACLI tabulations of National Association of Insurance Commissioners (NAIC) data, used by permission.

Notes: NAIC does not endorse any analysis or conclusions based on use of its data. Codification effective with 2001 Annual Statement filings changed the reporting of certain lines of business, particularly deposit-type contracts, as explained in numbered footnotes. Data represent U.S. life insurers and fraternal benefit societies.

Table 6.2

		Millions		Average annual perc	entage change
	2006	2015	2016	2006/2016	2015/2016
Face amount (millions)					
Individual	\$1,295,854	\$1,036,954	\$1,608,595	2.2	55.1
Group	86,387	288,176	1,029,102	28.1	257.1
Credit	16,537	13,773	7,251	-7.9	-47.4
Total	1,398,777	1,338,903	2,644,948	6.6	97.5
Policies (units)					
Individual	18,113,958	10,986,870	11,635,469	-4.3	5.9
Group	2,715,849	11,908,674	46,021,604	32.7	286.5
Credit	2,612,268	332,291	278,308	-20.1	-16.2
Total	23,442,075	23,227,835	57,935,381	9.5	149.4

Source: ACLI tabulations of National Association of Insurance Commissioners (NAIC) data, used by permission.

Notes: NAIC does not endorse any analysis or conclusions based on use of its data. Data represent U.S. life insurers and fraternal benefit societies.

From 2001, excludes deposit-type funds as income due to codification, making data incomparable with previous years.