Module 4: Insurance Operations

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Unit 2 – Part 1: Marketing, Underwriting, and Administration- Part 1

Case Study 06: **Shopping for Insurance on the Internet**

Shopping for Insurance on the Internet

True to its name, Progressive was the first large insurer to begin selling insurance coverage via the Internet in the late 1990s. Other well-known names like Allstate and Hartford quickly followed suit. So- called aggregator sites like Insure.com, Quotesmith.com, Ehealthinsurance.com, and InsWeb.com joined in, offering one-stop shopping for a variety of products. To tap the potential of e-commerce, insurers have had to overcome one big challenge: how to sell complex products without confusing and driving away the customer. Therefore, the sale is not finalized on the Internet. The glimpse into the product is only the first step for comparative shopping.

An insurance application can be frustrating even when an agent is sitting across the desk explaining everything, but most people don't walk out in the middle of filling out a form. On the Internet, however, about half of those filling out a quote request quit because it is too complicated or time-consuming. Most of those who do finish are "just looking," comparing prices and services. Twenty-seven million shoppers priced insurance online in 2001, according to a recent study by the Independent Insurance Agents of America and twenty-six insurers, but less than 5 percent closed the deal electronically.

As shopping on the Internet becomes a boom business, each state department of insurance provides guidelines to consumers. For example, the Texas Department of Insurance issued tips for shopping smart on the Internet, as follows:

Insurance on the Internet—Shopping Tips and Dangers

- Be more cautious if the type of insurance you need recently became more expensive or harder to get and the policy costs far less than what other insurers charge.

- Don't succumb to high-pressure sales, last-chance deals of a lifetime, or suggestions that you drop one coverage for another without the chance to check it out thoroughly.

- Check with an accountant, attorney, financial adviser, a trusted friend, or relative before putting savings or large sums of money into any annuity, other investment, or trust.

- Get rate quotes and key information in writing and keep records.

- If you buy coverage, keep a file of all paperwork you completed online or received in the mail and signed, as well as any other documents related to your insurance, including the policy, correspondence, copies of advertisements, premium payment receipts, notes of conversations, and any claims submitted.

- Make sure you receive your policy—not a photocopy—within thirty days.

Sources: Lynna Goch, "What Works Online: Some Insurers Have Found the Key to Unlocking Online Sales," Best's Review, May 2002; Ron Panko, "IdentityWeb: Linking Agents and Customers,"Best's Review, May 2002; Google search for "shopping for insurance on the Internet";

Module 4: Insurance Operations

Unit 2 – Part 2: Marketing, Underwriting, and Administration- Part 2

Case Study 07: Keeping Score-Is It Fair to Use Credit Rating in Underwriting?

Keeping Score—Is It Fair to Use Credit Rating in Underwriting?

Body-mass index, cholesterol level, SAT score, IQ: Americans are accustomed to being judged by the numbers. One important number that you may not be as familiar with is your credit score. Determined by the financial firm Fair, Isaac, and Co., a credit score (also known as a FICO score) is calculated from an individual's credit history, taking into account payment history, number of creditors, amounts currently owed and similar factors.

Like your grade point average (GPA), your credit score is one simple number that sums up years of hard work (or years of goofing off). But while your GPA is unlikely to be important five years from now, your credit score will affect your major financial decisions for the rest of your life. This number determines whether you're eligible for incentive (low-rate) financing on new cars, how many credit card offers get stuffed in your mailbox each month, and what your mortgage rate will be. The U.S. Federal Trade Commission (FTC) issued a directive to consumers about the handling of credit scores. If you are denied credit, the FTC offers the following:

- If you are denied credit, the **Equal Credit Opportunity Act (ECOA)** requires that the creditor give you a notice that tells you the specific reasons your application was rejected or the fact that you have the right to learn the reasons if you ask within sixty days. If a creditor says that you were denied credit because you are too near your credit limits on your charge cards or you have too many credit card accounts, you may want to reapply after paying down your balances or closing some accounts. Credit scoring systems consider updated information and change over time.

- Sometimes, you can be denied credit because of information from a credit report. If so, the Fair Credit Reporting Act (FCRA) requires the creditor to give you the name, address, and phone number of the consumer reporting company that supplied the information. This information is free if you request it within sixty days of being turned down for credit. The consumer reporting company can tell you what's in your report, but only the creditor can tell you why your application was denied.

- If you've been denied credit, or didn't get the rate or credit terms you want, ask the creditor if a credit scoring system was used. If so, ask what characteristics or factors were used in that system, and the best ways to improve your application. If you get credit, ask the creditor whether you are getting the best rate and terms available and if you are not, ask why. If you are not offered the best rate available because of inaccuracies in your credit report, be sure to dispute the inaccurate information in your credit report.

Your credit score may also affect how much you'll pay for insurance. About half of the companies that write personal auto or homeowner's insurance now use credit data in underwriting or in setting premiums, and the bad credit penalty can be 20 percent or more. But it's not because they're worried that poor credit risks won't pay their insurance premiums. Rather, it's the strong relationship between credit scores and the likelihood of filing a claim, as study after study has borne out. Someone who spends money recklessly is also likely to drive recklessly, insurers point out; someone who is lazy about making credit card payments is apt to be lazy about trimming a tree before it causes roof damage. Often, a credit record is the best available predictor of future losses. Insurers vary on how much they rely on credit scoring— most consider it as one factor of many in setting premiums, while a few flat out refuse to insure anyone whose credit score is below a certain number—but almost all see it as a valuable underwriting tool. It's only fair, insurers say, for low-risk customers to pay lower premiums rather than subsidizing those more likely to file claims.

Consumer advocates disagree. Using credit scores in this manner is discriminatory and inflexible, they say, and some state insurance commissioners agree. Consumer advocate and former Texas insurance commissioner Robert Hunter finds credit scoring ludicrous. “If I have a poor credit score because I was laid off as a result of terrorism, what does that have to do with my ability to drive?” he asked at a meeting of the National Association of Insurance Commissioners in December 2001. Therefore, in 2004, twenty- four states have adopted credit scoring legislation and/or regulation that is based on a National Conference of Insurance Legislators (NCOIL) model law.

Questions for Discussion

1. Mr. Smith and Mr. Jones, both twenty-eight years old, have the same educational and income levels. Mr. Smith has one speeding ticket and a credit score of 600. Mr. Jones has a clean driving record and a credit score of 750. Who should pay more for automobile insurance?

2. After some investigation, you discover that Mr. Smith’s credit score is low because his wife recently died after a long illness and he has fallen behind in paying her medical bills. Mr. Jones’s driving record is clean because he hired a lawyer to have his many speeding tickets reduced to nonmoving violations. Who should pay more for auto insurance?

3. Considering the clear correlation between credit scores and losses, is credit scoring discriminatory?

4. Should credit scores count?

Module 4: Insurance Operations

Unit 4: Actuarial and Investment

Case Study 08: Actuarial Analysis in Practice

Actuarial Analysis in Practice

A hypothetical example of one loss-reserving technique is featured here in Table 7.1 "Incurred Losses for Accident Years by Development Periods (in Millions of Dollars)" through Table 7.5 "Development of the Triangle of Incurred Losses to Ultimate (in Millions of Dollars)". The technique used in these tables is known as a triangular method of loss development to the ultimate. The example is for illustration only. **Loss development** is the calculation of how amounts paid for losses increase (or mature) over time for the purpose of future projection. Because the claims are paid progressively over time, like medical bills for an injury, the actuarial analysis has to project how losses will be developed into the future based on their past development.

With property/casualty lines such as product liability, the insurer's losses can continue for many years after the initial occurrence of the accident. For example, someone who took certain weight-loss medications in 1994 (the "accident year") might develop heart trouble six years later. Health problems from asbestos contact or tobacco use can occur decades after the accident actually occurred.

Table 7.1 "Incurred Losses for Accident Years by Development Periods (in Millions of Dollars)" describes an insurance company's incurred losses for product liability from 1994 to 2000. **Incurred losses** are both paid losses plus known but not yet paid losses. Look at accident year 1996: over the first twelve months after those accidents, the company posted losses of $38.901 million related to those accidents.

Over the next twelve months—as more injuries came to light or belated claims were filed or lawsuits were settled—the insurer incurred almost $15 million, so that the cumulative losses after twenty-four developed months comes to $53.679 million. Each year brought more losses relating to accidents in 1996, so that by the end of the sixty-month development period, the company had accumulated $70.934 million in incurred losses for incidents from accident year 1996. The table ends there, but the incurred losses continue; the ultimate total is not yet known.

To calculate how much money must be kept in reserve for losses, actuaries must estimate the ultimate incurred loss for each accident year. They can do so by calculating the rate of growth of the losses for each year and then extending that rate to predict future losses. First, we calculate the rate for each development period. In accident year 1996, the $38.901 million loss in the first development period increased to $53.679 million in the second development period. The loss development factor for the twelve- to twenty-four-month period is therefore 1.380 million (53.679/38.901), meaning that the loss increased, or developed, by a factor of 1.380 (or 38 percent). The factor for twenty-four- to thirty-six months is 1.172 (62.904/53.679). The method to calculate all the factors follows the same pattern: the second period divided by first period. Table 7.2 "Loss Factors for Accident Years by Development Periods" shows the factors for each development period from Table 7.1 "Incurred Losses for Accident Years by Development Periods (in Millions of Dollars)".

Table 7.1 Incurred Losses for Accident Years by Development Periods (in Millions of Dollars)

Developed Months	Accident Year						
		1994	1995	1996	1997	1998	1999
12	$37.654	$38.781	$38.901	$36.980	$37.684	$39.087	$37.680
24	53.901	53.789	53.679	47.854	47.091	47.890	
36	66.781	61.236	62.904	56.781	58.976		
48	75.901	69.021	67.832	60.907			
60	79.023	73.210	70.934				
72	81.905	79.087					
84	83.215						

Table 7.2 Loss Factors for Accident Years by Development Periods

Developed Months	Accident Year					
		1994	1995	1996	1997	1998
12–24	1.431	1.387	1.380	1.294	1.250	1.225
24–36	1.239	1.138	1.172	1.187	1.252	
36–48	1.137	1.127	1.078	1.073		
48–60	1.041	1.061	1.046			
60–72	1.036	1.080				
72–84	1.016					
84–ultimate						

After we complete the computation of all the factors in Table 7.2 "Loss Factors for Accident Years by Development Periods", we transpose the table in order to compute the averages for each development period. The transposed Table 7.2 "Loss Factors for Accident Years by Development Periods" is in Table 7.3 "Averages of the Incurred Loss Factors for Each Accident Year". The averages of the development factors are at the bottom of the table. You see, for example, that the average of factors for the thirty-six- to forty- eight-month development period of all accident years is 1.104. This means that, on average, losses increased by a factor of 1.104 (or 10.4 percent, if you prefer) in that period. That average is an ordinary mean. To exclude anomalies, however, actuaries often exclude the highest and lowest factors in each period, and average the remainders. The last line inTable 7.3 "Averages of the Incurred Loss Factors for Each Accident Year" is the average, excluding the high and low, and this average is used in Table 7.4 "Development of the Triangles of Incurred Loss Factors to Ultimate for Each Accident Year" to complete the triangle.

Table 7.3 Averages of the Incurred Loss Factors for Each Accident Year

Accident Year	Developed Months					
		12–24	**24–36**	**36–48**	**48–60**	**60–72**
1994	1.431	1.239	1.137	1.041	1.036	1.016
1995	1.387	1.138	1.127	1.061	1.080	
1996	1.380	1.172	1.078	1.046		
1997	1.294	1.187	1.073			
1998	1.250	1.252				
1999	1.225					
	12–24	**24–36**	**36–48**	**48–60**	**60–72**	**72–84**
Average	1.328	1.198	1.104	1.049	1.058	1.016
Average of last three years	1.256	1.204	1.093	1.049	1.058	1.016
Average of last four years	1.287	1.187	1.104	1.049	1.058	1.016
Average excluding high and low	1.328	1.199	1.103	1.046	1.058	1.016

In Table 7.4 "Development of the Triangles of Incurred Loss Factors to Ultimate for Each Accident Year", we complete the incurred loss factors for the whole period of development. The information in bold is from Table 7.2 "Loss Factors for Accident Years by Development Periods". The information in italics is added for the later periods when incurred loss data are not yet available. These are the predictions of future losses. Thus, for accident year 1997, the bold part shows the factors from Table 7.2 "Loss Factors for Accident Years by Development Periods", which were derived from the actual incurred loss information in Table 7.1 "Incurred Losses for Accident Years by Development Periods (in Millions of Dollars)". We see from Table 7.4 "Development of the Triangles of Incurred Loss Factors to Ultimate for Each Accident Year" that we can expect losses to increase in any forty-eight- to sixty-month period by a factor of 1.046, in a sixty- to seventy-two-month period by 1.058, and in a seventy-two- to eighty-four- month period by 1.016. The development to ultimate factor is the product of all estimated factors: for 1997, it is $1.046 \times 1.058 \times 1.016 \times 1.02 = 1.147$. Actuaries adjust the development-to-ultimate factor based on their experience and other information. [1]

To determine ultimate losses, these factors can be applied to the dollar amounts in Table 7.1 "Incurred Losses for Accident Years by Development Periods (in Millions of Dollars)". Table 7.5 "Development of the Triangle of Incurred Losses to Ultimate (in Millions of Dollars)"provides the incurred loss estimates to ultimate payout for each accident year for this book of business. To illustrate how the computation is done, we estimate total incurred loss for accident year 1999. The most recent known incurred loss for accident year 1999 is as of 24 months: $47.890 million.

To estimate the incurred losses at thirty-six months, we multiply by the development factor 1.199 and arrive at $57.426 million. That $57.426 million is multiplied by the applicable factors to produce a level of $63.326 million after forty-eight months, and $66.239 million after sixty months. Ultimately, the total payout for accident year 1999 is predicted to be $72.625 million. Because $47.890 million has already been paid out, the actuary will recommend keeping

a reserve of $24.735 million to pay future claims. It is important to note that the ultimate level of incurred loss in this process includes incurred but not reported (IBNR) losses.

Incurred but not reported (IBNR) losses are estimated losses that insureds did not claim yet, but they are expected to materialize in the future. This is usually an estimate that is hard to accurately project and is the reason the final projections of September 11, 2001, losses are still in question.

Table 7.4 Development of the Triangles of Incurred Loss Factors to Ultimate for Each Accident Year

Developed Months	Accident Year						
		1994	1995	1996	1997	1998	1999
12–24	**1.431**	**1.387**	**1.380**	**1.294**	**1.250**	**1.225**	1.328
24–36	**1.239**	**1.138**	**1.172**	**1.187**	**1.252**	1.199	1.199
36–48	**1.137**	**1.127**	**1.078**	**1.073**	1.103	1.103	1.103
48–60	**1.041**	**1.061**	**1.046**	1.046	1.046	1.046	1.046
60–72	**1.036**	**1.080**	1.058	1.058	1.058	1.058	1.058
72–84	**1.016**	1.016	1.016	1.016	1.016	1.016	1.016
84–ultimate*	1.020	1.020	1.020	1.020	1.020	1.020	1.020
Development to ultimate†	1.020	1.036	1.096	1.147	1.265	1.517	2.014
*** Actuaries use their experience and other information to determine the factor that will be used from 84 months to ultimate. This factor is not available to them from the original triangle of losses.**							
† For example, the development to ultimate for 1997 is 1.046 × 1.058 × 1.016 × 1.02 = 1.147.							

Table 7.5 Development of the Triangle of Incurred Losses to Ultimate (in Millions of Dollars)

Developed Months	Accident Year							
		1994	1995	1996	1997	1998	1999	2000
12	$37.654	$38.781	$38.901	$36.980	$37.684	$39.087	$37.680	
24	53.901	53.789	53.679	47.854	47.091	47.890	**50.039**	
36	66.781	61.236	62.904	56.781	58.976	**57.426**	**60.003**	
48	75.901	69.021	67.832	60.907	**65.035**	**63.326**	**66.167**	
60	79.023	73.210	70.934	**63.709**	**68.027**	**66.239**	**69.211**	
72	81.905	79.087	**75.048**	**67.404**	**71.972**	**70.080**	**73.225**	
84	83.215	**80.352**	**76.249**	**68.482**	**73.123**	**71.201**	**74.396**	
Ultimate	**84.879**	**81.959**	**77.773**	**69.852**	**74.586**	**72.625**	**75.884**	537.559
Pd. to date	83.215	79.087	70.934	60.907	58.976	47.890	37.680	438.689
Reserve	1.664	2.872	6.839	8.945	15.610	24.735	38.204	98.870

The process of loss development shown in the example of Table 7.1 "Incurred Losses for Accident Years by Development Periods (in Millions of Dollars)" through Table 7.5 "Development of the Triangle of Incurred Losses to Ultimate (in Millions of Dollars)" is used also for rate calculations because actuaries need to know the ultimate losses each book of business will incur. **Rate calculations** are the computations of how much to charge for insurance coverage once the ultimate level of loss is estimated, plus factors for taxes, expenses, and returns on investments.

Module 4: Insurance Operations

Unit 4: Actuarial and Investment

Case Study 09: Investment in Practice

Investment in Practice

Investments

As noted above, insurance companies are in two businesses: the insurance business and the investment business. The insurance side is underwriting and reserving (liabilities), while the investment side is the area of securing the best rate of return on the assets entrusted to the insurer by the policyholders seeking the security. Investment income is a significant part of total income in most insurance companies.

Liability accounts in the form of reserves are maintained on balance sheets to cover future claims and other obligations such as taxes and premium reserves. Assets must be maintained to cover the reserves and still leave the insurer with an adequate net worth in the form of capital and surplus. **Capital and surplus** are the equivalent of equity on the balance sheet of any firm—the net worth of the firm, or assets minus liabilities.

The investment mix of the life/health insurance industry is shownTable 7.7 "Life/Health Insurance Industry Asset Mix, 2003–2007 ($ Billions)" and that of the property/casualty industry is shown in Table 7.8 "Property/Casualty Insurance Industry Asset Mix, 2003–2007 ($ Billions)". As you can see, the assets of the life insurance industry in the United States were $4.95 trillion in 2007. This included majority investments in the credit markets, which includes bonds of all types and mortgage-backed securities of $387.5 billion.

As discussed inChapter 1 "The Nature of Risk: Losses and Opportunities" and the box below, “Problem Investments and the Credit Crisis,” many of these securities were no longer performing during the credit crisis of 2008–2009. In comparison, the U.S. property casualty

industry's asset holdings in 2007 were $1.37 trillion, with $125.8 billion in mortgage-backed securities. In Chapter 5 "The Evolution of Risk Management: Enterprise Risk Management", we included a discussion of risk management of the balance sheet to ensure that the net worth of the insurer is not lost when assets held are no longer performing. The capital and surplus of the U.S. property/casualty industry reached $531.3 billion at year-end 2007, up from $499.4 billion at year-end 2006. The capital and surplus of the U.S. life/health insurance industry was $252.8 billion in 2007, up from $244.4 billion in 2006. [8]

Table 7.7 Life/Health Insurance Industry Asset Mix, 2003–2007 ($ Billions)

Life/Health Insurer Financial Asset Distribution, 2003–2007 ($ Billions)					
	2003	**2004**	**2005**	**2006**	**2007**
Total financial assets	**$3,772.8**	**$4,130.3**	**$4,350.7**	**$4,685.3**	**$4,950.3**
Checkable deposits and currency	47.3	53.3	47.7	56.1	58.3
Money market fund shares	151.4	120.7	113.6	162.3	226.6
Credit market instruments	2,488.3	2,661.4	2,765.4	2,806.1	2,890.8
Open market paper	55.9	48.2	40.2	53.1	57.9
U.S. government securities	420.7	435.6	459.7	460.6	467.7
Treasury	71.8	78.5	91.2	83.2	80.2
Agency and GSE [9]-backed securities	348.9	357.1	368.5	377.4	387.5
Municipal securities	26.1	30.1	32.5	36.6	35.3
Corporate and foreign bonds	1,620.2	1,768.0	1,840.7	1,841.9	1,889.7
Policy loans	104.5	106.1	106.9	110.2	113.9
Mortgages	260.9	273.3	285.5	303.8	326.2
Corporate equities	919.3	1,053.9	1,161.8	1,364.8	1,491.5
Mutual fund shares	91.7	114.4	109.0	148.8	161.4
Miscellaneous assets	74.7	126.6	153.1	147.1	121.6
Source: Board of Governors of the Federal Reserve System, June 5, 2008.					

Source: Insurance Information Institute

Table 7.8 Property/Casualty Insurance Industry Asset Mix, 2003–2007 ($ Billions)

Property/Casualty Insurer Financial Asset Distribution, 2003–2007 ($ Billions)					
	2003	**2004**	**2005**	**2006**	**2007**
Total financial assets	**$1,059.7**	**$1,162.2**	**$1,243.8**	**$1,329.3**	**$1,373.6**
Checkable deposits and currency	34.6	25.9	21.0	29.9	42.7
Security repurchase agreements [10]	52.8	63.1	68.9	66.0	53.8
Credit market instruments	625.2	698.8	765.8	813.5	840.0
U.S. government securities	180.1	183.4	187.1	197.8	180.9
Treasury	64.7	71.3	69.2	75.8	55.1
Agency and GSE [11]-backed securities	115.4	112.1	117.9	122.0	125.8
Municipal securities	224.2	267.8	313.2	335.2	368.7
Corporate and foreign bonds	218.9	245.3	262.8	277.0	285.6
Commercial mortgages	2.1	2.4	2.7	3.5	4.8
Corporate equities	178.4	196.6	199.5	227.0	235.3
Trade receivables	79.3	79.6	82.1	87.0	85.4
Miscellaneous assets	85.0	93.0	100.7	99.0	108.7
Source: Board of Governors of the Federal Reserve System, June 5, 2008.					

Source: Insurance Information Institute, Accessed March 6, 2009,http://www.iii.org/media/facts/statsbyissue/life/.

The liabilities are composed mostly of reserves for loss payments. For the life insurance industry, the largest component of liabilities is reserves for pensions. Life reserves are the second-largest component. For property/casualty insurers, the reserves are for all lines of insurance, depending on the mix of products sold by each company.

Many conglomerate insurance corporations own their own investment firms and provide mutual funds. In this area, insurers, like other financial institutions, are subject to regulation by the states and by the Securities and Exchange Commission.

Module 4: Insurance Operations

Unit 4: Actuarial and Investment

Case Study 10: Problem Investments and the Credit Crisis

Problem Investments and the Credit Crisis

The greater risk faced by insurance companies is not the threat of going out of business due to insufficient sales volume, but the possibility that losses will be greater than anticipated and that they won't be covered through reserves and investment income. This further reinforces the importance of comprehending the nature of insureds' business and properly categorizing their risks on the underwriting side, while accurately capturing loss expectations on the actuarial side. Insuring common risks in high volume leads to more accuracy in predicting losses, but these risks do not vanish simply because they have been aggregated by the insurer. Unfortunately, this concept was not taken into consideration by several large investment banks and some insurance companies during the credit crisis beginning in 2007.

The credit crisis began when the U.S, housing bubble burst, setting off a protracted period characterized by increased valuation in real property, low interest rates, speculative investing, and massive demand for homes. During the housing bubble, low interest rates coupled with high liquidity were viewed as sufficiently favorable conditions to permit the extension of credit to high-risk (or subprime) borrowers. Many people who would otherwise not qualify for loans found themselves with mortgages and the homes of their dreams. Lenders protected themselves through the issuance of variable interest rate mortgages, whereby increased risk could be transferred to borrowers in the form of interest rate hikes. While this had the potential to put already high-risk (subprime) borrowers in an even worse position to meet their monthly obligations, borrowers counted on the very liquid nature of real estate during this period as a crutch to salvage their investments. Because home valuations and turnover were rising at such rapid rates, it was reasoned that financially strapped borrowers could simply sell and pay off their mortgages rather than face foreclosure.

The cycle of high turnover feeding into the housing bubble was halted when excess inventory of new homes and interest rate increases led to a downward correction of housing prices in 2005.[12] When lenders tried to pass these rate increases on to their buyers—many of whom had put little money down and had lived in their homes for less than a year—mortgage payments skyrocketed, even to the point of leaving buyers owing more than their homes were worth (negative equity). Home buying activity thus halted, leaving real estate a highly illiquid investment. The worst-case scenario was materializing, with foreclosures leaping to a staggering 79 percent in 2007, comprised of about 1.3 million homes. [13]

During the housing bubble, the concept of risk transfer was carried out to an egregious extent. Lenders recognized the inherent riskiness of their activities, but they compounded the problem by attempting to transfer this risk to the very source of it. In other cases, subprime loans were sold to investment banks, who bundled them into exotic investment vehicles known as mortgage-backed securities (MBSs). These securities, derived mainly from subprime mortgages, ordinarily would be comparable to junk bonds in their risk assessment. Nevertheless, by dividing them into different investment classifications and purchasing credit-default swap (CDS) insurance (discussed below), investment banks were able to acquire acceptable grades on MBSs from the major rating agencies.[14] Investment-grade MBSs were in turn marketed as collateralized debt obligations (CDOs) and other options and sold to institutional investors.

Ultimately, this group was left holding the bag when foreclosures rippled through the system, rendering the derivative investments worthless. Thus, the lending pendulum swung in the opposite direction, making it difficult for normally creditworthy borrowers to secure even rudimentary business loans. The pass-the-buck mentality with respect to risk transfer precipitated this credit crunch, which came to be known as the credit crisis. Everyone wanted the risky mortgage-backed securities off their balance sheets without acknowledging the potential folly of investing in them in the first place.

As it relates to the insurance industry, recall that insurers must hold assets that are sufficient to cover their liabilities (as discussed in the previous section) at any given time. In much the same way that a mortgage holder is required to purchase mortgage insurance to protect the lender when equity accounts for less than 25 percent of the total value of his or her home, issuers of MBSs engage in what are called credit default swaps (CDSs) to reassure investors.[15] Insuring CDSs means that an insurer, rather than the MBS issuer, will deliver the promised payment to MBS investors in the event of default (in this case, foreclosure of the underlying mortgages).

AIG was one of the largest issuers of CDS insurance at the time of the credit crisis. The tightening of standards with respect to risk forced CDS insurers like AIG to hold liquid assets such that payouts could be made in the event that all of their CDS writings made claims. To illustrate, this burden would be the equivalent of all of a company's insured homeowners suffering total losses simultaneously. While this scenario was improbable, the capital had to be set aside as if it would occur. AIG found it impossible to shore up enough assets to match against its now enormous liabilities, plunging the company into dire financial straits. In September 2008, AIG was extended an $85 billion line of credit from the Federal Reserve, [16] adding to the list of companies bailed out by the U.S. government in the wake of the economic recession brought about by the credit crisis.

At the Senate Budget Committee hearing on March 2, 2009, Federal Reserve Board Chairman Ben Bernanke testified as to the role of failures in the regulatory environment that allowed AIG to accumulate so much bad debt on its books. Bernanke accused the company of exploiting the fact that there was no oversight of the financial products division and went on to say, "If there's a single episode in this entire 18 months that has made me more angry [than AIG], I can't think of one." He likened AIG to a "hedge fund … attached to a large and stable insurance company" that made "irresponsible bets" in explaining the firm's actions leading up to its financial meltdown. Bernanke called for the Obama administration to expand the powers of the Federal Deposit Insurance Corporation (FDIC) to address the problems of large financial institutions rather than focusing on banks alone. [17]